Traffic Impact Study

Pine Canyon
Douglas County, Colorado

Prepared for:

JRW Family Limited Partnership LLLP

Kimley»Horn

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

Pine Canyon

Douglas County, Colorado

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1.0 EXECUTIVE SUMMARY

Pine Canyon, a mixed-use development project, is proposed along the west side of Founders Parkway (SH 86) at the Crimson Sky Drive and Rising Sun Drive intersections in Douglas County, Colorado. The development area is from Prairie Hawk Drive on the west across Interstate 25 and to Founders Parkway on the east. This mixed-use development will include an office park, single family residential homes, multifamily residential, hotel accommodations, an elementary school, retail, and a transportation mobility hub with park and ride parking lot. It should be noted that the mobility hub is a Colorado Department of Transportation (CDOT) project and was only included in this traffic study to adequately access the traffic impacts of the facility. CDOT will coordinate with the County as mobility hub plans are developed. It is expected that project construction will be completed within about five years; therefore, analysis was conducted for the 2025 short term build out horizon as well as the 2040 long-term horizon.

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

- Meadows Parkway and US-Hwy 85 (#1)
- Founders Parkway and Allen Way (#2)
- Founders Parkway and Front Street (#3)
- Founders Parkway and Woodlands Boulevard (#4)
- Founders Parkway and Crowfoot Valley Road (#5)
- Hwy 85 and Liggett Road (#6)
- Hwy 85/Black Feather Trail and Front Street (#7)
- Black Feather Trail and Woodlands Boulevard (#8)
- Founders Parkway and Crimson Sky Drive (#9)
- Scott Boulevard and Front Street (#10)
- Scott Boulevard and Woodlands Boulevard (#11)
- Founders Parkway and Rising Sun Drive (#12)
- Liggett Road and Front Street (#13)
- Fifth Street and Perry Street (#14)

- Fifth Street and Woodlands Boulevard (#15)
- Founders Parkway/Ridge Road and Fifth Street (#16)
- Meadows Parkway and Factory Shops Boulevard (#17)
- Meadows Parkway and I-25 Southbound Ramps (#18)
- Meadows Parkway and I-25 Northbound Ramps (#19)

In addition, two proposed accesses along Liggett Road (#20 and #21) and the proposed future east/west roadway that will provide access to this development along Front Street (#22) were included for evaluation. All project accesses will require approval and coordination with the Town of Castle Rock. The proposed project area is currently known as Pine Canyon, which spans both sides of Interstate-25 from the Union Pacific railroad tracks to the west, near Prairie Hawk Drive, to Founders Parkway on the east and from Scott Boulevard on the south to Black Feather Trail on the north.

Regional access to the project will be provided by I-25 and Santa Fe Drive (US-85). Primary access will be provided by Founders Parkway, Hwy 85, Fifth Street, Crowfoot Valley Road, Meadows Parkway, Scott Blvd, and Black Feather Trail. Direct access will be provided through newly constructed public roadways by two accesses along Founders Parkway (SH-86), a connection of Woodlands Boulevard, an east/west access roadway intersecting with Front Street, and two accesses along Liggett Road.

The proposed project is anticipated to generate a total of 22,052 daily trips, with 2,110 of these trips occurring during the morning peak hour and 2,109 trips occurring during the afternoon peak hour.

Distribution of site traffic on the street system was based on the area street system characteristics, existing traffic patterns, demographic information, anticipated surrounding development areas, and the proposed access system for the project. Assignment of traffic was based upon the trip generation described previously and the distributions developed. The traffic assignment was added to the background traffic volumes to determine future traffic with the project.

Based on the analysis presented in this report, Kimley-Horn believes the proposed Pine Canyon project will be successfully incorporated into the existing and future roadway network. The proposed project development and expected traffic volumes resulted in the following recommendations and conclusions:

2025 Recommendations:

Founders Parkway and Allen Way (#2)

- Independent of this project as identified as being needed based on background traffic volumes, northbound dual left turn lanes should be considered at the intersection of Founders Parkway and Allen Way (Intersection #2) for the south private access roadway leg. To accomplish this, the southbound right turn lane along the south leg access for the gas station on the southwest corner of the intersection could be converted to the southbound through lane while the existing southbound through lane could be converted to the second inside dual northbound left turn lane for Founders Parkway. Again, the need for this improvement is triggered by background traffic volumes and project traffic does not contribute to this movement.

Liggett Road and Highway 85 (#6)

- At the intersection of Liggett Road and Highway 85 (#6), a 150-foot southbound right turn lane with the right turn operating with free movements with the construction of a 150-foot plus 120-foot taper acceleration lane along southbound Liggett Road is recommended. The need for this improvement is triggered by total traffic volumes.

Founders Parkway and Crimson Sky Drive (#9)

- The intersection of Founders Parkway and Crimson Sky Drive (#9) is anticipated to meet four-hour vehicular volume signal warrants; therefore, signalization is anticipated to be needed at these intersections by 2025. Project traffic contributes approximately 40 percent of the need for the traffic signal while the east leg traffic volumes contribute to 60 percent.
- With Pine Canyon development, a new west leg access is proposed to be constructed at the access intersection of Founders Parkway and Crimson Sky Drive (#9). With the addition of this new west leg, an eastbound left turn lane with 150 feet of length, an eastbound through lane, and an eastbound right turn lane with 150 feet of length are recommended. Additionally, a northbound left turn lane and a southbound right turn lane are warranted

along Founders Parkway (SH-86). Based on the State Highway Access Code guidelines, the northbound left turn deceleration lane should be constructed with 370 feet and 180-foot taper while the southbound right turn deceleration lane should be constructed with 320 feet and a 180-foot taper. An acceleration lane along southbound Founders Parkway to accept traffic from the eastbound right turn should be provided at this intersection with 580 feet of acceleration length plus a 180-foot taper. These improvements to the west leg of this intersection will be provided in association with the Pine Canyon development.

- A CDOT access permit will be required in association with this project for the proposed west leg of the Crimson Sky Drive and Founders Parkway intersection (#9).
- This project access will require coordination with the Town of Castle Rock.

Scott Boulevard and Woodlands Boulevard (#11)

- Woodlands Boulevard is expected to be constructed and extended between Scott Boulevard and the new east/west roadway along the north property line of Pine Canyon. With the addition of a new north leg at the Scott Boulevard and Woodlands Boulevard (#11) intersection, this will become a standard T-intersection. The eastbound minor approach is recommended to include separate left turn and right turn lanes and operate with stop control with the installation of a R1-1 “STOP” sign. The existing 200-foot eastbound left turn lane and 275-foot northbound left turn lane as constructed are recommended to be designated with construction of the new north leg. The improvements to this intersection will be provided in association with the Pine Canyon development.

Rising Sun Drive and Founders Parkway (#12)

- With the completion of the Pine Canyon development project, a new west leg access roadway is proposed to be built at the intersection of Founders Parkway and Rising Sun Drive (#12). With the addition of this new west leg, a 150-foot eastbound left turn lane and a shared eastbound through/right turn lane are recommended. A northbound left turn deceleration lane and a southbound right turn deceleration lane should be provided at this Rising Sun Drive and Founders Parkway (#12) intersection. Per CDOT guidelines, the required northbound left turn storage plus deceleration length is 345 feet with 180-foot taper while the southbound right turn deceleration lane should be constructed with 320 feet plus 180-foot taper. It should be noted that signal equipment will need to be constructed for the west leg of this intersection and access will not be allowed until signal operations are made

available for a four-legged intersection. These improvements to the west leg of this intersection will be provided in association with the Pine Canyon development.

- A CDOT access permit will be required in association with this project for the proposed west leg of the Rising Sun Drive and Founders Parkway intersection (#12).
- This project access will require coordination with the Town of Castle Rock.

Liggett Road and Front Street (#13)

- When the new I-25 underpass is constructed to the north of this Liggett Road and Front Street intersection (#13), it is understood that the Liggett Road bridge over Interstate 25 will be removed. With this bridge removal, the west leg of the Liggett Road and Front Street intersection is proposed to be vacated. As such, this intersection will be a three-legged T-intersection by buildout of Pine Canyon.Liggett Road will be reconstructed on the west side of I-25 to connect with Caprice Drive to the south.

Fifth Street and Founders Parkway (#16)

- The Town of Castle Rock recently evaluated the intersection of Fifth Street and Founders Parkway (#16) and an improved signalized intersection was recommended among several alternative analysis options. It was determined that two through lanes in each direction and dual left turn lanes along the northbound and southbound approaches would be provided at this intersection. Further, a separate southbound right turn lane and channelizing islands on each approach allowing free right turn movements would be implemented at this intersection. It should be noted that these are programmed improvements and are needed based on background traffic volumes.

North and South Liggett Road Accesses (#20 and #21)

- The proposed north and south access intersections along Liggett Road (#20 and #21) for the development area along the west side of Interstate 25 will provide direct access to Pine Canyon along both sides of Liggett Road. New intersections will be constructed at these access locations which will include new east and west legs. All four approaches of both new access intersections along Liggett Road are recommended to be constructed with a left turn lane and shared through/right turn lane. The left turn lanes on all four approaches of both access intersections should provide a length of 150 feet. It is recommended that both of

these access intersections along Liggett Road be stop controlled along the eastbound and westbound minor leg approaches with R1-1 “STOP” signs installed. Otherwise, roundabout control would also be appropriate and operate acceptably at the two access intersections along Liggett Road if desired. The improvements at both of these access intersections along Liggett Road will be provided in association with the Pine Canyon development.

- These project accesses will require approval and coordination with the Town of Castle Rock.

Front Street Site Access East/West Roadway (#22)

- The future Front Street Site Access East/West Roadway (#22) intersection is anticipated to meet four-hour vehicular volume signal warrants; therefore, signalization is anticipated to be needed at these intersections by 2025.
- The new east/west roadway intersection along Front Street (#22) will provide direct access to Pine Canyon with newly constructed east and west legs. An underpass is proposed at I-25 west of this intersection to provide direct access to the west sections of Pine Canyon. It is recommended that the eastbound and westbound approaches at the intersection include a designated left turn lane and a shared through/right turn lane. The northbound and southbound approaches of this intersection should include a left turn lane and two through lanes with the outside lane being a shared through/right turn lane.
- The improvements at the future east/west roadway intersection along Front Street (#22) will be provided in association with this project.
- This project access will require approval and coordination with the Town of Castle Rock.

2040 Recommendations:

Founders Parkway Corridor Improvement

- Founders Parkway will likely need to provide three through lanes in each direction from Woodlands Boulevard to Rising Sun Drive (Intersections #4, 5, 9, 12) which is consistent with the findings in the Town of Castle Rock TMP. With the construction of the third through lane in each direction, most right turn lanes can be absorbed as a shared through/right turn lane from an operational standpoint. The widening of Founders Parkway is triggered by background traffic volumes as the project contributes a range of one (1) percent to three (3) percent of the movements along this corridor.

Meadows Parkway and Highway 85 (#1)

- The intersection of Meadows Parkway and Highway 85 (#1) may need to provide three eastbound and westbound through lanes of travel in each direction as well as eastbound dual left turn lanes by 2040. This is consistent with the Town of Castle Rock TMP which identifies widening Meadows Parkway to a 6-lane roadway section from Meadows Boulevard to US-85 as a long-term project. These improvements are triggered by background traffic volumes.
- Likewise, the 200-foot northbound right turn lane may need to be extended to 300 feet if future traffic volumes materialize. The need for this improvement is based on total traffic volumes.

Founders Parkway and Front Street (#3)

- A separate eastbound right turn lane may be needed at the intersection of Founders Parkway and Front Street (#3). The project is anticipated to contribute approximately 14 percent of these movements in 2040.

Founders Parkway and Woodlands Boulevard (#4)

- A separate eastbound right turn lane may be needed at the intersection of Founders Parkway and Woodlands Boulevard (#4). The project is anticipated to contribute approximately 20 percent of these movements in 2040.
- Northbound and westbound dual left turn lanes may be needed at the intersection of Founders Parkway and Woodlands Boulevard (#4). The project is anticipated to contribute approximately 12 percent of these left turn movements in 2040. Right-of-Way (ROW) dedications would likely need to be acquired in order to incorporate these improvements. However, this is a long-term planning level improvement; therefore, it is recommended that this intersection be studied further in the future to determine appropriate lane configurations.

Highway 85 and Liggett Road/Castleton Court (#6)

- Liggett Road is proposed to realign approximately 600 feet to the southeast along Highway 85 and intersect with Castleton Court (#6) in the future. This new realigned intersection of Highway 85 and Liggett Road/Castleton Court (#6) has been evaluated with roundabout and signal control in the long-term 2040 horizon. It has been determined that signal control

operates more effectively than roundabout control, as a roundabout may operate with a LOS F during the afternoon peak hour. Therefore, it is believed that this intersection should be constructed with a traffic signal. A southbound 150-foot right turn lane along Hwy 85 operating with free turning movements with a 150-foot plus 120-foot taper acceleration lane is recommended to be constructed along southbound Liggett Road from this intersection. It should be noted that these are programmed improvements and are needed with background traffic volumes.

Black Feather Trail and Woodlands Boulevard (#8)

- The intersection of Black Feather Trail and Woodlands Boulevard (#8) may meet the four-hour vehicular volume signal warrant; therefore, signalization may be needed at this location by 2040. Otherwise, roundabout control would also be appropriate at this intersection if desired. Project traffic contributes to approximately 21 percent of the movements at this intersection.
- If the intersection of intersection of Black Feather Trail and Woodlands Boulevard (#8) operates with signal control in the future, it is recommended that a westbound left turn lane be designated at this intersection with 150 feet of length. Project traffic does not contribute to this left turn movement.

Fifth Street and Perry Street (#14)

- The Town of Castle Rock TMP identifies Fifth Street as a 4-lane roadway from Wilcox Street to Founders Parkway. The additional eastbound and westbound through lanes are determined to be needed operationally in the long-term horizon of this study. As such, the intersection of Fifth Street and Perry Street (#14) should provide a second eastbound through lane (westbound approach already has two through lanes). Project traffic contributes to approximately six (6) percent of the eastbound through movements at this intersection.

Meadows Parkway/Founders Parkway and I-25 (#18)

- CDOT may wish to explore the outside southbound right turn lane operating with free right turn movements in order to provide acceptable operations at the Meadows Parkway/ Founders Parkway and I-25 Southbound Ramps intersection (#18). The acceleration lane could occupy the space of the existing northernmost southbound right turn receiving lane

while the second southbound right turn lane could be shared with the outside left turn lane to minimize vehicle weaving at this intersection. This intersection was recently constructed with dual right turn lanes operating under signalized control, so further study will be needed in the future to determine if this or an alternate improvement is needed operationally. Project traffic is anticipated to contribute approximately eight (8) percent of the southbound right turn movements at this intersection.

General Recommendations:

- Any improvements identified for construction, designation, or installation should be incorporated into the Civil Drawings and conform to Douglas County, Town of Castle Rock, and CDOT (as applicable) standards as well as the Manual on Uniform Traffic Control Devices – 2009 Edition (MUTCD).

2.0 INTRODUCTION

Pine Canyon, a mixed-use development project, is proposed along the west side of Founders Parkway (SH 86) at the Crimson Sky Drive and Rising Sun Drive intersections in Douglas County, Colorado. The development area is from Prairie Hawk Drive on the west across Interstate 25 and to Founders Parkway on the east. It is expected that project construction will be completed within approximately five years; therefore, analysis was conducted for the 2025 short term build out horizon as well as the 2040 long-term horizon. A vicinity map illustrating the location of the project site is shown in **Figure 1**.

For purposes of this analysis, the project was studied to include approximately 800 single family homes, 1,000 multi-family homes, 500,000 square feet of office park space, 100,000 square feet of industrial park space, a hotel with 250 rooms, an elementary school of 750 students, and a transportation mobility hub with park and ride parking lot providing 350 parking spaces. It should be noted that the mobility hub is a CDOT project and was only included in this traffic study to adequately access the traffic impacts of the facility. CDOT will coordinate with the County as mobility hub plans are developed. A conceptual site plan of the project is provided within **Appendix G**. It is expected that project construction will be completed within the next several years. Analysis was therefore completed for the 2025 short term build out horizon as well as the 2040 long-term horizon per Douglas County requirements.

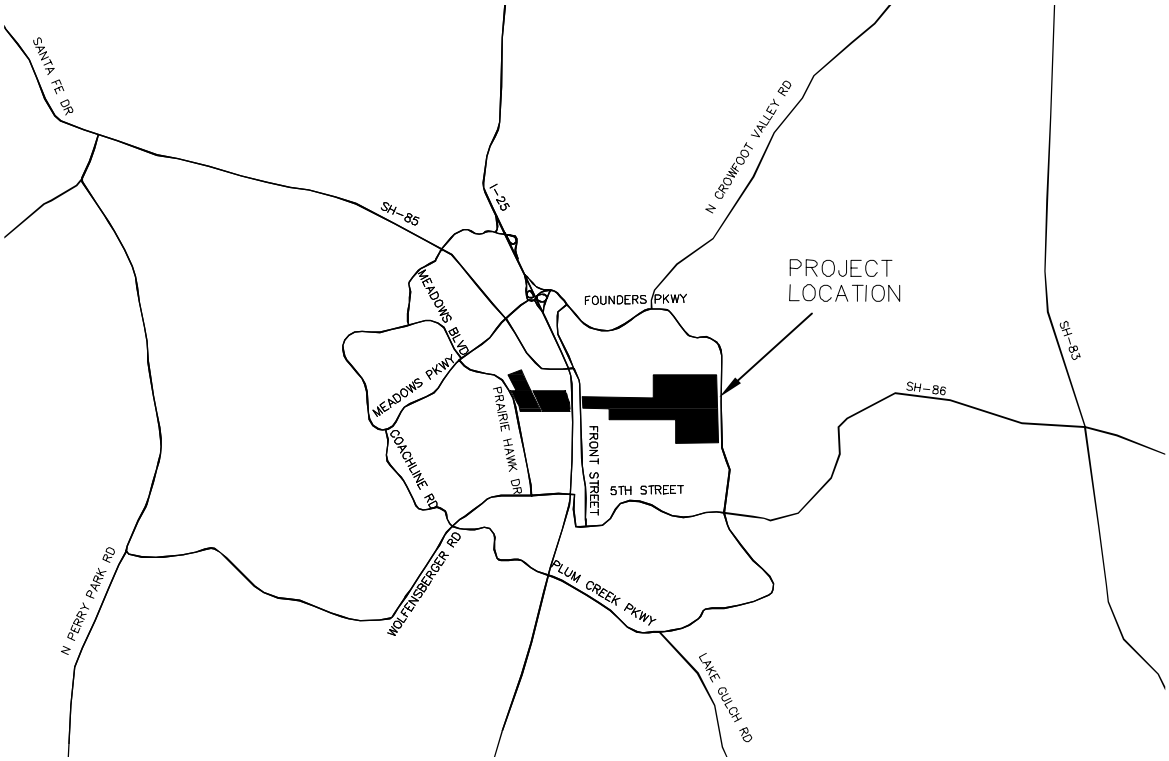
The purpose of this study is to identify project traffic generation characteristics, to identify potential project traffic related impacts on the local street system, and to develop mitigation measures required for identified impacts. The following intersections were incorporated into this traffic study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

- Meadows Parkway and US-Hwy 85 (#1)
- Founders Parkway and Allen Way (#2)
- Founders Parkway and Front Street (#3)
- Founders Parkway and Woodlands Boulevard (#4)
- Founders Parkway and Crowfoot Valley Road (#5)
- Hwy 85 and Liggett Road (#6)

- Hwy 85/Black Feather Trail and Front Street (#7)
- Black Feather Trail and Woodlands Boulevard (#8)
- Founders Parkway and Crimson Sky Drive (#9)
- Scott Boulevard and Front Street (#10)
- Scott Boulevard and Woodlands Boulevard (#11)
- Founders Parkway and Rising Sun Drive (#12)
- Liggett Road and Front Street (#13)
- Fifth Street and Perry Street (#14)
- Fifth Street and Woodlands Boulevard (#15)
- Founders Parkway/Ridge Road and Fifth Street (#16)
- Meadows Parkway and Factory Shops Boulevard (#17)
- Meadows Parkway and I-25 Southbound Ramps (#18)
- Meadows Parkway and I-25 Northbound Ramps (#19)

In addition, two proposed accesses along Liggett Road (#20 and #21) and the proposed future east/west roadway that will provide access to this development along Front Street (#22) were included for evaluation. All project accesses will require approval and coordination with the Town of Castle Rock.

NORTH
NTS 096628001



PINE CANYON
DOUGLAS COUNTY, CO
VICINITY MAP

FIGURE 1

3.0 EXISTING AND FUTURE CONDITIONS

3.1 Existing Roadway Network

Regional access to the project will be provided by I-25 and Santa Fe Drive (US-85). Primary access will be provided by Founders Parkway, Hwy 85, Fifth Street, Crowfoot Valley Road, Meadows Parkway, Scott Blvd, and Black Feather Trail. Direct access will be provided through newly constructed public roadways by two accesses along Founders Parkway (SH-86), a connection of Woodlands Boulevard, an east/west access roadway intersecting with Front Street, and two accesses along Liggett Road.

Interstate-25 is a CDOT owned and maintained freeway facility which extends north-south with three through lanes in each direction and a speed limit of 65 miles per hour throughout the study area. Santa Fe Drive (US-85) is a CDOT highway which extends north-south with two through lanes in each direction, a raised center median, and a speed limit of 45 miles per hour throughout the study area. Founders Parkway (SH-86) is also a CDOT highway which extends both east-west and north-south with two lanes in each direction, a raised center median, and a speed limit ranging from 35 to 50 miles per hour throughout the study area.

N Liggett Road is a two-lane minor arterial roadway which extends primarily north-south with one lane in each direction and a speed limit of 35 miles per hour. Front Street extends north-south through the project area and runs parallel to I-25 with connection into downtown Castle Rock. Front Street has two lanes in each direction, has a striped center median, and has a speed limit of 40 miles per hour near the project site.

Woodlands Boulevard extends north-south with two through lanes in each direction, a raised center median, and a speed limit of 30 miles per hour near the project site. Currently, Woodlands Boulevard connects with Fifth Street to the south and Founders Parkway to the north but has no connection through the Pine Canyon project site and adjacent development area to the north. Black Feather Trail extends east west and connects directly with Hwy 85. Black Feather Trail has one lane in each direction, a striped center median, and a speed limit of 35 miles per hour throughout the study area.

Scott Boulevard extends east-west, has two lanes in each direction, and has a raised center median. The speed limit throughout the study area is 30 miles per hour. Fifth Street extends east-west with one lane in each direction and a posted speed limit ranging from 25 miles per hour to 45 miles per hour throughout the project area.

The intersection of Meadows Parkway and Santa Fe Drive (Intersection #1) is signalized with protected only left turn phasing on all four approaches. The eastbound Meadows Parkway approach provides a left turn lane and two through lanes, with the outside lane being a shared through/right turn lane with a channelized free right turn movement. The northbound Santa Fe Drive/Hwy 85 approach provides dual left turn lanes, two through lanes, and a right turn lane operating with channelized yield right turn movements. The westbound Meadows Parkway approach and the southbound Santa Fe Drive (US-85) approaches both provide dual left turn lanes, two through lanes, and a right turn lane. The southbound Santa Fe Drive (US-85) right turn is a channelized yield movement, while the westbound Meadows Parkway approach provides a channelized free right turn movement with an acceleration lane along northbound Santa Fe Drive (US-85).

The intersection of Founders Parkway and Allen Way (#2) is signalized. The eastbound Founders Parkway approach provides dual left turn lanes and three through lanes with the outside lanes being a shared through/right turn lane while the westbound approach provides a left turn lane, three through lanes, and a right turn lane. The northbound Allen Way approach provides a left turn lane and a shared through/right turn lane. The southbound Allen Way approach provides a left turn lane, one through lane, two right turn lanes.

The intersection of Founders Parkway and Front Street (#3) is signalized with protected-permissive left turn phasing on all four approaches. The northbound Front Street approach provides dual left turn lanes, one through lane, and a right turn lane. The southbound Front Street approach provides a left turn lane and two through lanes, with the outside lane being a shared through/right turn lane. The eastbound and westbound Founders Parkway approaches provide a left turn lane and three through lanes, with the outside lane being a shared through/right turn lane.

The intersection of Founders Parkway and Woodlands Boulevard (#4) is signalized with protected-permissive left turn phasing on all four approaches. The eastbound and westbound Founders Parkway approaches provides a left turn lane, two through lanes, and a right turn lane. The northbound Woodlands Boulevard approach provides a left turn lane, one through lane, and a right turn lane. The southbound Woodlands Boulevard approach provides a left turn lane and two through lanes, with the outside lane being a shared through/right turn lane.

The T-intersection of Founders Parkway and Crowfoot Valley Road (#5) is signalized with protected only left turn phasing on the eastbound approach. The eastbound Founders Parkway approach provides dual left turn lanes and two through lanes while the westbound Founders Parkway approach provides a right turn lane and two through lanes. The southbound Crowfoot Valley Road approach provides a left turn lane, shared left turn/right turn lane, and a channelized free right turn lane.

The T-intersection of Liggett Road and Hwy 85 (#6) is signalized. The northbound Hwy 85 approach provides a left turn lane and two through lanes while the southbound Hwy 85 approach provides two through lanes of traffic with the outside lane being a shared through/right turn lane. The eastbound Liggett Road approach provides a left turn lane and a right turn lane.

The intersection of Hwy 85/Black Feather Trail and Front Street (#7) is signalized with protected-permissive left turn phasing on all four approaches. The eastbound Hwy 85 approach provides a left turn lane, one through lane, and a continuous right turn lane operating with free turning movements. The westbound Black Feather Trail approach provides a left turn and a shared through/right turn lane. The northbound Front St approach provides a left turn lane and two through lanes, with the outside lane being a shared through/right turn lane. The southbound Front St approach provides a left turn lane, two through lanes, a right turn lane operating with channelized yield right turn movements.

The Black Feather Trail and Woodlands Boulevard intersection (#8) has all way stop control. The eastbound Black Feather Trail approach provides a left turn lane and a shared through/right turn lane. The westbound Black Feather Trail approach provides a single shared all-movements lane. The northbound and southbound Woodlands Boulevard approaches provide a left turn lane and two through lanes, with the outside lane being a shared through/right turn lane.

The T-intersection of Founders Parkway and Crimson Sky Drive (#9) is unsignalized with stop control on the westbound approach. The westbound Crimson Sky Drive approach provides a left turn lane and a right turn lane. The northbound Founders Parkway approach provides two through lanes and a right turn lane. The southbound Founders Parkway approach provides a left turn lane and two through lanes.

The T-intersection of Scott Boulevard and Front Street (#10) is signalized with protected-permissive left turn phasing on the southbound approach. The westbound Scott Boulevard approach provides a left turn lane and a right turn lane. The northbound Front St approach provides two through lanes, with the outside lane being a shared through/right turn lane. The southbound Front St approach provides a left turn lane and two through lanes.

The Scott Boulevard and Woodlands Boulevard intersection (#11) is currently unsignalized and uncontrolled with only the west and south legs constructed. Woodlands Boulevard does not currently extend north of this location. The eastbound Scott Boulevard approach provides two free right turn lanes, while the northbound Woodlands Boulevard approach provides two free left turn lanes.

The T-intersection of Rising Sun Drive and Founders Parkway (#12) is signalized with protected-permissive left turn phasing on the southbound approach. The westbound approach provides a left turn lane and a right turn lane. The northbound Founders Parkway approach provides two through lanes and a right turn lane. The southbound Founders Parkway approach provides two through lanes and a left turn lane.

The intersection of Liggett Road and Front Street (#13) is signalized with protected-permissive left turn phasing on the northbound and southbound approaches and permitted only left turn phasing on the eastbound and westbound approaches. The eastbound and westbound approaches provide a single shared all-movement lane. The northbound and southbound Front Street approaches provide a left turn lane and two through lanes in each direction with the outside lane being a shared through/right turn lane.

The intersection of Fifth Street and Perry Street (#14) is signalized with protected-permitted left turn phasing on all four approaches as well as protected right turn overlap phasing on the

northbound approach. The eastbound Fifth Street approach and northbound and southbound Perry Street approaches provide a left turn lane, one through lane, and a right turn lane. The westbound Fifth Street approach provides a left turn lane and two through lanes with the outside lane being a shared through/right turn lane.

The T-intersection of Fifth Street and Woodlands Boulevard (#15) is signalized with protected-permissive left turn phasing on the eastbound approach. The eastbound Fifth St approach provides a left turn lane and two through lanes. The westbound Fifth Street approach provides one through lane and a right turn lane. The southbound Woodlands Boulevard approach provides a left turn lane and a right turn lane operating with channelized free right turn movements.

The intersection of Fifth Street and Founders Parkway/Ridge Road (#16) is signalized with protected-permissive left turn phasing on all four approaches. The eastbound and westbound approaches provide a left turn lane, one through lane, and a right turn lane with free right turn channelized movements. The northbound and southbound Ridge Road/Founders Parkway approaches provide a left turn lane, one through lane, and a right turn lane operating with a channelized free right turn movement.

The intersection of Meadows Parkway and Factory Shops Boulevard (#17) is signalized with protected only left turn phasing on all four approaches. The eastbound Meadows Parkway approach provides dual left turn lanes, three through lanes, and a right turn lane while the westbound approach provides dual left turn lanes, three through lanes, and a channelized free right turn lane. The outside through lane on the westbound approach of this intersection is also a shared through/right turn movement. The northbound approach provides dual left turn lanes, one through lane and a right turn lane while the southbound approach includes triple left turn lanes, one through lane, and a right turn lane.

The Meadows Parkway/Founders Parkway and I-25 Southbound Ramps (#18) intersection is signalized. The eastbound and westbound approaches of this intersection provide three through lanes of travel in each direction. The southbound approach of this intersection provides triple left turn lanes and dual right turn lanes operating with protected only phasing.

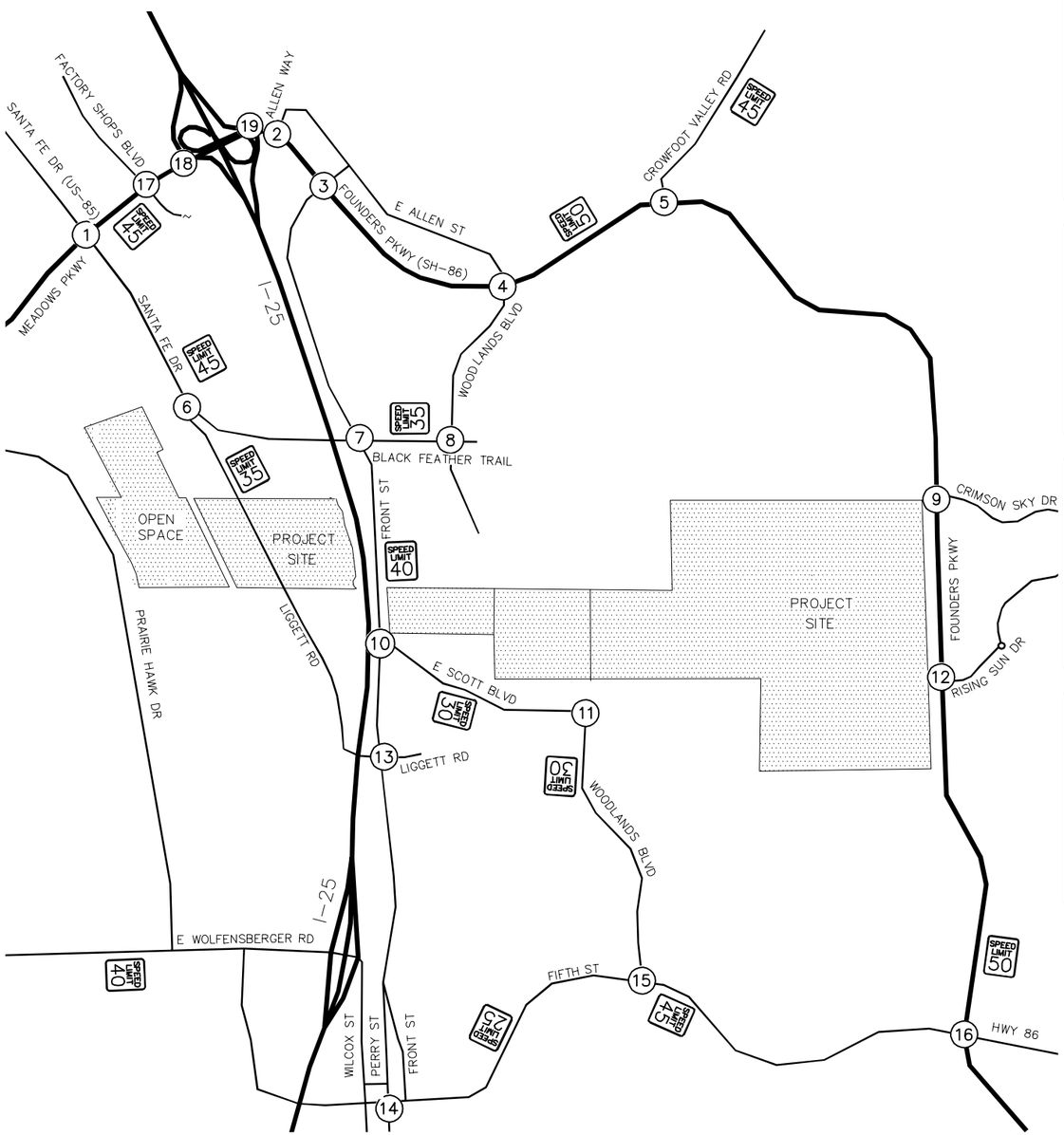
The Founders Parkway and I-25 Northbound Ramps (#19) intersection is signalized. The eastbound approach of this intersection provides three through lanes while the westbound approach provides two through lanes with the outside lane being a shared through/right turn lane, and a right turn lane.

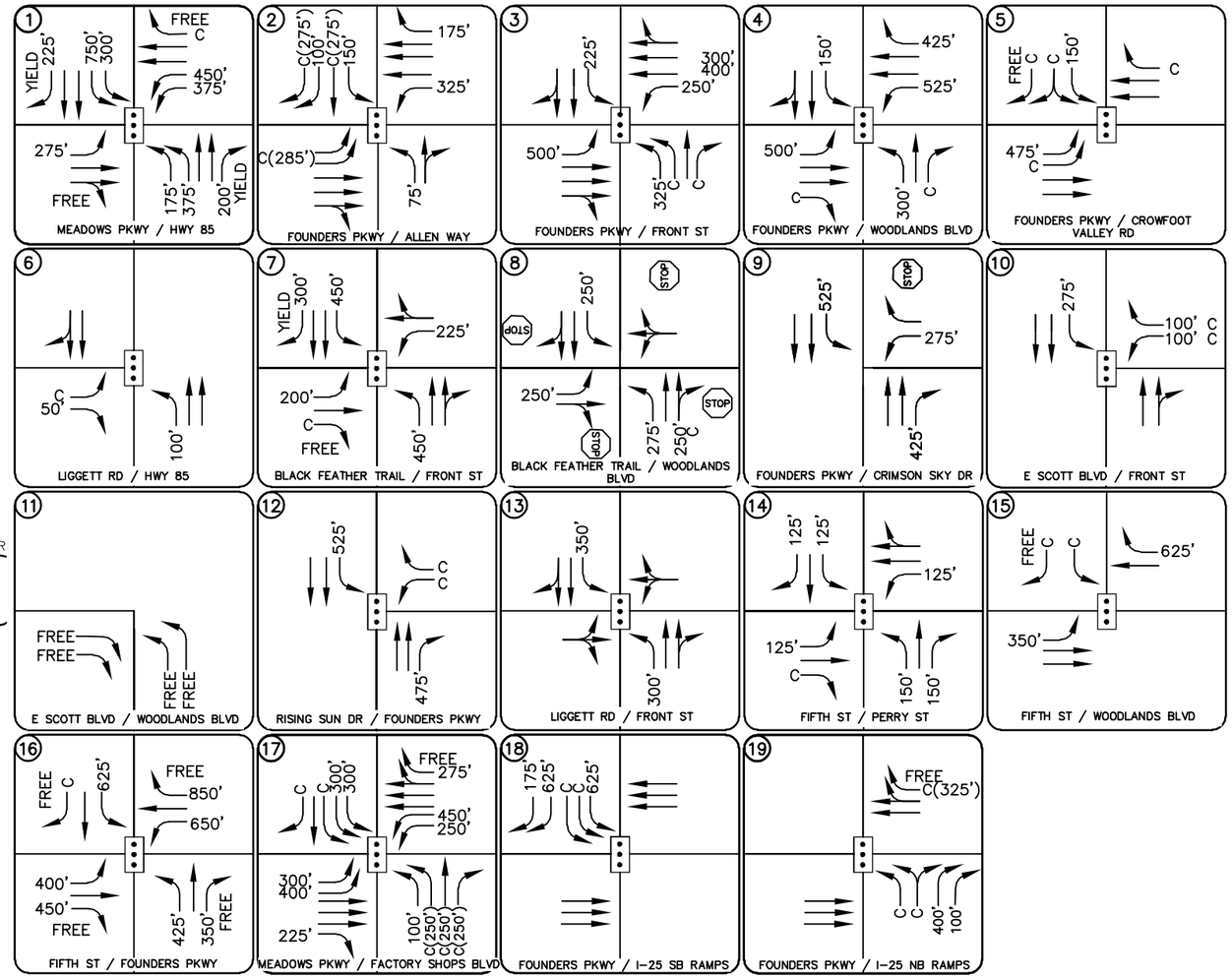
The intersection lane configurations and control for the existing study area intersection is shown in **Figure 2**.

3.2 Surrounding Development Area

The proposed Pine Canyon development site is currently comprised of vacant land. The project site includes both sides of Interstate-25 from the Union Pacific railroad tracks to the west, near Prairie Hawk Drive, to Founders Parkway on the east and from Scott Boulevard on the south to Black Feather Trail on the north. All areas directly surrounding the proposed site are primarily developed with single family homes, with exception of the land directly to the north, which is also vacant land. Douglas County High School exists to the southwest (directly on the southeast corner of the Scott Boulevard and Front Street intersection). To the northwest of the project site exists various commercial uses and Metzler Ranch Community park. To the northeast of the project site exists vacant land.

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LEGEND

- (X) Study Area Key Intersection
- STOP Stop Controlled Approach
- Signalized Intersection
- SPEED LIMIT XX Roadway Speed Limit
- C Continuous Turn Lane
- 100' Turn Lane Length (feet)

PINE CANYON
DOUGLAS COUNTY, CO
EXISTING LANE CONFIGURATIONS AND CONTROL

FIGURE 2

Kimley»Horn

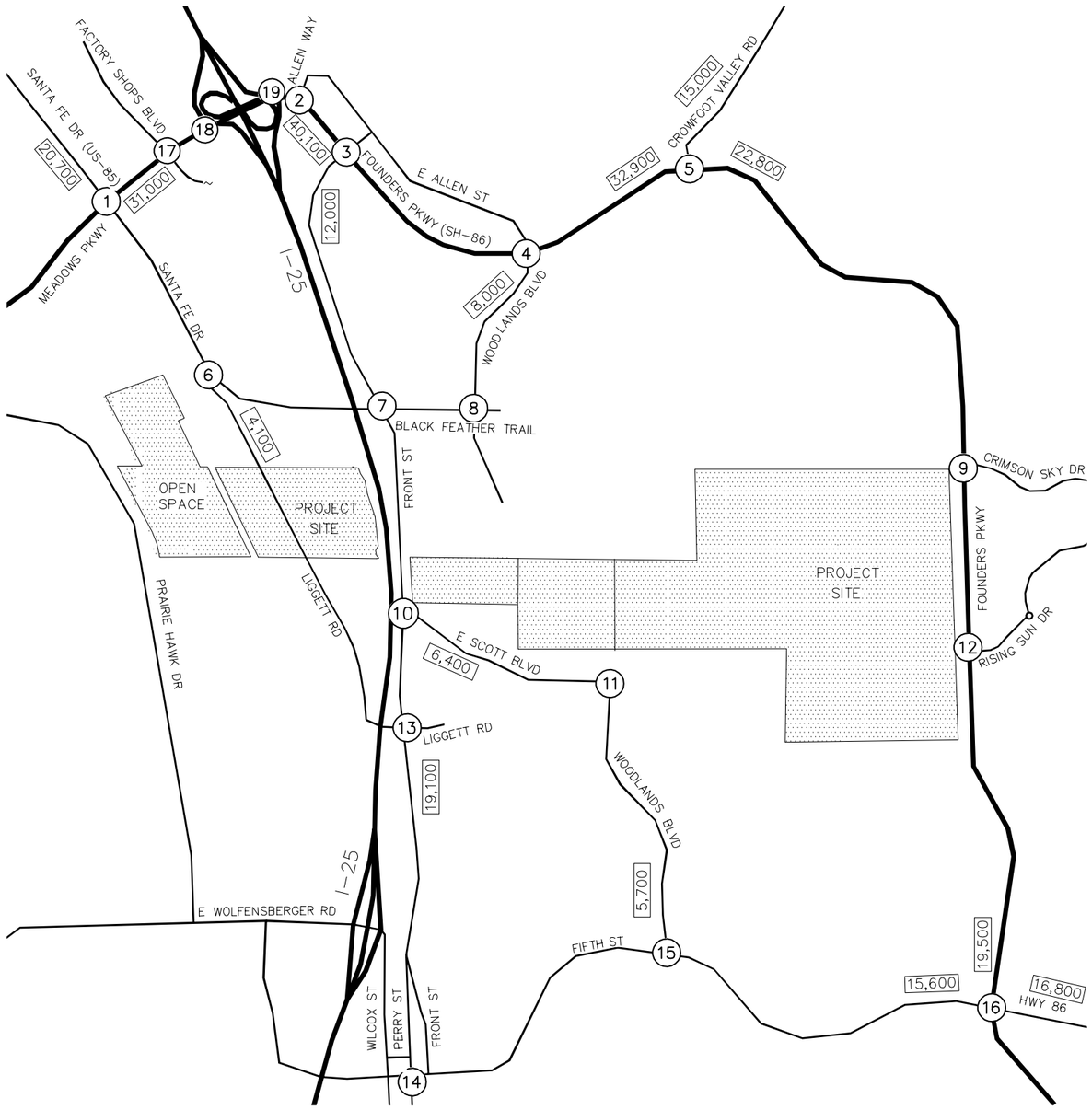
3.3 Existing Traffic Volumes

Existing peak hour turning movement counts were conducted for the Fifth Street and Perry Street intersection on Thursday, April 26, 2018. Peak hour turning movement counts were collected at the intersections of Meadows Parkway/Factory Shops Boulevard, Meadows Parkway/I-25 Southbound Ramps, and Founders Parkway/I-25 Northbound Ramps on Thursday, March 25, 2021. Existing peak hour turning movement counts were conducted for the remaining fifteen key study area intersections were collected on Tuesday, August 14, 2018. The weekday counts were conducted in 15-minute intervals during the morning and afternoon peak hours of adjacent street traffic from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM.

Due to the COVID-19 pandemic, 2018 traffic counts were compared to 2021 counts along Meadows Parkway between Santa Fe Drive and Factory Shops Boulevard as well as along Founders Parkway between I-25 Northbound Ramps and Allen Way. The 2018 counts were grown to existing year 2021 by using a 2.0 percent annual growth rate. The adjusted traffic volumes were then compared to the 2021 existing counts which determined that the 2021 counts west of I-25 (large retail area) needed to be increased to identify the normal condition traffic volumes to account for COVID-19. However, 2021 traffic volumes were higher than the 2021 adjusted (grown from 2018) traffic volumes east of I-25 due to continued development of large-scale master planned communities. As such, the 2018 traffic counts were increased east of I-25 to balance with the 2021 traffic counts.

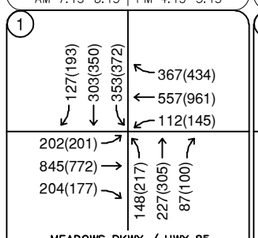
Existing turning movement counts are shown in **Figure 3** with count sheets provided in **Appendix A**. Existing adjusted turning movement counts are shown in **Figure 4**.

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NTS 096628001



Tuesday, August 14, 2018
AM 7:15–8:15 | PM 4:15–5:15

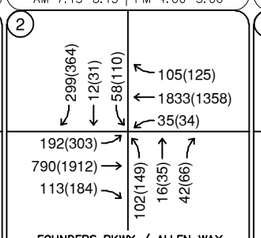
1



MEADOWS PKWY / HWY 85

Tuesday, August 14, 2018
AM 7:15–8:15 | PM 4:00–5:00

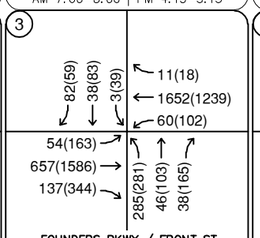
2



FOUNDERS PKWY / ALLEN WAY

Tuesday, August 14, 2018
AM 7:00–8:00 | PM 4:15–5:15

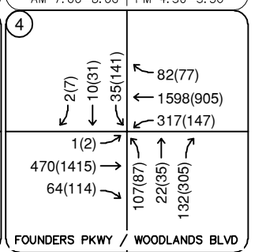
3



FOUNDERS PKWY / FRONT ST

Tuesday, August 14, 2018
AM 7:00–8:00 | PM 4:30–5:30

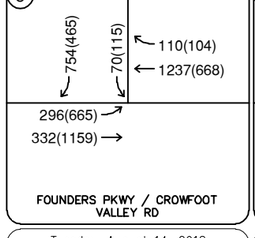
4



FOUNDERS PKWY / WOODLANDS BLVD

Tuesday, August 14, 2018
AM 7:00–8:00 | PM 4:30 – 5:30

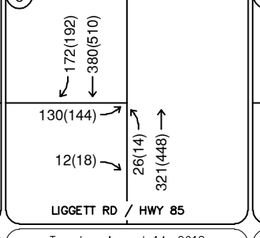
5



FOUNDERS PKWY / CROWFOOT VALLEY RD

Tuesday, August 14, 2018
AM 7:15–8:15 | PM 4:14–5:15

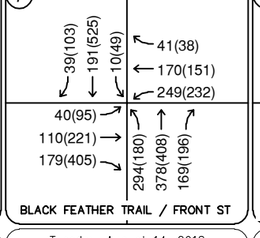
6



LIGGETT RD / HWY 85

Tuesday, August 14, 2018
AM 7:00–8:00 | PM 4:30–5:30

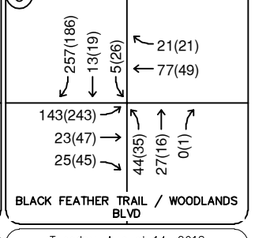
7



BLACK FEATHER TRAIL / FRONT ST

Tuesday, August 14, 2018
AM 7:00–8:00 | PM 4:30–5:30

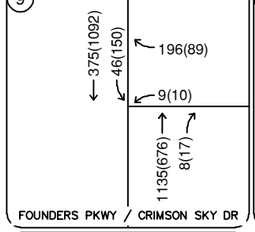
8



BLACK FEATHER TRAIL / WOODLANDS BLVD

Tuesday, August 14, 2018
AM 7:00–8:00 | PM 4:30–5:30

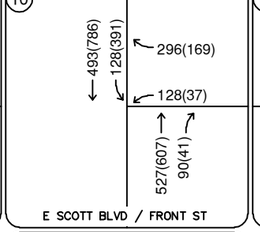
9



FOUNDERS PKWY / CRIMSON SKY DR

Tuesday, August 14, 2018
AM 7:00–8:00 | PM 4:30–5:30

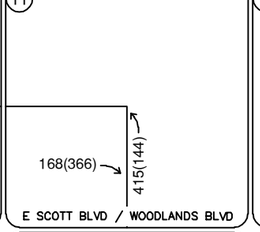
10



E SCOTT BLVD / FRONT ST

Tuesday, August 14, 2018
AM 7:00–8:00 | PM 4:30–5:30

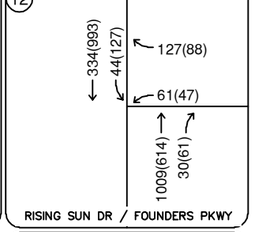
11



E SCOTT BLVD / WOODLANDS BLVD

Tuesday, August 14, 2018
AM 7:00–8:00 | PM 4:30–5:30

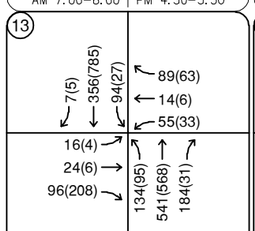
12



RISING SUN DR / FOUNDERS PKWY

Tuesday, August 14, 2018
AM 7:00–8:00 | PM 4:30–5:30

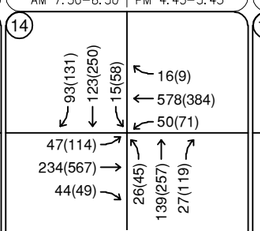
13



LIGGETT RD / FRONT ST

Thursday, April 26, 2018
AM 7:30–8:30 | PM 4:45–5:45

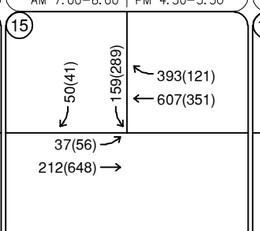
14



FIFTH ST / PERRY ST

Tuesday, August 14, 2018
AM 7:00–8:00 | PM 4:30–5:30

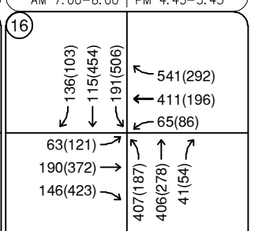
15



FIFTH ST / WOODLANDS BLVD

Tuesday, August 14, 2018
AM 7:00–8:00 | PM 4:45–5:45

16



FIFTH ST / FOUNDERS PKWY

LEGEND

(X) Study Area Key Intersection

XXX(XXX) Weekday AM(PM) Peak Hour Traffic Volumes

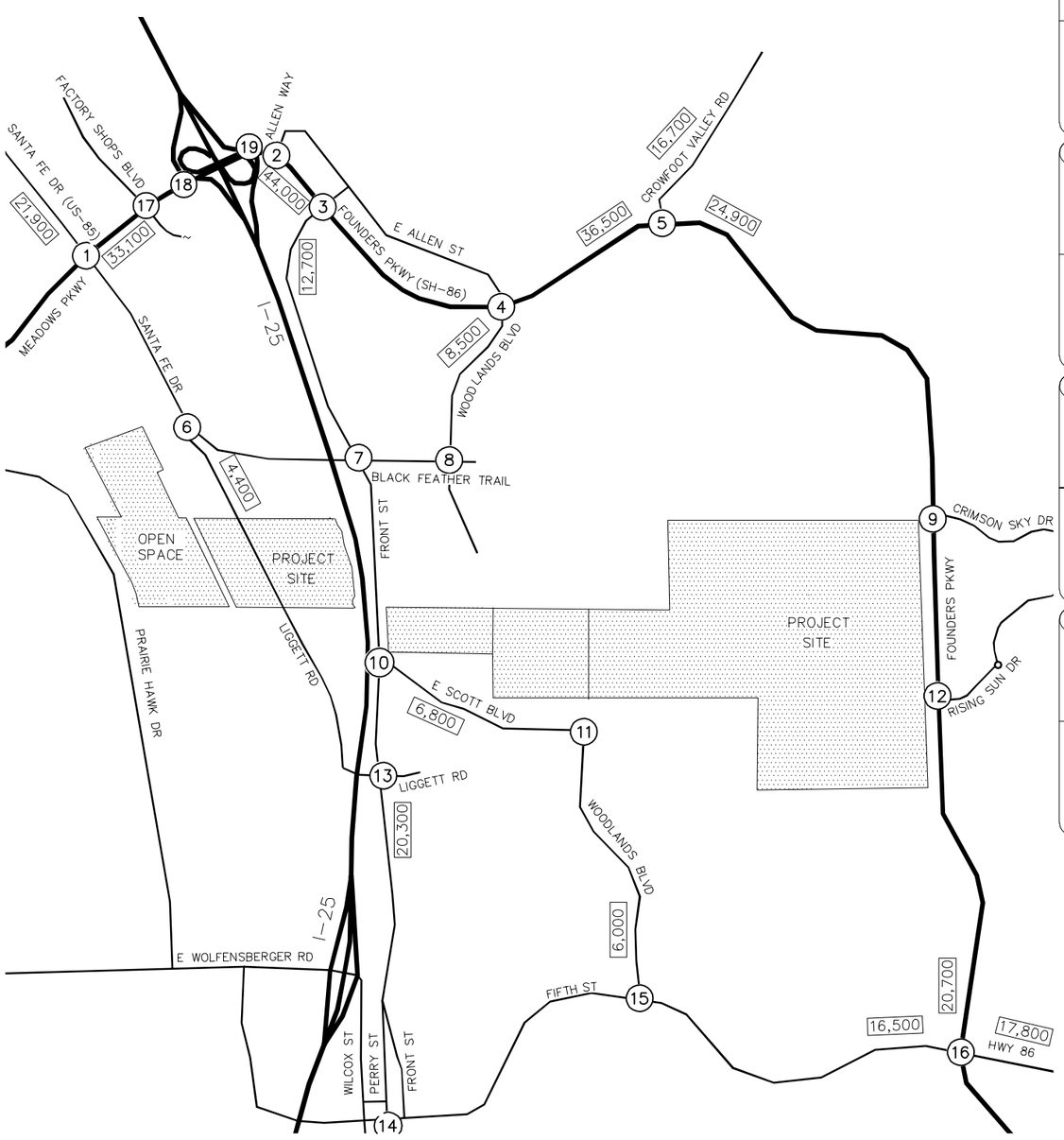
XX,X00 Estimated Daily Traffic Volume

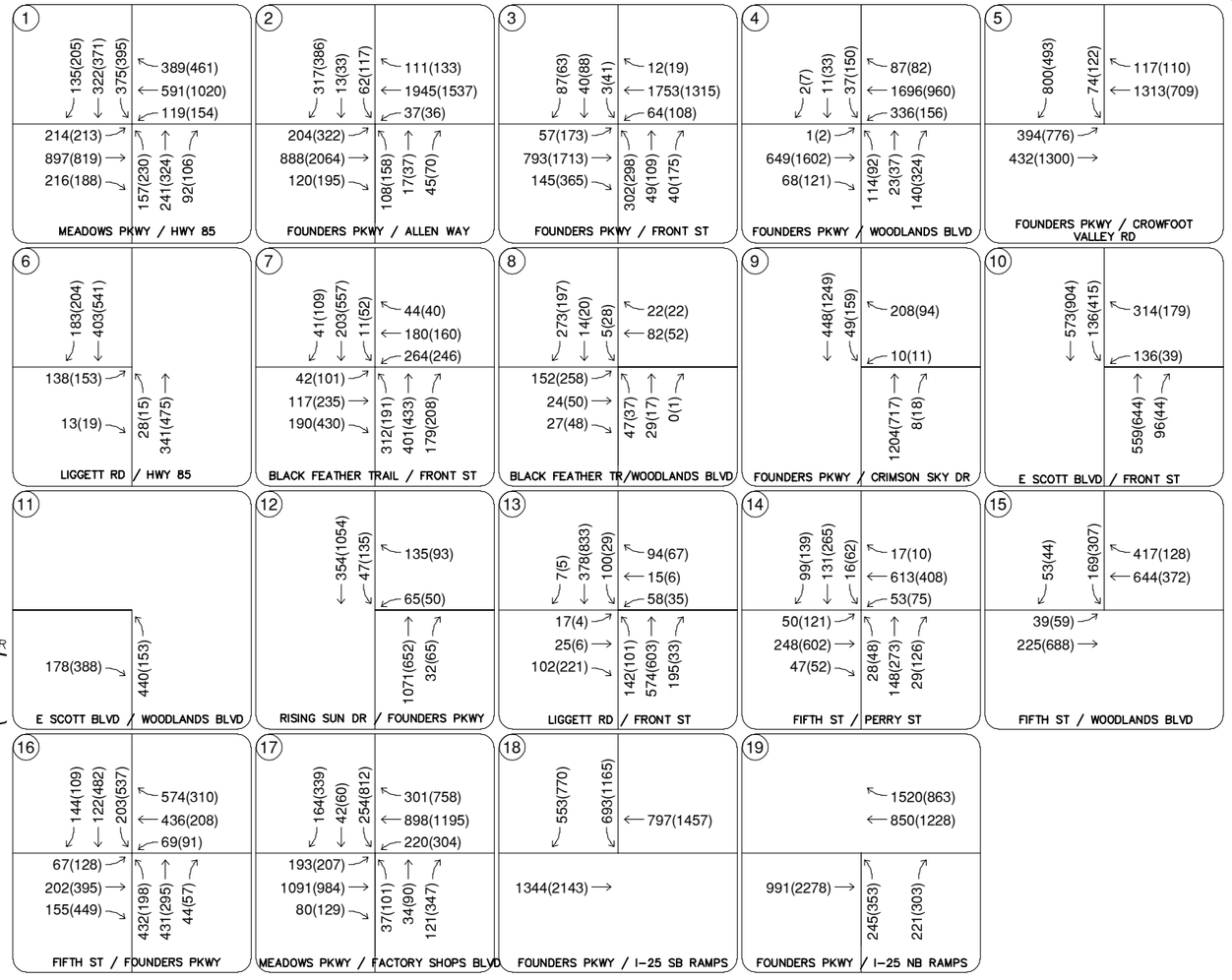
PINE CANYON
DOUGLAS COUNTY, CO
EXISTING TRAFFIC VOLUMES

FIGURE 3

Kimley»Horn

Kimley»Horn
NORTH
NTS 096628001





LEGEND

(X) Study Area Key Intersection

XXX(XXX) Weekday AM(PM) Peak Hour Traffic Volumes

XX,X00 Estimated Daily Traffic Volume

PINE CANYON
DOUGLAS COUNTY, CO
2021 ADJUSTED EXISTING TRAFFIC VOLUMES

FIGURE 4

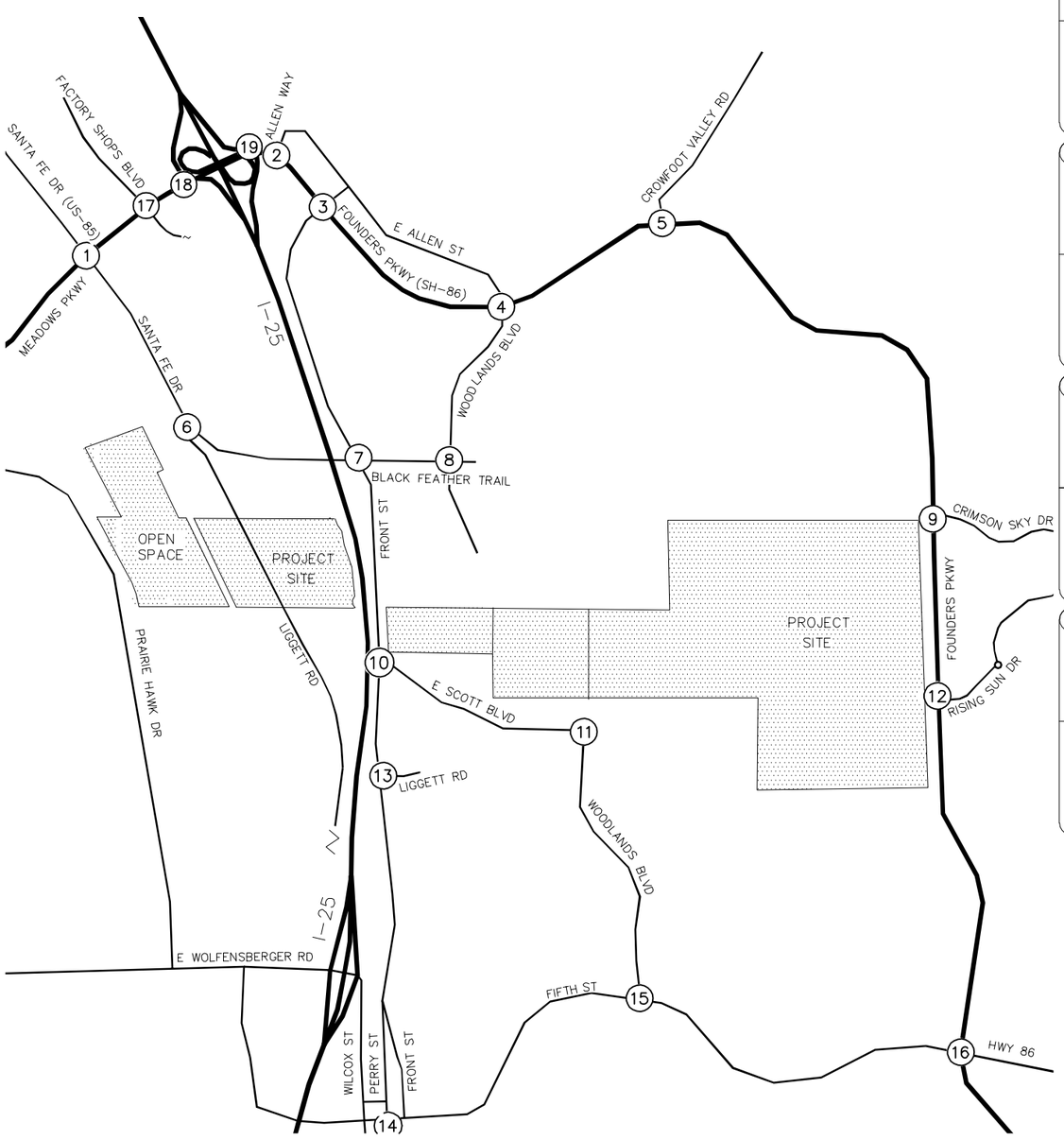
Kimley»Horn

3.4 Unspecified Development Traffic Growth

Future traffic volume projections were primarily based on the Town of Castle Rock Transportation Master Plan (TMP) completed in October 2017. Evaluating traffic projections in the area from the Castle Rock TMP, it was identified that traffic volumes are anticipated to grow at an annual rate of 2.17 percent per year. The Douglas County 2040 Transportation Master Plan was also evaluated for determining future traffic volume projections; however, this transportation plan provides a wide range for average daily volumes and annual growth rates cannot be explicitly calculated. According to information provided on the website for the Colorado Department of Transportation, the 20-year growth factor along Santa Fe Drive (US-85) in the study area is 1.55, which equates to an annual growth rate of approximately 2.2 percent. Additionally, the 20-year growth factor along Founders Parkway (SH-86) in the study area is 1.09, which equates to an annual growth rate of approximately 0.4 percent. Town of Castle Rock, Douglas County, and CDOT traffic growth information is provided in **Appendix B**.

Based on this, an annual growth rate of 2.0 percent was used as a basis for calculating future traffic volumes within the project study area. Several locations were additionally increased to align with the Castle Rock TMP traffic projections. In addition, traffic volumes from the Pioneer Ranch Planned Development located to the north of the project site was included as background traffic in 2040 while remaining development of the Terrain project was also included as background traffic in 2025 and 2040. Background traffic volumes were redistributed along Scott Boulevard and Woodlands Boulevard in 2040 due to the proposed connection of Woodlands Boulevard to the north. As previously noted, Woodlands Boulevard is planned to be extended from Scott Boulevard to serve the project site by 2025 as part of the project. Background traffic volumes for 2025 and 2040 are shown in **Figures 5** and **6**, respectively.

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1 — MEADOWS PKWY / HWY 85

146(222) ↘	349(402) ↓	405(427) ↙
232(231) →		↖ 422(499)
971(887) →		← 640(1104)
234(203) ↘		↙ 129(167)
	170(249) ↑	261(350) ↑ 100(115) ↗

2 — FOUNDERS PKWY / ALLEN WAY

343(418) ↘	14(36) ↓	67(126) ↙
221(348) →		↖ 121(144)
981(2304) →		← 2176(1714)
130(211) ↘		↙ 40(39)
	117(171) ↑	18(40) ↑ 48(76) ↗

3 — FOUNDERS PKWY / FRONT ST

94(68) ↘	44(95) ↓	3(50) ↙
62(187) →		↖ 18(26)
878(1924) →		← 1968(1473)
157(395) ↘		↙ 74(122)
	327(323) ↑	53(118) ↑ 49(195) ↗

4 — FOUNDERS PKWY / WOODLANDS BLVD

2(8) ↘	11(36) ↓	40(162) ↙
1(2) →		↖ 94(88)
736(1848) →		← 1935(1108)
74(131) ↘		↙ 364(169)
	123(100) ↑	25(40) ↑ 152(350) ↗

5 — FOUNDERS PKWY / CROWFOOT VALLEY RD

866(534) ↘		85(147) ↙
426(840) →		↖ 136(129)
507(1531) →		← 1530(845)

6 — LIGGETT RD / HWY 85

148(121) ↘		517(696) ↙
149(165) →		↖
29(26) ↘		↙ 439(570)
	30(16) ↑	

7 — BLACK FEATHER TRAIL / FRONT ST

45(118) ↘	219(603) ↓	11(56) ↙
61(114) →		↖ 47(44)
126(254) →		← 195(173)
286(575) ↘		↙ 286(266)
	408(262) ↑	434(469) ↑ 194(225) ↗

8 — BLACK FEATHER TR/WOODLANDS BLVD

295(214) ↘	15(22) ↓	6(30) ↙
164(279) →		↖ 24(24)
26(54) →		← 88(56)
29(52) ↘		↙
	51(40) ↑	31(18) ↑ 0(1) ↗

9 — FOUNDERS PKWY / CRIMSON SKY DR

526(1480) ↘		56(183) ↙
		↖ 235(108)
		← 12(13)
	1413(859) ↑	10(22) ↗

10 — E SCOTT BLVD / FRONT ST

700(1089) ↘		117(379) ↙
		↖ 267(166)
		← 147(43)
	675(752) ↑	103(47) ↗

11 — E SCOTT BLVD / WOODLANDS BLVD

10(5) ↘		20(40) ↙
5(10) →		↖
160(352) ↘		↙ 50(15)
	427(150) ↑	

12 — RISING SUN DR / FOUNDERS PKWY

416(1236) ←		63(180) ↙
		↖ 178(121)
		← 83(62)
	1237(769) ↑	38(84) ↗

13 — LIGGETT RD / FRONT ST

459(1002) ←		138(41) ↙
		↖ 117(82)
		← 63(38)
	681(697) ↑	211(36) ↗

14 — FIFTH ST / PERRY ST

107(150) ↘	141(287) ↓	17(67) ↙
54(131) →		↖ 18(10)
304(756) →		← 747(514)
51(56) ↘		↙ 57(82)
	30(52) ↑	160(295) ↑ 31(137) ↗

15 — FIFTH ST / WOODLANDS BLVD

57(47) ↘		183(332) ↙
43(64) →		↖ 451(139)
279(849) →		← 780(476)

16 — FIFTH ST / FOUNDERS PKWY

189(138) ↘	159(587) ↓	250(660) ↙
84(174) →		↖ 669(403)
236(482) →		← 507(269)
173(501) ↘		↙ 90(139)
	483(224) ↑	529(364) ↑ 69(99) ↗

17 — MEADOWS PKWY / FACTORY SHOPS BLVD

188(389) ↘	48(69) ↓	292(933) ↙
222(238) →		↖ 346(871)
1253(1130) →		← 1032(1373)
92(148) ↘		↙ 253(349)
	43(116) ↑	39(103) ↑ 139(399) ↗

18 — FOUNDERS PKWY / I-25 SB RAMPS

635(884) ↘		806(1383) ↙
1554(2472) →		← 931(1684)

19 — FOUNDERS PKWY / I-25 NB RAMPS

		↖ 1786(1021)
		← 1006(1431)
1153(2672) →	281(405) ↑	259(363) ↗

LEGEND

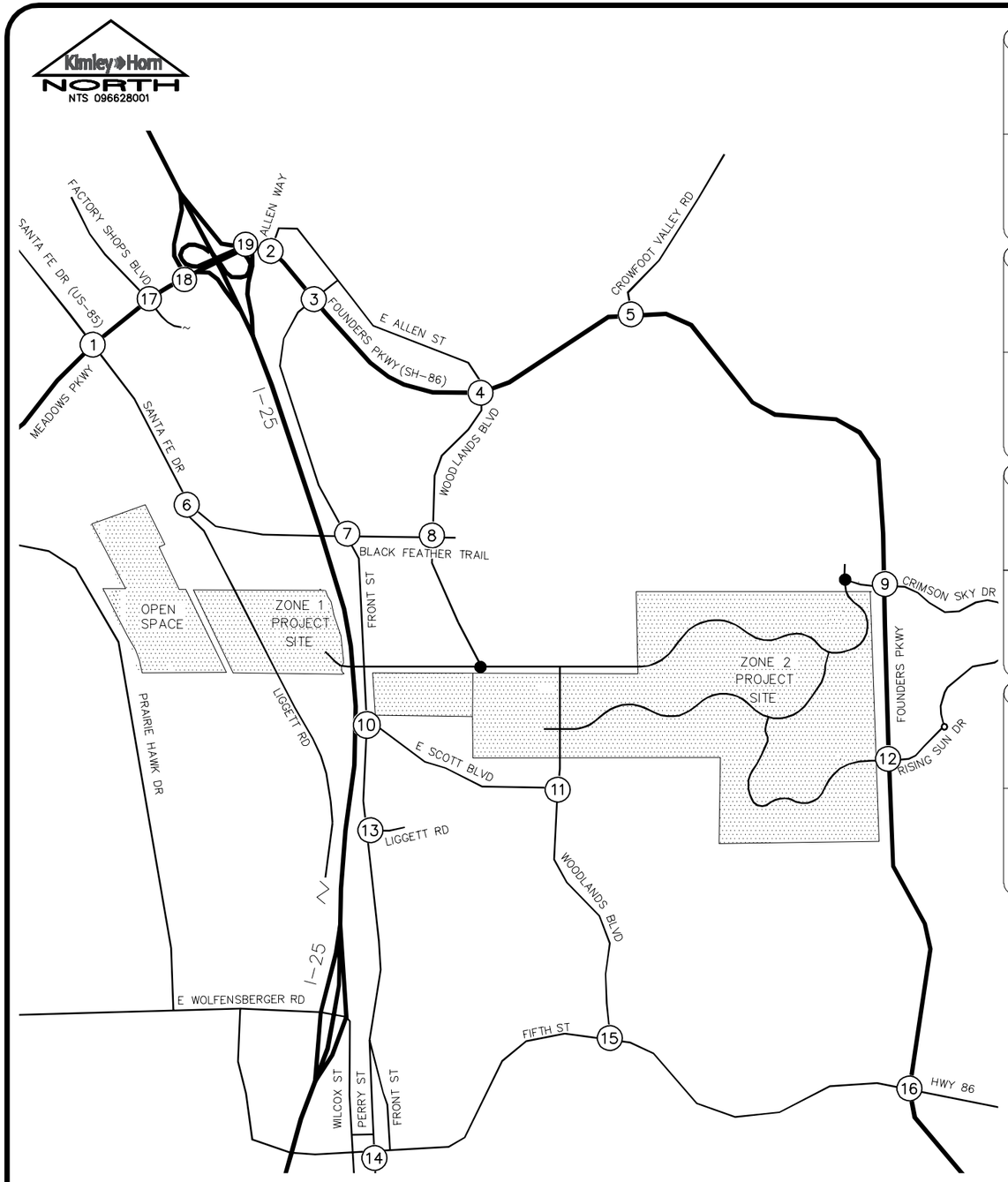
(X) Study Area Key Intersection

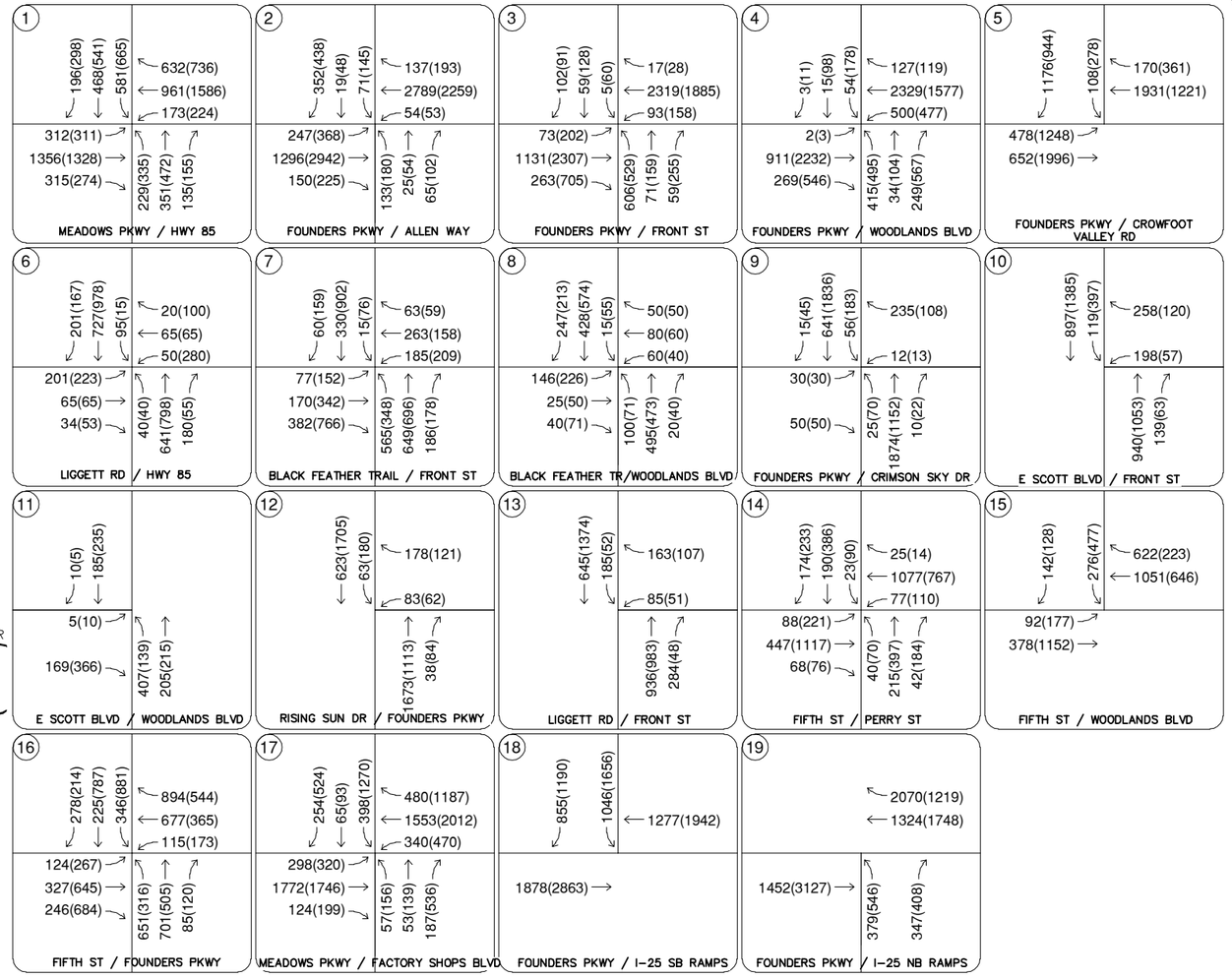
XXX(XXX) Weekday AM(PM) Peak Hour Traffic Volumes

PINE CANYON
DOUGLAS COUNTY, CO
2025 BACKGROUND TRAFFIC VOLUMES

FIGURE 5

Kimley»Horn





LEGEND

(X) Study Area Key Intersection

XXX(XXX) Weekday AM(PM) Peak Hour Traffic Volumes

PINE CANYON
DOUGLAS COUNTY, CO
2040 BACKGROUND TRAFFIC VOLUMES

FIGURE 6

4.0 PROJECT TRAFFIC CHARACTERISTICS

4.1 Trip Generation

Site-generated traffic estimates are determined through a process known as trip generation. Rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific time interval. The acknowledged source for trip generation rates is the *Trip Generation Manual*[1] published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land uses. For this study, Kimley-Horn used the ITE Trip Generation equations that apply Industrial Park (ITE Code 130), Single-Family Detached Housing (ITE Code 210), Multifamily Housing (Mid-Rise) (ITE Code 221), Hotel (ITE Code 310), Elementary School (ITE Code 520), and Office Park (ITE Code 750) for traffic associated with the development. For the proposed park and ride, traffic count data was collected at park and ride in Monument located at the northwest corner of the 2nd Street and Woodmoor Drive intersection. Traffic data from this existing 250 parking space lot was extrapolated to estimate peak hour traffic data for the proposed 350 space park and ride lot associated with this project. These counts were for the morning and afternoon peak hours only. Therefore, to estimate the daily traffic volume generated by the proposed park and ride lot, four times the afternoon peak hour traffic volume was considered.

Pine Canyon proposes to include 600 multifamily housing units, 100,000 square-feet of industrial park, 500,000 square-feet of office park, and a mobility hub with park and ride with 350 parking spaces on the west side of Interstate 25. Proposed on the east side of Interstate 25 includes 800 single family detached homes, 400 multifamily housing units, a 250-room hotel, and a 750-student elementary school. Pine Canyon was divided into two zones due to the large land size of the project site and differing discontinuous access for the trip distribution and assignment purposes. Zone one is located on the west side of I-25 and zone two is located on the east side of I-25. The total proposed project area in Zone 1 is anticipated to generate 9,724 daily trips, with 1,033 of these trips occurring during the morning peak hour and 967 trips occurring during the afternoon peak hour. The total proposed project area in Zone 2 is anticipated to generate 13,038 daily trips, with 1,328 of these trips occurring during the morning peak hour and 2,172 of these trips occurring during the afternoon peak hour. Since the

[1] Institute of Transportation Engineers, *Trip Generation: An Information Report*, Tenth Edition, Washington DC, 2017.

elementary school is proposed to be located near the center of the project site and it will serve the anticipated residents of Pine Canyon and Pioneer Ranch, 50 percent internal capture trips are expected from the residents of these communities. It is believed that 50 percent of external traffic being assigned to the elementary school is appropriate as elementary schools draw more localized traffic. These internal capture trips are shared trips from vehicles already within the internal street network. These shared trips reduce the number of total external trips. The total site generated external trips, Zones 1 and 2, are anticipated at 22,052 external daily trips, with 2,110 of these trips occurring during the morning peak hour and 2,109 trips occurring during the afternoon peak hour. **Table 1** provides the estimated trip generation for the project. The trip generation worksheets/calculations are included in **Appendix C**.

Table 1 – Pine Canyon Project Traffic Generation

Zone	Land Use	Trips / Trip Rates	Weekday Vehicle Trips						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
1	Mid-Rise Multifamily Housing (ITE 221) – 600 Dwelling Units	Trips	3,270	51	147	198	151	96	247
		Trip Rates	Eqn*	26%	74%	Eqn*	61%	39%	Eqn*
	Industrial Park (ITE Code 130) – 100,000 Square Feet	Trips	338	32	8	40	8	32	40
		Trip Rates	3.37	81%	19%	0.4	21%	79%	0.4
	Office Park (ITE Code 750) – 500,000 Square Feet	Trips	5,536	641	79	720	37	498	535
		Trip Rates	11.07	89%	11%	1.44	75	93%	1.07
	Park and Ride (Count Data) – 350 Spaces	Trips	580	45	30	75	50	95	145
		Trip Rates	1.66	60%	40%	0.214	34%	66%	0.414
Total Trips for Zone 1			**9,724**	**769**	**264**	**1,033**	**246**	**721**	**967**
2	Single-Family Detached Housing (ITE Code 210) – 800 Units	Trips	7,044	143	430	573	471	277	748
		Trip Rates	Eqn*	25%	75%	Eqn*	63%	37%	Eqn*
	Mid-Rise Multifamily Housing (ITE Code 221) – 400 Units	Trips	2,180	35	98	133	102	66	168
		Trip Rates	Eqn*	26%	74%	Eqn*	61%	39%	Eqn*
	Hotel (ITE Code 310) – 250 Rooms	Trips	2,396	71	49	120	82	79	161
		Trip Rates	Eqn*	59%	41%	Eqn*	51%	49%	Eqn*
	Elementary School (ITE 520) – 750 Students	Trips	1,418	272	230	502	61	67	128
		Trip Rates	1.89	54%	46%	0.67	48%	52%	0.17
	Elementary School Trips after Internal Capture		710	136	115	251	31	34	65
Total Trips for Zone 2			**13,038**	**521**	**807**	**1,328**	**716**	**489**	**1,205**
Total Site Generated Trips			**22,762**	**1,290**	**1,071**	**2,361**	**962**	**1,210**	**2,172**
Total External Trips after Internal Capture			**22,052**	**1,154**	**956**	**2,110**	**932**	**1,177**	**2,109**

Eqn* = see Appendix for use of fitted curve equation

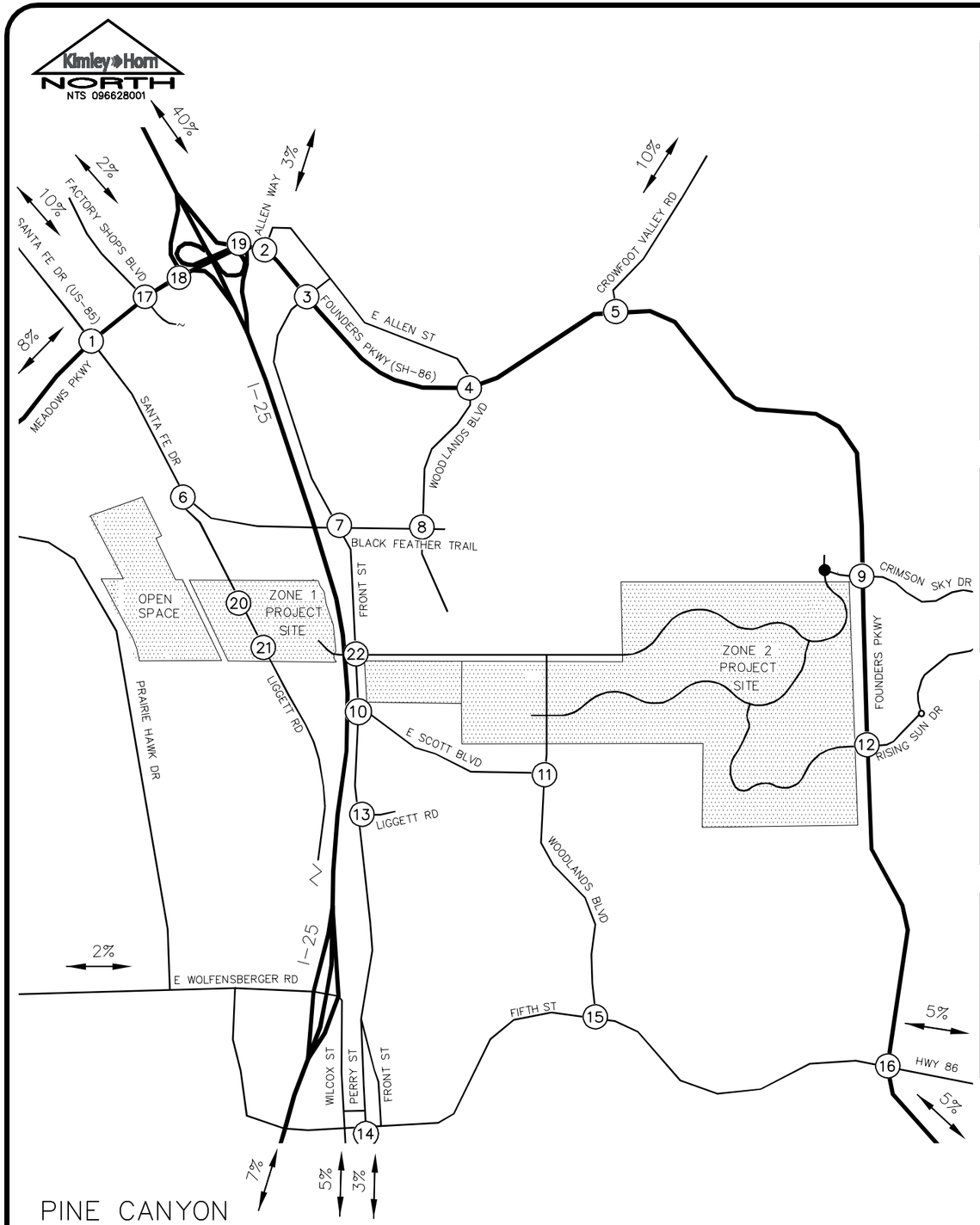
4.2 Trip Distribution

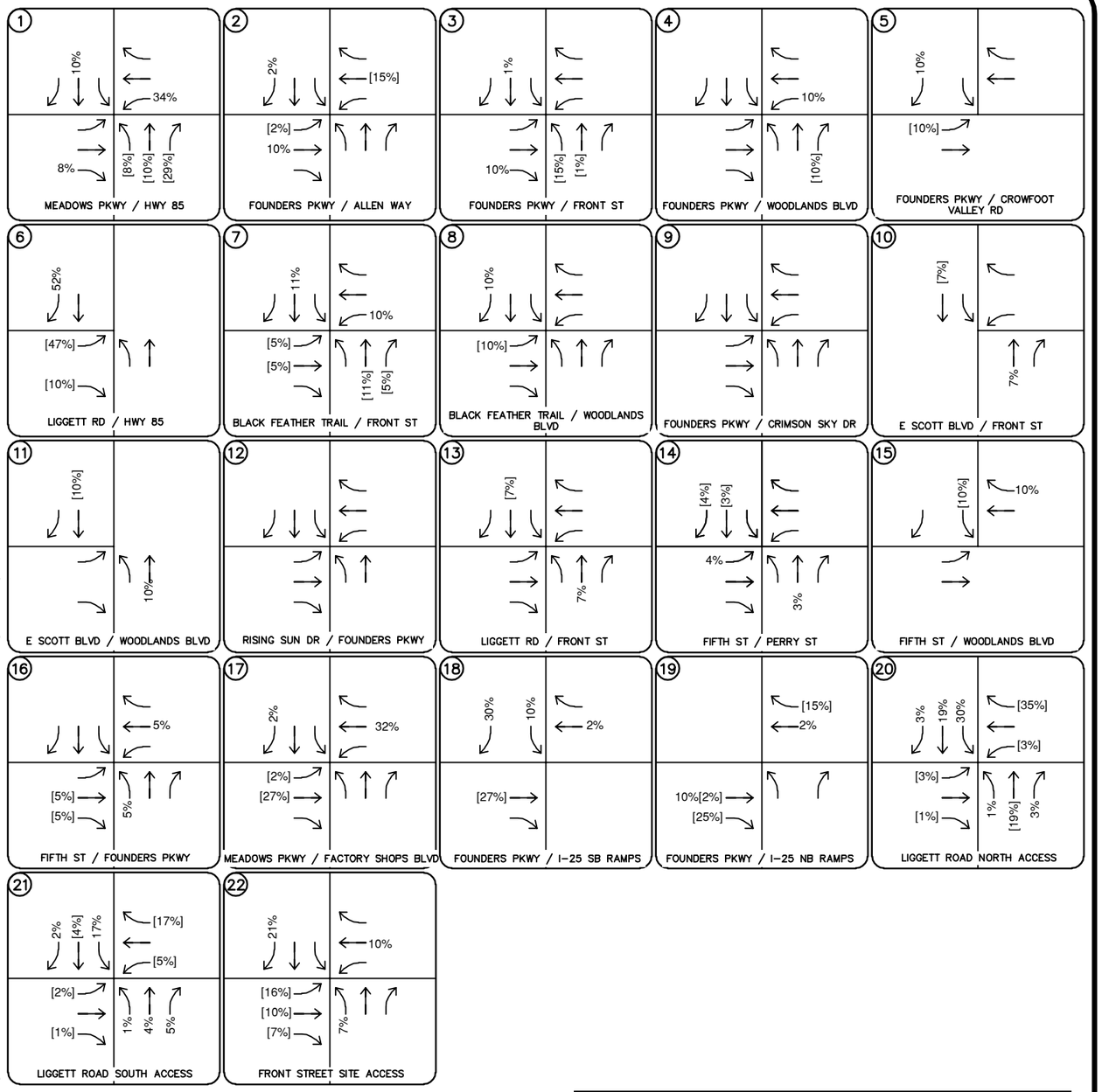
Distribution of site traffic was based on the area street system characteristics, existing traffic patterns and volumes, existing demographic information, and the proposed access system for the project. The non-pass-by directional distribution of traffic is a means to quantify the percentage of site-generated traffic that approaches the site from a given direction and departs the site back to the original source. The separate trips distributions for Zone 2 in 2025 and 2040 is due to the difference in street network connections without and with the future planned extension of Woodlands Parkway, which is expected to occur after buildout of this specific Pine Canyon project. The roadway won't connect to the north until the area to the north develops and finishes the construction of this roadway. Zone 1 to the west of I-25 wasn't affected whether or not Woodlands Parkway continues through to the north to provide a continuous street as north/south travel is anticipated to use Liggett Road and Front Street instead; therefore, a single trip distribution for both the short-term and long-term horizons was developed for this zone. **Figure 7** illustrates the expected trip distribution for Zone 1**. Figure 8,** and **Figure 9** illustrate the expected trip distributions for Zone 2 for the 2025 and 2040 horizons, respectively.

4.3 Traffic Assignment and Total (Background Plus Project) Traffic

Traffic assignment was obtained by applying the project trip distribution to the estimated traffic generation of the development shown in **Table 1**. Project traffic assignment for the 2025 and 2040 horizons is shown in **Figure 10** and **Figure 11**.

Project traffic volumes were added to the background volumes to represent estimated traffic conditions for the short term 2025 horizon and long term 2040 horizon. These background plus project (total) traffic volumes for the project are illustrated for the 2025 and 2040 horizon years in **Figures 12** and **13**, respectively.





LEGEND

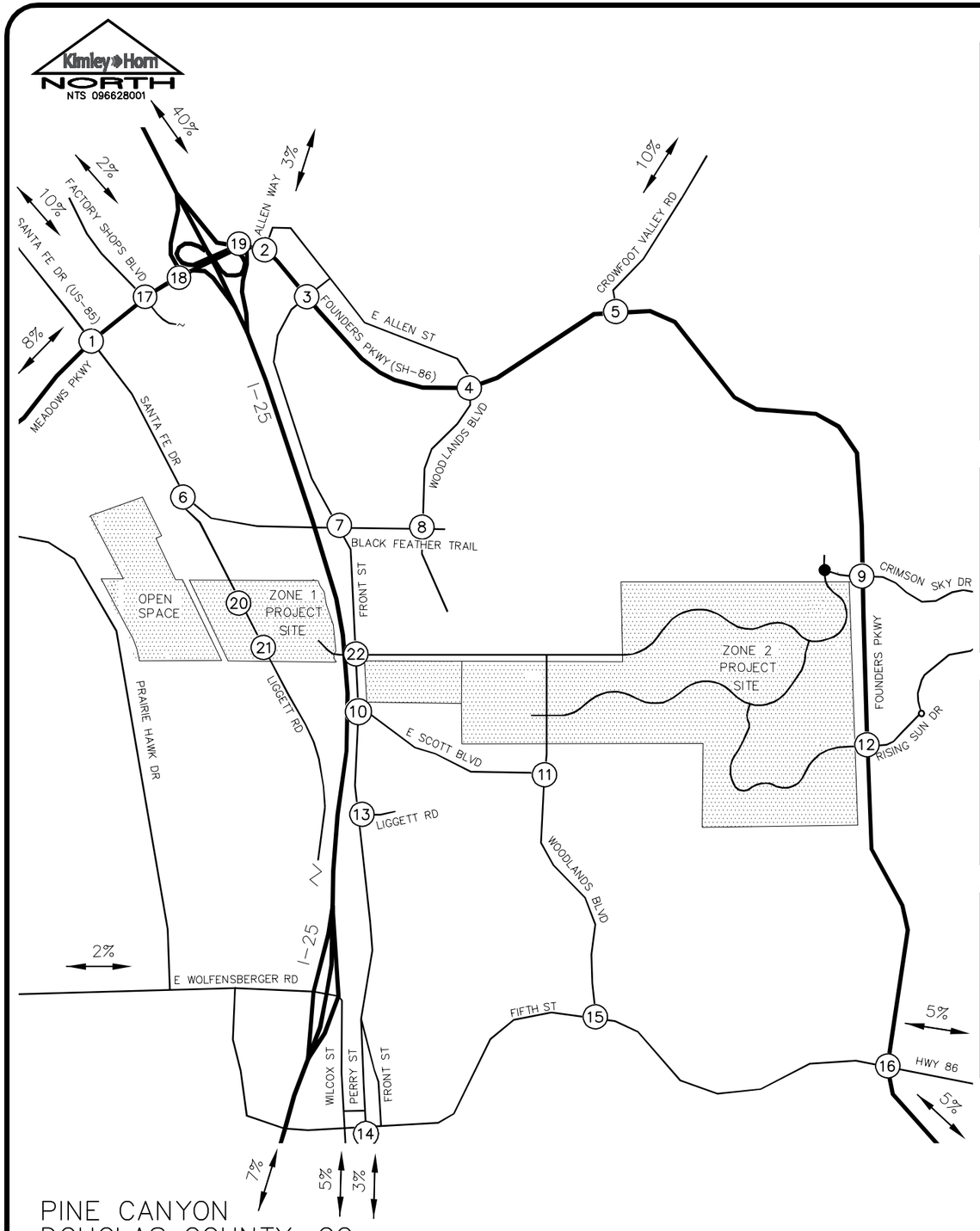
● Study Area Key Intersection

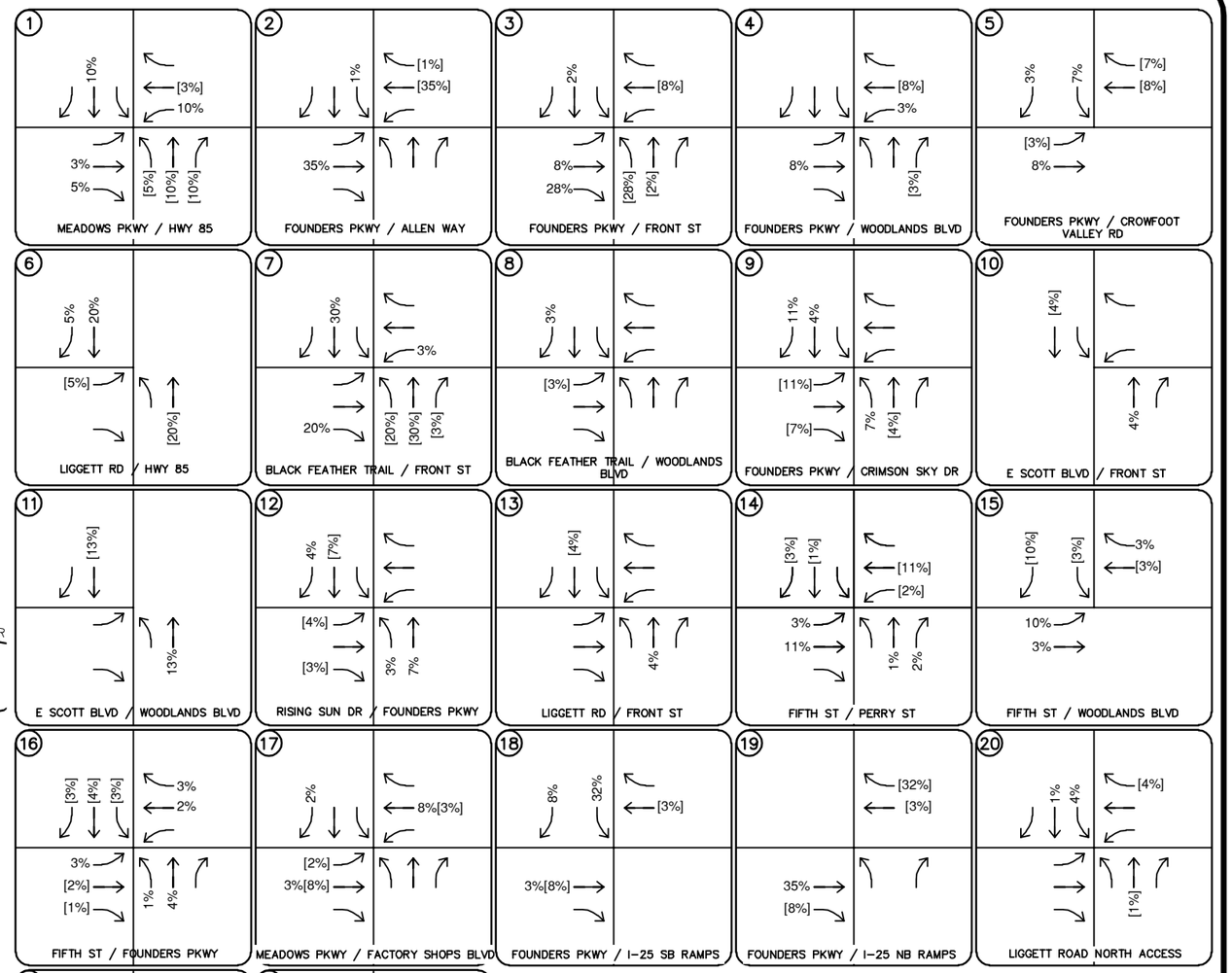
XX%[XX%] Entering[Exiting] Trip Distribution Percentage

PINE CANYON
DOUGLAS COUNTY, CO
ZONE 1 – 2025 & 2040 PROJECT TRIP DISTRIBUTION

FIGURE 7

Kimley»Horn





LEGEND

● Study Area Key Intersection

XX%[XX%] Entering[Exiting] Trip Distribution Percentage

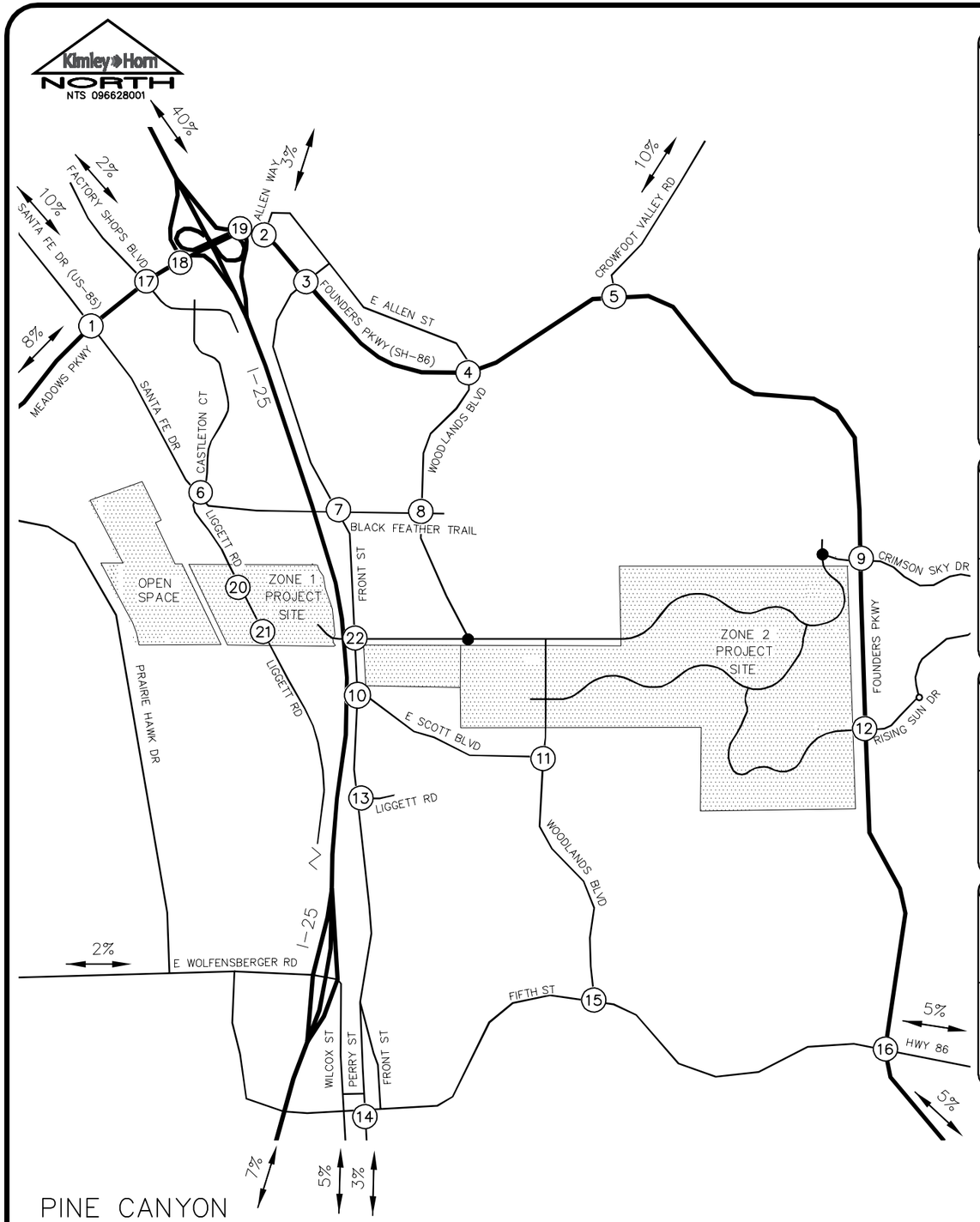
PINE CANYON
DOUGLAS COUNTY, CO
ZONE 2 – 2025 PROJECT TRIP DISTRIBUTION

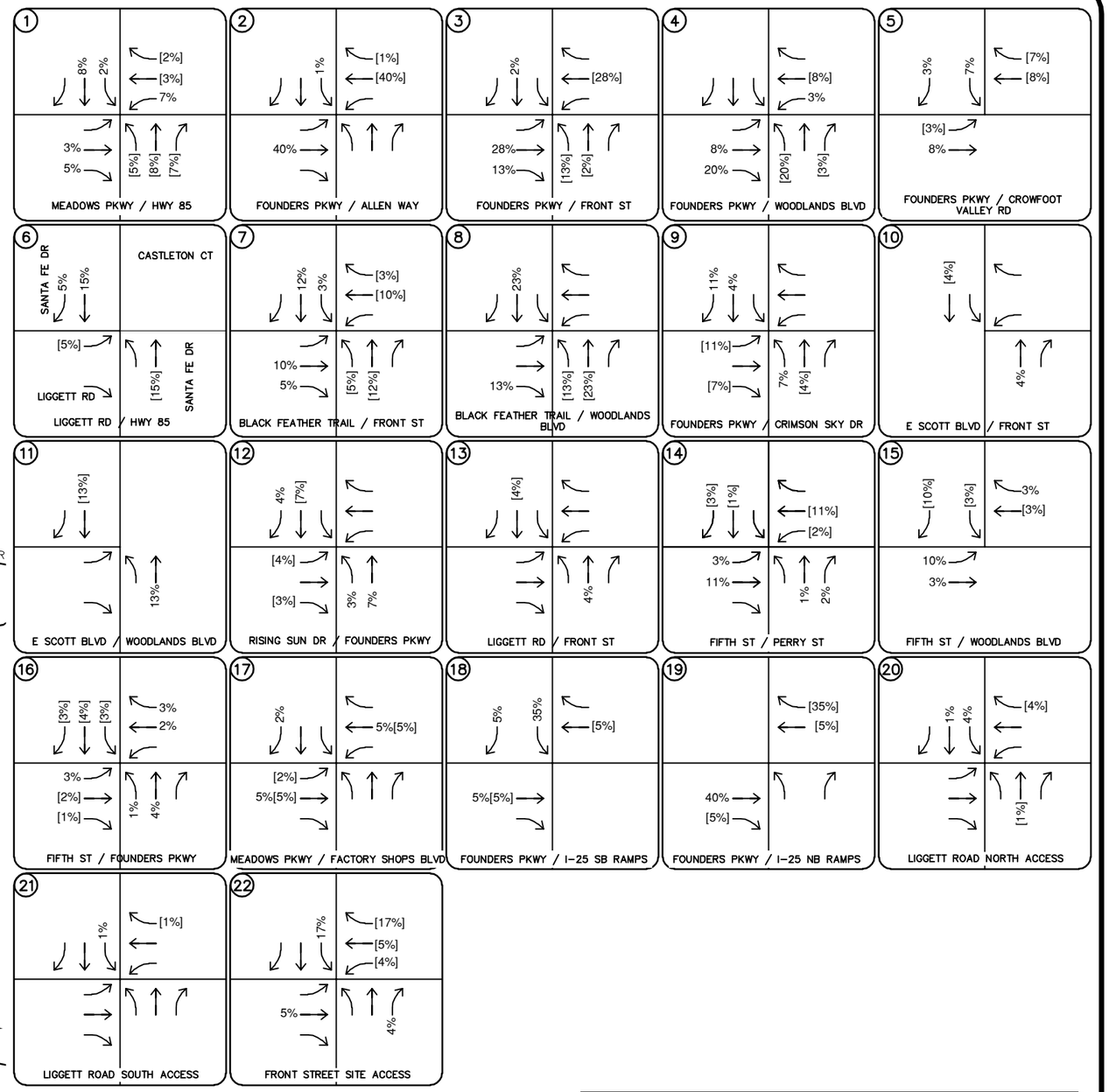
FIGURE 8

Kimley»Horn

NORTH

NTS 096628001





LEGEND

● Study Area Key Intersection

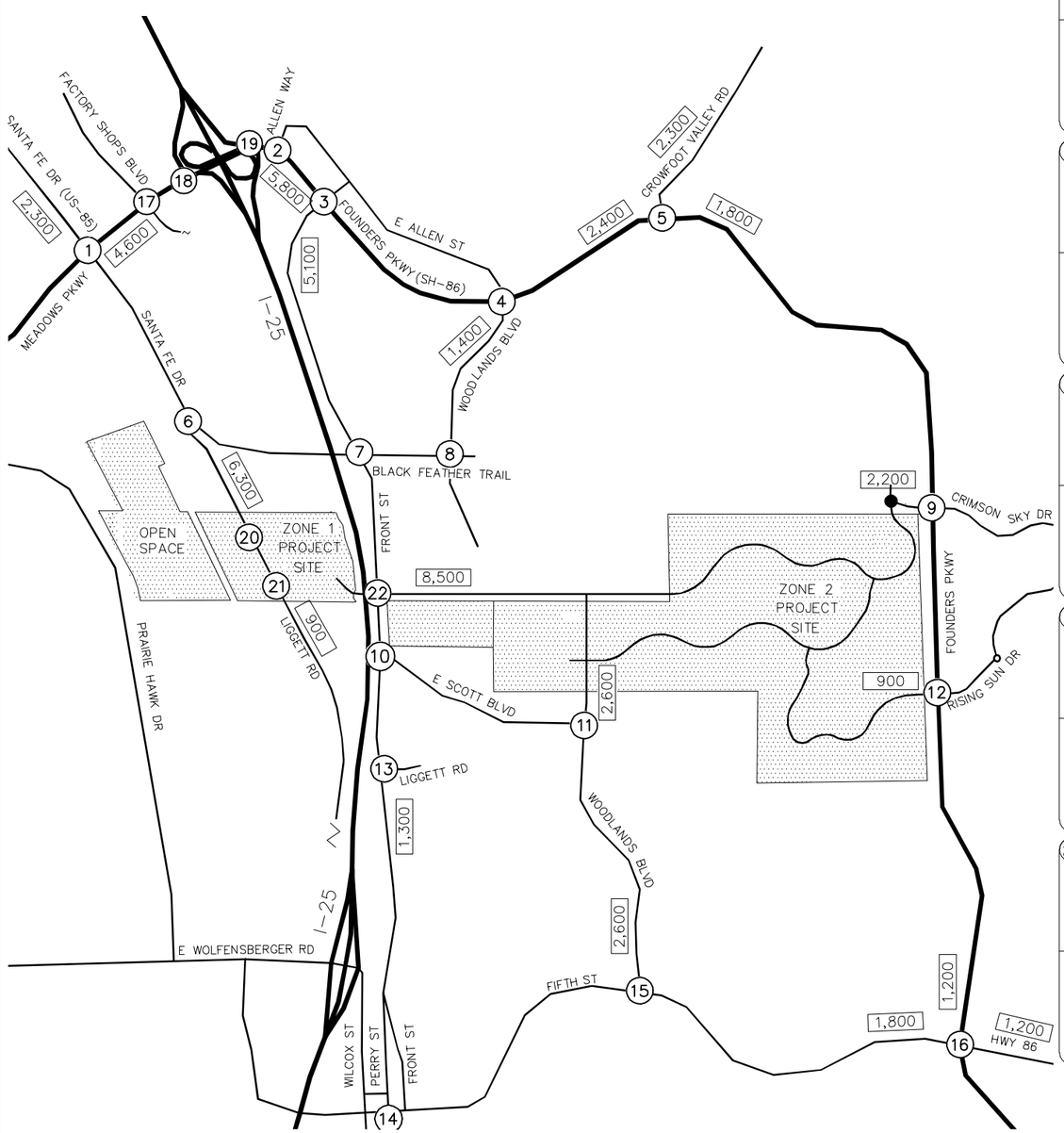
XX%[XX%] Entering[Exiting] Trip Distribution Percentage

PINE CANYON
DOUGLAS COUNTY, CO
ZONE 2 – 2040 PROJECT TRIP DISTRIBUTION

FIGURE 9

Kimley»Horn

Kimley»Horn
NORTH
NTS 096628001



1 — MEADOWS PKWY / HWY 85
116(94) ↓ | ← 21(14) ← 300(153)
12(21) → 81(54) ↘ | 56(81) ↑ 95(118) ↑ 146(255) ↑

2 — FOUNDERS PKWY / ALLEN WAY
15(5) ↓ 4(7) ↓ | ↖ 7(5) ← 282(268)
5(14) ↗ 212(265) → |

3 — FOUNDERS PKWY / FRONT ST
16(16) ↓ | ← 55(36)
31(55) → 185(217) ↘ | 234(236) ↑ 17(16) ↑

4 — FOUNDERS PKWY / WOODLANDS BLVD
← 55(36) ← 89(46) | 31(55) → | 47(86) ↑

5 — FOUNDERS PKWY / CROWFOOT VALLEY RD
89(46) ↓ 27(48) ↓ | ↖ 48(32) ← 55(36)
47(86) ↗ 31(55) → |

6 — LIGGETT RD / HWY 85
419(162) ↓ 77(137) ↓ | 138(91) →
159(362) → 26(72) ↘ |

7 — BLACK FEATHER TRAIL / FRONT ST
201(233) ↓ | ↖ 89(46)
13(36) → 13(36) → 77(137) ↘ | 138(91) → 237(216) → 34(50) ↗

8 — BLACK FEATHER TR/WOODLANDS BLVD
89(46) ↓ |
47(86) → |

9 — FOUNDERS PKWY / CRIMSON SKY DR
42(75) ↓ 15(27) ↓ | ↖ 27(48) ↑ 28(18) ↑
76(50) → 48(32) ↘ |

10 — E SCOTT BLVD / FRONT ST
46(68) ↓ |
| 69(44) ↑

11 — E SCOTT BLVD / WOODLANDS BLVD
116(131) ↓ |
| 127(114) →

12 — RISING SUN DR / FOUNDERS PKWY
15(27) ↓ 48(32) ↓ | 12(21) → 27(48) →
28(18) ↗ 21(14) ↘ |

13 — LIGGETT RD / FRONT ST
46(68) ↓ |
| 69(44) ↓

14 — FIFTH ST / PERRY ST
32(43) ↓ 15(27) ↓ | ← 76(50) ← 14(9) | 27(14) ↑ 8(14) ↑
43(31) ↗ 42(75) → |

15 — FIFTH ST / WOODLANDS BLVD
69(46) ↓ 47(86) ↓ | ↖ 89(46) ← 21(14)
39(69) ↗ 12(21) → |

16 — FIFTH ST / FOUNDERS PKWY
21(14) ↓ 28(18) ↓ 21(14) ↓ | ↖ 12(21) ← 46(26)
12(21) → 27(45) → 20(41) ↘ | 42(19) ↑ 15(27) ↑

17 — MEADOWS PKWY / FACTORY SHOPS BLVD
23(19) ↓ | ← 298(148)
19(23) ↘ 138(252) → |

18 — FOUNDERS PKWY / I-25 SB RAMPS
262(129) ↓ 200(245) ↓ | ← 36(19)
138(252) → |

19 — FOUNDERS PKWY / I-25 NB RAMPS
| ↖ 261(254) ← 36(19)
217(279) → 121(216) ↘ |

20 — LIGGETT ROAD / NORTH ACCESS
23(7) ↓ 157(59) ↓ 246(101) ↓ | ↖ 120(270) ← 8(22)
8(22) ↓ 3(7) ↘ | 8(2) ↑ 50(137) ↑ 23(7) ↑

21 — LIGGETT ROAD / SOUTH ACCESS
15(5) ↓ 11(29) ↓ 135(49) ↓ | ↖ 52(128) ← 13(36)
5(14) ↗ 3(7) ↘ | 8(2) ↑ 31(10) ↑ 38(12) ↑

22 — FRONT STREET SITE ACCESS
161(52) ↓ 204(364) ↓ | ↖ 367(242) ← 112(48) ← 28(18)
42(115) → 45(106) → 18(50) ↘ | 54(17) ↑ 15(27) ↑

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

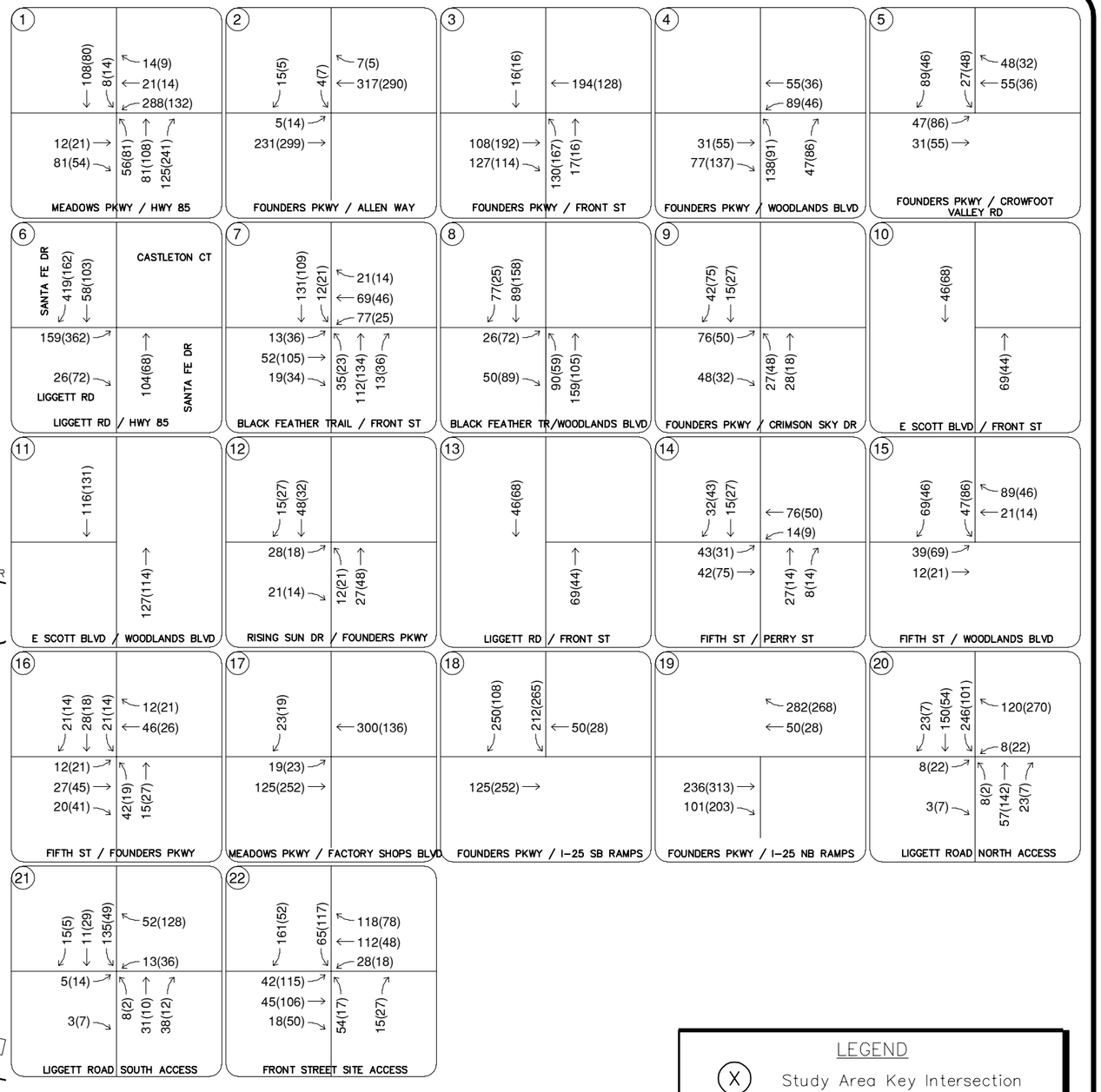
PINE CANYON
DOUGLAS COUNTY, CO
2025 PROJECT TRAFFIC ASSIGNMENT

FIGURE 10

Kimley»Horn

Kimley»Horn
NORTH
NTS 096628001





LEGEND

(X) Study Area Key Intersection

XXX(XXX) Weekday AM(PM) Peak Hour Traffic Volumes

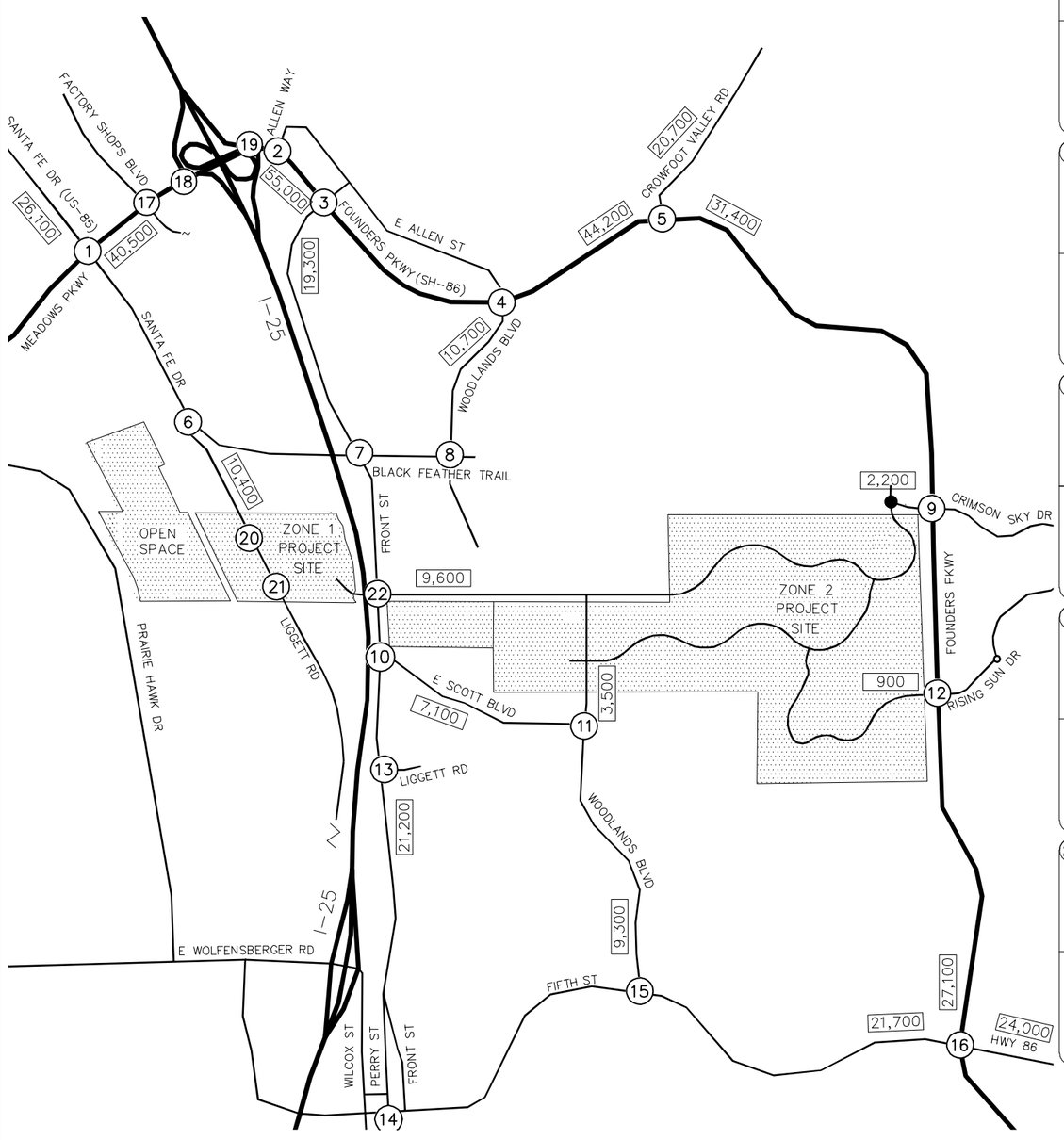
XX,X00 Estimated Daily Traffic Volume

PINE CANYON
DOUGLAS COUNTY, CO
2040 PROJECT TRAFFIC ASSIGNMENT

FIGURE 11

Kimley»Horn

Kimley»Horn
NORTH
NTS 096628001



1	2	3	4	5
146(222) 464(496) 405(427) → 422(499) ← 661(1118) ← 429(320) 232(231) → 983(908) → 315(257) → 226(330) ← 356(468) ← 246(370) MEADOWS PKWY / HWY 85	358(423) 14(36) 71(133) → 128(149) ← 2458(1982) ← 40(39) 226(362) → 1193(2569) → 130(211) → 117(171) ← 18(40) ← 48(76) FOUNDERS PKWY / ALLEN WAY	94(68) 60(111) 3(50) → 18(26) ← 2023(1509) ← 74(122) 62(187) → 909(1979) → 342(612) → 561(559) ← 70(134) ← 49(195) FOUNDERS PKWY / FRONT ST	2(8) 11(36) 40(162) → 94(88) ← 1990(1144) ← 453(215) 1(2) → 767(1903) → 74(131) → 123(100) ← 25(40) ← 199(436) FOUNDERS PKWY / WOODLANDS BLVD	955(580) 112(195) → 184(161) ← 1585(881) 473(926) → 538(1586) → FOUNDERS PKWY / CROWFOOT VALLEY RD
6	**7**	**8**	**9**	**10**
567(283) 594(833) → 30(16) ← 577(661) ← 308(527) → 55(98) → LIGGETT RD / HWY 85	45(118) 420(836) 11(56) → 47(44) ← 195(173) ← 375(312) 74(150) → 139(290) → 363(712) → 546(353) ← 671(685) ← 229(275) BLACK FEATHER TRAIL / FRONT ST	384(260) 15(22) 6(30) → 24(24) ← 88(56) 211(365) → 26(54) → 29(52) → 51(40) ← 31(18) ← 0(1) BLACK FEATHER TR/WOODLANDS BLVD	42(75) 541(1507) 56(183) → 235(108) ← 12(13) 76(50) → 48(32) → 27(48) ← 1441(877) ← 10(22) FOUNDERS PKWY / CRIMSON SKY DR	746(1157) 117(379) → 267(166) ← 147(43) ← 744(796) → 103(47) → E SCOTT BLVD / FRONT ST
11	**12**	**13**	**14**	**15**
10(5) 136(171) → 427(150) ← 177(129) ← 5(10) → 160(352) → E SCOTT BLVD / WOODLANDS BLVD	15(27) 464(1268) 63(180) → 178(121) ← 83(62) 28(18) → 21(14) → 12(21) ← 1264(817) ← 38(84) RISING SUN DR / FOUNDERS PKWY	505(1070) 138(41) → 117(82) ← 63(38) 750(741) → 211(36) → LIGGETT RD / FRONT ST	139(193) 156(314) 17(67) → 18(10) ← 823(564) ← 71(91) 97(162) → 346(831) → 51(56) → 30(52) ← 187(309) ← 39(151) ← FIFTH ST / PERRY ST	126(93) 230(418) → 540(185) ← 801(490) ← 82(133) → 291(870) → FIFTH ST / WOODLANDS BLVD
16	**17**	**18**	**19**	**20**
210(152) 187(605) 271(674) → 681(424) ← 553(295) ← 90(139) 96(195) → 263(527) → 193(542) → 525(243) ← 544(391) ← 69(99) ← FIFTH ST / FOUNDERS PKWY	211(408) 48(69) 292(933) → 346(871) ← 1330(1521) ← 253(349) 241(261) → 1391(1382) → 92(148) → 43(116) ← 39(103) ← 139(399) ← MEADOWS PKWY / FACTORY SHOPS BLVD	897(1013) 1006(1628) → 967(1703) 1692(2724) → FOUNDERS PKWY / I-25 SB RAMPS	2047(1275) ← 1042(1450) ← 1370(2951) → 121(216) → 281(405) ← 259(363) ← FOUNDERS PKWY / I-25 NB RAMPS	23(7) 334(196) 246(101) → 120(270) ← 8(22) ← 8(22) → 3(7) → 8(2) ← 168(214) ← 23(7) ← LIGGETT ROAD NORTH ACCESS
21	**22**			
15(5) 188(166) 135(49) → 52(128) ← 13(36) ← 5(14) → 3(7) → 8(2) ← 149(87) ← 38(12) ← LIGGETT ROAD SOUTH ACCESS	161(52) 771(1395) 224(404) → 417(257) ← 112(48) ← 28(18) ← 42(115) → 45(106) → 18(50) → 54(17) ← 965(931) ← 15(27) ← FRONT STREET SITE ACCESS			

LEGEND

(X) Study Area Key Intersection

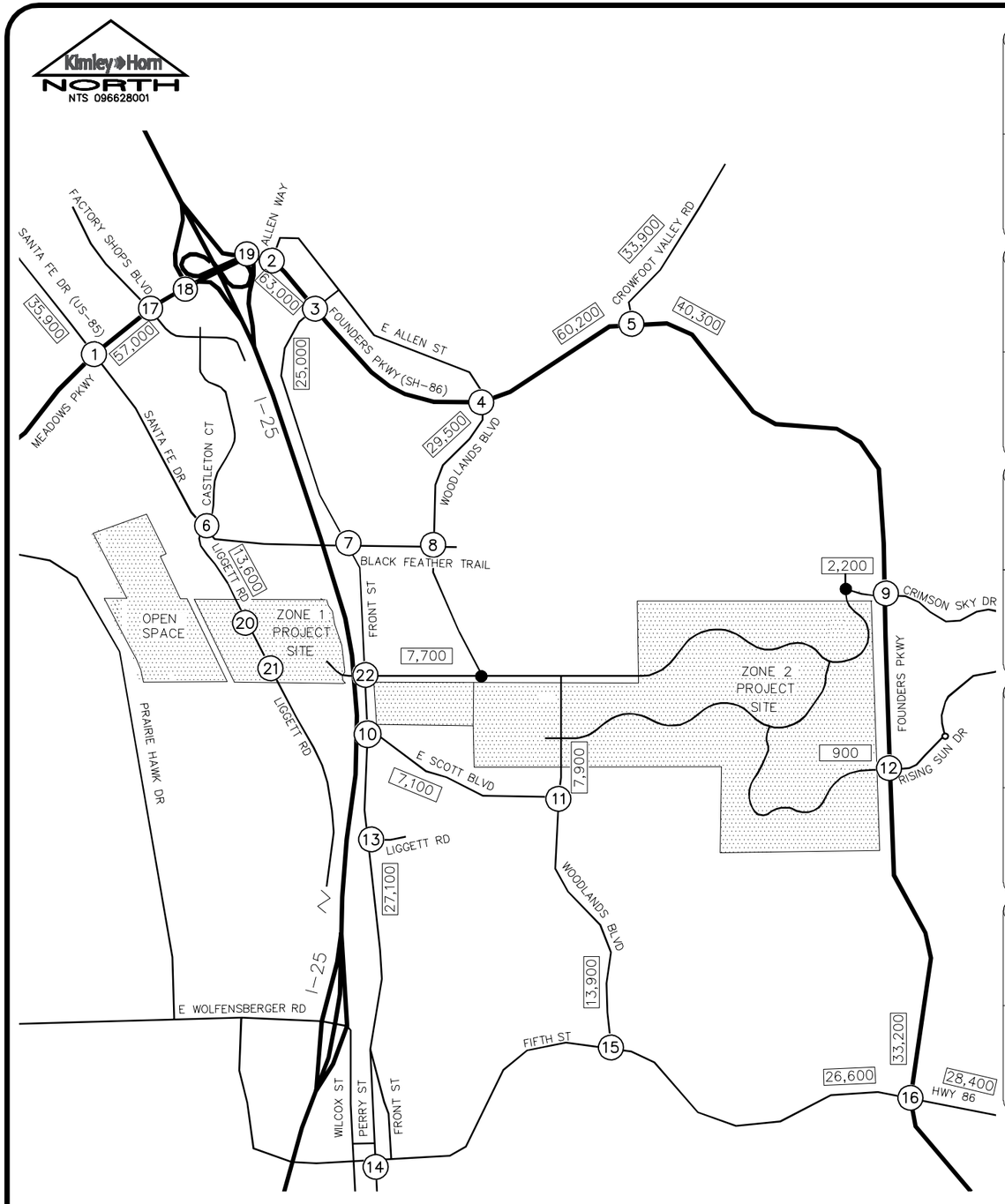
XXX(XXX) Weekday AM(PM) Peak Hour Traffic Volumes

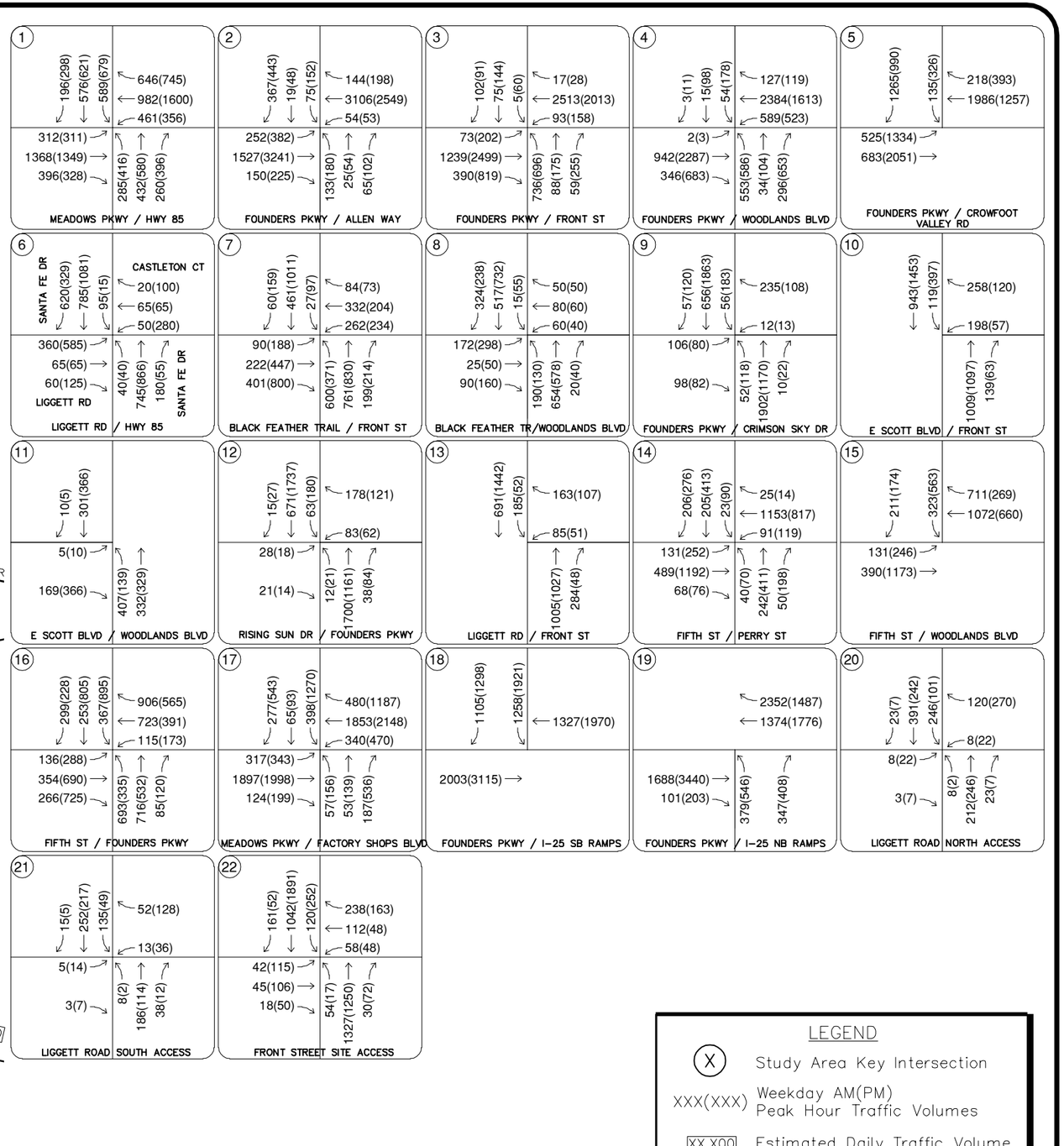
XX,X00 Estimated Daily Traffic Volume

PINE CANYON
DOUGLAS COUNTY, CO
2025 TOTAL TRAFFIC VOLUMES

FIGURE 12

Kimley»Horn





LEGEND

(X) Study Area Key Intersection

XXX(XXX) Weekday AM(PM) Peak Hour Traffic Volumes

XX,X00 Estimated Daily Traffic Volume

PINE CANYON
DOUGLAS COUNTY, CO
2040 TOTAL TRAFFIC VOLUMES

FIGURE 13

5.0 TRAFFIC OPERATIONS ANALYSIS

Kimley-Horn's analysis of traffic operations in the site vicinity was conducted to determine potential capacity deficiencies in the 2025 and 2040 development horizons at the identified key intersections and access driveways. The acknowledged source for determining overall capacity is the sixth edition of the *Highway Capacity Manual (HCM)*[2].

5.1 Analysis Methodology

Capacity analysis results are listed in terms of Level of Service (LOS). LOS is a qualitative term describing operating conditions a driver will experience while traveling on a particular street or highway during a specific time interval. It ranges from A (very little delay) to F (long delays and congestion). For intersections and roadways in this study area, standard traffic engineering practice identifies overall intersection LOS D and movement LOS E as the minimum threshold for acceptable operations. **Table 2** shows the definition of level of service for signalized and unsignalized intersections.

Table 2 – Level of Service Definitions

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

Study area intersections were analyzed based on average total delay analysis for signalized and unsignalized intersections. Under the unsignalized analysis, the level of service (LOS) for a two-way stop-controlled intersection is determined by the computed or measured control delay and is defined for each minor movement. Level of service for a two-way stop-controlled intersection is not defined for the intersection as a whole. Level of service for a signalized and four-way stop controlled intersection is defined for each approach and for the intersection.

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

5.2 Key Intersection Operational Analysis

Calculations for the level of service at the key intersections identified for this study are provided in **Appendix D**. The existing and background traffic analyses are based on the lane geometry and intersection control shown in **Figure 2**. The operational analysis utilized the observed cycle lengths with existing phasing and timing for the signalized study area intersections. Synchro 10 traffic analysis software was used to analyze the study intersections for level of service. The Synchro Highway Capacity Manual (HCM) methodology reports were used to analyze intersection delay and level of service.

Meadows Parkway and Santa Fe Drive (#1)

The intersection of Meadows Parkway and Santa Fe Drive (US-85) is signalized with protected only left turn phasing on all four approaches. This intersection currently operates with a LOS D during the morning and afternoon peak hours. With the existing lane configurations and the addition of project traffic, this intersection is expected to continue to operate with LOS D during peak hours in 2025. Prior to the addition of project traffic in 2040, this intersection may operate with LOS F during the afternoon peak hour with the existing intersection configuration and control. The Town of Castle Rock TMP identifies widening Meadows Parkway to a 6-lane roadway section from Meadows Boulevard to US-85 as a long-term project. With this roadway widening improvement as well as implementation of eastbound dual left turn lanes, this intersection is expected to operate with LOS D during the morning and afternoon peak hours in 2040. **Table 3** provides the results of the level of service.

Table 3 – Meadows Parkway and Santa Fe Drive (#1) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing	39.8	D	45.6	D
2025 Background	41.4	D	47.4	D
2025 Background Plus Project	48.5	D	50.0	D
2040 Background	51.5	D	93.7	F
2040 Background Plus Project #	50.1	D	50.5	D

= Includes three eastbound and westbound through lanes and eastbound dual left turn lanes

Founders Parkway and Allen Way (#2)

The intersection of Founders Parkway and Allen Way is signalized. With this existing configuration, the intersection currently operates with LOS B during the weekday morning and afternoon peak hour. Prior to the addition of project traffic, this intersection is expected to operate with LOS B during the peak hours in 2025. This intersection was also analyzed with dual northbound left turn lanes due to vehicle queuing issues on the private access south leg. The southbound right turn lane for the gas station on the south leg of this intersection could be converted to the southbound through lane while the existing southbound through lane could be converted to the second inside northbound left turn lane to accomplish northbound dual left turn lanes. With this improvement and the addition of project traffic, this intersection is expected to operate acceptably with LOS D or better during the peak hours in 2025 and 2040. **Table 4** provides the results of the level of service.

Table 4 – Founders Parkway and Allen Way (#2) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing	17.0	B	16.8	B
2025 Background	17.1	B	17.2	B
2025 Background Plus Project	17.8	B	17.4	B
2025 Background Plus Project #	18.4	B	21.2	C
2040 Background	20.4	C	23.9	C
2040 Background Plus Project #	27.0	C	35.2	D

= Northbound Dual Left Turn Lanes.

Founders Parkway and Front Street (#3)

The intersection of Founders Parkway and Front Street is signalized with protected-permissive left turn phasing on all approaches. With this existing configuration, the intersection currently operates with LOS B during the weekday morning peak hour and LOS C during the afternoon peak hour. With the existing lane configurations and the addition of project traffic, this intersection is expected to continue to operate acceptably with LOS C or better during the peak hours in 2025. If future traffic volume projections materialize, an eastbound right turn lane will be needed in order for this intersection to operate acceptably during the afternoon peak hour in 2040. With this improvement, this intersection is expected to operate with LOS C during the morning peak hour and LOS D during the afternoon peak hour in 2040. **Table 5** provides the results of the level of service at this intersection.

Table 5 – Founders Parkway and Front Street (#3) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing	18.7	B	22.0	C
2025 Background	22.4	C	24.7	C
2025 Background Plus Project	24.6	C	31.5	C
2040 Background	27.4	C	51.9	D
2040 Background Plus Project #	33.2	C	41.8	D

= Includes Eastbound Right Turn Lane

Founders Parkway and Woodlands Boulevard (#4)

The intersection of Founders Parkway and Woodlands Boulevard is signalized with protected-permissive left turn phasing on all four approaches. With this existing configuration, the intersection currently operates with LOS C or better during the weekday morning and afternoon peak hours. With the existing lane configurations and the addition of project traffic, this intersection is expected to continue to operate acceptably with LOS D or better during the peak hours in 2025.

The Town of Castle Rock TMP identifies widening Founders Parkway to a 6-lane roadway section from Woodlands Boulevard to Fifth Street as a long-term project. This study confirms that this improvement may be needed. The existing eastbound and westbound right turn lanes at this intersection would typically be absorbed; however, if future traffic volume projections materialize, the eastbound right turn lane will be needed in order to provide acceptably operations. Further, this intersection may need northbound and westbound dual left turn lanes to operate acceptably in 2040. With these improvements and the addition of project traffic, this intersection is expected to operate acceptably with LOS D or better during peak hours in 2040. It should be noted that ROW dedications would likely need to be acquired in order to incorporate these improvements. However, this is a long-term planning level improvement; therefore, it is recommended that this intersection be studied further in the future to determine appropriate lane configurations. **Table 6** provides the results of the level of service at this intersection.

Table 6 – Founders Parkway and Woodlands Blvd (#4) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing	12.8	B	20.5	C
2025 Background	11.3	B	26.2	C
2025 Background Plus Project	12.7	B	46.4	D
2040 Background	48.5	D	140.3	F
2040 Background Plus Project #	33.9	C	50.6	D

= Includes three through lanes eastbound and westbound; Eastbound Right Turn Lane, Northbound and westbound dual left turn lanes

Founders Parkway and Crowfoot Valley Road (#5)

The T-intersection of Founders Parkway and Crowfoot Valley Road is signalized with protected only left turn phasing on the eastbound approach. With this existing configuration, the intersection currently operates with LOS B during the weekday morning and afternoon peak hours. With the existing lane configurations and the addition of project traffic, this intersection is expected to continue to operate acceptably with LOS C or better during the peak hours in 2025.

The Town of Castle Rock TMP identifies widening Founders Parkway to a 6-lane roadway section from Woodlands Boulevard to Fifth Street as a long-term project. With this improvement and the addition of project traffic, this intersection is expected to operate acceptably with LOS D or better during the peak hours in 2040. **Table 7** provides the results of the level of service at this intersection.

Table 7 – Founders Parkway and Crowfoot Valley Road (#5) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing	16.5	B	16.8	B
2025 Background	17.0	B	18.0	B
2025 Background Plus Project	19.5	B	20.8	C
2040 Background	22.8	C	48.3	D
2040 Background Plus Project #	18.4	B	35.9	D

= Includes three eastbound and westbound through lanes

Liggett Road and Highway 85 (#6)

The intersection of Liggett Road and Hwy 85 is signalized. With this existing configuration, this intersection currently operates acceptably with LOS B during the peak hours. A southbound right turn lane with free movements is recommended at the intersection of Liggett Road and Highway 85. With this improvement, this intersection is expected to operate acceptably with LOS B during the morning peak hour and LOS C during the afternoon peak hour.

By 2040, Liggett Road is proposed to realign approximately 600 feet to the southeast and intersect with Castleton Court. This new realigned intersection of Liggett Road/Castleton Court and Highway 85 has been evaluated with roundabout and signal control in the long-term 2040 horizon. With the recommended lane configuration and signal control, this intersection realigned with Castleton Court is expected to operate acceptably with LOS B during the morning peak hour and LOS D during the afternoon peak hour. With the recommended lane configuration (including southbound right turn bypass lane) and roundabout control, this intersection realigned with Castleton Court is expected to operate with LOS B during the morning peak hour but LOS F during the afternoon peak hour. Therefore, it is believed that traffic signal control would be preferred. **Table 8** provides the results of the level of service at this intersection.

Table 8 – Liggett Road and Highway 85 (#6) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec)	LOS	Delay (sec)	LOS
2021 Existing	13.5	B	12.9	B
2025 Background	12.3	B	21.9	C
2025 Background Plus Project #	14.6	B	22.7	C
2040 Background	13.3	B	14.8	B
2040 Background Plus Project ## (Traffic Signal w/ SBR Free Lane)	18.2	B	38.3	D
2040 Background Plus Project ## (Roundabout w/ SBR Bypass Lane)	13.4	B	120.9	F

= Includes channelized southbound right turn lane;
= New alignment and a four legged intersection aligning with Castleton Court

Hwy 85/Black Feather Trail and Front Street (#7)

The intersection of Hwy 85/Black Feather Trail and Front Street is signalized with protected-permissive left turn phasing on all four approaches. With this existing configuration, the intersection currently operates with LOS C during the weekday morning and afternoon peak hours. With the current lane configurations and the addition of project traffic, this intersection is expected to operate acceptably during the peak hours in the buildout year of 2025 and long-term horizon of 2040 without any needed modifications or improvements. **Table 9** provides the results of the level of service at this intersection.

Table 9 – Hwy 85/Black Feather Trail and Front Street (#7) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing	22.3	C	23.8	C
2025 Background	22.2	C	26.2	C
2025 Background Plus Project	31.7	C	35.1	D
2040 Background	26.6	C	35.4	D
2040 Background Plus Project	39.0	C	54.1	D

Black Feather Trail and Woodlands Boulevard (#8)

The intersection of Black Feather Trail and Woodlands Boulevard operates with all way stop control. With this existing configuration, the intersection currently operates with LOS B during the weekday morning and afternoon peak hours. Currently, Woodlands Boulevard doesn't continue to the south of this intersection and therefore does not provide access to the project. By the year 2040, it is expected that Woodlands Boulevard will be extended to connect from Black Feather Trail to Scott Boulevard when the adjacent Pioneer Ranch is developed, providing access into Pine Canyon. More traffic is therefore directed as northbound and southbound movements at this intersection in the long-term analysis. It is recommended that a westbound left turn lane be designated at the intersection of Black Feather Trail and Woodlands Boulevard in the 2040 horizon or when Woodlands Boulevard is extended to the south.

In the 2040 scenarios, with the new Woodlands Boulevard north/south through traffic, the intersection is anticipated to operate with long delays and unacceptable LOS E and LOS F in the morning and afternoon peak hours, respectively. A four-hour vehicle volume signal warrant analysis was performed for the intersection of Black Feather Trail and Woodlands Boulevard in 2040. As such, this intersection meets the four-hour vehicular volume warrant with half the right turn movements included along the minor approach. The signal warrant analysis figure (**Figure A3**) for this intersection is included in **Appendix E**. With the installation of a traffic signal, it is anticipated that the intersection will operate acceptably in 2040 with LOS B during the morning peak hour and LOS C during the afternoon peak hour. Alternatively, analysis was performed for the installation of a two-lane roundabout. During the 2040 horizon, with the addition of project traffic, a two-lane roundabout at Black Feather Trail and Woodlands Boulevard is expected to operate with a LOS B or better during the peak hours. **Table 10** provides the results of the level of service.

Table 10 – Black Feather Trail and Woodlands Blvd (#8) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing	12.3	B	11.9	B
2025 Background	11.8	B	12.8	B
2025 Background Plus Project	15.4	C	17.4	C
2040 Background	46.5	E	76.0	F
2040 Background Plus Project (Signal) #	17.0	B	21.9	C
2040 Background Plus Project (Roundabout)	8.7	A	11.0	B

= Signalized; Includes Westbound Left Turn Lane

Founders Parkway and Crimson Sky Drive (#9)

The T-intersection of Founders Parkway and Crimson Sky Drive is unsignalized with stop control on the westbound approach. With this existing configuration, all movements at this intersection currently operates acceptably with LOS D or better during weekday peak hours.

With completion of the Pine Canyon development, an access roadway is proposed as new west leg of this intersection to align with Crimson Sky Drive, making this a four-leg intersection. The proposed west leg is recommended to include a separate eastbound left turn lane, through lane, and right turn lane. Additionally, a southbound right turn lane and northbound left turn lane along Founders Parkway are also recommended for this intersection. The east leg of this intersection was not designed to provide a designated through lane when this intersection ultimately becomes a four-legged intersection; therefore, a shared through/right turn lane is recommended on the westbound approach. This shared through/right turn lane will essentially simulate as a right turn lane as minimal westbound through traffic is expected to and from the Terrain development and the Pine Canyon development. An acceleration lane along southbound Founders Parkway is also recommended at this intersection to accept traffic from the eastbound right turn.

Under 2025 Background Plus Project scenarios, the eastbound and westbound left turns are anticipated to operate with heavy delays and an unacceptable LOS F in the morning and afternoon peak hours with two-way stop control operation. As a result, a four-hour vehicle volume signal warrant analysis was performed for the intersection of Crimson Sky Drive and Founders Parkway. As such, this intersection is expected to meet the four-hour vehicular volume signal warrant condition with half the right-turn movements included along the minor approach in 2025. The signal warrant analysis figure (**Figure A1**) for this intersection is included in **Appendix E**.

It is recommended that this intersection be improved with a traffic signal by the 2025 buildout year. With the recommended lane configuration and signalized control, the intersection is anticipated to operate acceptable with LOS B or better during the 2025 and 2040 horizons. The Town of Castle Rock TMP identifies widening Founders Parkway to a 6-lane roadway section from Woodlands Boulevard to Fifth Street as a long-term project and was evaluated as such in the 2040 total traffic scenario. At this time it is believed that the separate northbound and

southbound right turn auxiliary lanes could be absorbed as the third through lane. **Table 11** provides the results of the level of service.

Table 11 – Founders Parkway and Crimson Sky Drive (#9) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec)	LOS	Delay (sec)	LOS
2021 Existing				
Westbound Left	25.6	D	27.9	D
Westbound Right	21.9	C	12.0	B
Southbound Left	12.3	B	10.4	B
2025 Background				
Westbound Left	34.4	D	37.4	E
Westbound Right	36.5	E	13.2	B
Southbound Left	14.5	B	11.8	B
2025 Background Plus Project (TWSC)				
Northbound Left	8.9	A	16.1	C
Eastbound Left	>300	F	>300	F
Westbound Left	52.1	F	73.5	F
Westbound Through/Right	38.6	E	13.4	B
Southbound Left	14.8	B	11.9	B
2025 Background Plus Project (Signal) #	13.1	B	8.3	A
2040 Background (TWSC)				
Westbound Left	62.6	F	56.9	F
Westbound Right	109.4	F	16.2	C
Southbound Left	21.2	C	15.0	C
2040 Background Plus Project (Signal) ##	13.4	B	9.8	A

= Signalized; New west leg and associated movements; Southbound right turn lane; Northbound left turn lane; Eastbound right turn acceleration lane

= Includes three northbound and southbound through lanes and absorbed right turn lanes

Scott Boulevard and Front Street (#10)

The T-intersection of Scott Boulevard and Front Street is signalized with protected-permissive left turn phasing on the southbound approach. With this existing configuration, the intersection currently operates with LOS B during the morning peak hour and LOS A during the afternoon peak hour. With the existing lane configurations and the addition of project traffic, this intersection is expected to continue to operate acceptably during peak hours in 2025 and 2040 without the need for any improvements or modifications. **Table 12** provides the results of the level of service at this intersection.

Table 12 – Scott Blvd and Front Street (#10) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing	12.2	B	5.5	A
2025 Background	9.4	A	5.0	A
2025 Background Plus Project	9.1	A	4.9	A
2040 Background	8.9	A	4.0	A
2040 Background Plus Project	8.8	A	3.7	A

Scott Boulevard and Woodlands Boulevard (#11)

The intersection of Scott Boulevard and Woodlands Boulevard is currently unsignalized and uncontrolled due to the presence of just west and south legs of the intersection. A new north leg is proposed at this intersection to provide access to the Pine Canyon development. A new north leg would create a standard T-intersection at this location with the eastbound approach being the minor stop-controlled approach. This eastbound approach of this intersection has a 200-foot left turn bay to provide separate left and right turn lanes. The northbound approach of this intersection has a 275-foot left turn bay and two through lanes while the southbound approach provides two through lanes with the outermost lane being a shared through/right turn lane. With this lane configuration and control, all movements are expected to operate acceptably with LOS C or better during the peak hours in 2025. By 2040, all movements at this intersection are expected to operate with LOS C or better during the peak hours.

An additional analysis was performed with the installation of a two-lane roundabout if this control were desired at the intersection. With a two-lane roundabout and the addition of project traffic, the Scott Boulevard and Woodlands Boulevard intersection is expected to operate with a LOS A during peak hours in both 2025 and 2040. **Table 13** provides the results of the level of service at this intersection.

Table 13 – Scott Blvd and Woodlands Blvd (#11) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec)	LOS	Delay (sec)	LOS
2025 Background Plus Project (TWSC) #				
Northbound Left	8.8	A	8.0	A
Eastbound Left	20.9	C	12.5	B
Eastbound Right	9.6	A	11.4	B
2025 Background Plus Project (Roundabout) #	5.0	A	4.8	A
2040 Background Plus Project (TWSC) #				
Northbound Left	9.6	A	8.6	A
Eastbound Left	23.8	C	14.9	B
Eastbound Right	10.4	B	13.8	B
2040 Background Plus Project (Roundabout) #	5.4	A	5.6	A

= New North Leg and Associated Movements

Founders Parkway and Rising Sun Drive (#12)

The T-intersection of Rising Sun Drive and Founders Parkway is signalized with protected-permissive left turn phasing on the southbound approach. With this existing configuration, the intersection currently operates with LOS A during the weekday morning and afternoon peak hours. With the completion of the Pine Canyon development, a west-leg access is proposed to align with Rising Sun Drive, making this a four-leg intersection. The proposed west leg is recommended to include a separate eastbound left turn lane and a shared through/right turn lane. The east leg of this intersection was not designed to provide a designated through lane when this intersection ultimately becomes a four-legged intersection; therefore, a shared through/right turn lane is recommended on the westbound approach. Otherwise, the existing raised median in the east leg could be removed so that separate westbound left turn, through, and right turn lanes could be designated if desired. The eastbound and westbound shared through/right turn lanes will essentially simulate as separate right turn lanes in most cycles as minimal through traffic is expected to and from the Terrain development and the Pine Canyon development. Additionally, a southbound right turn lane and a northbound left turn lane along Founders Parkway are recommended for this intersection. This project access will require approval and coordination with the Town of Castle Rock. Signal equipment will need to be constructed on the west leg of this intersection prior to opening for public travel. With the proposed lane configurations and the addition of project traffic, this intersection is expected to operate acceptably with LOS B during the morning peak hour and LOS A during the afternoon peak hour in 2025 and 2040. The Town of Castle Rock TMP identifies widening Founders Parkway to a 6-lane roadway section from Woodlands Boulevard to Fifth Street as a long-term project and was evaluated as such in the 2040 total traffic scenario. If this occurs, it is believed that the northbound and southbound right turn deceleration lanes can be absorbed as through lanes. **Table 14** provides the results of the level of service at this intersection.

Table 14 – Founders Pkwy and Rising Sun Drive (#12) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing	8.6	A	5.8	A
2025 Background	12.2	B	6.9	A
2025 Background Plus Project #	13.4	B	8.8	A
2040 Background	12.7	B	7.0	A
2040 Background Plus Project ##	11.9	B	8.0	A

= New west leg and associated movements; Southbound right turn lane; Northbound left turn lane
= Includes three northbound and southbound through lanes and absorbed right turn lanes

Liggett Road and Front Street (#13)

The intersection of Liggett Road and Front Street is signalized with protected-permissive left turn phasing on the northbound and southbound approaches and permissive only left turn phasing on the eastbound and westbound approaches. With this existing configuration, the intersection currently operates with LOS B or better during the weekday morning and afternoon peak hour. When the new I-25 underpass is constructed to the north of this Liggett Road and Front Street intersection (#13), it is understood that the Liggett Road bridge over Interstate 25 will be removed. With this bridge removal, the west leg of the Liggett Road and Front Street intersection is proposed to be vacated. As such, this intersection will be a three-legged T-intersection by buildout of Pine Canyon.Liggett Road will be reconstructed on the west side of I-25 to connect with Caprice Drive to the south. With this intersection reconfigured to be a T-Intersection in the future, the Liggett Road and Front Street intersection is expected to operate acceptably with LOS B or better during peak hours in 2025 and 2040. **Table 15** provides the results of the level of service at this intersection.

Table 15 – Liggett Road and Front Street (#13) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing	11.7	B	7.8	A
2025 Background #	9.8	A	5.2	A
2025 Background Plus Project #	9.7	A	5.1	A
2040 Background #	16.8	B	8.0	A
2040 Background Plus Project #	17.2	B	8.1	A

= Vacated west leg of this intersection

Fifth Street and Perry Street (#14)

The T-intersection of Fifth Street and Perry Street is signalized with protected-permitted left turn phasing on all four approaches and protected overlap right turn phasing on the northbound approach. This intersection currently operates with LOS C or better during the morning and afternoon peak hours. With the existing lane configurations and the addition of project traffic, this intersection is expected to operate with LOS D or better during the peak hours in 2025.

By 2040, this intersection is expected to have long delays during the afternoon peak hour prior to the addition of project traffic. The Town of Castle Rock TMP identifies Fifth Street as a 4-lane roadway from Wilcox Street to Founders Parkway. This intersection already includes two westbound through lanes so this improvement would include providing a second eastbound through lane. With a second eastbound through lane, this intersection is expected to operate acceptably with LOS B during the morning peak hour and LOS C during the afternoon peak hour in 2040. **Table 16** provides the results of the level of service at this intersection.

Table 16 – Fifth St and Perry Street (#14) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing	17.4	B	27.5	C
2025 Background	16.9	B	31.6	C
2025 Background Plus Project	18.0	B	35.9	D
2040 Background	15.2	B	85.0	F
2040 Background Plus Project #	16.2	B	31.0	C

= Includes two eastbound through lanes (westbound already has two through lanes)

Fifth Street and Woodlands Boulevard (#15)

The T-intersection of Fifth Street and Woodlands Boulevard is signalized with protected-permissive left turn phasing on the eastbound approach. With this existing configuration, the intersection currently operates with LOS B during the weekday morning and afternoon peak hour. With the existing lane configurations and the addition of project traffic, this intersection is expected to continue to operate acceptably with LOS D during or better during the peak hours throughout the 2025 horizon. **Table 17** provides the results of the level of service at this intersection.

Table 17 – Fifth St and Woodlands Blvd (#15) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing	11.6	B	12.4	B
2025 Background	13.3	B	13.5	B
2025 Background Plus Project	18.4	B	17.6	B
2040 Background	31.1	C	24.7	C
2040 Background Plus Project	44.3	D	38.4	D

Fifth Street and Founders Pkwy/Ridge Road (#16)

The intersection of Fifth Street and Founders Parkway is signalized with protected-permissive left turn phasing and free right turn channelized lanes on all four approaches. With the existing lane configuration and control, the intersection currently operates with LOS D during peak hours. With the existing lane configurations and the addition of project traffic, the intersection is expected to operate with LOS F during the afternoon peak hour in 2025.

The Town of Castle Rock recently evaluated the intersection of Fifth Street and Founders Parkway (#16) and an improved signalized intersection was recommended among several alternative analysis options. It was determined that two through lanes in each direction and dual left turn along the northbound and southbound approaches would be provided at this intersection. Further, a separate southbound right turn lane and channelized islands on each approach allowing free right turn movements would be implemented at this intersection. As such, these improvements were incorporated in the 2025 horizon. With these improvements, this intersection is expected to operate acceptably with LOS D during the peak hours in 2025 and 2040.

The through lane improvements at this intersection are consistent with the Town of Castle Rock TMP which identifies 4-lane roadway sections on the east, west, and south legs of this intersection, whereas the north leg of this intersection is identified as a 6-lane roadway. As such, the southbound approach of this intersection would provide a right turn drop lane due to the transition to the 4-lane section south of this intersection. **Table 18** provides the results of the level of service at this intersection.

Table 18 – Fifth St and Founders Pkwy/Ridge Road (#16) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing	40.6	D	44.5	D
2025 Background	43.5	D	71.1	E
2025 Background Plus Project	48.2	D	82.8	F
2025 Background Plus Project #	38.0	D	39.6	D
2040 Background	100.3	F	178.5	F
2040 Background Plus Project ##	41.9	D	46.3	D

= NB & SB Dual Left Turn Lanes; Two Through Lanes on each Approach; Free Movements with each Right Turn Movement

Meadows Parkway and Factory Shops Boulevard (#17)

The intersection of Meadows Parkway and Factory Shops Boulevard is signalized with protected left turn phasing on all approaches. Protected overlap right turn phasing is provided on all four approaches of this intersection while a channelized right turn lane with free movements is provided on the westbound approach. With the existing lane configuration and control, the intersection currently operates with LOS D during peak hours throughout the 2025 horizon.

If future traffic volumes materialize, this intersection may operate with LOS D during the morning peak hour and LOS E during the afternoon and afternoon peak hours in 2040. It is believed that this intersection is built to the ultimate configuration and no other improvements are feasible, therefore these longer delay levels may need to be expected at this intersection. **Table 19** provides the results of the level of service at this intersection.

Table 19 – Meadows Parkway and Factory Shops Boulevard (#17) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing	40.0	D	47.5	D
2025 Background	40.4	D	51.2	D
2025 Background Plus Project	41.2	D	52.0	D
2040 Background	45.2	D	78.4	E
2040 Background Plus Project	46.9	D	79.3	E

Meadows Parkway/Founders Parkway and I-25 Southbound Ramps (#18)

The intersection of Meadows Parkway/Founders Parkway and I-25 Southbound Ramps is signalized with protected-right turn phasing on the southbound approach. With the existing lane configuration and control, the intersection currently operates with LOS C during peak hours. With the existing lane configurations and the addition of project traffic, the intersection is expected to continue to operate acceptably with LOS D during the morning and afternoon peak hours in 2025.

By 2040, this intersection may operate with LOS E during the afternoon peak hour without the addition of project. CDOT may wish to explore a southbound right turn lane with free movement in order to provide acceptable operations in the long-term future. The acceleration lane could occupy the space of the existing northernmost southbound right turn receiving lane while the second southbound right turn lane could be shared with the outside left turn lane to minimize vehicle weaving at this intersection. This intersection was recently constructed with dual right turn lanes operating under signalized control, so further study will be needed in the future to determine if this or an alternate improvement is needed operationally. With the southbound right turn free movement improvement, this intersection is expected to operate acceptably during peak hours in 2040. **Table 20** provides the results of the level of service at this intersection.

Table 20 – Meadows Pkwy/Founders Pkwy & I-25 Southbound Ramps (#18) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing	32.3	C	34.8	C
2025 Background	34.1	C	36.9	D
2025 Background Plus Project	35.7	D	52.3	D
2040 Background	37.3	D	67.0	E
2040 Background Plus Project #	40.8	D	54.2	D

= Includes southbound free right turn lane

Founders Parkway and I-25 Northbound Ramps (#19)

The intersection of Meadows Parkway/Founders Parkway and I-25 Northbound Ramps is signalized with protected-right turn phasing on the northbound approach. With the existing lane configuration and control, the intersection currently operates with LOS B during peak hours. With the existing lane configurations and the addition of project traffic, the intersection is expected to continue to operate acceptably with LOS C or better during the morning and afternoon peak hours throughout the 2040 horizon. Therefore, no improvements or modifications are anticipated to be needed at this intersection throughout the 2040 horizon. **Table 21** provides the results of the level of service at this intersection.

Table 21 – Founders Parkway and I-25 Northbound Ramps (#19) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing	13.2	B	10.1	B
2025 Background	10.5	B	12.9	B
2025 Background Plus Project	9.3	A	13.6	B
2040 Background	13.9	B	16.5	B
2040 Background Plus Project	12.5	B	20.6	C

Liggett Road North Site Access (#20)

With the completion of the Pine Canyon development area along the west side of Interstate 25, two accesses are proposed along Liggett Road. The proposed North Access will include a new intersection with newly constructed east and west legs. If this access provides stop control, it is recommended that the eastbound and westbound approaches are stop controlled with installation of R1-1 "STOP" signs. The eastbound and westbound approaches should also provide a separate left turn lane and a shared through/right turn lane. With stop control and the recommended lane configurations, all movements at this access intersection are expected to operate acceptably with LOS D or better during the peak hours throughout the 2040 horizon. If a roundabout is installed at this intersection instead, it is expected to operate with a LOS A during the peak hours in 2025 and 2040. **Table 22** provides the results of the level of service.

Table 22 – Liggett Road North Site Access (#20) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec)	LOS	Delay (sec)	LOS
2025 Background Plus Project (TWSC)				
Northbound Left	8.1	A	7.7	A
Eastbound Left	23.2	C	21.4	C
Eastbound Through/Right	10.4	B	9.4	A
Westbound Left	22.2	C	13.8	B
Westbound Through/Right	10.0	B	12.1	B
Southbound Left	8.3	A	8.0	A
2025 Background Plus Project (Roundabout)	6.8	A	5.4	A
2040 Background Plus Project (TWSC)				
Northbound Left	8.3	A	7.8	A
Eastbound Left	25.8	D	23.4	D
Eastbound Through/Right	10.8	B	9.7	A
Westbound Left	24.1	C	14.6	B
Westbound Through/Right	10.4	B	12.6	B
Southbound Left	8.5	A	8.1	A
2040 Background Plus Project (Roundabout)	5.3	A	5.7	A

Liggett Road South Site Access (#21)

The proposed South Access along Liggett Road will include a new intersection with newly constructed east and west legs. If this access provides stop control, it is recommended that the eastbound and westbound approaches are stop controlled with installation of R1-1 "STOP" signs. The eastbound and westbound approaches should also provide a separate left turn lane and a shared through/right turn lane. With stop control and the recommended lane configurations, all movements at this access intersection are expected to operate acceptably with LOS C or better during the peak hours throughout the 2040 horizon. If a roundabout were installed at this intersection, it would be expected to operate with a LOS A during the peak hours in 2025 and 2040. **Table 23** provides the results of the level of service.

Table 23 – Liggett Road South Site Access (#21) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec)	LOS	Delay (sec)	LOS
2025 Background Plus Project (TWSC)				
Northbound Left	7.7	A	7.6	A
Eastbound Left	14.5	B	12.4	B
Eastbound Through/Right	9.4	A	9.2	A
Westbound Left	14.4	B	11.6	B
Westbound Through/Right	9.5	A	9.4	A
Southbound Left	7.9	A	7.5	A
2025 Background Plus Project (Roundabout)	4.8	A	4.1	A
2040 Background Plus Project (TWSC)				
Northbound Left	7.8	A	7.7	A
Eastbound Left	15.6	C	13.1	B
Eastbound Through/Right	9.8	A	9.5	A
Westbound Left	15.5	C	12.2	B
Westbound Through/Right	9.7	A	9.6	A
Southbound Left	8.1	A	7.6	A
2040 Background Plus Project (Roundabout)	5.3	A	4.4	A

Front Street East/West Roadway (#22)

With the completion of the Pine Canyon development, a new east/west roadway providing access is proposed to intersect with Front Street approximately 1,000 feet north of the Front Street and Scott Boulevard intersection. The proposed intersection will include new east and west legs of this intersection. An underpass is proposed at I-25 west of this intersection to provide direct access to the west sections of Pine Canyon. Under 2025 Background Plus

Project scenarios, the eastbound and westbound movements are anticipated to have long delays and an unacceptable LOS F during the morning peak hour with unsignalized stop control on the access approach. As a result, a four-hour vehicle volume signal warrant analysis was performed for the intersection of Front Street and the proposed east/west access roadway in 2025. As such, this intersection is anticipated to meet the four-hour vehicular volume signal warrant condition with half the right-turn movements included along the minor approach. Therefore, signalized control is recommended for the proposed access intersection during the 2025 buildout year. The signal warrant analysis figure (**Figure A2**) for this intersection is included in **Appendix E**. The new site access intersection is recommended to include a designated left turn lane and a shared through/right turn on the eastbound and westbound approaches. The northbound and southbound approaches of this intersection should include a left turn lane and two through lanes with the outside lane being a shared through/right turn lane. With signalized control, and with the recommended lane configuration and addition of project traffic, the intersection is anticipated to operate with LOS C or better during the peak hours throughout the 2025 build-out year and throughout the 2040 horizon. With the installation of a roundabout at this intersection, it is expected to operate with a LOS C during the morning peak hour and LOS E during the afternoon peak hour in 2040. Therefore, it is believed that a traffic signal is the preferred control of this intersection. **Table 24** provides the results of the level of service.

Table 24 – Front Street East/West Roadway (#22) LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec)	LOS	Delay (sec)	LOS
2025 Background Plus Project (TWSC)				
Northbound Left	10.8	B	14.1	B
Eastbound Left	V>C	F	V>C	F
Eastbound Through/Right	74.4	F	>300	F
Westbound Left	>300	F	V>C	F
Westbound Through/Right	>300	F	>300	F
Southbound Left	9.6	A	11.0	B
2025 Background Plus Project (Signal)	19.3	B	22.9	C
2025 Background Plus Project (Roundabout)	15.5	C	27.3	D
2040 Background Plus Project (Signal)	11.9	B	20.3	C
2040 Background Plus Project (Roundabout)	15.7	C	45.4	E

5.3 Vehicle Queuing Analysis

Queuing analysis was conducted for the study area intersections per Douglas County and CDOT standards and requirements. Results were obtained from the 95th percentile queue lengths obtained from the Synchro analysis. Queue analysis worksheets at the signalized intersections are provided in **Appendix F**. Queue length calculations for unsignalized intersections are provided within the level of service operational sheets provided in **Appendix D**. Results of the queuing analysis and recommendations at the study area intersections are provided in **Table 25**.

Table 25 – Turn Lane Queuing Analysis Results

Intersection Turn Lane	Existing Turn Lane Length (feet)	2025 Calculated Queue Length (feet)	2025 Recommended Queue Length (feet)	2040 Calculated Queue Length (feet)	2040 Recommended Queue Length (feet)
Meadows Pkwy & Hwy 85 (#1)					
Eastbound Left	275’	321’	275’	174’ DL	275’ **DL**
Westbound Left	375’ & 450’	191’ DL	375’ & 450’	247’ DL	375’ & 450’
Westbound Right	125’ C	25’	125’ C	25’	125’ C
Northbound Left	175’ & 375’	202’ DL	175’ & 375’	215’ DL	175’ & 375’
Northbound Right	200’	196’	200’	366’	**300’**
Southbound Left	300’ & 750’	279’ DL	300’ & 750’	404’ DL	300’ & 750’
Southbound Right	225’	68’	225’	166’	225’
Founders Pkwy & Allen Wy (#2)					
Eastbound Left	285’ DL	173’ DL	285’ DL	190’ DL	285’ DL
Westbound Left	325’	25’	325’	25’	325’
Northbound Left	75’	102’ DL	75’ **DL**	92’ DL	75’ DL
Southbound Left	150’	152’	150’	222’	150’
Southbound Right	100’ & C	141’ DR	100’ & C	139’ DR	100’ & C
Founders Pkwy & Front St (#3)					
Eastbound Left	500’	137’	500’	125’	500’
Westbound Left	250’	109’	250’	213’	250’
Northbound Left	325’ & C	316’ DL	325’ & C	391’ DL	325’ & C
Northbound Right	C	64’	C	147’	C
Southbound Left	225’	63’	225’	68’	225’
Founders Pkwy & Woodlands Blvd (#4)					
Eastbound Left	500’	25’	500’	25’	500’
Westbound Left	525’	290’	525’	408’ DL	525’ **DL**
Northbound Left	300’	174’	300’	364’ DL	300’ **DL**
Northbound Right	C	502’	C	975’	C
Southbound Left	150’ TW	167’	150’ TW	208’	150’ TW

Intersection Turn Lane	Existing Turn Lane Length (feet)	2025 Calculated Queue Length (feet)	2025 Recommended Queue Length (feet)	2040 Calculated Queue Length (feet)	2040 Recommended Queue Length (feet)
Founders Pkwy & Crowfoot Valley Rd (#5)					
Eastbound Left	475' & C	325' DL	475' & C	562' DL	475' & C
Westbound Right	C	42'	C	190'	C
Southbound Left	150'	145'	150'	240'	150'
Southbound Right	C & C	25'	C & C	25'	C & C
Liggett Rd & Hwy 85 (#6)					
Eastbound Left	C	312'	C	537'	C
Eastbound Right	50'	41'	50'	-	-
Westbound Left (Castleton)	100'	-	-	159'	**175'**
Northbound Left	150'	25'	150'	73'	150'
Southbound Left	100'	-	-	100'	100'
Southbound Right	DNE	25'	**150'**	25'	150'
Black Feather Trail & Front St (#7)					
Eastbound Left	200'	101'	200'	125'	200'
Eastbound Right	C	25'	C	25'	C
Westbound Left	225' TW	349'	225' TW	237'	225' TW
Northbound Left	450'	433'	450'	**494'**	450'
Southbound Left	450'	37'	450'	57'	450'
Southbound Right	300'	25'	300'	36'	300'
Black Feather Trail & Woodlands Blvd (#8)					
Eastbound Left	250'	150'	250'	231'	250'
Westbound Left	DNE	-	DNE	60'	**150'**
Northbound Left	275'	25'	275'	80'	275'
Southbound Left	250'	25'	250'	32'	250'
Founders Pkwy & Crimson Sky Drive (#9)					
Eastbound Left	DNE	120'	**150'**	138'	150'
Eastbound Right	DNE	25'	**150'**	25'	150'
Westbound Left	275'	25'	275'	25'	275'
Northbound Left	DNE	25'	**370' #**	79'	370' #
Northbound Right	425'	25'	425'	-	-
Southbound Left	525'	47'	525'	76'	525'
Southbound Right	DNE	25'	**320' #**	-	-
Scott Blvd & Front St (#10)					
Westbound Left	C	139'	C	163'	C
Westbound Right	C	64'	C	56'	C
Southbound Left	275'	85'	275'	235'	275'
Scott Blvd & Woodlands Blvd (#11)					
Eastbound Left	200'	25'	200'	25'	200'
Eastbound Right	DNE	50'	**C**	75'	C
Northbound Left	275'	50'	275'	50'	275'

Intersection Turn Lane	Existing Turn Lane Length (feet)	2025 Calculated Queue Length (feet)	2025 Recommended Queue Length (feet)	2040 Calculated Queue Length (feet)	2040 Recommended Queue Length (feet)
Rising Sun Dr & Founders Pkwy (#12)					
Eastbound Left	DNE	54’	150’	54’	150’
Westbound Left	C	115’	C	114’	C
Northbound Left	DNE	25’	345’ #	25’	345’ #
Northbound Right	475’	25’	475’	-	-
Southbound Left	525’	44’	525’	44’	525’
Southbound Right	DNE	25’	320’ #	-	-
Liggett Rd & Front St (#13)					
Southbound Left	350’	40’	350’	120’	350’
Fifth St & Perry St (#14)					
Eastbound Left	125’	73’	125’	196’	125’
Eastbound Right	C	25’	C	25’	C
Westbound Left	125’	27’	125’	106’	125’
Northbound Left	150’	49’	150’	57’	150’
Northbound Right	150’	54’	150’	81’	150’
Southbound Left	125’	59’	125’	70’	125’
Southbound Right	125’	64’	125’	106’	125’
Fifth St & Woodlands Blvd (#15)					
Eastbound Left	350’	51’	350’	260’	350’
Westbound Right	625’	55’	625’	61’	625’
Southbound Left	C	293’	C	564’	C
Southbound Right	C	25’	C	25’	C
Fifth St & Founders Pkwy ((#16)					
Eastbound Left	400’	167’	400’	277’	400’
Eastbound Right	450’	25’	450’	25’	450’
Westbound Left	650’	122’	650’	183’	650’
Westbound Right	850’	25’	850’	25’	850’
Northbound Left	425’	256’ DL	425’	333’ DL	425’ **DL**
Northbound Right	350’	25’	350’	25’	350’
Southbound Left	625’	261’ DL	625’ **DL**	465’ DL	625’ DL
Southbound Right	C	25’	C	25’	C
Meadows Pkwy / Factory Shops Blvd (#17)					
Eastbound Left	300’ & 400’	147’ DL	300’ & 400’	297’ DL	300’ & 400’
Eastbound Right	225’	52’	225’	78’	225’
Westbound Left	250’ & 450’	159’ DL	250’ & 450’	329’ DL	250’ & 450’
Westbound Right	275’	25’	275’	30’	275’
Northbound Left	100’ & C	77’ DL	100’ & C	119’ DL	100’ & C
Northbound Right	C	306’	C	760’	C
Southbound Left	300’/300’/C	336’ TL	300’/300’/C	649’ TL	300’/300’/C
Southbound Right	C	291’	C	688’	C
Meadows Pkwy / I-25 SB Ramps (#18)					
Southbound Left	625’/C/C	528’ TL	625’/C/C	900’ TL	625’/C/C
Southbound Right	625’ / 175’	636’ DR	625’ / 175’	FREE	625’ / 175’

Intersection Turn Lane	Existing Turn Lane Length (feet)	2025 Calculated Queue Length (feet)	2025 Recommended Queue Length (feet)	2040 Calculated Queue Length (feet)	2040 Recommended Queue Length (feet)
Meadows Pkwy / I-25 NB Ramps (#19)					
Westbound Right	C (325')	261'	C (325')	229'	C (325')
Northbound Left	C	272' DL	C	412' DL	C
Northbound Right	400'/100'	179' DR	400'/100'	200' DR	400'/100'
Liggett Rd North Access (#20)					
Eastbound Left	DNE	25'	150'	25'	150'
Westbound Left	DNE	25'	150'	25'	150'
Northbound Left	DNE	25'	150'	25'	150'
Southbound Left	DNE	25'	150'	25'	150'
Liggett Rd South Access (#21)					
Eastbound Left	DNE	25'	150'	25'	150'
Westbound Left	DNE	25'	150'	25'	150'
Northbound Left	DNE	25'	150'	25'	150'
Southbound Left	DNE	25'	150'	25'	150'
Front Street Site Access (#22)					
Eastbound Left	DNE	179'	175'	170'	175'
Westbound Left	DNE	30'	150'	59'	150'
Northbound Left	DNE	42'	150'	45'	150'
Southbound Left	DNE	299'	300'	153'	300'

C = Continuous Turn Lane; TW = Extends into Two-Way Left-Turn Lane; DNE = Does Not Exist; DL = Dual Left Turn Lanes; TL = Triple Left Turn Lane; DR = Dual Right Turn Lanes; # = Length Determined from CDOT Guidelines

All new auxiliary turn lanes should be constructed with the storage lengths identified in **Table 25**. Vehicles may queue past the eastbound left turn lane at the Meadows Parkway and US-85 intersection (#1) by 2025; however, this turn lane cannot be extended due to the grade separated bridge on the west leg of this intersection. Of note, project traffic does not contribute to this movement.

Vehicles queues are currently extending beyond the northbound left turn lane at the Founders Parkway and Allen Way (#2) intersection. Dual left turn lanes could be considered on the northbound private access approach of this intersection. The southbound right turn lane for the gas station on the southwest corner of this intersection could be converted to the southbound through lane while the existing southbound through lane could be converted to the second inside northbound left turn lane for dual lefts.

Additional turn lane improvements may be needed by 2040 and should be analyzed further in the future.

5.4 Turn Lane Analysis

The threshold for requiring an access permit along CDOT roadways occurs when a new access is proposed or if project traffic is anticipated to increase an existing access's traffic volumes by more than 20 percent. Based on these being new accesses, the addition of proposed west legs at the intersections of Founders Parkway/Crimson Sky Drive and Founders Parkway/Rising Sun Drive will require CDOT access permits for these intersections in association with this project.

Since Founders Parkway (SH-86) is a state owned and maintained facility, it is recommended that auxiliary turn lanes along Founders Parkway be constructed in accordance with the current CDOT State Highway Access Code (SHAC). CDOT categorizes the segment of SH-86 through the study area as R-A: Regional Highway. According to the State Highway Access Code for category R-A roadways, the following thresholds apply:

- A left turn deceleration lane and taper with storage length is required for any access with a projected peak hour left ingress turning volume greater than 10 vehicles per hour (vph). The taper length will be included within the required deceleration length.
- A right turn deceleration lane and taper is required for any access with a projected peak hour right ingress turning volume greater than 25 vph. The taper length will be included within the required deceleration length.
- A right turn acceleration lane and taper is required for any access with a projected peak hour right turning volume greater than 50 vph. The taper length will be included within the required acceleration length.

Based on traffic projections and the above thresholds, auxiliary turn lane requirements were calculated for the intersections of Founders Parkway (SH-86)/Crimson Sky Drive and Founders Parkway (SH-86)/Rising Sun Drive. Founders Parkway provides two lanes of travel in each direction and has a posted speed limit of 50 miles per hour within the study area. As such, turn lane requirements at the study area intersections along Founders Parkway (SH-86) are as follows:

Founders Parkway and Crimson Sky Drive (#9)

- A northbound left turn deceleration lane **is** warranted based on projected 2025 background plus project traffic being 48 northbound left turns during the peak hour and the threshold being 10 vph. Since Founders Parkway has a category of R-A, the left turn lane requirement is storage length plus deceleration length, with taper length included within the required deceleration length. The storage length required is one (1) foot per vehicle. Founders Parkway should be reconstructed to include a northbound left-turn lane in place of the existing median. Based on a speed limit of 50 mph and a projected 54 vehicles in the peak hour, the required total northbound left turn lane length is 550 feet (a 320-foot deceleration lane, plus a 180-foot taper length (15 to 1 ratio), plus a storage length of 50 feet).
- A southbound right turn deceleration lane **is** warranted based on projected 2025 background plus project traffic being 75 southbound right turns during the peak hour and the threshold being 25 vph. Since Founders Parkway has a category of R-A, the right turn lane requirement is deceleration length with taper length included within the required deceleration length. Based on a speed limit of 50 mph, the required southbound right turn deceleration length is 500 feet (a 320-foot deceleration length plus a 180-foot taper length, at a 15 to 1 ratio). Therefore, the existing intersection should be expanded when the proposed west leg is constructed to include a 500-foot southbound right turn deceleration lane to meet current SHAC standards.
- An acceleration lane from the eastbound to southbound right turn **is** warranted based on projected 2040 background plus project traffic being 98 southbound right turns during the peak hour and the threshold being 50 vph. Since Founders Parkway has a category of R-A, the acceleration lane requirement is acceleration length with taper length included within the required acceleration length. Based on a speed limit of 50 mph, the required eastbound to southbound right turn acceleration length is 760 feet (580-foot acceleration length plus a 180-foot taper length, at a 15 to 1 ratio).

Founders Parkway and Rising Sun Drive (#12)

- A northbound left turn deceleration lane **is** warranted based on projected 2025 background plus project traffic being 21 northbound left turns during the peak hour and the threshold being 10 vph. Since Founders Parkway has a category of R-A, the left turn lane requirement is storage length plus deceleration length, with taper length included

within the required deceleration length. The storage length required is one (1) foot per vehicle. Founders Parkway should be reconstructed to include a northbound left-turn lane in place of the existing median. Based on a speed limit of 50 mph and a projected 23 vehicles in the peak hour, the required total northbound left turn lane length is 525 feet (a 320-foot deceleration lane, plus a 180-foot taper length (15 to 1 ratio), plus a storage length of 25 feet).

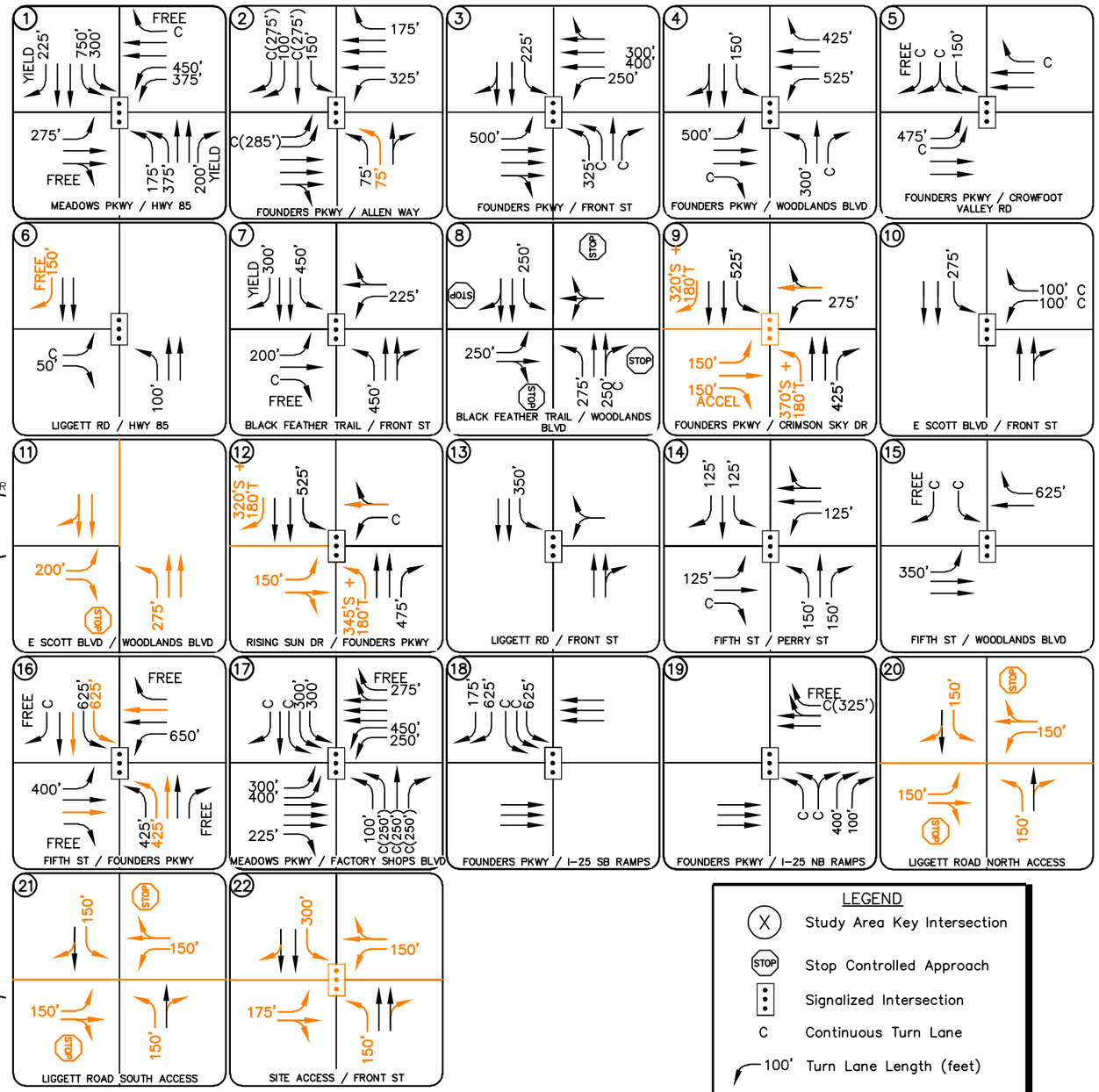
- A southbound right turn deceleration lane **is** warranted based on projected 2025 background plus project traffic being 27 southbound right turns during the peak hour and the threshold being 25 vph. Since Founders Parkway has a category of R-A, the right turn lane requirement is deceleration length with taper length included within the required deceleration length. Based on a speed limit of 50 mph, the required southbound right turn deceleration length is 500 feet (a 320-foot deceleration length plus a 180-foot taper length, at a 15 to 1 ratio). Therefore, the existing intersection should be expanded when the proposed west leg is constructed to include a 500-foot southbound right turn deceleration lane to meet current SHAC standards.
- An eastbound acceleration lane from the eastbound to southbound right turn **is not** warranted based on projected 2025 background plus project traffic being 21 southbound right turns during the peak hour and the threshold being 50 vph.

5.5 Improvement Summary

Based on the results of the intersection operational analysis, queuing analysis, and turn lane analysis, the recommended lane configurations and control of the study key intersections for the 2025 and 2040 horizons are shown in **Figures 14** and **15**, respectively. In addition, the improvements found to be needed and reasonably attributable to Pine Canyon project traffic with development of the project are provided in the following summary **Table 26** with project cost participations calculated. Identified regional improvements for the long term planning horizon of providing additional through lane capacity are not included in the cost participation summary table.

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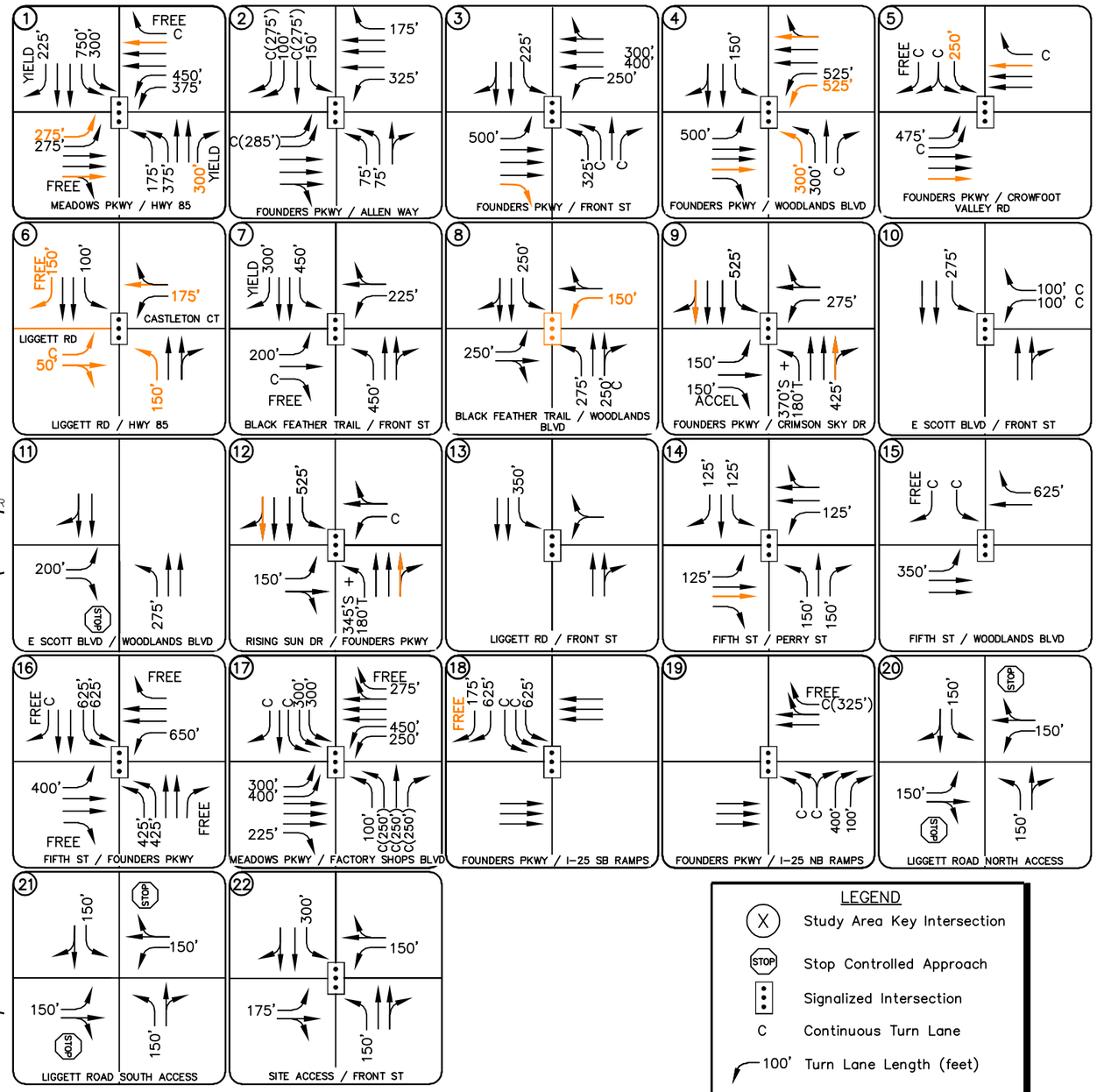
PINE CANYON
DOUGLAS COUNTY, CO
2025 RECOMMENDED LANE CONFIGURATIONS AND CONTROL

FIGURE 14

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PINE CANYON
DOUGLAS COUNTY, CO
2040 RECOMMENDED LANE CONFIGURATIONS AND CONTROL

FIGURE 15

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Table 26 – Intersection Improvement Summary

Intersection	Improvements	Traffic Contribution Percentage	Planning Year Needed
Meadows Parkway and Santa Fe Drive (#1)	Extend 200-foot NB right turn lane to 300 feet	**83.1% (241 / 290)**	2040
Founders Parkway and Allen Way (#2)	Stripe dual NB left turn lanes (75-foot)	**0.0%**	2025
Founders Parkway and Front Street (#3)	EB right turn lane	**25.1% (114 / 454)**	2040
Founders Parkway and Woodlands Blvd (#4)	EB right turn lane	**24.4% (137 / 562)**	2040
	NB (300-foot) and WB (525-foot) dual left turn lanes	**15.9% (137 / 861)**	2040
Liggett Road and Santa Fe Drive (#6)	SB right turn lane (150 feet) with free movements	**96.5% (419 / 434)**	2025
	150-foot Acceleration lane along SB Liggett Rd		2025
Black Feather Trail and Woodlands Blvd (#8)	Signalized or Roundabout Control	**29.9% (508 / 1,701)**	2040
	Stripe WB left turn lane (150 feet)	**0.0%**	2040
Founders Pkwy and Crimson Sky Drive (#9)	Signalized Control	**40.4% (82 / 203)**	2025
	New west leg and associated movements: EB left turn lane (150 feet) EB through lane EB right turn lane (150 feet) EB to SB right turn acceleration lane (580' + 180' T) NB left turn lane (370' + 180' T) SB right turn lane (320' + 180' T) WB through/right turn lane	**100.0%**	2025
Founders Pkwy and Rising Sun Drive (#12)	New west leg and associated movements: EB left turn lane (150 feet) EB through/right turn lane SB right turn lane (320' + 180' T) NB left turn lane (345' + 180' T) WB through/right turn lane	**100.0%**	2025
Fifth St and Founders Parkway (#16)	Two EB and WB through lanes	**32.4% (71 / 219)**	2025
	SB dual left turn lanes (625 feet)	**10.2% (14 / 137)**	2025
	Two NB and SB through lanes	**20.5% (45 / 219)**	2025
	NB dual left turn lanes (425 feet)	**45.2% (42 / 93)**	2025
Liggett Road North Access (#20)	New west leg and associated movements: EB left turn lane (150 feet) NB left turn lane (150 feet)	**100.0%**	2025
	New east leg and associated movements: WB left turn lane (150 feet) SB left turn lane (150 feet)	**100.0%**	2025

Intersection	Improvements	Traffic Contribution Percentage	Planning Year Needed
Liggett Road South Access (#21)	New west leg and associated movements: EB left turn lane (150 feet) NB left turn lane (150 feet)	**100.0%**	2025
	New east leg and associated movements WB left turn lane (150 feet) SB left turn lane (150 feet)		2025
Front Street and East/West Roadway (#22)	New west leg and associated movements: EB left turn lane (175 feet) NB left turn lane (150 feet)	**100.0%**	2025
	New east leg and associated movements WB left turn lane (150 feet) SB left turn lane (300 feet)		2025
	Signalized Control		2025

XXX / XXX = Project Traffic / (Total Traffic Volume – Adjusted Existing Traffic Volume): Peak Hour Volumes

6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis presented in this report, Kimley-Horn believes the proposed Pine Canyon project will be successfully incorporated into the existing and future roadway network. The proposed project development and expected traffic volumes resulted in the following recommendations and conclusions:

2025 Recommendations:

Founders Parkway and Allen Way (#2)

- Independent of this project as identified as being needed based on background traffic volumes, northbound dual left turn lanes should be considered at the intersection of Founders Parkway and Allen Way (Intersection #2) for the south private access roadway leg. To accomplish this, the southbound right turn lane along the south leg access for the gas station on the southwest corner of the intersection could be converted to the southbound through lane while the existing southbound through lane could be converted to the second inside dual northbound left turn lane for Founders Parkway. Again, the need for this improvement is triggered by background traffic volumes and project traffic does not contribute to this movement.

Liggett Road and Highway 85 (#6)

- At the intersection of Liggett Road and Highway 85 (#6), a 150-foot southbound right turn lane with the right turn operating with free movements with the construction of a 150-foot plus 120-foot taper acceleration lane along southbound Liggett Road is recommended. The need for this improvement is triggered by total traffic volumes.

Founders Parkway and Crimson Sky Drive (#9)

- The intersection of Founders Parkway and Crimson Sky Drive (#9) is anticipated to meet four-hour vehicular volume signal warrants; therefore, signalization is anticipated to be needed at these intersections by 2025. Project traffic contributes approximately 40 percent of the need for the traffic signal while the east leg traffic volumes contribute to 60 percent.
- With Pine Canyon development, a new west leg access is proposed to be constructed at the access intersection of Founders Parkway and Crimson Sky Drive (#9). With the addition of

this new west leg, an eastbound left turn lane with 150 feet of length, an eastbound through lane, and an eastbound right turn lane with 150 feet of length are recommended. Additionally, a northbound left turn lane and a southbound right turn lane are warranted along Founders Parkway (SH-86). Based on the State Highway Access Code guidelines, the northbound left turn deceleration lane should be constructed with 370 feet and 180-foot taper while the southbound right turn deceleration lane should be constructed with 320 feet and a 180-foot taper. An acceleration lane along southbound Founders Parkway to accept traffic from the eastbound right turn should be provided at this intersection with 580 feet of acceleration length plus a 180-foot taper. These improvements to the west leg of this intersection will be provided in association with the Pine Canyon development.

- A CDOT access permit will be required in association with this project for the proposed west leg of the Crimson Sky Drive and Founders Parkway intersection (#9).
- This project access will require coordination with the Town of Castle Rock.

Scott Boulevard and Woodlands Boulevard (#11)

- Woodlands Boulevard is expected to be constructed and extended between Scott Boulevard and the new east/west roadway along the north property line of Pine Canyon. With the addition of a new north leg at the Scott Boulevard and Woodlands Boulevard (#11) intersection, this will become a standard T-intersection. The eastbound minor approach is recommended to include separate left turn and right turn lanes and operate with stop control with the installation of a R1-1 “STOP” sign. The existing 200-foot eastbound left turn lane and 275-foot northbound left turn lane as constructed are recommended to be designated with construction of the new north leg. The improvements to this intersection will be provided in association with the Pine Canyon development.

Rising Sun Drive and Founders Parkway (#12)

- With the completion of the Pine Canyon development project, a new west leg access roadway is proposed to be built at the intersection of Founders Parkway and Rising Sun Drive (#12). With the addition of this new west leg, a 150-foot eastbound left turn lane and a shared eastbound through/right turn lane are recommended. A northbound left turn deceleration lane and a southbound right turn deceleration lane should be provided at this Rising Sun Drive and Founders Parkway (#12) intersection. Per CDOT guidelines, the required northbound left turn storage plus deceleration length is 345 feet with 180-foot taper

while the southbound right turn deceleration lane should be constructed with 320 feet plus 180-foot taper. It should be noted that signal equipment will need to be constructed for the west leg of this intersection and access will not be allowed until signal operations are made available for a four-legged intersection. These improvements to the west leg of this intersection will be provided in association with the Pine Canyon development.

- A CDOT access permit will be required in association with this project for the proposed west leg of the Rising Sun Drive and Founders Parkway intersection (#12).
- This project access will require coordination with the Town of Castle Rock.

Liggett Road and Front Street (#13)

- When the new I-25 underpass is constructed to the north of this Liggett Road and Front Street intersection (#13), it is understood that the Liggett Road bridge over Interstate 25 will be removed. With this bridge removal, the west leg of the Liggett Road and Front Street intersection is proposed to be vacated. As such, this intersection will be a three-legged T-intersection by buildout of Pine Canyon.Liggett Road will be reconstructed on the west side of I-25 to connect with Caprice Drive to the south.

Fifth Street and Founders Parkway (#16)

- The Town of Castle Rock recently evaluated the intersection of Fifth Street and Founders Parkway (#16) and an improved signalized intersection was recommended among several alternative analysis options. It was determined that two through lanes in each direction and dual left turn lanes along the northbound and southbound approaches would be provided at this intersection. Further, a separate southbound right turn lane and channelizing islands on each approach allowing free right turn movements would be implemented at this intersection. It should be noted that these are programmed improvements and are needed based on background traffic volumes.

North and South Liggett Road Accesses (#20 and #21)

- The proposed north and south access intersections along Liggett Road (#20 and #21) for the development area along the west side of Interstate 25 will provide direct access to Pine Canyon along both sides of Liggett Road. New intersections will be constructed at these access locations which will include new east and west legs. All four approaches of both new

access intersections along Liggett Road are recommended to be constructed with a left turn lane and shared through/right turn lane. The left turn lanes on all four approaches of both access intersections should provide a length of 150 feet. It is recommended that both of these access intersections along Liggett Road be stop controlled along the eastbound and westbound minor leg approaches with R1-1 "STOP" signs installed. Otherwise, roundabout control would also be appropriate and operate acceptably at the two access intersections along Liggett Road if desired. The improvements at both of these access intersections along Liggett Road will be provided in association with the Pine Canyon development.

- These project accesses will require approval and coordination with the Town of Castle Rock.

Front Street Site Access East/West Roadway (#22)

- The future Front Street Site Access East/West Roadway (#22) intersection is anticipated to meet four-hour vehicular volume signal warrants; therefore, signalization is anticipated to be needed at these intersections by 2025.
- The new east/west roadway intersection along Front Street (#22) will provide direct access to Pine Canyon with newly constructed east and west legs. An underpass is proposed at I-25 west of this intersection to provide direct access to the west sections of Pine Canyon. It is recommended that the eastbound and westbound approaches at the intersection include a designated left turn lane and a shared through/right turn lane. The northbound and southbound approaches of this intersection should include a left turn lane and two through lanes with the outside lane being a shared through/right turn lane.
- The improvements at the future east/west roadway intersection along Front Street (#22) will be provided in association with this project.
- This project access will require approval and coordination with the Town of Castle Rock.

2040 Recommendations:

Founders Parkway Corridor Improvement

- Founders Parkway will likely need to provide three through lanes in each direction from Woodlands Boulevard to Rising Sun Drive (Intersections #4, 5, 9, 12) which is consistent with the findings in the Town of Castle Rock TMP. With the construction of the third through lane in each direction, most right turn lanes can be absorbed as a shared through/right turn lane from an operational standpoint. The widening of Founders Parkway is triggered by

background traffic volumes as the project contributes a range of one (1) percent to three (3) percent of the movements along this corridor.

Meadows Parkway and Highway 85 (#1)

- The intersection of Meadows Parkway and Highway 85 (#1) may need to provide three eastbound and westbound through lanes of travel in each direction as well as eastbound dual left turn lanes by 2040. This is consistent with the Town of Castle Rock TMP which identifies widening Meadows Parkway to a 6-lane roadway section from Meadows Boulevard to US-85 as a long-term project. These improvements are triggered by background traffic volumes.
- Likewise, the 200-foot northbound right turn lane may need to be extended to 300 feet if future traffic volumes materialize. The need for this improvement is based on total traffic volumes.

Founders Parkway and Front Street (#3)

- A separate eastbound right turn lane may be needed at the intersection of Founders Parkway and Front Street (#3). The project is anticipated to contribute approximately 14 percent of these movements in 2040.

Founders Parkway and Woodlands Boulevard (#4)

- A separate eastbound right turn lane may be needed at the intersection of Founders Parkway and Woodlands Boulevard (#4). The project is anticipated to contribute approximately 20 percent of these movements in 2040.
- Northbound and westbound dual left turn lanes may be needed at the intersection of Founders Parkway and Woodlands Boulevard (#4). The project is anticipated to contribute approximately 12 percent of these left turn movements in 2040. Right-of-Way (ROW) dedications would likely need to be acquired in order to incorporate these improvements. However, this is a long-term planning level improvement; therefore, it is recommended that this intersection be studied further in the future to determine appropriate lane configurations.

Highway 85 and Liggett Road/Castleton Court (#6)

- Liggett Road is proposed to realign approximately 600 feet to the southeast along Highway 85 and intersect with Castleton Court (#6) in the future. This new realigned intersection of Highway 85 and Liggett Road/Castleton Court (#6) has been evaluated with roundabout and signal control in the long-term 2040 horizon. It has been determined that signal control operates more effectively than roundabout control, as a roundabout may operate with a LOS F during the afternoon peak hour. Therefore, it is believed that this intersection should be constructed with a traffic signal. A southbound 150-foot right turn lane along Hwy 85 operating with free turning movements with a 150-foot plus 120-foot taper acceleration lane is recommended to be constructed along southbound Liggett Road from this intersection. It should be noted that these are programmed improvements and are needed with background traffic volumes.

Black Feather Trail and Woodlands Boulevard (#8)

- The intersection of Black Feather Trail and Woodlands Boulevard (#8) may meet the four-hour vehicular volume signal warrant; therefore, signalization may be needed at this location by 2040. Otherwise, roundabout control would also be appropriate at this intersection if desired. Project traffic contributes to approximately 21 percent of the movements at this intersection.
- If the intersection of intersection of Black Feather Trail and Woodlands Boulevard (#8) operates with signal control in the future, it is recommended that a westbound left turn lane be designated at this intersection with 150 feet of length. Project traffic does not contribute to this left turn movement.

Fifth Street and Perry Street (#14)

- The Town of Castle Rock TMP identifies Fifth Street as a 4-lane roadway from Wilcox Street to Founders Parkway. The additional eastbound and westbound through lanes are determined to be needed operationally in the long-term horizon of this study. As such, the intersection of Fifth Street and Perry Street (#14) should provide a second eastbound through lane (westbound approach already has two through lanes). Project traffic contributes to approximately six (6) percent of the eastbound through movements at this intersection.

Meadows Parkway/Founders Parkway and I-25 (#18)

- CDOT may wish to explore the outside southbound right turn lane operating with free right turn movements in order to provide acceptable operations at the Meadows Parkway/ Founders Parkway and I-25 Southbound Ramps intersection (#18). The acceleration lane could occupy the space of the existing northernmost southbound right turn receiving lane while the second southbound right turn lane could be shared with the outside left turn lane to minimize vehicle weaving at this intersection. This intersection was recently constructed with dual right turn lanes operating under signalized control, so further study will be needed in the future to determine if this or an alternate improvement is needed operationally. Project traffic is anticipated to contribute approximately eight (8) percent of the southbound right turn movements at this intersection.

General Recommendations:

- Any improvements identified for construction, designation, or installation should be incorporated into the Civil Drawings and conform to Douglas County, Town of Castle Rock, and CDOT (as applicable) standards as well as the Manual on Uniform Traffic Control Devices – 2009 Edition (MUTCD).

APPENDICES

APPENDIX A

Intersection Count Sheets

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Meadows Pkwy and Hwy 85

File Name : Meadows and Hwy 85 AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

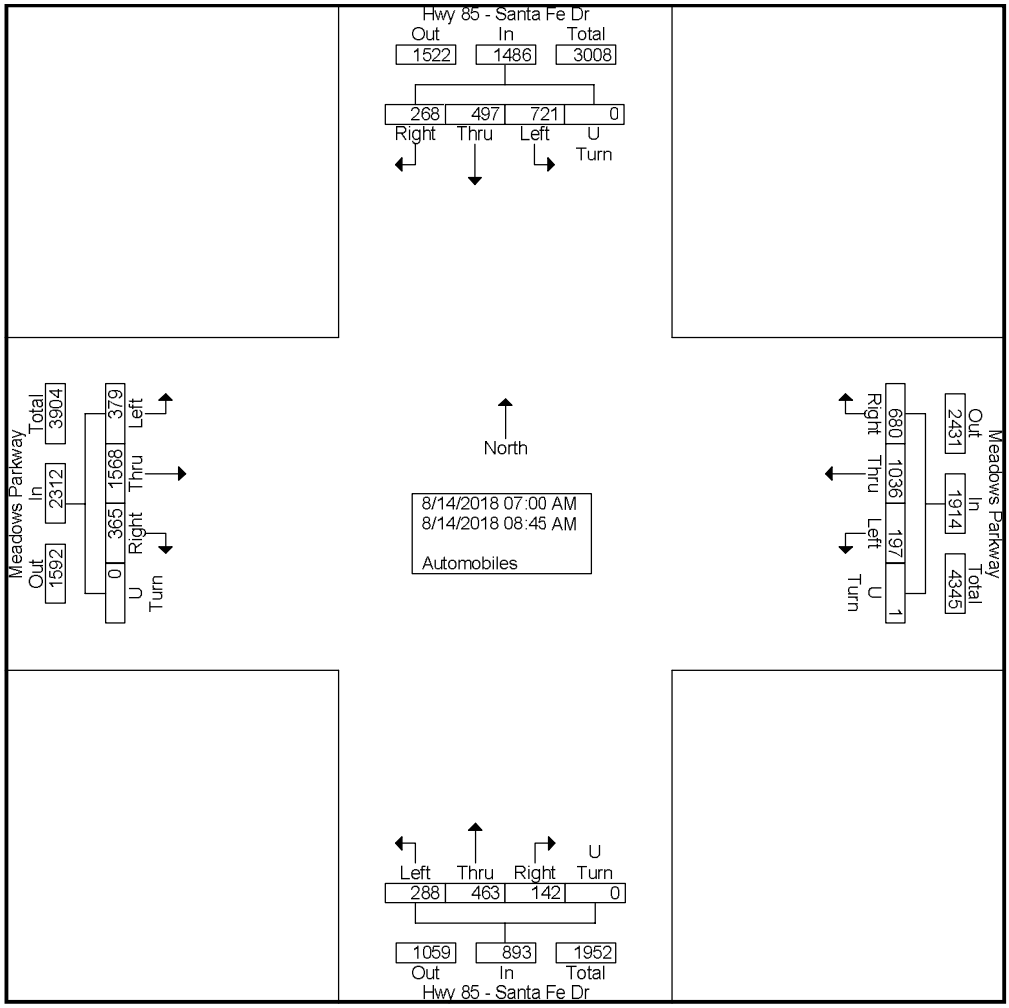
Groups Printed- Automobiles

	Meadows Parkway Eastbound					Meadows Parkway Westbound					Hwy 85 - Santa Fe Dr Northbound					Hwy 85 - Santa Fe Dr Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
07:00 AM	63	215	31	0	309	15	113	100	0	228	32	55	11	0	98	62	35	39	0	136	771
07:15 AM	42	220	57	0	319	37	152	104	0	293	39	70	28	0	137	81	68	34	0	183	932
07:30 AM	56	227	49	0	332	23	128	87	0	238	39	59	17	0	115	79	74	29	0	182	867
07:45 AM	52	192	55	0	299	30	163	102	0	295	39	46	18	0	103	99	86	30	0	215	912
Total	213	854	192	0	1259	105	556	393	0	1054	149	230	74	0	453	321	263	132	0	716	3482
08:00 AM	52	206	43	0	301	22	114	74	1	211	31	52	24	0	107	94	75	34	0	203	822
08:15 AM	33	159	53	0	245	20	124	89	0	233	27	58	9	0	94	103	49	31	0	183	755
08:30 AM	36	187	41	0	264	30	122	66	0	218	44	66	13	0	123	110	53	32	0	195	800
08:45 AM	45	162	36	0	243	20	120	58	0	198	37	57	22	0	116	93	57	39	0	189	746
Total	166	714	173	0	1053	92	480	287	1	860	139	233	68	0	440	400	234	136	0	770	3123
Grand Total	379	1568	365	0	2312	197	1036	680	1	1914	288	463	142	0	893	721	497	268	0	1486	6605
Apprch %	16.4	67.8	15.8	0		10.3	54.1	35.5	0.1		32.3	51.8	15.9	0		48.5	33.4	18	0		
Total %	5.7	23.7	5.5	0	35	3	15.7	10.3	0	29	4.4	7	2.1	0	13.5	10.9	7.5	4.1	0	22.5	

Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Meadows Pkwy and Hwy 85

File Name : Meadows and Hwy 85 AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

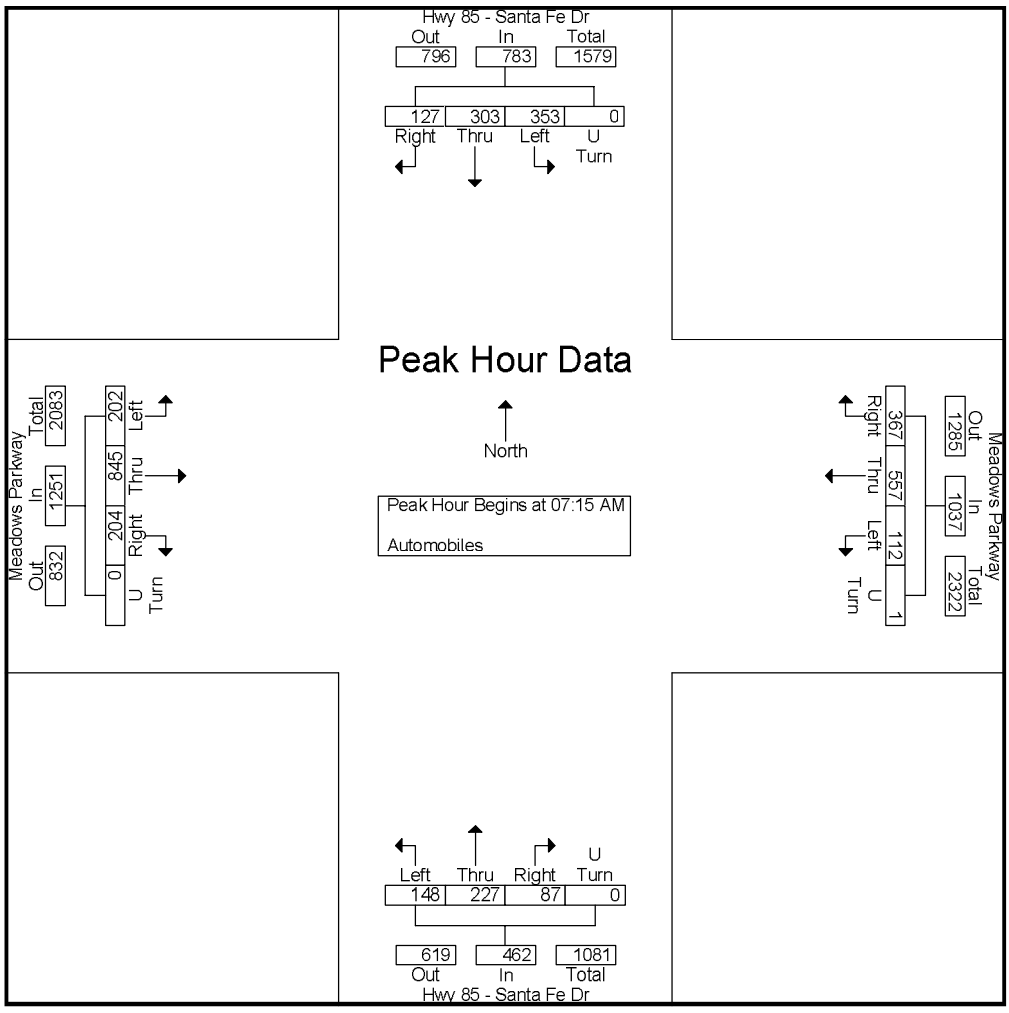


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Meadows Pkwy and Hwy 85

File Name : Meadows and Hwy 85 AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Meadows Parkway Eastbound					Meadows Parkway Westbound					Hwy 85 - Santa Fe Dr Northbound					Hwy 85 - Santa Fe Dr Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	42	220	**57**	0	319	**37**	152	**104**	0	293	**39**	**70**	**28**	0	**137**	81	68	**34**	0	183	**932**
07:30 AM	**56**	**227**	49	0	**332**	23	128	87	0	238	39	59	17	0	115	79	74	29	0	182	867
07:45 AM	52	192	55	0	299	30	**163**	102	0	**295**	39	46	18	0	103	**99**	**86**	30	0	**215**	912
08:00 AM	52	206	43	0	301	22	114	74	**1**	211	31	52	24	0	107	94	75	34	0	203	822
Total Volume	202	845	204	0	1251	112	557	367	1	1037	148	227	87	0	462	353	303	127	0	783	3533
% App. Total	16.1	67.5	16.3	0		10.8	53.7	35.4	0.1		32	49.1	18.8	0		45.1	38.7	16.2	0		
PHF	.902	.931	.895	.000	.942	.757	.854	.882	.250	.879	.949	.811	.777	.000	.843	.891	.881	.934	.000	.910	.948



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Meadows Pkwy and Hwy 85

File Name : Meadows and Hwy 85 PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

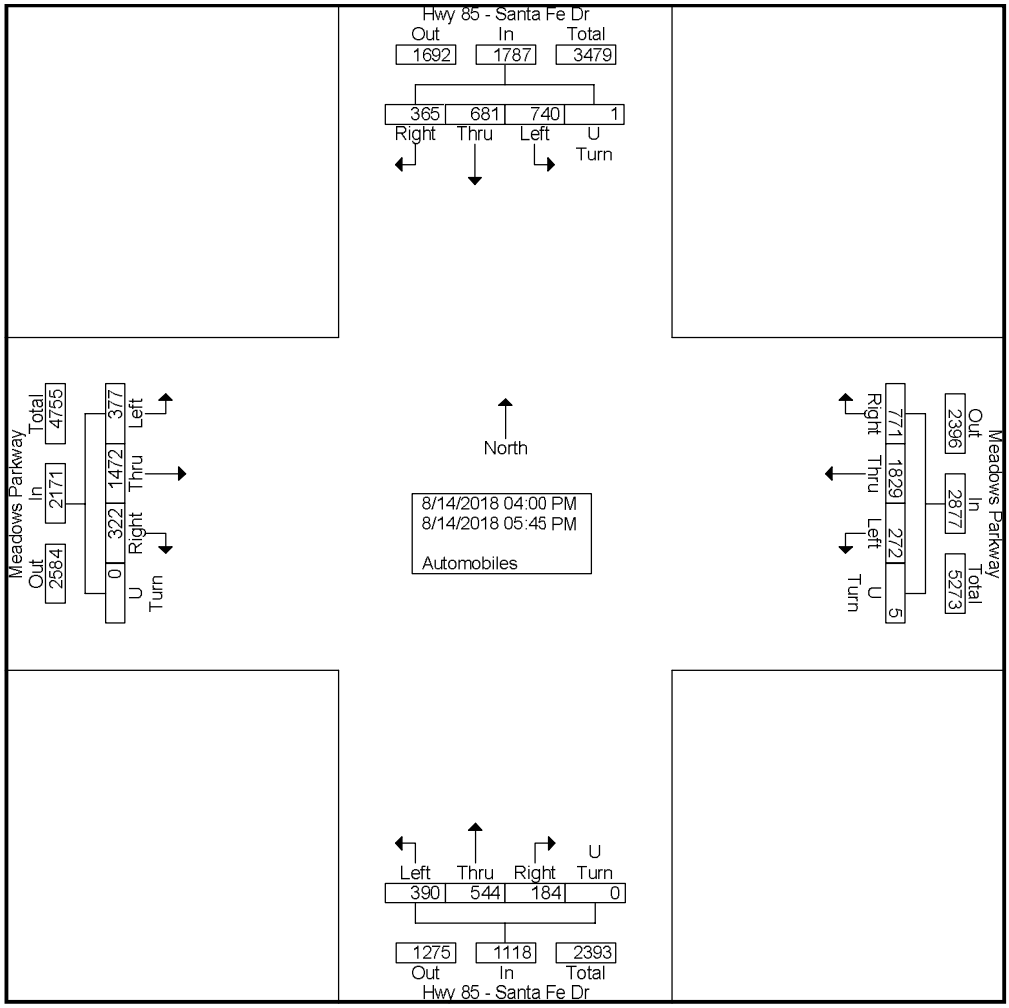
Groups Printed- Automobiles

	Meadows Parkway Eastbound					Meadows Parkway Westbound					Hwy 85 - Santa Fe Dr Northbound					Hwy 85 - Santa Fe Dr Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
04:00 PM	52	170	37	0	259	27	206	81	1	315	59	73	31	0	163	104	80	47	0	231	968
04:15 PM	50	203	63	0	316	38	269	127	0	434	52	63	20	0	135	93	87	35	0	215	1100
04:30 PM	52	176	39	0	267	34	194	115	1	344	60	87	25	0	172	86	84	46	0	216	999
04:45 PM	42	176	42	0	260	37	273	109	1	420	50	68	34	0	152	102	79	59	0	240	1072
Total	196	725	181	0	1102	136	942	432	3	1513	221	291	110	0	622	385	330	187	0	902	4139
05:00 PM	57	217	33	0	307	36	225	83	0	344	55	87	21	0	163	91	100	53	0	244	1058
05:15 PM	54	228	49	0	331	35	261	95	1	392	42	79	17	0	138	80	81	43	0	204	1065
05:30 PM	43	179	37	0	259	24	178	80	1	283	46	49	21	0	116	99	92	38	0	229	887
05:45 PM	27	123	22	0	172	41	223	81	0	345	26	38	15	0	79	85	78	44	1	208	804
Total	181	747	141	0	1069	136	887	339	2	1364	169	253	74	0	496	355	351	178	1	885	3814
Grand Total	377	1472	322	0	2171	272	1829	771	5	2877	390	544	184	0	1118	740	681	365	1	1787	7953
Apprch %	17.4	67.8	14.8	0		9.5	63.6	26.8	0.2		34.9	48.7	16.5	0		41.4	38.1	20.4	0.1		
Total %	4.7	18.5	4	0	27.3	3.4	23	9.7	0.1	36.2	4.9	6.8	2.3	0	14.1	9.3	8.6	4.6	0	22.5	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Meadows Pkwy and Hwy 85

File Name : Meadows and Hwy 85 PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

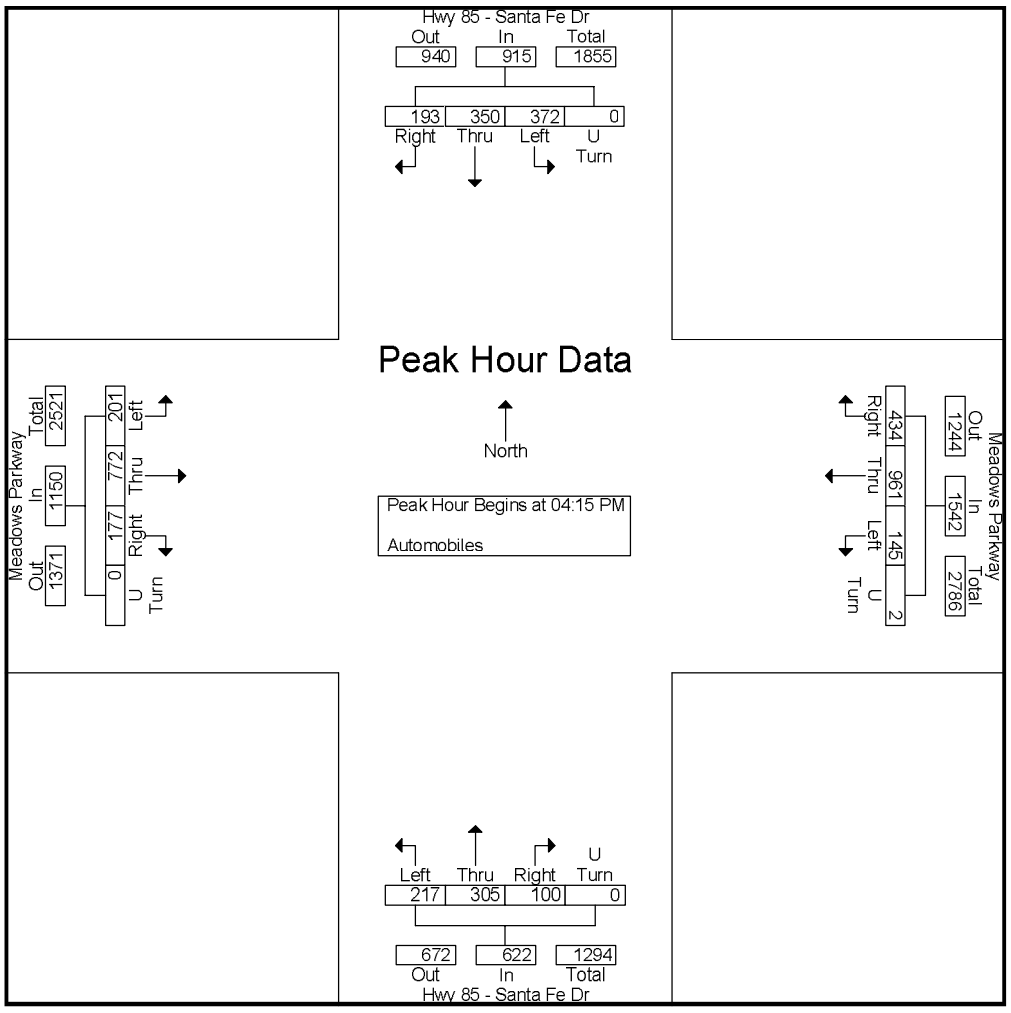


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
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	Meadows Parkway Eastbound					Meadows Parkway Westbound					Hwy 85 - Santa Fe Dr Northbound					Hwy 85 - Santa Fe Dr Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	50	203	**63**	0	**316**	**38**	269	**127**	0	**434**	52	63	20	0	135	93	87	35	0	215	**1100**
04:30 PM	52	176	39	0	267	34	194	115	**1**	344	**60**	**87**	25	0	**172**	86	84	46	0	216	999
04:45 PM	42	176	42	0	260	37	**273**	109	1	420	50	68	**34**	0	152	**102**	79	**59**	0	240	1072
05:00 PM	**57**	**217**	33	0	307	36	225	83	0	344	55	87	21	0	163	91	**100**	53	0	**244**	1058
Total Volume	201	772	177	0	1150	145	961	434	2	1542	217	305	100	0	622	372	350	193	0	915	4229
% App. Total	17.5	67.1	15.4	0		9.4	62.3	28.1	0.1		34.9	49	16.1	0		40.7	38.3	21.1	0		
PHF	.882	.889	.702	.000	.910	.954	.880	.854	.500	.888	.904	.876	.735	.000	.904	.912	.875	.818	.000	.938	.961



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Founders Pkwy and Allen Way

File Name : Founders and Allen Way AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

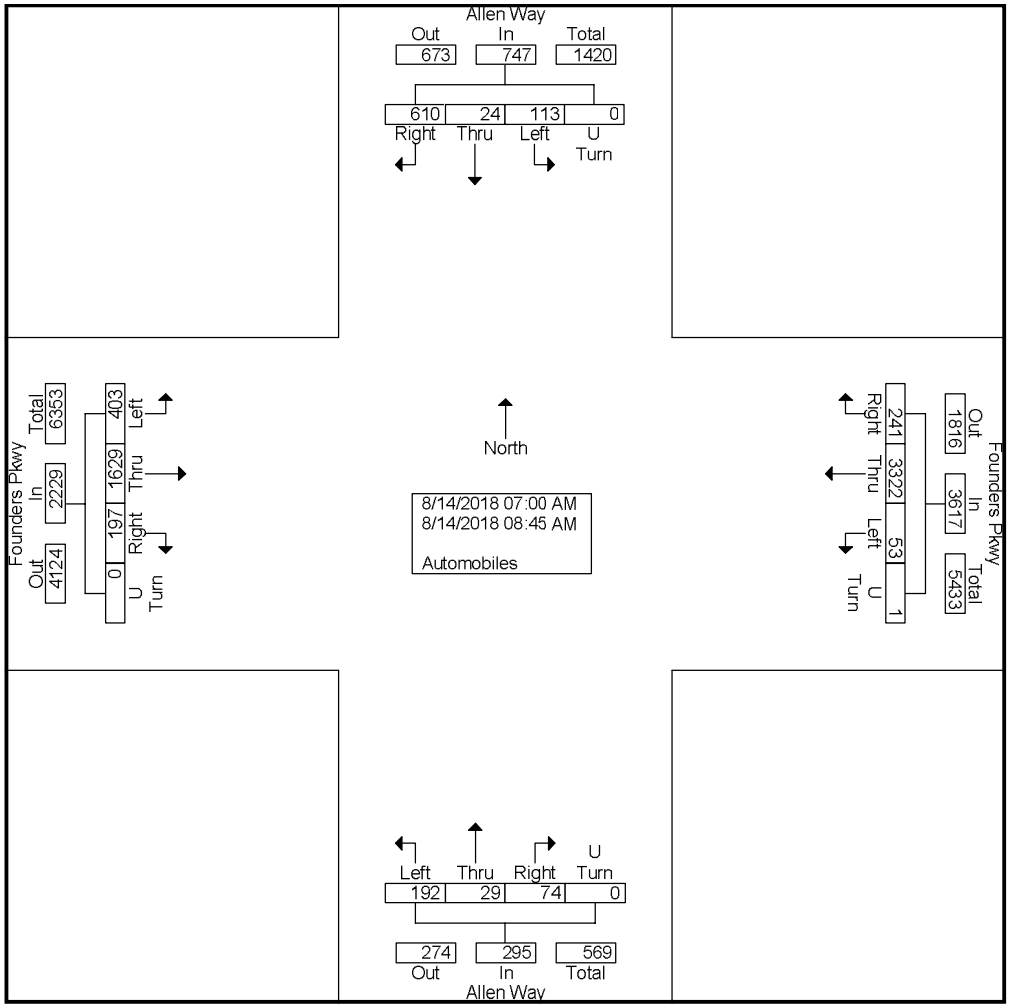
Groups Printed- Automobiles

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Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
07:00 AM	37	157	16	0	210	4	463	33	0	500	16	1	6	0	23	10	2	55	0	67	800
07:15 AM	45	190	31	0	266	7	471	20	0	498	32	2	9	0	43	16	7	88	0	111	918
07:30 AM	42	187	28	0	257	8	539	23	0	570	28	2	17	0	47	13	0	61	0	74	948
07:45 AM	55	210	23	0	288	5	430	26	0	461	25	6	3	0	34	15	1	74	0	90	873
Total	179	744	98	0	1021	24	1903	102	0	2029	101	11	35	0	147	54	10	278	0	342	3539
08:00 AM	50	203	31	0	284	15	393	36	0	444	17	6	13	0	36	14	4	76	0	94	858
08:15 AM	52	211	23	0	286	2	337	35	0	374	24	1	10	0	35	17	5	96	0	118	813
08:30 AM	61	237	23	0	321	4	357	32	0	393	18	5	10	0	33	15	2	69	0	86	833
08:45 AM	61	234	22	0	317	8	332	36	1	377	32	6	6	0	44	13	3	91	0	107	845
Total	224	885	99	0	1208	29	1419	139	1	1588	91	18	39	0	148	59	14	332	0	405	3349
Grand Total	403	1629	197	0	2229	53	3322	241	1	3617	192	29	74	0	295	113	24	610	0	747	6888
Apprch %	18.1	73.1	8.8	0		1.5	91.8	6.7	0		65.1	9.8	25.1	0		15.1	3.2	81.7	0		
Total %	5.9	23.6	2.9	0	32.4	0.8	48.2	3.5	0	52.5	2.8	0.4	1.1	0	4.3	1.6	0.3	8.9	0	10.8	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Founders Pkwy and Allen Way

File Name : Founders and Allen Way AM
Site Code : IPO 364
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Page No : 2

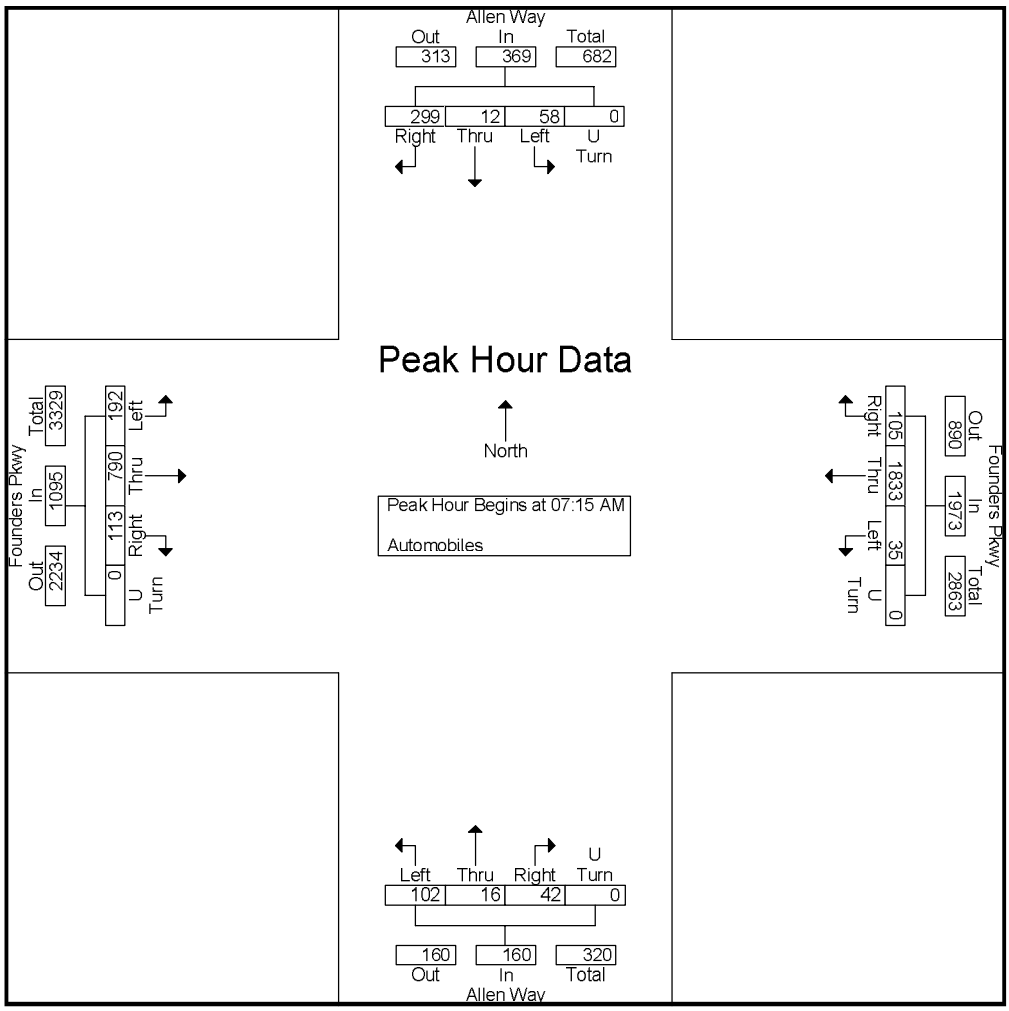


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Castle Rock, CO
Pine Canyon
AM Peak
Founders Pkwy and Allen Way

File Name : Founders and Allen Way AM
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	Founders Pkwy Eastbound					Founders Pkwy Westbound					Allen Way Northbound					Allen Way Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	45	190	**31**	0	266	7	471	20	0	498	**32**	2	9	0	43	**16**	**7**	**88**	0	**111**	918
07:30 AM	42	187	28	0	257	8	**539**	23	0	**570**	28	2	**17**	0	**47**	13	0	61	0	74	**948**
07:45 AM	**55**	**210**	23	0	**288**	5	430	26	0	461	25	**6**	3	0	34	15	1	74	0	90	873
08:00 AM	50	203	31	0	284	**15**	393	**36**	0	444	17	6	13	0	36	14	4	76	0	94	858
Total Volume	192	790	113	0	1095	35	1833	105	0	1973	102	16	42	0	160	58	12	299	0	369	3597
% App. Total	17.5	72.1	10.3	0		1.8	92.9	5.3	0		63.8	10	26.2	0		15.7	3.3	81	0		
PHF	.873	.940	.911	.000	.951	.583	.850	.729	.000	.865	.797	.667	.618	.000	.851	.906	.429	.849	.000	.831	.949



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pkwy and Allen Way

File Name : Founders and Allen Way PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

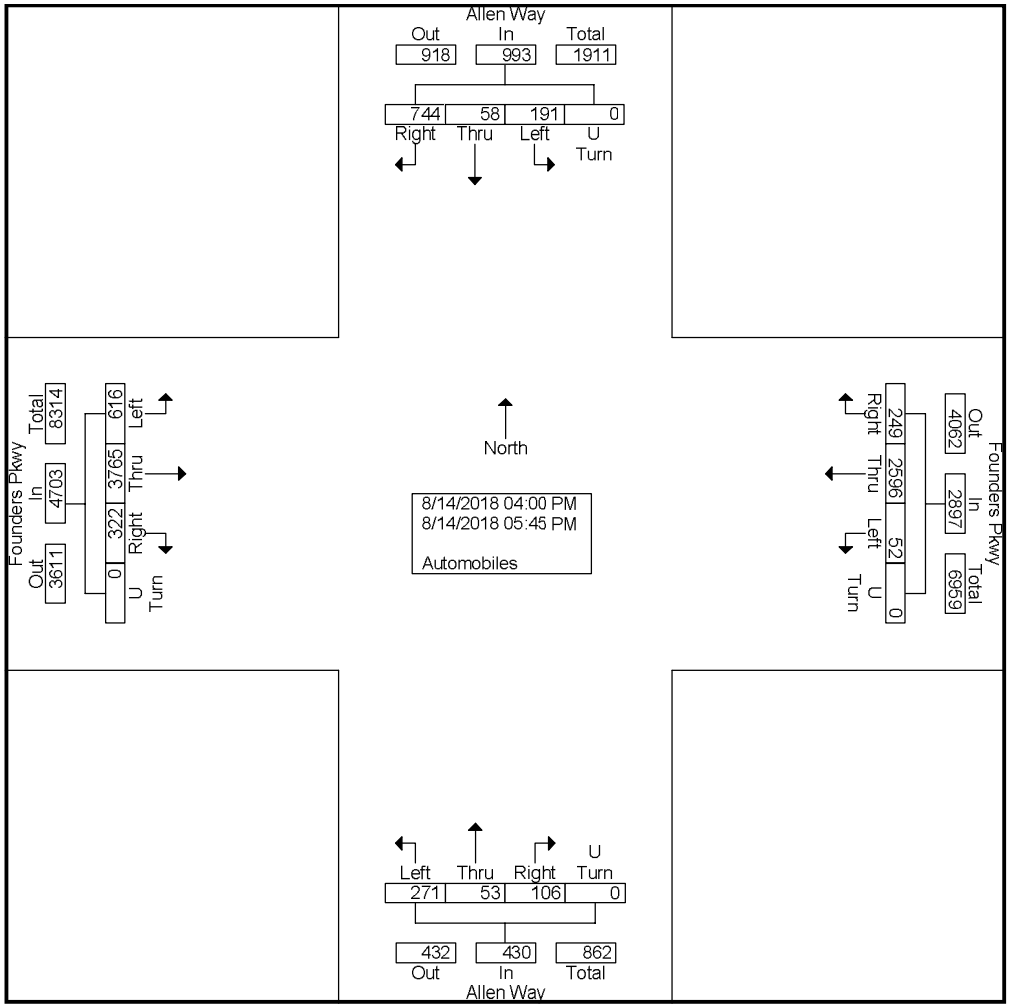
Groups Printed- Automobiles

	Founders Pkwy Eastbound					Founders Pkwy Westbound					Allen Way Northbound					Allen Way Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
04:00 PM	75	480	42	0	597	12	366	34	0	412	44	7	21	0	72	25	5	85	0	115	1196
04:15 PM	73	460	55	0	588	11	348	28	0	387	37	11	11	0	59	22	13	98	0	133	1167
04:30 PM	70	459	41	0	570	7	340	36	0	383	36	9	15	0	60	35	6	100	0	141	1154
04:45 PM	85	513	46	0	644	4	304	27	0	335	32	8	19	0	59	28	7	81	0	116	1154
Total	303	1912	184	0	2399	34	1358	125	0	1517	149	35	66	0	250	110	31	364	0	505	4671
05:00 PM	84	490	41	0	615	5	326	30	0	361	29	7	11	0	47	18	9	110	0	137	1160
05:15 PM	74	441	39	0	554	4	344	28	0	376	36	6	9	0	51	25	7	106	0	138	1119
05:30 PM	74	431	32	0	537	4	311	38	0	353	36	1	11	0	48	19	7	78	0	104	1042
05:45 PM	81	491	26	0	598	5	257	28	0	290	21	4	9	0	34	19	4	86	0	109	1031
Total	313	1853	138	0	2304	18	1238	124	0	1380	122	18	40	0	180	81	27	380	0	488	4352
Grand Total	616	3765	322	0	4703	52	2596	249	0	2897	271	53	106	0	430	191	58	744	0	993	9023
Apprch %	13.1	80.1	6.8	0		1.8	89.6	8.6	0		63	12.3	24.7	0		19.2	5.8	74.9	0		
Total %	6.8	41.7	3.6	0	52.1	0.6	28.8	2.8	0	32.1	3	0.6	1.2	0	4.8	2.1	0.6	8.2	0	11	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pkwy and Allen Way

File Name : Founders and Allen Way PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

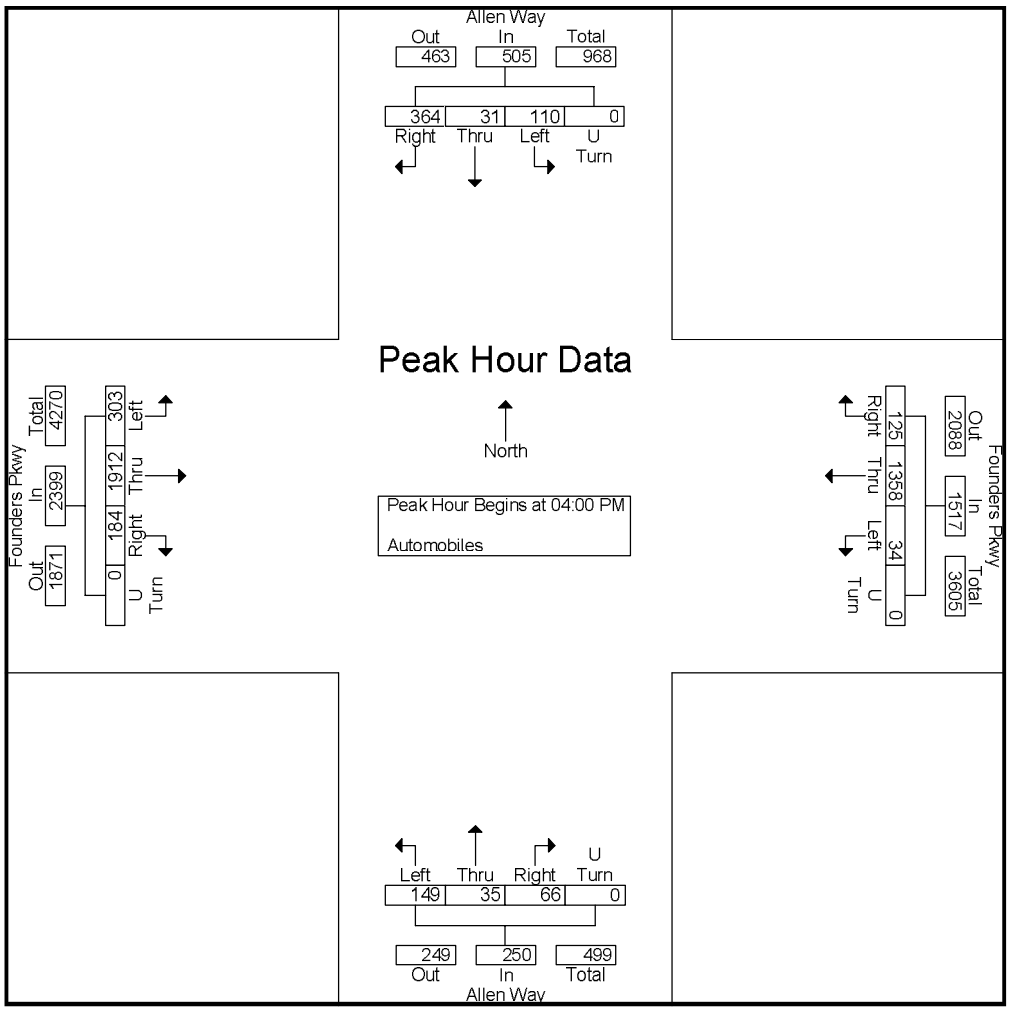


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pkwy and Allen Way

File Name : Founders and Allen Way PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Founders Pkwy Eastbound					Founders Pkwy Westbound					Allen Way Northbound					Allen Way Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	75	480	42	0	597	**12**	**366**	34	0	**412**	**44**	7	**21**	0	**72**	25	5	85	0	115	**1196**
04:15 PM	73	460	**55**	0	588	11	348	28	0	387	37	**11**	11	0	59	22	**13**	98	0	133	1167
04:30 PM	70	459	41	0	570	7	340	**36**	0	383	36	9	15	0	60	**35**	6	**100**	0	**141**	1154
04:45 PM	**85**	**513**	46	0	**644**	4	304	27	0	335	32	8	19	0	59	28	7	81	0	116	1154
Total Volume	303	1912	184	0	2399	34	1358	125	0	1517	149	35	66	0	250	110	31	364	0	505	4671
% App. Total	12.6	79.7	7.7	0		2.2	89.5	8.2	0		59.6	14	26.4	0		21.8	6.1	72.1	0		
PHF	.891	.932	.836	.000	.931	.708	.928	.868	.000	.921	.847	.795	.786	.000	.868	.786	.596	.910	.000	.895	.976



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Founders Pkwy and Front St

File Name : Founders and Front AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

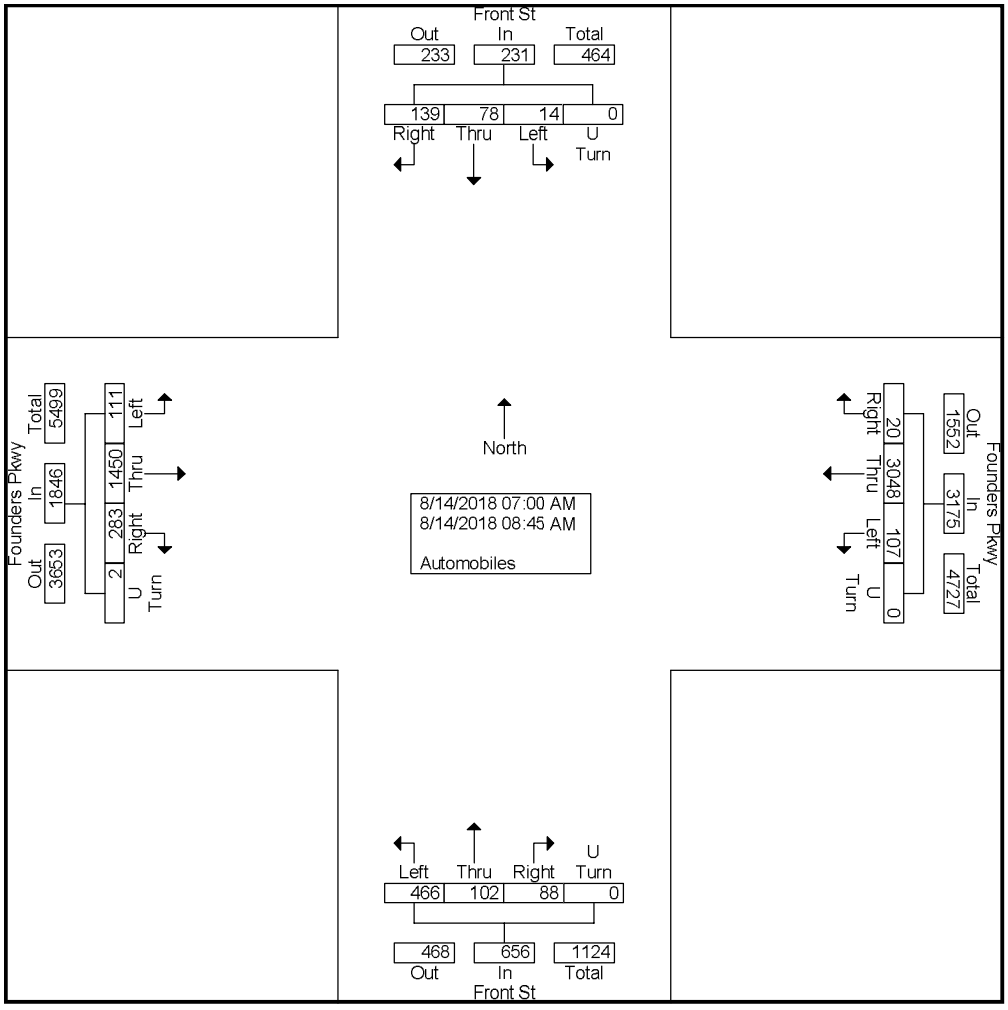
Groups Printed- Automobiles

	Founders Pkwy Eastbound					Founders Pkwy Westbound					Front St Northbound					Front St Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
07:00 AM	10	144	34	0	188	13	403	1	0	417	80	7	7	0	94	0	8	19	0	27	726
07:15 AM	13	161	40	0	214	21	420	0	0	441	68	12	11	0	91	0	12	17	0	29	775
07:30 AM	15	175	22	1	213	15	449	5	0	469	79	18	10	0	107	3	9	22	0	34	823
07:45 AM	16	177	41	1	235	11	380	5	0	396	58	9	10	0	77	0	9	24	0	33	741
Total	54	657	137	2	850	60	1652	11	0	1723	285	46	38	0	369	3	38	82	0	123	3065
08:00 AM	14	182	35	0	231	14	381	1	0	396	48	6	11	0	65	2	11	16	0	29	721
08:15 AM	8	184	34	0	226	15	324	1	0	340	36	19	8	0	63	4	13	12	0	29	658
08:30 AM	9	233	40	0	282	13	356	2	0	371	48	10	13	0	71	1	10	12	0	23	747
08:45 AM	26	194	37	0	257	5	335	5	0	345	49	21	18	0	88	4	6	17	0	27	717
Total	57	793	146	0	996	47	1396	9	0	1452	181	56	50	0	287	11	40	57	0	108	2843
Grand Total	111	1450	283	2	1846	107	3048	20	0	3175	466	102	88	0	656	14	78	139	0	231	5908
Apprch %	6	78.5	15.3	0.1		3.4	96	0.6	0		71	15.5	13.4	0		6.1	33.8	60.2	0		
Total %	1.9	24.5	4.8	0	31.2	1.8	51.6	0.3	0	53.7	7.9	1.7	1.5	0	11.1	0.2	1.3	2.4	0	3.9	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Founders Pkwy and Front St

File Name : Founders and Front AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

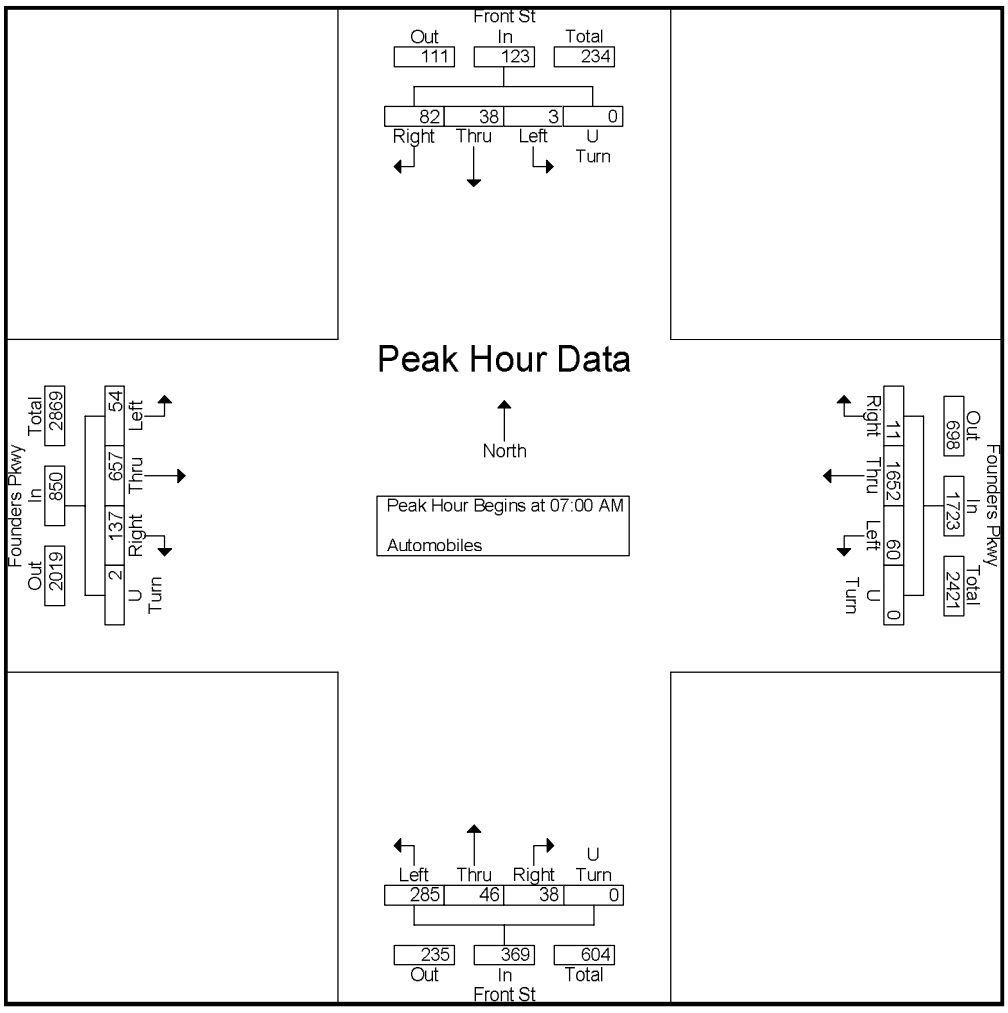


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Founders Pkwy and Front St

File Name : Founders and Front AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Founders Pkwy Eastbound					Founders Pkwy Westbound					Front St Northbound					Front St Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	10	144	34	0	188	13	403	1	0	417	**80**	7	7	0	94	0	8	19	0	27	726
07:15 AM	13	161	40	0	214	**21**	420	0	0	441	68	12	**11**	0	91	0	**12**	17	0	29	775
07:30 AM	15	175	22	**1**	213	15	**449**	**5**	0	**469**	79	**18**	10	0	**107**	**3**	9	22	0	**34**	**823**
07:45 AM	**16**	**177**	**41**	1	**235**	11	380	5	0	396	58	9	10	0	77	0	9	**24**	0	33	741
Total Volume	54	657	137	2	850	60	1652	11	0	1723	285	46	38	0	369	3	38	82	0	123	3065
% App. Total	6.4	77.3	16.1	0.2		3.5	95.9	0.6	0		77.2	12.5	10.3	0		2.4	30.9	66.7	0		
PHF	.844	.928	.835	.500	.904	.714	.920	.550	.000	.918	.891	.639	.864	.000	.862	.250	.792	.854	.000	.904	.931



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pkwy and Front St

File Name : Founders and Front PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

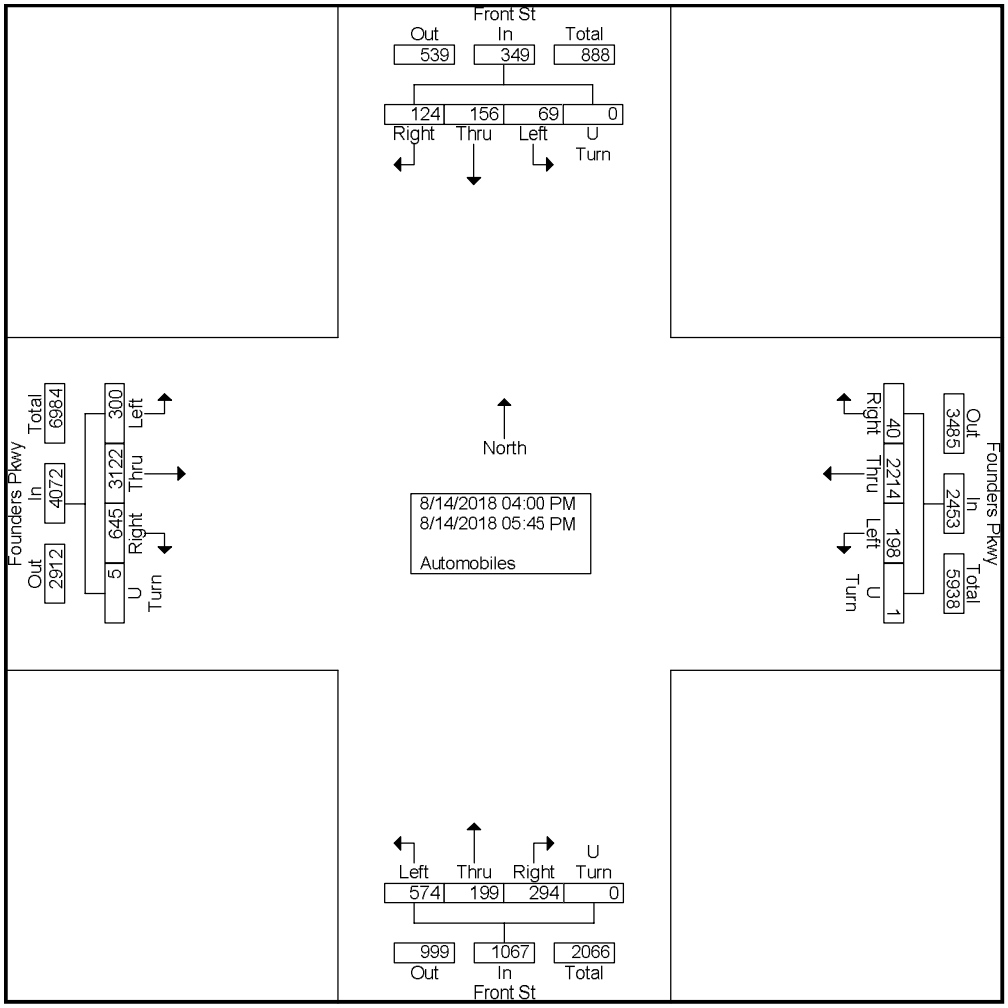
Groups Printed- Automobiles

	Founders Pkwy Eastbound					Founders Pkwy Westbound					Front St Northbound					Front St Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
04:00 PM	36	413	100	2	551	25	214	6	0	245	90	22	30	0	142	8	21	12	0	41	979
04:15 PM	39	350	76	1	466	31	383	3	0	417	85	22	38	0	145	13	20	20	0	53	1081
04:30 PM	41	426	84	0	551	17	298	6	0	321	73	22	45	0	140	8	19	12	0	39	1051
04:45 PM	38	390	94	1	523	30	272	7	0	309	65	30	32	0	127	10	17	14	0	41	1000
Total	154	1579	354	4	2091	103	1167	22	0	1292	313	96	145	0	554	39	77	58	0	174	4111
05:00 PM	45	420	90	0	555	24	286	2	1	313	58	29	50	0	137	8	27	13	0	48	1053
05:15 PM	32	334	64	1	431	23	274	8	0	305	90	34	30	0	154	8	18	28	0	54	944
05:30 PM	43	402	64	0	509	23	279	1	0	303	57	20	33	0	110	5	16	9	0	30	952
05:45 PM	26	387	73	0	486	25	208	7	0	240	56	20	36	0	112	9	18	16	0	43	881
Total	146	1543	291	1	1981	95	1047	18	1	1161	261	103	149	0	513	30	79	66	0	175	3830
Grand Total	300	3122	645	5	4072	198	2214	40	1	2453	574	199	294	0	1067	69	156	124	0	349	7941
Apprch %	7.4	76.7	15.8	0.1		8.1	90.3	1.6	0		53.8	18.7	27.6	0		19.8	44.7	35.5	0		
Total %	3.8	39.3	8.1	0.1	51.3	2.5	27.9	0.5	0	30.9	7.2	2.5	3.7	0	13.4	0.9	2	1.6	0	4.4	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pkwy and Front St

File Name : Founders and Front PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

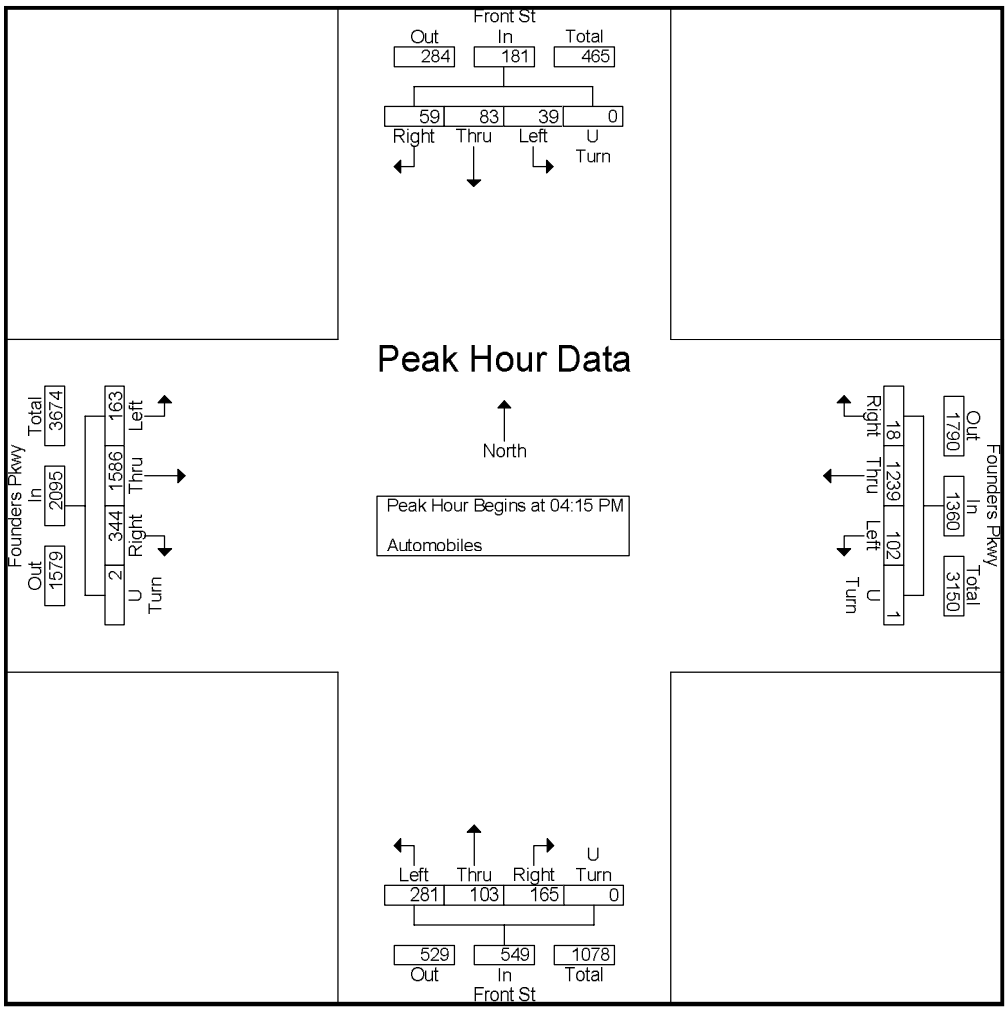


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pkwy and Front St

File Name : Founders and Front PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Founders Pkwy Eastbound					Founders Pkwy Westbound					Front St Northbound					Front St Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	39	350	76	**1**	466	**31**	**383**	3	0	**417**	**85**	22	38	0	**145**	**13**	20	**20**	0	**53**	**1081**
04:30 PM	41	**426**	84	0	551	17	298	6	0	321	73	22	45	0	140	8	19	12	0	39	1051
04:45 PM	38	390	**94**	1	523	30	272	**7**	0	309	65	**30**	32	0	127	10	17	14	0	41	1000
05:00 PM	**45**	420	90	0	**555**	24	286	2	**1**	313	58	29	**50**	0	137	8	**27**	13	0	48	1053
Total Volume	163	1586	344	2	2095	102	1239	18	1	1360	281	103	165	0	549	39	83	59	0	181	4185
% App. Total	7.8	75.7	16.4	0.1		7.5	91.1	1.3	0.1		51.2	18.8	30.1	0		21.5	45.9	32.6	0		
PHF	.906	.931	.915	.500	.944	.823	.809	.643	.250	.815	.826	.858	.825	.000	.947	.750	.769	.738	.000	.854	.968



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Founders Pkwy and Woodlands Blvd

File Name : Founders and Woodlands AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

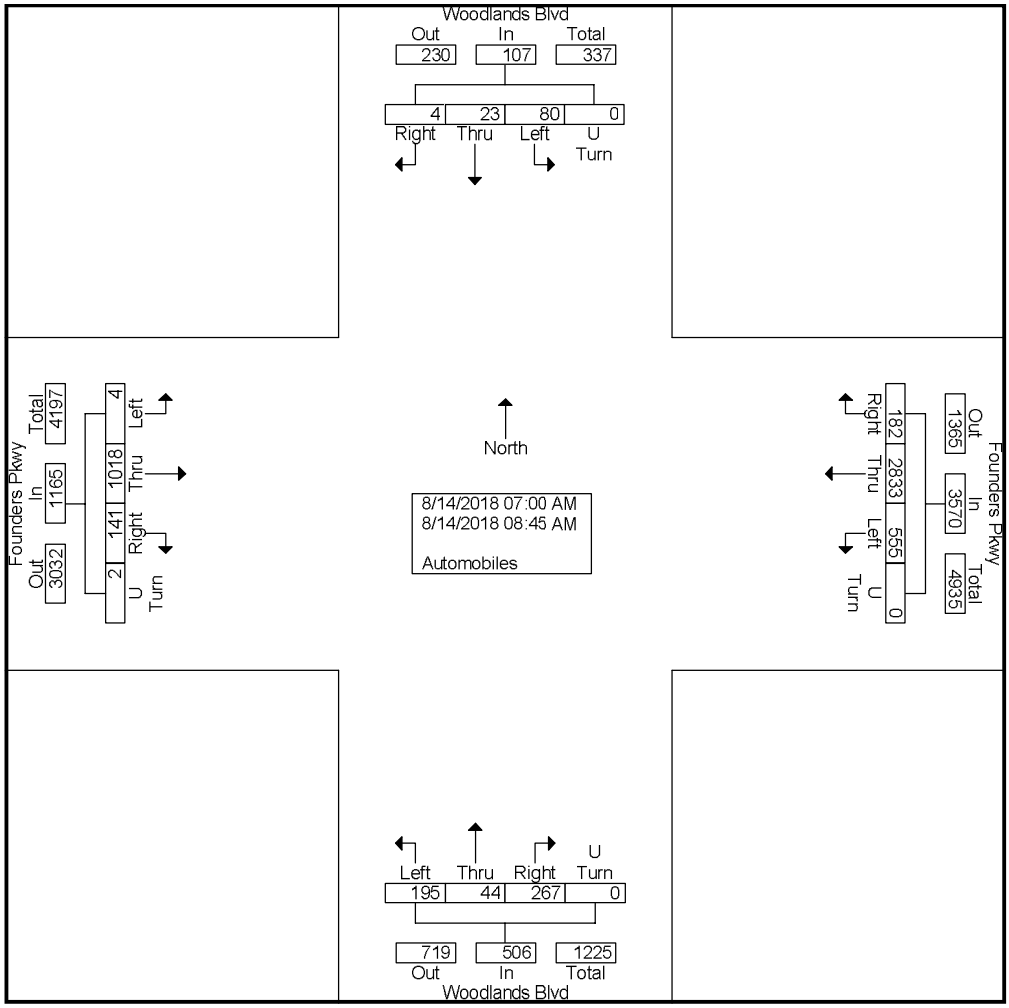
Groups Printed- Automobiles

	Founders Pkwy Eastbound					Founders Pkwy Westbound					Woodlands Blvd Northbound					Woodlands Blvd Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
07:00 AM	0	101	12	0	113	63	372	20	0	455	26	3	31	0	60	8	2	0	0	10	638
07:15 AM	0	122	17	0	139	123	443	17	0	583	28	4	39	0	71	5	2	1	0	8	801
07:30 AM	1	125	17	0	143	66	413	22	0	501	21	4	43	0	68	10	4	0	0	14	726
07:45 AM	0	122	18	0	140	65	370	23	0	458	32	11	19	0	62	12	2	1	0	15	675
Total	1	470	64	0	535	317	1598	82	0	1997	107	22	132	0	261	35	10	2	0	47	2840
08:00 AM	1	115	19	0	135	41	343	14	0	398	21	2	26	0	49	9	0	1	0	10	592
08:15 AM	1	157	16	1	175	54	304	24	0	382	24	7	25	0	56	15	8	1	0	24	637
08:30 AM	0	151	21	0	172	79	299	27	0	405	19	6	49	0	74	6	3	0	0	9	660
08:45 AM	1	125	21	1	148	64	289	35	0	388	24	7	35	0	66	15	2	0	0	17	619
Total	3	548	77	2	630	238	1235	100	0	1573	88	22	135	0	245	45	13	2	0	60	2508
Grand Total	4	1018	141	2	1165	555	2833	182	0	3570	195	44	267	0	506	80	23	4	0	107	5348
Apprch %	0.3	87.4	12.1	0.2		15.5	79.4	5.1	0		38.5	8.7	52.8	0		74.8	21.5	3.7	0		
Total %	0.1	19	2.6	0	21.8	10.4	53	3.4	0	66.8	3.6	0.8	5	0	9.5	1.5	0.4	0.1	0	2	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Founders Pkwy and Woodlands Blvd

File Name : Founders and Woodlands AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

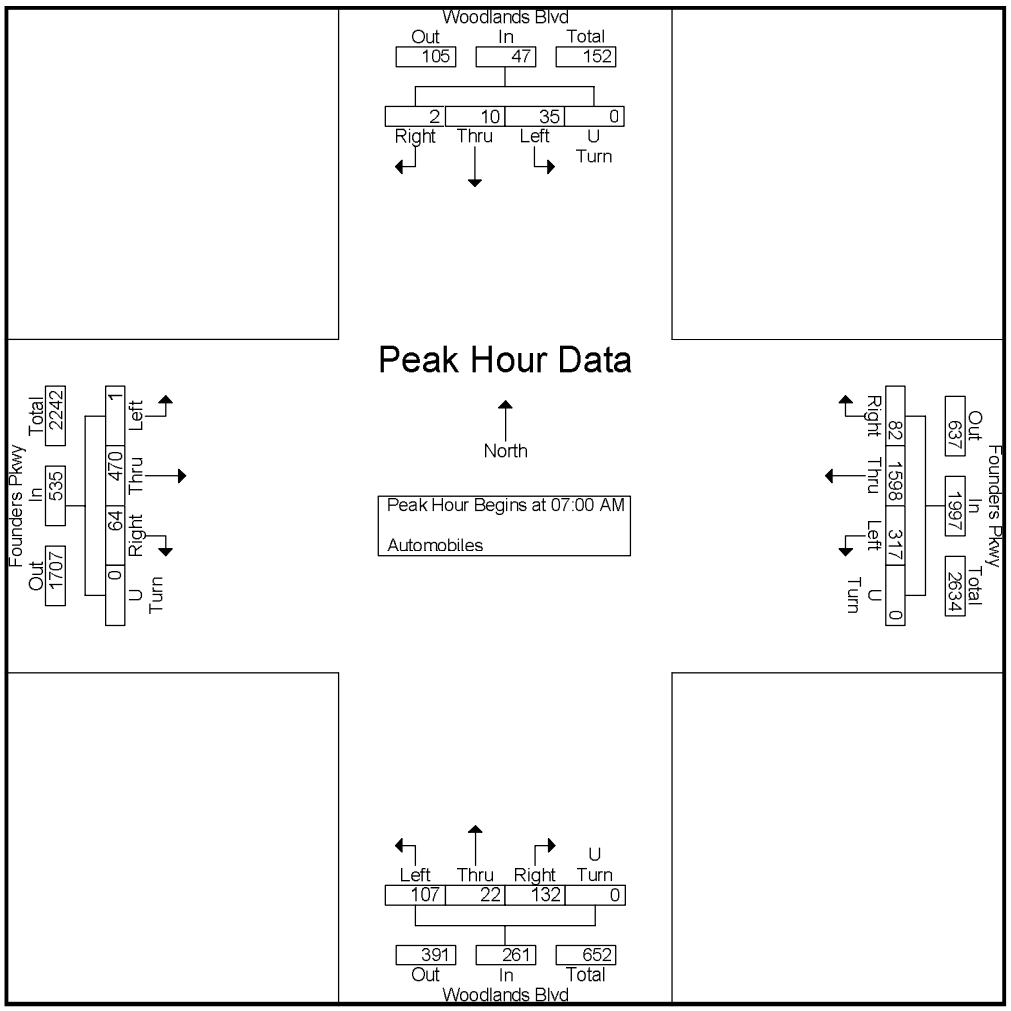


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Founders Pkwy and Woodlands Blvd

File Name : Founders and Woodlands AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Founders Pkwy Eastbound					Founders Pkwy Westbound					Woodlands Blvd Northbound					Woodlands Blvd Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	101	12	0	113	63	372	20	0	455	26	3	31	0	60	8	2	0	0	10	638
07:15 AM	0	122	17	0	139	**123**	**443**	17	0	**583**	28	4	39	0	**71**	5	2	**1**	0	8	**801**
07:30 AM	**1**	**125**	17	0	**143**	66	413	22	0	501	21	4	**43**	0	68	10	**4**	0	0	14	726
07:45 AM	0	122	**18**	0	140	65	370	**23**	0	458	**32**	**11**	19	0	62	**12**	2	1	0	**15**	675
Total Volume	1	470	64	0	535	317	1598	82	0	1997	107	22	132	0	261	35	10	2	0	47	2840
% App. Total	0.2	87.9	12	0		15.9	80	4.1	0		41	8.4	50.6	0		74.5	21.3	4.3	0		
PHF	.250	.940	.889	.000	.935	.644	.902	.891	.000	.856	.836	.500	.767	.000	.919	.729	.625	.500	.000	.783	.886



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pkwy and Woodlands Blvd

File Name : Founders and Woodlands PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

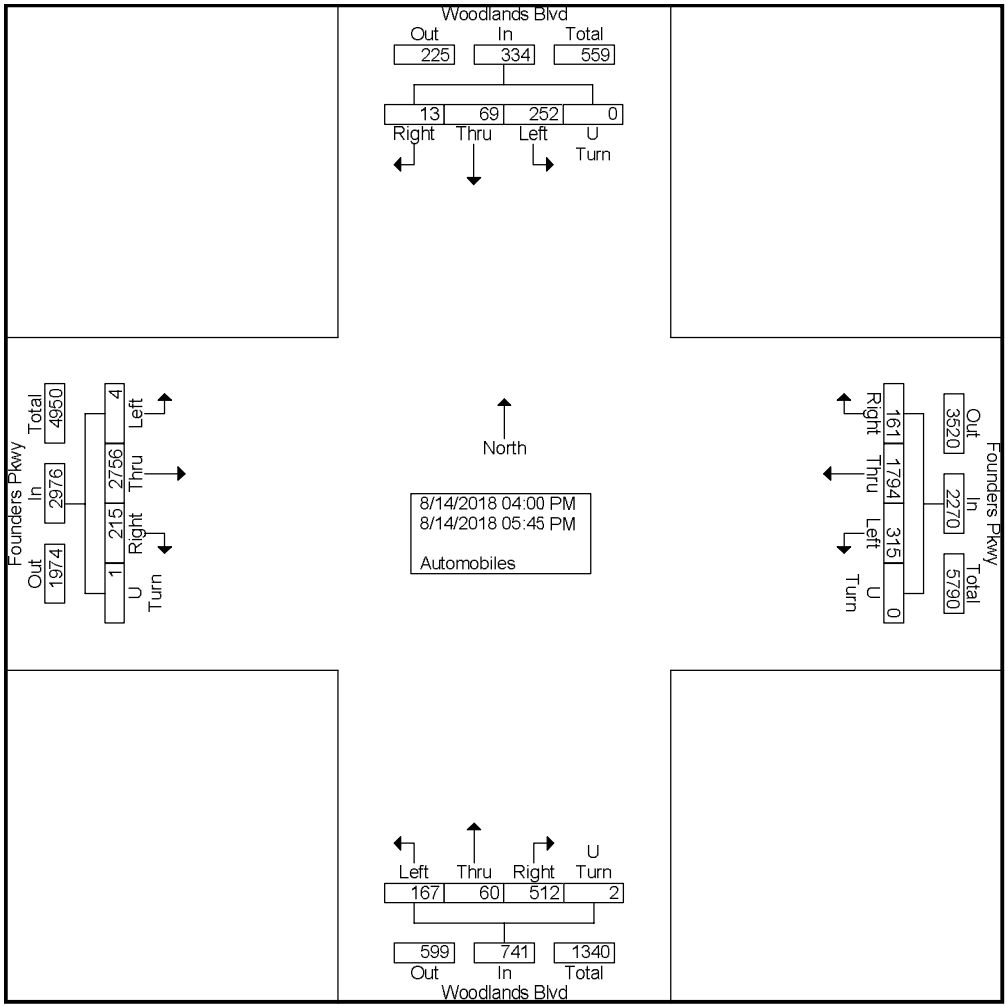
Groups Printed- Automobiles

	Founders Pkwy Eastbound					Founders Pkwy Westbound					Woodlands Blvd Northbound					Woodlands Blvd Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
04:00 PM	0	309	32	0	341	59	223	20	0	302	23	9	71	1	104	24	9	3	0	36	783
04:15 PM	0	342	25	1	368	44	246	28	0	318	15	4	44	1	64	36	16	1	0	53	803
04:30 PM	0	336	33	0	369	41	218	18	0	277	23	11	96	0	130	28	6	3	0	37	813
04:45 PM	1	357	29	0	387	31	229	20	0	280	18	7	59	0	84	33	6	1	0	40	791
Total	1	1344	119	1	1465	175	916	86	0	1177	79	31	270	2	382	121	37	8	0	166	3190
05:00 PM	0	368	35	0	403	39	206	20	0	265	27	8	72	0	107	38	11	1	0	50	825
05:15 PM	1	354	17	0	372	36	252	19	0	307	19	9	78	0	106	42	8	2	0	52	837
05:30 PM	2	307	18	0	327	40	243	16	0	299	26	10	60	0	96	30	6	1	0	37	759
05:45 PM	0	383	26	0	409	25	177	20	0	222	16	2	32	0	50	21	7	1	0	29	710
Total	3	1412	96	0	1511	140	878	75	0	1093	88	29	242	0	359	131	32	5	0	168	3131
Grand Total	4	2756	215	1	2976	315	1794	161	0	2270	167	60	512	2	741	252	69	13	0	334	6321
Apprch %	0.1	92.6	7.2	0		13.9	79	7.1	0		22.5	8.1	69.1	0.3		75.4	20.7	3.9	0		
Total %	0.1	43.6	3.4	0	47.1	5	28.4	2.5	0	35.9	2.6	0.9	8.1	0	11.7	4	1.1	0.2	0	5.3	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pkwy and Woodlands Blvd

File Name : Founders and Woodlands PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

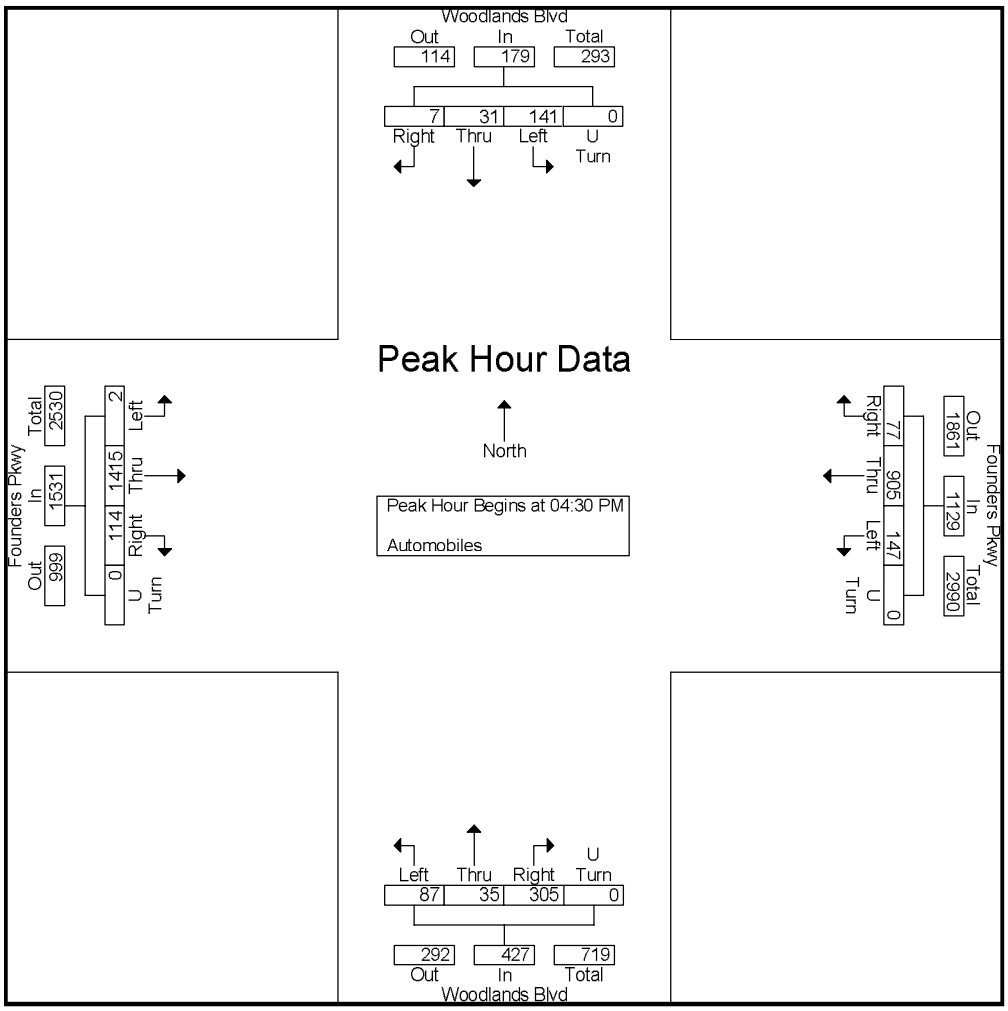


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pkwy and Woodlands Blvd

File Name : Founders and Woodlands PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Founders Pkwy Eastbound					Founders Pkwy Westbound					Woodlands Blvd Northbound					Woodlands Blvd Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	336	33	0	369	**41**	218	18	0	277	23	**11**	**96**	0	**130**	28	6	**3**	0	37	813
04:45 PM	**1**	357	29	0	387	31	229	**20**	0	280	18	7	59	0	84	33	6	1	0	40	791
05:00 PM	0	**368**	**35**	0	**403**	39	206	20	0	265	**27**	8	72	0	107	38	**11**	1	0	50	825
05:15 PM	1	354	17	0	372	36	**252**	19	0	**307**	19	9	78	0	106	**42**	8	2	0	**52**	**837**
Total Volume	2	1415	114	0	1531	147	905	77	0	1129	87	35	305	0	427	141	31	7	0	179	3266
% App. Total	0.1	92.4	7.4	0		13	80.2	6.8	0		20.4	8.2	71.4	0		78.8	17.3	3.9	0		
PHF	.500	.961	.814	.000	.950	.896	.898	.963	.000	.919	.806	.795	.794	.000	.821	.839	.705	.583	.000	.861	.976



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Founders Pkwy and Crowfoot Valley Rd

File Name : Founders and Crowfoot Valley AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

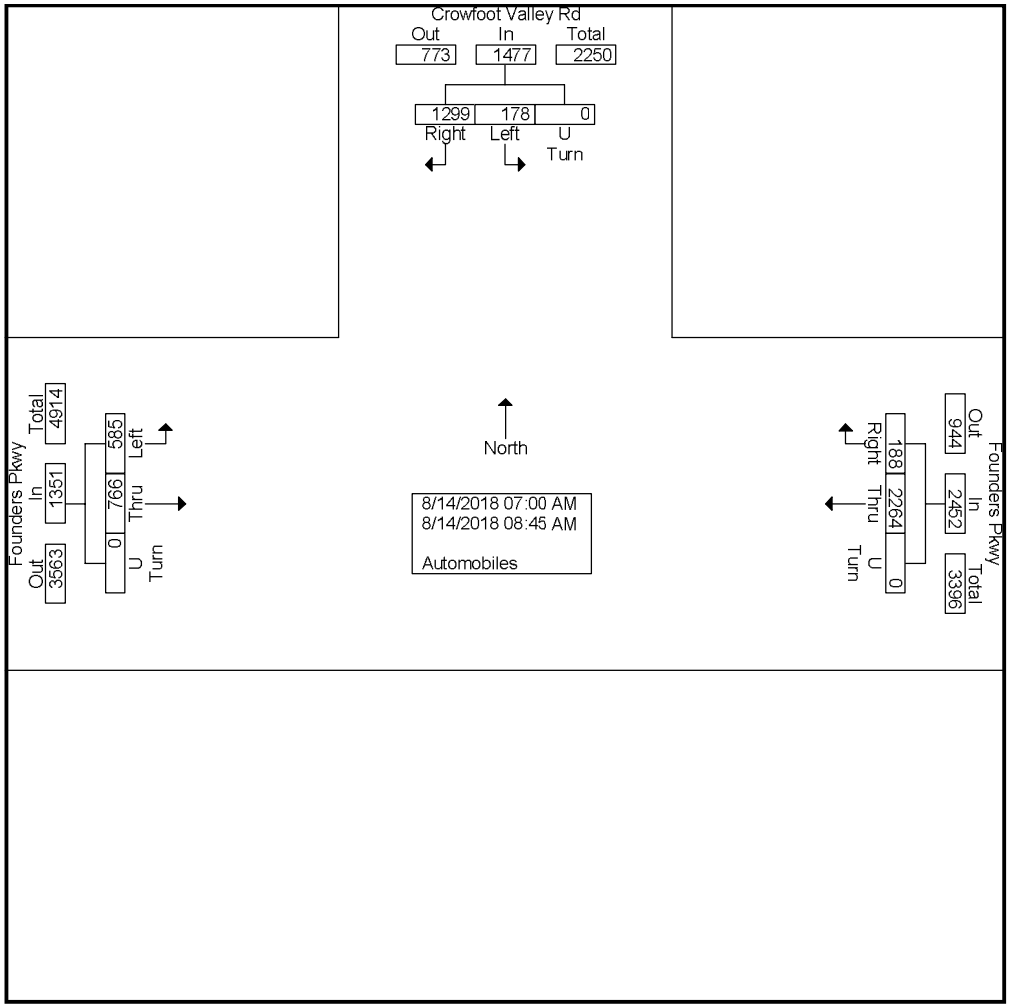
Groups Printed- Automobiles

	Founders Pkwy Eastbound				Founders Pkwy Westbound				Crowfoot Valley Rd Southbound				
Start Time	Left	Thru	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Right	U Turn	App. Total	Int. Total
07:00 AM	62	86	0	148	314	27	0	341	18	172	0	190	679
07:15 AM	73	78	0	151	335	31	0	366	16	231	0	247	764
07:30 AM	97	91	0	188	302	31	0	333	6	180	0	186	707
07:45 AM	64	77	0	141	286	21	0	307	30	171	0	201	649
Total	296	332	0	628	1237	110	0	1347	70	754	0	824	2799
08:00 AM	70	80	0	150	259	20	0	279	18	130	0	148	577
08:15 AM	73	103	0	176	268	30	0	298	21	117	0	138	612
08:30 AM	81	148	0	229	261	18	0	279	20	147	0	167	675
08:45 AM	65	103	0	168	239	10	0	249	49	151	0	200	617
Total	289	434	0	723	1027	78	0	1105	108	545	0	653	2481
Grand Total	585	766	0	1351	2264	188	0	2452	178	1299	0	1477	5280
Apprch %	43.3	56.7	0		92.3	7.7	0		12.1	87.9	0		
Total %	11.1	14.5	0	25.6	42.9	3.6	0	46.4	3.4	24.6	0	28	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Founders Pkwy and Crowfoot Valley Rd

File Name : Founders and Crowfoot Valley AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

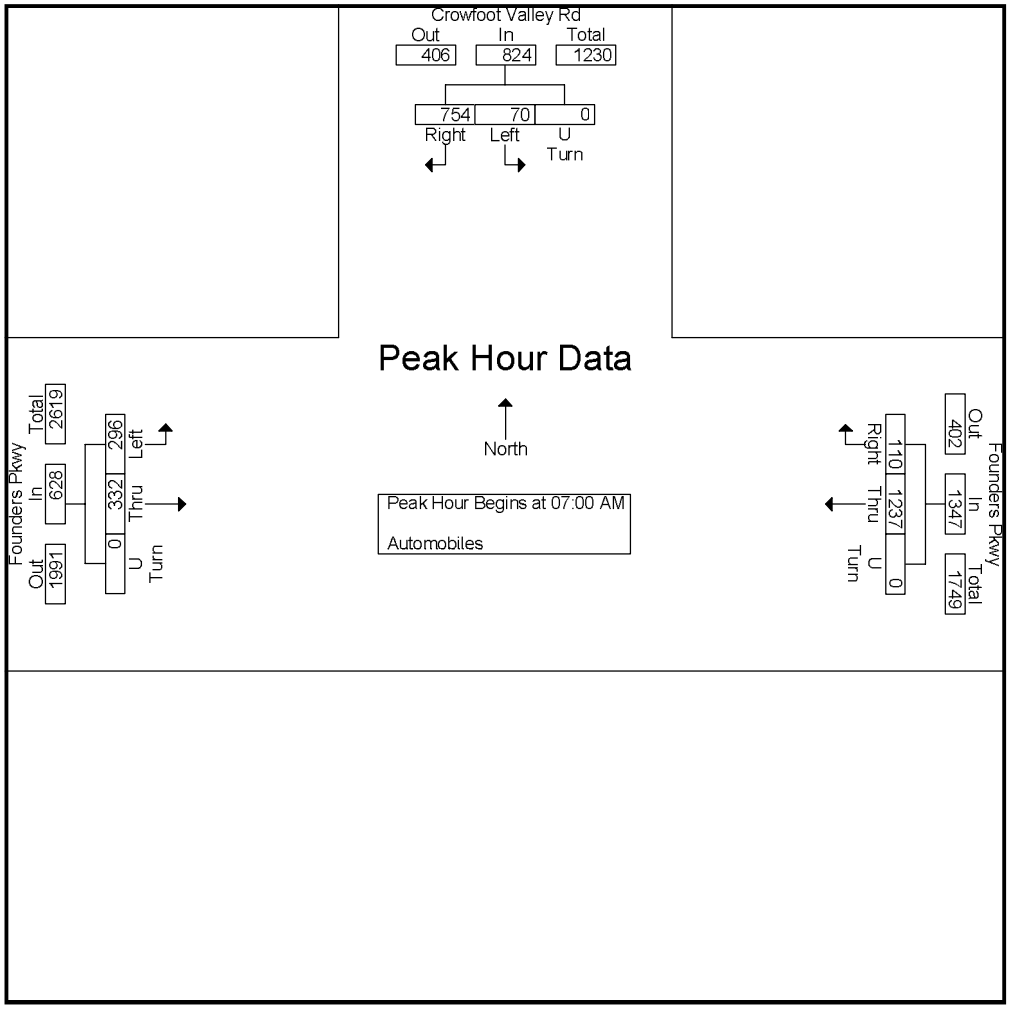


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Founders Pkwy and Crowfoot Valley Rd

File Name : Founders and Crowfoot Valley AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Founders Pkwy Eastbound				Founders Pkwy Westbound				Crowfoot Valley Rd Southbound				
Start Time	Left	Thru	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	62	86	0	148	314	27	0	341	18	172	0	190	679
07:15 AM	73	78	0	151	**335**	**31**	0	**366**	16	**231**	0	**247**	**764**
07:30 AM	**97**	**91**	0	**188**	302	31	0	333	6	180	0	186	707
07:45 AM	64	77	0	141	286	21	0	307	**30**	171	0	201	649
Total Volume	296	332	0	628	1237	110	0	1347	70	754	0	824	2799
% App. Total	47.1	52.9	0		91.8	8.2	0		8.5	91.5	0		
PHF	.763	.912	.000	.835	.923	.887	.000	.920	.583	.816	.000	.834	.916



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pkwy and Crowfoot Valley Rd

File Name : Founders and Crowfoot Valley PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

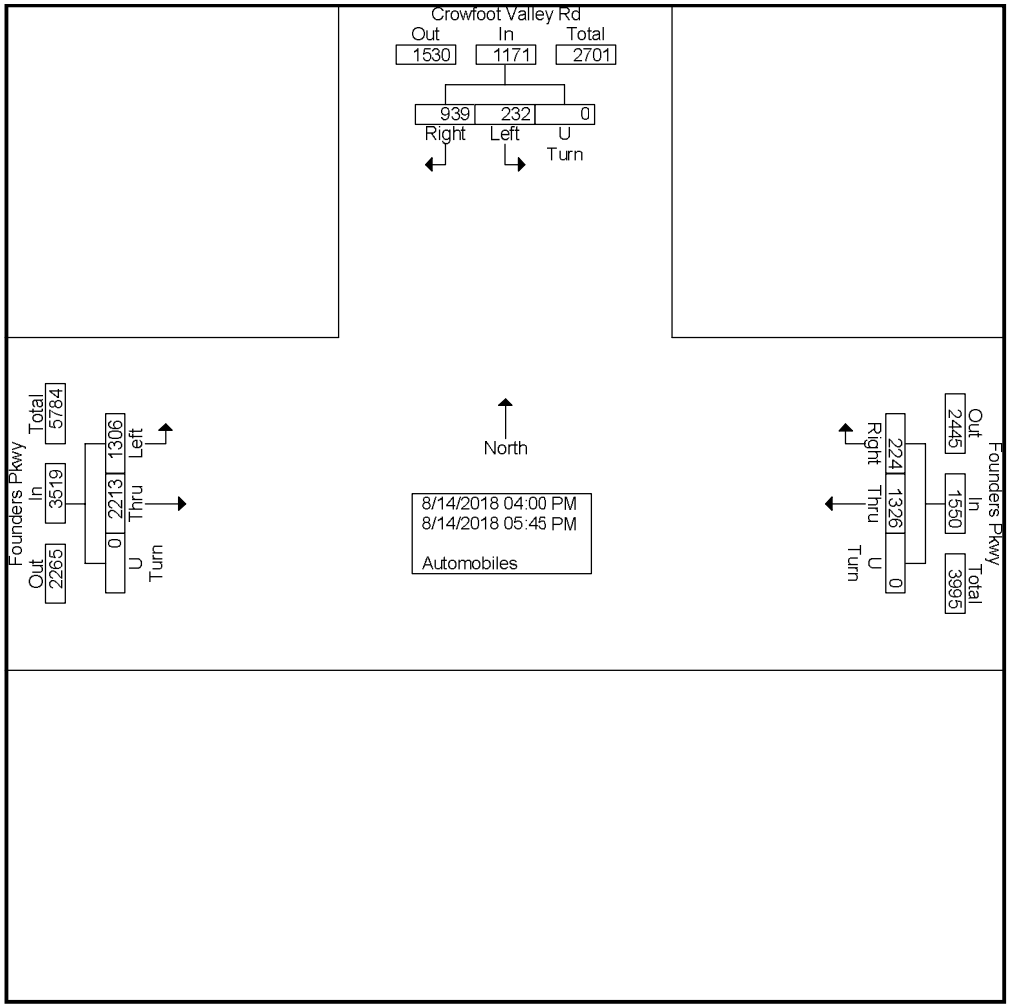
Groups Printed- Automobiles

	Founders Pkwy Eastbound				Founders Pkwy Westbound				Crowfoot Valley Rd Southbound				
Start Time	Left	Thru	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Right	U Turn	App. Total	Int. Total
04:00 PM	168	256	0	424	144	39	0	183	26	148	0	174	781
04:15 PM	142	252	0	394	212	29	0	241	22	108	0	130	765
04:30 PM	167	312	0	479	150	27	0	177	25	112	0	137	793
04:45 PM	147	278	0	425	165	30	0	195	27	126	0	153	773
Total	624	1098	0	1722	671	125	0	796	100	494	0	594	3112
05:00 PM	197	284	0	481	167	22	0	189	33	98	0	131	801
05:15 PM	154	285	0	439	186	25	0	211	30	129	0	159	809
05:30 PM	178	269	0	447	171	28	0	199	35	112	0	147	793
05:45 PM	153	277	0	430	131	24	0	155	34	106	0	140	725
Total	682	1115	0	1797	655	99	0	754	132	445	0	577	3128
Grand Total	1306	2213	0	3519	1326	224	0	1550	232	939	0	1171	6240
Apprch %	37.1	62.9	0		85.5	14.5	0		19.8	80.2	0		
Total %	20.9	35.5	0	56.4	21.2	3.6	0	24.8	3.7	15	0	18.8	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pkwy and Crowfoot Valley Rd

File Name : Founders and Crowfoot Valley PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

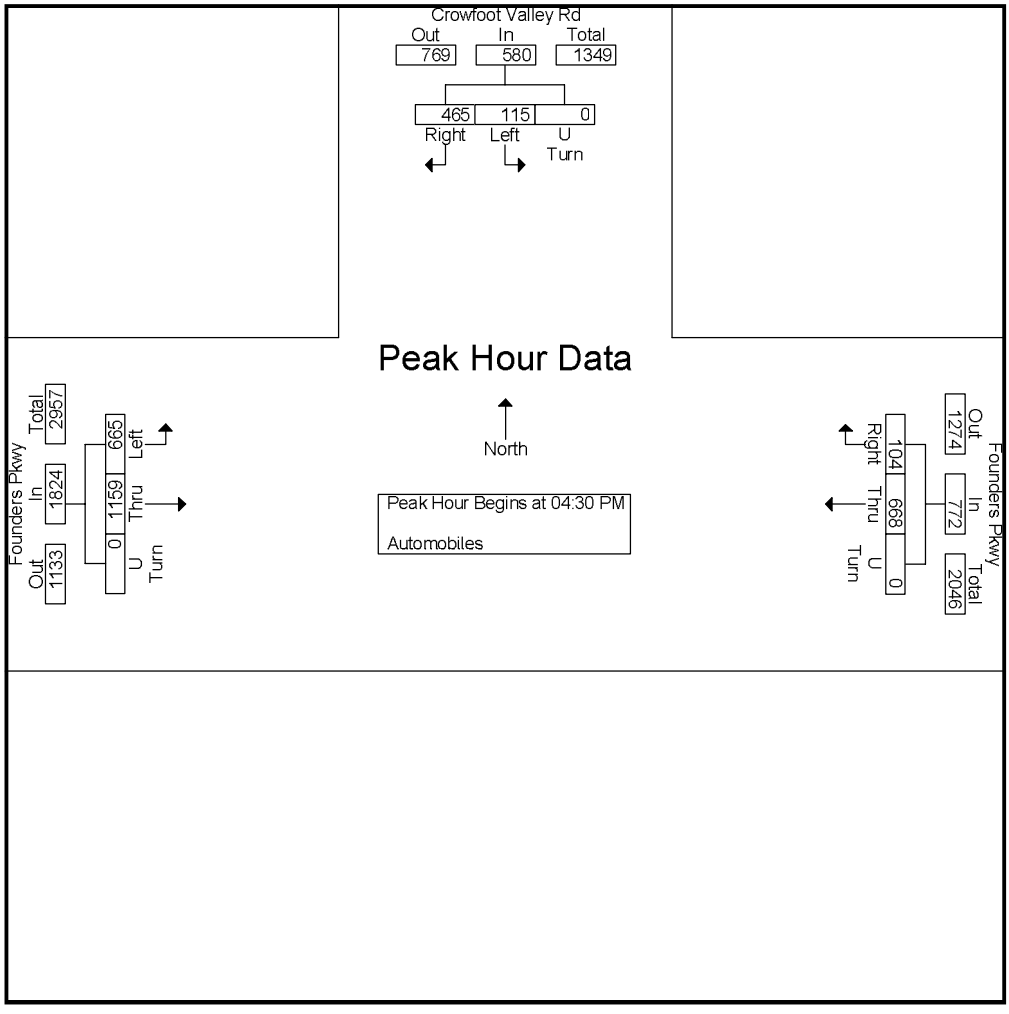


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pkwy and Crowfoot Valley Rd

File Name : Founders and Crowfoot Valley PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Founders Pkwy Eastbound				Founders Pkwy Westbound				Crowfoot Valley Rd Southbound				
Start Time	Left	Thru	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	167	**312**	0	479	150	27	0	177	25	112	0	137	793
04:45 PM	147	278	0	425	165	**30**	0	195	27	126	0	153	773
05:00 PM	**197**	284	0	**481**	167	22	0	189	**33**	98	0	131	801
05:15 PM	154	285	0	439	**186**	25	0	**211**	30	**129**	0	**159**	**809**
Total Volume	665	1159	0	1824	668	104	0	772	115	465	0	580	3176
% App. Total	36.5	63.5	0		86.5	13.5	0		19.8	80.2	0		
PHF	.844	.929	.000	.948	.898	.867	.000	.915	.871	.901	.000	.912	.981



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Hwy 85 and Liggett Rd

File Name : Hwy 85 and Liggett AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

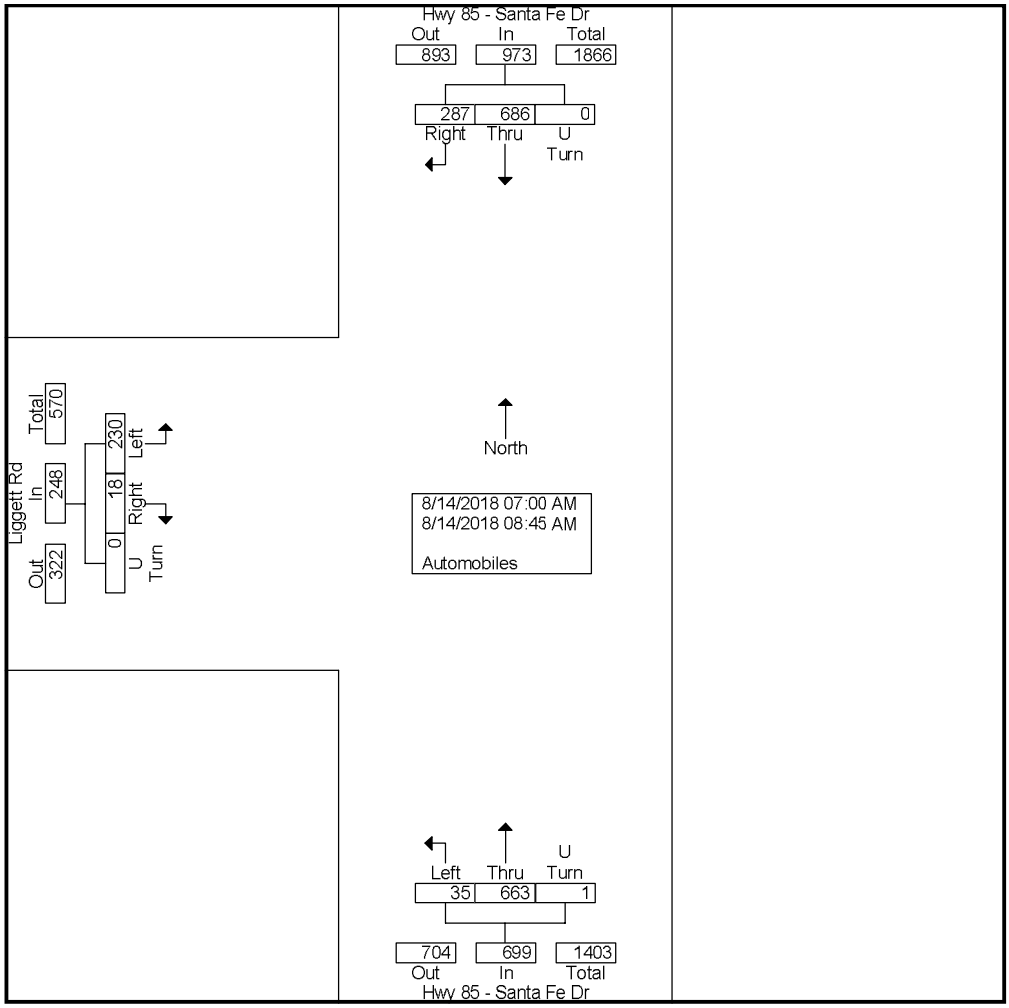
Groups Printed- Automobiles

	Liggett Rd Eastbound				Hwy 85 - Santa Fe Dr Northbound				Hwy 85 - Santa Fe Dr Southbound				
Start Time	Left	Right	U Turn	App. Total	Left	Thru	U Turn	App. Total	Thru	Right	U Turn	App. Total	Int. Total
07:00 AM	22	3	0	25	3	89	0	92	50	27	0	77	194
07:15 AM	41	6	0	47	17	92	0	109	92	57	0	149	305
07:30 AM	28	1	0	29	4	93	0	97	97	31	0	128	254
07:45 AM	30	4	0	34	3	63	0	66	103	45	0	148	248
Total	121	14	0	135	27	337	0	364	342	160	0	502	1001
08:00 AM	31	1	0	32	2	73	0	75	88	39	0	127	234
08:15 AM	23	1	0	24	2	83	0	85	88	28	0	116	225
08:30 AM	30	1	0	31	3	93	0	96	88	26	0	114	241
08:45 AM	25	1	0	26	1	77	1	79	80	34	0	114	219
Total	109	4	0	113	8	326	1	335	344	127	0	471	919
Grand Total	230	18	0	248	35	663	1	699	686	287	0	973	1920
Apprch %	92.7	7.3	0		5	94.8	0.1		70.5	29.5	0		
Total %	12	0.9	0	12.9	1.8	34.5	0.1	36.4	35.7	14.9	0	50.7	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Hwy 85 and Liggett Rd

File Name : Hwy 85 and Liggett AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

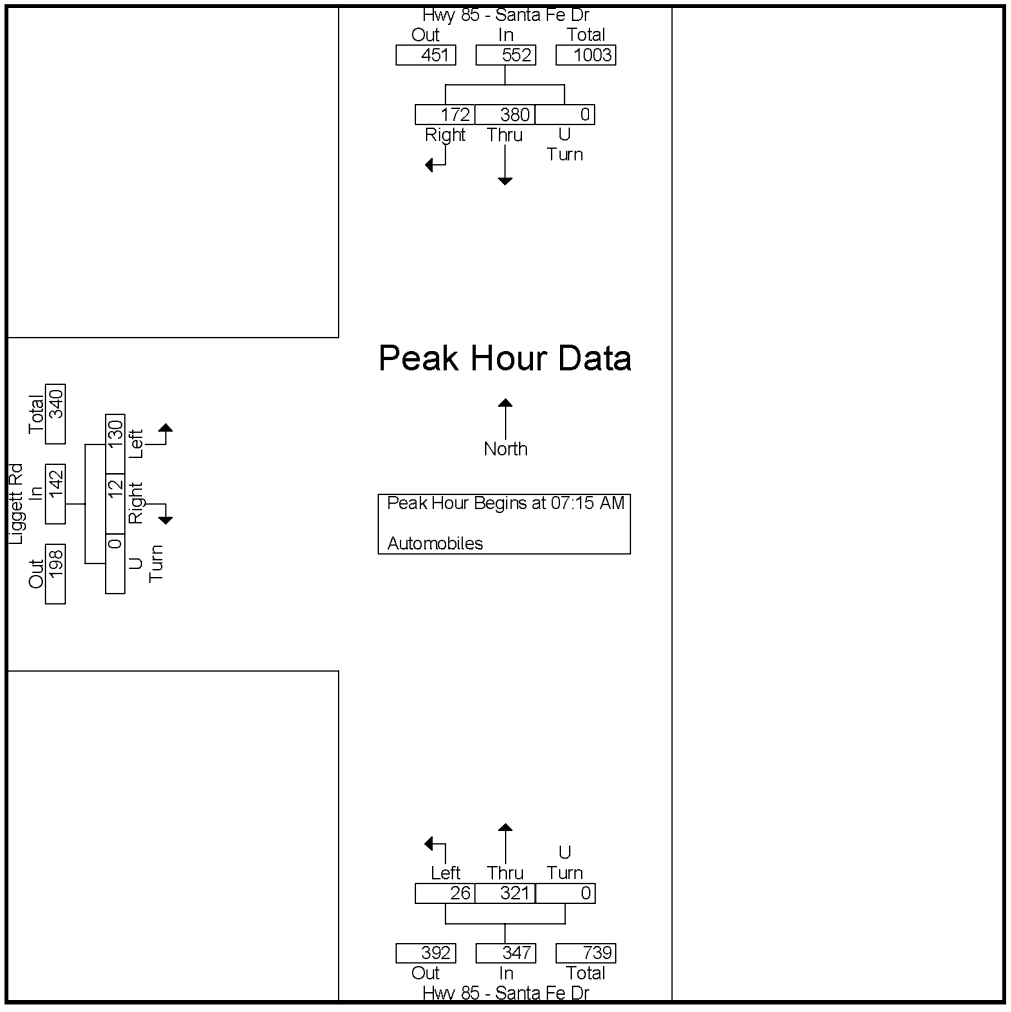


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Hwy 85 and Liggett Rd

File Name : Hwy 85 and Liggett AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Liggett Rd Eastbound				Hwy 85 - Santa Fe Dr Northbound				Hwy 85 - Santa Fe Dr Southbound				
Start Time	Left	Right	U Turn	App. Total	Left	Thru	U Turn	App. Total	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	**41**	**6**	0	**47**	**17**	92	0	**109**	92	**57**	0	**149**	**305**
07:30 AM	28	1	0	29	4	**93**	0	97	97	31	0	128	254
07:45 AM	30	4	0	34	3	63	0	66	**103**	45	0	148	248
08:00 AM	31	1	0	32	2	73	0	75	88	39	0	127	234
Total Volume	130	12	0	142	26	321	0	347	380	172	0	552	1041
% App. Total	91.5	8.5	0		7.5	92.5	0		68.8	31.2	0		
PHF	.793	.500	.000	.755	.382	.863	.000	.796	.922	.754	.000	.926	.853



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Hwy 85 and Liggett Rd

File Name : Hwy 85 and Liggett PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

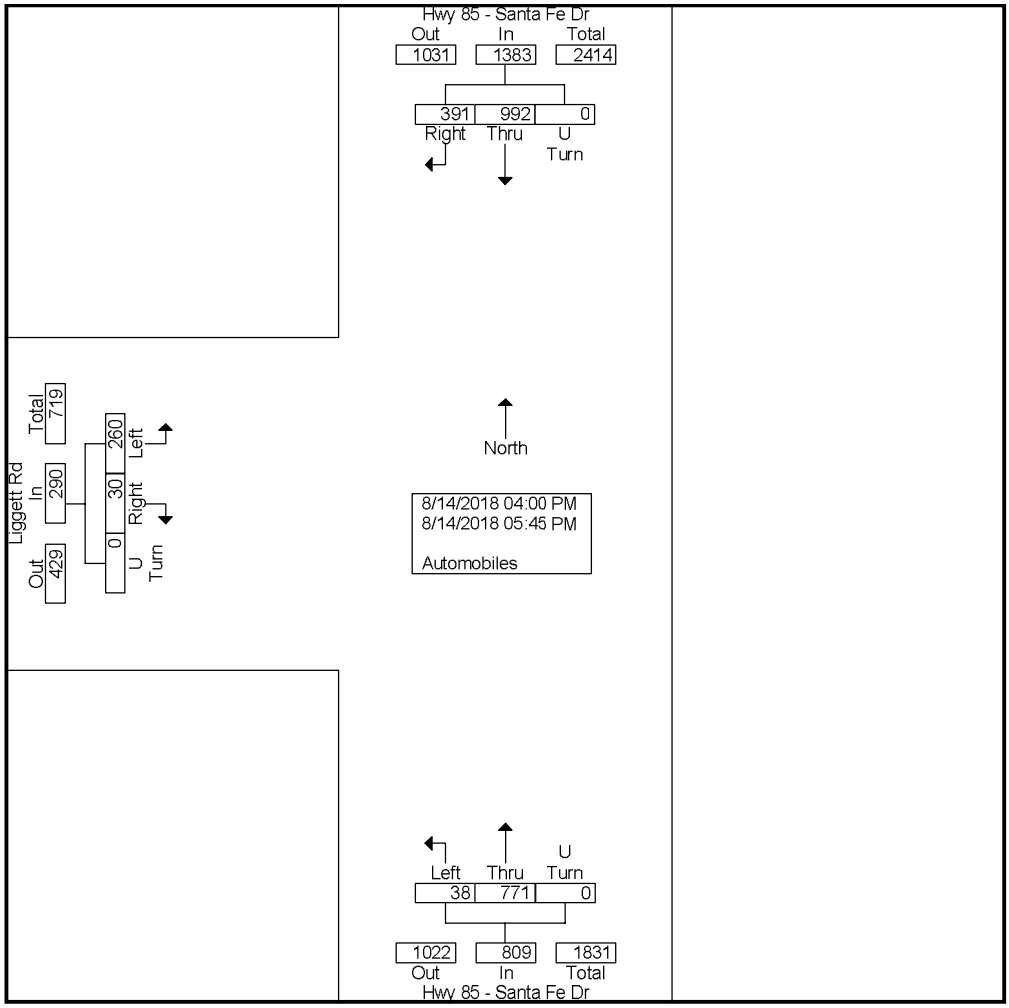
Groups Printed- Automobiles

	Liggett Rd Eastbound				Hwy 85 - Santa Fe Dr Northbound				Hwy 85 - Santa Fe Dr Southbound				
Start Time	Left	Right	U Turn	App. Total	Left	Thru	U Turn	App. Total	Thru	Right	U Turn	App. Total	Int. Total
04:00 PM	34	4	0	38	7	121	0	128	100	47	0	147	313
04:15 PM	28	3	0	31	3	110	0	113	132	47	0	179	323
04:30 PM	42	7	0	49	3	122	0	125	118	59	0	177	351
04:45 PM	35	2	0	37	3	108	0	111	130	46	0	176	324
Total	139	16	0	155	16	461	0	477	480	199	0	679	1311
05:00 PM	39	6	0	45	5	108	0	113	130	40	0	170	328
05:15 PM	40	2	0	42	4	86	0	90	144	45	0	189	321
05:30 PM	15	6	0	21	7	54	0	61	134	48	0	182	264
05:45 PM	27	0	0	27	6	62	0	68	104	59	0	163	258
Total	121	14	0	135	22	310	0	332	512	192	0	704	1171
Grand Total	260	30	0	290	38	771	0	809	992	391	0	1383	2482
Apprch %	89.7	10.3	0		4.7	95.3	0		71.7	28.3	0		
Total %	10.5	1.2	0	11.7	1.5	31.1	0	32.6	40	15.8	0	55.7	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Hwy 85 and Liggett Rd

File Name : Hwy 85 and Liggett PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

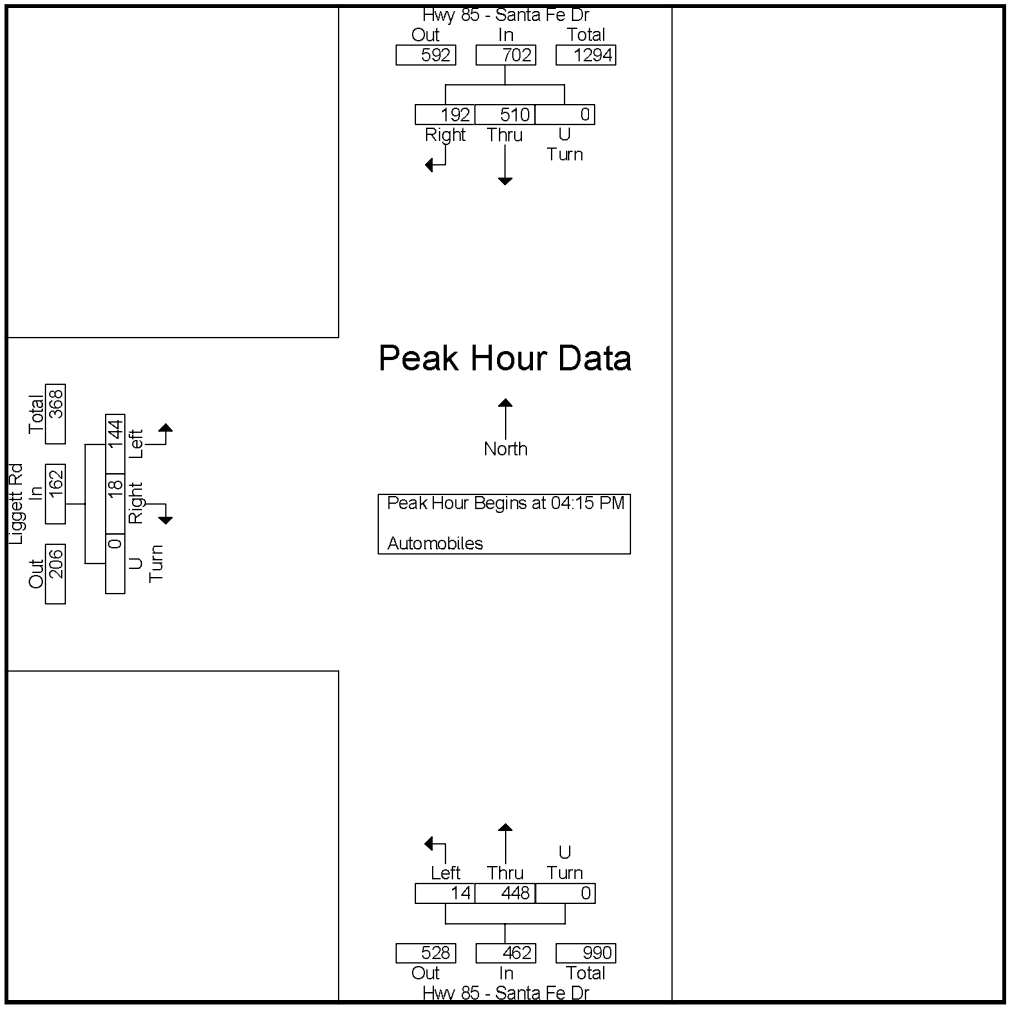


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Hwy 85 and Liggett Rd

File Name : Hwy 85 and Liggett PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Liggett Rd Eastbound				Hwy 85 - Santa Fe Dr Northbound				Hwy 85 - Santa Fe Dr Southbound				
Start Time	Left	Right	U Turn	App. Total	Left	Thru	U Turn	App. Total	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	28	3	0	31	3	110	0	113	**132**	47	0	**179**	323
04:30 PM	**42**	**7**	0	**49**	3	**122**	0	**125**	118	**59**	0	177	**351**
04:45 PM	35	2	0	37	3	108	0	111	130	46	0	176	324
05:00 PM	39	6	0	45	**5**	108	0	113	130	40	0	170	328
Total Volume	144	18	0	162	14	448	0	462	510	192	0	702	1326
% App. Total	88.9	11.1	0		3	97	0		72.6	27.4	0		
PHF	.857	.643	.000	.827	.700	.918	.000	.924	.966	.814	.000	.980	.944



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Hwy 85 - Black Feather & Front St

File Name : Hwy 85 -Black Feather & Front St AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

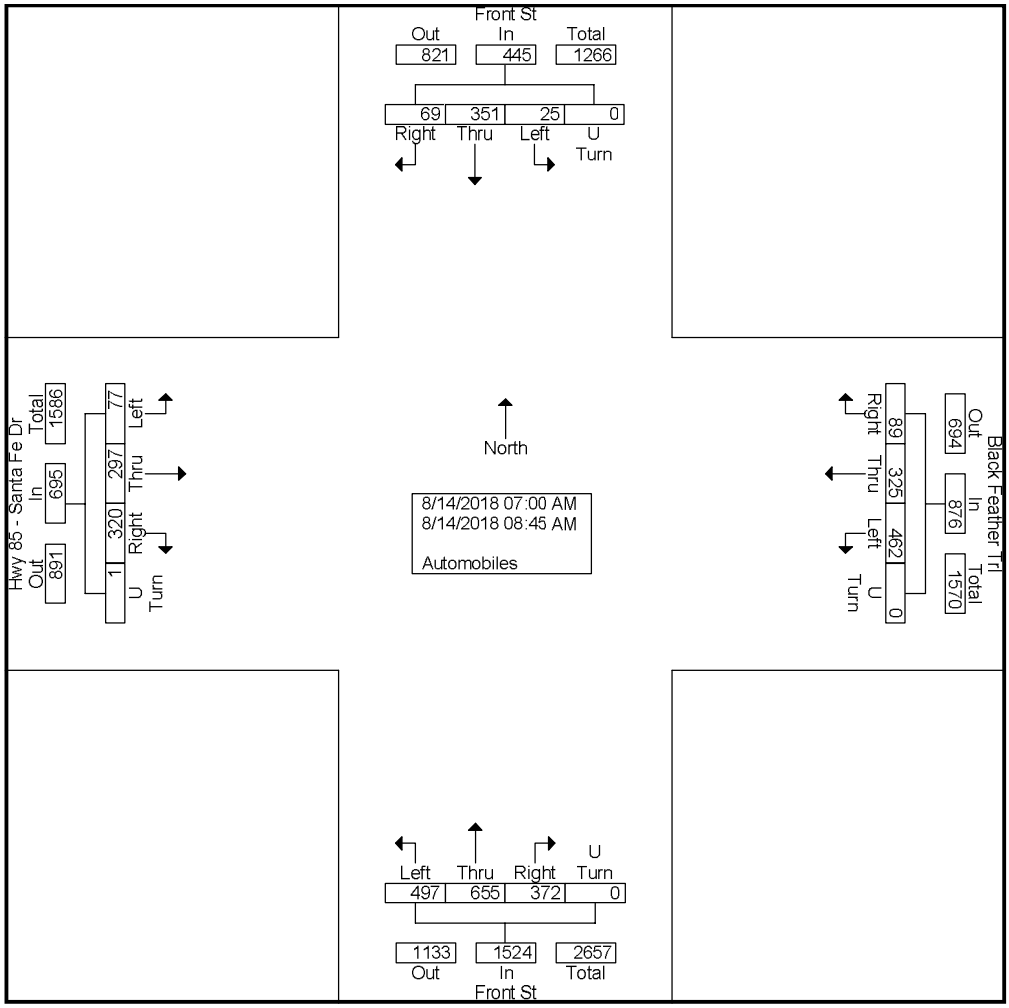
Groups Printed- Automobiles

	Hwy 85 - Santa Fe Dr Eastbound					Black Feather Trl Westbound					Front St Northbound					Front St Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
07:00 AM	5	14	35	0	54	58	35	9	0	102	65	88	23	0	176	3	42	9	0	54	386
07:15 AM	9	30	58	0	97	90	45	15	0	150	76	90	53	0	219	2	77	5	0	84	550
07:30 AM	15	38	33	0	86	63	55	10	0	128	79	121	65	0	265	1	40	9	0	50	529
07:45 AM	11	28	53	0	92	38	35	7	0	80	74	79	28	0	181	4	32	16	0	52	405
Total	40	110	179	0	329	249	170	41	0	460	294	378	169	0	841	10	191	39	0	240	1870
08:00 AM	10	37	32	0	79	26	27	12	0	65	58	64	37	0	159	6	39	9	0	54	357
08:15 AM	7	54	31	1	93	57	36	12	0	105	54	66	50	0	170	5	50	7	0	62	430
08:30 AM	7	52	39	0	98	64	48	16	0	128	54	74	79	0	207	3	33	7	0	43	476
08:45 AM	13	44	39	0	96	66	44	8	0	118	37	73	37	0	147	1	38	7	0	46	407
Total	37	187	141	1	366	213	155	48	0	416	203	277	203	0	683	15	160	30	0	205	1670
Grand Total	77	297	320	1	695	462	325	89	0	876	497	655	372	0	1524	25	351	69	0	445	3540
Apprch %	11.1	42.7	46	0.1		52.7	37.1	10.2	0		32.6	43	24.4	0		5.6	78.9	15.5	0		
Total %	2.2	8.4	9	0	19.6	13.1	9.2	2.5	0	24.7	14	18.5	10.5	0	43.1	0.7	9.9	1.9	0	12.6	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Hwy 85 - Black Feather & Front St

File Name : Hwy 85 -Black Feather & Front St AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

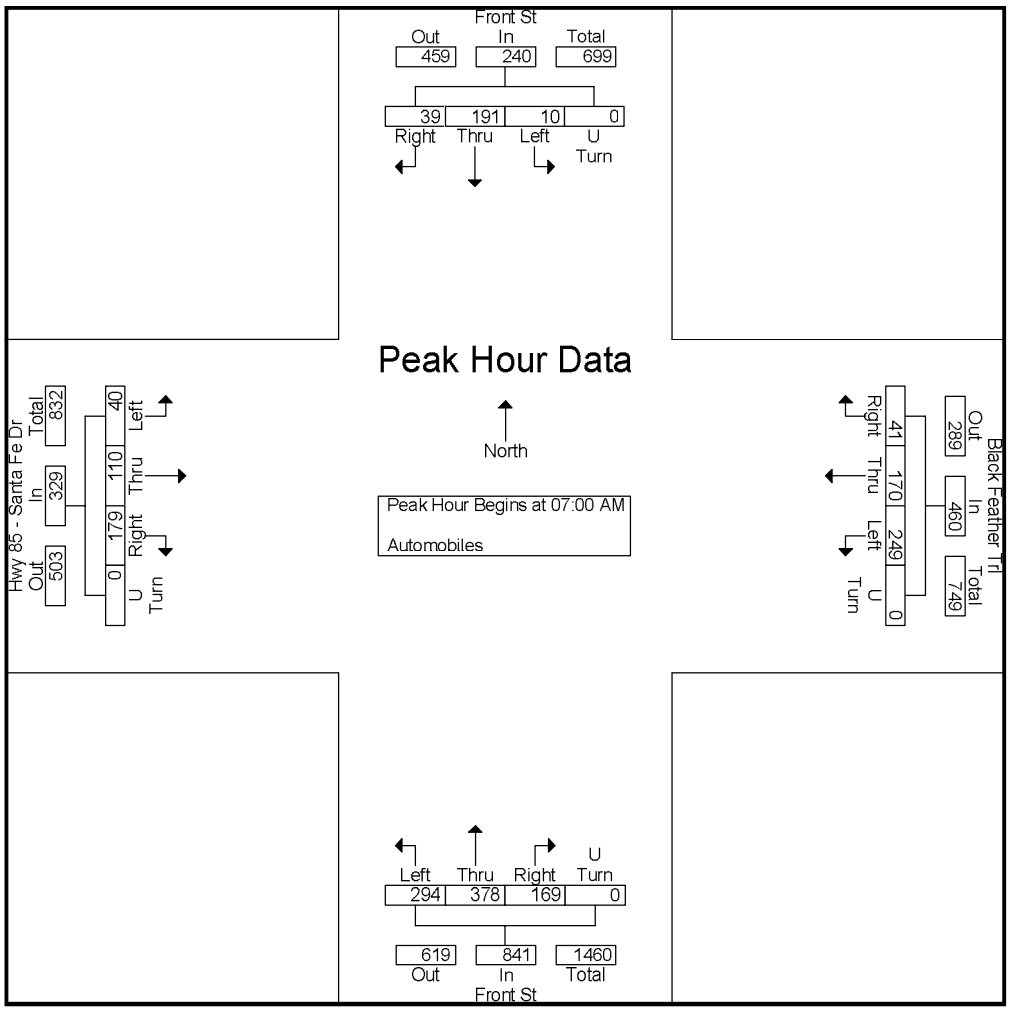


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Hwy 85 - Black Feather & Front St

File Name : Hwy 85 -Black Feather & Front St AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Hwy 85 - Santa Fe Dr Eastbound					Black Feather Trl Westbound					Front St Northbound					Front St Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	5	14	35	0	54	58	35	9	0	102	65	88	23	0	176	3	42	9	0	54	386
07:15 AM	9	30	**58**	0	**97**	**90**	45	**15**	0	**150**	76	90	53	0	219	2	**77**	5	0	**84**	**550**
07:30 AM	**15**	**38**	33	0	86	63	**55**	10	0	128	**79**	**121**	**65**	0	**265**	1	40	9	0	50	529
07:45 AM	11	28	53	0	92	38	35	7	0	80	74	79	28	0	181	**4**	32	**16**	0	52	405
Total Volume	40	110	179	0	329	249	170	41	0	460	294	378	169	0	841	10	191	39	0	240	1870
% App. Total	12.2	33.4	54.4	0		54.1	37	8.9	0		35	44.9	20.1	0		4.2	79.6	16.2	0		
PHF	.667	.724	.772	.000	.848	.692	.773	.683	.000	.767	.930	.781	.650	.000	.793	.625	.620	.609	.000	.714	.850



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Hwy 85 - Black Feather & Front St

File Name : Hwy 85 -Black Feather & Front St PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

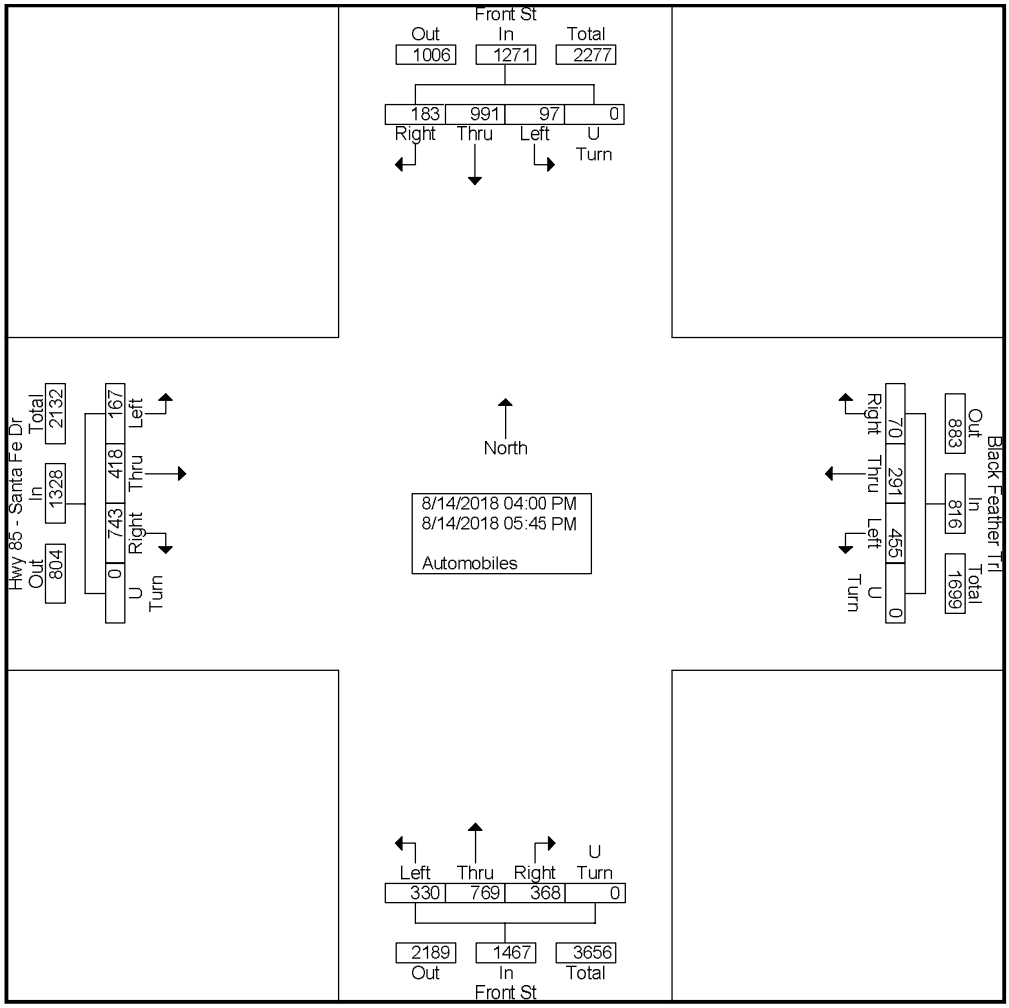
Groups Printed- Automobiles

	Hwy 85 - Santa Fe Dr Eastbound					Black Feather Trl Westbound					Front St Northbound					Front St Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
04:00 PM	23	66	67	0	156	71	52	14	0	137	39	93	46	0	178	15	136	27	0	178	649
04:15 PM	18	57	78	0	153	70	55	9	0	134	42	103	50	0	195	16	107	22	0	145	627
04:30 PM	24	61	88	0	173	65	49	18	0	132	50	103	49	0	202	14	132	29	0	175	682
04:45 PM	30	42	88	0	160	74	41	8	0	123	53	80	32	0	165	9	121	24	0	154	602
Total	95	226	321	0	642	280	197	49	0	526	184	379	177	0	740	54	496	102	0	652	2560
05:00 PM	24	59	111	0	194	38	28	5	0	71	42	109	54	0	205	15	139	27	0	181	651
05:15 PM	17	59	118	0	194	55	33	7	0	95	35	116	61	0	212	11	133	23	0	167	668
05:30 PM	23	40	102	0	165	38	19	3	0	60	35	99	46	0	180	5	100	13	0	118	523
05:45 PM	8	34	91	0	133	44	14	6	0	64	34	66	30	0	130	12	123	18	0	153	480
Total	72	192	422	0	686	175	94	21	0	290	146	390	191	0	727	43	495	81	0	619	2322
Grand Total	167	418	743	0	1328	455	291	70	0	816	330	769	368	0	1467	97	991	183	0	1271	4882
Apprch %	12.6	31.5	55.9	0		55.8	35.7	8.6	0		22.5	52.4	25.1	0		7.6	78	14.4	0		
Total %	3.4	8.6	15.2	0	27.2	9.3	6	1.4	0	16.7	6.8	15.8	7.5	0	30	2	20.3	3.7	0	26	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Hwy 85 - Black Feather & Front St

File Name : Hwy 85 -Black Feather & Front St PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

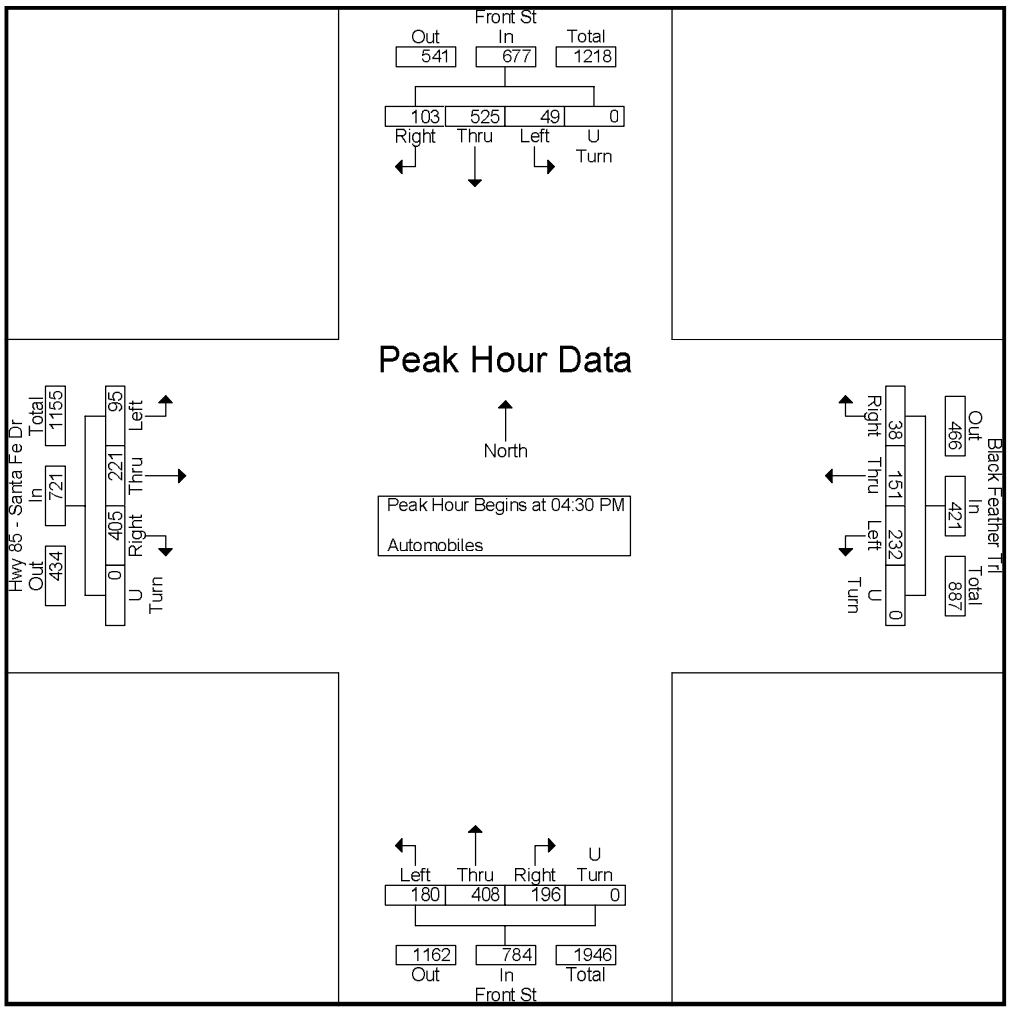


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Hwy 85 - Black Feather & Front St

File Name : Hwy 85 -Black Feather & Front St PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Hwy 85 - Santa Fe Dr Eastbound					Black Feather Trl Westbound					Front St Northbound					Front St Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	24	**61**	88	0	173	65	**49**	**18**	0	**132**	50	103	49	0	202	14	132	**29**	0	175	**682**
04:45 PM	**30**	42	88	0	160	**74**	41	8	0	123	**53**	80	32	0	165	9	121	24	0	154	602
05:00 PM	24	59	111	0	**194**	38	28	5	0	71	42	109	54	0	205	**15**	**139**	27	0	**181**	651
05:15 PM	17	59	**118**	0	194	55	33	7	0	95	35	**116**	**61**	0	**212**	11	133	23	0	167	668
Total Volume	95	221	405	0	721	232	151	38	0	421	180	408	196	0	784	49	525	103	0	677	2603
% App. Total	13.2	30.7	56.2	0		55.1	35.9	9	0		23	52	25	0		7.2	77.5	15.2	0		
PHF	.792	.906	.858	.000	.929	.784	.770	.528	.000	.797	.849	.879	.803	.000	.925	.817	.944	.888	.000	.935	.954



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Black Feather Trl and Woodlands Blvd

File Name : Black Feather Tr and Woodlands AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

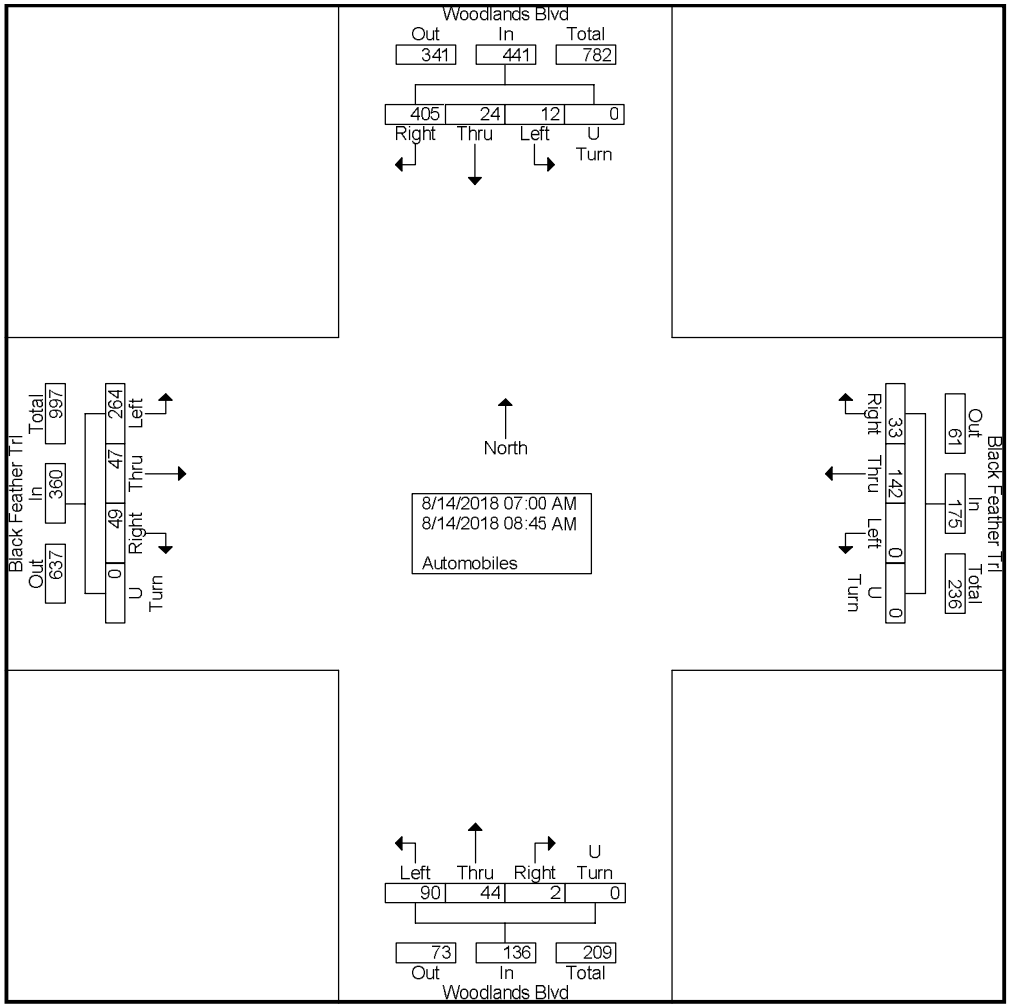
Groups Printed- Automobiles

	Black Feather Trl Eastbound					Black Feather Trl Westbound					Woodlands Blvd Northbound					Woodlands Blvd Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
07:00 AM	29	5	7	0	41	0	21	3	0	24	13	12	0	0	25	2	4	65	0	71	161
07:15 AM	31	9	5	0	45	0	25	9	0	34	15	4	0	0	19	1	5	89	0	95	193
07:30 AM	50	6	9	0	65	0	15	4	0	19	7	3	0	0	10	0	2	52	0	54	148
07:45 AM	33	3	4	0	40	0	16	5	0	21	9	8	0	0	17	2	2	51	0	55	133
Total	143	23	25	0	191	0	77	21	0	98	44	27	0	0	71	5	13	257	0	275	635
08:00 AM	25	5	7	0	37	0	13	2	0	15	13	4	2	0	19	1	5	32	0	38	109
08:15 AM	38	4	5	0	47	0	20	4	0	24	15	5	0	0	20	3	3	34	0	40	131
08:30 AM	29	9	8	0	46	0	15	4	0	19	10	1	0	0	11	1	2	39	0	42	118
08:45 AM	29	6	4	0	39	0	17	2	0	19	8	7	0	0	15	2	1	43	0	46	119
Total	121	24	24	0	169	0	65	12	0	77	46	17	2	0	65	7	11	148	0	166	477
Grand Total	264	47	49	0	360	0	142	33	0	175	90	44	2	0	136	12	24	405	0	441	1112
Apprch %	73.3	13.1	13.6	0		0	81.1	18.9	0		66.2	32.4	1.5	0		2.7	5.4	91.8	0		
Total %	23.7	4.2	4.4	0	32.4	0	12.8	3	0	15.7	8.1	4	0.2	0	12.2	1.1	2.2	36.4	0	39.7	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Black Feather Trl and Woodlands Blvd

File Name : Black Feather Tr and Woodlands AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

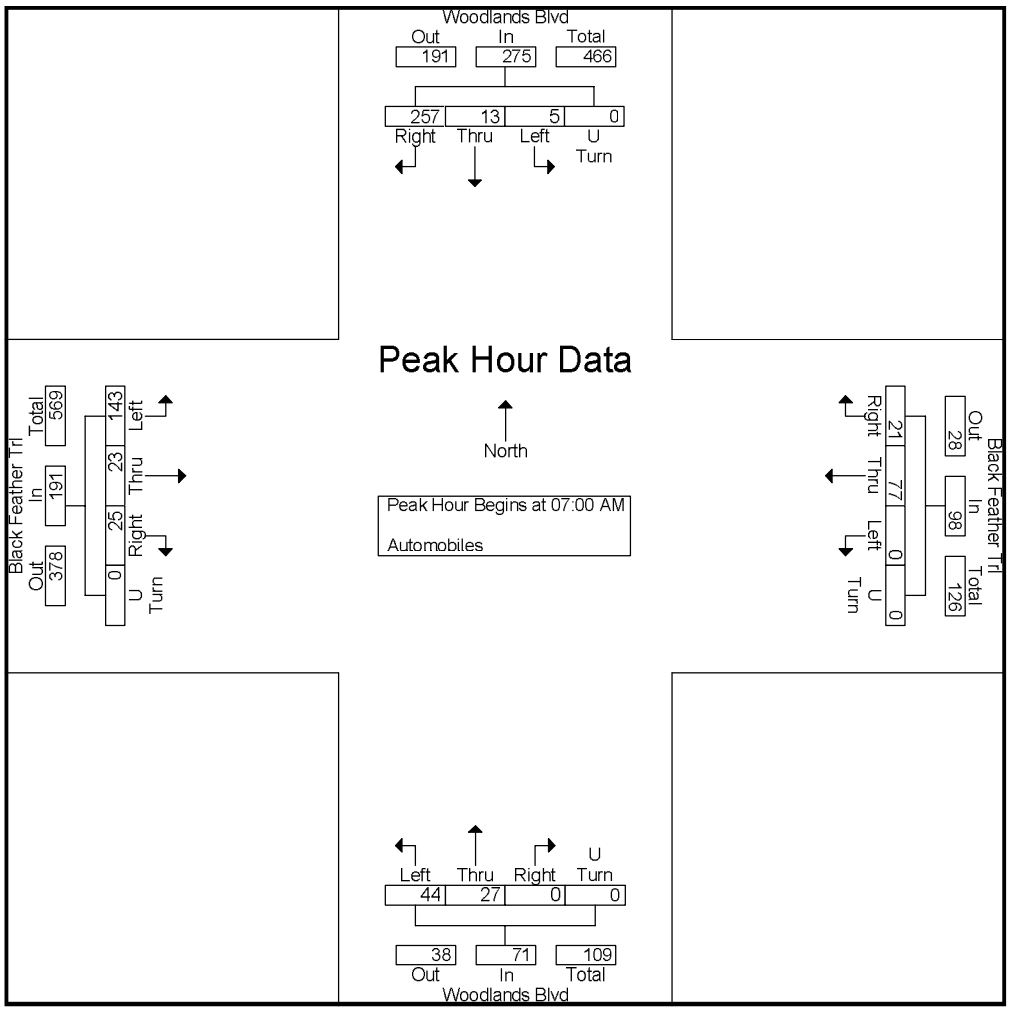


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Black Feather Trl and Woodlands Blvd

File Name : Black Feather Tr and Woodlands AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Black Feather Trl Eastbound					Black Feather Trl Westbound					Woodlands Blvd Northbound					Woodlands Blvd Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	29	5	7	0	41	0	21	3	0	24	13	**12**	0	0	**25**	**2**	4	65	0	71	161
07:15 AM	31	**9**	5	0	45	0	**25**	**9**	0	**34**	**15**	4	0	0	19	1	**5**	**89**	0	**95**	**193**
07:30 AM	**50**	6	**9**	0	**65**	0	15	4	0	19	7	3	0	0	10	0	2	52	0	54	148
07:45 AM	33	3	4	0	40	0	16	5	0	21	9	8	0	0	17	2	2	51	0	55	133
Total Volume	143	23	25	0	191	0	77	21	0	98	44	27	0	0	71	5	13	257	0	275	635
% App. Total	74.9	12	13.1	0		0	78.6	21.4	0		62	38	0	0		1.8	4.7	93.5	0		
PHF	.715	.639	.694	.000	.735	.000	.770	.583	.000	.721	.733	.563	.000	.000	.710	.625	.650	.722	.000	.724	.823



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Black Feather Trl and Woodlands Blvd

File Name : Black Feather Tr and Woodlands PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

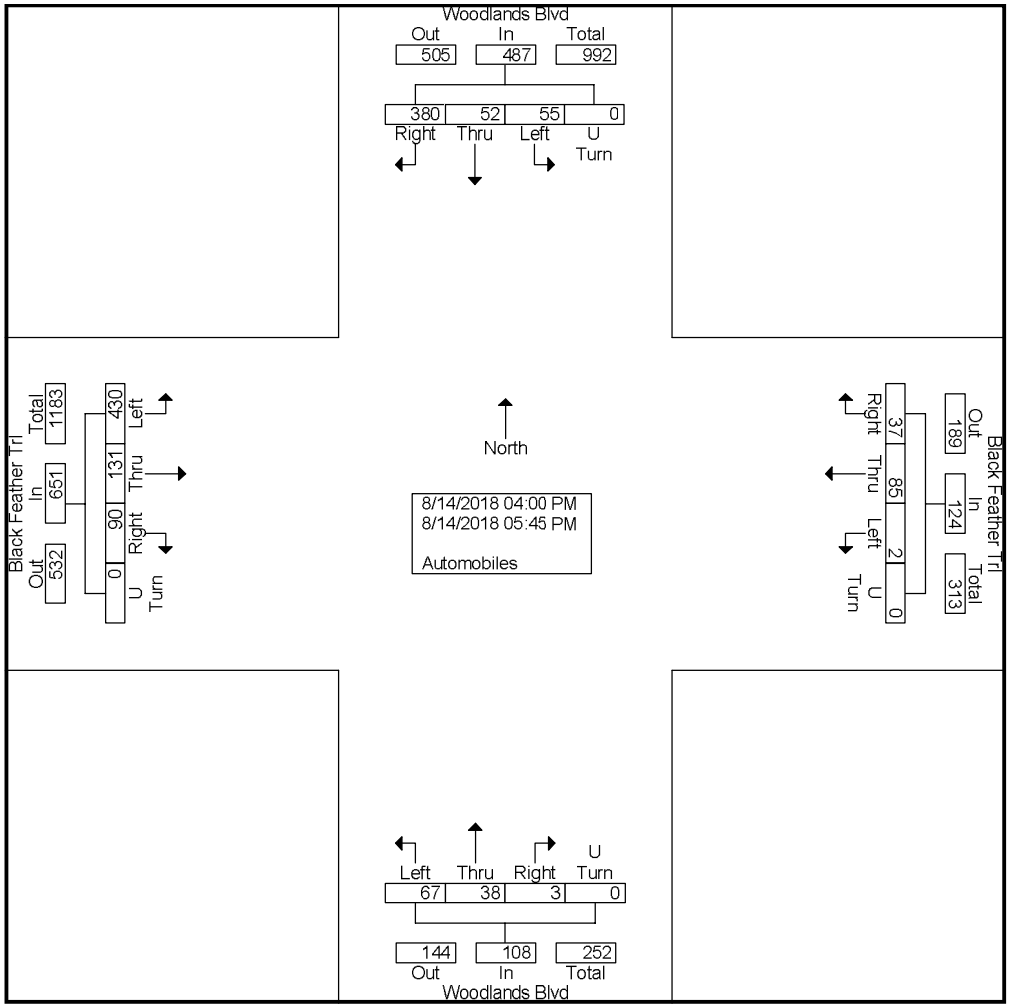
Groups Printed- Automobiles

	Black Feather Trl Eastbound					Black Feather Trl Westbound					Woodlands Blvd Northbound					Woodlands Blvd Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
04:00 PM	47	13	12	0	72	1	9	5	0	15	14	5	0	0	19	6	9	56	0	71	177
04:15 PM	38	18	14	0	70	0	13	4	0	17	8	4	1	0	13	6	9	51	0	66	166
04:30 PM	57	17	9	0	83	0	13	9	0	22	4	4	0	0	8	7	3	46	0	56	169
04:45 PM	42	18	12	0	72	0	9	5	0	14	12	1	1	0	14	10	8	46	0	64	164
Total	184	66	47	0	297	1	44	23	0	68	38	14	2	0	54	29	29	199	0	257	676
05:00 PM	66	20	15	0	101	0	15	5	0	20	12	5	0	0	17	7	3	46	0	56	194
05:15 PM	78	19	9	0	106	0	12	2	0	14	7	6	0	0	13	2	5	48	0	55	188
05:30 PM	65	8	11	0	84	0	6	4	0	10	2	5	0	0	7	10	6	39	0	55	156
05:45 PM	37	18	8	0	63	1	8	3	0	12	8	8	1	0	17	7	9	48	0	64	156
Total	246	65	43	0	354	1	41	14	0	56	29	24	1	0	54	26	23	181	0	230	694
Grand Total	430	131	90	0	651	2	85	37	0	124	67	38	3	0	108	55	52	380	0	487	1370
Apprch %	66.1	20.1	13.8	0		1.6	68.5	29.8	0		62	35.2	2.8	0		11.3	10.7	78	0		
Total %	31.4	9.6	6.6	0	47.5	0.1	6.2	2.7	0	9.1	4.9	2.8	0.2	0	7.9	4	3.8	27.7	0	35.5	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Black Feather Trl and Woodlands Blvd

File Name : Black Feather Tr and Woodlands PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

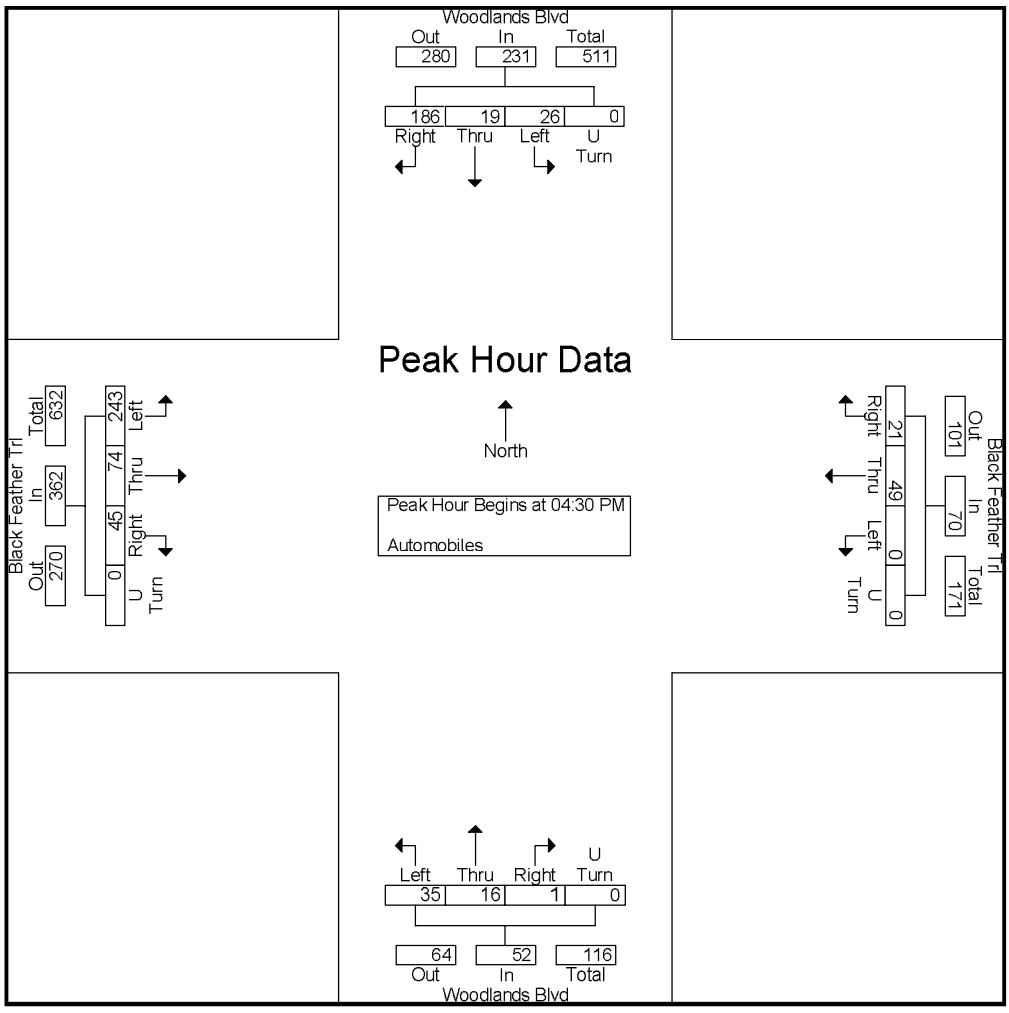


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Black Feather Trl and Woodlands Blvd

File Name : Black Feather Tr and Woodlands PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Black Feather Trl Eastbound					Black Feather Trl Westbound					Woodlands Blvd Northbound					Woodlands Blvd Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	57	17	9	0	83	0	13	**9**	0	**22**	4	4	0	0	8	7	3	46	0	56	169
04:45 PM	42	18	12	0	72	0	9	5	0	14	**12**	1	**1**	0	14	**10**	**8**	46	0	**64**	164
05:00 PM	66	**20**	**15**	0	101	0	**15**	5	0	20	12	5	0	0	**17**	7	3	46	0	56	**194**
05:15 PM	**78**	19	9	0	**106**	0	12	2	0	14	7	**6**	0	0	13	2	5	**48**	0	55	188
Total Volume	243	74	45	0	362	0	49	21	0	70	35	16	1	0	52	26	19	186	0	231	715
% App. Total	67.1	20.4	12.4	0		0	70	30	0		67.3	30.8	1.9	0		11.3	8.2	80.5	0		
PHF	.779	.925	.750	.000	.854	.000	.817	.583	.000	.795	.729	.667	.250	.000	.765	.650	.594	.969	.000	.902	.921



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Founders Pkwy and Crimson Sky Dr

File Name : Founders and Crimson Sky AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

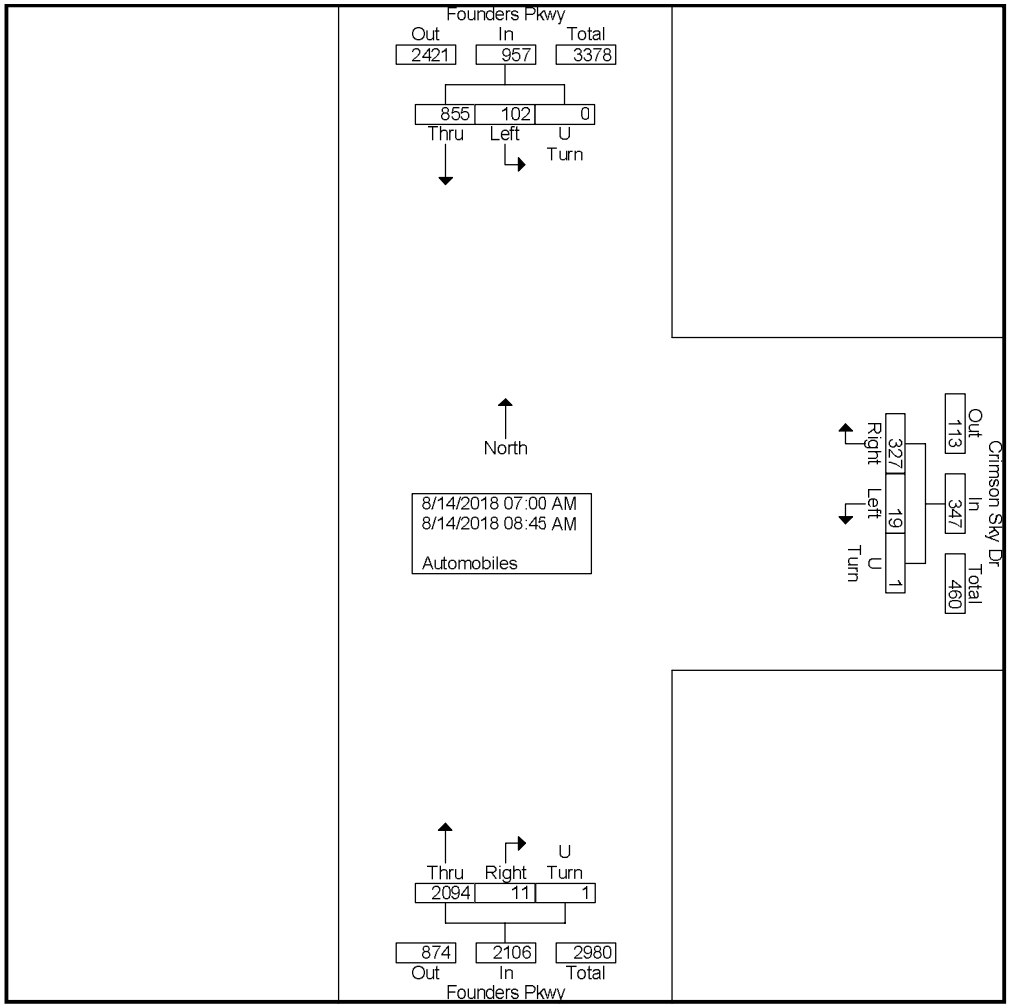
Groups Printed- Automobiles

	Crimson Sky Dr Westbound				Founders Pkwy Northbound				Founders Pkwy Southbound				
Start Time	Left	Right	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Thru	U Turn	App. Total	Int. Total
07:00 AM	3	53	0	56	290	1	0	291	6	105	0	111	458
07:15 AM	4	61	0	65	281	1	0	282	13	86	0	99	446
07:30 AM	0	39	0	39	307	5	0	312	19	81	0	100	451
07:45 AM	2	43	0	45	257	1	0	258	8	103	0	111	414
Total	9	196	0	205	1135	8	0	1143	46	375	0	421	1769
08:00 AM	2	34	0	36	238	0	0	238	13	79	0	92	366
08:15 AM	0	29	0	29	256	1	0	257	15	109	0	124	410
08:30 AM	2	30	0	32	255	0	0	255	13	150	0	163	450
08:45 AM	6	38	1	45	210	2	1	213	15	142	0	157	415
Total	10	131	1	142	959	3	1	963	56	480	0	536	1641
Grand Total	19	327	1	347	2094	11	1	2106	102	855	0	957	3410
Apprch %	5.5	94.2	0.3		99.4	0.5	0		10.7	89.3	0		
Total %	0.6	9.6	0	10.2	61.4	0.3	0	61.8	3	25.1	0	28.1	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Founders Pkwy and Crimson Sky Dr

File Name : Founders and Crimson Sky AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

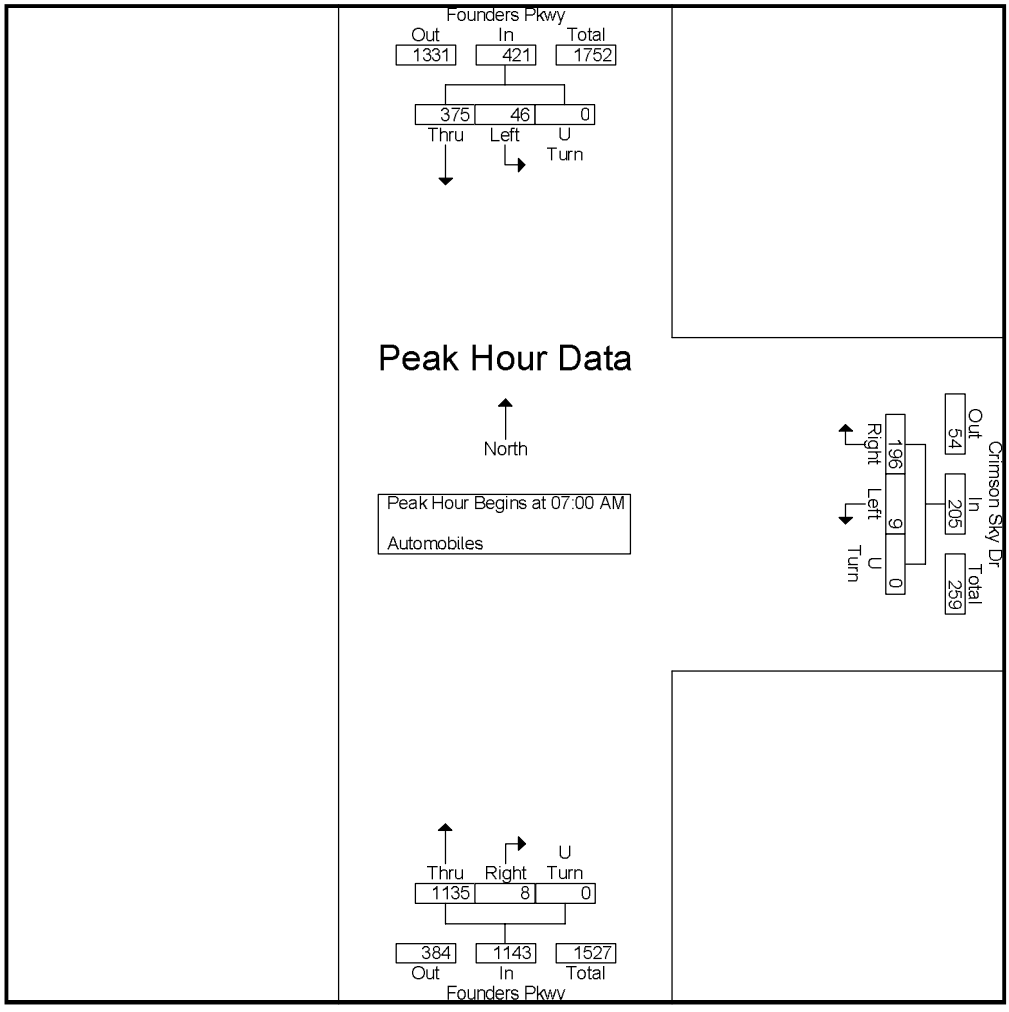


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Founders Pkwy and Crimson Sky Dr

File Name : Founders and Crimson Sky AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Crimson Sky Dr Westbound				Founders Pkwy Northbound				Founders Pkwy Southbound				
Start Time	Left	Right	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Thru	U Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	3	53	0	56	290	1	0	291	6	**105**	0	**111**	**458**
07:15 AM	**4**	**61**	0	**65**	281	1	0	282	13	86	0	99	446
07:30 AM	0	39	0	39	**307**	**5**	0	**312**	**19**	81	0	100	451
07:45 AM	2	43	0	45	257	1	0	258	8	103	0	111	414
Total Volume	9	196	0	205	1135	8	0	1143	46	375	0	421	1769
% App. Total	4.4	95.6	0		99.3	0.7	0		10.9	89.1	0		
PHF	.563	.803	.000	.788	.924	.400	.000	.916	.605	.893	.000	.948	.966



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pkwy and Crimson Sky Dr

File Name : Founders and Crimson Sky PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

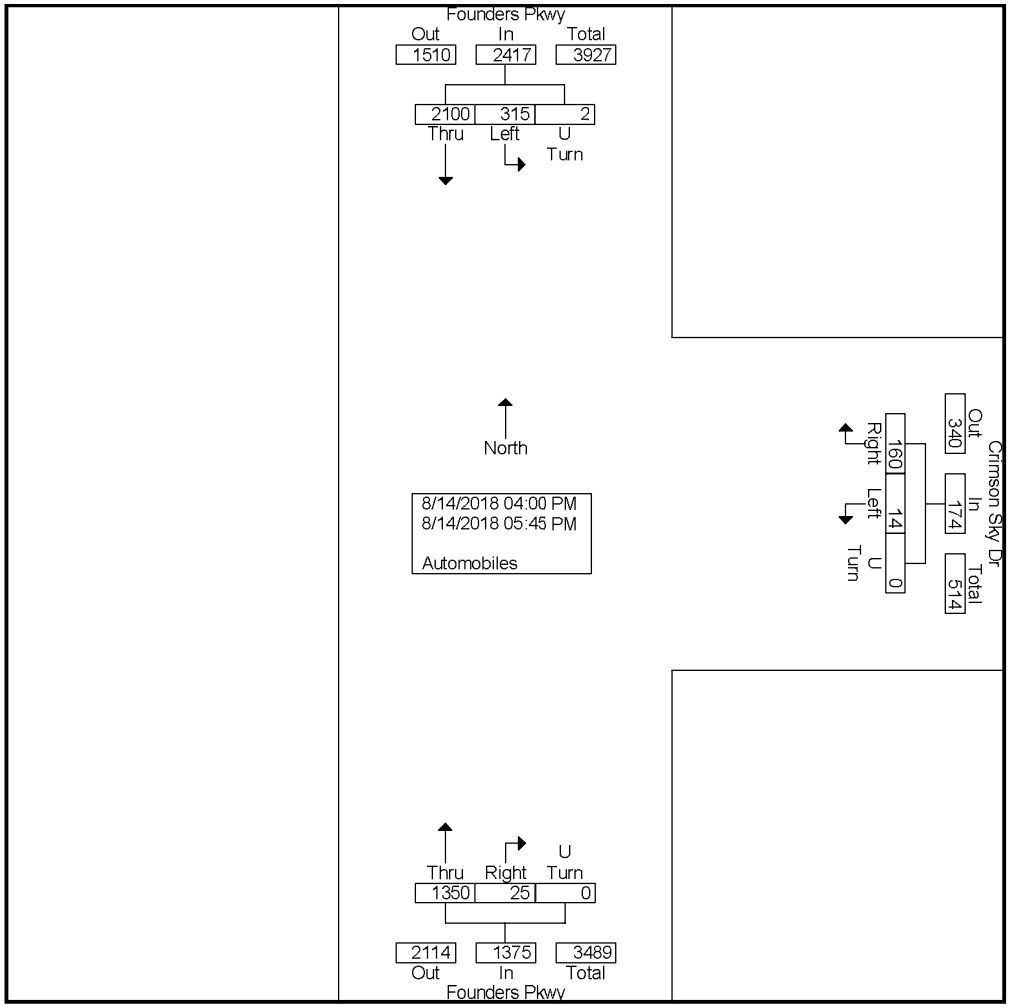
Groups Printed- Automobiles

	Crimson Sky Dr Westbound				Founders Pkwy Northbound				Founders Pkwy Southbound				
Start Time	Left	Right	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Thru	U Turn	App. Total	Int. Total
04:00 PM	0	16	0	16	189	2	0	191	37	236	1	274	481
04:15 PM	1	15	0	16	185	3	0	188	38	244	0	282	486
04:30 PM	1	20	0	21	183	9	0	192	39	287	0	326	539
04:45 PM	4	20	0	24	154	3	0	157	41	262	0	303	484
Total	6	71	0	77	711	17	0	728	155	1029	1	1185	1990
05:00 PM	2	25	0	27	160	1	0	161	35	276	0	311	499
05:15 PM	3	24	0	27	179	4	0	183	35	267	0	302	512
05:30 PM	1	26	0	27	161	2	0	163	54	242	1	297	487
05:45 PM	2	14	0	16	139	1	0	140	36	286	0	322	478
Total	8	89	0	97	639	8	0	647	160	1071	1	1232	1976
Grand Total	14	160	0	174	1350	25	0	1375	315	2100	2	2417	3966
Apprch %	8	92	0		98.2	1.8	0		13	86.9	0.1		
Total %	0.4	4	0	4.4	34	0.6	0	34.7	7.9	53	0.1	60.9	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pkwy and Crimson Sky Dr

File Name : Founders and Crimson Sky PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

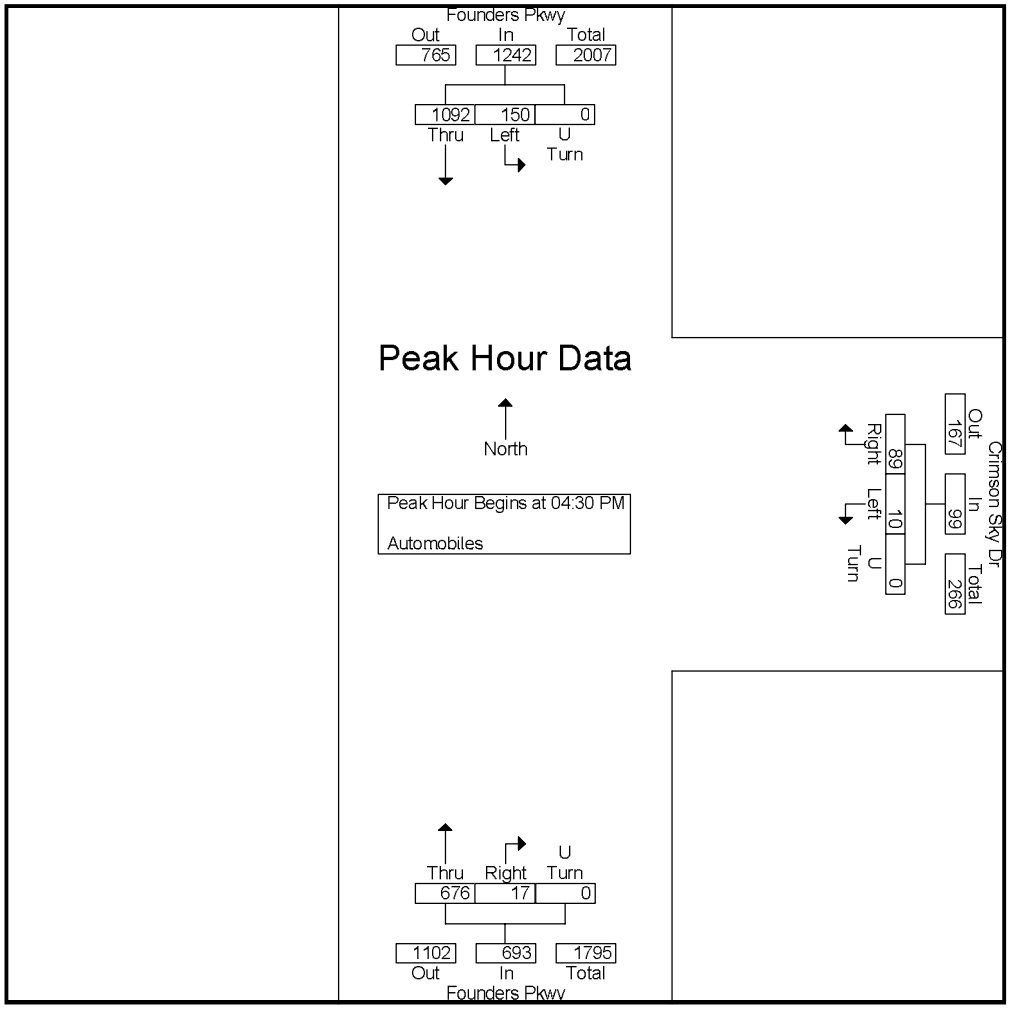


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pkwy and Crimson Sky Dr

File Name : Founders and Crimson Sky PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Crimson Sky Dr Westbound				Founders Pkwy Northbound				Founders Pkwy Southbound				
Start Time	Left	Right	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Thru	U Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	1	20	0	21	**183**	**9**	0	**192**	39	**287**	0	**326**	**539**
04:45 PM	**4**	20	0	24	154	3	0	157	**41**	262	0	303	484
05:00 PM	2	**25**	0	**27**	160	1	0	161	35	276	0	311	499
05:15 PM	3	24	0	27	179	4	0	183	35	267	0	302	512
Total Volume	10	89	0	99	676	17	0	693	150	1092	0	1242	2034
% App. Total	10.1	89.9	0		97.5	2.5	0		12.1	87.9	0		
PHF	.625	.890	.000	.917	.923	.472	.000	.902	.915	.951	.000	.952	.943



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Scott Blvd and Front St

File Name : Scott and Front AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

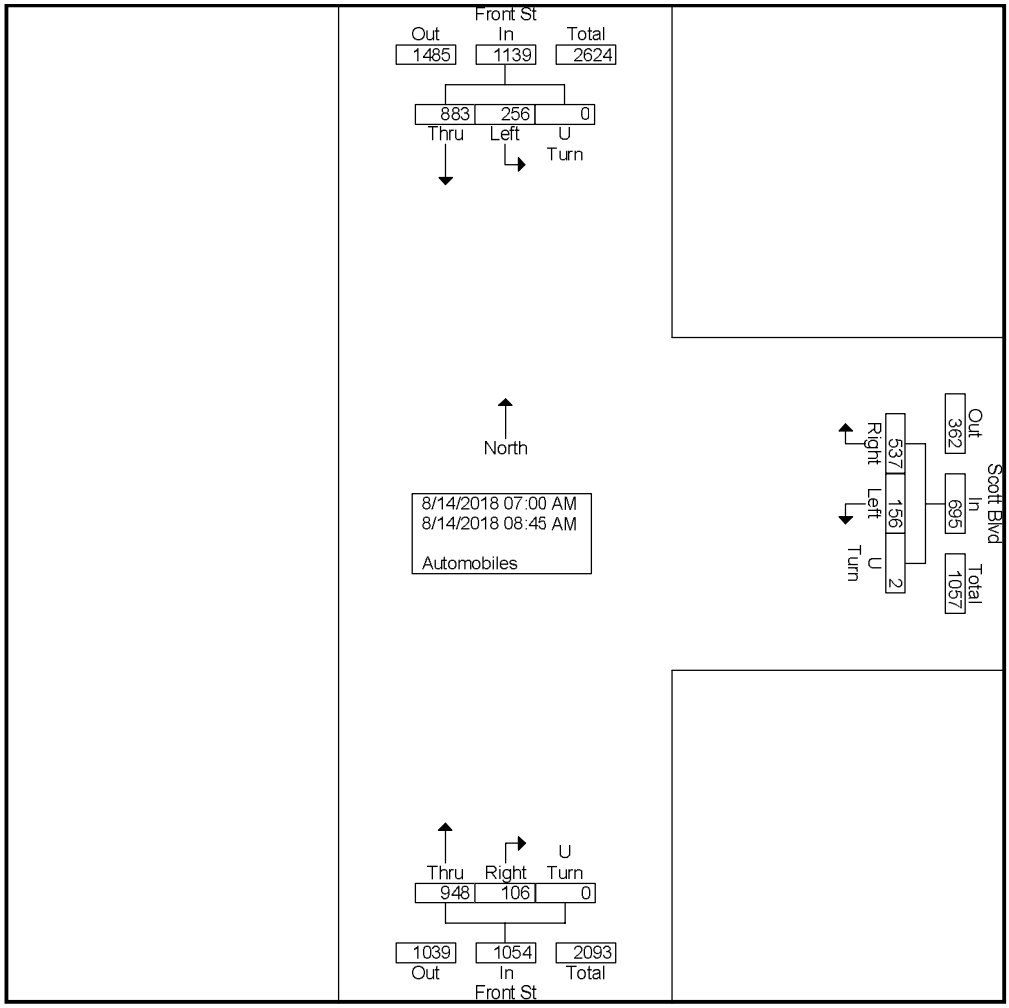
Groups Printed- Automobiles

	Scott Blvd Westbound				Front St Northbound				Front St Southbound				
Start Time	Left	Right	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Thru	U Turn	App. Total	Int. Total
07:00 AM	37	83	0	120	100	12	0	112	27	116	0	143	375
07:15 AM	59	68	1	128	158	32	0	190	32	187	0	219	537
07:30 AM	25	72	0	97	168	42	0	210	35	109	0	144	451
07:45 AM	7	73	0	80	101	4	0	105	34	81	0	115	300
Total	128	296	1	425	527	90	0	617	128	493	0	621	1663
08:00 AM	7	60	0	67	83	5	0	88	31	67	0	98	253
08:15 AM	7	68	1	76	89	1	0	90	25	113	0	138	304
08:30 AM	9	70	0	79	142	3	0	145	37	102	0	139	363
08:45 AM	5	43	0	48	107	7	0	114	35	108	0	143	305
Total	28	241	1	270	421	16	0	437	128	390	0	518	1225
Grand Total	156	537	2	695	948	106	0	1054	256	883	0	1139	2888
Apprch %	22.4	77.3	0.3		89.9	10.1	0		22.5	77.5	0		
Total %	5.4	18.6	0.1	24.1	32.8	3.7	0	36.5	8.9	30.6	0	39.4	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Scott Blvd and Front St

File Name : Scott and Front AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

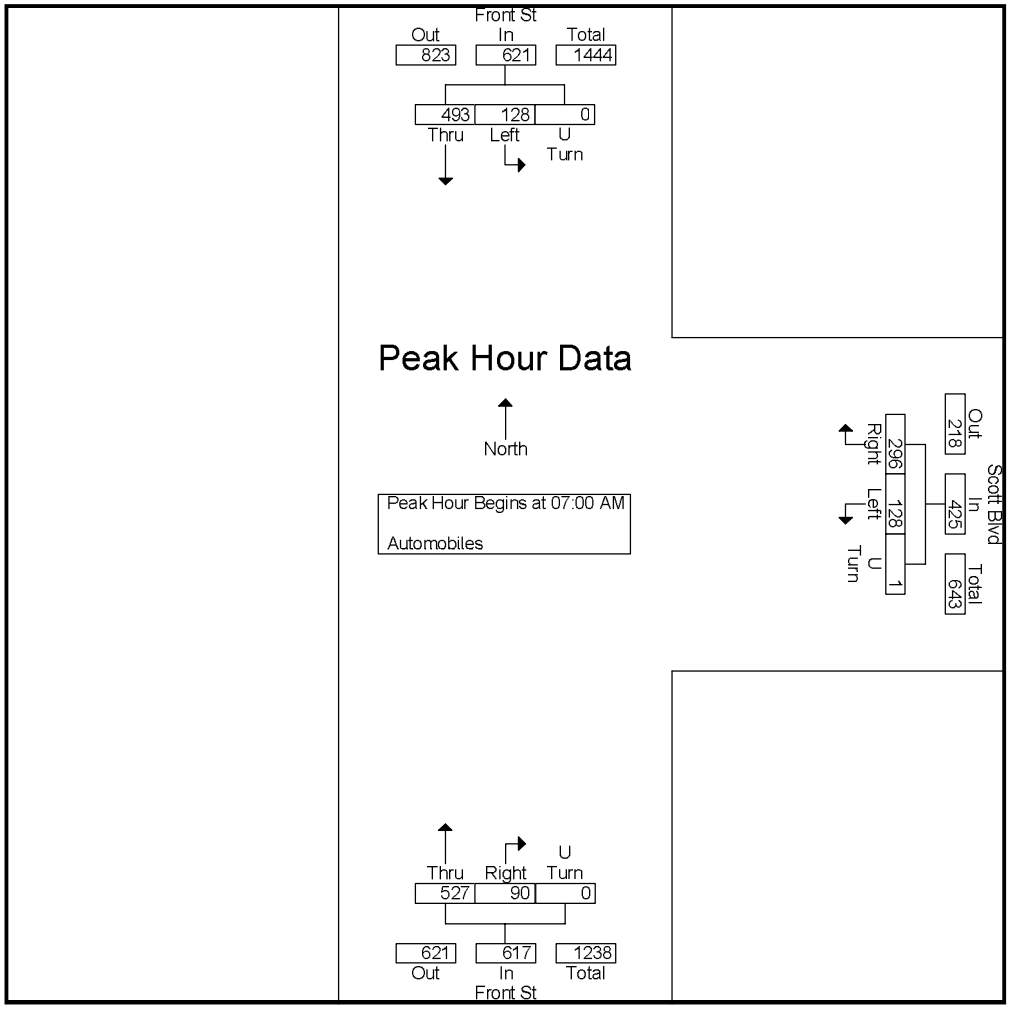


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Scott Blvd and Front St

File Name : Scott and Front AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Scott Blvd Westbound				Front St Northbound				Front St Southbound				
Start Time	Left	Right	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Thru	U Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	37	**83**	0	120	100	12	0	112	27	116	0	143	375
07:15 AM	**59**	68	**1**	**128**	158	32	0	190	32	**187**	0	**219**	**537**
07:30 AM	25	72	0	97	**168**	**42**	0	**210**	**35**	109	0	144	451
07:45 AM	7	73	0	80	101	4	0	105	34	81	0	115	300
Total Volume	128	296	1	425	527	90	0	617	128	493	0	621	1663
% App. Total	30.1	69.6	0.2		85.4	14.6	0		20.6	79.4	0		
PHF	.542	.892	.250	.830	.784	.536	.000	.735	.914	.659	.000	.709	.774



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Scott Blvd and Front St

File Name : Scott and Front PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

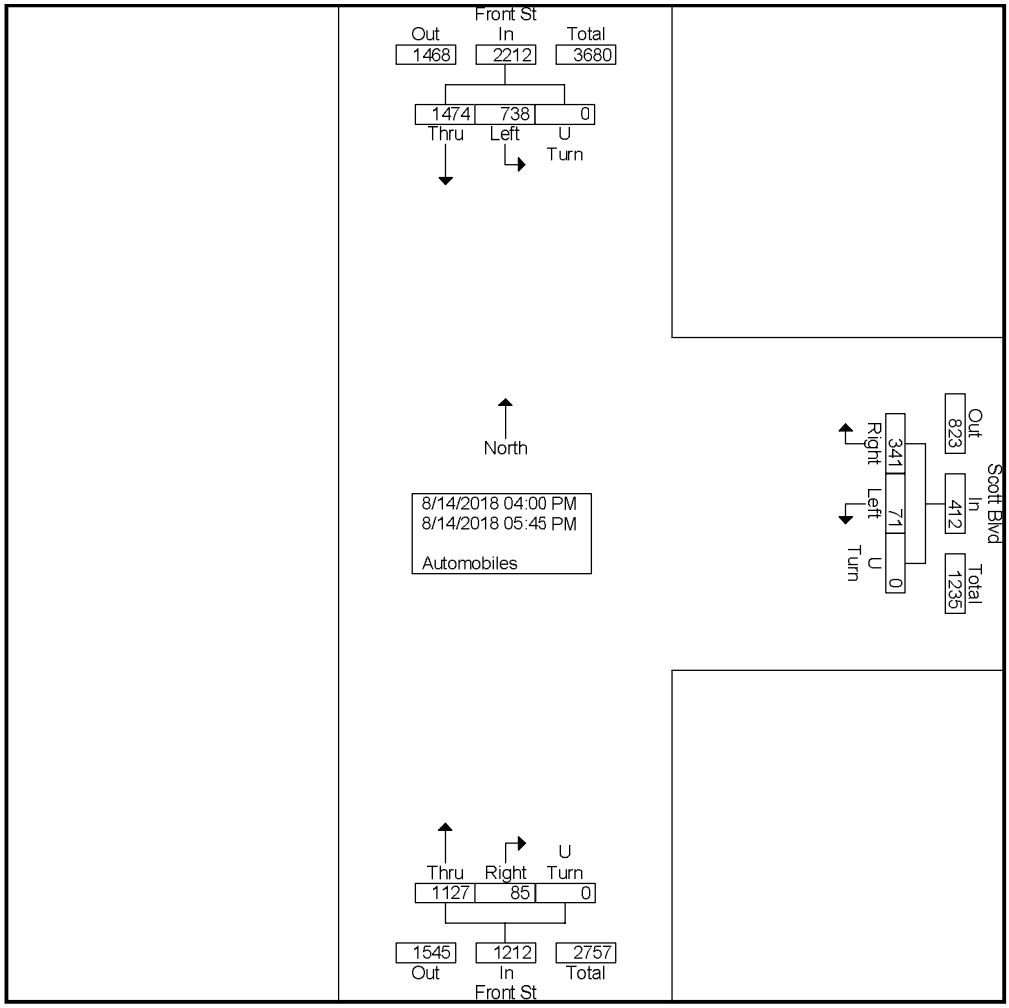
Groups Printed- Automobiles

	Scott Blvd Westbound				Front St Northbound				Front St Southbound				
Start Time	Left	Right	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Thru	U Turn	App. Total	Int. Total
04:00 PM	5	35	0	40	150	13	0	163	76	204	0	280	483
04:15 PM	9	55	0	64	144	3	0	147	95	162	0	257	468
04:30 PM	8	48	0	56	142	9	0	151	91	195	0	286	493
04:45 PM	8	42	0	50	121	9	0	130	85	214	0	299	479
Total	30	180	0	210	557	34	0	591	347	775	0	1122	1923
05:00 PM	10	35	0	45	165	11	0	176	99	191	0	290	511
05:15 PM	11	44	0	55	179	12	0	191	116	186	0	302	548
05:30 PM	6	41	0	47	123	11	0	134	98	146	0	244	425
05:45 PM	14	41	0	55	103	17	0	120	78	176	0	254	429
Total	41	161	0	202	570	51	0	621	391	699	0	1090	1913
Grand Total	71	341	0	412	1127	85	0	1212	738	1474	0	2212	3836
Apprch %	17.2	82.8	0		93	7	0		33.4	66.6	0		
Total %	1.9	8.9	0	10.7	29.4	2.2	0	31.6	19.2	38.4	0	57.7	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Scott Blvd and Front St

File Name : Scott and Front PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

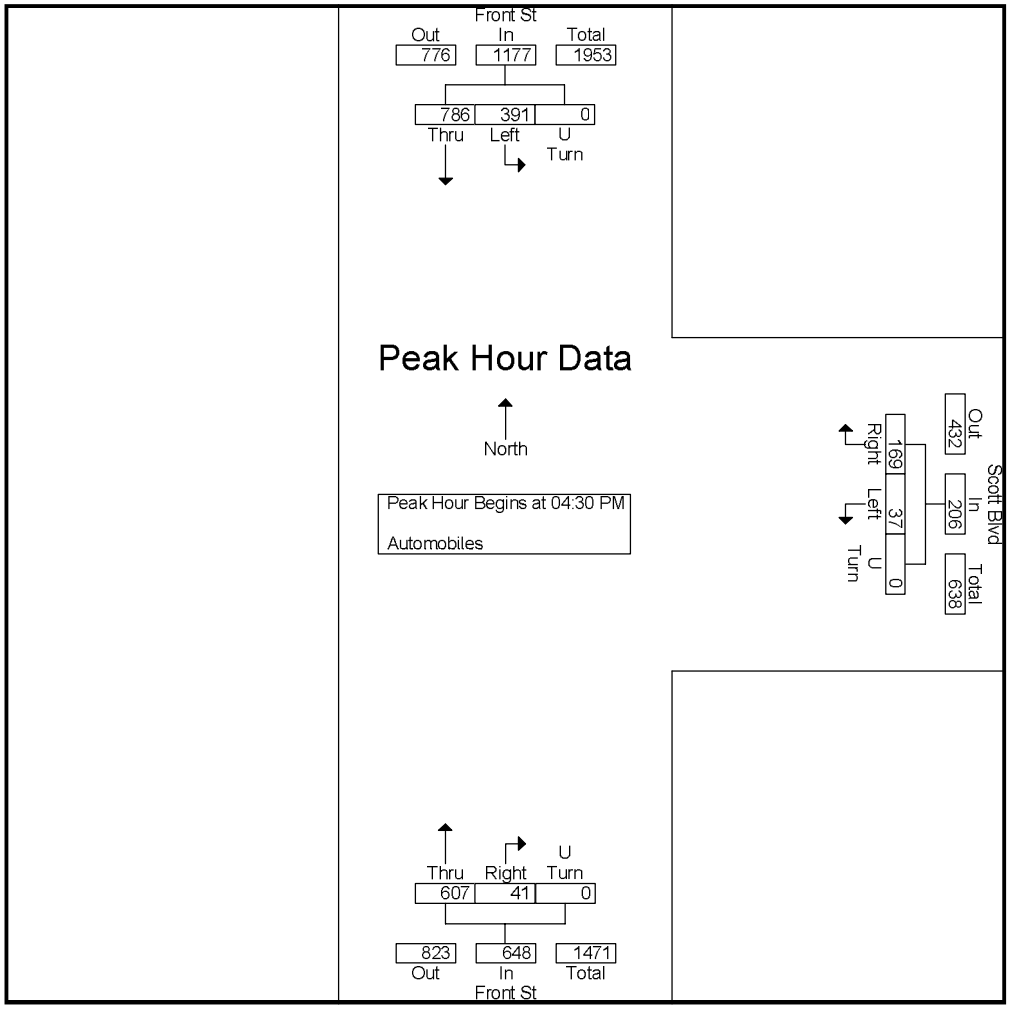


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Scott Blvd and Front St

File Name : Scott and Front PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Scott Blvd Westbound				Front St Northbound				Front St Southbound				
Start Time	Left	Right	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Thru	U Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	8	**48**	0	**56**	142	9	0	151	91	195	0	286	493
04:45 PM	8	42	0	50	121	9	0	130	85	**214**	0	299	479
05:00 PM	10	35	0	45	165	11	0	176	99	191	0	290	511
05:15 PM	**11**	44	0	55	**179**	**12**	0	**191**	**116**	186	0	**302**	**548**
Total Volume	37	169	0	206	607	41	0	648	391	786	0	1177	2031
% App. Total	18	82	0		93.7	6.3	0		33.2	66.8	0		
PHF	.841	.880	.000	.920	.848	.854	.000	.848	.843	.918	.000	.974	.927



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Scott Blvd and Woodlands Blvd

File Name : Scott and Woodlands AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

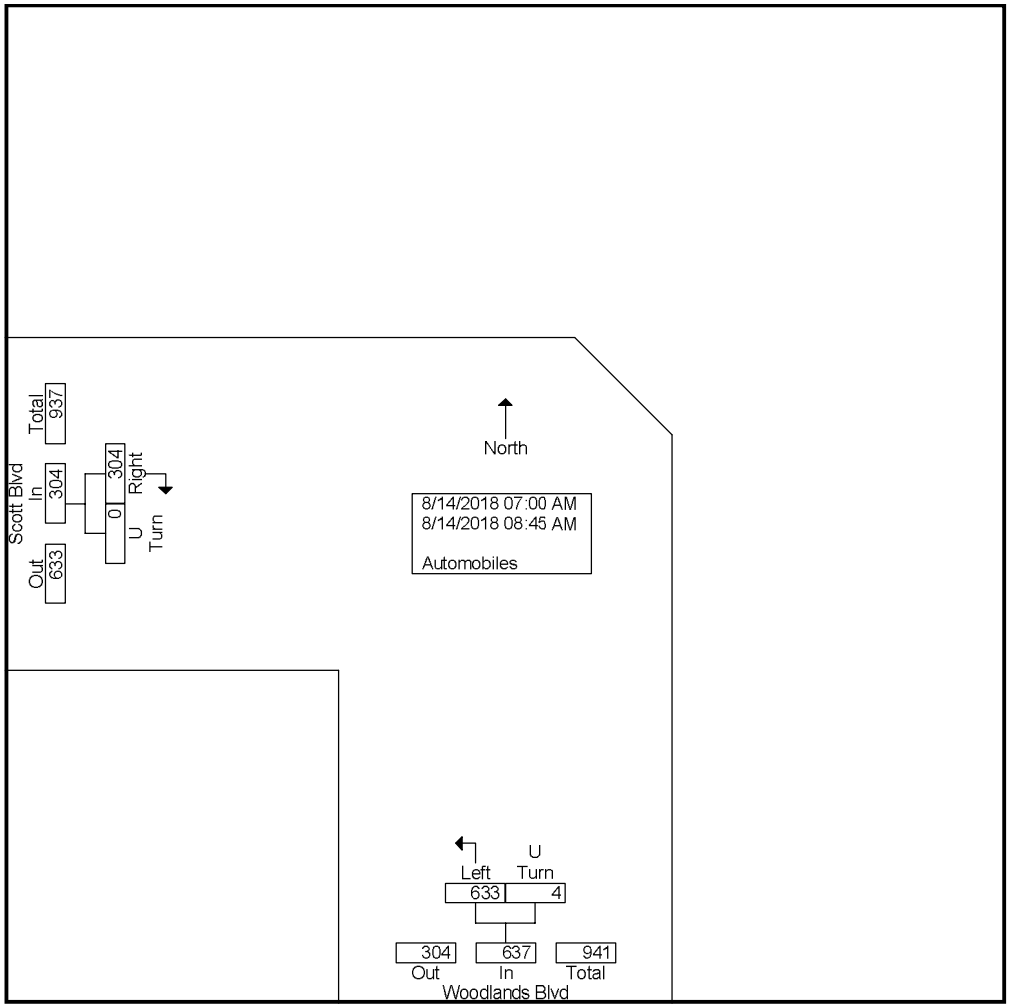
Groups Printed- Automobiles

	Scott Blvd Eastbound			Woodlands Blvd Northbound			
Start Time	Right	U Turn	App. Total	Left	U Turn	App. Total	Int. Total
07:00 AM	28	0	28	113	0	113	141
07:15 AM	51	0	51	169	0	169	220
07:30 AM	57	0	57	77	0	77	134
07:45 AM	32	0	32	56	4	60	92
Total	168	0	168	415	4	419	587
08:00 AM	29	0	29	49	0	49	78
08:15 AM	26	0	26	61	0	61	87
08:30 AM	38	0	38	64	0	64	102
08:45 AM	43	0	43	44	0	44	87
Total	136	0	136	218	0	218	354
Grand Total	304	0	304	633	4	637	941
Apprch %	100	0		99.4	0.6		
Total %	32.3	0	32.3	67.3	0.4	67.7	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Scott Blvd and Woodlands Blvd

File Name : Scott and Woodlands AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

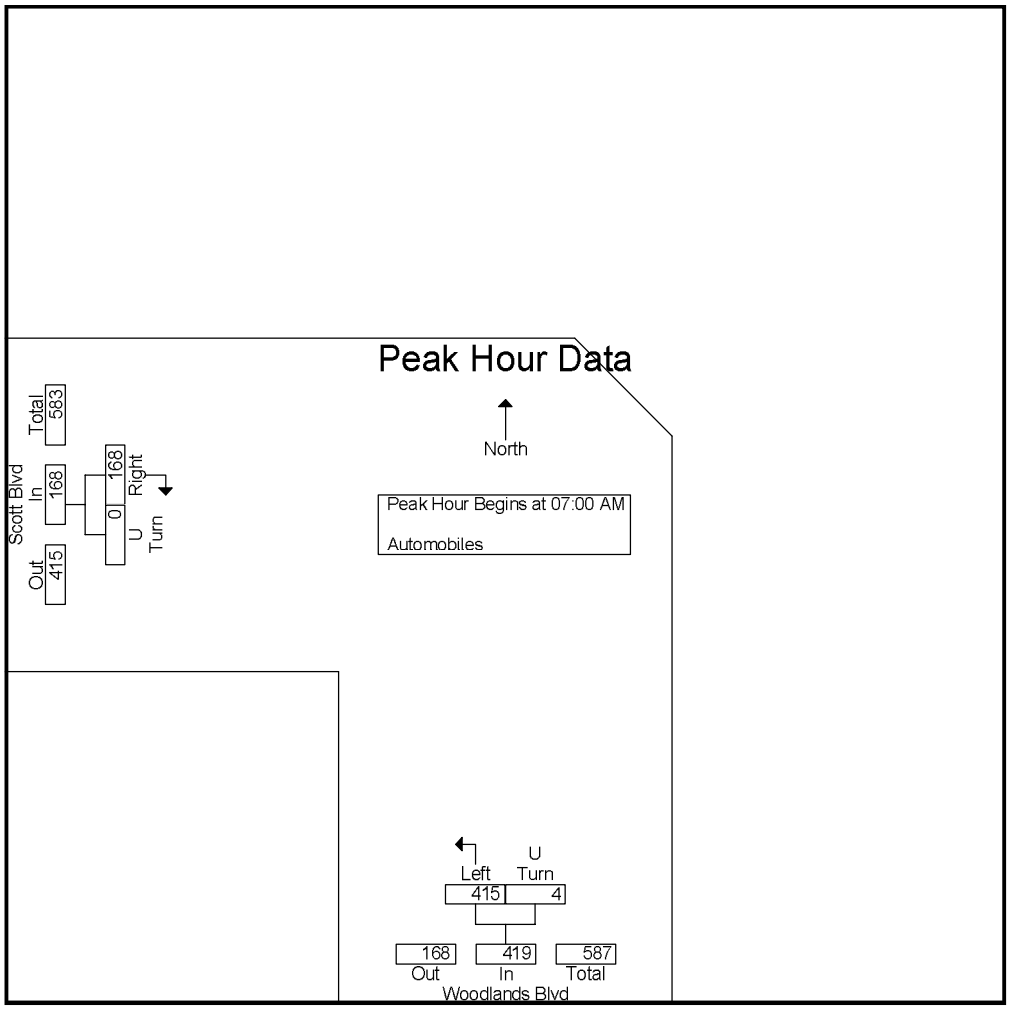


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Scott Blvd and Woodlands Blvd

File Name : Scott and Woodlands AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Scott Blvd Eastbound			Woodlands Blvd Northbound			
Start Time	Right	U Turn	App. Total	Left	U Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1							
Peak Hour for Entire Intersection Begins at 07:00 AM							
07:00 AM	28	0	28	113	0	113	141
07:15 AM	51	0	51	**169**	0	**169**	**220**
07:30 AM	**57**	0	**57**	77	0	77	134
07:45 AM	32	0	32	56	**4**	60	92
Total Volume	168	0	168	415	4	419	587
% App. Total	100	0		99	1		
PHF	.737	.000	.737	.614	.250	.620	.667



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Scott Blvd and Woodlands Blvd

File Name : Scott and Woodlands PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

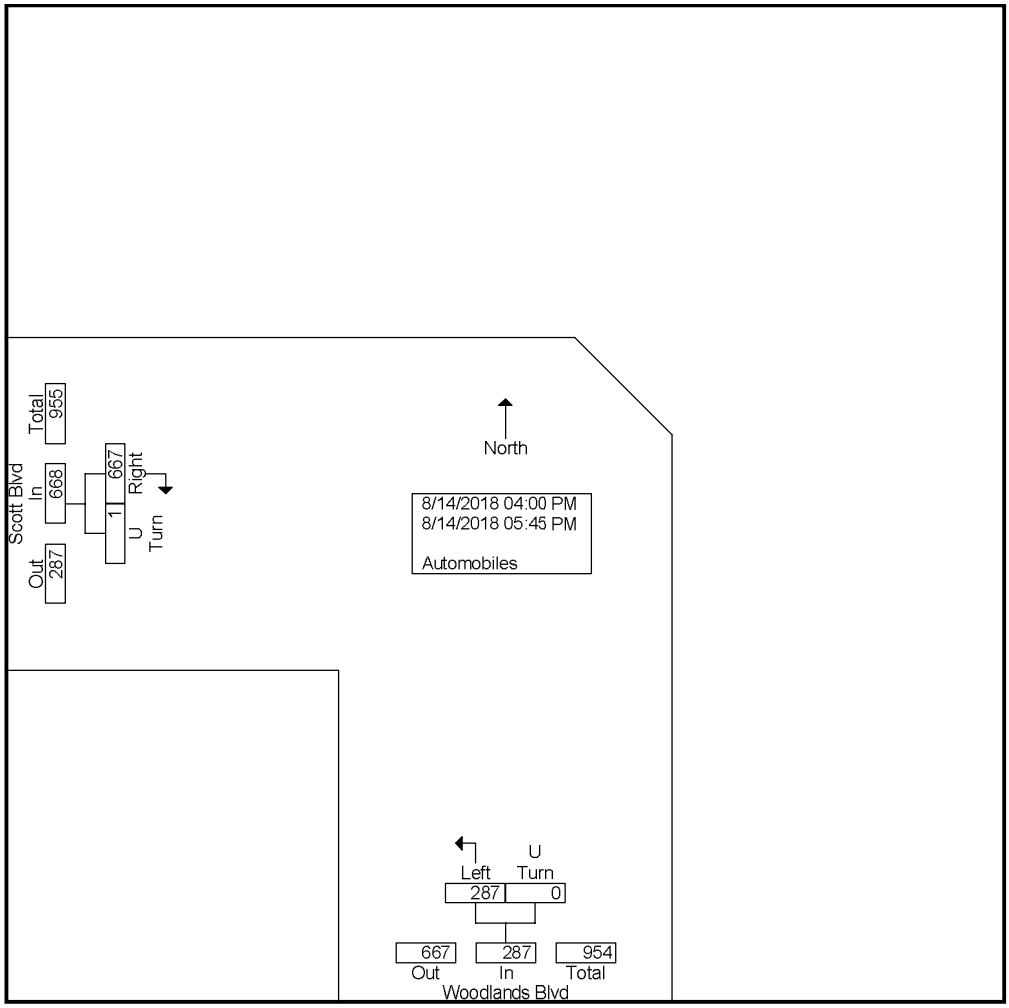
Groups Printed- Automobiles

	Scott Blvd Eastbound			Woodlands Blvd Northbound			
Start Time	Right	U Turn	App. Total	Left	U Turn	App. Total	Int. Total
04:00 PM	76	0	76	64	0	64	140
04:15 PM	71	1	72	19	0	19	91
04:30 PM	88	0	88	38	0	38	126
04:45 PM	79	0	79	37	0	37	116
Total	314	1	315	158	0	158	473
05:00 PM	94	0	94	34	0	34	128
05:15 PM	105	0	105	35	0	35	140
05:30 PM	82	0	82	24	0	24	106
05:45 PM	72	0	72	36	0	36	108
Total	353	0	353	129	0	129	482
Grand Total	667	1	668	287	0	287	955
Apprch %	99.9	0.1		100	0		
Total %	69.8	0.1	69.9	30.1	0	30.1	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Scott Blvd and Woodlands Blvd

File Name : Scott and Woodlands PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

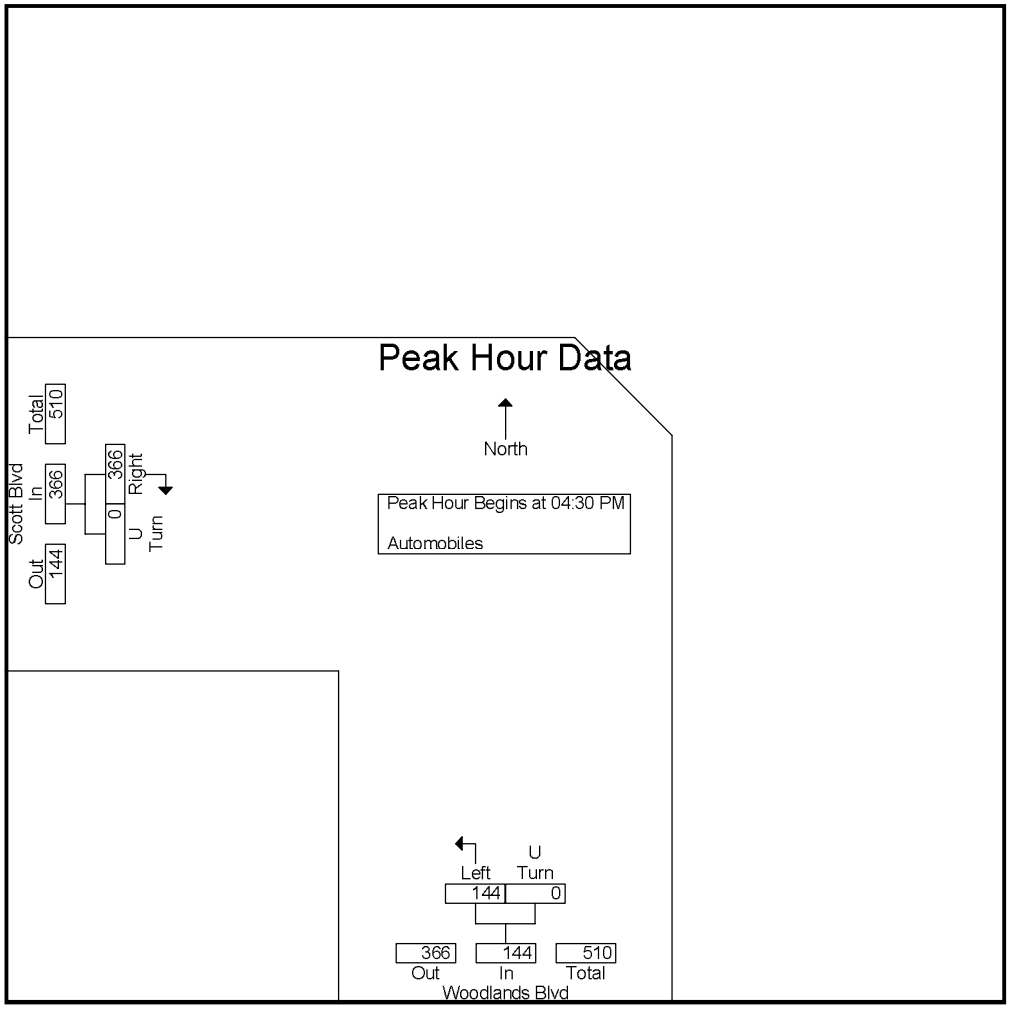


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Scott Blvd and Woodlands Blvd

File Name : Scott and Woodlands PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Scott Blvd Eastbound			Woodlands Blvd Northbound			
Start Time	Right	U Turn	App. Total	Left	U Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1							
Peak Hour for Entire Intersection Begins at 04:30 PM							
04:30 PM	88	0	88	**38**	0	**38**	126
04:45 PM	79	0	79	37	0	37	116
05:00 PM	94	0	94	34	0	34	128
05:15 PM	**105**	0	**105**	35	0	35	**140**
Total Volume	366	0	366	144	0	144	510
% App. Total	100	0		100	0		
PHF	.871	.000	.871	.947	.000	.947	.911



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Founders Pkwy and Rising Sun Dr

File Name : Founders and Rising Sun AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

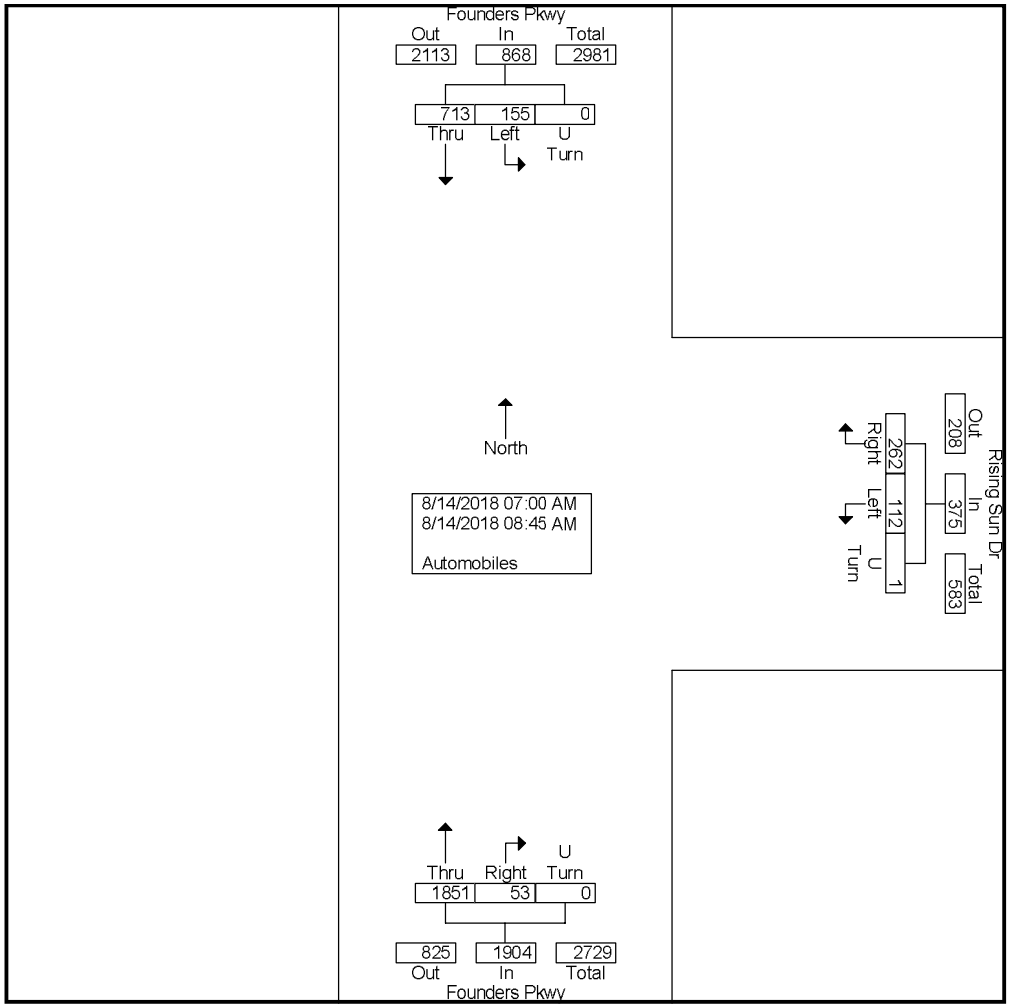
Groups Printed- Automobiles

	Rising Sun Dr Westbound				Founders Pkwy Northbound				Founders Pkwy Southbound				
Start Time	Left	Right	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Thru	U Turn	App. Total	Int. Total
07:00 AM	16	33	0	49	255	7	0	262	9	100	0	109	420
07:15 AM	22	36	0	58	256	9	0	265	12	76	0	88	411
07:30 AM	9	31	1	41	267	7	0	274	9	74	0	83	398
07:45 AM	14	27	0	41	231	7	0	238	14	84	0	98	377
Total	61	127	1	189	1009	30	0	1039	44	334	0	378	1606
08:00 AM	13	33	0	46	216	6	0	222	16	72	0	88	356
08:15 AM	11	34	0	45	221	7	0	228	18	89	0	107	380
08:30 AM	12	18	0	30	233	6	0	239	32	120	0	152	421
08:45 AM	15	50	0	65	172	4	0	176	45	98	0	143	384
Total	51	135	0	186	842	23	0	865	111	379	0	490	1541
Grand Total	112	262	1	375	1851	53	0	1904	155	713	0	868	3147
Apprch %	29.9	69.9	0.3		97.2	2.8	0		17.9	82.1	0		
Total %	3.6	8.3	0	11.9	58.8	1.7	0	60.5	4.9	22.7	0	27.6	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Founders Pkwy and Rising Sun Dr

File Name : Founders and Rising Sun AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

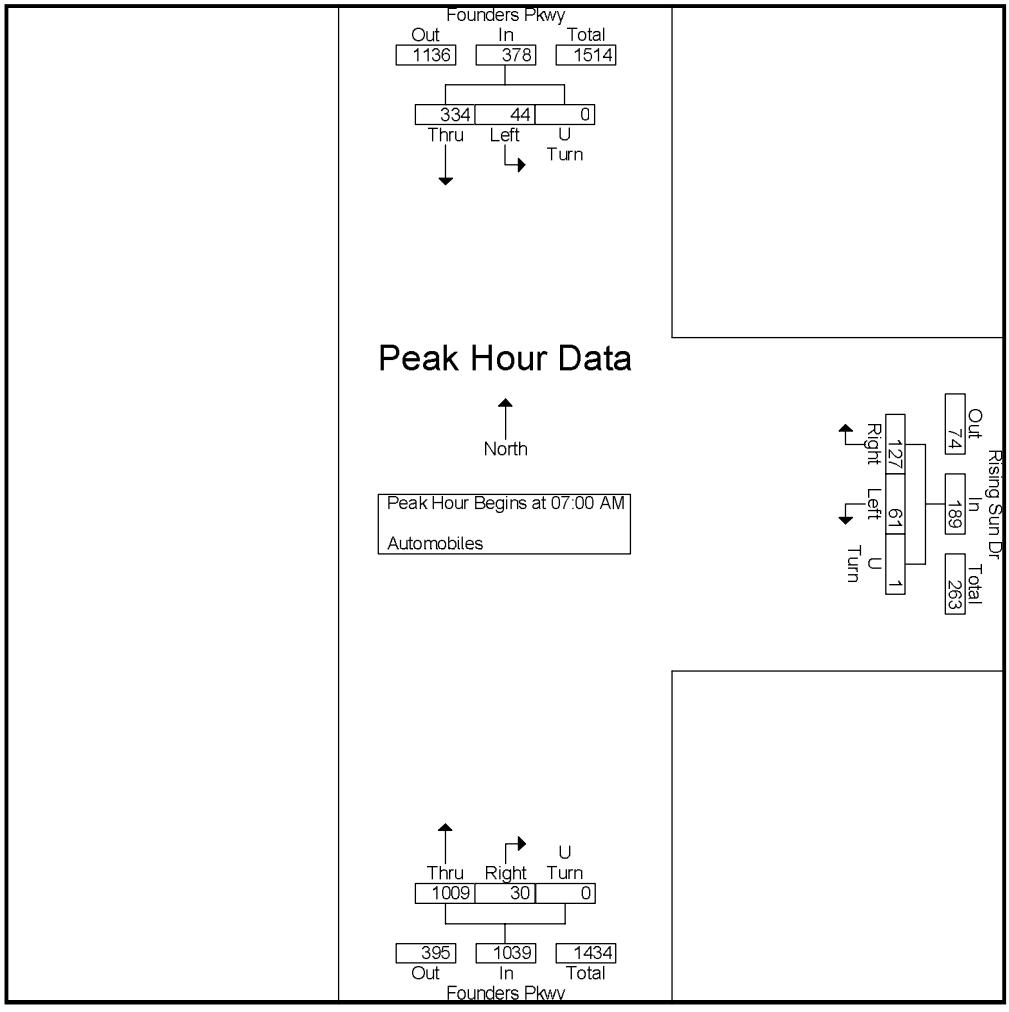


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Founders Pkwy and Rising Sun Dr

File Name : Founders and Rising Sun AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Rising Sun Dr Westbound				Founders Pkwy Northbound				Founders Pkwy Southbound				
Start Time	Left	Right	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Thru	U Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	16	33	0	49	255	7	0	262	9	**100**	0	**109**	**420**
07:15 AM	**22**	**36**	0	**58**	256	**9**	0	265	12	76	0	88	411
07:30 AM	9	31	**1**	41	**267**	7	0	**274**	9	74	0	83	398
07:45 AM	14	27	0	41	231	7	0	238	**14**	84	0	98	377
Total Volume	61	127	1	189	1009	30	0	1039	44	334	0	378	1606
% App. Total	32.3	67.2	0.5		97.1	2.9	0		11.6	88.4	0		
PHF	.693	.882	.250	.815	.945	.833	.000	.948	.786	.835	.000	.867	.956



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pkwy and Rising Sun Dr

File Name : Founders and Rising Sun PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

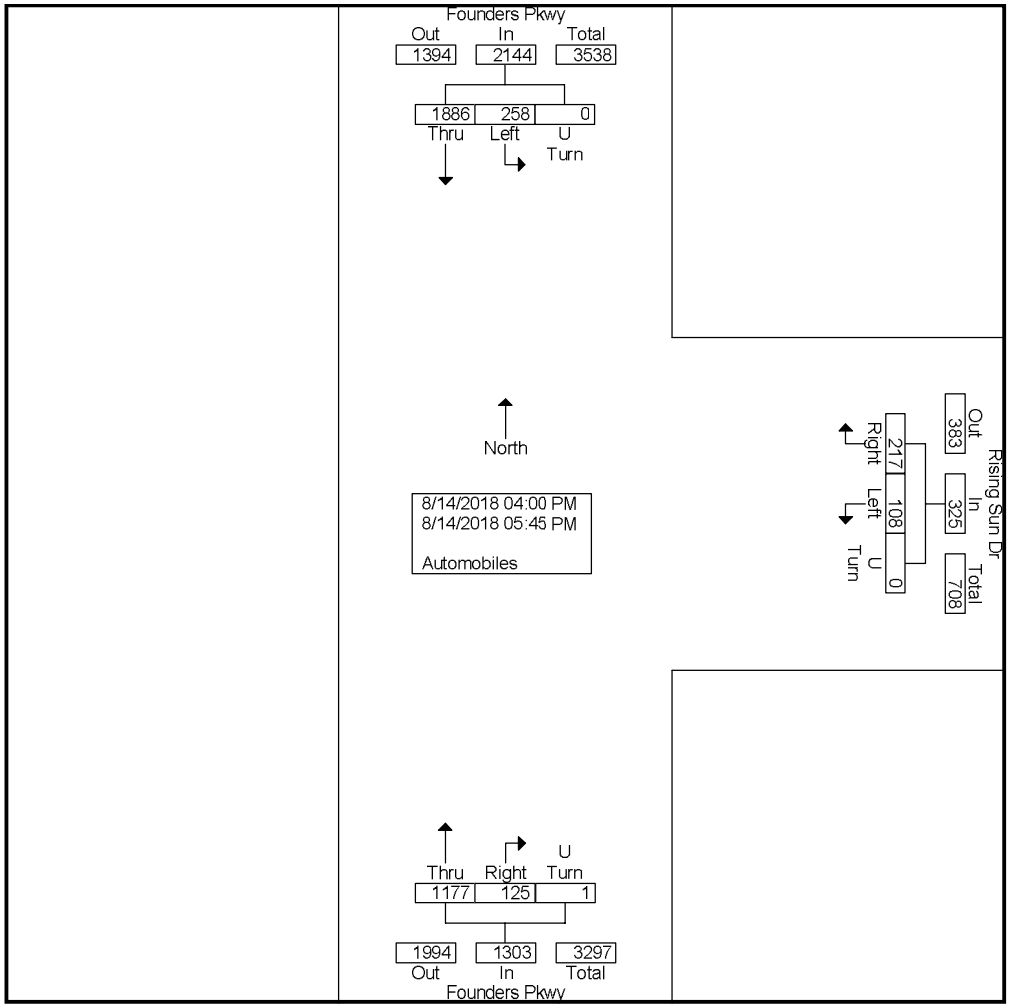
Groups Printed- Automobiles

	Rising Sun Dr Westbound				Founders Pkwy Northbound				Founders Pkwy Southbound				
Start Time	Left	Right	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Thru	U Turn	App. Total	Int. Total
04:00 PM	21	67	0	88	135	13	0	148	25	227	0	252	488
04:15 PM	14	35	0	49	148	13	0	161	32	201	0	233	443
04:30 PM	8	22	0	30	170	17	0	187	31	261	0	292	509
04:45 PM	15	25	0	40	134	13	1	148	23	243	0	266	454
Total	58	149	0	207	587	56	1	644	111	932	0	1043	1894
05:00 PM	12	22	0	34	143	12	0	155	37	252	0	289	478
05:15 PM	12	19	0	31	167	19	0	186	36	237	0	273	490
05:30 PM	14	12	0	26	153	15	0	168	32	221	0	253	447
05:45 PM	12	15	0	27	127	23	0	150	42	244	0	286	463
Total	50	68	0	118	590	69	0	659	147	954	0	1101	1878
Grand Total	108	217	0	325	1177	125	1	1303	258	1886	0	2144	3772
Apprch %	33.2	66.8	0		90.3	9.6	0.1		12	88	0		
Total %	2.9	5.8	0	8.6	31.2	3.3	0	34.5	6.8	50	0	56.8	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pkwy and Rising Sun Dr

File Name : Founders and Rising Sun PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

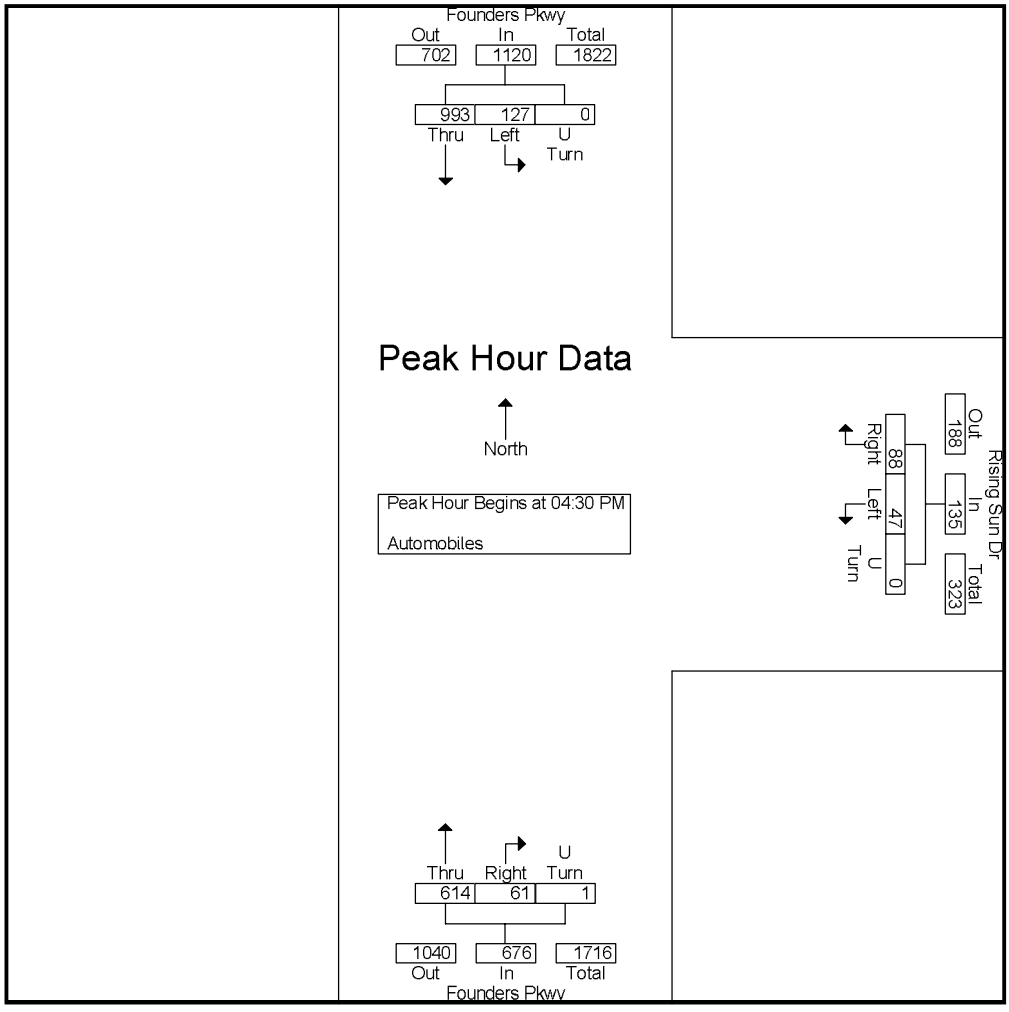


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pkwy and Rising Sun Dr

File Name : Founders and Rising Sun PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Rising Sun Dr Westbound				Founders Pkwy Northbound				Founders Pkwy Southbound				
Start Time	Left	Right	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Thru	U Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	8	22	0	30	**170**	17	0	**187**	31	**261**	0	**292**	**509**
04:45 PM	**15**	**25**	0	**40**	134	13	**1**	148	23	243	0	266	454
05:00 PM	12	22	0	34	143	12	0	155	**37**	252	0	289	478
05:15 PM	12	19	0	31	167	**19**	0	186	36	237	0	273	490
Total Volume	47	88	0	135	614	61	1	676	127	993	0	1120	1931
% App. Total	34.8	65.2	0		90.8	9	0.1		11.3	88.7	0		
PHF	.783	.880	.000	.844	.903	.803	.250	.904	.858	.951	.000	.959	.948



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Liggett Rd and Front St

File Name : Liggett and Front AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

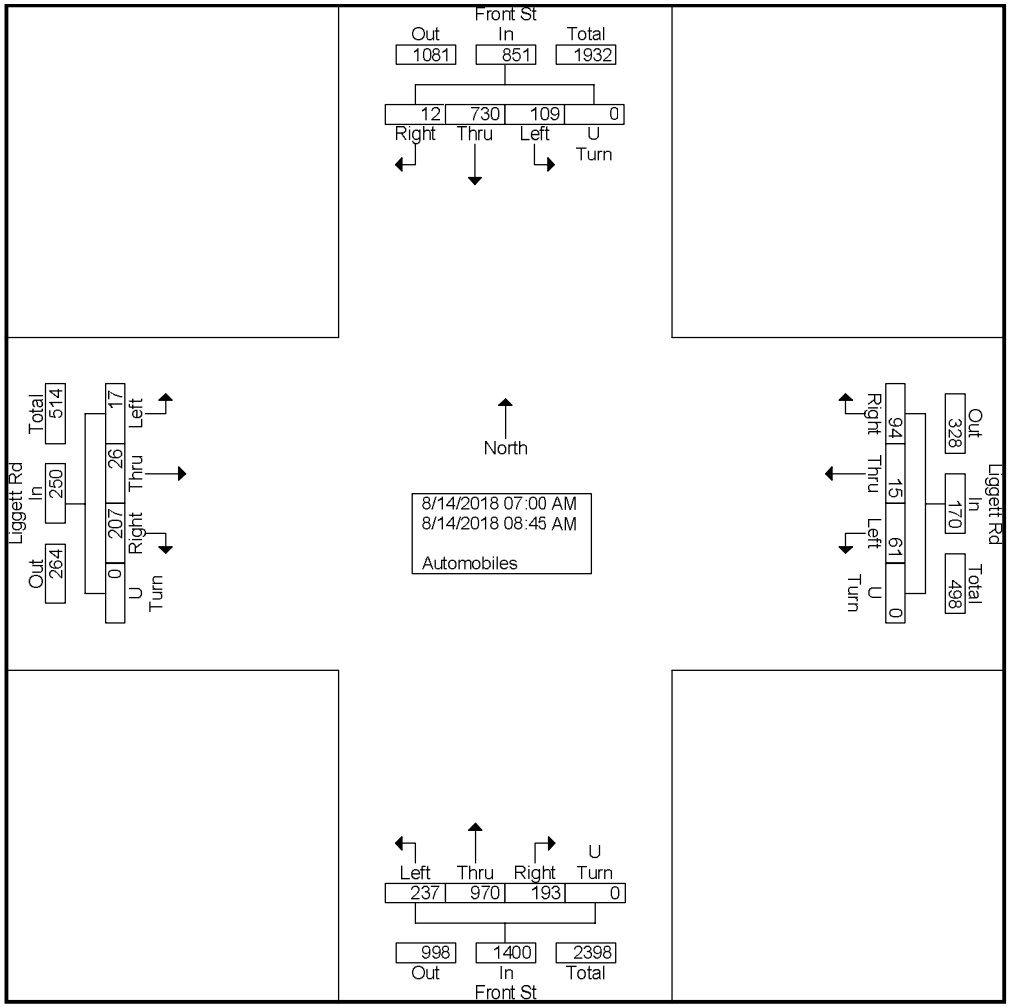
Groups Printed- Automobiles

	Liggett Rd Eastbound					Liggett Rd Westbound					Front St Northbound					Front St Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
07:00 AM	2	5	18	0	25	7	3	7	0	17	35	133	37	0	205	16	54	3	0	73	320
07:15 AM	10	15	22	0	47	22	4	38	0	64	39	202	94	0	335	53	103	1	0	157	603
07:30 AM	3	4	25	0	32	25	6	43	0	74	30	105	51	0	186	25	107	1	0	133	425
07:45 AM	1	0	31	0	32	1	1	1	0	3	30	101	2	0	133	0	92	2	0	94	262
Total	16	24	96	0	136	55	14	89	0	158	134	541	184	0	859	94	356	7	0	457	1610
08:00 AM	0	0	28	0	28	2	1	0	0	3	32	84	4	0	120	3	64	1	0	68	219
08:15 AM	0	1	27	0	28	2	0	2	0	4	25	87	2	0	114	4	109	1	0	114	260
08:30 AM	0	0	28	0	28	2	0	1	0	3	25	141	0	0	166	3	103	2	0	108	305
08:45 AM	1	1	28	0	30	0	0	2	0	2	21	117	3	0	141	5	98	1	0	104	277
Total	1	2	111	0	114	6	1	5	0	12	103	429	9	0	541	15	374	5	0	394	1061
Grand Total	17	26	207	0	250	61	15	94	0	170	237	970	193	0	1400	109	730	12	0	851	2671
Apprch %	6.8	10.4	82.8	0		35.9	8.8	55.3	0		16.9	69.3	13.8	0		12.8	85.8	1.4	0		
Total %	0.6	1	7.7	0	9.4	2.3	0.6	3.5	0	6.4	8.9	36.3	7.2	0	52.4	4.1	27.3	0.4	0	31.9	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Liggett Rd and Front St

File Name : Liggett and Front AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

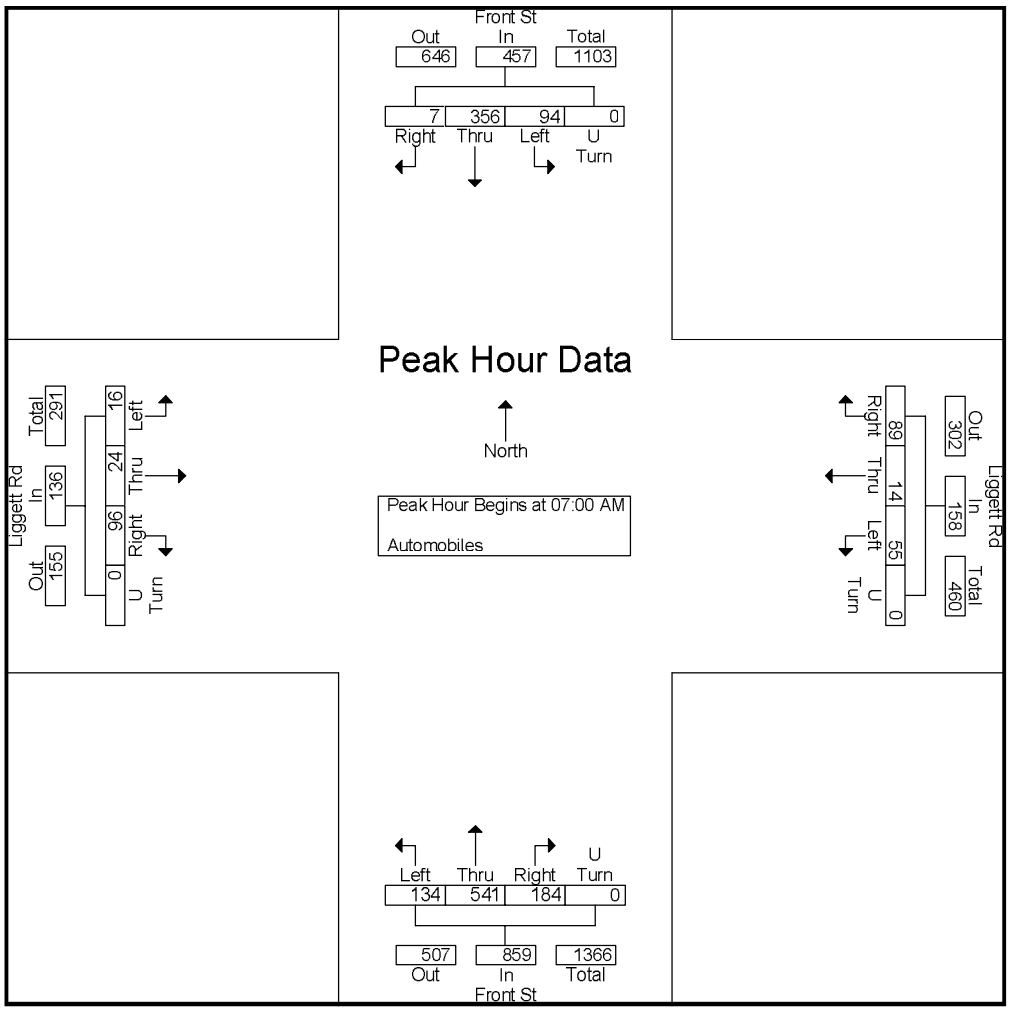


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Liggett Rd and Front St

File Name : Liggett and Front AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Liggett Rd Eastbound					Liggett Rd Westbound					Front St Northbound					Front St Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	2	5	18	0	25	7	3	7	0	17	35	133	37	0	205	16	54	**3**	0	73	320
07:15 AM	**10**	**15**	22	0	**47**	22	4	38	0	64	**39**	**202**	**94**	0	**335**	**53**	103	1	0	**157**	**603**
07:30 AM	3	4	25	0	32	**25**	**6**	**43**	0	**74**	30	105	51	0	186	25	**107**	1	0	133	425
07:45 AM	1	0	**31**	0	32	1	1	1	0	3	30	101	2	0	133	0	92	2	0	94	262
Total Volume	16	24	96	0	136	55	14	89	0	158	134	541	184	0	859	94	356	7	0	457	1610
% App. Total	11.8	17.6	70.6	0		34.8	8.9	56.3	0		15.6	63	21.4	0		20.6	77.9	1.5	0		
PHF	.400	.400	.774	.000	.723	.550	.583	.517	.000	.534	.859	.670	.489	.000	.641	.443	.832	.583	.000	.728	.667



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Liggett Rd and Front St

File Name : Liggett and Front PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

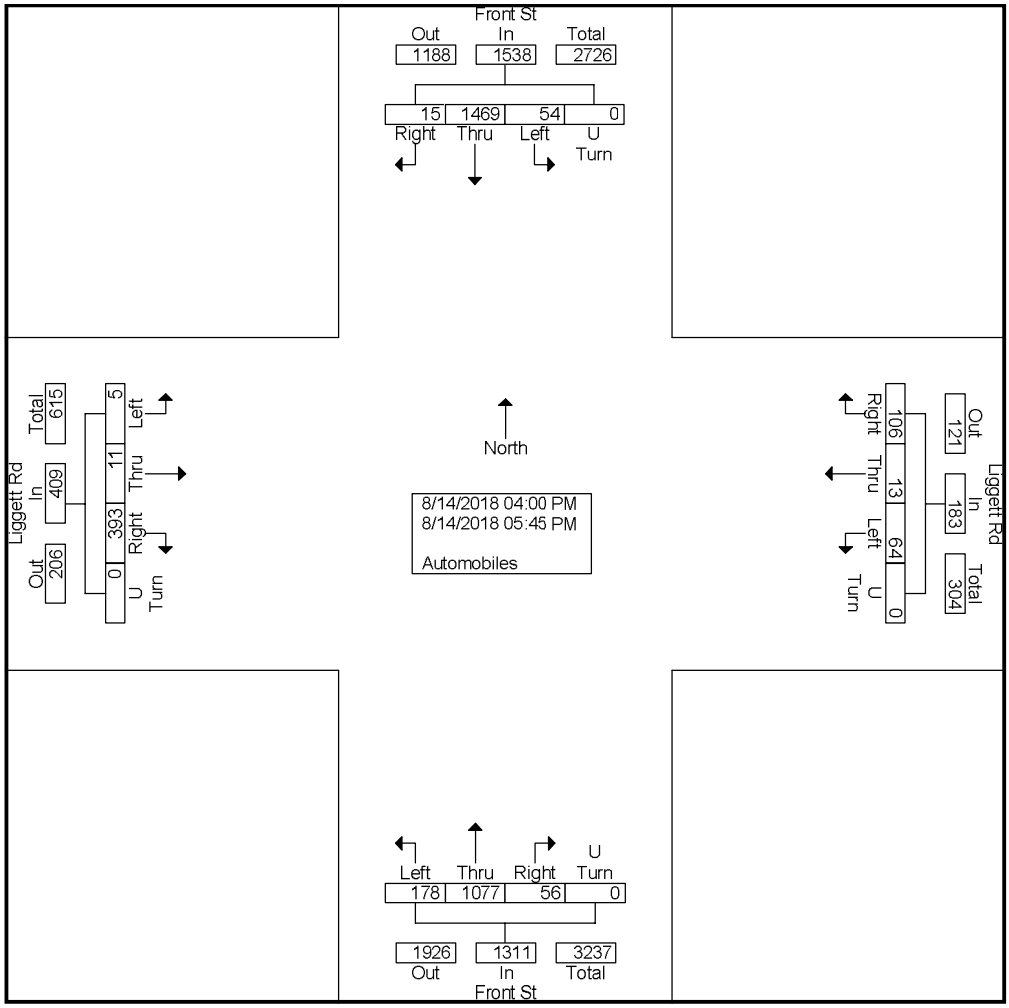
Groups Printed- Automobiles

	Liggett Rd Eastbound					Liggett Rd Westbound					Front St Northbound					Front St Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
04:00 PM	0	2	42	0	44	4	1	9	0	14	27	144	5	0	176	9	195	1	0	205	439
04:15 PM	0	1	46	0	47	2	1	6	0	9	22	138	3	0	163	2	176	2	0	180	399
04:30 PM	1	0	60	0	61	3	0	4	0	7	29	137	2	0	168	2	188	1	0	191	427
04:45 PM	1	2	43	0	46	3	0	3	0	6	19	121	7	0	147	11	204	1	0	216	415
Total	2	5	191	0	198	12	2	22	0	36	97	540	17	0	654	24	763	5	0	792	1680
05:00 PM	2	3	53	0	58	7	1	16	0	24	26	165	9	0	200	4	194	2	0	200	482
05:15 PM	0	1	52	0	53	20	5	40	0	65	21	145	13	0	179	10	199	1	0	210	507
05:30 PM	1	1	49	0	51	4	1	5	0	10	13	136	9	0	158	4	135	3	0	142	361
05:45 PM	0	1	48	0	49	21	4	23	0	48	21	91	8	0	120	12	178	4	0	194	411
Total	3	6	202	0	211	52	11	84	0	147	81	537	39	0	657	30	706	10	0	746	1761
Grand Total	5	11	393	0	409	64	13	106	0	183	178	1077	56	0	1311	54	1469	15	0	1538	3441
Apprch %	1.2	2.7	96.1	0		35	7.1	57.9	0		13.6	82.2	4.3	0		3.5	95.5	1	0		
Total %	0.1	0.3	11.4	0	11.9	1.9	0.4	3.1	0	5.3	5.2	31.3	1.6	0	38.1	1.6	42.7	0.4	0	44.7	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Liggett Rd and Front St

File Name : Liggett and Front PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

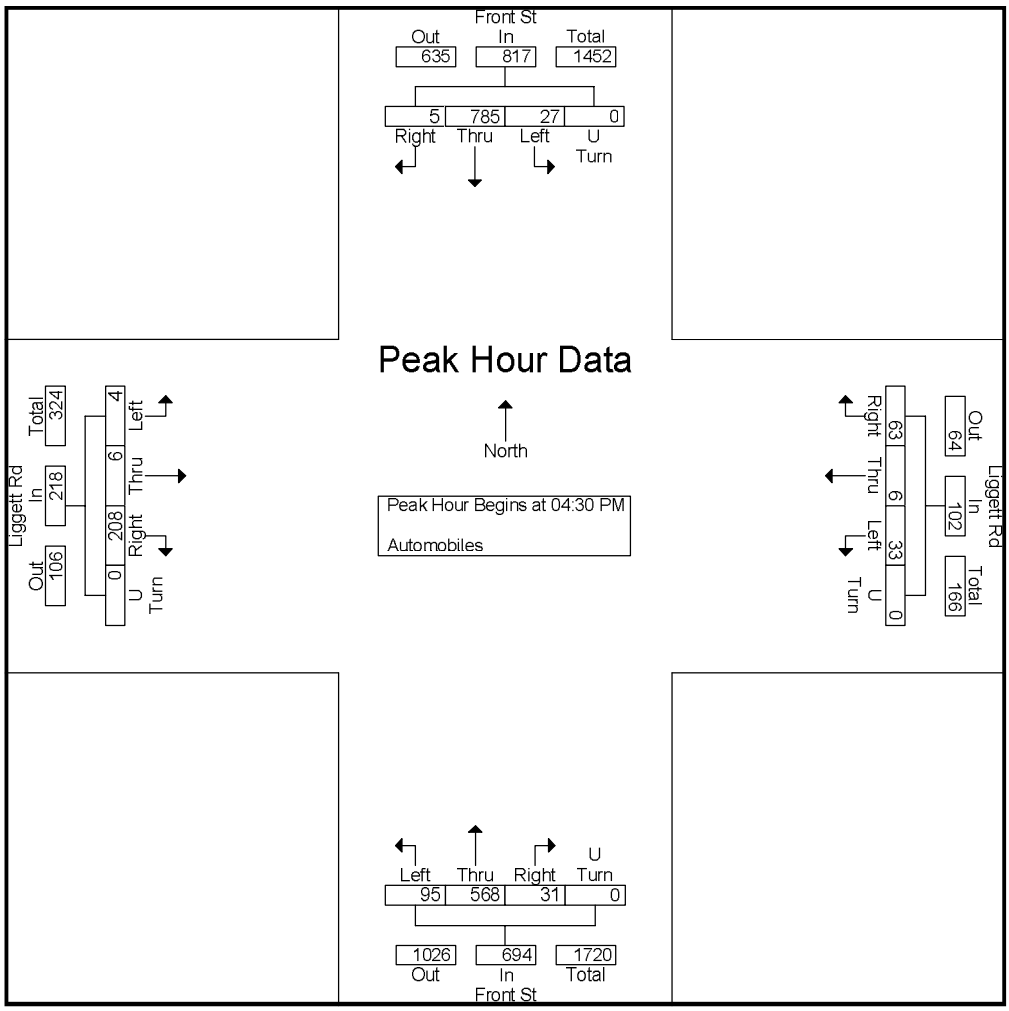


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Liggett Rd and Front St

File Name : Liggett and Front PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	Liggett Rd Eastbound					Liggett Rd Westbound					Front St Northbound					Front St Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	1	0	**60**	0	**61**	3	0	4	0	7	**29**	137	2	0	168	2	188	1	0	191	427
04:45 PM	1	2	43	0	46	3	0	3	0	6	19	121	7	0	147	**11**	**204**	1	0	**216**	415
05:00 PM	**2**	**3**	53	0	58	7	1	16	0	24	26	**165**	9	0	**200**	4	194	**2**	0	200	482
05:15 PM	0	1	52	0	53	**20**	**5**	**40**	0	**65**	21	145	**13**	0	179	10	199	1	0	210	**507**
Total Volume	4	6	208	0	218	33	6	63	0	102	95	568	31	0	694	27	785	5	0	817	1831
% App. Total	1.8	2.8	95.4	0		32.4	5.9	61.8	0		13.7	81.8	4.5	0		3.3	96.1	0.6	0		
PHF	.500	.500	.867	.000	.893	.413	.300	.394	.000	.392	.819	.861	.596	.000	.868	.614	.962	.625	.000	.946	.903



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
5th St and Front St

File Name : 5th and Front AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 1

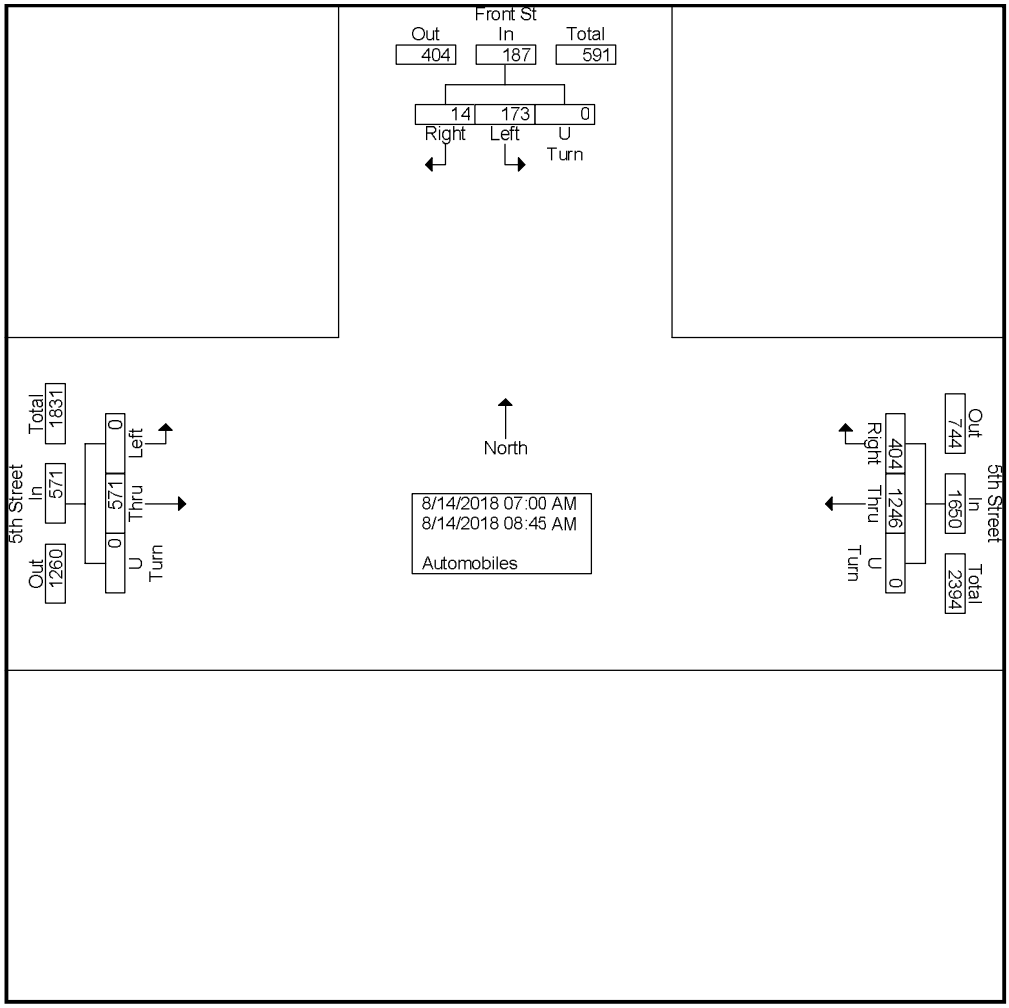
Groups Printed- Automobiles

	5th Street Eastbound				5th Street Westbound				Front St Southbound				
Start Time	Left	Thru	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Right	U Turn	App. Total	Int. Total
07:00 AM	0	49	0	49	150	74	0	224	21	0	0	21	294
07:15 AM	0	47	0	47	147	118	0	265	23	1	0	24	336
07:30 AM	0	69	0	69	176	46	0	222	33	2	0	35	326
07:45 AM	0	79	0	79	215	34	0	249	17	1	0	18	346
Total	0	244	0	244	688	272	0	960	94	4	0	98	1302
08:00 AM	0	60	0	60	152	26	0	178	12	1	0	13	251
08:15 AM	0	84	0	84	122	29	0	151	16	2	0	18	253
08:30 AM	0	71	0	71	126	37	0	163	25	5	0	30	264
08:45 AM	0	112	0	112	158	40	0	198	26	2	0	28	338
Total	0	327	0	327	558	132	0	690	79	10	0	89	1106
Grand Total	0	571	0	571	1246	404	0	1650	173	14	0	187	2408
Apprch %	0	100	0		75.5	24.5	0		92.5	7.5	0		
Total %	0	23.7	0	23.7	51.7	16.8	0	68.5	7.2	0.6	0	7.8	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
5th St and Front St

File Name : 5th and Front AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

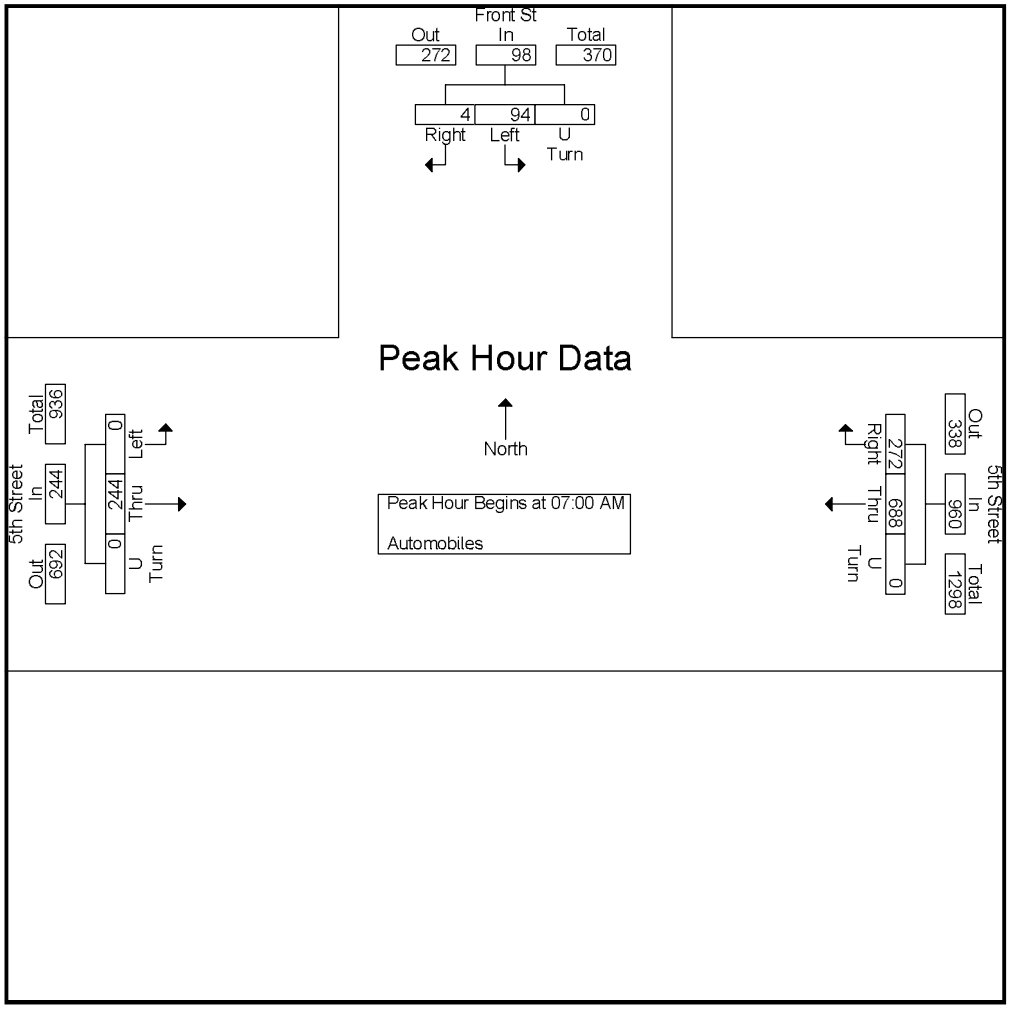


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
5th St and Front St

File Name : 5th and Front AM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	5th Street Eastbound				5th Street Westbound				Front St Southbound				
Start Time	Left	Thru	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	49	0	49	150	74	0	224	21	0	0	21	294
07:15 AM	0	47	0	47	147	**118**	0	**265**	23	1	0	24	336
07:30 AM	0	69	0	69	176	46	0	222	**33**	**2**	0	**35**	326
07:45 AM	0	**79**	0	**79**	**215**	34	0	249	17	1	0	18	**346**
Total Volume	0	244	0	244	688	272	0	960	94	4	0	98	1302
% App. Total	0	100	0		71.7	28.3	0		95.9	4.1	0		
PHF	.000	.772	.000	.772	.800	.576	.000	.906	.712	.500	.000	.700	.941



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
5th St and Front St

File Name : 5th and Front PM
Site Code : IPO 364
Start Date : 8/14/2018

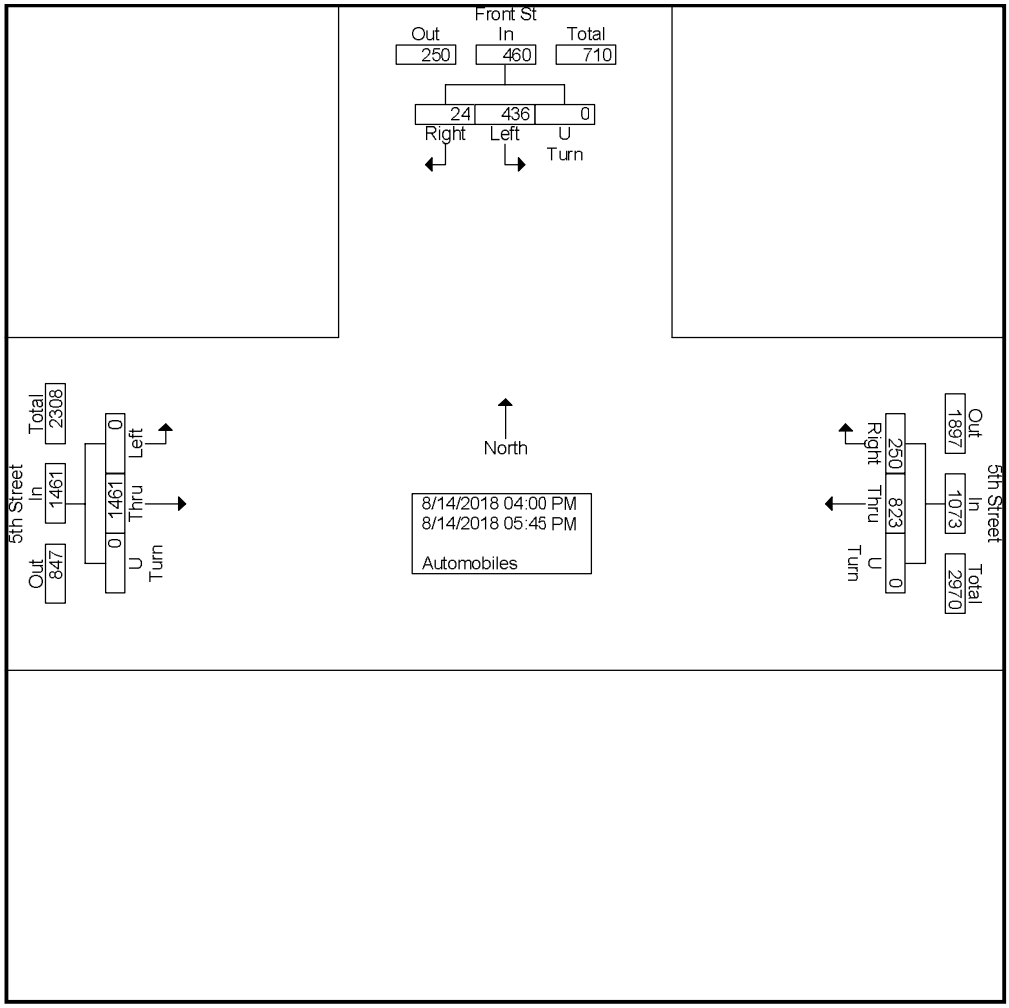
Groups Printed- Automobiles

	5th Street Eastbound				5th Street Westbound				Front St Southbound				
Start Time	Left	Thru	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Right	U Turn	App. Total	Int. Total
04:00 PM	0	162	0	162	91	34	0	125	49	2	0	51	338
04:15 PM	0	198	0	198	125	38	0	163	54	4	0	58	419
04:30 PM	0	181	0	181	101	37	0	138	63	4	0	67	386
04:45 PM	0	181	0	181	112	37	0	149	52	3	0	55	385
Total	0	722	0	722	429	146	0	575	218	13	0	231	1528
05:00 PM	0	210	0	210	103	25	0	128	44	1	0	45	383
05:15 PM	0	206	0	206	107	36	0	143	60	2	0	62	411
05:30 PM	0	183	0	183	89	23	0	112	60	4	0	64	359
05:45 PM	0	140	0	140	95	20	0	115	54	4	0	58	313
Total	0	739	0	739	394	104	0	498	218	11	0	229	1466
Grand Total	0	1461	0	1461	823	250	0	1073	436	24	0	460	2994
Apprch %	0	100	0		76.7	23.3	0		94.8	5.2	0		
Total %	0	48.8	0	48.8	27.5	8.4	0	35.8	14.6	0.8	0	15.4	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
5th St and Front St

File Name : 5th and Front PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 2

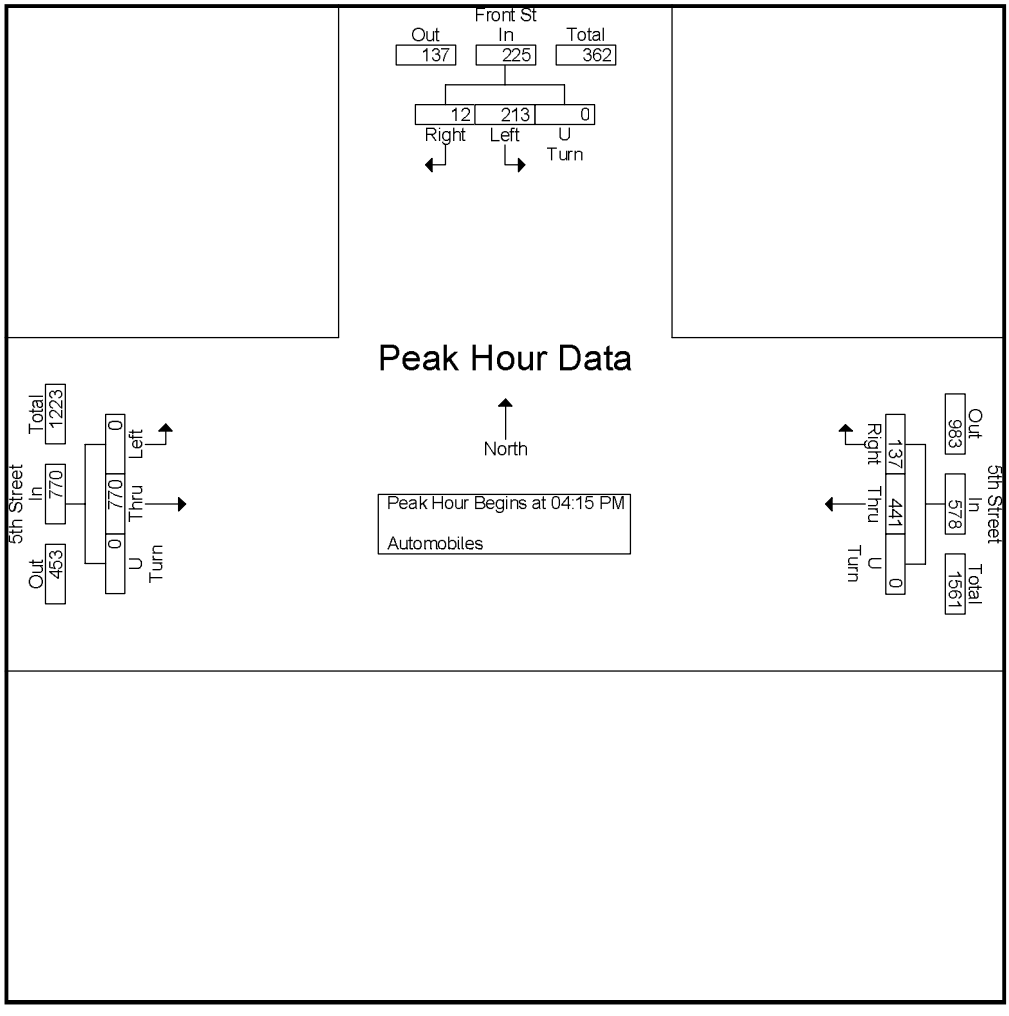


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
5th St and Front St

File Name : 5th and Front PM
Site Code : IPO 364
Start Date : 8/14/2018
Page No : 3

	5th Street Eastbound				5th Street Westbound				Front St Southbound				
Start Time	Left	Thru	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:15 PM													
04:15 PM	0	198	0	198	**125**	**38**	0	**163**	54	**4**	0	58	**419**
04:30 PM	0	181	0	181	101	37	0	138	**63**	4	0	**67**	386
04:45 PM	0	181	0	181	112	37	0	149	52	3	0	55	385
05:00 PM	0	**210**	0	**210**	103	25	0	128	44	1	0	45	383
Total Volume	0	770	0	770	441	137	0	578	213	12	0	225	1573
% App. Total	0	100	0		76.3	23.7	0		94.7	5.3	0		
PHF	.000	.917	.000	.917	.882	.901	.000	.887	.845	.750	.000	.840	.939



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
5th St and Woodlands Blvd

File Name : 5th and Woodlands AM
Site Code : IPO 364
Start Date : 8/16/2018
Page No : 1

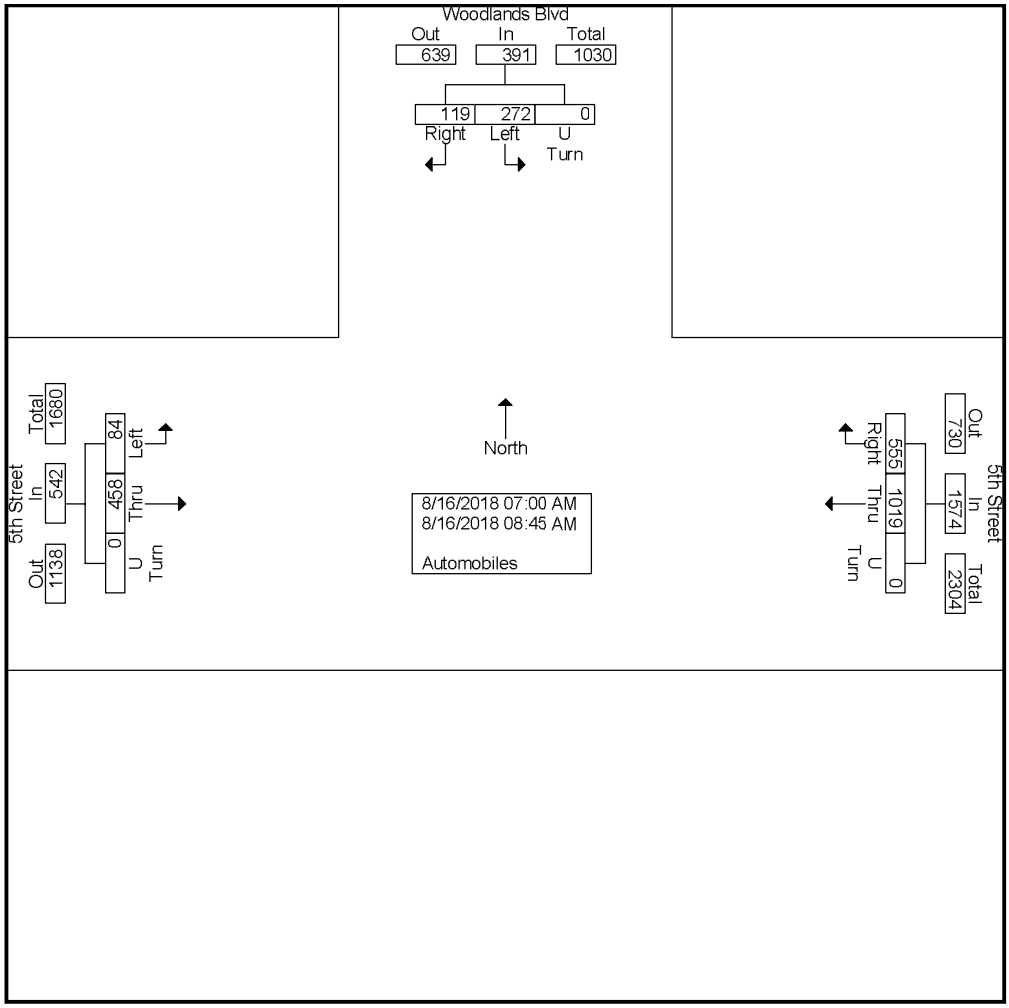
Groups Printed- Automobiles

	5th Street Eastbound				5th Street Westbound				Woodlands Blvd Southbound				
Start Time	Left	Thru	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Right	U Turn	App. Total	Int. Total
07:00 AM	4	46	0	50	140	125	0	265	35	11	0	46	361
07:15 AM	10	42	0	52	159	162	0	321	46	5	0	51	424
07:30 AM	12	69	0	81	136	72	0	208	54	16	0	70	359
07:45 AM	11	55	0	66	172	34	0	206	24	18	0	42	314
Total	37	212	0	249	607	393	0	1000	159	50	0	209	1458
08:00 AM	9	57	0	66	119	26	0	145	16	10	0	26	237
08:15 AM	20	54	0	74	88	55	0	143	29	23	0	52	269
08:30 AM	12	52	0	64	97	42	0	139	39	21	0	60	263
08:45 AM	6	83	0	89	108	39	0	147	29	15	0	44	280
Total	47	246	0	293	412	162	0	574	113	69	0	182	1049
Grand Total	84	458	0	542	1019	555	0	1574	272	119	0	391	2507
Apprch %	15.5	84.5	0		64.7	35.3	0		69.6	30.4	0		
Total %	3.4	18.3	0	21.6	40.6	22.1	0	62.8	10.8	4.7	0	15.6	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
5th St and Woodlands Blvd

File Name : 5th and Woodlands AM
Site Code : IPO 364
Start Date : 8/16/2018
Page No : 2

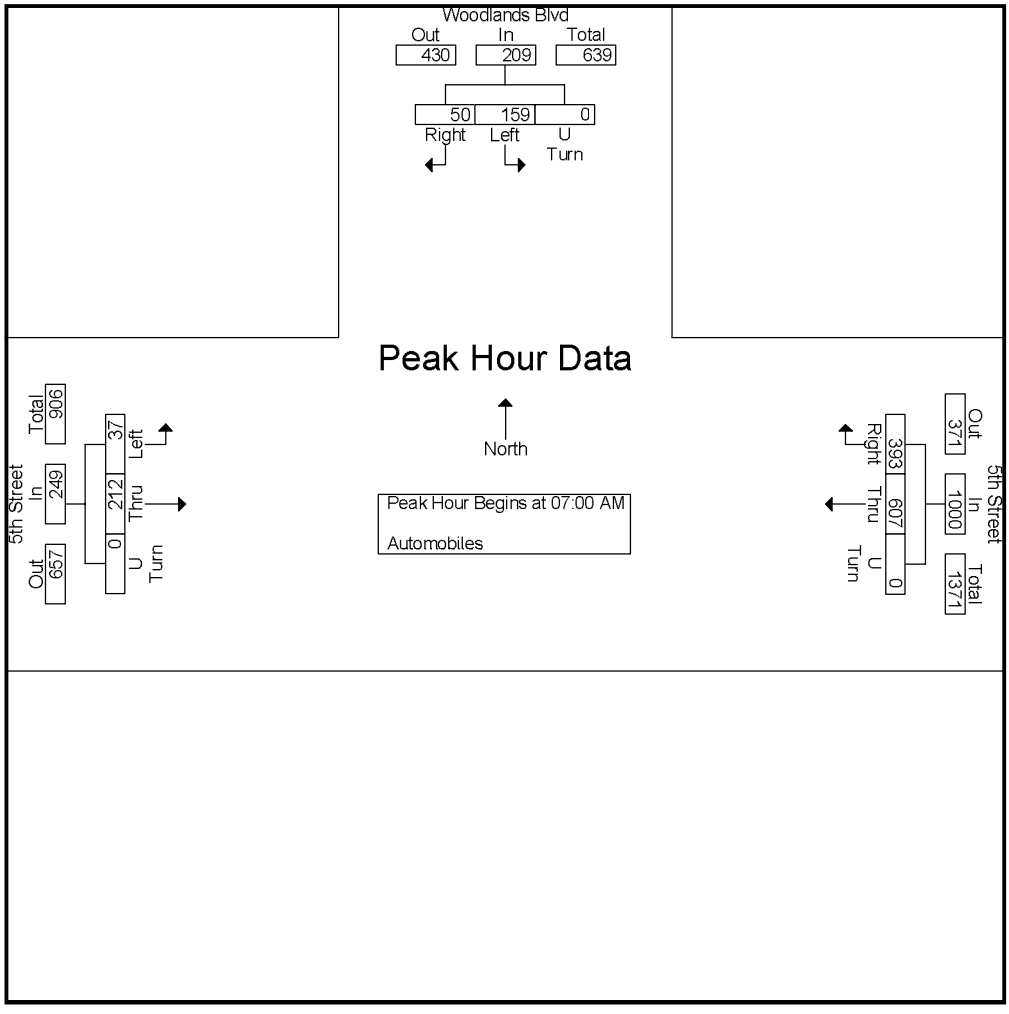


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
5th St and Woodlands Blvd

File Name : 5th and Woodlands AM
Site Code : IPO 364
Start Date : 8/16/2018
Page No : 3

	5th Street Eastbound				5th Street Westbound				Woodlands Blvd Southbound				
Start Time	Left	Thru	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	4	46	0	50	140	125	0	265	35	11	0	46	361
07:15 AM	10	42	0	52	159	**162**	0	**321**	46	5	0	51	**424**
07:30 AM	**12**	**69**	0	**81**	136	72	0	208	**54**	16	0	**70**	359
07:45 AM	11	55	0	66	**172**	34	0	206	24	**18**	0	42	314
Total Volume	37	212	0	249	607	393	0	1000	159	50	0	209	1458
% App. Total	14.9	85.1	0		60.7	39.3	0		76.1	23.9	0		
PHF	.771	.768	.000	.769	.882	.606	.000	.779	.736	.694	.000	.746	.860



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
5th St and Woodlands Blvd

File Name : 5th and Woodlands PM
Site Code : IPO 364
Start Date : 8/16/2018
Page No : 1

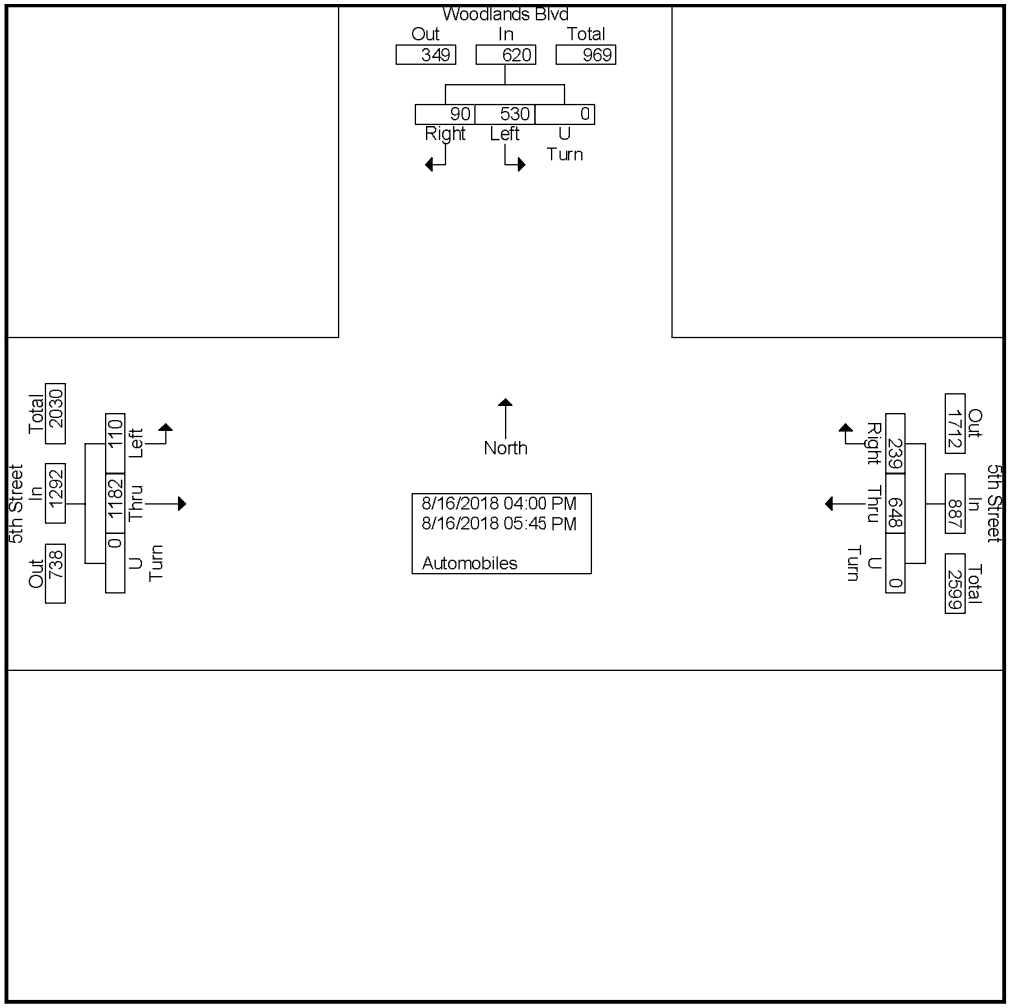
Groups Printed- Automobiles

	5th Street Eastbound				5th Street Westbound				Woodlands Blvd Southbound				
Start Time	Left	Thru	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Right	U Turn	App. Total	Int. Total
04:00 PM	13	126	0	139	70	27	0	97	54	10	0	64	300
04:15 PM	21	150	0	171	81	29	0	110	70	12	0	82	363
04:30 PM	14	149	0	163	81	27	0	108	65	13	0	78	349
04:45 PM	8	154	0	162	89	30	0	119	57	9	0	66	347
Total	56	579	0	635	321	113	0	434	246	44	0	290	1359
05:00 PM	14	171	0	185	78	34	0	112	87	7	0	94	391
05:15 PM	20	174	0	194	103	30	0	133	80	12	0	92	419
05:30 PM	7	144	0	151	63	43	0	106	71	15	0	86	343
05:45 PM	13	114	0	127	83	19	0	102	46	12	0	58	287
Total	54	603	0	657	327	126	0	453	284	46	0	330	1440
Grand Total	110	1182	0	1292	648	239	0	887	530	90	0	620	2799
Apprch %	8.5	91.5	0		73.1	26.9	0		85.5	14.5	0		
Total %	3.9	42.2	0	46.2	23.2	8.5	0	31.7	18.9	3.2	0	22.2	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
5th St and Woodlands Blvd

File Name : 5th and Woodlands PM
Site Code : IPO 364
Start Date : 8/16/2018
Page No : 2

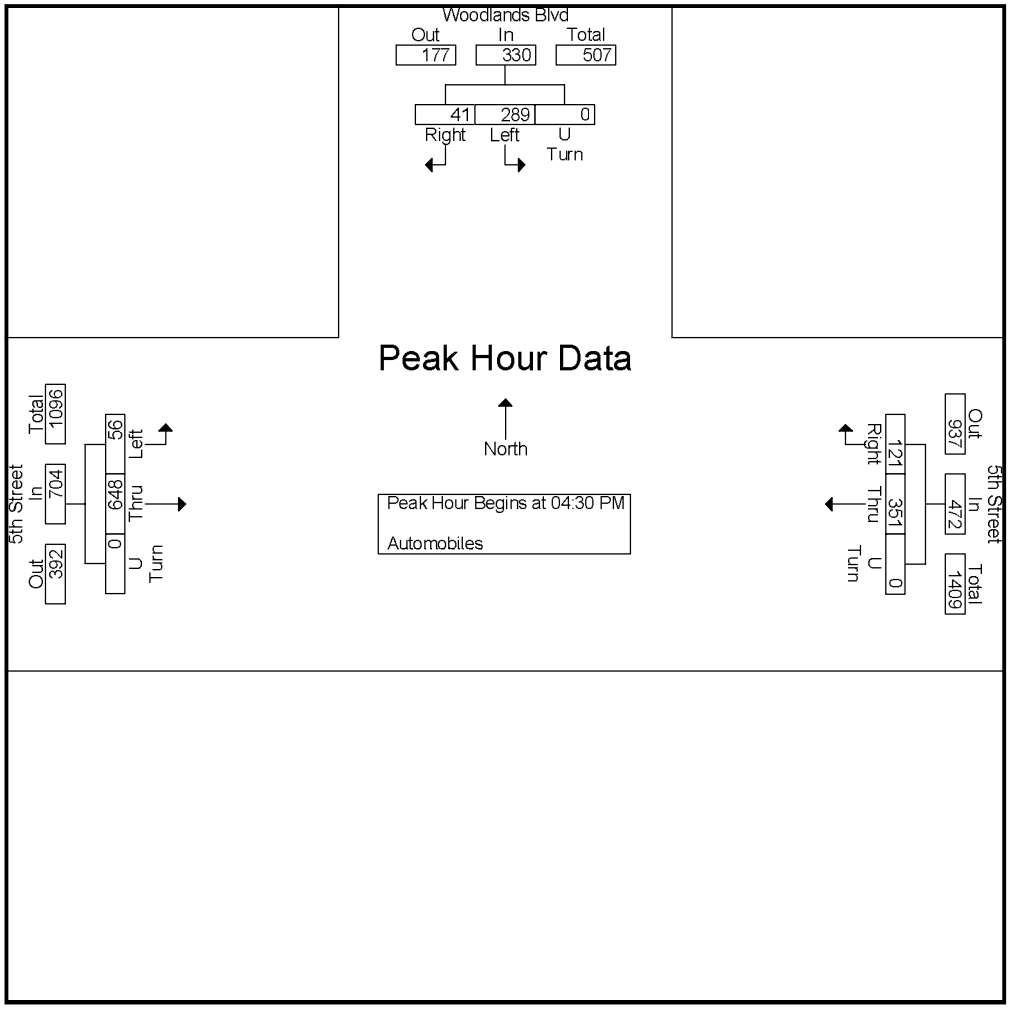


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
5th St and Woodlands Blvd

File Name : 5th and Woodlands PM
Site Code : IPO 364
Start Date : 8/16/2018
Page No : 3

	5th Street Eastbound				5th Street Westbound				Woodlands Blvd Southbound				
Start Time	Left	Thru	U Turn	App. Total	Thru	Right	U Turn	App. Total	Left	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	14	149	0	163	81	27	0	108	65	**13**	0	78	349
04:45 PM	8	154	0	162	89	30	0	119	57	9	0	66	347
05:00 PM	14	171	0	185	78	**34**	0	112	**87**	7	0	**94**	391
05:15 PM	**20**	**174**	0	**194**	**103**	30	0	**133**	80	12	0	92	**419**
Total Volume	56	648	0	704	351	121	0	472	289	41	0	330	1506
% App. Total	8	92	0		74.4	25.6	0		87.6	12.4	0		
PHF	.700	.931	.000	.907	.852	.890	.000	.887	.830	.788	.000	.878	.899



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Founders Pkwy/Ridge Rd & 5th St

File Name : Founders and 5th AM
Site Code : IPO 364
Start Date : 8/16/2018
Page No : 1

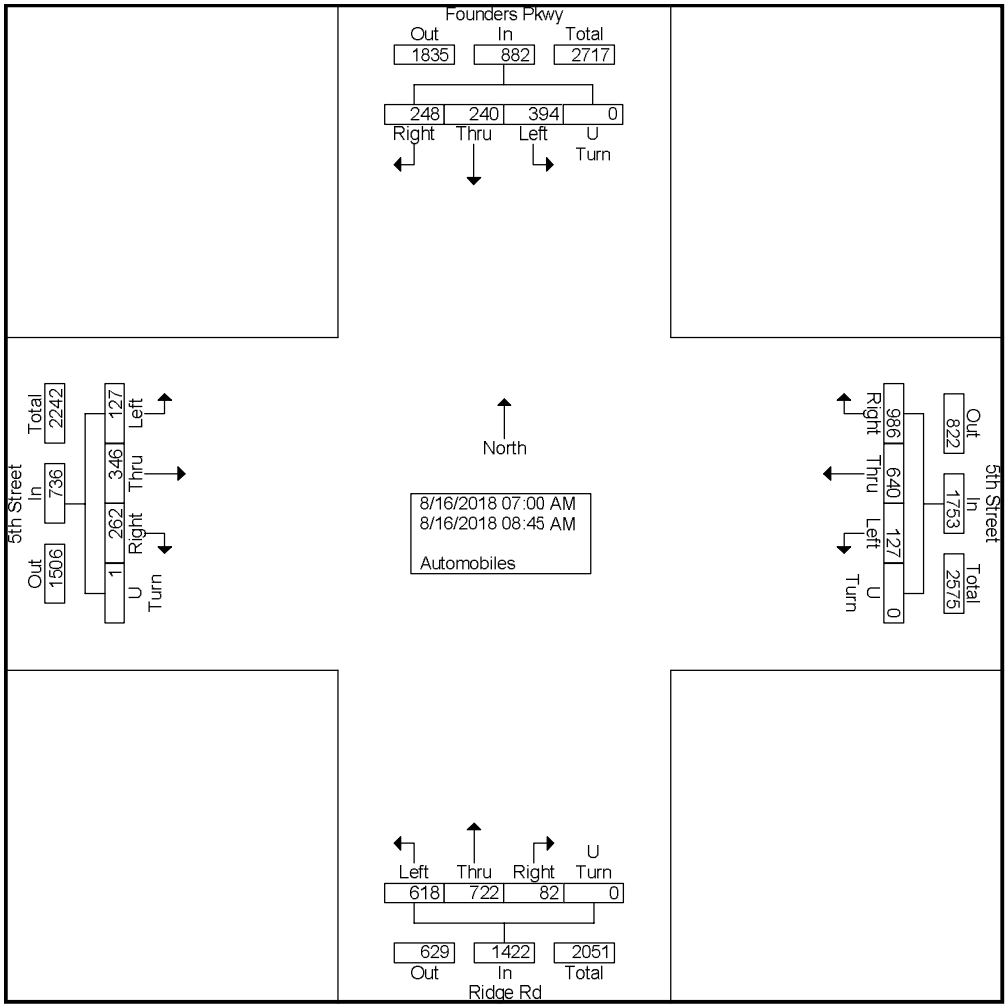
Groups Printed- Automobiles

	5th Street Eastbound					5th Street Westbound					Ridge Rd Northbound					Founders Pkwy Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
07:00 AM	13	55	38	0	106	18	115	115	0	248	109	102	10	0	221	70	28	38	0	136	711
07:15 AM	9	51	35	0	95	12	113	172	0	297	159	120	10	0	289	45	37	40	0	122	803
07:30 AM	23	44	45	0	112	20	96	130	0	246	67	92	12	0	171	37	23	18	0	78	607
07:45 AM	18	40	28	1	87	15	87	124	0	226	72	92	9	0	173	39	27	40	0	106	592
Total	63	190	146	1	400	65	411	541	0	1017	407	406	41	0	854	191	115	136	0	442	2713
08:00 AM	7	39	18	0	64	14	47	116	0	177	53	79	8	0	140	41	27	29	0	97	478
08:15 AM	16	37	25	0	78	9	53	125	0	187	50	74	12	0	136	49	27	28	0	104	505
08:30 AM	16	37	34	0	87	19	68	115	0	202	60	88	12	0	160	61	28	22	0	111	560
08:45 AM	25	43	39	0	107	20	61	89	0	170	48	75	9	0	132	52	43	33	0	128	537
Total	64	156	116	0	336	62	229	445	0	736	211	316	41	0	568	203	125	112	0	440	2080
Grand Total	127	346	262	1	736	127	640	986	0	1753	618	722	82	0	1422	394	240	248	0	882	4793
Apprch %	17.3	47	35.6	0.1		7.2	36.5	56.2	0		43.5	50.8	5.8	0		44.7	27.2	28.1	0		
Total %	2.6	7.2	5.5	0	15.4	2.6	13.4	20.6	0	36.6	12.9	15.1	1.7	0	29.7	8.2	5	5.2	0	18.4	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Founders Pkwy/Ridge Rd & 5th St

File Name : Founders and 5th AM
Site Code : IPO 364
Start Date : 8/16/2018
Page No : 2

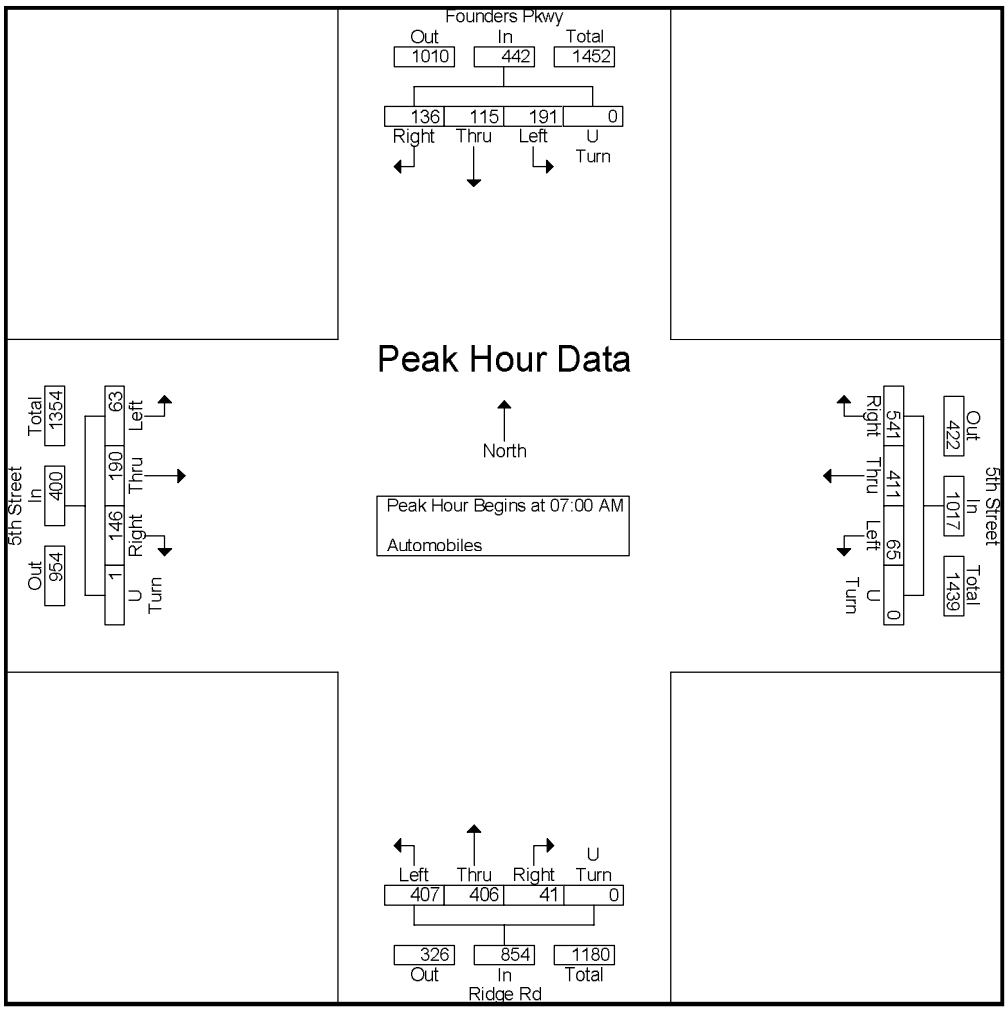


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Founders Pkwy/Ridge Rd & 5th St

File Name : Founders and 5th AM
Site Code : IPO 364
Start Date : 8/16/2018
Page No : 3

	5th Street Eastbound					5th Street Westbound					Ridge Rd Northbound					Founders Pkwy Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	13	**55**	38	0	106	18	**115**	115	0	248	109	102	10	0	221	**70**	28	38	0	**136**	711
07:15 AM	9	51	35	0	95	12	113	**172**	0	**297**	**159**	**120**	10	0	**289**	45	**37**	**40**	0	122	**803**
07:30 AM	**23**	44	**45**	0	**112**	**20**	96	130	0	246	67	92	**12**	0	171	37	23	18	0	78	607
07:45 AM	18	40	28	**1**	87	15	87	124	0	226	72	92	9	0	173	39	27	40	0	106	592
Total Volume	63	190	146	1	400	65	411	541	0	1017	407	406	41	0	854	191	115	136	0	442	2713
% App. Total	15.8	47.5	36.5	0.2		6.4	40.4	53.2	0		47.7	47.5	4.8	0		43.2	26	30.8	0		
PHF	.685	.864	.811	.250	.893	.813	.893	.786	.000	.856	.640	.846	.854	.000	.739	.682	.777	.850	.000	.813	.845



RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pkwy/Ridge Rd & 5th St

File Name : Founders and 5th PM
Site Code : IPO 364
Start Date : 8/16/2018
Page No : 1

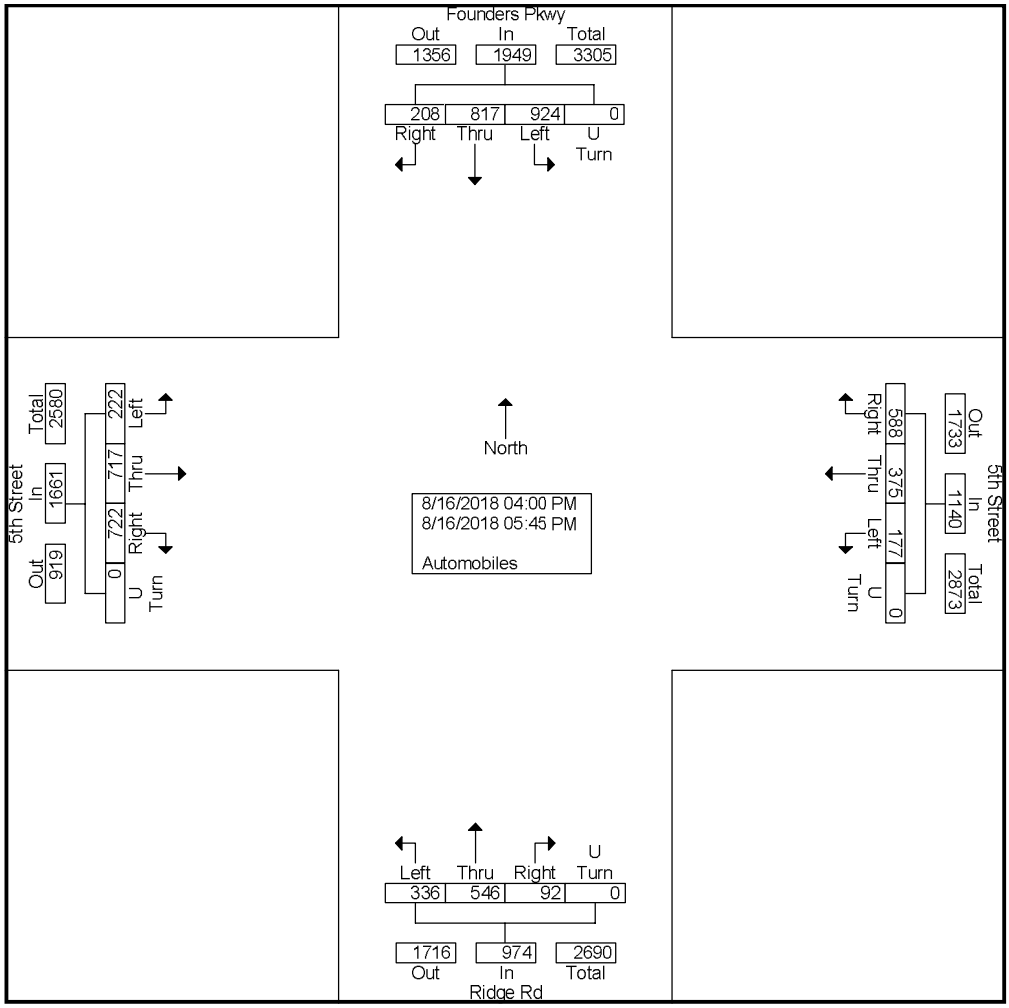
Groups Printed- Automobiles

	5th Street Eastbound					5th Street Westbound					Ridge Rd Northbound					Founders Pkwy Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
04:00 PM	28	85	56	0	169	25	49	77	0	151	32	62	8	0	102	91	81	29	0	201	623
04:15 PM	24	98	91	0	213	31	42	88	0	161	34	72	8	0	114	108	87	33	0	228	716
04:30 PM	30	81	89	0	200	20	43	55	0	118	45	68	12	0	125	100	91	22	0	213	656
04:45 PM	17	93	94	0	204	18	51	72	0	141	48	77	13	0	138	142	107	22	0	271	754
Total	99	357	330	0	786	94	185	292	0	571	159	279	41	0	479	441	366	106	0	913	2749
05:00 PM	28	97	119	0	244	21	48	75	0	144	46	68	13	0	127	120	104	27	0	251	766
05:15 PM	42	97	111	0	250	22	54	70	0	146	46	67	16	0	129	128	121	33	0	282	807
05:30 PM	34	85	99	0	218	25	43	75	0	143	47	66	12	0	125	116	122	21	0	259	745
05:45 PM	19	81	63	0	163	15	45	76	0	136	38	66	10	0	114	119	104	21	0	244	657
Total	123	360	392	0	875	83	190	296	0	569	177	267	51	0	495	483	451	102	0	1036	2975
Grand Total	222	717	722	0	1661	177	375	588	0	1140	336	546	92	0	974	924	817	208	0	1949	5724
Apprch %	13.4	43.2	43.5	0		15.5	32.9	51.6	0		34.5	56.1	9.4	0		47.4	41.9	10.7	0		
Total %	3.9	12.5	12.6	0	29	3.1	6.6	10.3	0	19.9	5.9	9.5	1.6	0	17	16.1	14.3	3.6	0	34	

RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pkwy/Ridge Rd & 5th St

File Name : Founders and 5th PM
Site Code : IPO 364
Start Date : 8/16/2018
Page No : 2

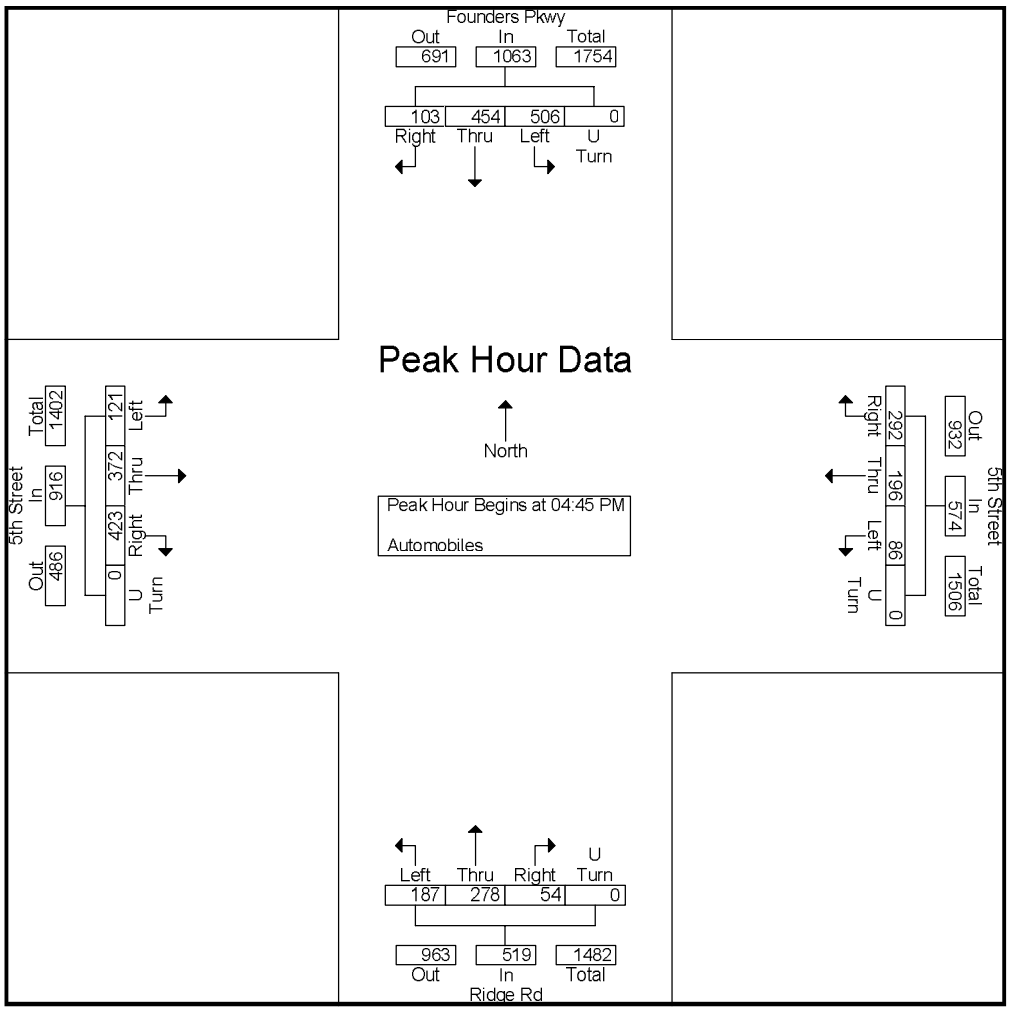


RDC
Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pkwy/Ridge Rd & 5th St

File Name : Founders and 5th PM
Site Code : IPO 364
Start Date : 8/16/2018
Page No : 3

	5th Street Eastbound					5th Street Westbound					Ridge Rd Northbound					Founders Pkwy Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	17	93	94	0	204	18	51	72	0	141	**48**	**77**	13	0	**138**	**142**	107	22	0	271	754
05:00 PM	28	**97**	**119**	0	244	21	48	**75**	0	144	46	68	13	0	127	120	104	27	0	251	766
05:15 PM	**42**	97	111	0	**250**	22	**54**	70	0	**146**	46	67	**16**	0	129	128	121	**33**	0	**282**	**807**
05:30 PM	34	85	99	0	218	**25**	43	75	0	143	47	66	12	0	125	116	**122**	21	0	259	745
Total Volume	121	372	423	0	916	86	196	292	0	574	187	278	54	0	519	506	454	103	0	1063	3072
% App. Total	13.2	40.6	46.2	0		15	34.1	50.9	0		36	53.6	10.4	0		47.6	42.7	9.7	0		
PHF	.720	.959	.889	.000	.916	.860	.907	.973	.000	.983	.974	.903	.844	.000	.940	.891	.930	.780	.000	.942	.952



Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Meadows Pkwy & Factory Shops Blvd

File Name : Meadows and Factory Shops AM
Site Code : IPO 531
Start Date : 3/25/2021
Page No : 1

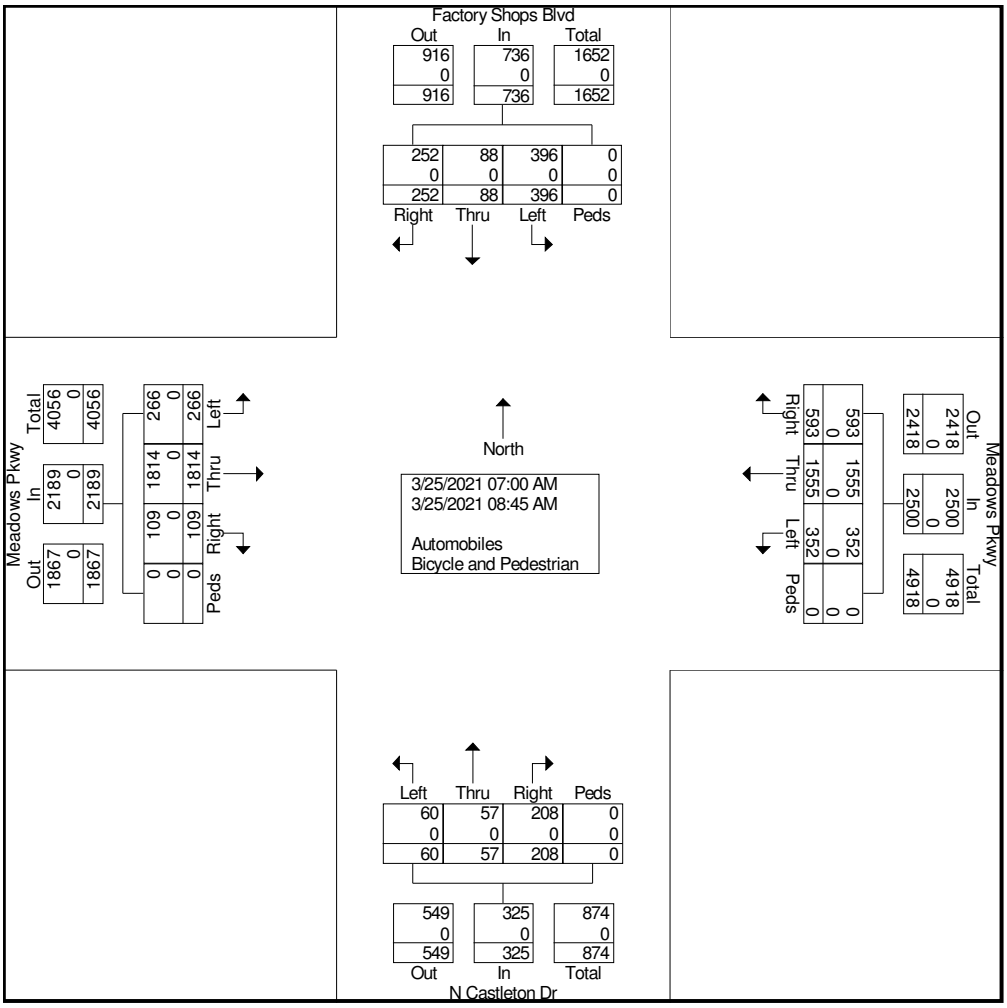
Groups Printed- Automobiles - Bicycle and Pedestrian

	Meadows Pkwy Eastbound					Meadows Pkwy Westbound					N Castleton Dr Northbound					Factory Shops Blvd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	30	200	9	0	239	29	155	52	0	236	10	9	20	0	39	24	5	14	0	43	557
07:15 AM	24	218	16	0	258	30	219	54	0	303	2	4	18	0	24	32	16	39	0	87	672
07:30 AM	46	258	8	0	312	50	233	63	0	346	5	8	29	0	42	40	7	26	0	73	773
07:45 AM	28	252	12	0	292	67	250	82	0	399	10	7	32	0	49	54	20	42	0	116	856
Total	128	928	45	0	1101	176	857	251	0	1284	27	28	99	0	154	150	48	121	0	319	2858
08:00 AM	42	259	27	0	328	54	181	79	0	314	5	10	26	0	41	55	10	24	0	89	772
08:15 AM	27	217	13	0	257	49	178	77	0	304	7	9	24	0	40	65	5	32	0	102	703
08:30 AM	35	208	14	0	257	38	177	83	0	298	13	4	33	0	50	59	10	37	0	106	711
08:45 AM	34	202	10	0	246	35	162	103	0	300	8	6	26	0	40	67	15	38	0	120	706
Total	138	886	64	0	1088	176	698	342	0	1216	33	29	109	0	171	246	40	131	0	417	2892
Grand Total	266	1814	109	0	2189	352	1555	593	0	2500	60	57	208	0	325	396	88	252	0	736	5750
Apprch %	12.2	82.9	5	0		14.1	62.2	23.7	0		18.5	17.5	64	0		53.8	12	34.2	0		
Total %	4.6	31.5	1.9	0	38.1	6.1	27	10.3	0	43.5	1	1	3.6	0	5.7	6.9	1.5	4.4	0	12.8	
Automobiles	266	1814	109	0	2189	352	1555	593	0	2500	60	57	208	0	325	396	88	252	0	736	5750
% Automobiles	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100	100	100	0	100	100
Bicycle and Pedestrian	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycle and Pedestrian	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Meadows Pkwy & Factory Shops Blvd

File Name : Meadows and Factory Shops AM
Site Code : IPO 531
Start Date : 3/25/2021
Page No : 2

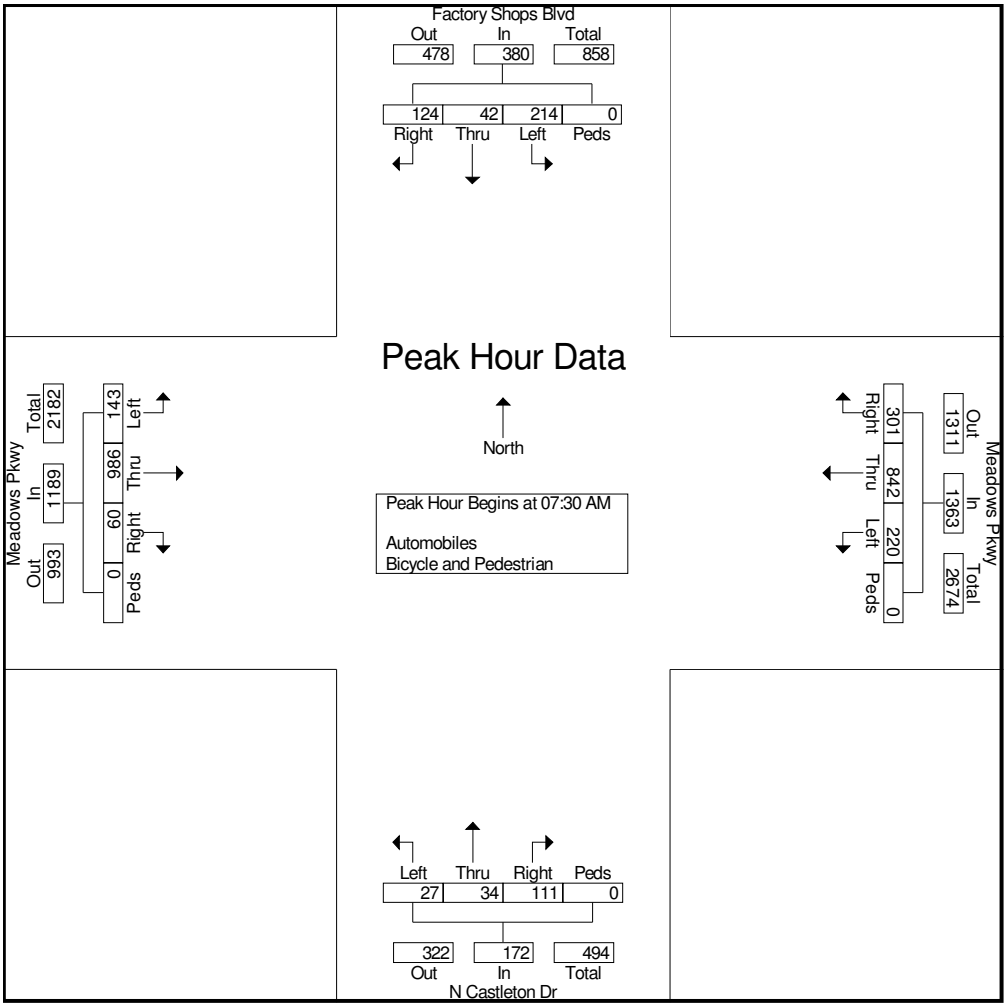


Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Meadows Pkwy & Factory Shops Blvd

File Name : Meadows and Factory Shops AM
Site Code : IPO 531
Start Date : 3/25/2021
Page No : 3

	Meadows Pkwy Eastbound					Meadows Pkwy Westbound					N Castleton Dr Northbound					Factory Shops Blvd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	**46**	258	8	0	312	50	233	63	0	346	5	8	29	0	42	40	7	26	0	73	773
07:45 AM	28	252	12	0	292	**67**	**250**	**82**	0	**399**	**10**	7	**32**	0	**49**	54	**20**	**42**	0	**116**	**856**
08:00 AM	42	**259**	**27**	0	**328**	54	181	79	0	314	5	**10**	26	0	41	55	10	24	0	89	772
08:15 AM	27	217	13	0	257	49	178	77	0	304	7	9	24	0	40	**65**	5	32	0	102	703
Total Volume	143	986	60	0	1189	220	842	301	0	1363	27	34	111	0	172	214	42	124	0	380	3104
% App. Total	12	82.9	5	0		16.1	61.8	22.1	0		15.7	19.8	64.5	0		56.3	11.1	32.6	0		
PHF	.777	.952	.556	.000	.906	.821	.842	.918	.000	.854	.675	.850	.867	.000	.878	.823	.525	.738	.000	.819	.907



Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Meadows Pkwy & Factory Shops Blvd

File Name : Meadows and Factory Shops PM
Site Code : IPO 531
Start Date : 3/25/2021
Page No : 1

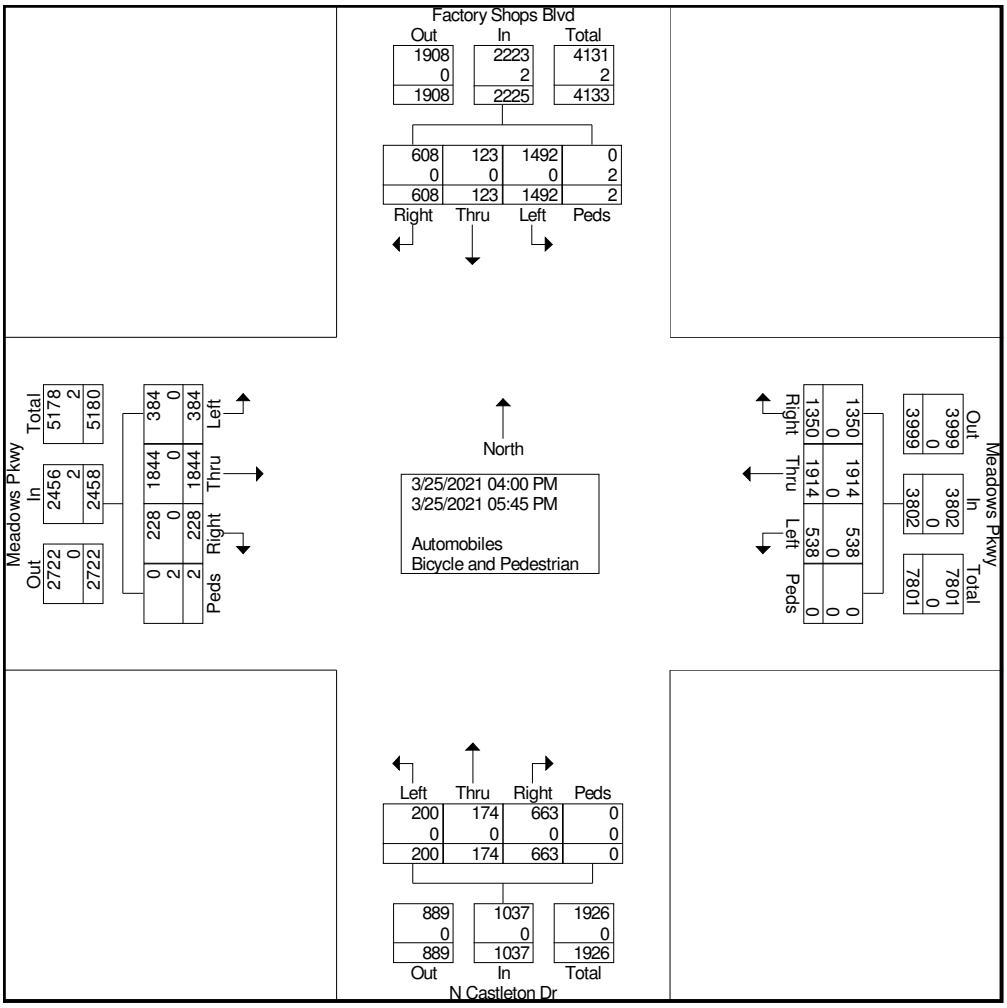
Groups Printed- Automobiles - Bicycle and Pedestrian

	Meadows Pkwy Eastbound					Meadows Pkwy Westbound					N Castleton Dr Northbound					Factory Shops Blvd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	57	264	37	1	359	55	243	159	0	457	14	19	73	0	106	200	19	81	0	300	1222
04:15 PM	43	225	41	0	309	84	275	179	0	538	24	27	70	0	121	186	10	66	0	262	1230
04:30 PM	45	243	24	0	312	70	243	188	0	501	24	25	95	0	144	207	18	58	0	283	1240
04:45 PM	42	212	22	1	277	65	244	202	0	511	23	19	79	0	121	159	13	79	1	252	1161
Total	187	944	124	2	1257	274	1005	728	0	2007	85	90	317	0	492	752	60	284	1	1097	4853
05:00 PM	50	255	30	0	335	51	209	160	0	420	23	18	89	0	130	190	18	70	0	278	1163
05:15 PM	48	218	31	0	297	108	276	172	0	556	39	29	94	0	162	173	20	78	0	271	1286
05:30 PM	57	240	23	0	320	60	194	149	0	403	26	21	93	0	140	212	10	115	0	337	1200
05:45 PM	42	187	20	0	249	45	230	141	0	416	27	16	70	0	113	165	15	61	1	242	1020
Total	197	900	104	0	1201	264	909	622	0	1795	115	84	346	0	545	740	63	324	1	1128	4669
Grand Total	384	1844	228	2	2458	538	1914	1350	0	3802	200	174	663	0	1037	1492	123	608	2	2225	9522
Apprch %	15.6	75	9.3	0.1		14.2	50.3	35.5	0		19.3	16.8	63.9	0		67.1	5.5	27.3	0.1		
Total %	4	19.4	2.4	0	25.8	5.7	20.1	14.2	0	39.9	2.1	1.8	7	0	10.9	15.7	1.3	6.4	0	23.4	
Automobiles	384	1844	228	0	2456	538	1914	1350	0	3802	200	174	663	0	1037	1492	123	608	0	2223	9518
% Automobiles	100	100	100	0	99.9	100	100	100	0	100	100	100	100	0	100	100	100	100	0	99.9	100
Bicycle and Pedestrian	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4
% Bicycle and Pedestrian	0	0	0	100	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0.1	0

Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Meadows Pkwy & Factory Shops Blvd

File Name : Meadows and Factory Shops PM
Site Code : IPO 531
Start Date : 3/25/2021
Page No : 2

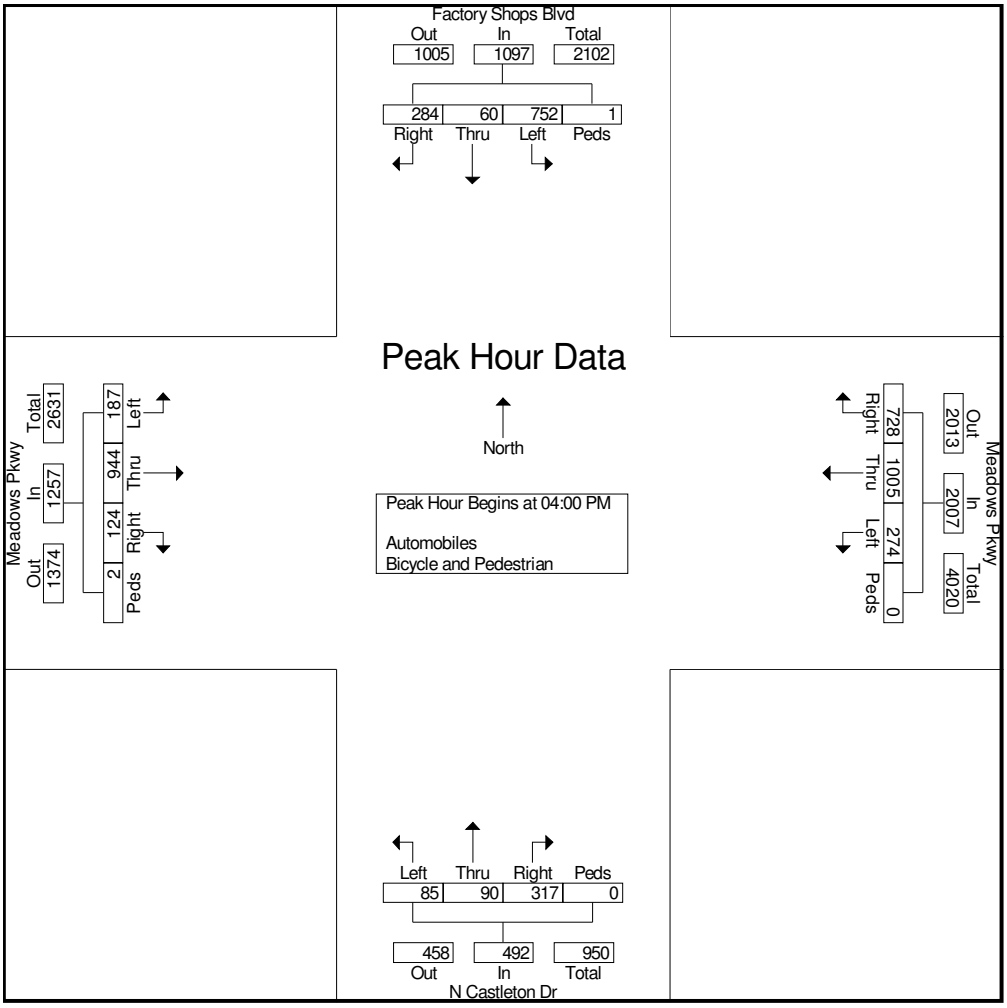


Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Meadows Pkwy & Factory Shops Blvd

File Name : Meadows and Factory Shops PM
Site Code : IPO 531
Start Date : 3/25/2021
Page No : 3

	Meadows Pkwy Eastbound					Meadows Pkwy Westbound					N Castleton Dr Northbound					Factory Shops Blvd Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	**57**	**264**	37	**1**	**359**	55	243	159	0	457	14	19	73	0	106	200	**19**	**81**	0	**300**	1222
04:15 PM	43	225	**41**	0	309	**84**	**275**	179	0	**538**	**24**	**27**	70	0	121	186	10	66	0	262	1230
04:30 PM	45	243	24	0	312	70	243	188	0	501	24	25	**95**	0	**144**	**207**	18	58	0	283	**1240**
04:45 PM	42	212	22	1	277	65	244	**202**	0	511	23	19	79	0	121	159	13	79	**1**	252	1161
Total Volume	187	944	124	2	1257	274	1005	728	0	2007	85	90	317	0	492	752	60	284	1	1097	4853
% App. Total	14.9	75.1	9.9	0.2		13.7	50.1	36.3	0		17.3	18.3	64.4	0		68.6	5.5	25.9	0.1		
PHF	.820	.894	.756	.500	.875	.815	.914	.901	.000	.933	.885	.833	.834	.000	.854	.908	.789	.877	.250	.914	.978



Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Meadows Pkwy & I25 Southbound

File Name : Meadows and I25 SB AM
Site Code : IPO 531
Start Date : 3/25/2021
Page No : 1

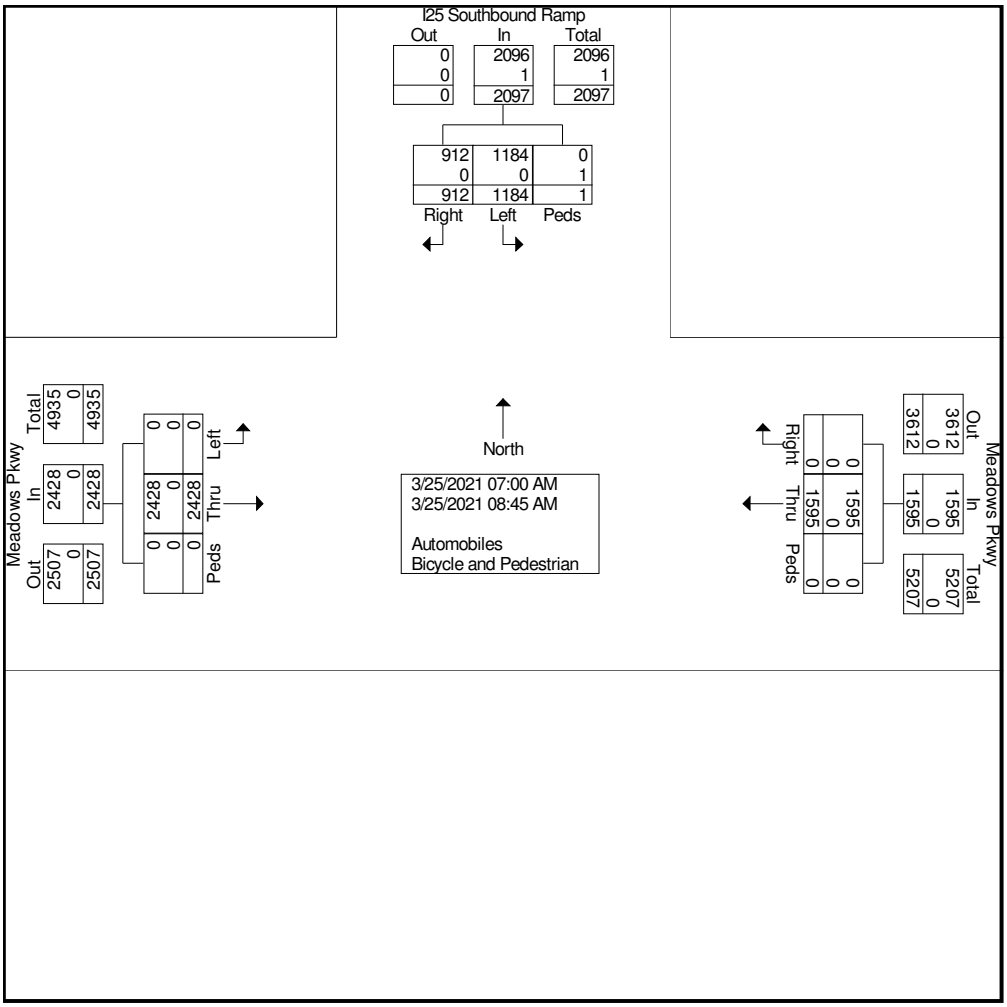
Groups Printed- Automobiles - Bicycle and Pedestrian

	Meadows Pkwy Eastbound				Meadows Pkwy Westbound				I25 Southbound Ramp Southbound				
Start Time	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
07:00 AM	0	257	0	257	171	0	0	171	81	75	0	156	584
07:15 AM	0	261	0	261	204	0	0	204	129	105	0	234	699
07:30 AM	0	348	0	348	222	0	0	222	108	121	0	229	799
07:45 AM	0	317	0	317	250	0	0	250	189	156	0	345	912
Total	0	1183	0	1183	847	0	0	847	507	457	0	964	2994
08:00 AM	0	354	0	354	185	0	0	185	146	109	1	256	795
08:15 AM	0	289	0	289	178	0	0	178	170	129	0	299	766
08:30 AM	0	315	0	315	184	0	0	184	188	114	0	302	801
08:45 AM	0	287	0	287	201	0	0	201	173	103	0	276	764
Total	0	1245	0	1245	748	0	0	748	677	455	1	1133	3126
Grand Total	0	2428	0	2428	1595	0	0	1595	1184	912	1	2097	6120
Apprch %	0	100	0		100	0	0		56.5	43.5	0		
Total %	0	39.7	0	39.7	26.1	0	0	26.1	19.3	14.9	0	34.3	
Automobiles	0	2428	0	2428	1595	0	0	1595	1184	912	0	2096	6119
% Automobiles	0	100	0	100	100	0	0	100	100	100	0	100	100
Bicycle and Pedestrian	0	0	0	0	0	0	0	0	0	0	1	1	1
% Bicycle and Pedestrian	0	0	0	0	0	0	0	0	0	0	100	0	0

Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Meadows Pkwy & I25 Southbound

File Name : Meadows and I25 SB AM
Site Code : IPO 531
Start Date : 3/25/2021
Page No : 2

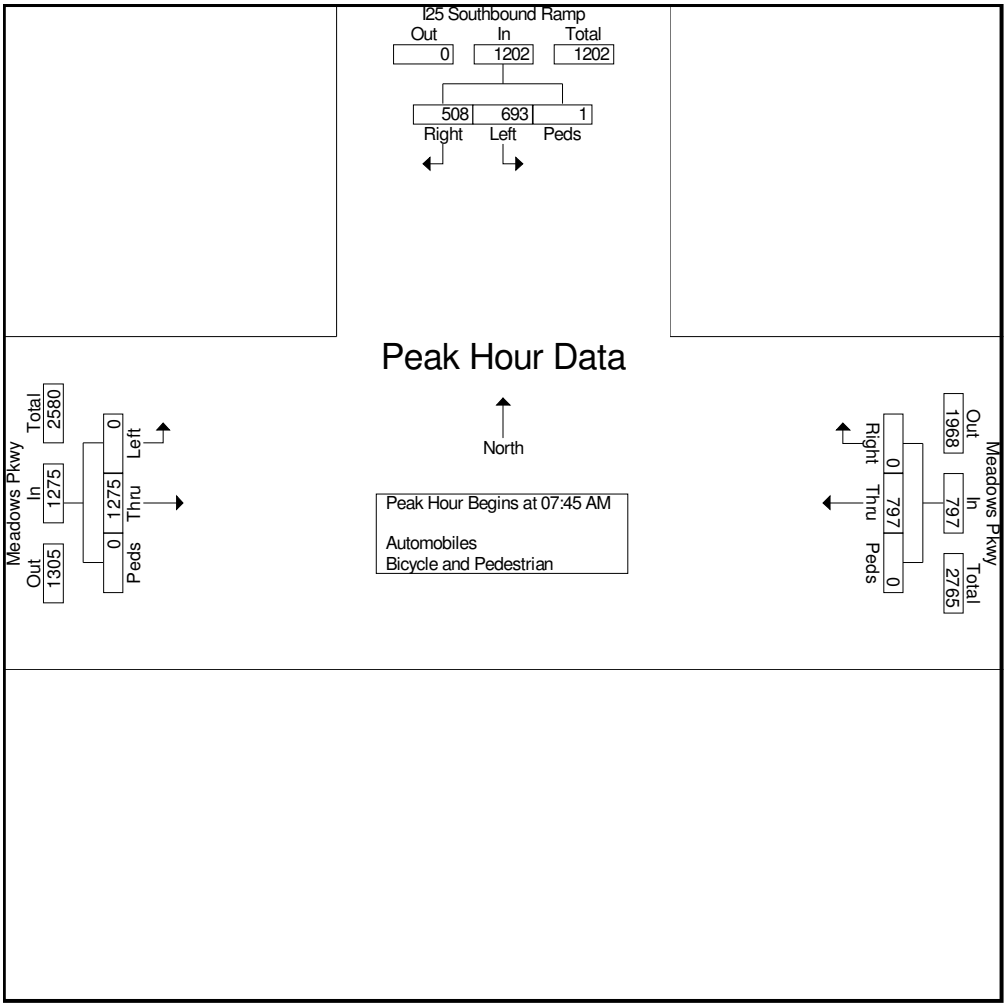


Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Meadows Pkwy & I25 Southbound

File Name : Meadows and I25 SB AM
Site Code : IPO 531
Start Date : 3/25/2021
Page No : 3

	Meadows Pkwy Eastbound				Meadows Pkwy Westbound				I25 Southbound Ramp Southbound				
Start Time	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	0	317	0	317	**250**	0	0	**250**	**189**	**156**	0	**345**	**912**
08:00 AM	0	**354**	0	**354**	185	0	0	185	146	109	**1**	256	795
08:15 AM	0	289	0	289	178	0	0	178	170	129	0	299	766
08:30 AM	0	315	0	315	184	0	0	184	188	114	0	302	801
Total Volume	0	1275	0	1275	797	0	0	797	693	508	1	1202	3274
% App. Total	0	100	0		100	0	0		57.7	42.3	0.1		
PHF	.000	.900	.000	.900	.797	.000	.000	.797	.917	.814	.250	.871	.897



Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Meadows Pkwy & I25 Southbound

File Name : Meadows and I25 SB PM
Site Code : IPO 531
Start Date : 3/25/2021
Page No : 1

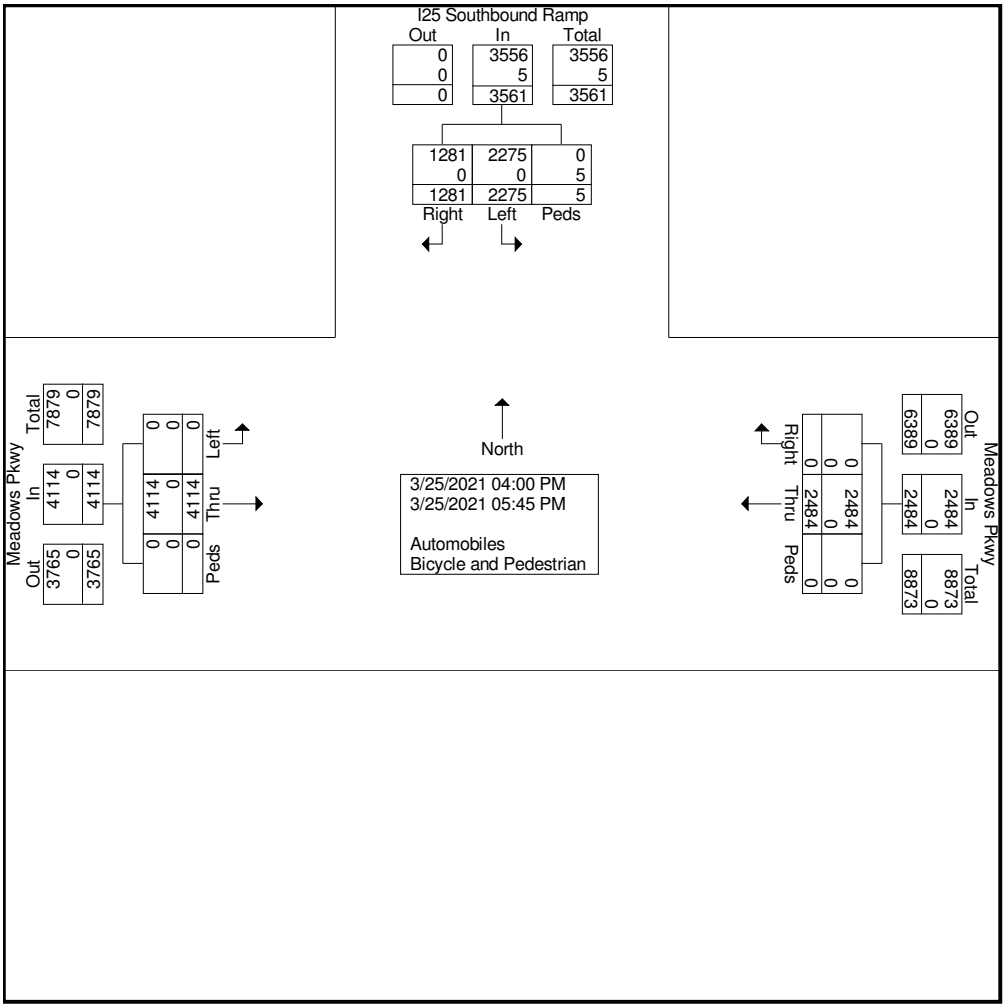
Groups Printed- Automobiles - Bicycle and Pedestrian

	Meadows Pkwy Eastbound				Meadows Pkwy Westbound				I25 Southbound Ramp Southbound				
Start Time	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
04:00 PM	0	607	0	607	284	0	0	284	305	181	1	487	1378
04:15 PM	0	492	0	492	374	0	0	374	271	148	0	419	1285
04:30 PM	0	524	0	524	343	0	0	343	294	157	3	454	1321
04:45 PM	0	480	0	480	323	0	0	323	295	174	1	470	1273
Total	0	2103	0	2103	1324	0	0	1324	1165	660	5	1830	5257
05:00 PM	0	528	0	528	303	0	0	303	269	152	0	421	1252
05:15 PM	0	516	0	516	330	0	0	330	294	191	0	485	1331
05:30 PM	0	539	0	539	269	0	0	269	283	139	0	422	1230
05:45 PM	0	428	0	428	258	0	0	258	264	139	0	403	1089
Total	0	2011	0	2011	1160	0	0	1160	1110	621	0	1731	4902
Grand Total	0	4114	0	4114	2484	0	0	2484	2275	1281	5	3561	10159
Apprch %	0	100	0		100	0	0		63.9	36	0.1		
Total %	0	40.5	0	40.5	24.5	0	0	24.5	22.4	12.6	0	35.1	
Automobiles	0	4114	0	4114	2484	0	0	2484	2275	1281	0	3556	10154
% Automobiles	0	100	0	100	100	0	0	100	100	100	0	99.9	100
Bicycle and Pedestrian	0	0	0	0	0	0	0	0	0	0	5	5	5
% Bicycle and Pedestrian	0	0	0	0	0	0	0	0	0	0	100	0.1	0

Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Meadows Pkwy & I25 Southbound

File Name : Meadows and I25 SB PM
Site Code : IPO 531
Start Date : 3/25/2021
Page No : 2

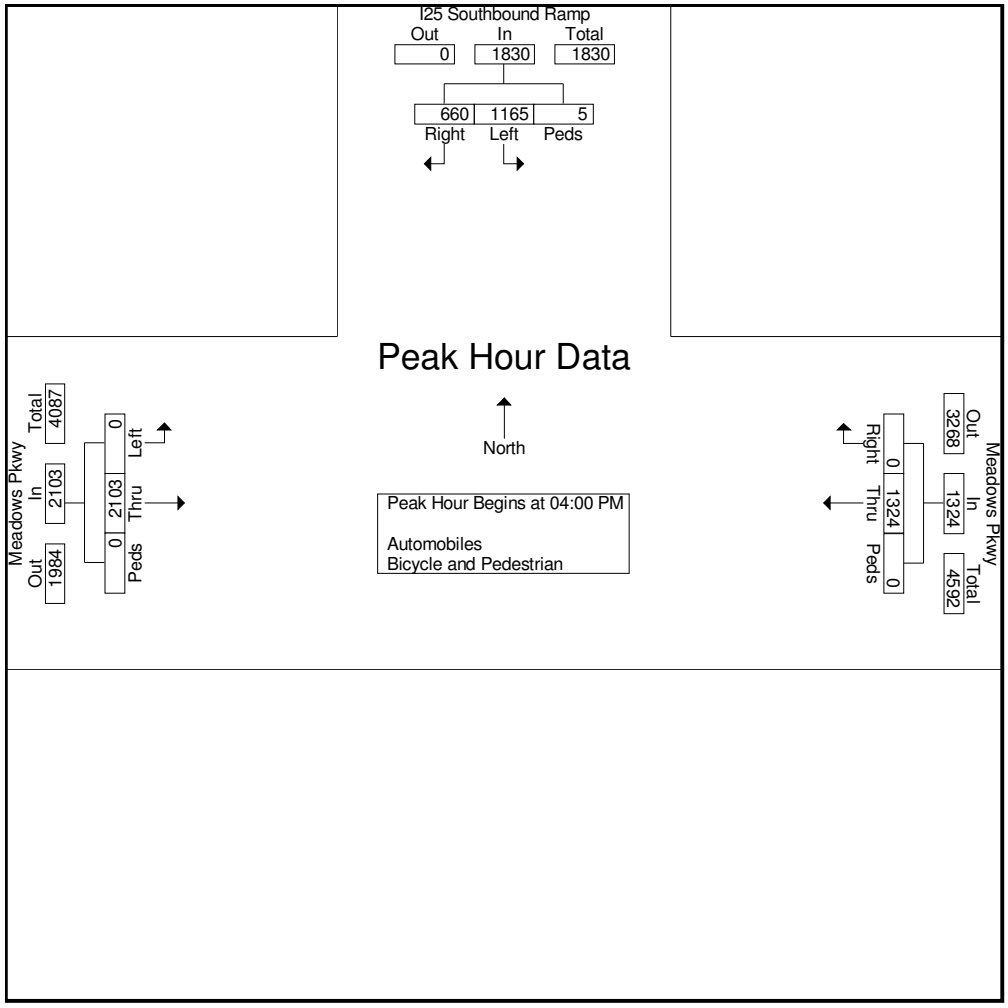


Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Meadows Pkwy & I25 Southbound

File Name : Meadows and I25 SB PM
Site Code : IPO 531
Start Date : 3/25/2021
Page No : 3

	Meadows Pkwy Eastbound				Meadows Pkwy Westbound				I25 Southbound Ramp Southbound				
Start Time	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	**607**	0	**607**	284	0	0	284	**305**	**181**	1	**487**	**1378**
04:15 PM	0	492	0	492	**374**	0	0	**374**	271	148	0	419	1285
04:30 PM	0	524	0	524	343	0	0	343	294	157	**3**	454	1321
04:45 PM	0	480	0	480	323	0	0	323	295	174	1	470	1273
Total Volume	0	2103	0	2103	1324	0	0	1324	1165	660	5	1830	5257
% App. Total	0	100	0		100	0	0		63.7	36.1	0.3		
PHF	.000	.866	.000	.866	.885	.000	.000	.885	.955	.912	.417	.939	.954



Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Founders Pwky/Meadows Pkwy & I25 NB

File Name : Founders.Meadows and I25 NB AM
Site Code : IPO 531
Start Date : 3/25/2021
Page No : 1

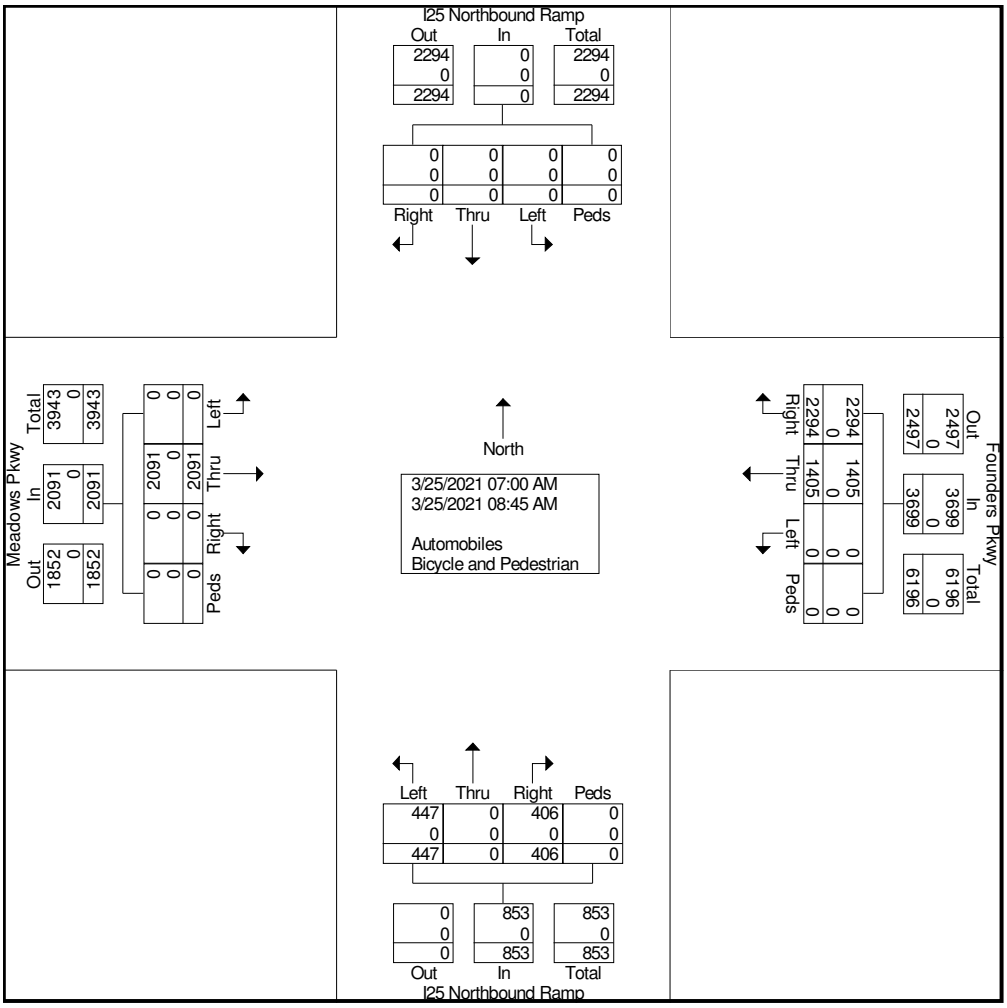
Groups Printed- Automobiles - Bicycle and Pedestrian

	Meadows Pkwy Eastbound					Founders Pkwy Westbound					I25 Northbound Ramp Northbound					I25 Northbound Ramp Southbound						
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	Peds	App. Total	Int. Total
07:00 AM	0	148	0	0	148	0	140	258	0	398	55	0	38	0	93	0	0	0	0	0	0	639
07:15 AM	0	198	0	0	198	0	169	365	0	534	58	0	40	0	98	0	0	0	0	0	0	830
07:30 AM	0	210	0	0	210	0	191	374	0	565	61	0	49	0	110	0	0	0	0	0	0	885
07:45 AM	0	296	0	0	296	0	226	339	0	565	64	0	73	0	137	0	0	0	0	0	0	998
Total	0	852	0	0	852	0	726	1336	0	2062	238	0	200	0	438	0	0	0	0	0	0	3352
08:00 AM	0	287	0	0	287	0	146	222	0	368	62	0	59	0	121	0	0	0	0	0	0	776
08:15 AM	0	303	0	0	303	0	173	243	0	416	41	0	41	0	82	0	0	0	0	0	0	801
08:30 AM	0	326	0	0	326	0	174	270	0	444	45	0	50	0	95	0	0	0	0	0	0	865
08:45 AM	0	323	0	0	323	0	186	223	0	409	61	0	56	0	117	0	0	0	0	0	0	849
Total	0	1239	0	0	1239	0	679	958	0	1637	209	0	206	0	415	0	0	0	0	0	0	3291
Grand Total	0	2091	0	0	2091	0	1405	2294	0	3699	447	0	406	0	853	0	0	0	0	0	0	6643
Apprch %	0	100	0	0		0	38	62	0		52.4	0	47.6	0		0	0	0	0	0		
Total %	0	31.5	0	0	31.5	0	21.2	34.5	0	55.7	6.7	0	6.1	0	12.8	0	0	0	0	0	0	
Automobiles	0	2091	0	0	2091	0	1405	2294	0	3699	447	0	406	0	853	0	0	0	0	0	0	6643
% Automobiles	0	100	0	0	100	0	100	100	0	100	100	0	100	0	100	0	0	0	0	0	0	100
Bicycle and Pedestrian	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycle and Pedestrian	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Founders Pwky/Meadows Pkwy & I25 NB

File Name : Founders.Meadows and I25 NB AM
Site Code : IPO 531
Start Date : 3/25/2021
Page No : 2

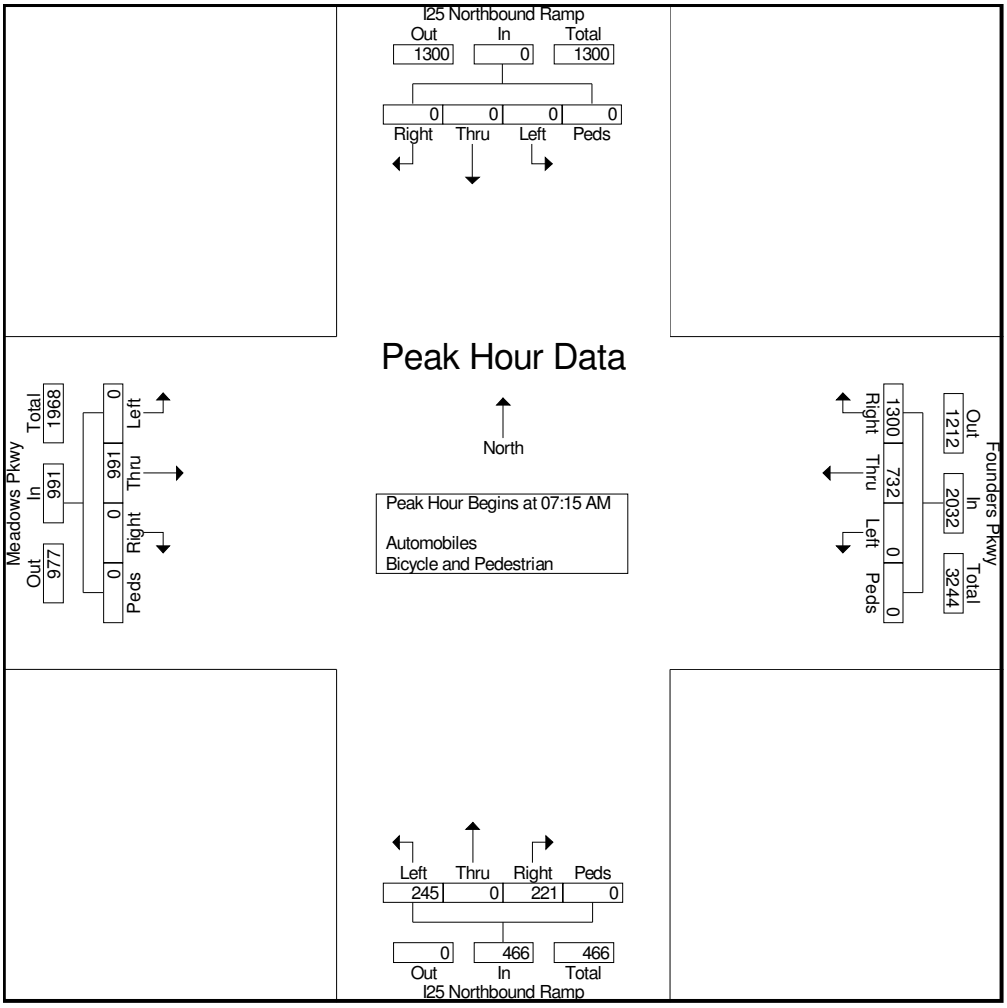


Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Founders Pwky/Meadows Pkwy & I25 NB

File Name : Founders.Meadows and I25 NB AM
Site Code : IPO 531
Start Date : 3/25/2021

	Meadows Pkwy Eastbound					Founders Pkwy Westbound					I25 Northbound Ramp Northbound					I25 Northbound Ramp Southbound						
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 07:15 AM																						
07:15 AM	0	198	0	0	198	0	169	365	0	534	58	0	40	0	98	0	0	0	0	0	0	830
07:30 AM	0	210	0	0	210	0	191	**374**	0	**565**	61	0	49	0	110	0	0	0	0	0	0	885
07:45 AM	0	**296**	0	0	**296**	0	**226**	339	0	565	**64**	0	**73**	0	**137**	0	0	0	0	0	0	**998**
08:00 AM	0	287	0	0	287	0	146	222	0	368	62	0	59	0	121	0	0	0	0	0	0	776
Total Volume	0	991	0	0	991	0	732	1300	0	2032	245	0	221	0	466	0	0	0	0	0	0	3489
% App. Total	0	100	0	0		0	36	64	0		52.6	0	47.4	0		0	0	0	0	0		
PHF	.000	.837	.000	.000	.837	.000	.810	.869	.000	.899	.957	.000	.757	.000	.850	.000	.000	.000	.000	.000	.000	.874



Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pwky/Meadows Pkwy & I25 NB

File Name : Founders.Meadows and I25 NB PM
Site Code : IPO 531
Start Date : 3/25/2021
Page No : 1

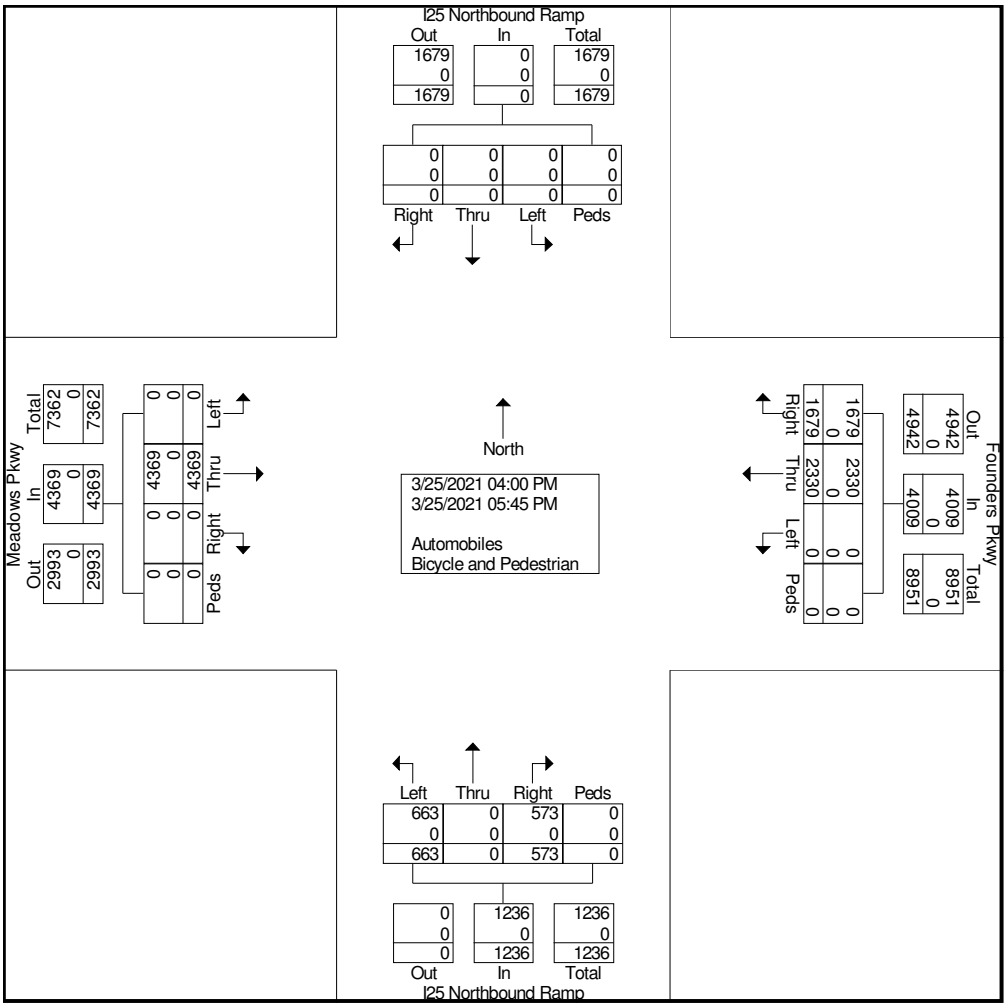
Groups Printed- Automobiles - Bicycle and Pedestrian

	Meadows Pkwy Eastbound					Founders Pkwy Westbound					I25 Northbound Ramp Northbound					I25 Northbound Ramp Southbound						
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	Peds	App. Total	Int. Total
04:00 PM	0	645	0	0	645	0	270	200	0	470	82	0	80	0	162	0	0	0	0	0	0	1277
04:15 PM	0	547	0	0	547	0	346	228	0	574	96	0	74	0	170	0	0	0	0	0	0	1291
04:30 PM	0	547	0	0	547	0	316	232	0	548	97	0	80	0	177	0	0	0	0	0	0	1272
04:45 PM	0	539	0	0	539	0	296	203	0	499	78	0	69	0	147	0	0	0	0	0	0	1185
Total	0	2278	0	0	2278	0	1228	863	0	2091	353	0	303	0	656	0	0	0	0	0	0	5025
05:00 PM	0	531	0	0	531	0	283	210	0	493	87	0	84	0	171	0	0	0	0	0	0	1195
05:15 PM	0	551	0	0	551	0	307	219	0	526	84	0	55	0	139	0	0	0	0	0	0	1216
05:30 PM	0	553	0	0	553	0	247	204	0	451	82	0	71	0	153	0	0	0	0	0	0	1157
05:45 PM	0	456	0	0	456	0	265	183	0	448	57	0	60	0	117	0	0	0	0	0	0	1021
Total	0	2091	0	0	2091	0	1102	816	0	1918	310	0	270	0	580	0	0	0	0	0	0	4589
Grand Total	0	4369	0	0	4369	0	2330	1679	0	4009	663	0	573	0	1236	0	0	0	0	0	0	9614
Apprch %	0	100	0	0		0	58.1	41.9	0		53.6	0	46.4	0		0	0	0	0	0		
Total %	0	45.4	0	0	45.4	0	24.2	17.5	0	41.7	6.9	0	6	0	12.9	0	0	0	0	0	0	
Automobiles	0	4369	0	0	4369	0	2330	1679	0	4009	663	0	573	0	1236	0	0	0	0	0	0	9614
% Automobiles	0	100	0	0	100	0	100	100	0	100	100	0	100	0	100	0	0	0	0	0	0	100
Bicycle and Pedestrian	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycle and Pedestrian	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pwky/Meadows Pkwy & I25 NB

File Name : Founders.Meadows and I25 NB PM
Site Code : IPO 531
Start Date : 3/25/2021
Page No : 2

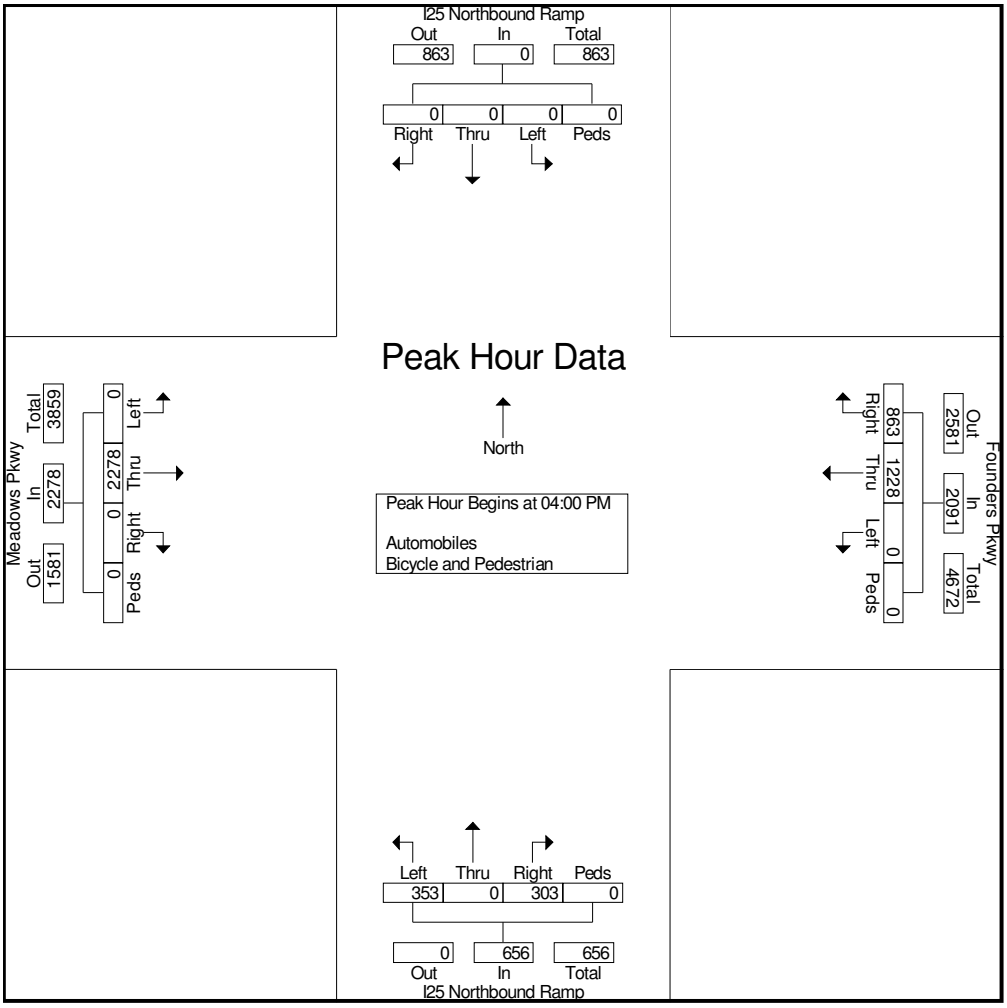


Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Founders Pwky/Meadows Pkwy & I25 NB

File Name : Founders.Meadows and I25 NB PM
Site Code : IPO 531
Start Date : 3/25/2021
Page No : 3

	Meadows Pkwy Eastbound					Founders Pkwy Westbound					I25 Northbound Ramp Northbound					I25 Northbound Ramp Southbound						
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 04:00 PM																						
04:00 PM	0	**645**	0	0	**645**	0	270	200	0	470	82	0	**80**	0	162	0	0	0	0	0	0	1277
04:15 PM	0	547	0	0	547	0	**346**	228	0	**574**	96	0	74	0	170	0	0	0	0	0	0	**1291**
04:30 PM	0	547	0	0	547	0	316	**232**	0	548	**97**	0	80	0	**177**	0	0	0	0	0	0	1272
04:45 PM	0	539	0	0	539	0	296	203	0	499	78	0	69	0	147	0	0	0	0	0	0	1185
Total Volume	0	2278	0	0	2278	0	1228	863	0	2091	353	0	303	0	656	0	0	0	0	0	0	5025
% App. Total	0	100	0	0		0	58.7	41.3	0		53.8	0	46.2	0		0	0	0	0	0		
PHF	.000	.883	.000	.000	.883	.000	.887	.930	.000	.911	.910	.000	.947	.000	.927	.000	.000	.000	.000	.000	.000	.973



Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Santa Fe Dr (US-85) and Castleton Ct

File Name : Santa Fe and Castleton AM
Site Code : IPO 536
Start Date : 4/7/2021
Page No : 1

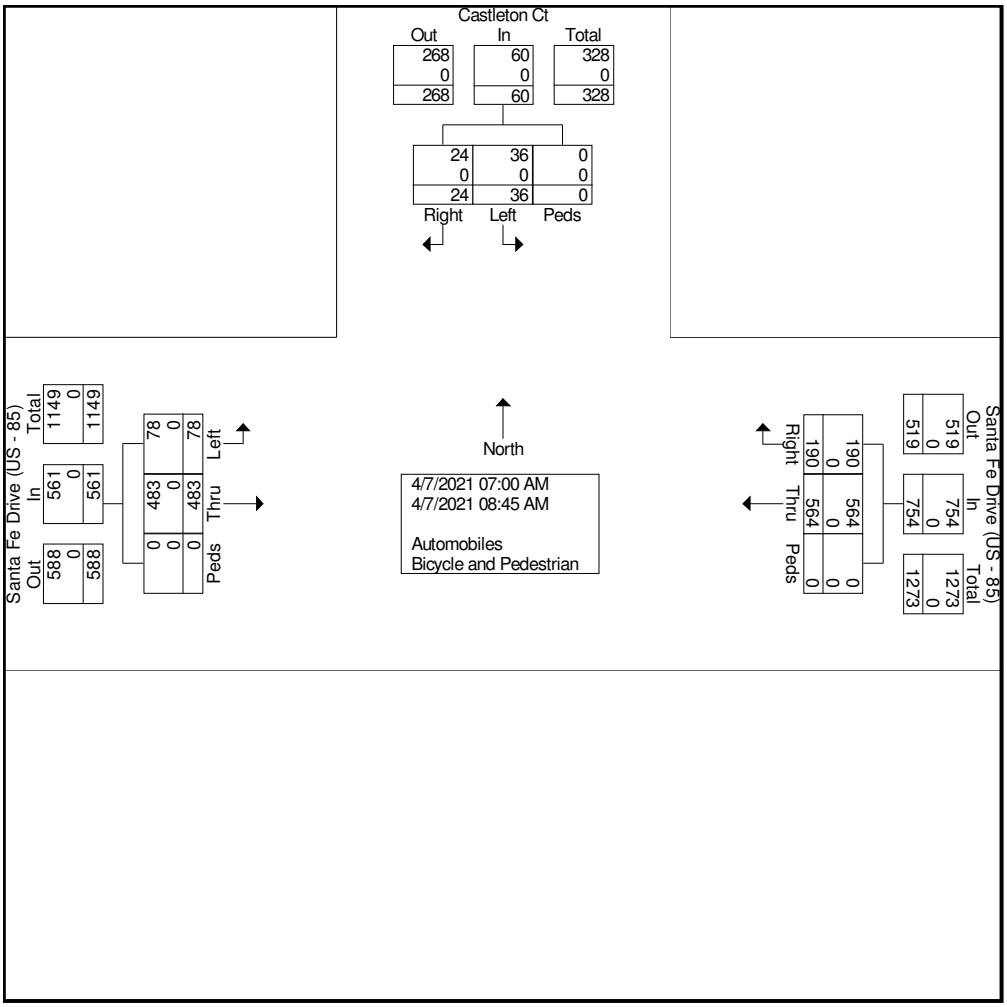
Groups Printed- Automobiles - Bicycle and Pedestrian

	Santa Fe Drive (US - 85) Eastbound				Santa Fe Drive (US - 85) Westbound				Castleton Ct Southbound				
Start Time	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
07:00 AM	2	24	0	26	52	16	0	68	3	5	0	8	102
07:15 AM	4	54	0	58	85	24	0	109	4	4	0	8	175
07:30 AM	12	57	0	69	80	23	0	103	1	3	0	4	176
07:45 AM	11	58	0	69	64	34	0	98	4	2	0	6	173
Total	29	193	0	222	281	97	0	378	12	14	0	26	626
08:00 AM	10	64	0	74	55	28	0	83	6	2	0	8	165
08:15 AM	18	93	0	111	71	31	0	102	8	3	0	11	224
08:30 AM	15	56	0	71	93	15	0	108	3	3	0	6	185
08:45 AM	6	77	0	83	64	19	0	83	7	2	0	9	175
Total	49	290	0	339	283	93	0	376	24	10	0	34	749
Grand Total	78	483	0	561	564	190	0	754	36	24	0	60	1375
Apprch %	13.9	86.1	0		74.8	25.2	0		60	40	0		
Total %	5.7	35.1	0	40.8	41	13.8	0	54.8	2.6	1.7	0	4.4	
Automobiles	78	483	0	561	564	190	0	754	36	24	0	60	1375
% Automobiles	100	100	0	100	100	100	0	100	100	100	0	100	100
Bicycle and Pedestrian	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycle and Pedestrian	0	0	0	0	0	0	0	0	0	0	0	0	0

Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Santa Fe Dr (US-85) and Castleton Ct

File Name : Santa Fe and Castleton AM
Site Code : IPO 536
Start Date : 4/7/2021
Page No : 2

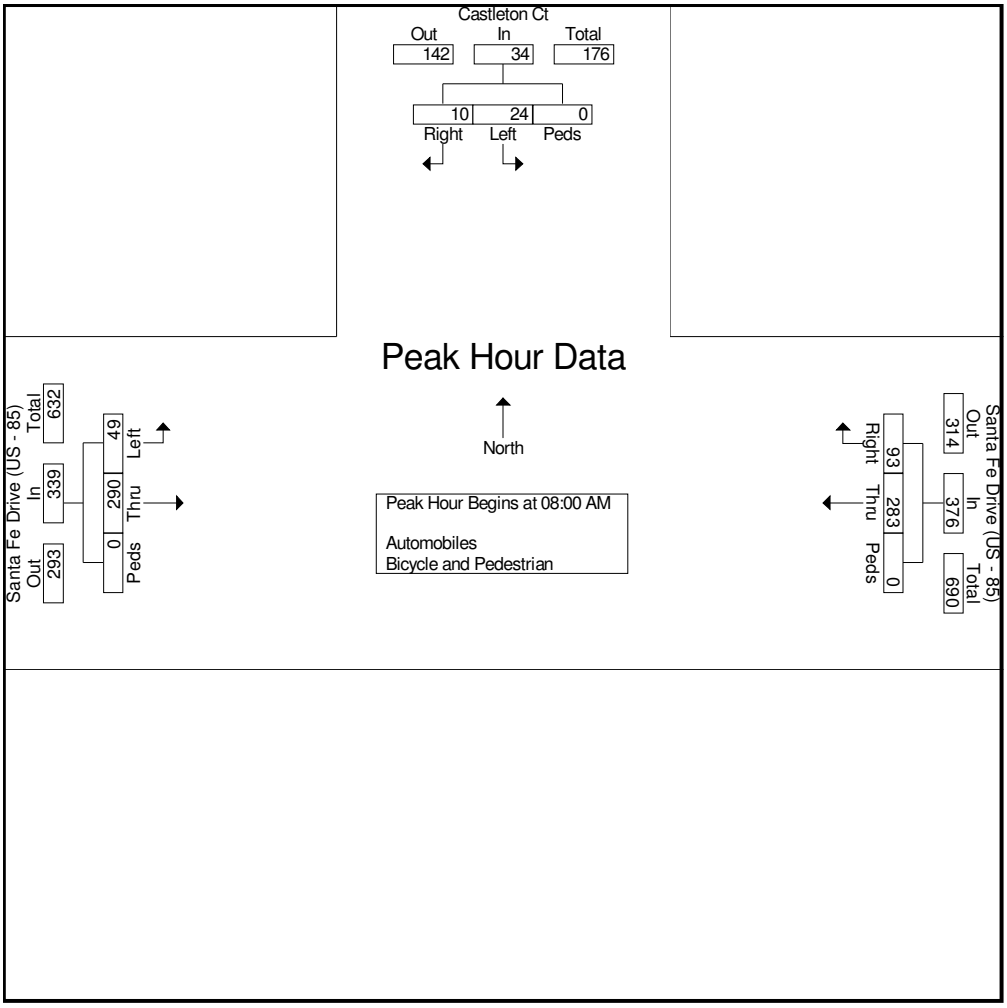


Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
AM Peak
Santa Fe Dr (US-85) and Castleton Ct

File Name : Santa Fe and Castleton AM
Site Code : IPO 536
Start Date : 4/7/2021
Page No : 3

	Santa Fe Drive (US - 85) Eastbound				Santa Fe Drive (US - 85) Westbound				Castleton Ct Southbound				
Start Time	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	10	64	0	74	55	28	0	83	6	2	0	8	165
08:15 AM	**18**	**93**	0	**111**	71	**31**	0	102	**8**	**3**	0	**11**	**224**
08:30 AM	15	56	0	71	**93**	15	0	**108**	3	3	0	6	185
08:45 AM	6	77	0	83	64	19	0	83	7	2	0	9	175
Total Volume	49	290	0	339	283	93	0	376	24	10	0	34	749
% App. Total	14.5	85.5	0		75.3	24.7	0		70.6	29.4	0		
PHF	.681	.780	.000	.764	.761	.750	.000	.870	.750	.833	.000	.773	.836



Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Santa Fe Dr (US-85) and Castleton Ct

File Name : Santa Fe and Castleton PM
Site Code : IPO 536
Start Date : 4/7/2021
Page No : 1

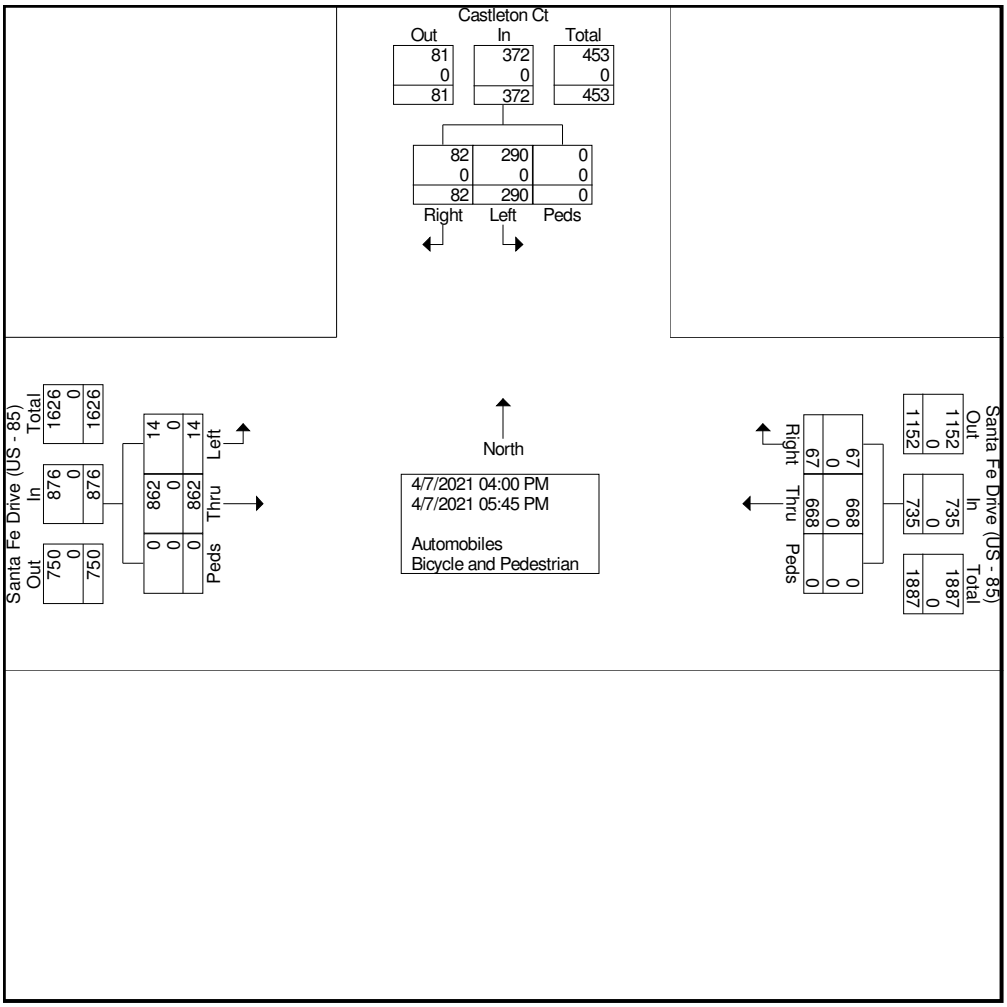
Groups Printed- Automobiles - Bicycle and Pedestrian

	Santa Fe Drive (US - 85) Eastbound				Santa Fe Drive (US - 85) Westbound				Castleton Ct Southbound				
Start Time	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
04:00 PM	2	88	0	90	102	14	0	116	36	7	0	43	249
04:15 PM	6	97	0	103	87	11	0	98	29	6	0	35	236
04:30 PM	2	105	0	107	100	8	0	108	35	14	0	49	264
04:45 PM	2	110	0	112	72	9	0	81	40	11	0	51	244
Total	12	400	0	412	361	42	0	403	140	38	0	178	993
05:00 PM	1	115	0	116	96	7	0	103	65	25	0	90	309
05:15 PM	1	125	0	126	72	4	0	76	36	3	0	39	241
05:30 PM	0	129	0	129	70	8	0	78	23	8	0	31	238
05:45 PM	0	93	0	93	69	6	0	75	26	8	0	34	202
Total	2	462	0	464	307	25	0	332	150	44	0	194	990
Grand Total	14	862	0	876	668	67	0	735	290	82	0	372	1983
Apprch %	1.6	98.4	0		90.9	9.1	0		78	22	0		
Total %	0.7	43.5	0	44.2	33.7	3.4	0	37.1	14.6	4.1	0	18.8	
Automobiles	14	862	0	876	668	67	0	735	290	82	0	372	1983
% Automobiles	100	100	0	100	100	100	0	100	100	100	0	100	100
Bicycle and Pedestrian	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycle and Pedestrian	0	0	0	0	0	0	0	0	0	0	0	0	0

Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Santa Fe Dr (US-85) and Castleton Ct

File Name : Santa Fe and Castleton PM
Site Code : IPO 536
Start Date : 4/7/2021
Page No : 2

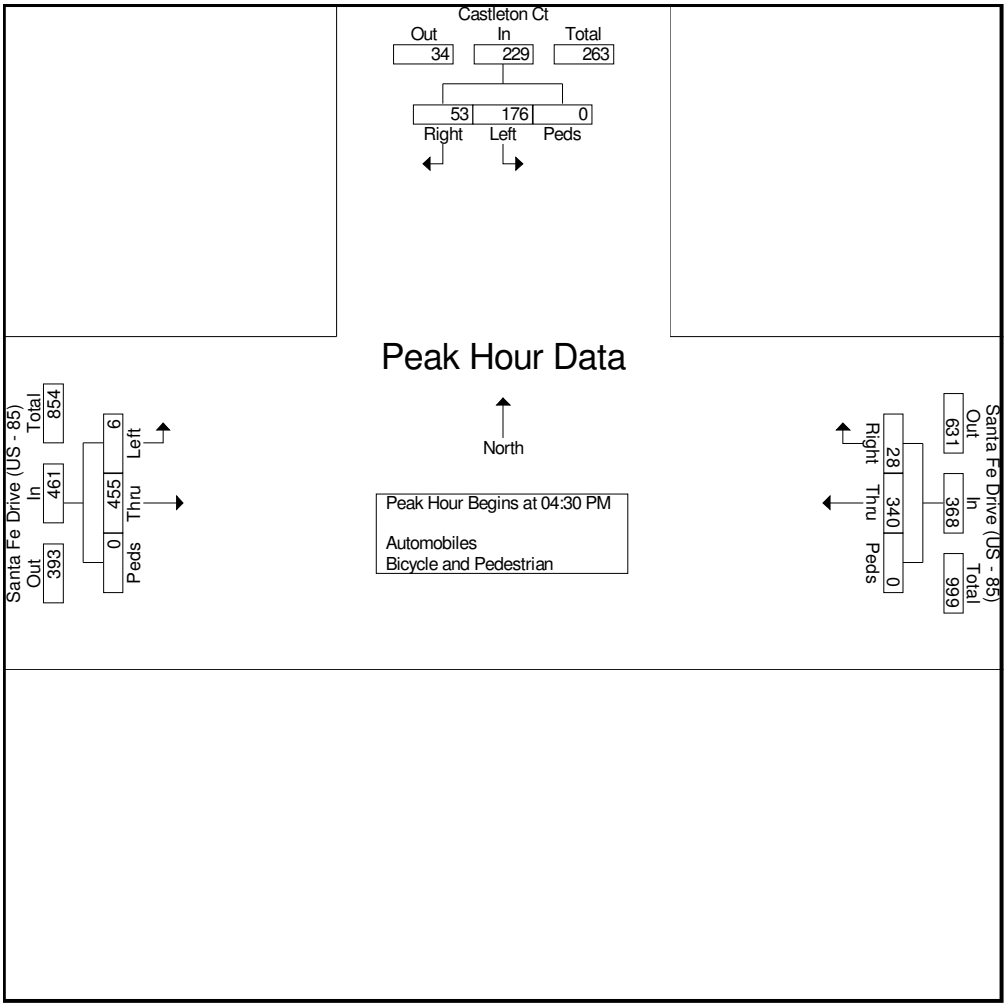


Ridgeview Data Collection

Castle Rock, CO
Pine Canyon
PM Peak
Santa Fe Dr (US-85) and Castleton Ct

File Name : Santa Fe and Castleton PM
Site Code : IPO 536
Start Date : 4/7/2021

	Santa Fe Drive (US - 85) Eastbound				Santa Fe Drive (US - 85) Westbound				Castleton Ct Southbound				
Start Time	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	**2**	105	0	107	**100**	8	0	**108**	35	14	0	49	264
04:45 PM	2	110	0	112	72	**9**	0	81	40	11	0	51	244
05:00 PM	1	115	0	116	96	7	0	103	**65**	**25**	0	**90**	**309**
05:15 PM	1	**125**	0	**126**	72	4	0	76	36	3	0	39	241
Total Volume	6	455	0	461	340	28	0	368	176	53	0	229	1058
% App. Total	1.3	98.7	0		92.4	7.6	0		76.9	23.1	0		
PHF	.750	.910	.000	.915	.850	.778	.000	.852	.677	.530	.000	.636	.856



APPENDIX B

Castle Rock TMP Traffic Projections

CDOT OTIS Traffic Projections

Adjacent Traffic Study Documents

Castle Rock TMP Traffic Projections: Pine Canyon Project

Existing Count Year	Location	2014-2016 Exsting	2040	Growth Factor	Annual Growth
2016	US-85 N/O Meadows	17,800	34,200	1.92	2.76%
2016	Meadows E/O US-85	33,200	61,600	1.86	2.61%
2015	Founders E/O I-25	47,300	56,300	1.19	0.70%
2015	Founders W/O Crowfoot	29,800	61,900	2.08	2.97%
2015	Crowfoot N/O Founders	13,800	33,900	2.46	3.66%
2015	Founders E/O Crowfoot	16,800	39,800	2.37	3.51%
2014	Rising Sun E/O Founders	3,300	3,600	1.09	0.34%
2016	Founders N/O Fifth St	19,800	31,700	1.60	1.98%
2015	Hwy 86 E/O Founders	14,900	23,800	1.60	1.89%
2016	Fifth St W/O Founders	14,700	18,500	1.26	0.96%
2015	Woodlands N/O Fifth St	7,000	12,800	1.83	2.44%
2016	Scott Blvd E/O Front St	6,600	7,500	1.14	0.53%
2015	Front St S/O Liggett Rd	18,900	22,300	1.18	0.66%
2016	Total	243,900	407,900	1.67	2.17%

TOWN OF CASTLE ROCK

Transportation Master Plan

October 2017

Table i – Roadway Improvement Projects

Project ID No.	Horizon	Roadway	Segment	New Lanes and Functional Classification	Responsibility	Planning Level Cost Estimate
Projects Included in Base Assumptions						
1	By 2022	Crystal Valley Pkwy*	Widen from Idylwood Rd to Frontage Rd	4 lane Major Arterial	Under Construction	NA****
2	By 2022	Fifth St	Complete climbing lane and sidepath along south side of street from Gilbert Street to Founders Pkwy	3 lane Major Arterial	Town CIP	$6,000,000
3	By 2022	Founders Pkwy**	Widen from Woodlands Blvd to Crowfoot Valley Rd (Note: widening is part of the Founders Pkwy and Crowfoot Valley Rd intersection improvement project)	6 lane Major Arterial	Town CIP/TIP	$3,500,000
4	By 2022	Lanterns Development	Build development roads	2 lane Collector	Developer Responsibility	NA****
5	By 2022	Plum Creek Pkwy	Widen from Gilbert Street to Ridge Rd	4 lane Major Arterial	Town CIP	$3,100,000
6	By 2022	Prairie Hawk Dr*	Widen from Meadows Blvd to Melting Snow	4 lane Major Arterial	Developer Responsibility	NA****
7	By 2022	Ridge Rd**	Widen from Plum Creek Pkwy to Fifth St	4 lane Major Arterial	Town CIP	$4,000,000
8	By 2022	Wolfensberger Rd	Widen from MAC Entrance (west of Coachline) to Prairie Hawk Dr	4 lane Major Arterial	Town CIP	$7,600,000
9	By 2030	Plum Creek Pkwy	Widen from Wolfensberger Rd to I-25	4 lane Major Arterial	Shared Town and Developer Responsibility	$6,330,000
10	By 2030	Pine Canyon/ Pioneer Ranch Developments	Build connection from Woodlands Blvd to Front St	4 lane Major Arterial	Developer Responsibility	NA****
11	By 2030	Pine Canyon Development	Build connection from Founders Pkwy to Woodlands Blvd	2 lane Collector	Developer Responsibility	NA****
12	By 2030	Pine Canyon/ Pioneer Ranch Developments	Build Woodlands Blvd Connection	4 lane Major Arterial	Developer Responsibility	NA****
13	By 2030	Pioneer Ranch Development	Build connection from Founders Pkwy to Woodlands Blvd	2 lane Collector	Developer Responsibility	NA****

Project ID No.	Horizon	Roadway	Segment	New Lanes and Functional Classification	Responsibility	Planning Level Cost Estimate
14	By 2030	Prairie Hawk Dr	Realign along Atchison Way and extend from Topeka Way to Plum Creek Pkwy	4 lane Major Arterial	Shared Town and Developer Responsibility	$6,170,000
15	By 2030	West Frontage Rd	Realign between Town Limits and Plum Creek Pkwy	4 lane Major Arterial	Shared Town and Developer Responsibility	$25,400,000
16	By Full Build	US 85	Widen from Promenade Pkwy to Town limits	4 lane Expressway	CDOT Responsibility (In DRCOG RTP)	NA****
Improvement Projects Identified during TMP						
17	By 2030	Crowfoot Valley Rd	Widen from Founders Pkwy to Town Limits	4 lane Major Arterial	Shared Town and Developer Responsibility	$4,700,000
18	By 2030	SH 86	Widen from Ridge Rd to Enderud Blvd	4 lane Highway	Shared Town and CDOT Responsibility	$2,550,000
19	By 2030	Prairie Hawk Dr	Widen from Melting Snow Dr to Wolfensberger Rd	4 lane Major Arterial	Town Responsibility	$2,700,000
20	By 2030	I-25 Interchange	Construct Interchange at Crystal Valley Pkwy	Interchange	Shared Town, Douglas County, and Developer Responsibility	$51,000,000
21	By 2030	N Meadows Dr	Widen from Meadows Blvd to US 85	4 lane Major Arterial	Shared Town and Developer Responsibility	$23,900,000
22	By 2030	East Frontage Rd	Construct operational improvements from Plum Creek Pkwy to Crystal Valley Pkwy	2 lane Minor Arterial	Shared Town and Developer Responsibility	$6,030,000
23	By Full Build	I-25 Interchange***	Construct Interchange near Highway 85/Black Feather Trail/or other Founders Pkwy/SH 86 corridor improvements	Interchange	Shared Town and Developer Responsibility	$20,000,000 - $40,000,000
24	By Full Build	Liggett Rd	Extend south to Wolfensberger Rd via Caprice Dr	2 lane Collector	Town Responsibility	$3,330,000

Project ID No.	Horizon	Roadway	Segment	New Lanes and Functional Classification	Responsibility	Planning Level Cost Estimate
25	By Full Build	Liggett Rd	Widen from Highway 85 to new Liggett Rd extension	4 lane Major Arterial	Shared Town and Developer Responsibility	$3,750,000
26	By Full Build	Meadows Pkwy	Widen from Meadows Blvd to US 85	6 lane Major Arterial	Town Responsibility	$20,300,000
27	By Full Build	Founders Pkwy	Widen from Crowfoot Valley Rd to Fifth St	6 lane Highway	Shared Town, Developer, and CDOT Responsibility	$10,700,000
28	By Full Build	Fifth St	Complete 4-lane arterial from Woodlands Blvd to Founders Pkwy	4 lane Major Arterial	Shared Town and Developer Responsibility	$5,870,000
29	By Full Build	Perry St	Extend south to East Frontage Rd	2 lane Collector	Town Responsibility	$3,720,000
30	By Full Build	Ridge Rd	Improve from Plum Creek Pkwy to Town Limits	2 lane Minor Arterial	Shared Town and Developer Responsibility	$4,170,000
31	By Full Build	Valley Dr	Connect between Hover Dr and Hudson Ln	2 lane Collector	Shared Town and Developer Responsibility	$1,520,000
					Total Planning Level Cost Estimate	**$226,340,000 - $246,340,000**

* = Project Under Construction

** = Project In Design

*** = Additional studies need to be completed to determine final I-25 or Founders Pkwy/SH 86 corridor improvements. FHWA and CDOT concurrence is necessary for corridor or interchange construction.

**** = Project cost and construction is the responsibility of the developer(s), or other entity.

Note: Project responsibility is subject to change.

Note: Planning Level Cost Estimates do not include right-of-way acquisition, all costs are in 2017 dollars

	Project No.	Horizon	Intersection	Description
Intersection Improvements	32	By 2022	Founders Pkwy and Allen Way**	Operational Improvements
	33	By 2022	Founders Pkwy and Crowfoot Valley Rd**	Add an east-west through lane in each direction, add an eastbound left turn lane, add a southbound left turn lane, convert southbound right turn into channelized right turn, convert westbound right turn into channelized right turn
	34	By 2022	SH-86/5th Street and Founders Pkwy**	Add an east-west through lane in each direction, add a north-south through lane in each direction, add a northbound turn lane, add a southbound left turn lane
	35	By 2022	Wolfensberger Rd / Red Hawk Dr	Convert to roundabout
	36	By 2022	Plum Creek Pkwy / Gilbert St	Convert to roundabout
	37	By 2022	Wolfensberger Rd and Plum Creek Blvd/Coachline Rd**	Convert to roundabout
	38	By 2030	Coachline Rd / Foothills Dr	Convert to roundabout
	39	By 2030	Prairie Hawk Dr and Wolfensberger Rd	Add an eastbound right turn lane, add a northbound right turn lane
	40	By Full Build	Highway 85 / Liggett Rd	Realign Liggett Rd to intersect Hwy 85 at Castleton Ct
	41	By Full Build	Mickelson Blvd / N Mitchell St	Convert to roundabout

* = Project Under Construction

** = Project In Design

*** = Additional studies need to be completed to determine final I-25 or Founders Pkwy/SH 86 corridor improvements.
FHWA and CDOT concurrence is necessary for corridor or interchange construction.

**** = Project cost and construction is the responsibility of the developer(s), or other entity.

Note: Project responsibility is subject to change.

Note: Planning Level Cost Estimates do not include right-of-way acquisition, all costs are in 2017 dollars

Figure ii – Proposed Roadway Improvement Projects

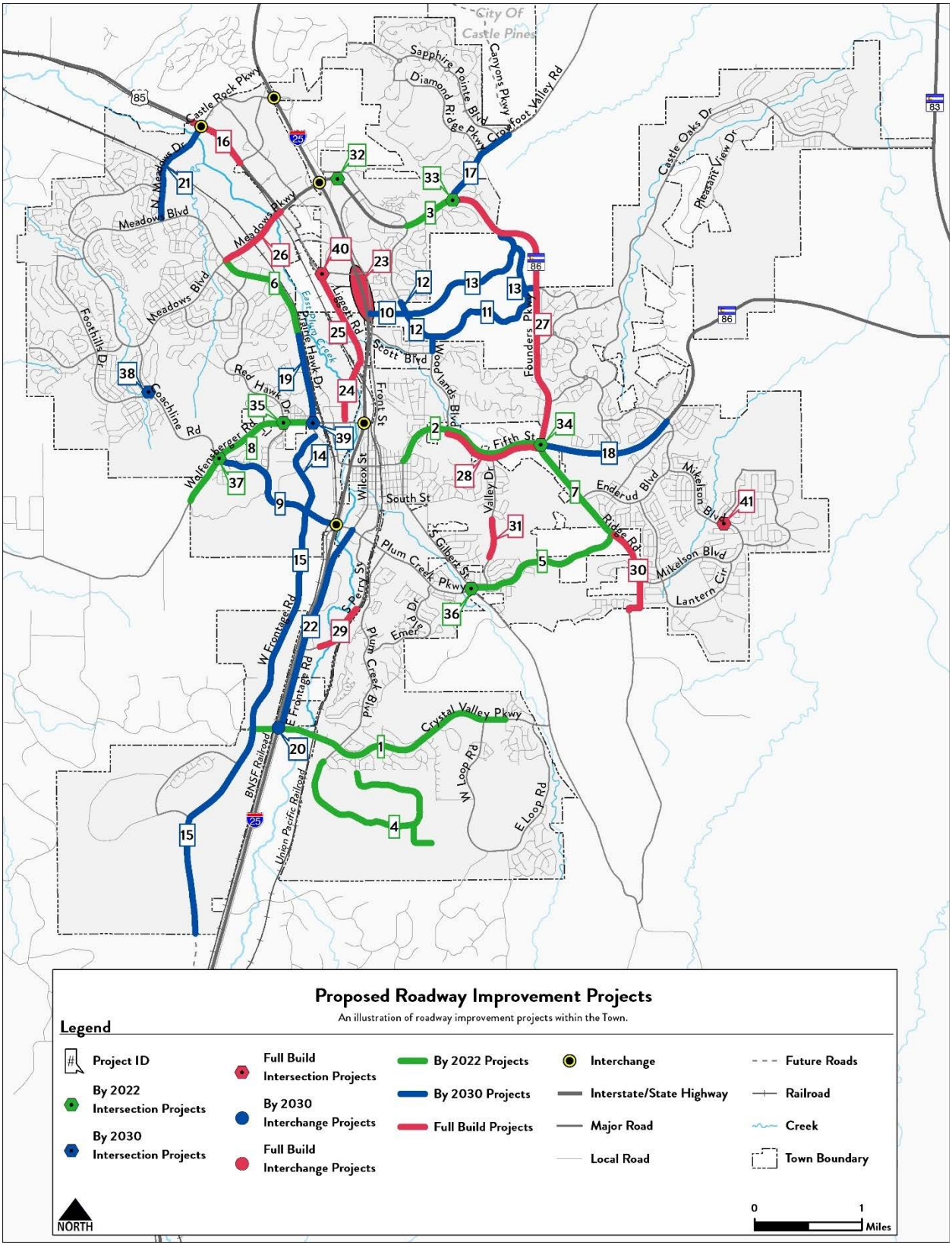


Figure iii – Master Street Plan

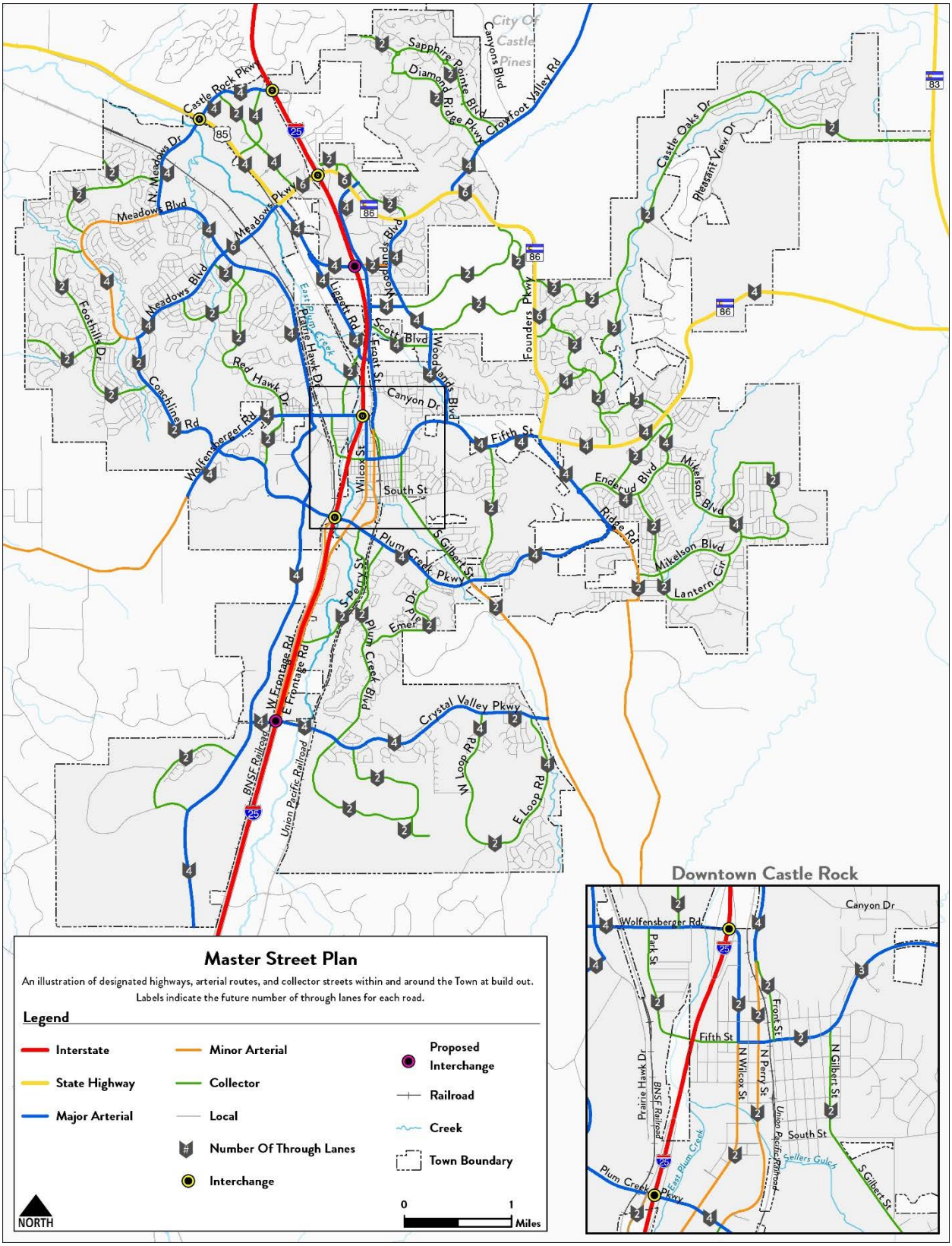


Figure 2 – Existing Daily Traffic Counts

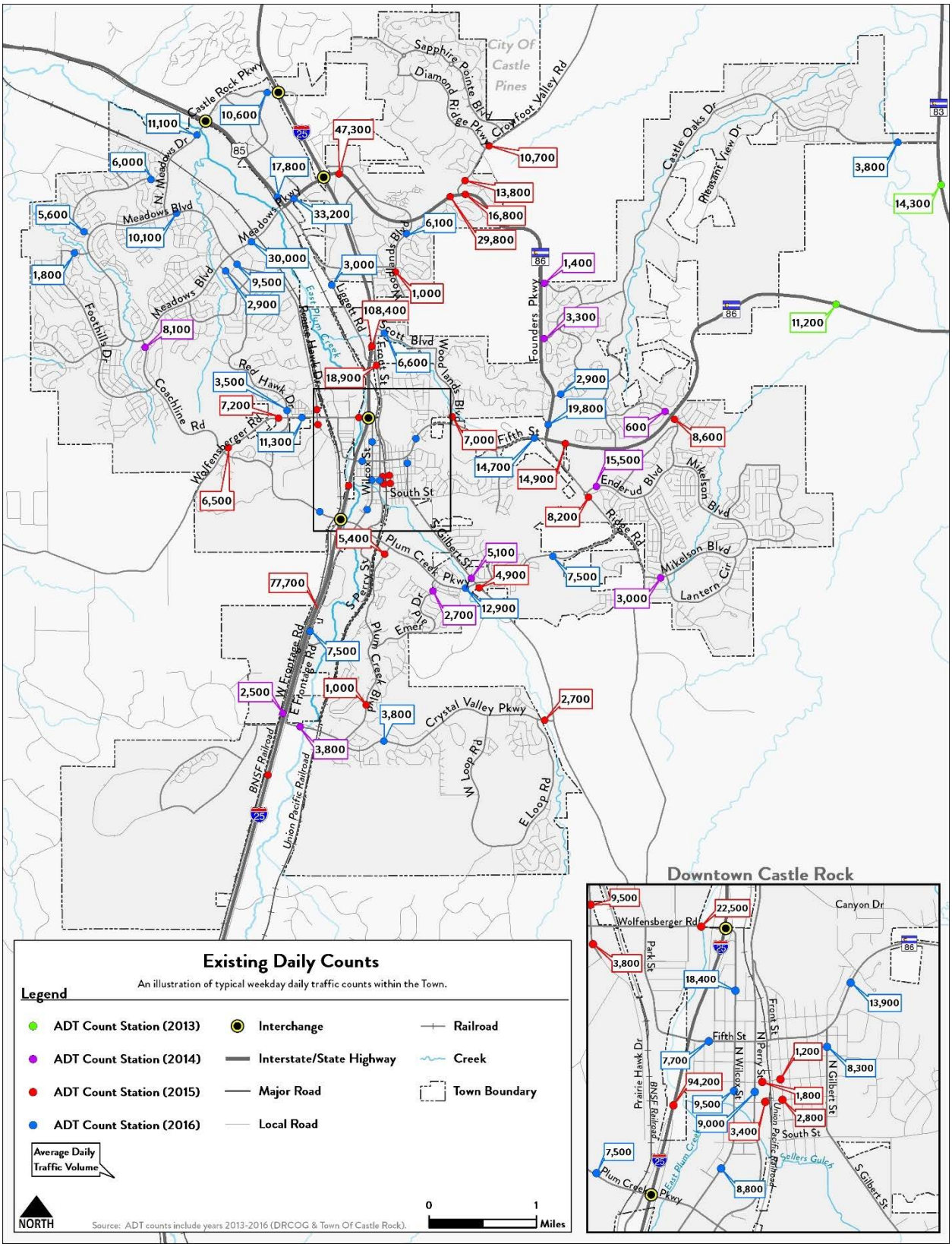
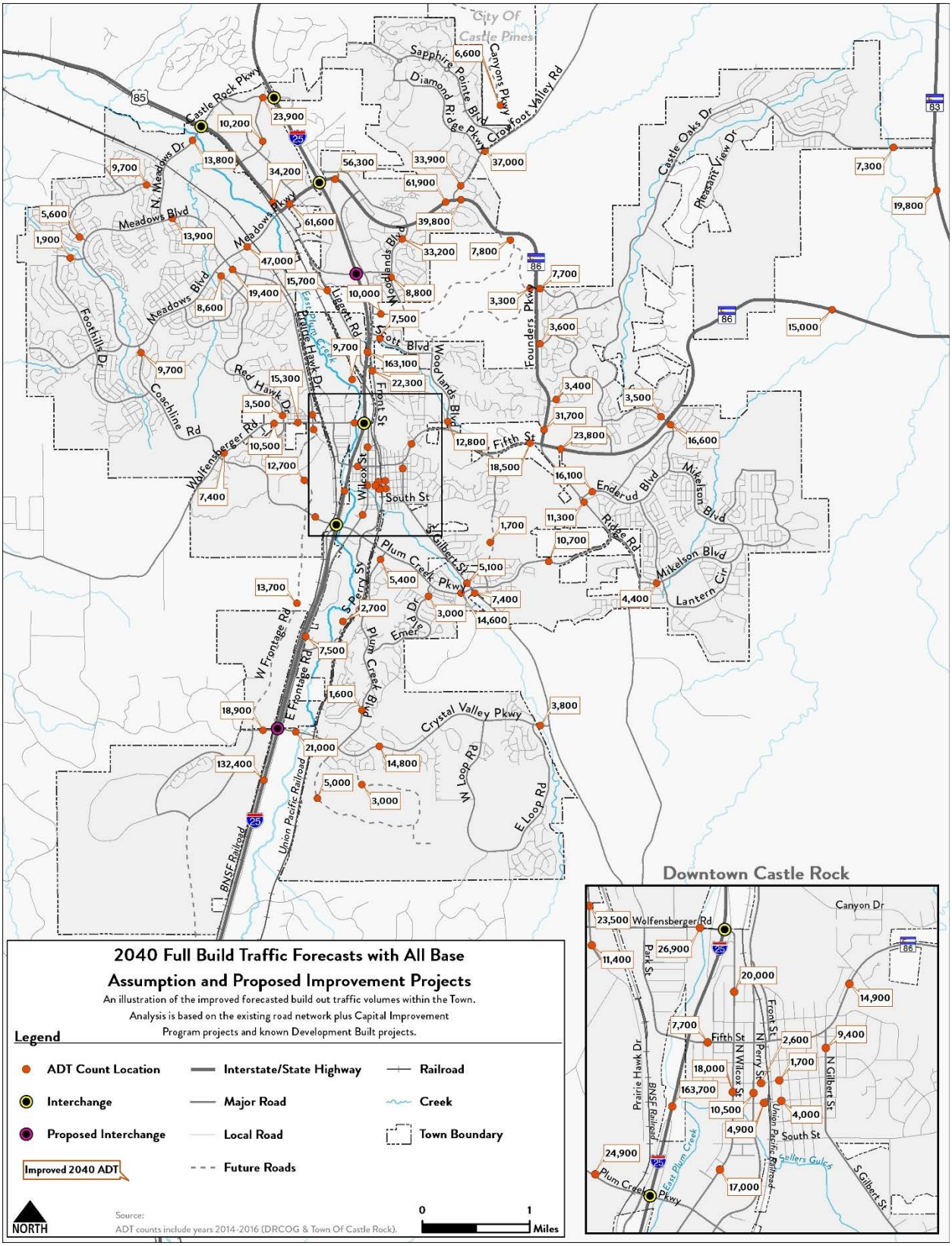


Figure 16 – 2040 Full Build Traffic Forecasts with All Base Assumption and Proposed Improvement Projects



Hwy 85 Traffic Projections:

ROUTE	REFPT	ENDREFPT	LENGTH	AADT	AADTYR	AADTSINGLE	AADTCOMB	YR20FACTOR	DHV	DD	DVMT	VMT	LOCATION
085B	184.667	184.91	0.249	42000	2016	1600	1200	1.34	9.5	57	10458	10458	ON SH 85 MEADOWS PKWY SW/O I-25 CASTLE ROCK
085B	184.91	185.117	0.197	38000	2016	1400	1100	1.67	10	56	7486	7486	ON SH 85 MEADOWS PKWY NE/O SANTA FE AVE & MEADOWS PKWY CASTLE ROCK
085B	185.117	187.778	2.644	21000	2016	900	480	1.65	10.5	52	55524	55524	ON SH 85 NW/O MEADOWS PKWY & SANTA FE AVE CASTLE ROCK

Hwy 86 Traffic Projections:

ROUTE	REFPT	ENDREFPT	LENGTH	AADT	AADTSINGLE	AADTCOMB	YR20FACTOR	DHV	DD	DVMT	VMT	LOCATION
086B	100	100.382	0.381	40000	800	520	1.08	10	56	15240	15240	ON SH 86 FOUNDERS PKWY E/O I-25
086B	100.382	101.526	1.134	26000	570	420	1.04	9.5	59	29484	29484	ON SH 86 FOUNDERS PKWY SE/O FRONT ST
086B	101.526	103.999	2.484	17000	360	260	1.1	8.5	53	42228	42228	ON SH 86 FOUNDERS PKWY E/O CROW VALLEY RD
086B	103.999	104.348	0.339	16000	340	240	1.13	9.5	59	5424	5424	ON SH 86 FOUNDERS PKWY N/O FRANKTOWN RD

LSC TRANSPORTATION CONSULTANTS, INC.

1889 York Street
Denver, CO 80206
(303) 333-1105
FAX (303) 333-1107
E-mail: lsc@lscdenver.com

February 27, 2015

Mr. Michael Forsum, CEO
SLV Castle Oaks
6720 N. Scottsdale Road, Suite 195
Scottsdale, AZ 85253

Re: Terrain Update
Castle Rock, CO
(LSC #130910)

Dear Mr. Forsum:

In response to your request, LSC Transportation Consultants, Inc. has prepared this traffic impact analysis for the overall Terrain Mixed-Use development. As shown on Figure 1, the site is located east of Founders Parkway (SH 86) and north of State Highway (SH) 86 in Castle Rock, Colorado. This study updates the September 9, 2014 *Terrain TIA* (TIA) to document the impact of minor land use changes.

REPORT CONTENTS

The report contains the following: the existing roadway and traffic conditions in the vicinity of the site; the existing traffic volumes; the site-generated traffic volumes; the assignment of the site-generated traffic volumes; the resulting short and long-term background and total traffic volumes; the site's projected traffic impacts; and any recommended roadway improvements to mitigate the site's traffic impacts.

LAND USE AND ACCESS

Figure 2 shows the updated site plan for the overall Terrain Mixed-Use development including the proposed internal street classifications. Some of the Planning Areas (PA) are allowed to be more than one land use. The highest traffic generating land uses allowed were assumed in these PAs.

ROADWAY AND TRAFFIC CONDITIONS

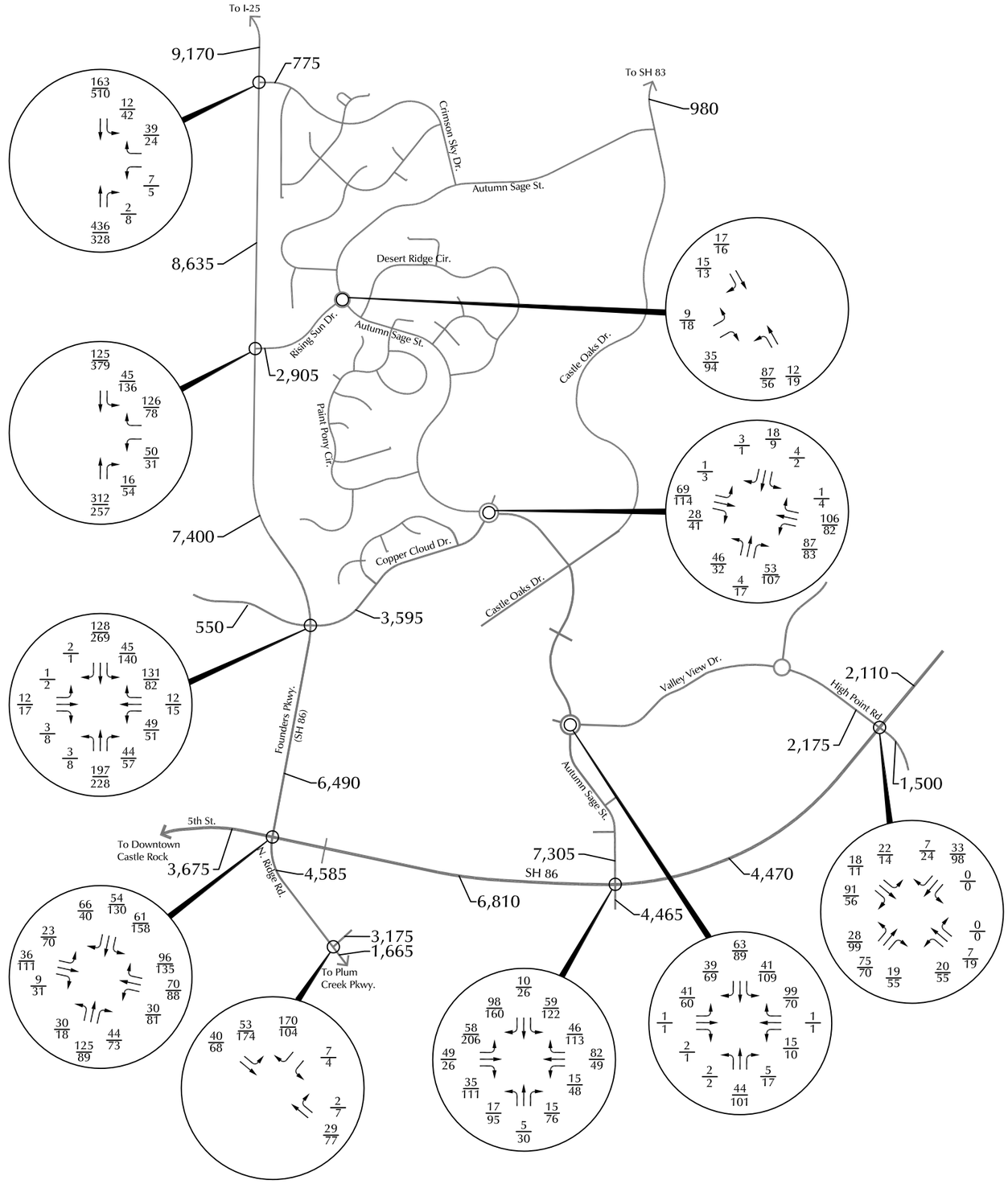
Area Roadways

The major roadways in the site's vicinity are shown on Figure 1 and are described below.

Table 2a
ESTIMATED TRAFFIC GENERATION
Terrain Update
Castle Rock, CO
(LSC #130910; February, 2015)

Planning Area		Trip Generating Category	Undeveloped Land Use Quantity		Trip Generation Rates[1] Average Weekday	AM Peak Hour In	AM Peak Hour Out	PM Peak Hour In	PM Peak Hour Out	Vehicle - Trips Generated Average Weekday	AM Peak Hour In	AM Peak Hour Out	PM Peak - Hour In	PM Peak - Hour Out
PA	8	Townhomes [2]	49	DU [3]	5.81	0.075	0.365	0.348	0.172	285	4	18	17	8
PA	9	Single-Family Detached [4]	18	DU	9.52	0.188	0.563	0.630	0.370	171	3	10	11	7
PA	10	Single-Family Detached	67	DU	9.52	0.188	0.563	0.630	0.370	638	13	38	42	25
PA	11	Single-Family Detached	0	DU	9.52	0.188	0.563	0.630	0.370	0	0	0	0	0
PA	12	Single-Family Detached	0	DU	9.52	0.188	0.563	0.630	0.370	0	0	0	0	0
PA	13	Single-Family Detached	47	DU	9.52	0.188	0.563	0.630	0.370	447	9	26	30	17
PA	14	Single-Family Detached	3	DU	9.52	0.188	0.563	0.630	0.370	29	1	2	2	1
PA	15	Single-Family Detached	25	DU	9.52	0.188	0.563	0.630	0.370	238	5	14	16	9
PA	16	Single-Family Detached	87	DU	9.52	0.188	0.563	0.630	0.370	828	16	49	55	32
PA	17	Single-Family Detached	11	DU	9.52	0.188	0.563	0.630	0.370	105	2	6	7	4
PA	18	Single-Family Detached	14	DU	9.52	0.188	0.563	0.630	0.370	133	3	8	9	5
PA	19	Merged with PA 24	--	--	--	--	--	--	--	--	--	--	--	--
PA	20	Single-Family Detached	3	DU	9.52	0.188	0.563	0.630	0.370	29	1	2	2	1
PA	21	Townhomes	62	DU	5.81	0.075	0.365	0.348	0.172	360	5	23	22	11
PA	22	Single-Family Detached	1	DU	9.52	0.188	0.563	0.630	0.370	10	0	1	1	0
PA	23	Single-Family Detached	12	DU	9.52	0.188	0.563	0.630	0.370	114	2	7	8	4
PA	24A	Neighborhood Park [5]	4.4	acres	35.00	2.52	1.98	1.995	1.505	152	11	9	9	7
PA	24B	Elementary School [6]	375	students	1.29	0.248	0.203	0.074	0.077	484	93	76	28	29
PA	25	Townhomes/Condos	67	DU	5.81	0.075	0.365	0.348	0.172	389	5	25	23	12
PA	26	Single-Family Detached	26	DU	9.52	0.188	0.563	0.630	0.370	248	5	15	16	10
PA	27	Single-Family Detached	149	DU	9.52	0.188	0.563	0.630	0.370	1,419	28	84	94	55
PA	28	Existing Swim Club	--	--	--	--	--	--	--	--	--	--	--	--
PA	29	Regional Park [5]	14.0	acres	35.00	2.52	1.98	1.995	1.505	490	35	28	28	21
PA	30	Single-Family Detached	88	DU	9.52	0.188	0.563	0.630	0.370	838	17	50	55	33
PA	31	Single-Family - Estate	10	DU	9.52	0.188	0.563	0.630	0.370	95	2	6	6	4
PA	32	Water Treatment Plant	--	--	--	--	--	--	--	--	--	--	--	--
PA	33	Single-Family Detached	55	DU	9.52	0.188	0.563	0.630	0.370	524	10	31	35	20
PA	34	Single-Family Detached	45	DU	9.52	0.188	0.563	0.630	0.370	428	8	25	28	17
PA	35	Single-Family Detached	9	DU	9.52	0.188	0.563	0.630	0.370	86	2	5	6	3
PA	36	Single-Family Detached	45	DU	9.52	0.188	0.563	0.630	0.370	428	8	25	28	17
PA	37	Single-Family Detached	16	DU	9.52	0.188	0.563	0.630	0.370	152	3	9	10	6
PA	38	Single-Family - Estate	24	DU	9.52	0.188	0.563	0.630	0.370	228	5	14	15	9
PA	39	Single-Family Detached	47	DU	9.52	0.188	0.563	0.630	0.370	447	9	26	30	17
PA	40	Single-Family Detached	48	DU	9.52	0.188	0.563	0.630	0.370	457	9	27	30	18
PA	41	Townhomes	105	DU	5.81	0.075	0.365	0.348	0.172	610	8	38	37	18
PA	42	Single-Family Detached	24	DU	9.52	0.188	0.563	0.630	0.370	228	5	14	15	9
PA	43	Single-Family Detached	22	DU	9.52	0.188	0.563	0.630	0.370	209	4	12	14	8
PA	44	Single-Family Detached	46	DU	9.52	0.188	0.563	0.630	0.370	438	9	26	29	17
PA	45	Shopping Center [7]	135	KSF [8]	42.70	0.595	0.365	1.781	1.929	5,765	80	49	240	260
PA	46	Multi-Family [9]	109	DU	6.65	0.102	0.408	0.403	0.217	725	11	44	44	24
PA	47	Multi-Family	303	DU	6.65	0.102	0.408	0.403	0.217	2,015	31	124	122	66
PA	48	Water Tank/Xcel Station	--	--	--	--	--	--	--	--	--	--	--	--
PA	49	Shopping Center	65.34	KSF	42.70	0.595	0.365	1.781	1.929	2,790	39	24	116	126
PA	50	Shopping Center	39.20	KSF	42.70	0.595	0.365	1.781	1.929	1,674	23	14	70	76
PA	51	Townhomes	122	DU	5.81	0.075	0.365	0.348	0.172	709	9	45	43	21
PA	52	Senior Housing [10]	170	Beds	2.66	0.091	0.049	0.097	0.123	452	15	8	16	21
									Total	**25,867**	**548**	**1,057**	**1,409**	**1,048**
									Estimated Total from September, 2014 TIA =	26,881	560	1,114	1,461	1,075
									Net Increase =	-1,014	-12	-57	-52	-27

Notes:
(1) Source: *Trip Generation*, Institute of Transportation Engineers, 9th Edition, 2012.
(2) ITE Land Use No. 230 - Residential Condominium/Townhouse
(3) DU = Dwelling Units
(4) ITE Land Use No. 210 - Single-Family Detached Housing
(5) ITE Land Use No. 411 - City Park
(6) ITE Land Use No. 520 - Elementary School
(7) ITE Land Use No. 820 - Shopping Center
(8) KSF = 1,000 Square Feet
(9) ITE Land Use No. 220 - Apartment
(10) ITE Land Use No. 254 - Assisted Living



Approximate Scale
Scale: 1" = 1,200'

LEGEND:

$\frac{26}{35}$ = AM Peak Hour Traffic / PM Peak Hour Traffic

3,700 = Average Daily Traffic

LSC TRANSPORTATION CONSULTANTS, INC.

Figure 6c

Assignment of Total Site-Generated Traffic

Terrain Update (LSC #130910)

APPENDIX C

Trip Generation Worksheets

Kimley»Horn

Project	Pine Canyon				
Subject	Trip Generation for Multifamily Housing (Mid-Rise)				
Designed by	JRP	*Date*	March 24, 2020	*Job No.*	096628001
Checked by		*Date*		*Sheet No.*	1 *of* 1

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Fitted Curve Equations

Land Use Code - Multifamily Housing (Mid-Rise) (221)

Independant Variable - Dwelling Units (X)

X = 600
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (Series 200 Page 74)

Ln(T) = 0.98 Ln(X) - 0.98
Ln(T) = 0.98 * Ln(600.0) - 0.98

Directional Distribution: 26% ent. 74% exit.
T = 198 Average Vehicle Trip Ends
51 entering 147 exiting

51 + 147 = 198

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (Series 200 Page 75)

Ln(T) = 0.96 Ln(X) - 0.63
Ln(T) = 0.96 * Ln(600.0) - 0.63

Directional Distribution: 61% ent. 39% exit.
T = 247 Average Vehicle Trip Ends
151 entering 96 exiting

151 + 96 = 247

Weekday (Series 200 Page 73)

(T) = 5.45*(X) - 1.75
(T) = 5.45 * 600 - 1.75

Directional Distribution: 50% ent. 50% exit.
T = 3270 Average Vehicle Trip Ends
1635 entering 1635 exiting

1635 + 1635 = 3270

Peak Hour of Generator, Saturday (Series 200 Page 79)

(T) = 0.42*(X) + 6.73
(T) = 0.42 * 600 + 6.73

Directional Distribution: 49% ent. 51% exit.
T = 259 Average Vehicle Trip Ends
127 entering 132 exiting

127 + 132 = 259

Kimley»Horn

Project	Pine Canyon				
Subject	Trip Generation for Industrial Park				
Designed by	JRP	*Date*	March 24, 2020	*Job No.*	096628001
Checked by		*Date*		*Sheet No.*	1 *of* 1

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Industrial Park (130)

Independant Variable - 1000 Square Feet Gross Floor Feet (X)
Gross Floor Area = 100,000
X = 100.0
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (100 Series Page 22)

Directional Distribution: 81% ent. 19% exit.

T = 0.40 (X)
T = 0.40 * 100

T = 40 Average Vehicle Trip Ends
32 entering 8 exiting

32 + 8 = 40

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (100 Series Page 23)

Directional Distribution: 21% ent. 79% exit.

T = 0.40 (X)
T = 0.40 * 100

T = 40 Average Vehicle Trip Ends
8 entering 32 exiting

8 + 32 = 40

Weekday (100 Series Page 21)

Directional Distribution: 50% entering, 50% exiting

T = 3.37 (X)
T = 3.37 * 100

T = 338 Average Vehicle Trip Ends
169 entering 169 exiting

169 + 169 = 338

Kimley»Horn

Project	Pine Canyon				
Subject	Trip Generation for Office Park				
Designed by	JRP	*Date*	March 24, 2020	*Job No.*	096628001
Checked by		*Date*		*Sheet No.*	1 of 1

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rates

Land Use Code - Office Park (750)

Independant Variable - 1000 Square Feet Gross Floor Feet (X)
Gross Floor Area = 500,000
X = 500.0
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (700 Series Page 234)

Directional Distribution: 89% ent. 11% exit.
(T) = 1.44 (X) T = 720 Average Vehicle Trip Ends
(T) = 1.44 * (500.0) 641 entering 79 exiting

641 + 79 = 720

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (700 Series Page 235)

Directional Distribution: 7% ent. 93% exit.
(T) = 1.07 (X) T = 535 Average Vehicle Trip Ends
(T) = 1.07 * (500.0) 37 entering 498 exiting

37 + 498 = 535

Weekday (700 Series Page 233)

Average Weekday Directional Distribution: 50% ent. 50% exit.
(T) = 11.07 (X) T = 5536 Average Vehicle Trip Ends
(T) = 11.07 * (500.0) 2768 entering 2768 exiting

2768 + 2768 = 5536

1 Fill in all cells which are red.

Kimley»Horn

Project	Pine Canyon				
Subject	Trip Generation for Single-Family Detached Housing				
Designed by	JRP	*Date*	03-34-2020	*Job No.*	096628001
Checked by		*Date*		*Sheet No.*	of

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Fitted Curve Equations

Land Use Code - Single-Family Detached Housing (210)

Independant Variable - Dwelling Units (X)

X = 800
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (200 Series Page 3)

Average Weekday
(T) = 0.71 (X) + 4.80
(T) = 0.71 * (800) + 4.80

Directional Distribution: 25% ent. 75% exit.
T = 573 Average Vehicle Trip Ends
143 entering 430 exiting

143 + 430 = 573

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

Average Weekday
Ln(T) = 0.96 Ln(X) + 0.20
Ln(T) = 0.96 * Ln(800) + 0.20

Directional Distribution: 63% ent. 37% exit.
T = 748 Average Vehicle Trip Ends
471 entering 277 exiting

471 + 277 = 748

Peak Hour of Generator, Saturday (200 Series Page 8)

Average Saturday
(T) = 0.84 (X) + 17.99
(T) = 0.84 * (800) + 17.99

Directional Distribution: 54% ent. 46% exit.
T = 690 Average Vehicle Trip Ends
373 entering 317 exiting

373 + 317 = 690

Weekday (200 Series Page 2)

Average Weekday
Ln(T) = 0.92 Ln(X) + 2.71
Ln(T) = 0.92 * Ln(800) + 2.71

Directional Distribution: 50% entering, 50% exiting
T = 7044 Average Vehicle Trip Ends
3522 entering 3522 exiting

3522 + 3522 = 7044

Kimley»Horn

Project	Pine Canyon				
Subject	Trip Generation for Multifamily Housing (Mid-Rise)				
Designed by	JRP	*Date*	03-34-2020	*Job No.*	096628001
Checked by		*Date*		*Sheet No.*	1 *of* 1

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Fitted Curve Equations

Land Use Code - Multifamily Housing (Mid-Rise) (221)

Independant Variable - Dwelling Units (X)

X = 400
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (Series 200 Page 74)

Directional Distribution: 26% ent. 74% exit.

Ln(T) = 0.98 Ln(X) - 0.98
Ln(T) = 0.98 * Ln(400.0) - 0.98

T = 133 Average Vehicle Trip Ends
35 entering 98 exiting

35 + 98 = 133

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (Series 200 Page 75)

Directional Distribution: 61% ent. 39% exit.

Ln(T) = 0.96 Ln(X) - 0.63
Ln(T) = 0.96 * Ln(400.0) - 0.63

T = 168 Average Vehicle Trip Ends
102 entering 66 exiting

102 + 66 = 168

Weekday (Series 200 Page 73)

Directional Distribution: 50% ent. 50% exit.

(T) = 5.45*(X) - 1.75
(T) = 5.45 * 400 - 1.75

T = 2180 Average Vehicle Trip Ends
1090 entering 1090 exiting

1090 + 1090 = 2180

Peak Hour of Generator, Saturday (Series 200 Page 79)

Directional Distribution: 49% ent. 51% exit.

(T) = 0.42*(X) + 6.73
(T) = 0.42 * 400 + 6.73

T = 175 Average Vehicle Trip Ends
86 entering 89 exiting

86 + 89 = 175

Kimley»Horn

Project	Pine Canyon				
Subject	Trip Generation for Hotel				
Designed by	JRP	*Date*	March 24, 2020	*Job No.*	096628001
Checked by				*Sheet No.*	1 *of* 1

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Fitted Curve

Land Use Code -Hotel (310)

Independant Variable - Rooms (X)

X = 250
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (Series 300 Page 3)

Directional Distribution: 59% ent. 41% exit.

(T) = 0.50 (X) - 5.34
(T) = 0.50 * (250.0) - 5.34

T = 120 Average Vehicle Trip Ends
71 entering 49 exiting

71 + 49 = 120

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (Series 300 page 4)

Directional Distribution: 51% ent. 49% exit.

T = 0.75 (X) - 26.02
T = 0.75 * 250 - 26.02

T = 161 Average Vehicle Trip Ends
82 entering 79 exiting

82 + 79 = 161

Weekday (Series 300 Page 2)

Average Weekday
(T) = 11.29 (X) - 426.97
(T) = 11.29 * (250.0) - 426.97

Directional Distribution: 50% entering, 50% exiting

T = 2396 Average Vehicle Trip Ends
1198 entering 1198 exiting

1198 + 1198 = 2396

Kimley»Horn

Project	Pine Canyon				
Subject	Trip Generation for Elementary School				
Designed by	JRP	*Date*	March 24, 2020	*Job No.*	096628001
Checked by		*Date*		*Sheet No.*	1 *of* 1

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Elementary School (520)

Independant Variable - Students (X)

Students = 750

X = 750.0

T = Average Vehicle Trip Ends

Weekday (500 Series Page 11)

Average Weekday

(T) = 1.89 (X)

(T) = 1.89 * (750.0)

Directional Distribution: 50% entering, 50% exiting

T = 1418 Average Vehicle Trip Ends

709 entering 709 exiting

709 + 709 = 1418

AM Peak Hour of Adjacent Street Traffic 7am to 9am (500 Series Page 12)

Directional Distribution: 54% entering, 46% exiting

(T) = 0.67 (X)

(T) = 0.67 * (750.0)

T = 502 Average Vehicle Trip Ends

271.08 entering 230.92 exiting

272 + 230 = 502

PM Peak Hour of Adjacent Street Traffic 4pm to 6pm (500 Series Page 13)

Directional Distribution: 48% entering, 52% exiting

(T) = 0.17 (X)

(T) = 0.17 * (750.0)

T = 128 Average Vehicle Trip Ends

61 entering 67 exiting

61 + 67 = 128

AM Peak Hour of Generator (500 Series Page 14)

Directional Distribution: 54% entering, 46% exiting

(T) = 0.65 (X)

(T) = 0.65 * (750.0)

T = 488 Average Vehicle Trip Ends

263.52 entering 224.48 exiting

264 + 224 = 488

PM Peak Hour of Generator (500 Series Page 15)

Directional Distribution: 45% entering, 55% exiting

(T) = 0.34 (X)

(T) = 0.34 * (750.0)

T = 256 Average Vehicle Trip Ends

115.2 entering 140.8 exiting

115 + 141 = 256

Pine Canyon Trip Generation Summary

Zone	Land Use	Size	Vehicle Trips						
				Weekday			Weekday		
				AM Peak Hour			PM Peak Hour		
			Daily	In	Out	Total	In	Out	Total
1	Multifamily Housing (Mid-Rise) (ITE Code 221)	600 Units	3,270	51	147	198	151	96	247
	Industrial Park (ITE Code 130)	100,000 SF	338	32	8	40	8	32	40
	Office Park (ITE Code 750)	500,000 SF	5,536	641	79	720	37	498	535
	Park & Ride (Count Data)	350 Spaces	580	45	30	75	50	95	145
	Total Trips for Zone 1		**9,724**	**769**	**264**	**1,033**	**246**	**721**	**967**
2	Single-Family Detached Housing (ITE Code 210)	800 Units	7,044	143	430	573	471	277	748
	Multifamily Housing (Mid-Rise) (ITE Code 221)	400 Units	2,180	35	98	133	102	66	168
	Hotel (ITE Code 310)	250 Rooms	2,396	71	49	120	82	79	161
	Elementary School (ITE Code 520)	750 Students	1,418	272	230	502	61	67	128
	Elementary School Trips after Internal Capture		710	136	115	251	31	34	65
	Total Trips for Zone 2		**13,038**	**521**	**807**	**1,328**	**716**	**489**	**1,205**
	Total Site Generated Trips		**22,762**	**1,290**	**1,071**	**2,361**	**962**	**1,210**	**2,172**
	Total Site Generated Trips after Internal Capture		**22,052**	**1,154**	**956**	**2,110**	**932**	**1,177**	**2,109**

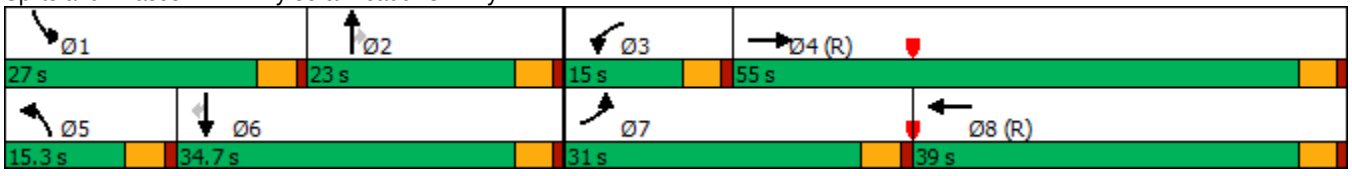
APPENDIX D

Intersection Analysis Worksheets

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	214	897	216	119	591	389	157	241	92	375	322	135
Future Volume (vph)	214	897	216	119	591	389	157	241	92	375	322	135
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			2			6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	31.0	55.0		15.0	39.0		15.3	23.0	23.0	27.0	34.7	34.7
Total Split (%)	25.8%	45.8%		12.5%	32.5%		12.8%	19.2%	19.2%	22.5%	28.9%	28.9%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	20.3	59.9	120.0	9.3	48.9	120.0	10.0	14.1	14.1	18.7	22.8	22.8
Actuated g/C Ratio	0.17	0.50	1.00	0.08	0.41	1.00	0.08	0.12	0.12	0.16	0.19	0.19
v/c Ratio	0.75	0.53	0.14	0.47	0.43	0.26	0.58	0.61	0.28	0.74	0.51	0.34
Control Delay	62.9	23.2	0.2	46.7	26.7	0.7	61.1	56.5	2.1	56.8	45.5	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.9	23.2	0.2	46.7	26.7	0.7	61.1	56.5	2.1	56.8	45.5	8.3
LOS	E	C	A	D	C	A	E	E	A	E	D	A
Approach Delay		25.9			19.7			47.8			44.6	
Approach LOS		C			B			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 31.1	Intersection LOS: C
Intersection Capacity Utilization 61.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Hwy 85 & Meadows Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	214	897	216	119	591	389	157	241	92	375	322	135
Future Volume (veh/h)	214	897	216	119	591	389	157	241	92	375	322	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	225	944	0	125	622	0	165	254	0	395	339	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	2018		182	1694		223	334		468	586	
Arrive On Green	0.14	0.57	0.00	0.02	0.16	0.00	0.06	0.09	0.00	0.14	0.16	0.00
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	225	944	0	125	622	0	165	254	0	395	339	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	14.9	18.8	0.0	4.3	18.8	0.0	5.6	8.4	0.0	13.4	10.6	0.0
Cycle Q Clear(g_c), s	14.9	18.8	0.0	4.3	18.8	0.0	5.6	8.4	0.0	13.4	10.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	256	2018		182	1694		223	334		468	586	
V/C Ratio(X)	0.88	0.47		0.69	0.37		0.74	0.76		0.84	0.58	
Avail Cap(c_a), veh/h	393	2018		302	1694		311	548		648	894	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.90	0.90	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.3	15.3	0.0	58.0	34.4	0.0	55.1	53.0	0.0	50.6	46.3	0.0
Incr Delay (d2), s/veh	13.3	0.8	0.0	4.1	0.6	0.0	5.8	3.6	0.0	7.3	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	7.6	0.0	2.0	9.1	0.0	2.6	3.9	0.0	6.3	4.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.6	16.0	0.0	62.0	34.9	0.0	60.9	56.6	0.0	58.0	47.2	0.0
LnGrp LOS	E	B		E	C		E	E		E	D	
Approach Vol, veh/h		1169	A		747	A		419	A		734	A
Approach Delay, s/veh		25.2			39.5			58.3			53.0	
Approach LOS		C			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.7	15.8	10.8	72.6	12.2	24.3	21.8	61.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	18.5	10.5	50.5	10.8	30.2	26.5	34.5
Max Q Clear Time (g_c+I1), s	15.4	10.4	6.3	20.8	7.6	12.6	16.9	20.8
Green Ext Time (p_c), s	0.9	0.9	0.1	7.9	0.1	2.0	0.4	3.6

Intersection Summary	
HCM 6th Ctrl Delay	39.8
HCM 6th LOS	D

Notes

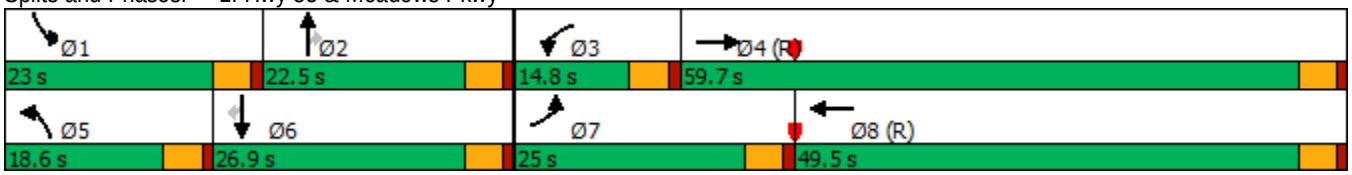
User approved pedestrian interval to be less than phase max green.

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	213	819	188	154	1020	461	230	324	106	395	371	205
Future Volume (vph)	213	819	188	154	1020	461	230	324	106	395	371	205
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			2			6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	25.0	59.7		14.8	49.5		18.6	22.5	22.5	23.0	26.9	26.9
Total Split (%)	20.8%	49.8%		12.3%	41.3%		15.5%	18.8%	18.8%	19.2%	22.4%	22.4%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	18.6	58.6	120.0	9.8	49.8	120.0	12.8	16.0	16.0	17.6	20.8	20.8
Actuated g/C Ratio	0.16	0.49	1.00	0.08	0.42	1.00	0.11	0.13	0.13	0.15	0.17	0.17
v/c Ratio	0.81	0.49	0.12	0.57	0.72	0.30	0.66	0.72	0.34	0.82	0.63	0.47
Control Delay	71.5	22.6	0.2	45.7	38.2	0.3	60.4	58.8	7.0	63.3	50.7	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.5	22.6	0.2	45.7	38.2	0.3	60.4	58.8	7.0	63.3	50.7	9.3
LOS	E	C	A	D	D	A	E	E	A	E	D	A
Approach Delay		27.7			28.3			51.1			47.1	
Approach LOS		C			C			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 35.5	Intersection LOS: D
Intersection Capacity Utilization 75.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Hwy 85 & Meadows Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	213	819	188	154	1020	461	230	324	106	395	371	205
Future Volume (veh/h)	213	819	188	154	1020	461	230	324	106	395	371	205
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	222	853	0	160	1062	0	240	338	0	411	386	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	251	1894		219	1619		301	415		472	591	
Arrive On Green	0.14	0.53	0.00	0.02	0.15	0.00	0.09	0.12	0.00	0.14	0.17	0.00
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	222	853	0	160	1062	0	240	338	0	411	386	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	14.7	17.7	0.0	5.5	33.8	0.0	8.2	11.1	0.0	14.0	12.2	0.0
Cycle Q Clear(g_c), s	14.7	17.7	0.0	5.5	33.8	0.0	8.2	11.1	0.0	14.0	12.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	251	1894		219	1619		301	415		472	591	
V/C Ratio(X)	0.89	0.45		0.73	0.66		0.80	0.81		0.87	0.65	
Avail Cap(c_a), veh/h	304	1894		297	1619		406	533		533	663	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.60	0.60	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.6	17.2	0.0	57.7	42.1	0.0	53.7	51.7	0.0	50.8	46.8	0.0
Incr Delay (d2), s/veh	22.3	0.8	0.0	3.6	1.3	0.0	7.7	7.4	0.0	13.4	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	7.3	0.0	2.6	16.4	0.0	3.9	5.4	0.0	6.9	5.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.9	18.0	0.0	61.3	43.4	0.0	61.5	59.1	0.0	64.1	48.7	0.0
LnGrp LOS	E	B		E	D		E	E		E	D	
Approach Vol, veh/h		1075	A		1222	A		578	A		797	A
Approach Delay, s/veh		29.3			45.7			60.1			56.7	
Approach LOS		C			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.9	18.5	12.1	68.5	15.0	24.5	21.4	59.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.5	18.0	10.3	55.2	14.1	22.4	20.5	45.0
Max Q Clear Time (g_c+I1), s	16.0	13.1	7.5	19.7	10.2	14.2	16.7	35.8
Green Ext Time (p_c), s	0.4	0.9	0.1	7.2	0.3	1.5	0.2	4.9

Intersection Summary	
HCM 6th Ctrl Delay	45.6
HCM 6th LOS	D

Notes

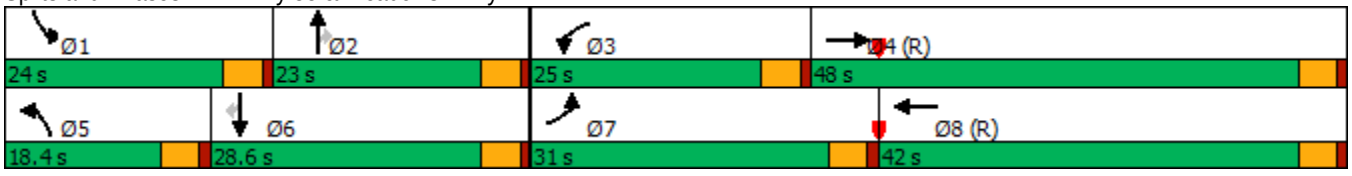
User approved pedestrian interval to be less than phase max green.

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	232	971	234	129	640	422	170	261	100	405	348	146
Future Volume (vph)	232	971	234	129	640	422	170	261	100	405	348	146
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			2			6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	31.0	48.0		25.0	42.0		18.4	23.0	23.0	24.0	28.6	28.6
Total Split (%)	25.8%	40.0%		20.8%	35.0%		15.3%	19.2%	19.2%	20.0%	23.8%	23.8%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	21.1	59.2	120.0	10.0	48.1	120.0	11.3	14.5	14.5	18.3	21.4	21.4
Actuated g/C Ratio	0.18	0.49	1.00	0.08	0.40	1.00	0.09	0.12	0.12	0.15	0.18	0.18
v/c Ratio	0.78	0.58	0.15	0.47	0.47	0.28	0.55	0.64	0.30	0.81	0.57	0.37
Control Delay	64.0	24.4	0.2	44.0	28.9	0.8	58.0	56.9	2.2	61.8	48.7	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.0	24.4	0.2	44.0	28.9	0.8	58.0	56.9	2.2	61.8	48.7	9.1
LOS	E	C	A	D	C	A	E	E	A	E	D	A
Approach Delay		26.8			20.6			47.0			48.2	
Approach LOS		C			C			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 32.4	Intersection LOS: C
Intersection Capacity Utilization 64.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Hwy 85 & Meadows Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	232	971	234	129	640	422	170	261	100	405	348	146
Future Volume (veh/h)	232	971	234	129	640	422	170	261	100	405	348	146
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	242	1011	0	134	667	0	177	272	0	422	362	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	273	1966		198	1623		238	353		486	607	
Arrive On Green	0.15	0.55	0.00	0.02	0.15	0.00	0.07	0.10	0.00	0.14	0.17	0.00
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	242	1011	0	134	667	0	177	272	0	422	362	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	16.0	21.3	0.0	4.6	20.4	0.0	6.0	9.0	0.0	14.3	11.3	0.0
Cycle Q Clear(g_c), s	16.0	21.3	0.0	4.6	20.4	0.0	6.0	9.0	0.0	14.3	11.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	273	1966		198	1623		238	353		486	607	
V/C Ratio(X)	0.89	0.51		0.68	0.41		0.74	0.77		0.87	0.60	
Avail Cap(c_a), veh/h	393	1966		590	1623		400	548		562	714	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.89	0.89	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.8	16.7	0.0	57.8	36.3	0.0	54.8	52.7	0.0	50.5	45.9	0.0
Incr Delay (d2), s/veh	15.5	1.0	0.0	3.6	0.7	0.0	4.5	3.6	0.0	12.4	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	8.8	0.0	2.2	9.9	0.0	2.8	4.2	0.0	7.0	5.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.3	17.7	0.0	61.4	37.0	0.0	59.4	56.3	0.0	62.9	46.9	0.0
LnGrp LOS	E	B		E	D		E	E		E	D	
Approach Vol, veh/h		1253	A		801	A		449	A		784	A
Approach Delay, s/veh		26.9			41.1			57.5			55.5	
Approach LOS		C			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.4	16.4	11.4	70.9	12.8	25.0	22.9	59.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.5	18.5	20.5	43.5	13.9	24.1	26.5	37.5
Max Q Clear Time (g_c+I1), s	16.3	11.0	6.6	23.3	8.0	13.3	18.0	22.4
Green Ext Time (p_c), s	0.5	0.9	0.3	7.4	0.3	1.7	0.4	4.0

Intersection Summary	
HCM 6th Ctrl Delay	41.4
HCM 6th LOS	D

Notes

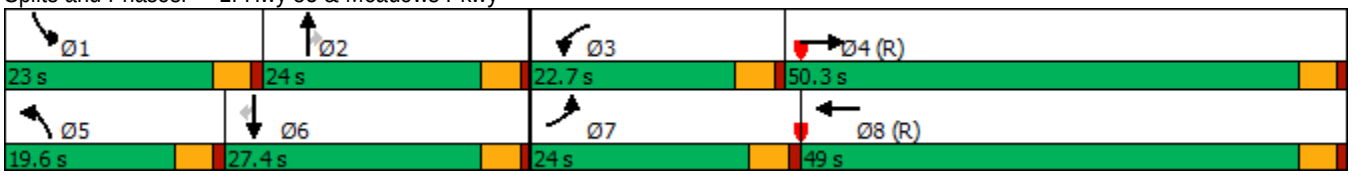
User approved pedestrian interval to be less than phase max green.

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	231	887	203	167	1104	499	249	350	115	427	402	222
Future Volume (vph)	231	887	203	167	1104	499	249	350	115	427	402	222
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			2			6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	24.0	50.3		22.7	49.0		19.6	24.0	24.0	23.0	27.4	27.4
Total Split (%)	20.0%	41.9%		18.9%	40.8%		16.3%	20.0%	20.0%	19.2%	22.8%	22.8%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	19.0	55.3	120.0	11.4	47.7	120.0	13.5	17.2	17.2	18.0	21.8	21.8
Actuated g/C Ratio	0.16	0.46	1.00	0.10	0.40	1.00	0.11	0.14	0.14	0.15	0.18	0.18
v/c Ratio	0.86	0.57	0.13	0.53	0.82	0.33	0.67	0.72	0.36	0.86	0.65	0.49
Control Delay	77.2	26.2	0.2	42.2	40.1	0.3	59.9	57.3	11.0	67.1	50.8	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.2	26.2	0.2	42.2	40.1	0.3	59.9	57.3	11.0	67.1	50.8	9.0
LOS	E	C	A	D	D	A	E	E	B	E	D	A
Approach Delay		31.2			29.1			50.7			48.6	
Approach LOS		C			C			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 37.1	Intersection LOS: D
Intersection Capacity Utilization 80.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Hwy 85 & Meadows Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	231	887	203	167	1104	499	249	350	115	427	402	222
Future Volume (veh/h)	231	887	203	167	1104	499	249	350	115	427	402	222
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	241	924	0	174	1150	0	259	365	0	445	419	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	268	1811		241	1523		321	447		502	632	
Arrive On Green	0.15	0.51	0.00	0.02	0.14	0.00	0.09	0.13	0.00	0.15	0.18	0.00
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	241	924	0	174	1150	0	259	365	0	445	419	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	16.0	20.7	0.0	6.0	37.3	0.0	8.8	12.0	0.0	15.2	13.2	0.0
Cycle Q Clear(g_c), s	16.0	20.7	0.0	6.0	37.3	0.0	8.8	12.0	0.0	15.2	13.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	1811		241	1523		321	447		502	632	
V/C Ratio(X)	0.90	0.51		0.72	0.75		0.81	0.82		0.89	0.66	
Avail Cap(c_a), veh/h	289	1811		524	1523		435	577		533	678	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.41	0.41	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.1	19.5	0.0	57.5	45.5	0.0	53.4	51.1	0.0	50.3	46.0	0.0
Incr Delay (d2), s/veh	27.5	1.0	0.0	1.7	1.5	0.0	7.8	7.0	0.0	15.9	2.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	8.7	0.0	2.8	18.1	0.0	4.2	5.8	0.0	7.6	6.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.6	20.5	0.0	59.2	46.9	0.0	61.2	58.1	0.0	66.2	48.2	0.0
LnGrp LOS	E	C		E	D		E	E		E	D	
Approach Vol, veh/h		1165	A		1324	A		624	A		864	A
Approach Delay, s/veh		32.3			48.5			59.4			57.5	
Approach LOS		C			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.9	19.6	12.9	65.6	15.7	25.8	22.6	55.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.5	19.5	18.2	45.8	15.1	22.9	19.5	44.5
Max Q Clear Time (g_c+I1), s	17.2	14.0	8.0	22.7	10.8	15.2	18.0	39.3
Green Ext Time (p_c), s	0.3	1.1	0.4	7.1	0.3	1.6	0.1	3.3

Intersection Summary	
HCM 6th Ctrl Delay	47.4
HCM 6th LOS	D

Notes

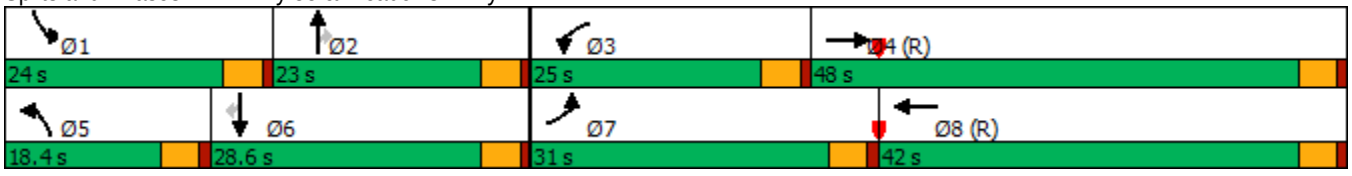
User approved pedestrian interval to be less than phase max green.

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	232	983	315	429	661	422	226	356	246	405	464	146
Future Volume (vph)	232	983	315	429	661	422	226	356	246	405	464	146
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			2			6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	31.0	48.0		25.0	42.0		18.4	23.0	23.0	24.0	28.6	28.6
Total Split (%)	25.8%	40.0%		20.8%	35.0%		15.3%	19.2%	19.2%	20.0%	23.8%	23.8%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	21.1	47.4	120.0	19.2	45.5	120.0	12.6	17.1	17.1	18.3	22.8	22.8
Actuated g/C Ratio	0.18	0.40	1.00	0.16	0.38	1.00	0.10	0.14	0.14	0.15	0.19	0.19
v/c Ratio	0.78	0.73	0.21	0.81	0.51	0.28	0.65	0.74	0.58	0.81	0.72	0.36
Control Delay	64.0	35.7	0.3	41.5	28.7	0.4	60.3	58.4	11.0	61.8	52.1	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.0	35.7	0.3	41.5	28.7	0.4	60.3	58.4	11.0	61.8	52.1	8.8
LOS	E	D	A	D	C	A	E	E	B	E	D	A
Approach Delay		32.7			24.4			44.9			49.8	
Approach LOS		C			C			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 35.8	Intersection LOS: D
Intersection Capacity Utilization 75.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Hwy 85 & Meadows Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	232	983	315	429	661	422	226	356	246	405	464	146
Future Volume (veh/h)	232	983	315	429	661	422	226	356	246	405	464	146
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	242	1024	0	447	689	0	235	371	0	422	483	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	273	1542		517	1528		296	448		486	643	
Arrive On Green	0.15	0.43	0.00	0.05	0.14	0.00	0.09	0.13	0.00	0.14	0.18	0.00
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	242	1024	0	447	689	0	235	371	0	422	483	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	16.0	27.5	0.0	15.4	21.3	0.0	8.0	12.2	0.0	14.3	15.5	0.0
Cycle Q Clear(g_c), s	16.0	27.5	0.0	15.4	21.3	0.0	8.0	12.2	0.0	14.3	15.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	273	1542		517	1528		296	448		486	643	
V/C Ratio(X)	0.89	0.66		0.86	0.45		0.79	0.83		0.87	0.75	
Avail Cap(c_a), veh/h	393	1542		590	1528		400	548		562	714	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.79	0.79	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.8	27.0	0.0	55.8	38.5	0.0	53.8	51.2	0.0	50.5	46.6	0.0
Incr Delay (d2), s/veh	15.5	2.3	0.0	9.4	0.8	0.0	7.6	8.6	0.0	12.4	4.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	12.0	0.0	7.9	10.3	0.0	3.8	6.0	0.0	7.0	7.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.3	29.3	0.0	65.2	39.3	0.0	61.4	59.8	0.0	62.9	50.6	0.0
LnGrp LOS	E	C		E	D		E	E		E	D	
Approach Vol, veh/h		1266	A		1136	A		606	A		905	A
Approach Delay, s/veh		36.2			49.5			60.4			56.3	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.4	19.6	22.5	56.6	14.8	26.2	22.9	56.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.5	18.5	20.5	43.5	13.9	24.1	26.5	37.5
Max Q Clear Time (g_c+I1), s	16.3	14.2	17.4	29.5	10.0	17.5	18.0	23.3
Green Ext Time (p_c), s	0.5	0.9	0.5	6.2	0.3	1.7	0.4	4.1

Intersection Summary	
HCM 6th Ctrl Delay	48.5
HCM 6th LOS	D

Notes

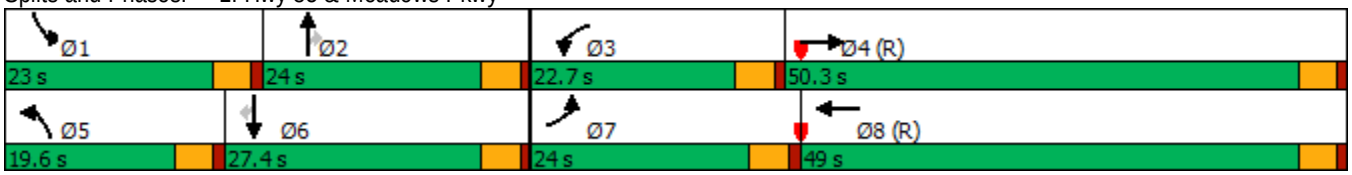
User approved pedestrian interval to be less than phase max green.

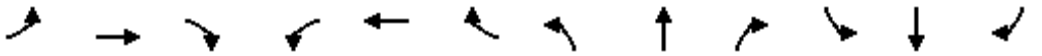
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	231	908	257	320	1118	499	330	468	370	427	496	222
Future Volume (vph)	231	908	257	320	1118	499	330	468	370	427	496	222
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			2			6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	24.0	50.3		22.7	49.0		19.6	24.0	24.0	23.0	27.4	27.4
Total Split (%)	20.0%	41.9%		18.9%	40.8%		16.3%	20.0%	20.0%	19.2%	22.8%	22.8%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	18.7	48.6	120.0	16.2	46.0	120.0	14.7	19.2	19.2	18.0	22.5	22.5
Actuated g/C Ratio	0.16	0.40	1.00	0.14	0.38	1.00	0.12	0.16	0.16	0.15	0.19	0.19
v/c Ratio	0.87	0.66	0.17	0.72	0.86	0.33	0.82	0.86	0.79	0.86	0.78	0.48
Control Delay	79.6	32.3	0.2	36.5	41.9	0.2	67.8	65.2	26.1	67.1	55.4	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.6	32.3	0.2	36.5	41.9	0.2	67.8	65.2	26.1	67.1	55.4	8.8
LOS	E	C	A	D	D	A	E	E	C	E	E	A
Approach Delay		34.2			30.3			53.6			50.7	
Approach LOS		C			C			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 40.2	Intersection LOS: D
Intersection Capacity Utilization 83.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: Hwy 85 & Meadows Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	231	908	257	320	1118	499	330	468	370	427	496	222
Future Volume (veh/h)	231	908	257	320	1118	499	330	468	370	427	496	222
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	241	946	0	333	1165	0	344	488	0	445	517	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	268	1542		401	1419		401	551		502	654	
Arrive On Green	0.15	0.43	0.00	0.08	0.27	0.00	0.12	0.15	0.00	0.15	0.18	0.00
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	241	946	0	333	1165	0	344	488	0	445	517	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	16.0	24.6	0.0	11.4	36.9	0.0	11.7	16.1	0.0	15.2	16.7	0.0
Cycle Q Clear(g_c), s	16.0	24.6	0.0	11.4	36.9	0.0	11.7	16.1	0.0	15.2	16.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	1542		401	1419		401	551		502	654	
V/C Ratio(X)	0.90	0.61		0.83	0.82		0.86	0.89		0.89	0.79	
Avail Cap(c_a), veh/h	289	1542		524	1419		435	577		533	678	
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.29	0.29	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.1	26.2	0.0	54.2	39.9	0.0	52.1	49.7	0.0	50.3	46.7	0.0
Incr Delay (d2), s/veh	27.5	1.8	0.0	2.6	1.7	0.0	14.8	15.0	0.0	15.9	6.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	10.7	0.0	5.3	17.1	0.0	5.9	8.3	0.0	7.6	7.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.6	28.0	0.0	56.8	41.6	0.0	66.9	64.6	0.0	66.2	52.8	0.0
LnGrp LOS	E	C		E	D		E	E		E	D	
Approach Vol, veh/h		1187	A		1498	A		832	A		962	A
Approach Delay, s/veh		38.1			45.0			65.6			59.0	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.9	23.1	18.4	56.6	18.4	26.6	22.6	52.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.5	19.5	18.2	45.8	15.1	22.9	19.5	44.5
Max Q Clear Time (g_c+I1), s	17.2	18.1	13.4	26.6	13.7	18.7	18.0	38.9
Green Ext Time (p_c), s	0.3	0.4	0.5	6.7	0.2	1.3	0.1	3.6

Intersection Summary	
HCM 6th Ctrl Delay	50.0
HCM 6th LOS	D

Notes

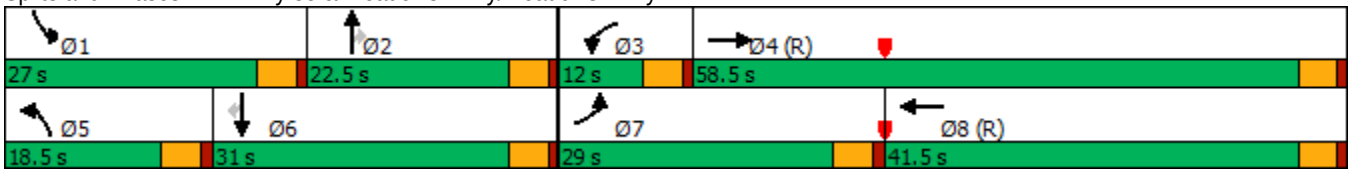
User approved pedestrian interval to be less than phase max green.

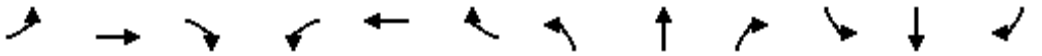
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	312	1356	315	173	961	632	229	351	135	581	468	196
Future Volume (vph)	312	1356	315	173	961	632	229	351	135	581	468	196
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			2			6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	29.0	58.5		12.0	41.5		18.5	22.5	22.5	27.0	31.0	31.0
Total Split (%)	24.2%	48.8%		10.0%	34.6%		15.4%	18.8%	18.8%	22.5%	25.8%	25.8%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	24.1	54.7	120.0	8.3	38.8	120.0	12.7	16.6	16.6	22.5	26.4	26.4
Actuated g/C Ratio	0.20	0.46	1.00	0.07	0.32	1.00	0.11	0.14	0.14	0.19	0.22	0.22
v/c Ratio	0.92	0.88	0.21	0.76	0.87	0.42	0.66	0.75	0.38	0.94	0.63	0.40
Control Delay	78.0	37.3	0.3	71.9	42.3	1.4	60.4	59.8	5.9	72.0	46.5	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.0	37.3	0.3	71.9	42.3	1.4	60.4	59.8	5.9	72.0	46.5	7.7
LOS	E	D	A	E	D	A	E	E	A	E	D	A
Approach Delay		37.9			30.6			49.8			52.3	
Approach LOS		D			C			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 40.3	Intersection LOS: D
Intersection Capacity Utilization 85.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: Hwy 85 & Meadows Pkwy/Meadows Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	312	1356	315	173	961	632	229	351	135	581	468	196
Future Volume (veh/h)	312	1356	315	173	961	632	229	351	135	581	468	196
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	325	1412	0	180	1001	0	239	366	0	605	488	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	351	1691		216	1214		300	441		648	799	
Arrive On Green	0.20	0.48	0.00	0.02	0.11	0.00	0.09	0.12	0.00	0.19	0.22	0.00
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	325	1412	0	180	1001	0	239	366	0	605	488	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	21.5	41.5	0.0	6.2	33.1	0.0	8.1	12.1	0.0	20.7	14.8	0.0
Cycle Q Clear(g_c), s	21.5	41.5	0.0	6.2	33.1	0.0	8.1	12.1	0.0	20.7	14.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	351	1691		216	1214		300	441		648	799	
V/C Ratio(X)	0.93	0.83		0.83	0.82		0.80	0.83		0.93	0.61	
Avail Cap(c_a), veh/h	364	1691		216	1214		403	533		648	799	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.67	0.67	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	47.3	27.3	0.0	58.1	49.7	0.0	53.7	51.3	0.0	48.0	41.8	0.0
Incr Delay (d2), s/veh	28.9	5.0	0.0	16.8	4.4	0.0	7.8	9.1	0.0	20.7	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.3	18.3	0.0	3.3	16.6	0.0	3.9	5.9	0.0	10.7	6.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.2	32.4	0.0	75.0	54.2	0.0	61.6	60.4	0.0	68.7	43.2	0.0
LnGrp LOS	E	C		E	D		E	E		E	D	
Approach Vol, veh/h		1737	A		1181	A		605	A		1093	A
Approach Delay, s/veh		40.6			57.3			60.8			57.3	
Approach LOS		D			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.0	19.4	12.0	61.6	14.9	31.5	28.1	45.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	18.0	7.5	54.0	14.0	26.5	24.5	37.0
Max Q Clear Time (g_c+I1), s	22.7	14.1	8.2	43.5	10.1	16.8	23.5	35.1
Green Ext Time (p_c), s	0.0	0.8	0.0	7.0	0.3	2.2	0.1	1.2

Intersection Summary	
HCM 6th Ctrl Delay	51.5
HCM 6th LOS	D

Notes

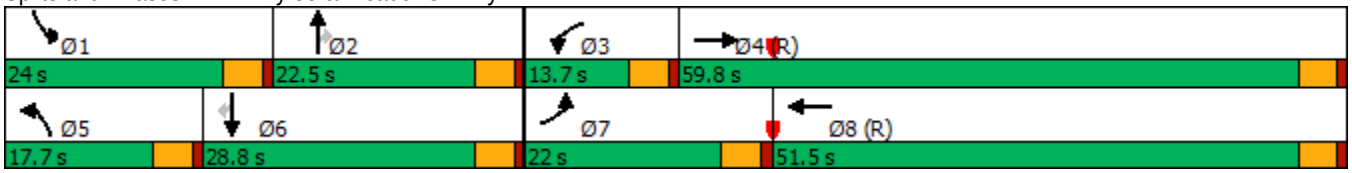
User approved pedestrian interval to be less than phase max green.

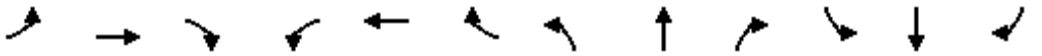
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	311	1328	274	224	1586	736	335	472	155	665	541	298
Future Volume (vph)	311	1328	274	224	1586	736	335	472	155	665	541	298
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			2			6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	22.0	59.8		13.7	51.5		17.7	22.5	22.5	24.0	28.8	28.8
Total Split (%)	18.3%	49.8%		11.4%	42.9%		14.8%	18.8%	18.8%	20.0%	24.0%	24.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	17.5	55.3	120.0	9.2	47.0	120.0	13.2	18.0	18.0	19.5	24.3	24.3
Actuated g/C Ratio	0.15	0.46	1.00	0.08	0.39	1.00	0.11	0.15	0.15	0.16	0.20	0.20
v/c Ratio	1.26	0.85	0.18	0.89	1.19	0.48	0.93	0.93	0.42	1.24	0.79	0.65
Control Delay	185.0	34.8	0.2	54.6	122.5	0.4	84.1	75.5	8.5	166.3	54.4	22.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	185.0	34.8	0.2	54.6	122.5	0.4	84.1	75.5	8.5	166.3	54.4	22.8
LOS	F	C	A	D	F	A	F	E	A	F	D	C
Approach Delay		54.3			81.2			67.7			97.6	
Approach LOS		D			F			E			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.26	
Intersection Signal Delay: 75.5	Intersection LOS: E
Intersection Capacity Utilization 108.1%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 1: Hwy 85 & Meadows Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	311	1328	274	224	1586	736	335	472	155	665	541	298
Future Volume (veh/h)	311	1328	274	224	1586	736	335	472	155	665	541	298
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	324	1383	0	233	1652	0	349	492	0	693	564	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	260	1638		265	1392		380	533		562	720	
Arrive On Green	0.15	0.46	0.00	0.08	0.39	0.00	0.11	0.15	0.00	0.16	0.20	0.00
Sat Flow, veh/h	1781	3554	1585	3456	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	324	1383	0	233	1652	0	349	492	0	693	564	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1728	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	17.5	41.2	0.0	8.0	47.0	0.0	12.0	16.4	0.0	19.5	18.1	0.0
Cycle Q Clear(g_c), s	17.5	41.2	0.0	8.0	47.0	0.0	12.0	16.4	0.0	19.5	18.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	260	1638		265	1392		380	533		562	720	
V/C Ratio(X)	1.25	0.84		0.88	1.19		0.92	0.92		1.23	0.78	
Avail Cap(c_a), veh/h	260	1638		265	1392		380	533		562	720	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.09	0.09	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	51.3	28.6	0.0	54.9	36.5	0.0	52.9	50.3	0.0	50.3	45.4	0.0
Incr Delay (d2), s/veh	139.2	5.5	0.0	3.4	84.8	0.0	26.8	21.8	0.0	120.1	5.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.8	18.3	0.0	3.6	36.3	0.0	6.6	8.9	0.0	17.8	8.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	190.4	34.1	0.0	58.3	121.3	0.0	79.7	72.1	0.0	170.4	51.0	0.0
LnGrp LOS	F	C		E	F		E	E		F	D	
Approach Vol, veh/h		1707	A		1885	A		841	A		1257	A
Approach Delay, s/veh		63.8			113.5			75.3			116.8	
Approach LOS		E			F			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	22.5	13.7	59.8	17.7	28.8	22.0	51.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.5	18.0	9.2	55.3	13.2	24.3	17.5	47.0
Max Q Clear Time (g_c+I1), s	21.5	18.4	10.0	43.2	14.0	20.1	19.5	49.0
Green Ext Time (p_c), s	0.0	0.0	0.0	7.6	0.0	1.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	93.7
HCM 6th LOS	F

Notes

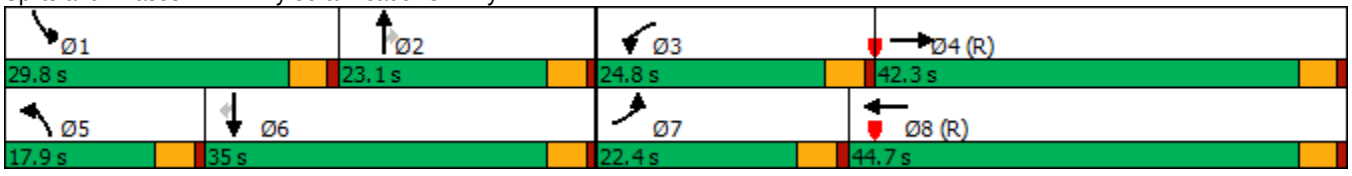
User approved pedestrian interval to be less than phase max green.

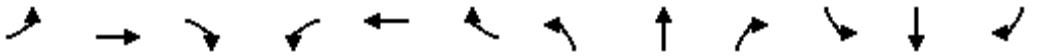
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	312	1368	396	461	982	646	285	432	260	589	576	196
Future Volume (vph)	312	1368	396	461	982	646	285	432	260	589	576	196
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			2			6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	22.4	42.3		24.8	44.7		17.9	23.1	23.1	29.8	35.0	35.0
Total Split (%)	18.7%	35.3%		20.7%	37.3%		14.9%	19.3%	19.3%	24.8%	29.2%	29.2%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	15.9	39.9	120.0	19.6	43.6	120.0	13.1	18.2	18.2	24.3	29.4	29.4
Actuated g/C Ratio	0.13	0.33	1.00	0.16	0.36	1.00	0.11	0.15	0.15	0.20	0.24	0.24
v/c Ratio	0.72	0.84	0.26	0.86	0.55	0.43	0.79	0.84	0.59	0.88	0.69	0.38
Control Delay	59.1	43.4	0.4	48.3	25.1	0.5	68.3	64.3	11.9	61.8	45.7	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.1	43.4	0.4	48.3	25.1	0.5	68.3	64.3	11.9	61.8	45.7	6.9
LOS	E	D	A	D	C	A	E	E	B	E	D	A
Approach Delay		37.5			22.6			51.5			47.1	
Approach LOS		D			C			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 36.8	Intersection LOS: D
Intersection Capacity Utilization 83.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: Hwy 85 & Meadows Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	312	1368	396	461	982	646	285	432	260	589	576	196
Future Volume (veh/h)	312	1368	396	461	982	646	285	432	260	589	576	196
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	325	1425	0	480	1023	0	297	450	0	614	600	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	391	1795		545	2023		353	515		677	848	
Arrive On Green	0.11	0.35	0.00	0.05	0.13	0.00	0.10	0.14	0.00	0.20	0.24	0.00
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	325	1425	0	480	1023	0	297	450	0	614	600	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	11.0	30.1	0.0	16.6	22.4	0.0	10.1	14.9	0.0	20.8	18.6	0.0
Cycle Q Clear(g_c), s	11.0	30.1	0.0	16.6	22.4	0.0	10.1	14.9	0.0	20.8	18.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	391	1795		545	2023		353	515		677	848	
V/C Ratio(X)	0.83	0.79		0.88	0.51		0.84	0.87		0.91	0.71	
Avail Cap(c_a), veh/h	515	1795		585	2023		386	551		729	903	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.52	0.52	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	52.1	35.0	0.0	55.8	41.2	0.0	52.9	50.2	0.0	47.2	41.9	0.0
Incr Delay (d2), s/veh	8.6	3.7	0.0	8.0	0.5	0.0	14.3	13.9	0.0	14.5	2.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	13.0	0.0	8.3	10.3	0.0	5.1	7.6	0.0	10.3	8.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.7	38.7	0.0	63.7	41.7	0.0	67.2	64.1	0.0	61.7	44.3	0.0
LnGrp LOS	E	D		E	D		E	E		E	D	
Approach Vol, veh/h		1750	A		1503	A		747	A		1214	A
Approach Delay, s/veh		42.8			48.7			65.3			53.1	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	21.9	23.4	46.7	16.8	33.1	18.1	52.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	25.3	18.6	20.3	37.8	13.4	30.5	17.9	40.2
Max Q Clear Time (g_c+I1), s	22.8	16.9	18.6	32.1	12.1	20.6	13.0	24.4
Green Ext Time (p_c), s	0.7	0.5	0.4	4.1	0.1	2.9	0.5	6.6

Intersection Summary	
HCM 6th Ctrl Delay	50.1
HCM 6th LOS	D

Notes

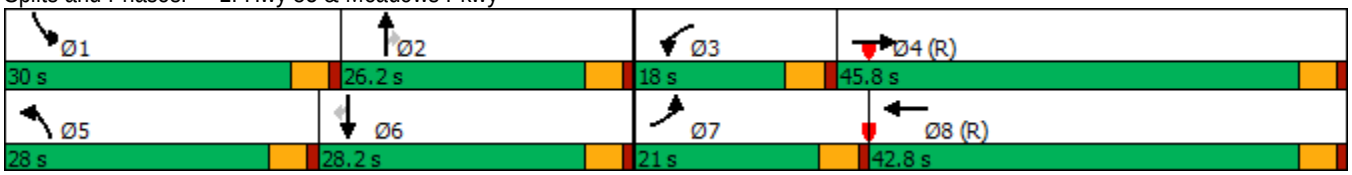
User approved pedestrian interval to be less than phase max green.

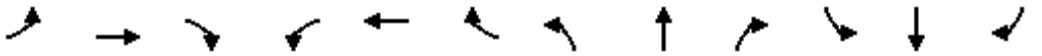
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	311	1349	328	356	1600	745	416	580	396	679	621	298
Future Volume (vph)	311	1349	328	356	1600	745	416	580	396	679	621	298
Turn Type	Prot	NA	Free	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			Free			2			6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	21.0	45.8		18.0	42.8		28.0	26.2	26.2	30.0	28.2	28.2
Total Split (%)	17.5%	38.2%		15.0%	35.7%		23.3%	21.8%	21.8%	25.0%	23.5%	23.5%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	15.3	41.3	120.0	13.5	39.5	120.0	19.9	21.7	21.7	25.5	27.3	27.3
Actuated g/C Ratio	0.13	0.34	1.00	0.11	0.33	1.00	0.17	0.18	0.18	0.21	0.23	0.23
v/c Ratio	0.74	0.80	0.22	0.96	1.00	0.49	0.76	0.95	0.92	0.97	0.80	0.59
Control Delay	61.3	40.0	0.3	90.2	61.5	1.1	56.7	73.3	51.4	73.9	53.2	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.3	40.0	0.3	90.2	61.5	1.1	56.7	73.3	51.4	73.9	53.2	18.8
LOS	E	D	A	F	E	A	E	E	D	E	D	B
Approach Delay		36.7			48.6			62.1			55.6	
Approach LOS		D			D			E			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 49.4	Intersection LOS: D
Intersection Capacity Utilization 90.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: Hwy 85 & Meadows Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	311	1349	328	356	1600	745	416	580	396	679	621	298
Future Volume (veh/h)	311	1349	328	356	1600	745	416	580	396	679	621	298
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	324	1405	0	371	1667	0	433	604	0	707	647	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	387	1757		389	1761		507	643		734	876	
Arrive On Green	0.11	0.34	0.00	0.11	0.34	0.00	0.15	0.18	0.00	0.21	0.25	0.00
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	324	1405	0	371	1667	0	433	604	0	707	647	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	11.0	29.9	0.0	12.8	38.1	0.0	14.7	20.1	0.0	24.3	20.1	0.0
Cycle Q Clear(g_c), s	11.0	29.9	0.0	12.8	38.1	0.0	14.7	20.1	0.0	24.3	20.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	387	1757		389	1761		507	643		734	876	
V/C Ratio(X)	0.84	0.80		0.95	0.95		0.85	0.94		0.96	0.74	
Avail Cap(c_a), veh/h	475	1757		389	1761		677	643		734	876	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.09	0.09	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	52.2	35.6	0.0	52.9	38.2	0.0	49.9	48.5	0.0	46.8	41.6	0.0
Incr Delay (d2), s/veh	10.6	3.9	0.0	6.2	1.5	0.0	8.1	21.9	0.0	24.3	3.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	12.9	0.0	5.9	15.9	0.0	6.9	10.8	0.0	12.9	9.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.8	39.5	0.0	59.1	39.8	0.0	58.0	70.4	0.0	71.1	45.0	0.0
LnGrp LOS	E	D		E	D		E	E		E	D	
Approach Vol, veh/h		1729	A		2038	A		1037	A		1354	A
Approach Delay, s/veh		43.9			43.3			65.2			58.6	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.0	26.2	18.0	45.8	22.1	34.1	17.9	45.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	25.5	21.7	13.5	41.3	23.5	23.7	16.5	38.3
Max Q Clear Time (g_c+I1), s	26.3	22.1	14.8	31.9	16.7	22.1	13.0	40.1
Green Ext Time (p_c), s	0.0	0.0	0.0	6.2	0.9	0.7	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	50.5
HCM 6th LOS	D

Notes

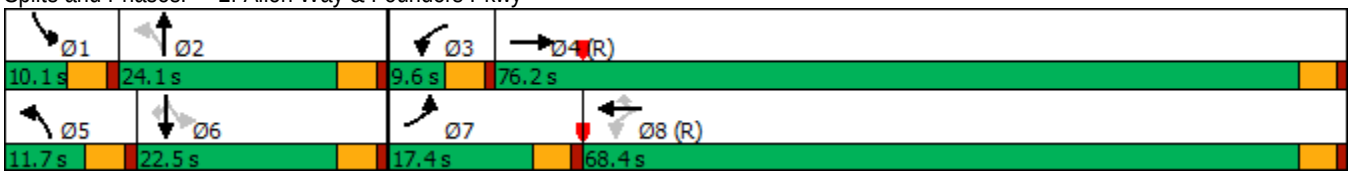
User approved pedestrian interval to be less than phase max green.

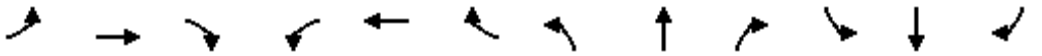
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	204	888	37	1945	111	108	17	62	13	317
Future Volume (vph)	204	888	37	1945	111	108	17	62	13	317
Turn Type	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases			8		8	2		6		6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	17.4	76.2	9.6	68.4	68.4	11.7	24.1	10.1	22.5	22.5
Total Split (%)	14.5%	63.5%	8.0%	57.0%	57.0%	9.8%	20.1%	8.4%	18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	12.7	83.6	79.3	73.1	73.1	18.4	12.7	14.6	9.0	9.0
Actuated g/C Ratio	0.11	0.70	0.66	0.61	0.61	0.15	0.11	0.12	0.08	0.08
v/c Ratio	0.59	0.30	0.10	0.66	0.12	0.55	0.30	0.36	0.10	0.73
Control Delay	58.6	7.2	4.6	10.9	1.1	53.8	23.4	47.4	50.6	21.5
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.6	7.3	4.6	10.9	1.1	53.8	23.4	47.4	50.6	21.5
LOS	E	A	A	B	A	D	C	D	D	C
Approach Delay		15.9		10.3			42.7		26.5	
Approach LOS		B		B			D		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 15.1	Intersection LOS: B
Intersection Capacity Utilization 67.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: Allen Way & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	888	120	37	1945	111	108	17	45	62	13	317
Future Volume (veh/h)	204	888	120	37	1945	111	108	17	45	62	13	317
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	215	935	126	39	2047	117	114	18	21	65	14	176
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	271	3085	414	449	3214	998	257	77	90	244	153	229
Arrive On Green	0.16	1.00	1.00	0.03	0.63	0.63	0.06	0.10	0.10	0.04	0.08	0.08
Sat Flow, veh/h	3456	4553	612	1781	5106	1585	1781	787	918	1781	1870	2790
Grp Volume(v), veh/h	215	698	363	39	2047	117	114	0	39	65	14	176
Grp Sat Flow(s),veh/h/ln	1728	1702	1760	1781	1702	1585	1781	0	1705	1781	1870	1395
Q Serve(g_s), s	7.2	0.0	0.0	0.9	29.8	3.5	7.0	0.0	2.5	4.0	0.8	7.4
Cycle Q Clear(g_c), s	7.2	0.0	0.0	0.9	29.8	3.5	7.0	0.0	2.5	4.0	0.8	7.4
Prop In Lane	1.00		0.35	1.00		1.00	1.00		0.54	1.00		1.00
Lane Grp Cap(c), veh/h	271	2307	1193	449	3214	998	257	0	167	244	153	229
V/C Ratio(X)	0.79	0.30	0.30	0.09	0.64	0.12	0.44	0.00	0.23	0.27	0.09	0.77
Avail Cap(c_a), veh/h	371	2307	1193	470	3214	998	257	0	278	248	281	418
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.6	0.0	0.0	7.1	13.8	8.9	47.2	0.0	50.0	47.6	50.9	54.0
Incr Delay (d2), s/veh	7.6	0.3	0.6	0.1	1.0	0.2	1.2	0.0	0.7	0.6	0.3	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.1	0.2	0.3	11.1	1.3	3.2	0.0	1.1	1.8	0.4	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.3	0.3	0.6	7.2	14.7	9.1	48.4	0.0	50.7	48.1	51.2	59.3
LnGrp LOS	E	A	A	A	B	A	D	A	D	D	D	E
Approach Vol, veh/h		1276			2203			153			255	
Approach Delay, s/veh		10.0			14.3			49.0			56.0	
Approach LOS		B			B			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	16.3	8.1	85.8	11.7	14.3	13.9	80.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.6	19.6	5.1	71.7	7.2	18.0	12.9	63.9
Max Q Clear Time (g_c+I1), s	6.0	4.5	2.9	2.0	9.0	9.4	9.2	31.8
Green Ext Time (p_c), s	0.0	0.1	0.0	9.5	0.0	0.4	0.2	21.9

Intersection Summary	
HCM 6th Ctrl Delay	17.0
HCM 6th LOS	B

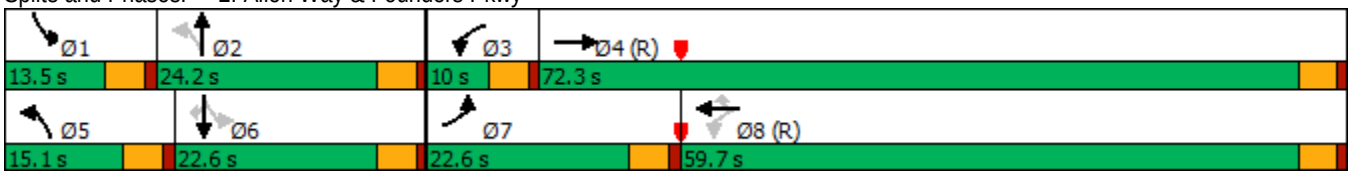
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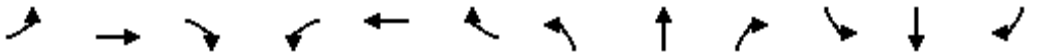
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	322	2064	36	1537	133	158	37	117	33	386
Future Volume (vph)	322	2064	36	1537	133	158	37	117	33	386
Turn Type	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases			8		8	2		6		6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	22.6	72.3	10.0	59.7	59.7	15.1	24.2	13.5	22.6	22.6
Total Split (%)	18.8%	60.3%	8.3%	49.8%	49.8%	12.6%	20.2%	11.3%	18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	16.7	80.9	72.6	66.4	66.4	20.6	10.1	17.3	8.5	8.5
Actuated g/C Ratio	0.14	0.67	0.60	0.55	0.55	0.17	0.08	0.14	0.07	0.07
v/c Ratio	0.69	0.68	0.24	0.56	0.15	0.64	0.54	0.57	0.26	0.70
Control Delay	57.9	6.6	14.4	13.0	1.6	54.9	32.4	52.5	56.2	12.2
Queue Delay	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.9	6.9	14.4	13.0	1.6	54.9	32.4	52.5	56.2	12.2
LOS	E	A	B	B	A	D	C	D	E	B
Approach Delay		13.3		12.1			45.8		23.7	
Approach LOS		B		B			D		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 15.7	Intersection LOS: B
Intersection Capacity Utilization 75.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: Allen Way & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	322	2064	195	36	1537	133	158	37	70	117	33	386
Future Volume (veh/h)	322	2064	195	36	1537	133	158	37	70	117	33	386
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	329	2106	199	37	1568	136	161	38	45	119	34	215
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	388	3019	282	201	2822	876	308	86	102	278	181	270
Arrive On Green	0.22	1.00	1.00	0.03	0.55	0.55	0.09	0.11	0.11	0.07	0.10	0.10
Sat Flow, veh/h	3456	4750	444	1781	5106	1585	1781	780	924	1781	1870	2790
Grp Volume(v), veh/h	329	1503	802	37	1568	136	161	0	83	119	34	215
Grp Sat Flow(s),veh/h/ln	1728	1702	1790	1781	1702	1585	1781	0	1704	1781	1870	1395
Q Serve(g_s), s	10.9	0.0	0.0	1.1	23.8	5.0	9.7	0.0	5.5	7.1	2.0	9.1
Cycle Q Clear(g_c), s	10.9	0.0	0.0	1.1	23.8	5.0	9.7	0.0	5.5	7.1	2.0	9.1
Prop In Lane	1.00		0.25	1.00		1.00	1.00		0.54	1.00		1.00
Lane Grp Cap(c), veh/h	388	2163	1138	201	2822	876	308	0	188	278	181	270
V/C Ratio(X)	0.85	0.69	0.70	0.18	0.56	0.16	0.52	0.00	0.44	0.43	0.19	0.80
Avail Cap(c_a), veh/h	521	2163	1138	230	2822	876	308	0	280	279	282	421
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.75	0.75	0.75	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.5	0.0	0.0	10.7	17.3	13.1	43.8	0.0	49.9	44.2	49.9	53.0
Incr Delay (d2), s/veh	7.3	1.4	2.8	0.4	0.8	0.4	1.6	0.0	1.6	1.0	0.5	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.4	0.9	0.4	9.3	1.9	4.4	0.0	2.4	3.2	1.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.9	1.4	2.8	11.1	18.1	13.5	45.4	0.0	51.5	45.3	50.4	58.8
LnGrp LOS	D	A	A	B	B	B	D	A	D	D	D	E
Approach Vol, veh/h		2634			1741			244			368	
Approach Delay, s/veh		8.3			17.6			47.5			53.6	
Approach LOS		A			B			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.4	17.8	8.0	80.8	15.1	16.1	18.0	70.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.0	19.7	5.5	67.8	10.6	18.1	18.1	55.2
Max Q Clear Time (g_c+I1), s	9.1	7.5	3.1	2.0	11.7	11.1	12.9	25.8
Green Ext Time (p_c), s	0.0	0.3	0.0	37.4	0.0	0.5	0.5	15.3

Intersection Summary	
HCM 6th Ctrl Delay	16.8
HCM 6th LOS	B

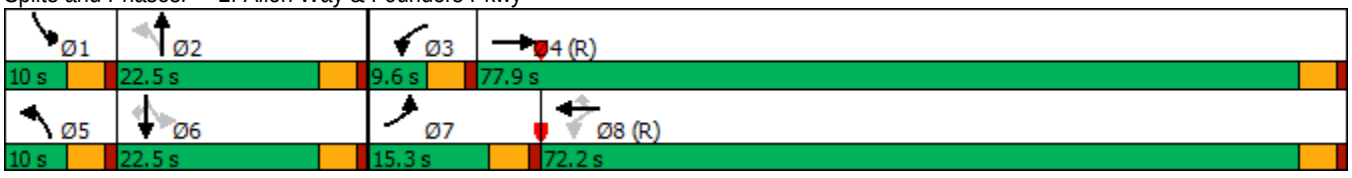
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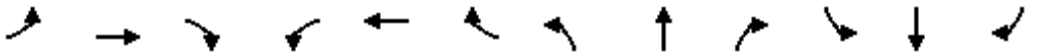
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	221	981	40	2176	121	117	18	67	14	343
Future Volume (vph)	221	981	40	2176	121	117	18	67	14	343
Turn Type	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases			8		8	2		6		6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	15.3	77.9	9.6	72.2	72.2	10.0	22.5	10.0	22.5	22.5
Total Split (%)	12.8%	64.9%	8.0%	60.2%	60.2%	8.3%	18.8%	8.3%	18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	12.1	80.8	78.4	72.6	72.6	18.2	13.8	17.3	11.8	11.8
Actuated g/C Ratio	0.10	0.67	0.65	0.60	0.60	0.15	0.12	0.14	0.10	0.10
v/c Ratio	0.65	0.34	0.12	0.72	0.12	0.55	0.29	0.32	0.08	0.76
Control Delay	64.6	9.1	5.6	11.2	1.2	53.3	21.9	44.7	47.1	31.5
Queue Delay	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.6	9.2	5.6	11.2	1.2	53.3	21.9	44.7	47.1	31.5
LOS	E	A	A	B	A	D	C	D	D	C
Approach Delay		18.4		10.6			42.0		34.1	
Approach LOS		B		B			D		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 16.7	Intersection LOS: B
Intersection Capacity Utilization 72.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: Allen Way & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	221	981	130	40	2176	121	117	18	48	67	14	343
Future Volume (veh/h)	221	981	130	40	2176	121	117	18	48	67	14	343
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	226	1001	133	41	2220	123	119	18	23	68	14	171
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	278	3160	419	435	3285	1020	230	60	76	220	150	224
Arrive On Green	0.16	1.00	1.00	0.03	0.64	0.64	0.05	0.08	0.08	0.05	0.08	0.08
Sat Flow, veh/h	3456	4561	605	1781	5106	1585	1781	746	953	1781	1870	2790
Grp Volume(v), veh/h	226	747	387	41	2220	123	119	0	41	68	14	171
Grp Sat Flow(s),veh/h/ln	1728	1702	1762	1781	1702	1585	1781	0	1699	1781	1870	1395
Q Serve(g_s), s	7.6	0.0	0.0	0.9	32.9	3.6	5.5	0.0	2.7	4.2	0.8	7.2
Cycle Q Clear(g_c), s	7.6	0.0	0.0	0.9	32.9	3.6	5.5	0.0	2.7	4.2	0.8	7.2
Prop In Lane	1.00		0.34	1.00		1.00	1.00		0.56	1.00		1.00
Lane Grp Cap(c), veh/h	278	2359	1221	435	3285	1020	230	0	136	220	150	224
V/C Ratio(X)	0.81	0.32	0.32	0.09	0.68	0.12	0.52	0.00	0.30	0.31	0.09	0.76
Avail Cap(c_a), veh/h	311	2359	1221	455	3285	1020	230	0	255	220	281	418
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	0.0	0.0	6.5	13.5	8.3	49.5	0.0	52.0	47.7	51.1	54.1
Incr Delay (d2), s/veh	13.3	0.3	0.7	0.1	1.1	0.2	2.0	0.0	1.2	0.8	0.3	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.1	0.2	0.3	12.1	1.3	3.5	0.0	1.2	1.9	0.4	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.7	0.3	0.7	6.6	14.6	8.5	51.5	0.0	53.2	48.5	51.4	59.4
LnGrp LOS	E	A	A	A	B	A	D	A	D	D	D	E
Approach Vol, veh/h		1360			2384			160			253	
Approach Delay, s/veh		10.8			14.2			51.9			56.0	
Approach LOS		B			B			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	14.1	8.2	87.6	10.0	14.1	14.2	81.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	18.0	5.1	73.4	5.5	18.0	10.8	67.7
Max Q Clear Time (g_c+I1), s	6.2	4.7	2.9	2.0	7.5	9.2	9.6	34.9
Green Ext Time (p_c), s	0.0	0.1	0.0	10.5	0.0	0.4	0.1	24.2

Intersection Summary	
HCM 6th Ctrl Delay	17.1
HCM 6th LOS	B

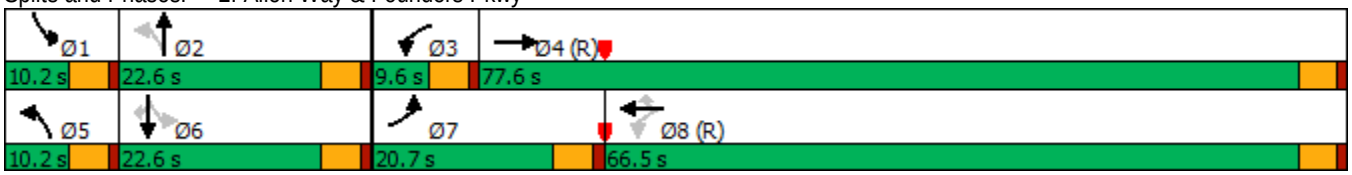
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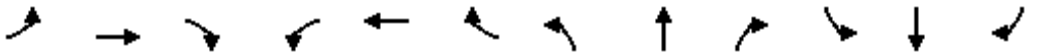
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	348	2304	39	1714	144	171	40	126	36	418
Future Volume (vph)	348	2304	39	1714	144	171	40	126	36	418
Turn Type	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases			8		8	2		6		6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	20.7	77.6	9.6	66.5	66.5	10.2	22.6	10.2	22.6	22.6
Total Split (%)	17.3%	64.7%	8.0%	55.4%	55.4%	8.5%	18.8%	8.5%	18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	16.5	81.6	74.7	68.9	68.9	16.6	10.9	16.6	10.9	10.9
Actuated g/C Ratio	0.14	0.68	0.62	0.57	0.57	0.14	0.09	0.14	0.09	0.09
v/c Ratio	0.75	0.75	0.27	0.60	0.15	0.84	0.56	0.78	0.22	0.77
Control Delay	60.2	7.7	16.1	10.7	1.5	78.4	33.7	75.5	51.1	22.1
Queue Delay	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.2	8.5	16.1	10.7	1.5	78.4	33.7	75.5	51.1	22.1
LOS	E	A	B	B	A	E	C	E	D	C
Approach Delay		14.8		10.1			60.2		35.6	
Approach LOS		B		B			E		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 17.7	Intersection LOS: B
Intersection Capacity Utilization 80.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: Allen Way & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	348	2304	211	39	1714	144	171	40	76	126	36	418
Future Volume (veh/h)	348	2304	211	39	1714	144	171	40	76	126	36	418
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	355	2351	215	40	1749	147	174	41	52	129	37	248
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	408	3164	284	185	2941	913	243	81	103	219	203	302
Arrive On Green	0.24	1.00	1.00	0.03	0.58	0.58	0.05	0.11	0.11	0.05	0.11	0.11
Sat Flow, veh/h	3456	4769	429	1781	5106	1585	1781	749	950	1781	1870	2790
Grp Volume(v), veh/h	355	1667	899	40	1749	147	174	0	93	129	37	248
Grp Sat Flow(s),veh/h/ln	1728	1702	1793	1781	1702	1585	1781	0	1699	1781	1870	1395
Q Serve(g_s), s	11.9	0.0	0.0	1.1	26.5	5.2	5.7	0.0	6.2	5.7	2.2	10.4
Cycle Q Clear(g_c), s	11.9	0.0	0.0	1.1	26.5	5.2	5.7	0.0	6.2	5.7	2.2	10.4
Prop In Lane	1.00		0.24	1.00		1.00	1.00		0.56	1.00		1.00
Lane Grp Cap(c), veh/h	408	2259	1190	185	2941	913	243	0	184	219	203	302
V/C Ratio(X)	0.87	0.74	0.76	0.22	0.59	0.16	0.71	0.00	0.51	0.59	0.18	0.82
Avail Cap(c_a), veh/h	467	2259	1190	206	2941	913	243	0	256	219	282	421
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.9	0.0	0.0	9.5	16.4	11.9	49.2	0.0	50.5	48.0	48.7	52.4
Incr Delay (d2), s/veh	9.7	1.4	2.8	0.6	0.9	0.4	9.5	0.0	2.1	4.2	0.4	8.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.4	0.9	0.4	10.2	1.9	3.0	0.0	2.7	1.2	1.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.6	1.4	2.8	10.1	17.3	12.3	58.8	0.0	52.6	52.2	49.1	61.1
LnGrp LOS	D	A	A	B	B	B	E	A	D	D	D	E
Approach Vol, veh/h		2921			1936			267			414	
Approach Delay, s/veh		8.3			16.8			56.6			57.2	
Approach LOS		A			B			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	17.5	8.2	84.1	10.2	17.5	18.7	73.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.7	18.1	5.1	73.1	5.7	18.1	16.2	62.0
Max Q Clear Time (g_c+I1), s	7.7	8.2	3.1	2.0	7.7	12.4	13.9	28.5
Green Ext Time (p_c), s	0.0	0.3	0.0	46.8	0.0	0.6	0.3	18.9

Intersection Summary	
HCM 6th Ctrl Delay	17.2
HCM 6th LOS	B

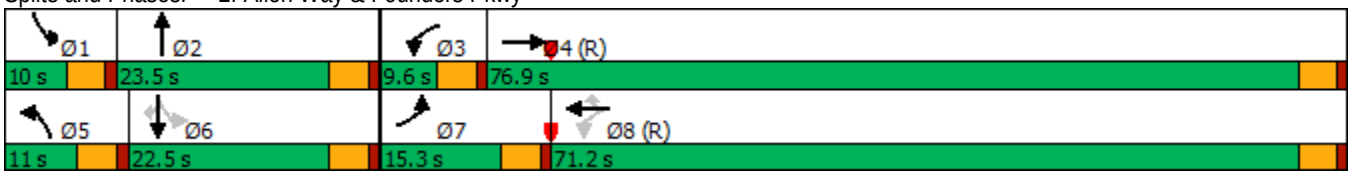
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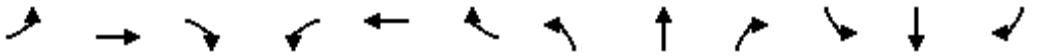
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	226	1193	40	2458	128	117	18	71	14	358
Future Volume (vph)	226	1193	40	2458	128	117	18	71	14	358
Turn Type	Prot	NA	pm+pt	NA	Perm	Prot	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases			8		8			6		6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	15.3	76.9	9.6	71.2	71.2	11.0	23.5	10.0	22.5	22.5
Total Split (%)	12.8%	64.1%	8.0%	59.3%	59.3%	9.2%	19.6%	8.3%	18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	11.7	77.8	75.7	69.9	69.9	6.5	16.9	19.4	13.9	13.9
Actuated g/C Ratio	0.10	0.65	0.63	0.58	0.58	0.05	0.14	0.16	0.12	0.12
v/c Ratio	0.69	0.41	0.15	0.85	0.13	0.64	0.24	0.31	0.06	0.78
Control Delay	67.8	9.6	6.8	16.3	2.0	71.9	20.1	42.1	45.6	39.7
Queue Delay	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.8	9.8	6.8	16.5	2.0	71.9	20.1	42.1	45.6	39.8
LOS	E	A	A	B	A	E	C	D	D	D
Approach Delay		18.2		15.6			53.3		40.3	
Approach LOS		B		B			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 20.2	Intersection LOS: C
Intersection Capacity Utilization 75.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: Allen Way & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	226	1193	130	40	2458	128	117	18	48	71	14	358
Future Volume (veh/h)	226	1193	130	40	2458	128	117	18	48	71	14	358
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	231	1217	133	41	2508	131	119	18	23	72	14	186
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	283	3194	349	371	3231	1003	172	67	85	233	160	239
Arrive On Green	0.16	1.00	1.00	0.03	0.63	0.63	0.05	0.09	0.09	0.05	0.09	0.09
Sat Flow, veh/h	3456	4672	510	1781	5106	1585	3456	746	953	1781	1870	2790
Grp Volume(v), veh/h	231	887	463	41	2508	131	119	0	41	72	14	186
Grp Sat Flow(s),veh/h/ln	1728	1702	1778	1781	1702	1585	1728	0	1699	1781	1870	1395
Q Serve(g_s), s	7.7	0.0	0.0	1.0	42.5	4.0	4.1	0.0	2.7	4.4	0.8	7.8
Cycle Q Clear(g_c), s	7.7	0.0	0.0	1.0	42.5	4.0	4.1	0.0	2.7	4.4	0.8	7.8
Prop In Lane	1.00		0.29	1.00		1.00	1.00		0.56	1.00		1.00
Lane Grp Cap(c), veh/h	283	2327	1216	371	3231	1003	172	0	152	233	160	239
V/C Ratio(X)	0.82	0.38	0.38	0.11	0.78	0.13	0.69	0.00	0.27	0.31	0.09	0.78
Avail Cap(c_a), veh/h	311	2327	1216	391	3231	1003	187	0	269	233	281	418
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.3	0.0	0.0	6.9	15.9	8.8	56.1	0.0	51.0	47.2	50.5	53.7
Incr Delay (d2), s/veh	13.4	0.4	0.8	0.1	1.9	0.3	9.5	0.0	0.9	0.7	0.2	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.1	0.3	0.4	15.9	1.4	2.0	0.0	1.2	2.0	0.4	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.7	0.4	0.8	7.1	17.8	9.1	65.6	0.0	51.9	47.9	50.8	59.2
LnGrp LOS	E	A	A	A	B	A	E	A	D	D	D	E
Approach Vol, veh/h		1581			2680			160			272	
Approach Delay, s/veh		9.6			17.2			62.1			55.7	
Approach LOS		A			B			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	15.2	8.2	86.5	10.5	14.8	14.3	80.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	19.0	5.1	72.4	6.5	18.0	10.8	66.7
Max Q Clear Time (g_c+I1), s	6.4	4.7	3.0	2.0	6.1	9.8	9.7	44.5
Green Ext Time (p_c), s	0.0	0.1	0.0	14.0	0.0	0.4	0.1	19.3

Intersection Summary	
HCM 6th Ctrl Delay	18.4
HCM 6th LOS	B

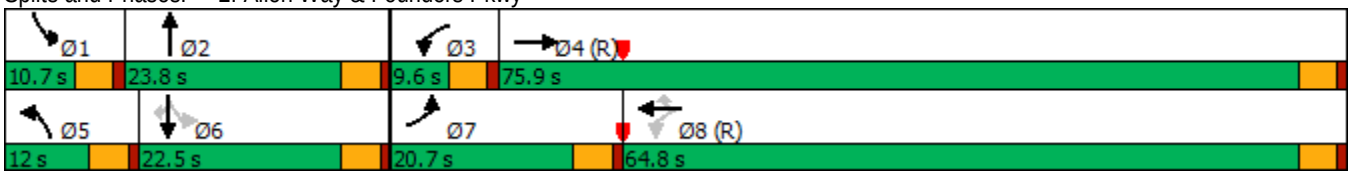
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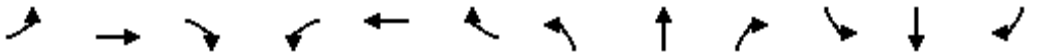
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	362	2569	39	1982	149	171	40	133	36	423
Future Volume (vph)	362	2569	39	1982	149	171	40	133	36	423
Turn Type	Prot	NA	pm+pt	NA	Perm	Prot	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases			8		8			6		6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	20.7	75.9	9.6	64.8	64.8	12.0	23.8	10.7	22.5	22.5
Total Split (%)	17.3%	63.3%	8.0%	54.0%	54.0%	10.0%	19.8%	8.9%	18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	16.7	78.5	71.5	65.6	65.6	7.5	13.5	18.4	12.2	12.2
Actuated g/C Ratio	0.14	0.65	0.60	0.55	0.55	0.06	0.11	0.15	0.10	0.10
v/c Ratio	0.77	0.86	0.27	0.73	0.16	0.81	0.48	0.68	0.20	0.79
Control Delay	56.0	16.0	12.4	13.2	2.6	83.5	28.6	59.4	49.4	26.9
Queue Delay	0.0	14.5	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.0	30.5	12.4	13.3	2.6	83.5	28.6	59.4	49.4	26.9
LOS	E	C	B	B	A	F	C	E	D	C
Approach Delay		33.5		12.5			61.2		35.6	
Approach LOS		C		B			E		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 27.6	Intersection LOS: C
Intersection Capacity Utilization 83.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 2: Allen Way & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	362	2569	211	39	1982	149	171	40	76	133	36	423
Future Volume (veh/h)	362	2569	211	39	1982	149	171	40	76	133	36	423
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	369	2621	215	40	2022	152	174	41	52	136	37	253
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	425	3117	250	147	2832	879	216	91	115	243	206	307
Arrive On Green	0.16	0.86	0.86	0.03	0.55	0.55	0.06	0.12	0.12	0.05	0.11	0.11
Sat Flow, veh/h	3456	4819	386	1781	5106	1585	3456	749	950	1781	1870	2790
Grp Volume(v), veh/h	369	1833	1003	40	2022	152	174	0	93	136	37	253
Grp Sat Flow(s),veh/h/ln	1728	1702	1801	1781	1702	1585	1728	0	1699	1781	1870	1395
Q Serve(g_s), s	12.5	31.8	36.0	1.1	35.0	5.7	6.0	0.0	6.1	6.2	2.2	10.7
Cycle Q Clear(g_c), s	12.5	31.8	36.0	1.1	35.0	5.7	6.0	0.0	6.1	6.2	2.2	10.7
Prop In Lane	1.00		0.21	1.00		1.00	1.00		0.56	1.00		1.00
Lane Grp Cap(c), veh/h	425	2202	1165	147	2832	879	216	0	205	243	206	307
V/C Ratio(X)	0.87	0.83	0.86	0.27	0.71	0.17	0.81	0.00	0.45	0.56	0.18	0.82
Avail Cap(c_a), veh/h	467	2202	1165	168	2832	879	216	0	273	243	281	418
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.39	0.39	0.39	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	5.2	5.5	15.1	19.7	13.2	55.5	0.0	49.1	47.0	48.5	52.3
Incr Delay (d2), s/veh	6.6	1.6	3.5	1.0	1.6	0.4	19.6	0.0	1.6	2.9	0.4	9.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	4.6	5.7	0.5	13.8	2.1	3.2	0.0	2.7	1.0	1.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.9	6.7	9.0	16.1	21.3	13.6	75.1	0.0	50.6	49.9	48.9	61.6
LnGrp LOS	E	A	A	B	C	B	E	A	D	D	D	E
Approach Vol, veh/h		3205			2214			267			426	
Approach Delay, s/veh		13.1			20.7			66.6			56.8	
Approach LOS		B			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	19.0	8.2	82.1	12.0	17.7	19.2	71.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.2	19.3	5.1	71.4	7.5	18.0	16.2	60.3
Max Q Clear Time (g_c+I1), s	8.2	8.1	3.1	38.0	8.0	12.7	14.5	37.0
Green Ext Time (p_c), s	0.0	0.3	0.0	29.1	0.0	0.5	0.3	17.2

Intersection Summary	
HCM 6th Ctrl Delay	21.2
HCM 6th LOS	C

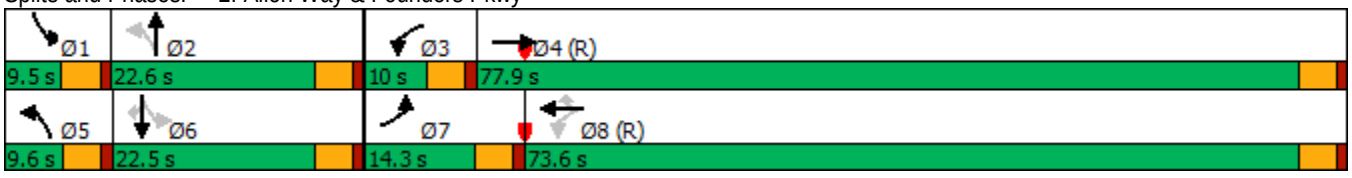
Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	247	1296	54	2789	137	133	25	71	19	352
Future Volume (vph)	247	1296	54	2789	137	133	25	71	19	352
Turn Type	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases			8		8	2		6		6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	14.3	77.9	10.0	73.6	73.6	9.6	22.6	9.5	22.5	22.5
Total Split (%)	11.9%	64.9%	8.3%	61.3%	61.3%	8.0%	18.8%	7.9%	18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	12.1	79.4	77.5	71.4	71.4	19.5	15.4	18.4	13.4	13.4
Actuated g/C Ratio	0.10	0.66	0.65	0.60	0.60	0.16	0.13	0.15	0.11	0.11
v/c Ratio	0.73	0.44	0.21	0.94	0.14	0.59	0.34	0.33	0.09	0.77
Control Delay	68.0	9.3	6.1	18.5	3.5	54.7	20.8	44.4	46.5	38.0
Queue Delay	0.0	0.2	0.0	0.6	0.0	2.7	0.0	0.0	0.0	0.2
Total Delay	68.0	9.4	6.1	19.2	3.5	57.4	20.8	44.4	46.5	38.3
LOS	E	A	A	B	A	E	C	D	D	D
Approach Delay		18.0		18.2			42.7		39.6	
Approach LOS		B		B			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 20.9	Intersection LOS: C
Intersection Capacity Utilization 86.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 2: Allen Way & Founders Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	247	1296	150	54	2789	137	133	25	65	71	19	352
Future Volume (veh/h)	247	1296	150	54	2789	137	133	25	65	71	19	352
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	252	1322	153	55	2846	140	136	26	40	72	19	180
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	282	3197	370	353	3279	1018	224	56	86	197	156	233
Arrive On Green	0.16	1.00	1.00	0.04	0.64	0.64	0.04	0.08	0.08	0.04	0.08	0.08
Sat Flow, veh/h	3456	4641	537	1781	5106	1585	1781	664	1022	1781	1870	2790
Grp Volume(v), veh/h	252	970	505	55	2846	140	136	0	66	72	19	180
Grp Sat Flow(s),veh/h/ln	1728	1702	1774	1781	1702	1585	1781	0	1686	1781	1870	1395
Q Serve(g_s), s	8.6	0.0	0.0	1.2	54.1	4.2	5.1	0.0	4.5	4.4	1.1	7.6
Cycle Q Clear(g_c), s	8.6	0.0	0.0	1.2	54.1	4.2	5.1	0.0	4.5	4.4	1.1	7.6
Prop In Lane	1.00		0.30	1.00		1.00	1.00		0.61	1.00		1.00
Lane Grp Cap(c), veh/h	282	2345	1222	353	3279	1018	224	0	142	197	156	233
V/C Ratio(X)	0.89	0.41	0.41	0.16	0.87	0.14	0.61	0.00	0.46	0.36	0.12	0.77
Avail Cap(c_a), veh/h	282	2345	1222	372	3279	1018	224	0	254	197	281	418
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.7	0.0	0.0	6.5	17.4	8.4	50.4	0.0	52.3	47.9	50.9	53.9
Incr Delay (d2), s/veh	26.1	0.5	0.9	0.2	3.4	0.3	4.7	0.0	2.3	1.1	0.3	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.2	0.3	0.5	20.4	1.5	1.7	0.0	2.0	2.0	0.5	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.8	0.5	0.9	6.7	20.8	8.7	55.1	0.0	54.7	49.0	51.2	59.2
LnGrp LOS	E	A	A	A	C	A	E	A	D	D	D	E
Approach Vol, veh/h		1727			3041			202			271	
Approach Delay, s/veh		11.6			20.0			55.0			55.9	
Approach LOS		B			B			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	14.6	8.7	87.2	9.6	14.5	14.3	81.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.1	5.5	73.4	5.1	18.0	9.8	69.1
Max Q Clear Time (g_c+I1), s	6.4	6.5	3.2	2.0	7.1	9.6	10.6	56.1
Green Ext Time (p_c), s	0.0	0.2	0.0	16.4	0.0	0.5	0.0	12.4

Intersection Summary	
HCM 6th Ctrl Delay	20.4
HCM 6th LOS	C

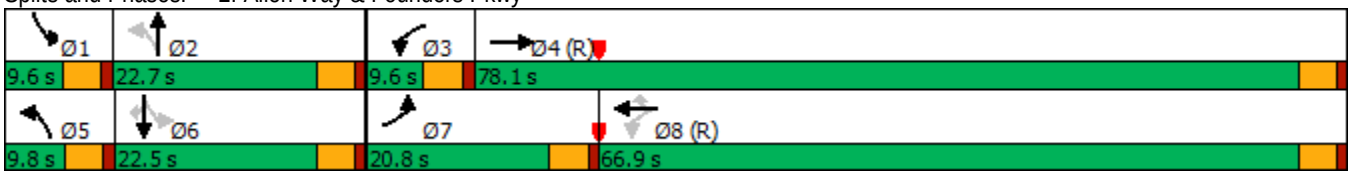
Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	368	2942	53	2259	193	180	54	145	48	438
Future Volume (vph)	368	2942	53	2259	193	180	54	145	48	438
Turn Type	Prot	NA	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases			8		8	2		6		6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	20.8	78.1	9.6	66.9	66.9	9.8	22.7	9.6	22.5	22.5
Total Split (%)	17.3%	65.1%	8.0%	55.8%	55.8%	8.2%	18.9%	8.0%	18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	16.9	80.5	73.6	67.6	67.6	17.7	12.4	17.3	12.2	12.2
Actuated g/C Ratio	0.14	0.67	0.61	0.56	0.56	0.15	0.10	0.14	0.10	0.10
v/c Ratio	0.78	0.96	0.36	0.80	0.21	0.86	0.68	1.06	0.26	0.79
Control Delay	55.8	19.4	16.9	16.8	4.9	80.2	43.8	136.1	50.9	25.6
Queue Delay	0.0	18.3	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	55.8	37.7	16.9	17.2	4.9	80.2	43.8	136.1	50.9	25.7
LOS	E	D	B	B	A	F	D	F	D	C
Approach Delay		39.6		16.3			63.3		53.0	
Approach LOS		D		B			E		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 33.6	Intersection LOS: C
Intersection Capacity Utilization 98.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 2: Allen Way & Founders Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	368	2942	225	53	2259	193	180	54	102	145	48	438
Future Volume (veh/h)	368	2942	225	53	2259	193	180	54	102	145	48	438
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	376	3002	230	54	2305	197	184	55	78	148	49	268
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	431	3178	238	130	2888	897	236	82	116	188	216	322
Arrive On Green	0.17	0.87	0.87	0.03	0.57	0.57	0.04	0.12	0.12	0.04	0.12	0.12
Sat Flow, veh/h	3456	4847	362	1781	5106	1585	1781	700	992	1781	1870	2790
Grp Volume(v), veh/h	376	2086	1146	54	2305	197	184	0	133	148	49	268
Grp Sat Flow(s),veh/h/ln	1728	1702	1805	1781	1702	1585	1781	0	1692	1781	1870	1395
Q Serve(g_s), s	12.7	50.9	62.7	1.5	42.9	7.4	5.3	0.0	9.0	5.1	2.9	11.3
Cycle Q Clear(g_c), s	12.7	50.9	62.7	1.5	42.9	7.4	5.3	0.0	9.0	5.1	2.9	11.3
Prop In Lane	1.00		0.20	1.00		1.00	1.00		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	431	2232	1184	130	2888	897	236	0	198	188	216	322
V/C Ratio(X)	0.87	0.93	0.97	0.41	0.80	0.22	0.78	0.00	0.67	0.79	0.23	0.83
Avail Cap(c_a), veh/h	469	2232	1184	144	2888	897	236	0	257	188	281	418
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.36	0.36	0.36	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.1	5.9	6.7	27.8	20.6	12.9	50.0	0.0	50.8	50.7	48.2	51.9
Incr Delay (d2), s/veh	6.3	3.7	9.9	2.1	2.4	0.6	15.3	0.0	4.4	19.5	0.5	10.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	5.5	8.0	0.9	16.9	2.7	3.9	0.0	4.1	3.0	1.4	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.5	9.6	16.5	29.9	23.0	13.5	65.3	0.0	55.2	70.3	48.7	62.6
LnGrp LOS	E	A	B	C	C	B	E	A	E	E	D	E
Approach Vol, veh/h		3608			2556			317			465	
Approach Delay, s/veh		16.6			22.4			61.1			63.6	
Approach LOS		B			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	18.5	8.7	83.2	9.8	18.3	19.5	72.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.1	18.2	5.1	73.6	5.3	18.0	16.3	62.4
Max Q Clear Time (g_c+I1), s	7.1	11.0	3.5	64.7	7.3	13.3	14.7	44.9
Green Ext Time (p_c), s	0.0	0.3	0.0	8.7	0.0	0.6	0.2	15.0

Intersection Summary	
HCM 6th Ctrl Delay	23.9
HCM 6th LOS	C

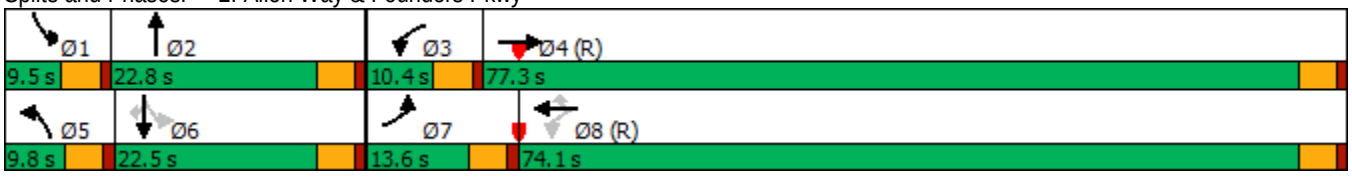
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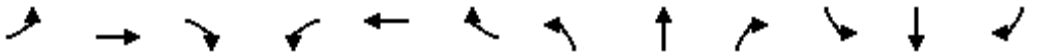
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	252	1527	54	3106	144	133	25	75	19	367
Future Volume (vph)	252	1527	54	3106	144	133	25	75	19	367
Turn Type	Prot	NA	pm+pt	NA	Perm	Prot	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases			8		8			6		6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	13.6	77.3	10.4	74.1	74.1	9.8	22.8	9.5	22.5	22.5
Total Split (%)	11.3%	64.4%	8.7%	61.8%	61.8%	8.2%	19.0%	7.9%	18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	11.5	77.8	76.3	70.3	70.3	5.3	17.1	19.9	14.9	14.9
Actuated g/C Ratio	0.10	0.65	0.64	0.59	0.59	0.04	0.14	0.17	0.12	0.12
v/c Ratio	0.78	0.52	0.27	1.06	0.15	0.90	0.31	0.33	0.08	0.79
Control Delay	72.7	10.4	6.9	50.3	4.0	108.0	19.8	43.2	45.5	43.8
Queue Delay	0.0	0.2	0.0	6.1	0.0	53.3	0.0	0.0	0.0	7.1
Total Delay	72.7	10.6	6.9	56.4	4.0	161.4	19.8	43.2	45.5	51.0
LOS	E	B	A	E	A	F	B	D	D	D
Approach Delay		18.7		53.3			104.3		49.5	
Approach LOS		B		D			F		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 43.7	Intersection LOS: D
Intersection Capacity Utilization 89.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 2: Allen Way & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	252	1527	150	54	3106	144	133	25	65	75	19	367
Future Volume (veh/h)	252	1527	150	54	3106	144	133	25	65	75	19	367
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	257	1558	153	55	3169	147	136	26	40	77	19	195
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	262	3223	316	305	3273	1016	153	61	94	207	167	249
Arrive On Green	0.15	1.00	1.00	0.04	0.64	0.64	0.04	0.09	0.09	0.04	0.09	0.09
Sat Flow, veh/h	3456	4727	464	1781	5106	1585	3456	664	1022	1781	1870	2790
Grp Volume(v), veh/h	257	1122	589	55	3169	147	136	0	66	77	19	195
Grp Sat Flow(s),veh/h/ln	1728	1702	1787	1781	1702	1585	1728	0	1686	1781	1870	1395
Q Serve(g_s), s	8.9	0.0	0.0	1.2	70.5	4.4	4.7	0.0	4.4	4.7	1.1	8.2
Cycle Q Clear(g_c), s	8.9	0.0	0.0	1.2	70.5	4.4	4.7	0.0	4.4	4.7	1.1	8.2
Prop In Lane	1.00		0.26	1.00		1.00	1.00		0.61	1.00		1.00
Lane Grp Cap(c), veh/h	262	2321	1218	305	3273	1016	153	0	154	207	167	249
V/C Ratio(X)	0.98	0.48	0.48	0.18	0.97	0.14	0.89	0.00	0.43	0.37	0.11	0.78
Avail Cap(c_a), veh/h	262	2321	1218	330	3273	1016	153	0	257	207	281	418
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.8	0.0	0.0	6.5	20.4	8.5	57.1	0.0	51.5	47.5	50.3	53.5
Incr Delay (d2), s/veh	46.1	0.6	1.2	0.3	9.9	0.3	42.7	0.0	1.9	1.1	0.3	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.2	0.4	0.5	28.3	1.6	3.0	0.0	2.0	2.2	0.5	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	96.9	0.6	1.2	6.8	30.3	8.8	99.8	0.0	53.4	48.6	50.6	58.9
LnGrp LOS	F	A	A	A	C	A	F	A	D	D	D	E
Approach Vol, veh/h		1968			3371			202			291	
Approach Delay, s/veh		13.4			29.0			84.6			55.6	
Approach LOS		B			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	15.5	8.7	86.3	9.8	15.2	13.6	81.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.3	5.9	72.8	5.3	18.0	9.1	69.6
Max Q Clear Time (g_c+I1), s	6.7	6.4	3.2	2.0	6.7	10.2	10.9	72.5
Green Ext Time (p_c), s	0.0	0.2	0.0	21.6	0.0	0.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	27.0
HCM 6th LOS	C

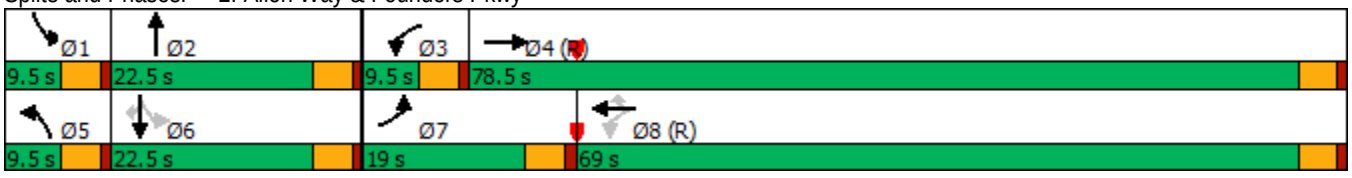
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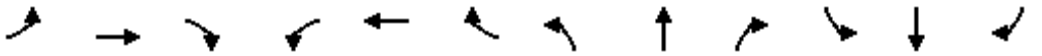
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	382	3241	53	2549	198	180	54	152	48	443
Future Volume (vph)	382	3241	53	2549	198	180	54	152	48	443
Turn Type	Prot	NA	pm+pt	NA	Perm	Prot	NA	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2	1	6	
Permitted Phases			8		8			6		6
Detector Phase	7	4	3	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	19.0	78.5	9.5	69.0	69.0	9.5	22.5	9.5	22.5	22.5
Total Split (%)	15.8%	65.4%	7.9%	57.5%	57.5%	7.9%	18.8%	7.9%	18.8%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	16.1	78.9	72.0	66.4	66.4	5.0	14.5	19.5	14.5	14.5
Actuated g/C Ratio	0.13	0.66	0.60	0.55	0.55	0.04	0.12	0.16	0.12	0.12
v/c Ratio	0.85	1.07	0.38	0.92	0.22	1.29	0.61	0.95	0.22	0.82
Control Delay	55.6	52.1	14.8	20.8	5.1	216.7	38.0	105.1	48.3	36.1
Queue Delay	0.0	14.4	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	55.6	66.4	14.8	24.5	5.1	216.7	38.0	105.1	48.3	36.2
LOS	E	E	B	C	A	F	D	F	D	D
Approach Delay		65.4		22.9			133.9		53.4	
Approach LOS		E		C			F		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.29	
Intersection Signal Delay: 51.8	Intersection LOS: D
Intersection Capacity Utilization 104.3%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 2: Allen Way & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	382	3241	225	53	2549	198	180	54	102	152	48	443
Future Volume (veh/h)	382	3241	225	53	2549	198	180	54	102	152	48	443
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	390	3307	230	54	2601	202	184	55	78	155	49	273
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	418	3205	218	122	2913	904	144	82	116	187	219	327
Arrive On Green	0.16	0.87	0.87	0.03	0.57	0.57	0.04	0.12	0.12	0.04	0.12	0.12
Sat Flow, veh/h	3456	4883	332	1781	5106	1585	3456	700	992	1781	1870	2790
Grp Volume(v), veh/h	390	2283	1254	54	2601	202	184	0	133	155	49	273
Grp Sat Flow(s),veh/h/ln	1728	1702	1811	1781	1702	1585	1728	0	1692	1781	1870	1395
Q Serve(g_s), s	13.4	78.8	78.8	1.5	53.5	7.5	5.0	0.0	9.0	5.0	2.9	11.5
Cycle Q Clear(g_c), s	13.4	78.8	78.8	1.5	53.5	7.5	5.0	0.0	9.0	5.0	2.9	11.5
Prop In Lane	1.00		0.18	1.00		1.00	1.00		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	418	2235	1189	122	2913	904	144	0	198	187	219	327
V/C Ratio(X)	0.93	1.02	1.06	0.44	0.89	0.22	1.28	0.00	0.67	0.83	0.22	0.84
Avail Cap(c_a), veh/h	418	2235	1189	134	2913	904	144	0	254	187	281	418
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.10	0.10	0.10	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.9	7.6	7.6	29.2	22.6	12.7	57.5	0.0	50.8	51.2	48.0	51.8
Incr Delay (d2), s/veh	4.7	12.6	27.5	2.5	4.7	0.6	167.9	0.0	4.6	25.9	0.5	11.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	8.6	14.0	1.0	21.5	2.8	5.5	0.0	4.1	3.6	1.4	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.6	20.2	35.1	31.7	27.3	13.3	225.4	0.0	55.3	77.1	48.5	63.0
LnGrp LOS	D	F	F	C	C	B	F	A	E	E	D	E
Approach Vol, veh/h		3927			2857			317			477	
Approach Delay, s/veh		28.4			26.4			154.0			66.1	
Approach LOS		C			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	18.5	8.7	83.3	9.5	18.5	19.0	73.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	5.0	74.0	5.0	18.0	14.5	64.5
Max Q Clear Time (g_c+I1), s	7.0	11.0	3.5	80.8	7.0	13.5	15.4	55.5
Green Ext Time (p_c), s	0.0	0.3	0.0	0.0	0.0	0.6	0.0	8.5

Intersection Summary	
HCM 6th Ctrl Delay	35.2
HCM 6th LOS	D

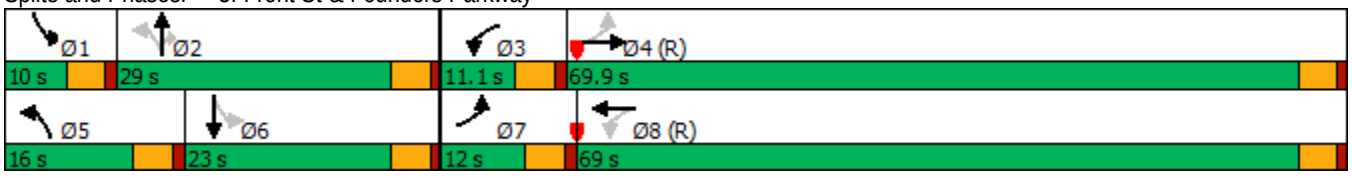
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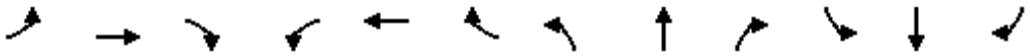
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	57	793	64	1753	302	49	40	3	40
Future Volume (vph)	57	793	64	1753	302	49	40	3	40
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	4	4	8		2		2	6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	12.0	69.9	11.1	69.0	16.0	29.0	29.0	10.0	23.0
Total Split (%)	10.0%	58.3%	9.3%	57.5%	13.3%	24.2%	24.2%	8.3%	19.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	None
Act Effct Green (s)	73.3	67.6	72.5	67.2	34.5	32.5	32.5	24.2	18.7
Actuated g/C Ratio	0.61	0.56	0.60	0.56	0.29	0.27	0.27	0.20	0.16
v/c Ratio	0.37	0.36	0.21	0.67	0.46	0.11	0.09	0.01	0.24
Control Delay	26.8	6.0	5.3	16.2	36.1	35.3	0.3	31.3	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.8	6.0	5.3	16.2	36.1	35.3	0.3	31.3	17.4
LOS	C	A	A	B	D	D	A	C	B
Approach Delay		7.2		15.8		32.3			17.7
Approach LOS		A		B		C			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 15.2	Intersection LOS: B
Intersection Capacity Utilization 66.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Front St & Founders Parkway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	793	145	64	1753	12	302	49	40	3	40	87
Future Volume (veh/h)	57	793	145	64	1753	12	302	49	40	3	40	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	853	156	69	1885	13	325	53	16	3	43	67
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	216	2625	477	410	3169	22	633	382	324	217	200	178
Arrive On Green	0.04	0.60	0.60	0.04	0.61	0.61	0.10	0.20	0.20	0.00	0.11	0.11
Sat Flow, veh/h	1781	4343	790	1781	5232	36	3456	1870	1585	1781	1777	1585
Grp Volume(v), veh/h	61	668	341	69	1226	672	325	53	16	3	43	67
Grp Sat Flow(s),veh/h/ln	1781	1702	1728	1781	1702	1864	1728	1870	1585	1781	1777	1585
Q Serve(g_s), s	1.5	11.6	11.7	1.7	26.6	26.7	9.7	2.8	1.0	0.2	2.6	4.7
Cycle Q Clear(g_c), s	1.5	11.6	11.7	1.7	26.6	26.7	9.7	2.8	1.0	0.2	2.6	4.7
Prop In Lane	1.00		0.46	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	216	2057	1044	410	2062	1129	633	382	324	217	200	178
V/C Ratio(X)	0.28	0.32	0.33	0.17	0.59	0.60	0.51	0.14	0.05	0.01	0.22	0.38
Avail Cap(c_a), veh/h	263	2057	1044	441	2062	1129	633	382	324	291	274	244
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.0	11.7	11.7	8.7	14.6	14.6	40.0	39.1	38.4	46.9	48.5	49.4
Incr Delay (d2), s/veh	0.7	0.4	0.8	0.2	1.3	2.3	0.7	0.8	0.3	0.0	0.5	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.4	4.6	0.7	10.2	11.5	4.2	1.4	0.4	0.1	1.2	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.7	12.1	12.5	8.8	15.9	16.9	40.7	39.9	38.7	47.0	49.0	50.7
LnGrp LOS	B	B	B	A	B	B	D	D	D	D	D	D
Approach Vol, veh/h		1070			1967			394			113	
Approach Delay, s/veh		12.3			16.0			40.5			49.9	
Approach LOS		B			B			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.0	29.0	9.0	77.0	16.0	18.0	8.8	77.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	24.5	6.6	65.4	11.5	18.5	7.5	64.5
Max Q Clear Time (g_c+I1), s	2.2	4.8	3.7	13.7	11.7	6.7	3.5	28.7
Green Ext Time (p_c), s	0.0	0.2	0.0	8.8	0.0	0.4	0.0	19.8

Intersection Summary	
HCM 6th Ctrl Delay	18.7
HCM 6th LOS	B

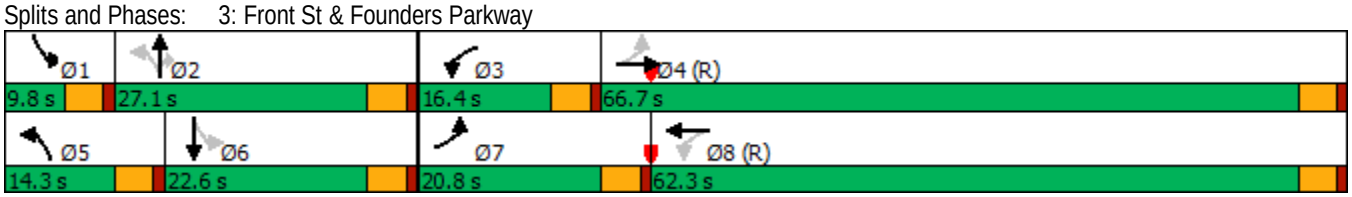
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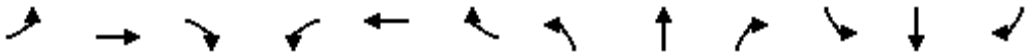
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	173	1713	108	1315	298	109	175	41	88
Future Volume (vph)	173	1713	108	1315	298	109	175	41	88
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	4	4	8		2		2	6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	20.8	66.7	16.4	62.3	14.3	27.1	27.1	9.8	22.6
Total Split (%)	17.3%	55.6%	13.7%	51.9%	11.9%	22.6%	22.6%	8.2%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	None
Act Effct Green (s)	76.1	65.1	72.1	63.1	32.4	24.6	24.6	23.4	18.1
Actuated g/C Ratio	0.63	0.54	0.60	0.53	0.27	0.20	0.20	0.20	0.15
v/c Ratio	0.61	0.79	0.57	0.52	0.48	0.29	0.39	0.16	0.28
Control Delay	28.0	16.7	41.5	14.7	38.1	44.1	8.6	34.7	27.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.0	16.7	41.5	14.7	38.1	44.1	8.6	34.7	27.6
LOS	C	B	D	B	D	D	A	C	C
Approach Delay		17.6		16.7		30.3			29.1
Approach LOS		B		B		C			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 19.4	Intersection LOS: B
Intersection Capacity Utilization 75.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Front St & Founders Parkway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	1713	365	108	1315	19	298	109	175	41	88	63
Future Volume (veh/h)	173	1713	365	108	1315	19	298	109	175	41	88	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	178	1766	324	111	1356	20	307	112	103	42	91	39
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	332	2554	463	195	2956	44	654	352	299	275	340	138
Arrive On Green	0.06	0.59	0.59	0.04	0.57	0.57	0.08	0.19	0.19	0.03	0.14	0.14
Sat Flow, veh/h	1781	4344	788	1781	5184	76	3456	1870	1585	1781	2465	1002
Grp Volume(v), veh/h	178	1379	711	111	890	486	307	112	103	42	64	66
Grp Sat Flow(s),veh/h/ln	1781	1702	1728	1781	1702	1857	1728	1870	1585	1781	1777	1690
Q Serve(g_s), s	4.9	33.7	34.5	3.1	18.3	18.3	8.9	6.2	6.8	2.4	3.9	4.2
Cycle Q Clear(g_c), s	4.9	33.7	34.5	3.1	18.3	18.3	8.9	6.2	6.8	2.4	3.9	4.2
Prop In Lane	1.00		0.46	1.00		0.04	1.00		1.00	1.00		0.59
Lane Grp Cap(c), veh/h	332	2001	1016	195	1941	1058	654	352	299	275	245	233
V/C Ratio(X)	0.54	0.69	0.70	0.57	0.46	0.46	0.47	0.32	0.35	0.15	0.26	0.28
Avail Cap(c_a), veh/h	467	2001	1016	296	1941	1058	654	352	299	298	268	255
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.6	17.1	17.3	19.5	15.0	15.0	38.6	42.0	42.3	42.4	46.2	46.4
Incr Delay (d2), s/veh	1.3	2.0	4.0	2.6	0.8	1.4	0.5	2.4	3.1	0.3	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	13.1	14.2	1.7	7.1	7.9	3.8	3.1	2.9	1.1	1.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.0	19.1	21.3	22.1	15.8	16.4	39.1	44.4	45.4	42.6	46.8	47.0
LnGrp LOS	B	B	C	C	B	B	D	D	D	D	D	D
Approach Vol, veh/h		2268			1487			522			172	
Approach Delay, s/veh		19.3			16.5			41.5			45.9	
Approach LOS		B			B			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	27.1	9.6	75.0	14.3	21.1	11.7	72.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.3	22.6	11.9	62.2	9.8	18.1	16.3	57.8
Max Q Clear Time (g_c+I1), s	4.4	8.8	5.1	36.5	10.9	6.2	6.9	20.3
Green Ext Time (p_c), s	0.0	0.7	0.1	18.2	0.0	0.5	0.3	12.7

Intersection Summary	
HCM 6th Ctrl Delay	22.0
HCM 6th LOS	C

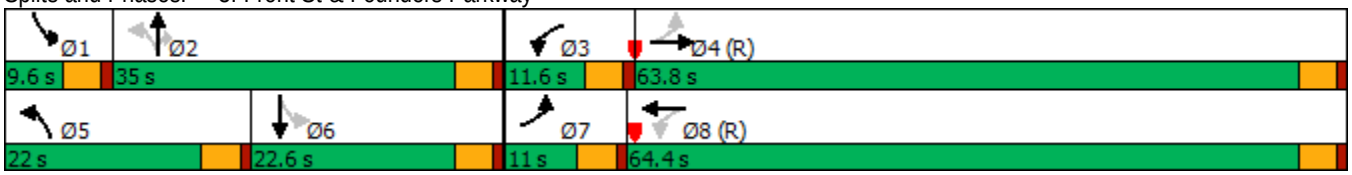
Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	62	878	74	1968	327	53	49	3	44
Future Volume (vph)	62	878	74	1968	327	53	49	3	44
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	4	4	8		2		2	6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	11.0	63.8	11.6	64.4	22.0	35.0	35.0	9.6	22.6
Total Split (%)	9.2%	53.2%	9.7%	53.7%	18.3%	29.2%	29.2%	8.0%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	None
Act Effct Green (s)	66.9	61.7	67.7	62.1	40.1	38.2	38.2	26.6	21.5
Actuated g/C Ratio	0.56	0.51	0.56	0.52	0.33	0.32	0.32	0.22	0.18
v/c Ratio	0.40	0.41	0.27	0.78	0.40	0.09	0.09	0.01	0.22
Control Delay	30.6	6.6	13.9	24.1	31.1	30.8	1.1	28.0	17.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.6	6.6	13.9	24.1	31.1	30.8	1.1	28.0	17.0
LOS	C	A	B	C	C	C	A	C	B
Approach Delay		7.9		23.7		27.6			17.2
Approach LOS		A		C		C			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 19.3	Intersection LOS: B
Intersection Capacity Utilization 71.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Front St & Founders Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	878	157	74	1968	18	327	53	49	3	44	94
Future Volume (veh/h)	62	878	157	74	1968	18	327	53	49	3	44	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	905	110	76	2029	19	337	55	-26	3	45	71
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	181	2554	309	375	2896	27	760	475	403	285	280	250
Arrive On Green	0.04	0.55	0.55	0.04	0.56	0.56	0.10	0.25	0.00	0.00	0.16	0.16
Sat Flow, veh/h	1781	4615	559	1781	5217	49	3456	1870	1585	1781	1777	1585
Grp Volume(v), veh/h	64	667	348	76	1324	724	337	55	-26	3	45	71
Grp Sat Flow(s),veh/h/ln	1781	1702	1770	1781	1702	1862	1728	1870	1585	1781	1777	1585
Q Serve(g_s), s	1.8	13.0	13.1	2.2	34.0	34.0	9.4	2.7	0.0	0.2	2.6	4.7
Cycle Q Clear(g_c), s	1.8	13.0	13.1	2.2	34.0	34.0	9.4	2.7	0.0	0.2	2.6	4.7
Prop In Lane	1.00		0.32	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	181	1884	980	375	1890	1033	760	475	403	285	280	250
V/C Ratio(X)	0.35	0.35	0.36	0.20	0.70	0.70	0.44	0.12	-0.06	0.01	0.16	0.28
Avail Cap(c_a), veh/h	212	1884	980	412	1890	1033	917	475	403	354	280	250
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.4	14.9	14.9	11.3	19.4	19.4	35.2	34.4	0.0	42.2	43.7	44.6
Incr Delay (d2), s/veh	1.2	0.5	1.0	0.3	2.2	4.0	0.4	0.5	0.0	0.0	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	5.1	5.5	0.9	13.5	15.3	4.0	1.3	0.0	0.1	1.2	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.5	15.4	15.9	11.5	21.6	23.4	35.6	34.9	0.0	42.2	43.9	45.2
LnGrp LOS	B	B	B	B	C	C	D	C	A	D	D	D
Approach Vol, veh/h		1079			2124			366			119	
Approach Delay, s/veh		15.7			21.9			38.0			44.6	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.0	35.0	9.1	70.9	16.5	23.4	8.9	71.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.1	30.5	7.1	59.3	17.5	18.1	6.5	59.9
Max Q Clear Time (g_c+I1), s	2.2	4.7	4.2	15.1	11.4	6.7	3.8	36.0
Green Ext Time (p_c), s	0.0	0.2	0.0	8.6	0.6	0.4	0.0	16.7

Intersection Summary	
HCM 6th Ctrl Delay	22.4
HCM 6th LOS	C

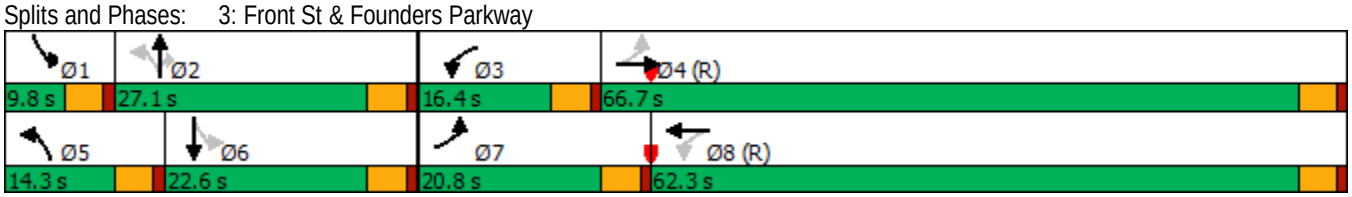
Notes

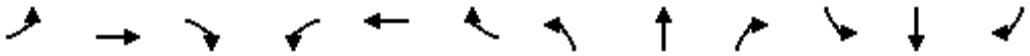
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	187	1924	122	1473	323	118	195	50	95
Future Volume (vph)	187	1924	122	1473	323	118	195	50	95
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	4	4	8		2		2	6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	20.8	66.7	16.4	62.3	14.3	27.1	27.1	9.8	22.6
Total Split (%)	17.3%	55.6%	13.7%	51.9%	11.9%	22.6%	22.6%	8.2%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	None
Act Effct Green (s)	76.9	64.6	71.3	61.7	32.4	24.6	24.6	23.4	18.1
Actuated g/C Ratio	0.64	0.54	0.59	0.51	0.27	0.20	0.20	0.20	0.15
v/c Ratio	0.70	0.89	0.62	0.59	0.54	0.32	0.42	0.19	0.30
Control Delay	39.3	23.0	31.2	32.9	39.1	44.6	8.5	35.4	27.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.3	23.0	31.2	32.9	39.1	44.6	8.5	35.4	27.7
LOS	D	C	C	C	D	D	A	D	C
Approach Delay		24.2		32.8		30.8			29.5
Approach LOS		C		C		C			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 28.1	Intersection LOS: C
Intersection Capacity Utilization 81.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Front St & Founders Parkway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	1924	395	122	1473	26	323	118	195	50	95	68
Future Volume (veh/h)	187	1924	395	122	1473	26	323	118	195	50	95	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	193	1984	355	126	1519	27	333	122	124	52	98	44
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	303	2537	445	177	2907	52	651	352	299	270	342	146
Arrive On Green	0.06	0.58	0.58	0.05	0.56	0.56	0.08	0.19	0.19	0.03	0.14	0.14
Sat Flow, veh/h	1781	4371	766	1781	5166	92	3456	1870	1585	1781	2429	1033
Grp Volume(v), veh/h	193	1536	803	126	1001	545	333	122	124	52	70	72
Grp Sat Flow(s),veh/h/ln	1781	1702	1733	1781	1702	1854	1728	1870	1585	1781	1777	1684
Q Serve(g_s), s	5.4	41.4	43.5	3.6	21.9	21.9	9.7	6.8	8.3	3.0	4.2	4.6
Cycle Q Clear(g_c), s	5.4	41.4	43.5	3.6	21.9	21.9	9.7	6.8	8.3	3.0	4.2	4.6
Prop In Lane	1.00		0.44	1.00		0.05	1.00		1.00	1.00		0.61
Lane Grp Cap(c), veh/h	303	1976	1006	177	1915	1043	651	352	299	270	250	237
V/C Ratio(X)	0.64	0.78	0.80	0.71	0.52	0.52	0.51	0.35	0.42	0.19	0.28	0.30
Avail Cap(c_a), veh/h	429	1976	1006	270	1915	1043	651	352	299	288	268	254
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.0	19.2	19.7	25.4	16.3	16.3	38.6	42.3	42.9	42.0	46.1	46.2
Incr Delay (d2), s/veh	2.2	3.1	6.6	5.2	1.0	1.9	0.7	2.7	4.2	0.3	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	16.4	18.5	2.3	8.6	9.6	4.2	3.4	3.6	1.3	1.9	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.3	22.3	26.3	30.6	17.3	18.1	39.3	45.0	47.1	42.4	46.7	47.0
LnGrp LOS	B	C	C	C	B	B	D	D	D	D	D	D
Approach Vol, veh/h		2532			1672			579			194	
Approach Delay, s/veh		23.1			18.6			42.2			45.6	
Approach LOS		C			B			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	27.1	10.1	74.2	14.3	21.4	12.3	72.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.3	22.6	11.9	62.2	9.8	18.1	16.3	57.8
Max Q Clear Time (g_c+I1), s	5.0	10.3	5.6	45.5	11.7	6.6	7.4	23.9
Green Ext Time (p_c), s	0.0	0.8	0.1	14.0	0.0	0.5	0.3	14.5

Intersection Summary	
HCM 6th Ctrl Delay	24.7
HCM 6th LOS	C

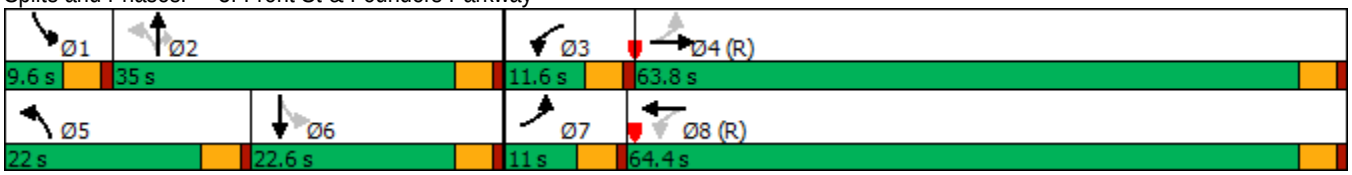
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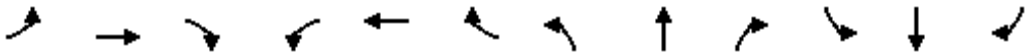
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	62	909	74	2023	561	70	49	3	60
Future Volume (vph)	62	909	74	2023	561	70	49	3	60
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	4	4	8		2		2	6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	11.0	63.8	11.6	64.4	22.0	35.0	35.0	9.6	22.6
Total Split (%)	9.2%	53.2%	9.7%	53.7%	18.3%	29.2%	29.2%	8.0%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	None
Act Effct Green (s)	66.9	61.7	67.7	62.1	40.1	38.2	38.2	23.4	18.3
Actuated g/C Ratio	0.56	0.51	0.56	0.52	0.33	0.32	0.32	0.20	0.15
v/c Ratio	0.40	0.50	0.33	0.80	0.67	0.12	0.09	0.01	0.28
Control Delay	30.3	6.4	15.2	25.1	36.6	31.1	1.1	28.0	20.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.3	6.4	15.2	25.1	36.6	31.1	1.1	28.0	20.2
LOS	C	A	B	C	D	C	A	C	C
Approach Delay		7.5		24.7		33.4			20.3
Approach LOS		A		C		C			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 20.6	Intersection LOS: C
Intersection Capacity Utilization 79.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Front St & Founders Parkway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	909	342	74	2023	18	561	70	49	3	60	94
Future Volume (veh/h)	62	909	342	74	2023	18	561	70	49	3	60	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	937	301	76	2086	19	578	72	-26	3	62	71
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	176	2118	679	312	2897	26	796	475	403	220	200	178
Arrive On Green	0.04	0.55	0.55	0.04	0.56	0.56	0.15	0.25	0.00	0.00	0.11	0.11
Sat Flow, veh/h	1781	3827	1226	1781	5218	48	3456	1870	1585	1781	1777	1585
Grp Volume(v), veh/h	64	833	405	76	1360	745	578	72	-26	3	62	71
Grp Sat Flow(s),veh/h/ln	1781	1702	1650	1781	1702	1862	1728	1870	1585	1781	1777	1585
Q Serve(g_s), s	1.8	17.4	17.4	2.2	35.5	35.6	17.5	3.6	0.0	0.2	3.9	5.0
Cycle Q Clear(g_c), s	1.8	17.4	17.4	2.2	35.5	35.6	17.5	3.6	0.0	0.2	3.9	5.0
Prop In Lane	1.00		0.74	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	1884	913	312	1890	1034	796	475	403	220	200	178
V/C Ratio(X)	0.36	0.44	0.44	0.24	0.72	0.72	0.73	0.15	-0.06	0.01	0.31	0.40
Avail Cap(c_a), veh/h	207	1884	913	349	1890	1034	796	475	403	288	268	239
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.2	15.8	15.9	12.0	19.8	19.8	38.2	34.7	0.0	46.9	49.0	49.5
Incr Delay (d2), s/veh	1.3	0.8	1.6	0.4	2.4	4.3	3.3	0.7	0.0	0.0	0.9	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	6.8	6.8	0.9	14.2	16.1	7.7	1.7	0.0	0.1	1.8	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.5	16.6	17.4	12.4	22.2	24.1	41.5	35.4	0.0	47.0	49.9	50.9
LnGrp LOS	B	B	B	B	C	C	D	D	A	D	D	D
Approach Vol, veh/h		1302			2181			624			136	
Approach Delay, s/veh		17.0			22.5			42.5			50.4	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.0	35.0	9.1	70.9	22.0	18.0	8.9	71.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.1	30.5	7.1	59.3	17.5	18.1	6.5	59.9
Max Q Clear Time (g_c+I1), s	2.2	5.6	4.2	19.4	19.5	7.0	3.8	37.6
Green Ext Time (p_c), s	0.0	0.3	0.0	11.5	0.0	0.5	0.0	16.3

Intersection Summary	
HCM 6th Ctrl Delay	24.6
HCM 6th LOS	C

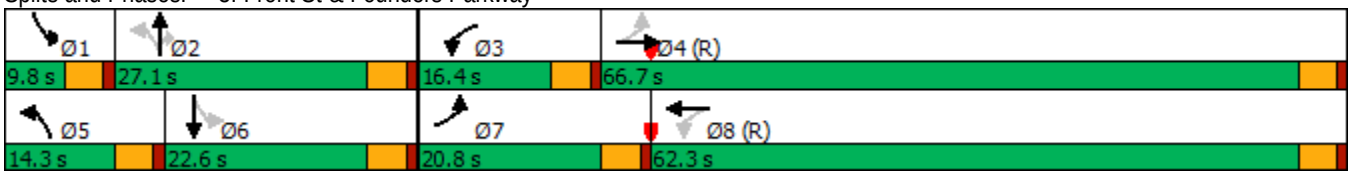
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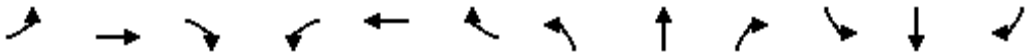
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	187	1979	122	1509	559	134	195	50	111
Future Volume (vph)	187	1979	122	1509	559	134	195	50	111
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	4	4	8		2		2	6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	20.8	66.7	16.4	62.3	14.3	27.1	27.1	9.8	22.6
Total Split (%)	17.3%	55.6%	13.7%	51.9%	11.9%	22.6%	22.6%	8.2%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	None
Act Effct Green (s)	77.2	64.6	71.0	61.5	32.4	24.6	24.6	23.4	18.1
Actuated g/C Ratio	0.64	0.54	0.59	0.51	0.27	0.20	0.20	0.20	0.15
v/c Ratio	0.71	0.99	0.62	0.61	0.95	0.36	0.42	0.20	0.33
Control Delay	40.0	34.5	31.5	36.3	66.9	45.3	8.5	35.4	29.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.0	34.5	31.5	36.3	66.9	45.3	8.5	35.4	29.6
LOS	D	C	C	D	E	D	A	D	C
Approach Delay		34.9		35.9		50.8			30.9
Approach LOS		C		D		D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 37.6	Intersection LOS: D
Intersection Capacity Utilization 94.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 3: Front St & Founders Parkway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	187	1979	612	122	1509	26	559	134	195	50	111	68
Future Volume (veh/h)	187	1979	612	122	1509	26	559	134	195	50	111	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	193	2040	579	126	1556	27	576	138	124	52	114	44
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	296	2325	623	154	2908	50	637	352	299	259	358	132
Arrive On Green	0.06	0.58	0.58	0.05	0.56	0.56	0.08	0.19	0.19	0.03	0.14	0.14
Sat Flow, veh/h	1781	4007	1074	1781	5169	90	3456	1870	1585	1781	2541	937
Grp Volume(v), veh/h	193	1715	904	126	1025	558	576	138	124	52	78	80
Grp Sat Flow(s),veh/h/ln	1781	1702	1677	1781	1702	1854	1728	1870	1585	1781	1777	1702
Q Serve(g_s), s	5.4	51.2	58.9	3.6	22.6	22.6	9.8	7.8	8.3	3.0	4.7	5.1
Cycle Q Clear(g_c), s	5.4	51.2	58.9	3.6	22.6	22.6	9.8	7.8	8.3	3.0	4.7	5.1
Prop In Lane	1.00		0.64	1.00		0.05	1.00		1.00	1.00		0.55
Lane Grp Cap(c), veh/h	296	1975	973	154	1915	1043	637	352	299	259	250	240
V/C Ratio(X)	0.65	0.87	0.93	0.82	0.53	0.54	0.90	0.39	0.42	0.20	0.31	0.33
Avail Cap(c_a), veh/h	423	1975	973	247	1915	1043	637	352	299	277	268	257
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.6	21.3	22.9	28.6	16.4	16.4	45.9	42.7	42.9	42.1	46.3	46.5
Incr Delay (d2), s/veh	2.4	5.5	16.1	10.6	1.1	2.0	16.3	3.3	4.2	0.4	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	20.7	26.1	2.5	8.9	9.9	5.5	3.9	3.6	1.3	2.2	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.1	26.8	39.0	39.2	17.5	18.4	62.3	45.9	47.1	42.4	47.0	47.3
LnGrp LOS	B	C	D	D	B	B	E	D	D	D	D	D
Approach Vol, veh/h		2812			1709			838			210	
Approach Delay, s/veh		30.1			19.4			57.3			46.0	
Approach LOS		C			B			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	27.1	10.2	74.1	14.3	21.4	12.3	72.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.3	22.6	11.9	62.2	9.8	18.1	16.3	57.8
Max Q Clear Time (g_c+I1), s	5.0	10.3	5.6	60.9	11.8	7.1	7.4	24.6
Green Ext Time (p_c), s	0.0	0.9	0.1	1.3	0.0	0.6	0.3	14.8

Intersection Summary	
HCM 6th Ctrl Delay	31.5
HCM 6th LOS	C

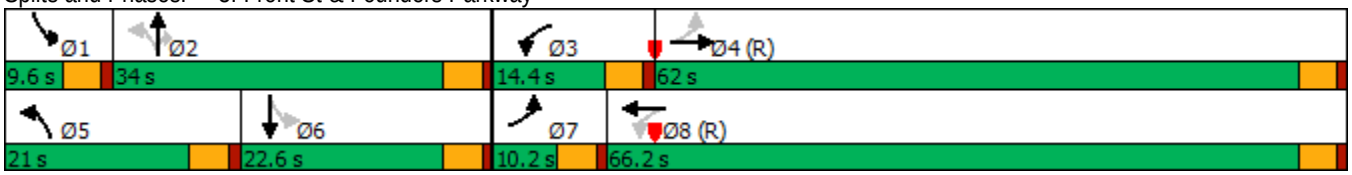
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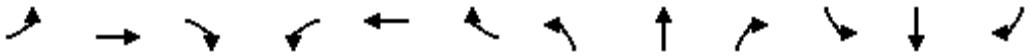
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	73	1131	93	2319	606	71	59	5	59
Future Volume (vph)	73	1131	93	2319	606	71	59	5	59
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	4	4	8		2		2	6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	10.2	62.0	14.4	66.2	21.0	34.0	34.0	9.6	22.6
Total Split (%)	8.5%	51.7%	12.0%	55.2%	17.5%	28.3%	28.3%	8.0%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	None
Act Effct Green (s)	64.9	59.2	70.7	63.7	39.1	37.2	37.2	23.2	18.1
Actuated g/C Ratio	0.54	0.49	0.59	0.53	0.33	0.31	0.31	0.19	0.15
v/c Ratio	0.50	0.58	0.45	0.89	0.76	0.13	0.11	0.02	0.30
Control Delay	36.8	10.1	13.9	26.2	40.5	31.9	2.8	28.6	22.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.8	10.1	13.9	26.2	40.5	31.9	2.8	28.6	22.9
LOS	D	B	B	C	D	C	A	C	C
Approach Delay		11.5		25.7		36.6			23.1
Approach LOS		B		C		D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 22.9	Intersection LOS: C
Intersection Capacity Utilization 86.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 3: Front St & Founders Parkway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	1131	263	93	2319	17	606	71	59	5	59	102
Future Volume (veh/h)	73	1131	263	93	2319	17	606	71	59	5	59	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	1166	219	96	2391	18	625	73	-16	5	61	79
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	155	2408	452	285	2925	22	761	460	390	226	204	182
Arrive On Green	0.04	0.56	0.56	0.04	0.56	0.56	0.14	0.25	0.00	0.01	0.11	0.11
Sat Flow, veh/h	1781	4318	811	1781	5228	39	3456	1870	1585	1781	1777	1585
Grp Volume(v), veh/h	75	919	466	96	1556	853	625	73	-16	5	61	79
Grp Sat Flow(s),veh/h/ln	1781	1702	1724	1781	1702	1863	1728	1870	1585	1781	1777	1585
Q Serve(g_s), s	2.1	19.6	19.6	2.7	44.5	44.6	16.5	3.7	0.0	0.3	3.8	5.6
Cycle Q Clear(g_c), s	2.1	19.6	19.6	2.7	44.5	44.6	16.5	3.7	0.0	0.3	3.8	5.6
Prop In Lane	1.00		0.47	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	155	1899	962	285	1905	1043	761	460	390	226	204	182
V/C Ratio(X)	0.48	0.48	0.48	0.34	0.82	0.82	0.82	0.16	-0.04	0.02	0.30	0.43
Avail Cap(c_a), veh/h	172	1899	962	361	1905	1043	761	460	390	290	268	239
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	16.1	16.1	12.4	21.4	21.5	40.7	35.5	0.0	46.5	48.7	49.5
Incr Delay (d2), s/veh	2.3	0.9	1.7	0.7	4.0	7.1	7.2	0.7	0.0	0.0	0.8	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	7.7	8.0	1.1	18.0	20.6	2.0	1.8	0.0	0.1	1.7	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.2	17.0	17.8	13.1	25.5	28.6	47.9	36.2	0.0	46.5	49.5	51.1
LnGrp LOS	C	B	B	B	C	C	D	D	A	D	D	D
Approach Vol, veh/h		1460			2505			682			145	
Approach Delay, s/veh		17.8			26.1			47.8			50.3	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.3	34.0	9.3	71.4	21.0	18.3	9.1	71.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.1	29.5	9.9	57.5	16.5	18.1	5.7	61.7
Max Q Clear Time (g_c+I1), s	2.3	5.7	4.7	21.6	18.5	7.6	4.1	46.6
Green Ext Time (p_c), s	0.0	0.3	0.1	12.9	0.0	0.5	0.0	13.0

Intersection Summary	
HCM 6th Ctrl Delay	27.4
HCM 6th LOS	C

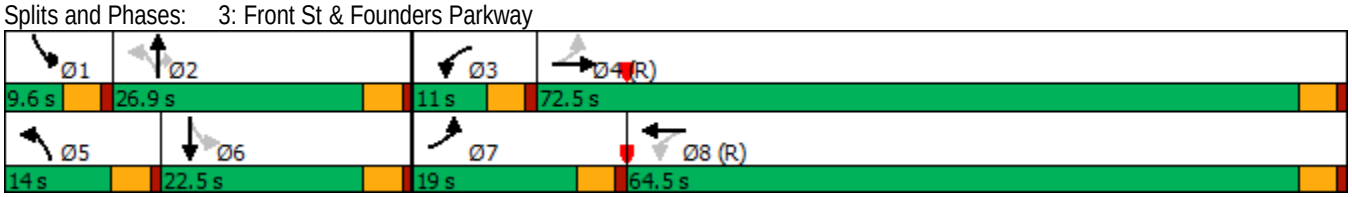
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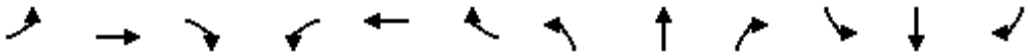
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	202	2307	158	1885	529	159	255	60	128
Future Volume (vph)	202	2307	158	1885	529	159	255	60	128
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4	3	8	5	2		1	6
Permitted Phases	4	4	8		2		2	6	
Detector Phase	7	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	19.0	72.5	11.0	64.5	14.0	26.9	26.9	9.6	22.5
Total Split (%)	15.8%	60.4%	9.2%	53.8%	11.7%	22.4%	22.4%	8.0%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	Max	Max	None	None
Act Effct Green (s)	78.5	68.0	68.0	61.5	31.9	24.3	24.3	23.1	18.0
Actuated g/C Ratio	0.65	0.57	0.57	0.51	0.27	0.20	0.20	0.19	0.15
v/c Ratio	0.82	1.10	1.03	0.76	0.98	0.44	0.61	0.24	0.39
Control Delay	49.8	68.5	81.7	31.9	74.3	47.1	27.3	37.0	28.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.8	68.5	81.7	31.9	74.3	47.1	27.3	37.0	28.7
LOS	D	E	F	C	E	D	C	D	C
Approach Delay		67.3		35.7		57.0			30.5
Approach LOS		E		D		E			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.10	
Intersection Signal Delay: 54.2	Intersection LOS: D
Intersection Capacity Utilization 105.6%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 3: Front St & Founders Parkway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	2307	705	158	1885	28	529	159	255	60	128	91
Future Volume (veh/h)	202	2307	705	158	1885	28	529	159	255	60	128	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	208	2378	675	163	1943	29	545	164	186	62	132	68
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	246	2297	597	156	2873	43	607	349	296	243	342	167
Arrive On Green	0.07	0.57	0.57	0.05	0.55	0.55	0.08	0.19	0.19	0.04	0.15	0.15
Sat Flow, veh/h	1781	4037	1048	1781	5183	77	3456	1870	1585	1781	2314	1129
Grp Volume(v), veh/h	208	1970	1083	163	1276	696	545	164	186	62	100	100
Grp Sat Flow(s),veh/h/ln	1781	1702	1682	1781	1702	1856	1728	1870	1585	1781	1777	1667
Q Serve(g_s), s	6.0	68.3	68.3	6.5	32.1	32.1	9.5	9.4	13.0	3.5	6.1	6.6
Cycle Q Clear(g_c), s	6.0	68.3	68.3	6.5	32.1	32.1	9.5	9.4	13.0	3.5	6.1	6.6
Prop In Lane	1.00		0.62	1.00		0.04	1.00		1.00	1.00		0.68
Lane Grp Cap(c), veh/h	246	1937	957	156	1887	1029	607	349	296	243	262	246
V/C Ratio(X)	0.84	1.02	1.13	1.04	0.68	0.68	0.90	0.47	0.63	0.25	0.38	0.41
Avail Cap(c_a), veh/h	339	1937	957	156	1887	1029	607	349	296	248	267	250
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.8	25.9	25.9	37.5	19.1	19.1	45.5	43.5	45.0	41.1	46.2	46.4
Incr Delay (d2), s/veh	13.2	24.9	72.4	83.4	2.0	3.6	16.2	4.5	9.7	0.5	0.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	32.5	44.8	8.3	12.7	14.3	5.1	4.8	5.9	1.6	2.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.0	50.7	98.2	120.9	21.0	22.7	61.7	48.0	54.7	41.7	47.1	47.5
LnGrp LOS	D	F	F	F	C	C	E	D	D	D	D	D
Approach Vol, veh/h		3261			2135			895			262	
Approach Delay, s/veh		65.6			29.2			57.7			45.9	
Approach LOS		E			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	26.9	11.0	72.8	14.0	22.2	12.8	71.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.1	22.4	6.5	68.0	9.5	18.0	14.5	60.0
Max Q Clear Time (g_c+I1), s	5.5	15.0	8.5	70.3	11.5	8.6	8.0	34.1
Green Ext Time (p_c), s	0.0	0.9	0.0	0.0	0.0	0.7	0.3	17.0

Intersection Summary	
HCM 6th Ctrl Delay	51.9
HCM 6th LOS	D

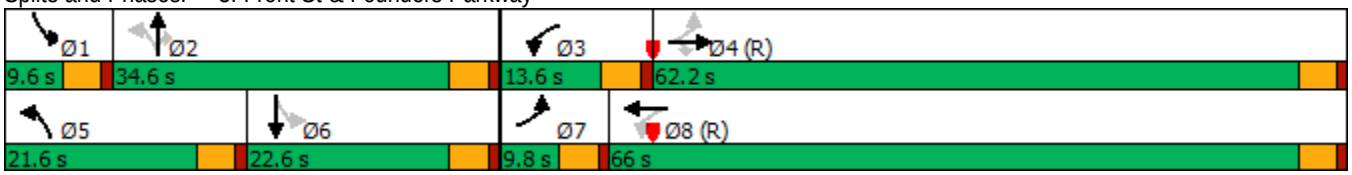
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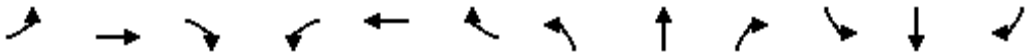
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	73	1239	390	93	2513	736	88	59	5	75
Future Volume (vph)	73	1239	390	93	2513	736	88	59	5	75
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases	4	4	4	8		2		2	6	
Detector Phase	7	4	4	3	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	9.8	62.2	62.2	13.6	66.0	21.6	34.6	34.6	9.6	22.6
Total Split (%)	8.2%	51.8%	51.8%	11.3%	55.0%	18.0%	28.8%	28.8%	8.0%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	Max	None	None
Act Effct Green (s)	64.1	58.8	58.8	70.2	63.5	39.7	37.8	37.8	23.2	18.1
Actuated g/C Ratio	0.53	0.49	0.49	0.58	0.53	0.33	0.32	0.32	0.19	0.15
v/c Ratio	0.52	0.51	0.41	0.40	0.97	0.91	0.16	0.11	0.02	0.33
Control Delay	37.5	9.9	1.3	15.4	40.0	52.2	31.8	2.7	28.4	27.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.5	9.9	1.3	15.4	40.0	52.2	31.8	2.7	28.4	27.0
LOS	D	A	A	B	D	D	C	A	C	C
Approach Delay		9.1			39.1		46.9			27.0
Approach LOS		A			D		D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 30.5	Intersection LOS: C
Intersection Capacity Utilization 94.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 3: Front St & Founders Parkway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	1239	390	93	2513	17	736	88	59	5	75	102
Future Volume (veh/h)	73	1239	390	93	2513	17	736	88	59	5	75	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	1277	350	96	2591	18	759	91	-16	5	77	79
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	2823	876	256	2901	20	775	469	398	223	204	182
Arrive On Green	0.04	0.55	0.55	0.04	0.55	0.55	0.14	0.25	0.00	0.01	0.11	0.11
Sat Flow, veh/h	1781	5106	1585	1781	5232	36	3456	1870	1585	1781	1777	1585
Grp Volume(v), veh/h	75	1277	350	96	1685	924	759	91	-16	5	77	79
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1864	1728	1870	1585	1781	1777	1585
Q Serve(g_s), s	2.2	17.9	15.2	2.8	52.4	52.6	17.1	4.6	0.0	0.3	4.8	5.6
Cycle Q Clear(g_c), s	2.2	17.9	15.2	2.8	52.4	52.6	17.1	4.6	0.0	0.3	4.8	5.6
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	142	2823	876	256	1888	1034	775	469	398	223	204	182
V/C Ratio(X)	0.53	0.45	0.40	0.37	0.89	0.89	0.98	0.19	-0.04	0.02	0.38	0.43
Avail Cap(c_a), veh/h	152	2823	876	320	1888	1034	775	469	398	288	268	239
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	16.0	15.4	12.5	23.6	23.6	43.3	35.4	0.0	46.5	49.2	49.5
Incr Delay (d2), s/veh	3.0	0.5	1.4	0.9	6.9	11.8	27.0	0.9	0.0	0.0	1.2	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	7.0	5.7	1.1	21.8	25.3	6.3	2.2	0.0	0.1	2.2	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.6	16.5	16.8	13.4	30.5	35.4	70.4	36.3	0.0	46.5	50.3	51.1
LnGrp LOS	C	B	B	B	C	D	E	D	A	D	D	D
Approach Vol, veh/h		1702			2705			834			161	
Approach Delay, s/veh		17.2			31.6			68.0			50.6	
Approach LOS		B			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.3	34.6	9.3	70.8	21.6	18.3	9.1	71.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.1	30.1	9.1	57.7	17.1	18.1	5.3	61.5
Max Q Clear Time (g_c+I1), s	2.3	6.6	4.8	19.9	19.1	7.6	4.2	54.6
Green Ext Time (p_c), s	0.0	0.4	0.1	14.5	0.0	0.5	0.0	6.5

Intersection Summary	
HCM 6th Ctrl Delay	33.2
HCM 6th LOS	C

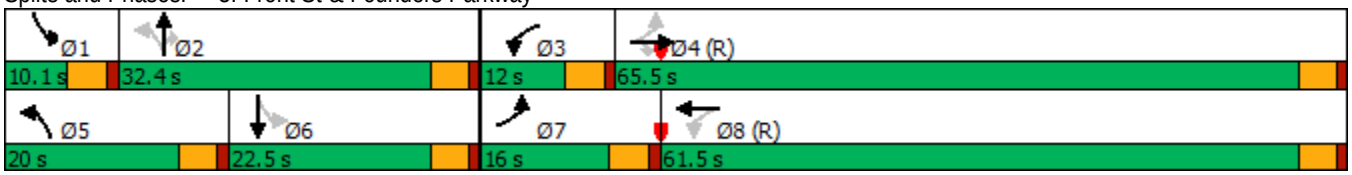
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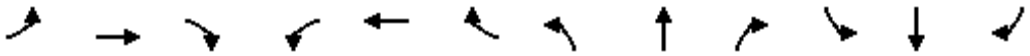
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	202	2499	819	158	2013	696	175	255	60	144
Future Volume (vph)	202	2499	819	158	2013	696	175	255	60	144
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases	4	4	4	8		2		2	6	
Detector Phase	7	4	4	3	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	16.0	65.5	65.5	12.0	61.5	20.0	32.4	32.4	10.1	22.5
Total Split (%)	13.3%	54.6%	54.6%	10.0%	51.3%	16.7%	27.0%	27.0%	8.4%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	Max	None	None
Act Effct Green (s)	72.4	61.0	61.0	64.6	57.1	38.0	29.9	29.9	23.6	18.0
Actuated g/C Ratio	0.60	0.51	0.51	0.54	0.48	0.32	0.25	0.25	0.20	0.15
v/c Ratio	0.90	1.00	0.80	0.94	0.87	1.00	0.39	0.51	0.24	0.42
Control Delay	44.7	31.3	9.3	82.7	33.2	71.7	41.4	18.4	32.6	30.3
Queue Delay	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.7	31.3	10.1	82.7	33.2	71.7	41.4	18.4	32.6	30.3
LOS	D	C	B	F	C	E	D	B	C	C
Approach Delay		27.2			36.7		54.9			30.8
Approach LOS		C			D		D			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 34.6	Intersection LOS: C
Intersection Capacity Utilization 98.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 3: Front St & Founders Parkway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	2499	819	158	2013	28	696	175	255	60	144	91
Future Volume (veh/h)	202	2499	819	158	2013	28	696	175	255	60	144	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	208	2576	689	163	2075	29	718	180	186	62	148	68
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	236	2628	816	173	2574	36	757	435	369	278	345	151
Arrive On Green	0.08	0.51	0.51	0.06	0.50	0.50	0.13	0.23	0.23	0.04	0.14	0.14
Sat Flow, veh/h	1781	5106	1585	1781	5189	72	3456	1870	1585	1781	2403	1054
Grp Volume(v), veh/h	208	2576	689	163	1361	743	718	180	186	62	108	108
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1781	1702	1857	1728	1870	1585	1781	1777	1681
Q Serve(g_s), s	7.6	59.3	44.8	6.8	40.3	40.3	15.5	9.8	12.2	3.5	6.6	7.1
Cycle Q Clear(g_c), s	7.6	59.3	44.8	6.8	40.3	40.3	15.5	9.8	12.2	3.5	6.6	7.1
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	1.00		0.63
Lane Grp Cap(c), veh/h	236	2628	816	173	1689	922	757	435	369	278	255	241
V/C Ratio(X)	0.88	0.98	0.84	0.94	0.81	0.81	0.95	0.41	0.50	0.22	0.42	0.45
Avail Cap(c_a), veh/h	262	2628	816	173	1689	922	757	435	369	289	267	252
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.9	28.5	25.0	34.7	25.4	25.4	41.9	39.1	40.0	41.4	46.8	47.0
Incr Delay (d2), s/veh	26.1	13.5	10.4	52.3	4.2	7.5	21.0	2.9	4.9	0.4	1.1	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	26.3	18.5	7.4	16.7	19.2	5.7	4.9	5.3	1.6	3.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.0	42.0	35.4	87.1	29.6	32.9	62.8	42.0	44.9	41.8	47.9	48.3
LnGrp LOS	E	D	D	F	C	C	E	D	D	D	D	D
Approach Vol, veh/h		3473			2267			1084			278	
Approach Delay, s/veh		41.5			34.8			56.3			46.7	
Approach LOS		D			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	32.4	12.0	66.3	20.0	21.7	14.2	64.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.6	27.9	7.5	61.0	15.5	18.0	11.5	57.0
Max Q Clear Time (g_c+I1), s	5.5	14.2	8.8	61.3	17.5	9.1	9.6	42.3
Green Ext Time (p_c), s	0.0	1.4	0.0	0.0	0.0	0.7	0.1	11.6

Intersection Summary	
HCM 6th Ctrl Delay	41.8
HCM 6th LOS	D

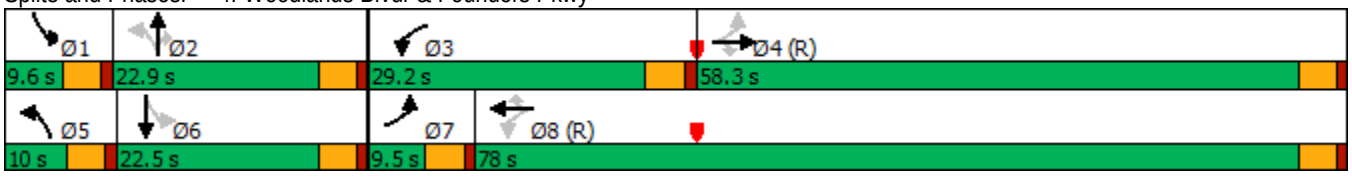
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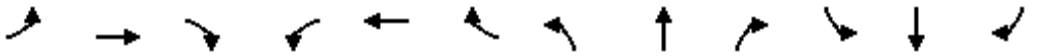
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	1	649	68	336	1696	87	114	23	140	37	11
Future Volume (vph)	1	649	68	336	1696	87	114	23	140	37	11
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	9.5	58.3	58.3	29.2	78.0	78.0	10.0	22.9	22.9	9.6	22.5
Total Split (%)	7.9%	48.6%	48.6%	24.3%	65.0%	65.0%	8.3%	19.1%	19.1%	8.0%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	83.3	77.8	77.8	95.4	93.3	93.3	14.0	8.0	8.0	9.2	7.4
Actuated g/C Ratio	0.69	0.65	0.65	0.80	0.78	0.78	0.12	0.07	0.07	0.08	0.06
v/c Ratio	0.01	0.32	0.07	0.63	0.69	0.08	0.74	0.21	0.63	0.31	0.06
Control Delay	5.0	8.0	0.4	8.9	9.8	1.4	73.6	55.6	19.4	52.9	46.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	8.0	0.4	8.9	9.8	1.4	73.6	55.6	19.4	52.9	46.6
LOS	A	A	A	A	A	A	E	E	B	D	D
Approach Delay		7.3			9.3			44.7			51.3
Approach LOS		A			A			D			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 12.6	Intersection LOS: B
Intersection Capacity Utilization 75.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 4: Woodlands Blvdr & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	649	68	336	1696	87	114	23	140	37	11	2
Future Volume (veh/h)	1	649	68	336	1696	87	114	23	140	37	11	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	729	76	378	1906	98	128	26	73	42	12	2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	2375	1059	609	2679	1195	205	119	101	180	150	24
Arrive On Green	0.00	0.67	0.67	0.09	0.75	0.75	0.05	0.06	0.06	0.03	0.05	0.05
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	3061	497
Grp Volume(v), veh/h	1	729	76	378	1906	98	128	26	73	42	7	7
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1777	1781
Q Serve(g_s), s	0.0	10.3	2.0	7.4	34.2	1.9	5.5	1.6	5.4	2.7	0.4	0.5
Cycle Q Clear(g_c), s	0.0	10.3	2.0	7.4	34.2	1.9	5.5	1.6	5.4	2.7	0.4	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	163	2375	1059	609	2679	1195	205	119	101	180	87	87
V/C Ratio(X)	0.01	0.31	0.07	0.62	0.71	0.08	0.62	0.22	0.73	0.23	0.08	0.08
Avail Cap(c_a), veh/h	235	2375	1059	821	2679	1195	205	287	243	199	267	267
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.0	8.3	6.9	5.4	7.8	3.9	53.3	53.4	55.2	52.0	54.5	54.5
Incr Delay (d2), s/veh	0.0	0.3	0.1	1.0	1.6	0.1	5.8	0.9	9.5	0.7	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.9	0.7	2.4	11.6	0.6	4.1	0.8	2.4	1.2	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.0	8.6	7.1	6.4	9.5	4.0	59.1	54.3	64.6	52.6	54.8	54.9
LnGrp LOS	A	A	A	A	A	A	E	D	E	D	D	D
Approach Vol, veh/h		806			2382			227			56	
Approach Delay, s/veh		8.5			8.8			60.3			53.2	
Approach LOS		A			A			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	12.1	14.9	84.7	10.0	10.4	4.7	94.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.1	18.4	24.7	53.8	5.5	18.0	5.0	73.5
Max Q Clear Time (g_c+I1), s	4.7	7.4	9.4	12.3	7.5	2.5	2.0	36.2
Green Ext Time (p_c), s	0.0	0.2	1.0	6.3	0.0	0.0	0.0	23.7

Intersection Summary	
HCM 6th Ctrl Delay	12.8
HCM 6th LOS	B

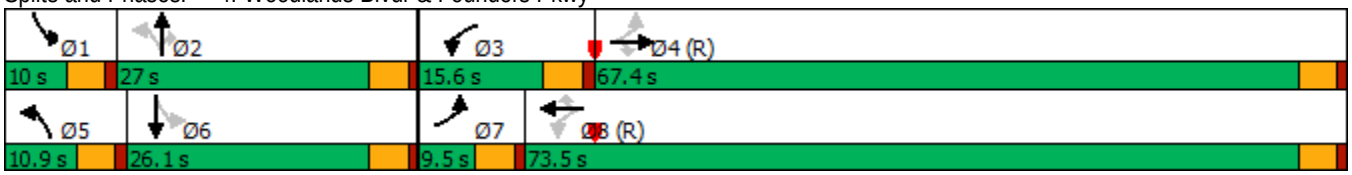
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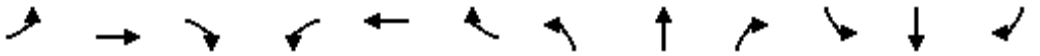
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	2	1602	121	156	960	82	92	37	324	150	33
Future Volume (vph)	2	1602	121	156	960	82	92	37	324	150	33
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	9.5	67.4	67.4	15.6	73.5	73.5	10.9	27.0	27.0	10.0	26.1
Total Split (%)	7.9%	56.2%	56.2%	13.0%	61.3%	61.3%	9.1%	22.5%	22.5%	8.3%	21.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	72.2	67.0	67.0	81.5	79.6	79.6	26.6	19.5	19.5	21.9	17.5
Actuated g/C Ratio	0.60	0.56	0.56	0.68	0.66	0.66	0.22	0.16	0.16	0.18	0.15
v/c Ratio	0.01	0.83	0.13	0.75	0.42	0.08	0.32	0.13	0.89	0.57	0.08
Control Delay	4.0	10.3	0.3	46.9	10.9	1.8	38.4	42.2	54.9	49.0	36.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.0	10.3	0.3	46.9	10.9	1.8	38.4	42.2	54.9	49.0	36.1
LOS	A	B	A	D	B	A	D	D	D	D	D
Approach Delay		9.6			15.0			50.5			46.3
Approach LOS		A			B			D			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 60 (50%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 18.6	Intersection LOS: B
Intersection Capacity Utilization 83.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: Woodlands Blvdr & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	1602	121	156	960	82	92	37	324	150	33	7
Future Volume (veh/h)	2	1602	121	156	960	82	92	37	324	150	33	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	1635	123	159	980	84	94	38	178	153	34	7
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	354	2223	992	230	2385	1064	308	244	206	272	362	72
Arrive On Green	0.00	0.63	0.63	0.05	0.67	0.67	0.05	0.13	0.13	0.05	0.12	0.12
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	2952	589
Grp Volume(v), veh/h	2	1635	123	159	980	84	94	38	178	153	20	21
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1777	1764
Q Serve(g_s), s	0.1	38.3	3.8	3.6	15.0	2.2	5.5	2.2	13.2	5.5	1.2	1.3
Cycle Q Clear(g_c), s	0.1	38.3	3.8	3.6	15.0	2.2	5.5	2.2	13.2	5.5	1.2	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	354	2223	992	230	2385	1064	308	244	206	272	218	217
V/C Ratio(X)	0.01	0.74	0.12	0.69	0.41	0.08	0.30	0.16	0.86	0.56	0.09	0.10
Avail Cap(c_a), veh/h	424	2223	992	308	2385	1064	308	351	297	272	320	318
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.7	15.6	9.1	21.4	9.0	6.8	43.0	46.3	51.1	46.3	46.7	46.7
Incr Delay (d2), s/veh	0.0	2.2	0.3	4.1	0.5	0.1	0.6	0.3	16.1	2.6	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	15.2	1.3	3.2	5.6	0.8	2.5	1.0	6.2	1.8	0.5	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.7	17.8	9.4	25.5	9.5	7.0	43.6	46.6	67.2	48.9	46.9	46.9
LnGrp LOS	A	B	A	C	A	A	D	D	E	D	D	D
Approach Vol, veh/h		1760			1223			310			194	
Approach Delay, s/veh		17.2			11.4			57.5			48.5	
Approach LOS		B			B			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	20.1	10.3	79.6	10.9	19.2	4.8	85.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	22.5	11.1	62.9	6.4	21.6	5.0	69.0
Max Q Clear Time (g_c+I1), s	7.5	15.2	5.6	40.3	7.5	3.3	2.1	17.0
Green Ext Time (p_c), s	0.0	0.4	0.2	14.3	0.0	0.1	0.0	9.6

Intersection Summary	
HCM 6th Ctrl Delay	20.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	1	736	74	364	1935	94	123	25	152	40	11
Future Volume (vph)	1	736	74	364	1935	94	123	25	152	40	11
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	9.5	49.0	49.0	38.9	78.4	78.4	9.6	22.6	22.6	9.5	22.5
Total Split (%)	7.9%	40.8%	40.8%	32.4%	65.3%	65.3%	8.0%	18.8%	18.8%	7.9%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	81.5	75.9	75.9	95.5	93.4	93.4	13.8	7.9	7.9	9.2	7.5
Actuated g/C Ratio	0.68	0.63	0.63	0.80	0.78	0.78	0.12	0.07	0.07	0.08	0.06
v/c Ratio	0.01	0.34	0.07	0.62	0.72	0.08	0.74	0.21	0.62	0.30	0.06
Control Delay	6.0	12.7	3.3	8.5	10.3	1.4	74.5	55.7	19.4	53.0	46.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.0	12.7	3.3	8.5	10.3	1.4	74.5	55.7	19.4	53.0	46.0
LOS	A	B	A	A	B	A	E	E	B	D	D
Approach Delay		11.8			9.7			45.1			51.3
Approach LOS		B			A			D			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 13.8	Intersection LOS: B
Intersection Capacity Utilization 82.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: Woodlands Blvdr & Founders Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	736	74	364	1935	94	123	25	152	40	11	2
Future Volume (veh/h)	1	736	74	364	1935	94	123	25	152	40	11	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	751	76	371	1974	96	126	26	2	41	11	2
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	158	2437	1087	606	2726	1216	185	94	80	166	118	21
Arrive On Green	0.00	0.69	0.69	0.08	0.77	0.77	0.04	0.05	0.05	0.03	0.04	0.04
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	3019	533
Grp Volume(v), veh/h	1	751	76	371	1974	96	126	26	2	41	6	7
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1777	1774
Q Serve(g_s), s	0.0	10.1	1.9	6.8	34.9	1.8	5.1	1.6	0.1	2.6	0.4	0.4
Cycle Q Clear(g_c), s	0.0	10.1	1.9	6.8	34.9	1.8	5.1	1.6	0.1	2.6	0.4	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	158	2437	1087	606	2726	1216	185	94	80	166	69	69
V/C Ratio(X)	0.01	0.31	0.07	0.61	0.72	0.08	0.68	0.28	0.03	0.25	0.09	0.10
Avail Cap(c_a), veh/h	230	2437	1087	969	2726	1216	185	282	239	185	267	266
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.5	7.5	6.2	4.9	7.3	3.5	54.8	54.9	54.2	53.1	55.6	55.6
Incr Delay (d2), s/veh	0.0	0.3	0.1	1.0	1.7	0.1	9.7	1.6	0.1	0.8	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.7	0.6	2.2	11.5	0.5	4.3	0.8	0.1	1.2	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.5	7.8	6.3	5.9	9.0	3.6	64.5	56.4	54.3	53.9	56.2	56.2
LnGrp LOS	A	A	A	A	A	A	E	E	D	D	E	E
Approach Vol, veh/h		828			2441			154			54	
Approach Delay, s/veh		7.7			8.3			63.0			54.4	
Approach LOS		A			A			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	10.5	14.4	86.8	9.6	9.2	4.7	96.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.1	34.4	44.5	5.1	18.0	5.0	73.9
Max Q Clear Time (g_c+I1), s	4.6	3.6	8.8	12.1	7.1	2.4	2.0	36.9
Green Ext Time (p_c), s	0.0	0.1	1.1	6.3	0.0	0.0	0.0	24.6

Intersection Summary	
HCM 6th Ctrl Delay	11.3
HCM 6th LOS	B

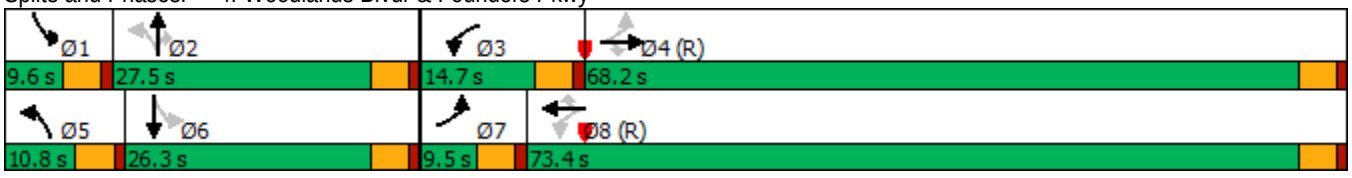
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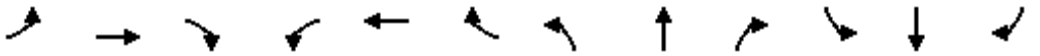
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	2	1848	131	169	1108	88	100	40	350	162	36
Future Volume (vph)	2	1848	131	169	1108	88	100	40	350	162	36
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	9.5	68.2	68.2	14.7	73.4	73.4	10.8	27.5	27.5	9.6	26.3
Total Split (%)	7.9%	56.8%	56.8%	12.3%	61.2%	61.2%	9.0%	22.9%	22.9%	8.0%	21.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	71.1	65.9	65.9	80.4	78.5	78.5	27.9	21.0	21.0	22.2	18.2
Actuated g/C Ratio	0.59	0.55	0.55	0.67	0.65	0.65	0.23	0.18	0.18	0.18	0.15
v/c Ratio	0.01	0.97	0.14	0.82	0.49	0.08	0.33	0.13	0.92	0.62	0.09
Control Delay	15.0	58.2	12.5	55.6	12.2	2.1	38.3	41.5	59.2	51.1	35.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.0	58.2	12.5	55.6	12.2	2.1	38.3	41.5	59.2	51.1	35.6
LOS	B	E	B	E	B	A	D	D	E	D	D
Approach Delay		55.2			16.9			53.5			47.7
Approach LOS		E			B			D			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 41.7	Intersection LOS: D
Intersection Capacity Utilization 93.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: Woodlands Blvdr & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	1848	131	169	1108	88	100	40	350	162	36	8
Future Volume (veh/h)	2	1848	131	169	1108	88	100	40	350	162	36	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	1886	134	172	1131	90	102	41	204	165	37	8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	293	2132	951	200	2340	1044	324	274	232	280	399	83
Arrive On Green	0.00	0.60	0.60	0.06	0.66	0.66	0.05	0.15	0.15	0.04	0.14	0.14
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	2925	612
Grp Volume(v), veh/h	2	1886	134	172	1131	90	102	41	204	165	22	23
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1777	1760
Q Serve(g_s), s	0.1	54.3	4.4	5.2	19.1	2.5	5.9	2.3	15.1	5.1	1.3	1.4
Cycle Q Clear(g_c), s	0.1	54.3	4.4	5.2	19.1	2.5	5.9	2.3	15.1	5.1	1.3	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	293	2132	951	200	2340	1044	324	274	232	280	242	240
V/C Ratio(X)	0.01	0.88	0.14	0.86	0.48	0.09	0.32	0.15	0.88	0.59	0.09	0.10
Avail Cap(c_a), veh/h	362	2132	951	243	2340	1044	324	358	304	280	323	320
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.1	20.5	10.5	31.9	10.3	7.4	41.9	44.7	50.2	45.8	45.3	45.3
Incr Delay (d2), s/veh	0.0	5.8	0.3	22.1	0.7	0.2	0.6	0.3	20.0	3.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	22.8	1.6	6.3	7.3	0.9	2.7	1.1	7.3	2.4	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.1	26.3	10.8	54.0	11.0	7.6	42.4	45.0	70.2	49.0	45.5	45.5
LnGrp LOS	B	C	B	D	B	A	D	D	E	D	D	D
Approach Vol, veh/h		2022			1393			347			210	
Approach Delay, s/veh		25.2			16.1			59.1			48.3	
Approach LOS		C			B			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	22.1	11.8	76.5	10.8	20.9	4.8	83.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.1	23.0	10.2	63.7	6.3	21.8	5.0	68.9
Max Q Clear Time (g_c+I1), s	7.1	17.1	7.2	56.3	7.9	3.4	2.1	21.1
Green Ext Time (p_c), s	0.0	0.4	0.1	6.4	0.0	0.1	0.0	11.8

Intersection Summary	
HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

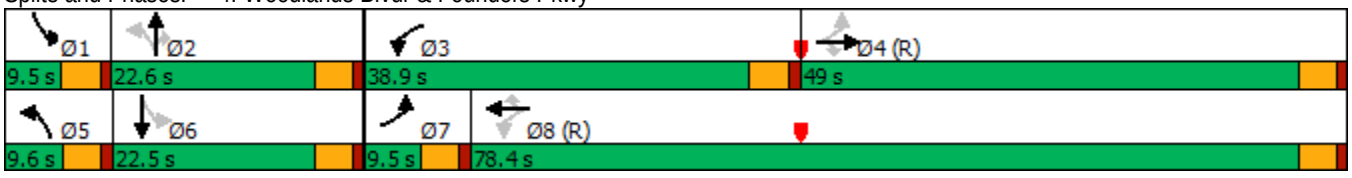
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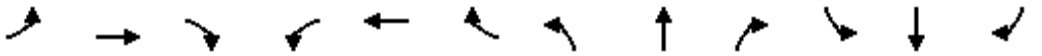
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	1	767	74	453	1990	94	123	25	199	40	11
Future Volume (vph)	1	767	74	453	1990	94	123	25	199	40	11
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	9.5	49.0	49.0	38.9	78.4	78.4	9.6	22.6	22.6	9.5	22.5
Total Split (%)	7.9%	40.8%	40.8%	32.4%	65.3%	65.3%	8.0%	18.8%	18.8%	7.9%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	73.8	68.2	68.2	95.1	93.1	93.1	14.2	8.3	8.3	9.5	7.9
Actuated g/C Ratio	0.62	0.57	0.57	0.79	0.78	0.78	0.12	0.07	0.07	0.08	0.07
v/c Ratio	0.01	0.39	0.08	0.72	0.74	0.08	0.73	0.20	0.68	0.30	0.06
Control Delay	12.0	18.6	4.9	13.1	11.3	1.4	73.3	54.6	19.0	52.2	45.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.0	18.6	4.9	13.1	11.3	1.4	73.3	54.6	19.0	52.2	45.2
LOS	B	B	A	B	B	A	E	D	B	D	D
Approach Delay		17.4			11.3			40.9			50.5
Approach LOS		B			B			D			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 15.9	Intersection LOS: B
Intersection Capacity Utilization 83.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: Woodlands Blvdr & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	767	74	453	1990	94	123	25	199	40	11	2
Future Volume (veh/h)	1	767	74	453	1990	94	123	25	199	40	11	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	783	76	462	2031	96	126	26	50	41	11	2
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	148	2350	1048	611	2719	1213	188	98	83	167	124	22
Arrive On Green	0.00	0.66	0.66	0.10	0.77	0.77	0.04	0.05	0.05	0.03	0.04	0.04
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	3019	533
Grp Volume(v), veh/h	1	783	76	462	2031	96	126	26	50	41	6	7
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1777	1774
Q Serve(g_s), s	0.0	11.5	2.0	9.1	37.6	1.8	5.1	1.6	3.7	2.6	0.4	0.4
Cycle Q Clear(g_c), s	0.0	11.5	2.0	9.1	37.6	1.8	5.1	1.6	3.7	2.6	0.4	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	148	2350	1048	611	2719	1213	188	98	83	167	73	73
V/C Ratio(X)	0.01	0.33	0.07	0.76	0.75	0.08	0.67	0.26	0.60	0.25	0.09	0.09
Avail Cap(c_a), veh/h	220	2350	1048	935	2719	1213	188	282	239	186	267	266
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.5	8.8	7.2	6.5	7.7	3.5	54.6	54.6	55.6	52.9	55.4	55.4
Incr Delay (d2), s/veh	0.0	0.4	0.1	1.9	1.9	0.1	8.8	1.4	6.7	0.8	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.3	0.7	3.0	12.4	0.5	4.2	0.8	1.6	1.2	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.5	9.2	7.4	8.4	9.7	3.7	63.4	56.0	62.4	53.6	55.9	55.9
LnGrp LOS	A	A	A	A	A	A	E	E	E	D	E	E
Approach Vol, veh/h		860			2589			202			54	
Approach Delay, s/veh		9.0			9.2			62.2			54.2	
Approach LOS		A			A			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	10.8	17.1	83.9	9.6	9.4	4.7	96.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.1	34.4	44.5	5.1	18.0	5.0	73.9
Max Q Clear Time (g_c+I1), s	4.6	5.7	11.1	13.5	7.1	2.4	2.0	39.6
Green Ext Time (p_c), s	0.0	0.2	1.5	6.6	0.0	0.0	0.0	24.1

Intersection Summary	
HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B

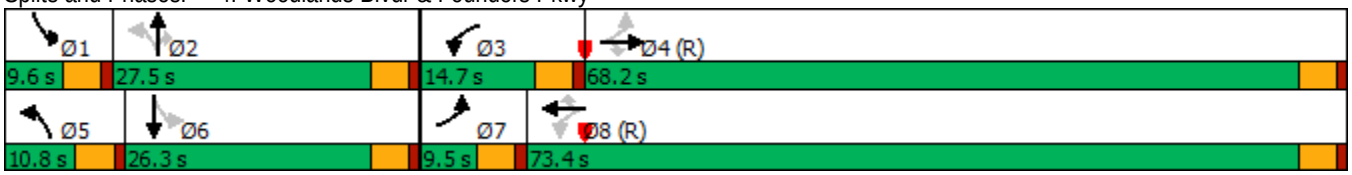
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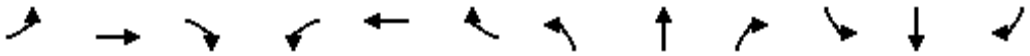
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	2	1903	131	215	1144	88	100	40	436	162	36
Future Volume (vph)	2	1903	131	215	1144	88	100	40	436	162	36
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	9.5	68.2	68.2	14.7	73.4	73.4	10.8	27.5	27.5	9.6	26.3
Total Split (%)	7.9%	56.8%	56.8%	12.3%	61.2%	61.2%	9.0%	22.9%	22.9%	8.0%	21.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	68.7	63.7	63.7	78.4	76.5	76.5	30.0	23.0	23.0	22.5	18.5
Actuated g/C Ratio	0.57	0.53	0.53	0.65	0.64	0.64	0.25	0.19	0.19	0.19	0.15
v/c Ratio	0.01	1.03	0.15	1.03	0.52	0.09	0.31	0.11	1.08	0.60	0.08
Control Delay	14.5	71.4	11.8	102.0	13.2	2.1	37.1	41.2	98.9	50.3	35.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.5	71.4	11.8	102.0	13.2	2.1	37.1	41.2	98.9	50.3	35.4
LOS	B	E	B	F	B	A	D	D	F	D	D
Approach Delay		67.5			25.7			84.2			47.1
Approach LOS		E			C			F			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 54.6	Intersection LOS: D
Intersection Capacity Utilization 99.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: Woodlands Blvdr & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	1903	131	215	1144	88	100	40	436	162	36	8
Future Volume (veh/h)	2	1903	131	215	1144	88	100	40	436	162	36	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	1942	134	219	1167	90	102	41	292	165	37	8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	252	1886	841	211	2179	972	386	358	304	317	531	111
Arrive On Green	0.00	0.53	0.53	0.09	0.61	0.61	0.05	0.19	0.19	0.04	0.18	0.18
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	2925	612
Grp Volume(v), veh/h	2	1942	134	219	1167	90	102	41	292	165	22	23
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1777	1760
Q Serve(g_s), s	0.1	63.7	5.2	10.2	22.7	2.8	5.6	2.2	21.9	5.1	1.2	1.3
Cycle Q Clear(g_c), s	0.1	63.7	5.2	10.2	22.7	2.8	5.6	2.2	21.9	5.1	1.2	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	252	1886	841	211	2179	972	386	358	304	317	323	320
V/C Ratio(X)	0.01	1.03	0.16	1.04	0.54	0.09	0.26	0.11	0.96	0.52	0.07	0.07
Avail Cap(c_a), veh/h	321	1886	841	211	2179	972	386	358	304	317	323	320
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.8	28.1	14.4	40.9	13.4	9.5	37.3	40.1	48.1	40.9	40.7	40.7
Incr Delay (d2), s/veh	0.0	28.7	0.4	71.6	0.9	0.2	0.4	0.1	41.1	1.5	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	33.1	2.0	10.6	9.0	1.0	2.5	1.0	12.1	2.0	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.8	56.8	14.8	112.5	14.3	9.7	37.7	40.2	89.1	42.4	40.8	40.8
LnGrp LOS	B	F	B	F	B	A	D	D	F	D	D	D
Approach Vol, veh/h		2078			1476			435			210	
Approach Delay, s/veh		54.1			28.6			72.5			42.0	
Approach LOS		D			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	27.5	14.7	68.2	10.8	26.3	4.8	78.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.1	23.0	10.2	63.7	6.3	21.8	5.0	68.9
Max Q Clear Time (g_c+I1), s	7.1	23.9	12.2	65.7	7.6	3.3	2.1	24.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.1	0.0	12.1

Intersection Summary	
HCM 6th Ctrl Delay	46.4
HCM 6th LOS	D

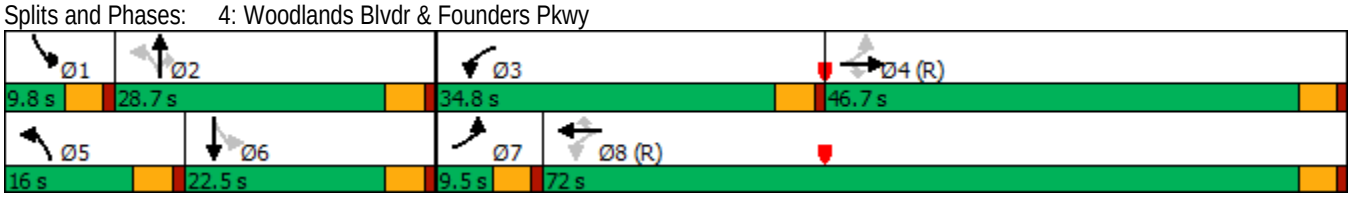
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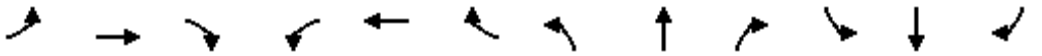
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	2	911	269	500	2329	127	415	34	249	54	15
Future Volume (vph)	2	911	269	500	2329	127	415	34	249	54	15
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	9.5	46.7	46.7	34.8	72.0	72.0	16.0	28.7	28.7	9.8	22.5
Total Split (%)	7.9%	38.9%	38.9%	29.0%	60.0%	60.0%	13.3%	23.9%	23.9%	8.2%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	59.0	53.4	53.4	92.4	90.4	90.4	18.6	10.8	10.8	8.4	6.5
Actuated g/C Ratio	0.49	0.44	0.44	0.77	0.75	0.75	0.16	0.09	0.09	0.07	0.05
v/c Ratio	0.01	0.59	0.32	0.78	0.89	0.11	1.76	0.21	0.68	0.44	0.09
Control Delay	15.0	32.9	14.5	27.7	18.6	1.3	385.9	52.7	15.9	57.1	47.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.0	32.9	14.5	27.7	18.6	1.3	385.9	52.7	15.9	57.1	47.8
LOS	B	C	B	C	B	A	F	D	B	E	D
Approach Delay		28.7			19.4			237.5			54.8
Approach LOS		C			B			F			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.76	
Intersection Signal Delay: 53.1	Intersection LOS: D
Intersection Capacity Utilization 109.5%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 4: Woodlands Blvdr & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	911	269	500	2329	127	415	34	249	54	15	3
Future Volume (veh/h)	2	911	269	500	2329	127	415	34	249	54	15	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	930	274	510	2377	130	423	35	101	55	15	3
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	1910	852	545	2523	1125	282	185	157	181	124	24
Arrive On Green	0.00	0.54	0.54	0.18	0.71	0.71	0.10	0.10	0.10	0.04	0.04	0.04
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	2969	575
Grp Volume(v), veh/h	2	930	274	510	2377	130	423	35	101	55	9	9
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1777	1767
Q Serve(g_s), s	0.1	19.7	11.6	17.7	70.3	3.1	11.5	2.1	7.4	3.5	0.6	0.6
Cycle Q Clear(g_c), s	0.1	19.7	11.6	17.7	70.3	3.1	11.5	2.1	7.4	3.5	0.6	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	81	1910	852	545	2523	1125	282	185	157	181	74	74
V/C Ratio(X)	0.02	0.49	0.32	0.94	0.94	0.12	1.50	0.19	0.64	0.30	0.12	0.13
Avail Cap(c_a), veh/h	150	1910	852	683	2523	1125	282	377	320	191	267	265
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	17.4	15.5	21.6	15.3	5.5	51.9	49.7	52.0	52.4	55.4	55.4
Incr Delay (d2), s/veh	0.1	0.9	1.0	17.8	8.7	0.2	243.3	0.5	4.4	0.9	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.1	4.4	17.2	27.5	1.0	21.9	1.0	3.1	1.6	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.3	18.3	16.5	39.4	24.0	5.7	295.2	50.1	56.4	53.3	56.1	56.2
LnGrp LOS	C	B	B	D	C	A	F	D	E	D	E	E
Approach Vol, veh/h		1206			3017			559			73	
Approach Delay, s/veh		17.9			25.8			236.7			54.0	
Approach LOS		B			C			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	16.4	25.5	69.0	16.0	9.5	4.8	89.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.3	24.2	30.3	42.2	11.5	18.0	5.0	67.5
Max Q Clear Time (g_c+I1), s	5.5	9.4	19.7	21.7	13.5	2.6	2.1	72.3
Green Ext Time (p_c), s	0.0	0.4	1.3	7.9	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	48.5
HCM 6th LOS	D

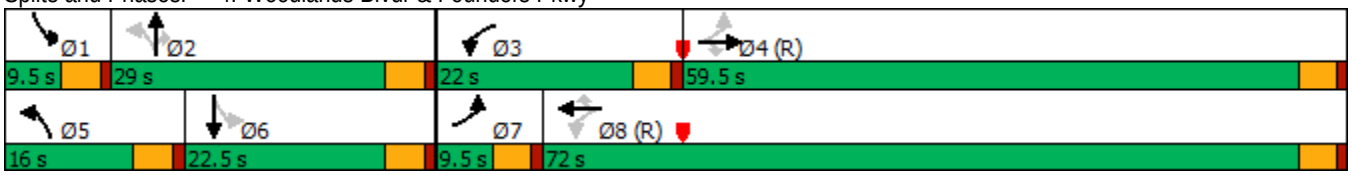
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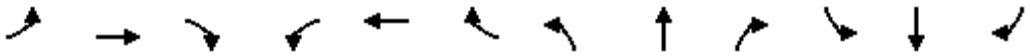
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	3	2232	546	477	1577	119	495	104	567	178	98
Future Volume (vph)	3	2232	546	477	1577	119	495	104	567	178	98
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	9.5	59.5	59.5	22.0	72.0	72.0	16.0	29.0	29.0	9.5	22.5
Total Split (%)	7.9%	49.6%	49.6%	18.3%	60.0%	60.0%	13.3%	24.2%	24.2%	7.9%	18.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	60.0	55.0	55.0	77.0	75.1	75.1	34.0	24.5	24.5	23.0	18.0
Actuated g/C Ratio	0.50	0.46	0.46	0.64	0.63	0.63	0.28	0.20	0.20	0.19	0.15
v/c Ratio	0.02	1.40	0.63	1.52	0.73	0.12	1.41	0.28	1.18	0.68	0.21
Control Delay	11.7	218.9	25.1	279.1	18.5	1.7	231.9	42.7	128.5	54.4	42.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.7	218.9	25.1	279.1	18.5	1.7	231.9	42.7	128.5	54.4	42.7
LOS	B	F	C	F	B	A	F	D	F	D	D
Approach Delay		180.6			74.8			164.7			49.9
Approach LOS		F			E			F			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.52	
Intersection Signal Delay: 136.0	Intersection LOS: F
Intersection Capacity Utilization 133.5%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 4: Woodlands Blvdr & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	2232	546	477	1577	119	495	104	567	178	98	11
Future Volume (veh/h)	3	2232	546	477	1577	119	495	104	567	178	98	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	2278	557	487	1609	121	505	106	426	182	100	11
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	1629	726	320	2133	951	388	382	324	265	485	53
Arrive On Green	0.00	0.46	0.46	0.15	0.60	0.60	0.10	0.20	0.20	0.04	0.15	0.15
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	3234	351
Grp Volume(v), veh/h	3	2278	557	487	1609	121	505	106	426	182	54	57
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1777	1807
Q Serve(g_s), s	0.1	55.0	35.2	17.5	39.7	4.0	11.5	5.7	24.5	5.0	3.2	3.3
Cycle Q Clear(g_c), s	0.1	55.0	35.2	17.5	39.7	4.0	11.5	5.7	24.5	5.0	3.2	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	143	1629	726	320	2133	951	388	382	324	265	267	271
V/C Ratio(X)	0.02	1.40	0.77	1.52	0.75	0.13	1.30	0.28	1.32	0.69	0.20	0.21
Avail Cap(c_a), veh/h	210	1629	726	320	2133	951	388	382	324	265	267	271
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.5	32.5	27.1	41.1	17.5	10.4	45.7	40.3	47.7	45.4	44.7	44.8
Incr Delay (d2), s/veh	0.1	183.2	7.6	250.7	2.5	0.3	153.8	0.4	162.6	7.2	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	64.2	14.5	31.4	16.1	1.4	22.7	2.7	24.2	3.3	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.6	215.7	34.7	291.8	20.1	10.7	199.5	40.7	210.4	52.6	45.1	45.1
LnGrp LOS	B	F	C	F	C	B	F	D	F	D	D	D
Approach Vol, veh/h		2838			2217			1037			293	
Approach Delay, s/veh		179.9			79.2			187.7			49.8	
Approach LOS		F			E			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	29.0	22.0	59.5	16.0	22.5	5.0	76.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	24.5	17.5	55.0	11.5	18.0	5.0	67.5
Max Q Clear Time (g_c+I1), s	7.0	26.5	19.5	57.0	13.5	5.3	2.1	41.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.4	0.0	15.3

Intersection Summary	
HCM 6th Ctrl Delay	140.3
HCM 6th LOS	F

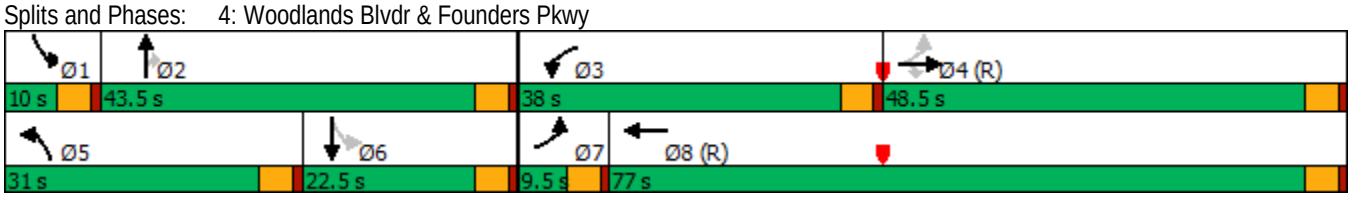
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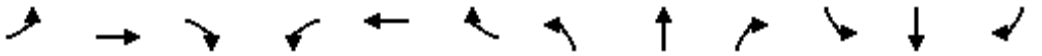
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	2	942	346	589	2384	553	34	296	54	15
Future Volume (vph)	2	942	346	589	2384	553	34	296	54	15
Turn Type	pm+pt	NA	Perm	Prot	NA	Prot	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8	5	2		1	6
Permitted Phases	4		4					2	6	
Detector Phase	7	4	4	3	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	9.5	48.5	48.5	38.0	77.0	31.0	43.5	43.5	10.0	22.5
Total Split (%)	6.8%	34.6%	34.6%	27.1%	55.0%	22.1%	31.1%	31.1%	7.1%	16.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	72.2	66.6	66.6	29.7	98.8	25.7	22.2	22.2	8.2	6.2
Actuated g/C Ratio	0.52	0.48	0.48	0.21	0.71	0.18	0.16	0.16	0.06	0.04
v/c Ratio	0.02	0.40	0.38	0.83	0.72	0.90	0.12	0.60	0.52	0.12
Control Delay	12.0	26.0	4.0	62.7	15.5	73.8	50.0	10.3	68.4	57.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.0	26.0	4.0	62.7	15.5	73.8	50.0	10.3	68.4	57.8
LOS	B	C	A	E	B	E	D	B	E	E
Approach Delay		20.1			24.4		51.6			65.8
Approach LOS		C			C		D			E

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 28.4	Intersection LOS: C
Intersection Capacity Utilization 86.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: Woodlands Blvdr & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	942	346	589	2384	127	553	34	296	54	15	3
Future Volume (veh/h)	2	942	346	589	2384	127	553	34	296	54	15	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	961	353	601	2433	130	564	35	149	55	15	3
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	2364	734	672	3251	172	616	328	278	163	106	21
Arrive On Green	0.00	0.46	0.46	0.19	0.65	0.65	0.18	0.18	0.18	0.04	0.04	0.04
Sat Flow, veh/h	1781	5106	1585	3456	4965	263	3456	1870	1585	1781	2969	575
Grp Volume(v), veh/h	2	961	353	601	1661	902	564	35	149	55	9	9
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1728	1702	1823	1728	1870	1585	1781	1777	1767
Q Serve(g_s), s	0.1	17.4	21.5	23.7	46.0	47.4	22.4	2.2	12.0	4.1	0.7	0.7
Cycle Q Clear(g_c), s	0.1	17.4	21.5	23.7	46.0	47.4	22.4	2.2	12.0	4.1	0.7	0.7
Prop In Lane	1.00		1.00	1.00		0.14	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	95	2364	734	672	2229	1194	616	328	278	163	63	63
V/C Ratio(X)	0.02	0.41	0.48	0.89	0.74	0.76	0.92	0.11	0.54	0.34	0.14	0.15
Avail Cap(c_a), veh/h	154	2364	734	827	2229	1194	654	521	442	164	228	227
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.5	24.9	26.0	55.0	16.3	16.5	56.5	48.5	52.5	61.9	65.4	65.4
Incr Delay (d2), s/veh	0.1	0.5	2.3	10.6	2.3	4.5	17.1	0.1	1.6	1.2	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.2	8.6	11.3	17.8	20.3	11.3	1.1	4.9	1.9	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.6	25.4	28.2	65.5	18.6	21.0	73.6	48.7	54.2	63.1	66.4	66.5
LnGrp LOS	C	C	C	E	B	C	E	D	D	E	E	E
Approach Vol, veh/h		1316			3164			748			73	
Approach Delay, s/veh		26.2			28.2			68.6			63.9	
Approach LOS		C			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	29.0	31.7	69.3	29.5	9.5	4.9	96.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	39.0	33.5	44.0	26.5	18.0	5.0	72.5
Max Q Clear Time (g_c+I1), s	6.1	14.0	25.7	23.5	24.4	2.7	2.1	49.4
Green Ext Time (p_c), s	0.0	0.6	1.5	8.4	0.5	0.0	0.0	19.7

Intersection Summary	
HCM 6th Ctrl Delay	33.9
HCM 6th LOS	C

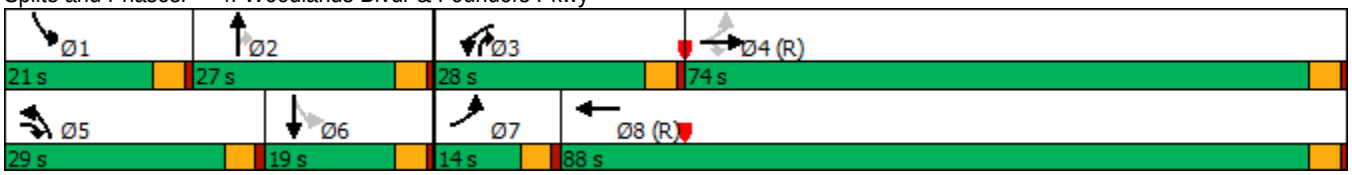
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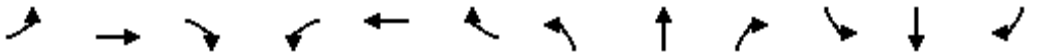
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	3	2287	683	523	1613	586	104	653	178	98
Future Volume (vph)	3	2287	683	523	1613	586	104	653	178	98
Turn Type	pm+pt	NA	pm+ov	Prot	NA	Prot	NA	pm+ov	pm+pt	NA
Protected Phases	7	4	5	3	8	5	2	3	1	6
Permitted Phases	4		4					2	6	
Detector Phase	7	4	5	3	8	5	2	3	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5	9.5	22.5	9.5	9.5	22.5
Total Split (s)	14.0	74.0	29.0	28.0	88.0	29.0	27.0	28.0	21.0	19.0
Total Split (%)	9.3%	49.3%	19.3%	18.7%	58.7%	19.3%	18.0%	18.7%	14.0%	12.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	None	None	None	None	None
Act Effct Green (s)	75.1	69.5	98.5	28.1	100.0	24.5	18.9	51.6	25.3	9.9
Actuated g/C Ratio	0.50	0.46	0.66	0.19	0.67	0.16	0.13	0.34	0.17	0.07
v/c Ratio	0.02	0.99	0.64	0.83	0.53	1.07	0.45	1.15	0.68	0.47
Control Delay	10.7	56.2	15.3	70.7	14.0	115.4	67.3	125.0	60.4	70.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.7	56.2	15.3	70.7	14.0	115.4	67.3	125.0	60.4	70.1
LOS	B	E	B	E	B	F	E	F	E	E
Approach Delay		46.7			27.1		116.4			64.1
Approach LOS		D			C		F			E

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.15	
Intersection Signal Delay: 54.7	Intersection LOS: D
Intersection Capacity Utilization 105.7%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 4: Woodlands Blvdr & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	2287	683	523	1613	119	586	104	653	178	98	11
Future Volume (veh/h)	3	2287	683	523	1613	119	586	104	653	178	98	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	2334	697	534	1646	121	598	106	411	182	100	11
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	170	2392	1001	541	3015	221	564	281	486	316	296	32
Arrive On Green	0.00	0.47	0.47	0.16	0.62	0.62	0.16	0.15	0.15	0.10	0.09	0.09
Sat Flow, veh/h	1781	5106	1585	3456	4854	356	3456	1870	1585	1781	3234	351
Grp Volume(v), veh/h	3	2334	697	534	1154	613	598	106	411	182	54	57
Grp Sat Flow(s),veh/h/ln	1781	1702	1585	1728	1702	1806	1728	1870	1585	1781	1777	1807
Q Serve(g_s), s	0.1	67.1	43.4	23.1	29.1	29.2	24.5	7.7	22.5	13.7	4.3	4.4
Cycle Q Clear(g_c), s	0.1	67.1	43.4	23.1	29.1	29.2	24.5	7.7	22.5	13.7	4.3	4.4
Prop In Lane	1.00		1.00	1.00		0.20	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	170	2392	1001	541	2114	1122	564	281	486	316	163	166
V/C Ratio(X)	0.02	0.98	0.70	0.99	0.55	0.55	1.06	0.38	0.85	0.58	0.33	0.34
Avail Cap(c_a), veh/h	276	2392	1001	541	2114	1122	564	281	486	325	172	175
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.1	39.0	18.2	63.1	16.3	16.3	62.8	57.4	48.7	53.9	63.8	63.9
Incr Delay (d2), s/veh	0.0	13.6	4.0	35.1	1.0	1.9	54.6	0.8	12.9	2.4	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	30.6	16.6	12.8	11.6	12.6	15.1	3.7	16.2	6.4	2.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.1	52.6	22.2	98.1	17.3	18.2	117.4	58.3	61.6	56.3	65.0	65.1
LnGrp LOS	C	D	C	F	B	B	F	E	E	E	E	E
Approach Vol, veh/h		3034			2301			1115			293	
Approach Delay, s/veh		45.6			36.3			91.2			59.6	
Approach LOS		D			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.2	27.0	28.0	74.8	29.0	18.2	5.1	97.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	16.5	22.5	23.5	69.5	24.5	14.5	9.5	83.5
Max Q Clear Time (g_c+I1), s	15.7	24.5	25.1	69.1	26.5	6.4	2.1	31.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.0	0.3	0.0	21.1

Intersection Summary	
HCM 6th Ctrl Delay	50.6
HCM 6th LOS	D

Notes

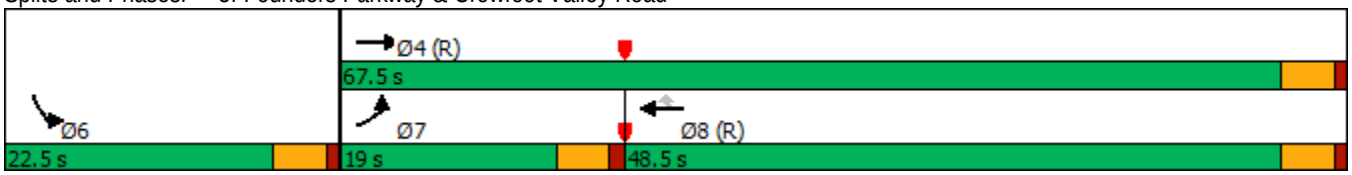
User approved pedestrian interval to be less than phase max green.

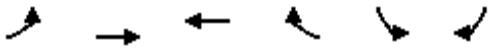
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	394	432	1313	117	74	800
Future Volume (vph)	394	432	1313	117	74	800
Turn Type	Prot	NA	NA	Perm	Prot	Free
Protected Phases	7	4	8		6	
Permitted Phases				8		Free
Detector Phase	7	4	8	8	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	
Total Split (s)	19.0	67.5	48.5	48.5	22.5	
Total Split (%)	21.1%	75.0%	53.9%	53.9%	25.0%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	
Act Effct Green (s)	15.2	68.5	48.9	48.9	12.5	90.0
Actuated g/C Ratio	0.17	0.76	0.54	0.54	0.14	1.00
v/c Ratio	0.74	0.17	0.74	0.14	0.94dr	0.30
Control Delay	44.3	3.5	19.9	2.8	23.5	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.3	3.5	19.9	2.8	23.5	0.5
LOS	D	A	B	A	C	A
Approach Delay		22.9	18.5		13.0	
Approach LOS		C	B		B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 18.1	Intersection LOS: B
Intersection Capacity Utilization 69.4%	ICU Level of Service C
Analysis Period (min) 15	

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

Splits and Phases: 5: Founders Parkway & Crowfoot Valley Road





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	394	432	1313	117	74	800
Future Volume (veh/h)	394	432	1313	117	74	800
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	428	470	1427	127	80	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	505	2990	2293	1023	104	
Arrive On Green	0.15	0.84	0.65	0.65	0.06	0.00
Sat Flow, veh/h	3456	3647	3647	1585	1781	3170
Grp Volume(v), veh/h	428	470	1427	127	80	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1777	1585	1781	1585
Q Serve(g_s), s	10.9	2.2	21.4	2.8	4.0	0.0
Cycle Q Clear(g_c), s	10.9	2.2	21.4	2.8	4.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	505	2990	2293	1023	104	
V/C Ratio(X)	0.85	0.16	0.62	0.12	0.77	
Avail Cap(c_a), veh/h	557	2990	2293	1023	356	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.4	1.3	9.5	6.2	41.8	0.0
Incr Delay (d2), s/veh	10.9	0.1	1.3	0.2	11.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.3	7.5	0.9	2.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	48.3	1.4	10.8	6.4	52.8	0.0
LnGrp LOS	D	A	B	A	D	
Approach Vol, veh/h		898	1554		80	A
Approach Delay, s/veh		23.8	10.4		52.8	
Approach LOS		C	B		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			80.2		9.8	17.7	62.6
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			63.0		18.0	14.5	44.0
Max Q Clear Time (g_c+I1), s			4.2		6.0	12.9	23.4
Green Ext Time (p_c), s			3.6		0.1	0.3	11.7

Intersection Summary	
HCM 6th Ctrl Delay	16.5
HCM 6th LOS	B

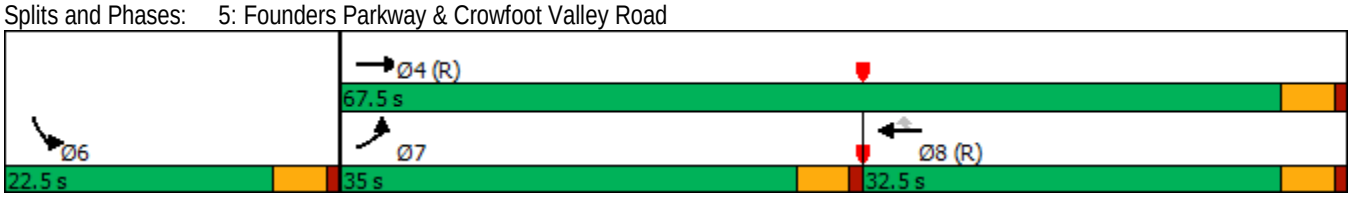
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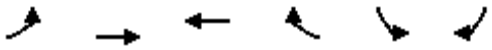
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	776	1300	709	110	122	493
Future Volume (vph)	776	1300	709	110	122	493
Turn Type	Prot	NA	NA	Perm	Prot	Free
Protected Phases	7	4	8		6	
Permitted Phases				8		Free
Detector Phase	7	4	8	8	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	
Total Split (s)	35.0	67.5	32.5	32.5	22.5	
Total Split (%)	38.9%	75.0%	36.1%	36.1%	25.0%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	
Act Effct Green (s)	26.4	71.7	40.8	40.8	9.3	90.0
Actuated g/C Ratio	0.29	0.80	0.45	0.45	0.10	1.00
v/c Ratio	0.79	0.47	0.45	0.14	0.68	0.17
Control Delay	35.1	3.9	19.6	4.6	19.2	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.1	3.9	19.6	4.6	19.2	0.3
LOS	D	A	B	A	B	A
Approach Delay		15.6	17.6		11.6	
Approach LOS		B	B		B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 15.4	Intersection LOS: B
Intersection Capacity Utilization 61.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 5: Founders Parkway & Crowfoot Valley Road





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	776	1300	709	110	122	493
Future Volume (veh/h)	776	1300	709	110	122	493
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	792	1327	723	112	124	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	917	2884	1763	787	158	
Arrive On Green	0.27	0.81	0.50	0.50	0.09	0.00
Sat Flow, veh/h	3456	3647	3647	1585	1781	3170
Grp Volume(v), veh/h	792	1327	723	112	124	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1777	1585	1781	1585
Q Serve(g_s), s	19.7	10.1	11.6	3.4	6.1	0.0
Cycle Q Clear(g_c), s	19.7	10.1	11.6	3.4	6.1	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	917	2884	1763	787	158	
V/C Ratio(X)	0.86	0.46	0.41	0.14	0.79	
Avail Cap(c_a), veh/h	1171	2884	1763	787	356	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.5	2.5	14.3	12.3	40.2	0.0
Incr Delay (d2), s/veh	5.6	0.5	0.7	0.4	8.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	2.1	4.6	1.3	3.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.1	3.1	15.0	12.7	48.6	0.0
LnGrp LOS	D	A	B	B	D	
Approach Vol, veh/h		2119	835		124	A
Approach Delay, s/veh		15.8	14.7		48.6	
Approach LOS		B	B		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			77.5		12.5	28.4	49.2
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			63.0		18.0	30.5	28.0
Max Q Clear Time (g_c+I1), s			12.1		8.1	21.7	13.6
Green Ext Time (p_c), s			14.7		0.2	2.2	4.7

Intersection Summary		
HCM 6th Ctrl Delay	16.8	
HCM 6th LOS	B	

Notes

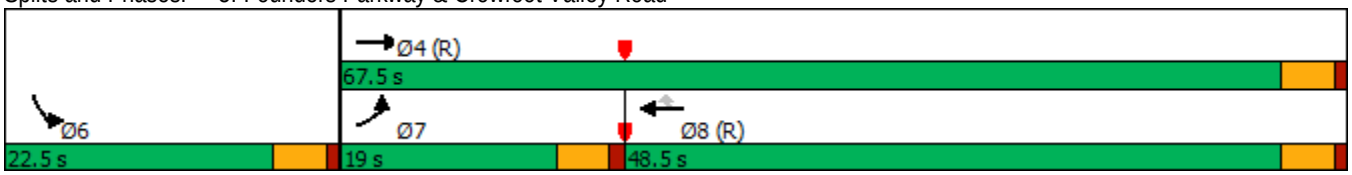
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

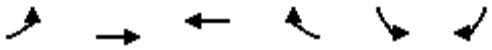
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	426	507	1530	136	85	866
Future Volume (vph)	426	507	1530	136	85	866
Turn Type	Prot	NA	NA	Perm	Prot	Free
Protected Phases	7	4	8		6	
Permitted Phases				8		Free
Detector Phase	7	4	8	8	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	
Total Split (s)	19.0	67.5	48.5	48.5	22.5	
Total Split (%)	21.1%	75.0%	53.9%	53.9%	25.0%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	
Act Effct Green (s)	15.2	68.1	48.4	48.4	12.9	90.0
Actuated g/C Ratio	0.17	0.76	0.54	0.54	0.14	1.00
v/c Ratio	0.75	0.19	0.82	0.15	0.95dr	0.31
Control Delay	44.8	3.7	23.1	2.8	24.5	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.8	3.7	23.1	2.8	24.5	0.6
LOS	D	A	C	A	C	A
Approach Delay		22.5	21.5		13.6	
Approach LOS		C	C		B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 19.6	Intersection LOS: B
Intersection Capacity Utilization 77.3%	ICU Level of Service D
Analysis Period (min) 15	

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

Splits and Phases: 5: Founders Parkway & Crowfoot Valley Road





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	426	507	1530	136	85	866
Future Volume (veh/h)	426	507	1530	136	85	866
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	435	517	1561	139	87	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	511	2972	2269	1012	113	
Arrive On Green	0.15	0.84	0.64	0.64	0.06	0.00
Sat Flow, veh/h	3456	3647	3647	1585	1781	3170
Grp Volume(v), veh/h	435	517	1561	139	87	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1777	1585	1781	1585
Q Serve(g_s), s	11.0	2.5	25.5	3.1	4.3	0.0
Cycle Q Clear(g_c), s	11.0	2.5	25.5	3.1	4.3	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	511	2972	2269	1012	113	
V/C Ratio(X)	0.85	0.17	0.69	0.14	0.77	
Avail Cap(c_a), veh/h	557	2972	2269	1012	356	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.4	1.4	10.5	6.4	41.5	0.0
Incr Delay (d2), s/veh	11.3	0.1	1.7	0.3	10.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	0.4	9.1	1.0	2.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	48.7	1.5	12.2	6.7	51.8	0.0
LnGrp LOS	D	A	B	A	D	
Approach Vol, veh/h		952	1700		87	A
Approach Delay, s/veh		23.1	11.8		51.8	
Approach LOS		C	B		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			79.8		10.2	17.8	62.0
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			63.0		18.0	14.5	44.0
Max Q Clear Time (g_c+I1), s			4.5		6.3	13.0	27.5
Green Ext Time (p_c), s			4.0		0.1	0.3	11.0

Intersection Summary	
HCM 6th Ctrl Delay	17.0
HCM 6th LOS	B

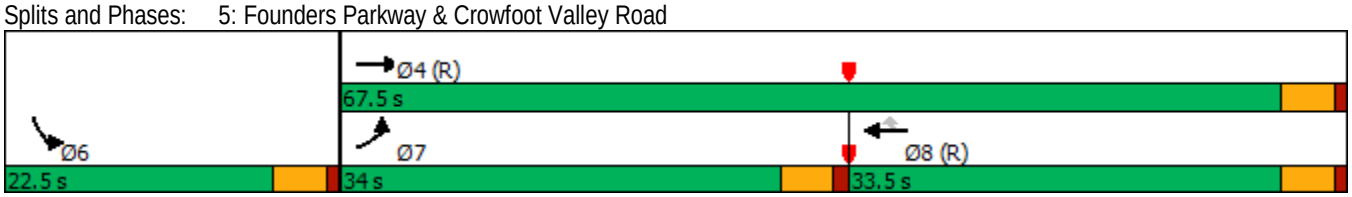
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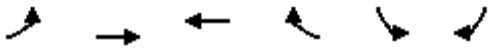
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	840	1531	845	129	147	534
Future Volume (vph)	840	1531	845	129	147	534
Turn Type	Prot	NA	NA	Perm	Prot	Free
Protected Phases	7	4	8		6	
Permitted Phases				8		Free
Detector Phase	7	4	8	8	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	
Total Split (s)	34.0	67.5	33.5	33.5	22.5	
Total Split (%)	37.8%	75.0%	37.2%	37.2%	25.0%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	
Act Effct Green (s)	27.7	71.0	38.8	38.8	10.0	90.0
Actuated g/C Ratio	0.31	0.79	0.43	0.43	0.11	1.00
v/c Ratio	0.81	0.56	0.57	0.17	0.70	0.19
Control Delay	35.3	4.9	22.7	4.6	20.0	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.3	4.9	22.7	4.6	20.0	0.3
LOS	D	A	C	A	C	A
Approach Delay		15.7	20.3		12.3	
Approach LOS		B	C		B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 16.2	Intersection LOS: B
Intersection Capacity Utilization 68.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 5: Founders Parkway & Crowfoot Valley Road





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	840	1531	845	129	147	534
Future Volume (veh/h)	840	1531	845	129	147	534
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	857	1562	862	132	150	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	971	2827	1650	736	186	
Arrive On Green	0.28	0.80	0.46	0.46	0.10	0.00
Sat Flow, veh/h	3456	3647	3647	1585	1781	3170
Grp Volume(v), veh/h	857	1562	862	132	150	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1777	1585	1781	1585
Q Serve(g_s), s	21.3	14.4	15.4	4.4	7.4	0.0
Cycle Q Clear(g_c), s	21.3	14.4	15.4	4.4	7.4	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	971	2827	1650	736	186	
V/C Ratio(X)	0.88	0.55	0.52	0.18	0.80	
Avail Cap(c_a), veh/h	1133	2827	1650	736	356	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.9	3.4	17.0	14.1	39.4	0.0
Incr Delay (d2), s/veh	7.5	0.8	1.2	0.5	7.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	3.4	6.3	1.6	3.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.5	4.1	18.2	14.6	47.3	0.0
LnGrp LOS	D	A	B	B	D	
Approach Vol, veh/h		2419	994		150	A
Approach Delay, s/veh		16.3	17.8		47.3	
Approach LOS		B	B		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			76.1		13.9	29.8	46.3
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			63.0		18.0	29.5	29.0
Max Q Clear Time (g_c+I1), s			16.4		9.4	23.3	17.4
Green Ext Time (p_c), s			18.9		0.2	2.0	5.0

Intersection Summary	
HCM 6th Ctrl Delay	18.0
HCM 6th LOS	B

Notes

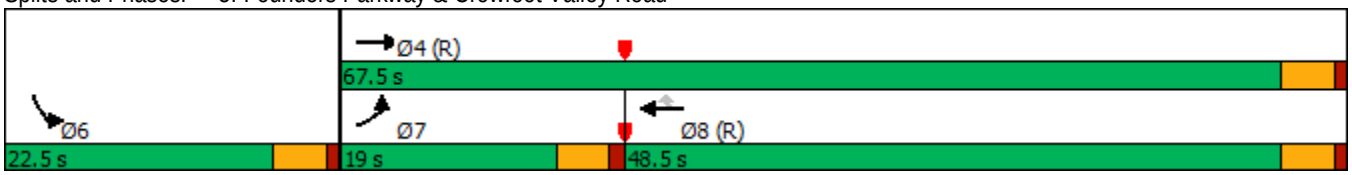
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

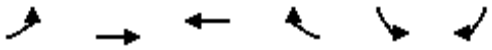
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	473	538	1585	184	112	955
Future Volume (vph)	473	538	1585	184	112	955
Turn Type	Prot	NA	NA	Perm	Prot	Free
Protected Phases	7	4	8		6	
Permitted Phases				8		Free
Detector Phase	7	4	8	8	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	
Total Split (s)	19.0	67.5	48.5	48.5	22.5	
Total Split (%)	21.1%	75.0%	53.9%	53.9%	25.0%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	
Act Effct Green (s)	15.5	66.4	46.4	46.4	14.6	90.0
Actuated g/C Ratio	0.17	0.74	0.52	0.52	0.16	1.00
v/c Ratio	0.82	0.21	0.89	0.21	0.99dr	0.34
Control Delay	48.9	4.2	27.8	2.6	28.1	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.9	4.2	27.8	2.6	28.1	0.6
LOS	D	A	C	A	C	A
Approach Delay		25.1	25.2		15.8	
Approach LOS		C	C		B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 22.6	Intersection LOS: C
Intersection Capacity Utilization 81.8%	ICU Level of Service D
Analysis Period (min) 15	

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

Splits and Phases: 5: Founders Parkway & Crowfoot Valley Road





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	473	538	1585	184	112	955
Future Volume (veh/h)	473	538	1585	184	112	955
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	483	549	1617	188	114	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	551	2907	2163	965	146	
Arrive On Green	0.16	0.82	0.61	0.61	0.08	0.00
Sat Flow, veh/h	3456	3647	3647	1585	1781	3170
Grp Volume(v), veh/h	483	549	1617	188	114	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1777	1585	1781	1585
Q Serve(g_s), s	12.3	3.0	29.4	4.7	5.6	0.0
Cycle Q Clear(g_c), s	12.3	3.0	29.4	4.7	5.6	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	551	2907	2163	965	146	
V/C Ratio(X)	0.88	0.19	0.75	0.19	0.78	
Avail Cap(c_a), veh/h	557	2907	2163	965	356	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.0	1.8	12.6	7.8	40.5	0.0
Incr Delay (d2), s/veh	14.6	0.1	2.4	0.5	8.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	0.6	11.0	1.6	2.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	51.6	1.9	15.1	8.3	49.2	0.0
LnGrp LOS	D	A	B	A	D	
Approach Vol, veh/h		1032	1805		114	A
Approach Delay, s/veh		25.2	14.3		49.2	
Approach LOS		C	B		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			78.1		11.9	18.8	59.3
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			63.0		18.0	14.5	44.0
Max Q Clear Time (g_c+I1), s			5.0		7.6	14.3	31.4
Green Ext Time (p_c), s			4.3		0.2	0.0	9.3

Intersection Summary	
HCM 6th Ctrl Delay	19.5
HCM 6th LOS	B

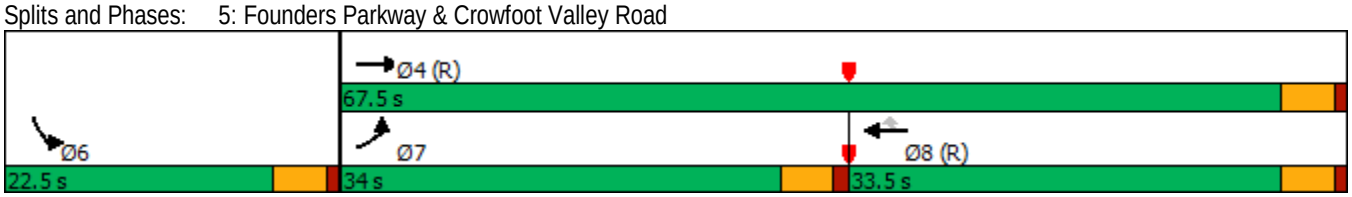
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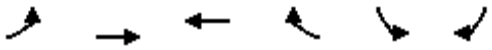
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	926	1586	881	161	195	580
Future Volume (vph)	926	1586	881	161	195	580
Turn Type	Prot	NA	NA	Perm	Prot	Free
Protected Phases	7	4	8		6	
Permitted Phases				8		Free
Detector Phase	7	4	8	8	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	
Total Split (s)	34.0	67.5	33.5	33.5	22.5	
Total Split (%)	37.8%	75.0%	37.2%	37.2%	25.0%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	
Act Effct Green (s)	29.4	69.6	35.7	35.7	11.4	90.0
Actuated g/C Ratio	0.33	0.77	0.40	0.40	0.13	1.00
v/c Ratio	0.84	0.59	0.64	0.23	0.74	0.21
Control Delay	36.0	5.9	26.1	4.7	21.7	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.0	5.9	26.1	4.7	21.7	0.3
LOS	D	A	C	A	C	A
Approach Delay		17.0	22.8		13.7	
Approach LOS		B	C		B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 17.8	Intersection LOS: B
Intersection Capacity Utilization 73.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: Founders Parkway & Crowfoot Valley Road





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	926	1586	881	161	195	580
Future Volume (veh/h)	926	1586	881	161	195	580
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	945	1618	899	164	199	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1044	2724	1473	657	238	
Arrive On Green	0.30	0.77	0.41	0.41	0.13	0.00
Sat Flow, veh/h	3456	3647	3647	1585	1781	3170
Grp Volume(v), veh/h	945	1618	899	164	199	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1777	1585	1781	1585
Q Serve(g_s), s	23.6	17.6	17.8	6.1	9.8	0.0
Cycle Q Clear(g_c), s	23.6	17.6	17.8	6.1	9.8	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1044	2724	1473	657	238	
V/C Ratio(X)	0.91	0.59	0.61	0.25	0.84	
Avail Cap(c_a), veh/h	1133	2724	1473	657	356	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.2	4.5	20.6	17.2	38.0	0.0
Incr Delay (d2), s/veh	9.9	1.0	1.9	0.9	10.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.9	4.8	7.5	2.3	4.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	40.1	5.5	22.5	18.1	48.6	0.0
LnGrp LOS	D	A	C	B	D	
Approach Vol, veh/h		2563	1063		199	A
Approach Delay, s/veh		18.2	21.9		48.6	
Approach LOS		B	C		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			73.5		16.5	31.7	41.8
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			63.0		18.0	29.5	29.0
Max Q Clear Time (g_c+I1), s			19.6		11.8	25.6	19.8
Green Ext Time (p_c), s			19.5		0.3	1.5	4.5

Intersection Summary	
HCM 6th Ctrl Delay	20.8
HCM 6th LOS	C

Notes

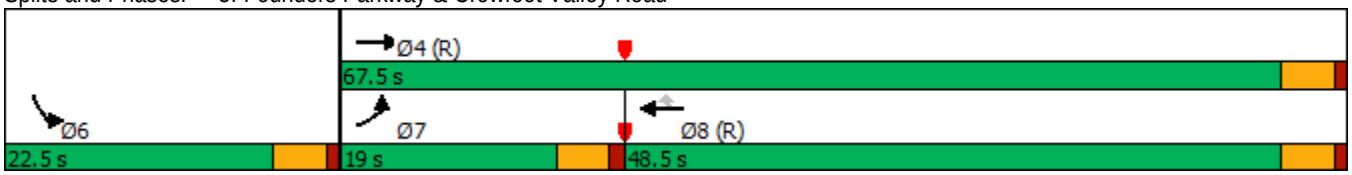
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

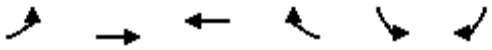
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	478	652	1931	170	108	1176
Future Volume (vph)	478	652	1931	170	108	1176
Turn Type	Prot	NA	NA	Perm	Prot	Free
Protected Phases	7	4	8		6	
Permitted Phases				8		Free
Detector Phase	7	4	8	8	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	
Total Split (s)	19.0	67.5	48.5	48.5	22.5	
Total Split (%)	21.1%	75.0%	53.9%	53.9%	25.0%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	
Act Effct Green (s)	14.7	64.3	45.0	45.0	16.7	90.0
Actuated g/C Ratio	0.16	0.71	0.50	0.50	0.19	1.00
v/c Ratio	0.87	0.26	1.11	0.20	1.16dr	0.42
Control Delay	54.3	5.0	83.4	4.0	35.7	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.3	5.0	83.4	4.0	35.7	0.9
LOS	D	A	F	A	D	A
Approach Delay		25.9	77.0		19.7	
Approach LOS		C	E		B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.11	
Intersection Signal Delay: 47.9	Intersection LOS: D
Intersection Capacity Utilization 93.8%	ICU Level of Service F
Analysis Period (min) 15	

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

Splits and Phases: 5: Founders Parkway & Crowfoot Valley Road





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	478	652	1931	170	108	1176
Future Volume (veh/h)	478	652	1931	170	108	1176
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	488	665	1970	173	110	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	555	2916	2169	967	141	
Arrive On Green	0.16	0.82	0.61	0.61	0.08	0.00
Sat Flow, veh/h	3456	3647	3647	1585	1781	3170
Grp Volume(v), veh/h	488	665	1970	173	110	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1777	1585	1781	1585
Q Serve(g_s), s	12.4	3.7	43.6	4.3	5.5	0.0
Cycle Q Clear(g_c), s	12.4	3.7	43.6	4.3	5.5	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	555	2916	2169	967	141	
V/C Ratio(X)	0.88	0.23	0.91	0.18	0.78	
Avail Cap(c_a), veh/h	557	2916	2169	967	356	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	36.9	1.8	15.3	7.7	40.7	0.0
Incr Delay (d2), s/veh	15.0	0.2	7.0	0.4	8.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	0.7	17.3	1.4	2.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	52.0	2.0	22.4	8.1	49.5	0.0
LnGrp LOS	D	A	C	A	D	
Approach Vol, veh/h		1153	2143		110	A
Approach Delay, s/veh		23.1	21.2		49.5	
Approach LOS		C	C		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			78.4		11.6	18.9	59.4
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			63.0		18.0	14.5	44.0
Max Q Clear Time (g_c+I1), s			5.7		7.5	14.4	45.6
Green Ext Time (p_c), s			5.4		0.2	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	22.8
HCM 6th LOS	C

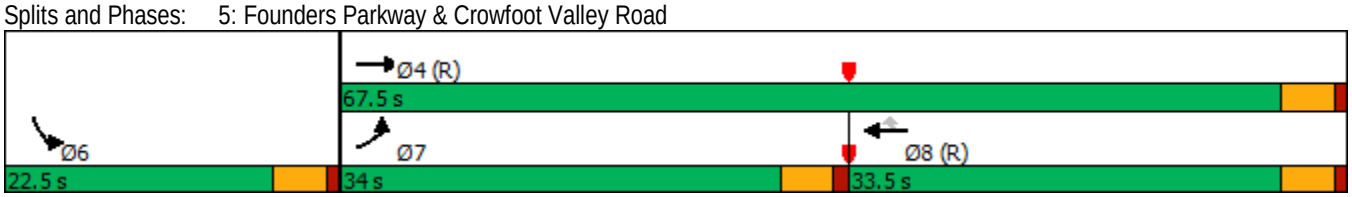
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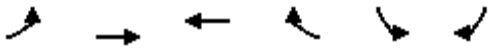
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1248	1996	1221	361	278	944
Future Volume (vph)	1248	1996	1221	361	278	944
Turn Type	Prot	NA	NA	Perm	Prot	Free
Protected Phases	7	4	8		6	
Permitted Phases				8		Free
Detector Phase	7	4	8	8	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	
Total Split (s)	34.0	67.5	33.5	33.5	22.5	
Total Split (%)	37.8%	75.0%	37.2%	37.2%	25.0%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	
Act Effct Green (s)	32.5	66.0	29.0	29.0	15.0	90.0
Actuated g/C Ratio	0.36	0.73	0.32	0.32	0.17	1.00
v/c Ratio	1.03	0.78	1.09	0.49	0.86	0.33
Control Delay	63.5	11.1	86.5	5.2	25.8	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.5	11.1	86.5	5.2	25.8	0.6
LOS	E	B	F	A	C	A
Approach Delay		31.3	67.9		16.1	
Approach LOS		C	E		B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.09	
Intersection Signal Delay: 37.8	Intersection LOS: D
Intersection Capacity Utilization 98.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 5: Founders Parkway & Crowfoot Valley Road





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1248	1996	1221	361	278	944
Future Volume (veh/h)	1248	1996	1221	361	278	944
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1273	2037	1246	368	284	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1133	2560	1217	543	320	
Arrive On Green	0.33	0.72	0.34	0.34	0.18	0.00
Sat Flow, veh/h	3456	3647	3647	1585	1781	3170
Grp Volume(v), veh/h	1273	2037	1246	368	284	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1777	1585	1781	1585
Q Serve(g_s), s	29.5	33.8	30.8	17.9	14.0	0.0
Cycle Q Clear(g_c), s	29.5	33.8	30.8	17.9	14.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1133	2560	1217	543	320	
V/C Ratio(X)	1.12	0.80	1.02	0.68	0.89	
Avail Cap(c_a), veh/h	1133	2560	1217	543	356	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.3	8.2	29.6	25.3	36.0	0.0
Incr Delay (d2), s/veh	67.6	2.7	31.9	6.7	21.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.4	10.7	17.9	7.5	7.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	97.9	10.9	61.5	32.0	57.3	0.0
LnGrp LOS	F	B	F	C	E	
Approach Vol, veh/h		3310	1614		284	A
Approach Delay, s/veh		44.4	54.8		57.3	
Approach LOS		D	D		E	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	69.3	20.7	34.0	35.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	63.0	18.0	29.5	29.0
Max Q Clear Time (g_c+I1), s	35.8	16.0	31.5	32.8
Green Ext Time (p_c), s	20.1	0.2	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	48.3
HCM 6th LOS	D

Notes

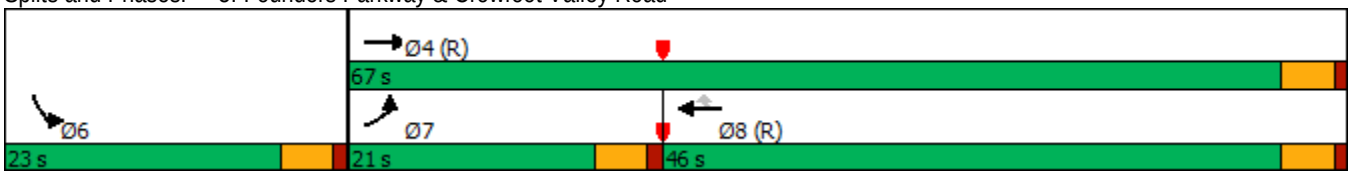
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

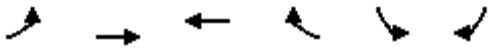
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	525	683	1986	218	135	1265
Future Volume (vph)	525	683	1986	218	135	1265
Turn Type	Prot	NA	NA	Perm	Prot	Free
Protected Phases	7	4	8		6	
Permitted Phases				8		Free
Detector Phase	7	4	8	8	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	
Total Split (s)	21.0	67.0	46.0	46.0	23.0	
Total Split (%)	23.3%	74.4%	51.1%	51.1%	25.6%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	
Act Effct Green (s)	16.3	63.4	42.7	42.7	17.6	90.0
Actuated g/C Ratio	0.18	0.70	0.47	0.47	0.20	1.00
v/c Ratio	0.86	0.19	0.84	0.26	1.15dr	0.45
Control Delay	51.5	4.8	34.3	10.4	36.9	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.5	4.8	34.3	10.4	36.9	1.0
LOS	D	A	C	B	D	A
Approach Delay		25.1	31.9		20.7	
Approach LOS		C	C		C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 27.0	Intersection LOS: C
Intersection Capacity Utilization 81.8%	ICU Level of Service D
Analysis Period (min) 15	

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

Splits and Phases: 5: Founders Parkway & Crowfoot Valley Road





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	525	683	1986	218	135	1265
Future Volume (veh/h)	525	683	1986	218	135	1265
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	536	697	2027	222	138	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	608	4099	2945	914	173	
Arrive On Green	0.18	0.80	0.58	0.58	0.10	0.00
Sat Flow, veh/h	3456	5274	5274	1585	1781	3170
Grp Volume(v), veh/h	536	697	2027	222	138	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1702	1585	1781	1585
Q Serve(g_s), s	13.6	2.8	25.1	6.2	6.8	0.0
Cycle Q Clear(g_c), s	13.6	2.8	25.1	6.2	6.8	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	608	4099	2945	914	173	
V/C Ratio(X)	0.88	0.17	0.69	0.24	0.80	
Avail Cap(c_a), veh/h	634	4099	2945	914	366	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	36.2	2.0	13.4	9.4	39.7	0.0
Incr Delay (d2), s/veh	13.3	0.1	1.3	0.6	8.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	0.6	9.0	2.1	3.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	49.5	2.1	14.7	10.0	47.8	0.0
LnGrp LOS	D	A	B	B	D	
Approach Vol, veh/h		1233	2249		138	A
Approach Delay, s/veh		22.7	14.2		47.8	
Approach LOS		C	B		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			76.7		13.3	20.3	56.4
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			62.5		18.5	16.5	41.5
Max Q Clear Time (g_c+I1), s			4.8		8.8	15.6	27.1
Green Ext Time (p_c), s			5.8		0.2	0.2	11.8

Intersection Summary	
HCM 6th Ctrl Delay	18.4
HCM 6th LOS	B

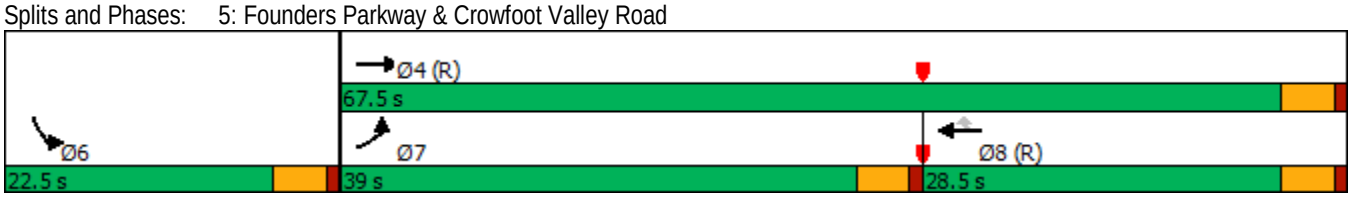
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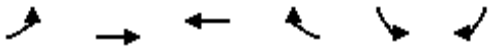
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1334	2051	1257	393	326	990
Future Volume (vph)	1334	2051	1257	393	326	990
Turn Type	Prot	NA	NA	Perm	Prot	Free
Protected Phases	7	4	8		6	
Permitted Phases				8		Free
Detector Phase	7	4	8	8	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	
Total Split (s)	39.0	67.5	28.5	28.5	22.5	
Total Split (%)	43.3%	75.0%	31.7%	31.7%	25.0%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	
Act Effct Green (s)	35.4	63.9	24.0	24.0	17.1	90.0
Actuated g/C Ratio	0.39	0.71	0.27	0.27	0.19	1.00
v/c Ratio	1.01	0.58	0.95	0.57	0.91	0.35
Control Delay	55.2	7.4	49.9	16.0	34.2	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.2	7.4	49.9	16.0	34.2	0.7
LOS	E	A	D	B	C	A
Approach Delay		26.2	41.9		21.6	
Approach LOS		C	D		C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 29.3	Intersection LOS: C
Intersection Capacity Utilization 93.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 5: Founders Parkway & Crowfoot Valley Road





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1334	2051	1257	393	326	990
Future Volume (veh/h)	1334	2051	1257	393	326	990
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1361	2093	1283	340	333	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1325	3574	1362	423	356	
Arrive On Green	0.38	0.70	0.27	0.27	0.20	0.00
Sat Flow, veh/h	3456	5274	5274	1585	1781	3170
Grp Volume(v), veh/h	1361	2093	1283	340	333	0
Grp Sat Flow(s),veh/h/ln	1728	1702	1702	1585	1781	1585
Q Serve(g_s), s	34.5	18.8	22.1	18.0	16.6	0.0
Cycle Q Clear(g_c), s	34.5	18.8	22.1	18.0	16.6	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1325	3574	1362	423	356	
V/C Ratio(X)	1.03	0.59	0.94	0.80	0.93	
Avail Cap(c_a), veh/h	1325	3574	1362	423	356	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.7	6.9	32.3	30.8	35.4	0.0
Incr Delay (d2), s/veh	32.0	0.7	14.0	15.0	31.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.3	5.7	10.6	8.4	10.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	59.7	7.6	46.3	45.8	66.8	0.0
LnGrp LOS	F	A	D	D	E	
Approach Vol, veh/h		3454	1623		333	A
Approach Delay, s/veh		28.1	46.2		66.8	
Approach LOS		C	D		E	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			67.5		22.5	39.0	28.5
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			63.0		18.0	34.5	24.0
Max Q Clear Time (g_c+I1), s			20.8		18.6	36.5	24.1
Green Ext Time (p_c), s			26.2		0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	35.9
HCM 6th LOS	D

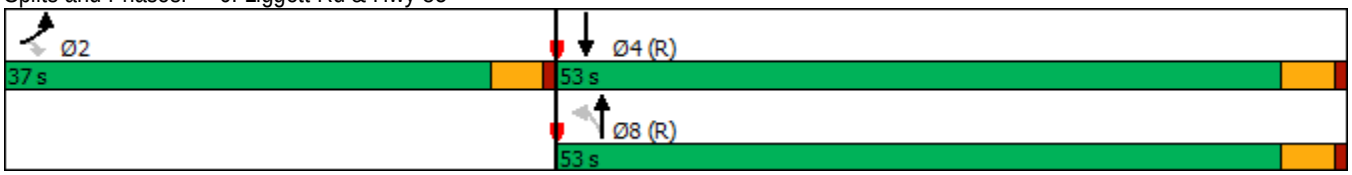
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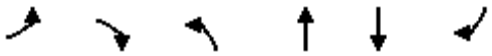
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	138	13	28	341	403
Future Volume (vph)	138	13	28	341	403
Turn Type	Prot	Perm	Perm	NA	NA
Protected Phases	2			8	4
Permitted Phases		2	8		
Detector Phase	2	2	8	8	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5
Total Split (s)	37.0	37.0	53.0	53.0	53.0
Total Split (%)	41.1%	41.1%	58.9%	58.9%	58.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Max	Max	C-Max	C-Max	C-Max
Act Effct Green (s)	32.5	32.5	48.5	48.5	48.5
Actuated g/C Ratio	0.36	0.36	0.54	0.54	0.54
v/c Ratio	0.25	0.03	0.10	0.21	0.37
Control Delay	21.6	9.1	11.1	11.2	10.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	21.6	9.1	11.1	11.2	10.2
LOS	C	A	B	B	B
Approach Delay	20.5			11.1	10.2
Approach LOS	C			B	B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 41 (46%), Referenced to phase 4:SBT and 8:NBTL, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.37	
Intersection Signal Delay: 11.9	Intersection LOS: B
Intersection Capacity Utilization 38.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Liggett Rd & Hwy-85





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	138	13	28	341	403	183
Future Volume (veh/h)	138	13	28	341	403	183
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	162	15	33	401	474	186
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	643	572	413	1915	1346	525
Arrive On Green	0.36	0.36	0.54	0.54	0.54	0.54
Sat Flow, veh/h	1781	1585	774	3647	2592	974
Grp Volume(v), veh/h	162	15	33	401	336	324
Grp Sat Flow(s),veh/h/ln	1781	1585	774	1777	1777	1695
Q Serve(g_s), s	5.8	0.5	2.3	5.3	9.7	9.8
Cycle Q Clear(g_c), s	5.8	0.5	12.1	5.3	9.7	9.8
Prop In Lane	1.00	1.00	1.00			0.57
Lane Grp Cap(c), veh/h	643	572	413	1915	958	913
V/C Ratio(X)	0.25	0.03	0.08	0.21	0.35	0.35
Avail Cap(c_a), veh/h	643	572	413	1915	958	913
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.2	18.5	15.3	10.8	11.8	11.8
Incr Delay (d2), s/veh	0.9	0.1	0.4	0.2	1.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.2	0.4	2.0	3.8	3.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.1	18.6	15.6	11.0	12.8	12.9
LnGrp LOS	C	B	B	B	B	B
Approach Vol, veh/h	177			434	660	
Approach Delay, s/veh	20.9			11.4	12.9	
Approach LOS	C			B	B	

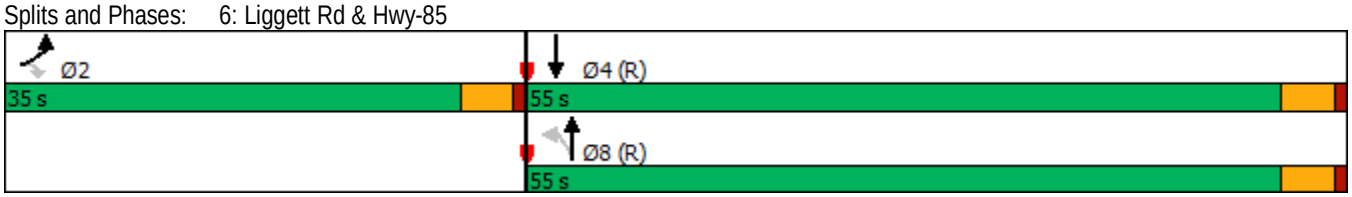
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		37.0		53.0		53.0
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		32.5		48.5		48.5
Max Q Clear Time (g_c+I1), s		7.8		11.8		14.1
Green Ext Time (p_c), s		0.5		4.7		3.2

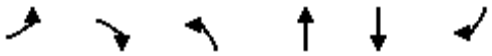
Intersection Summary		
HCM 6th Ctrl Delay		13.5
HCM 6th LOS		B

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	153	19	15	475	541
Future Volume (vph)	153	19	15	475	541
Turn Type	Prot	Perm	Perm	NA	NA
Protected Phases	2			8	4
Permitted Phases		2	8		
Detector Phase	2	2	8	8	4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5
Total Split (s)	35.0	35.0	55.0	55.0	55.0
Total Split (%)	38.9%	38.9%	61.1%	61.1%	61.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Max	Max	C-Max	C-Max	C-Max
Act Effct Green (s)	30.5	30.5	50.5	50.5	50.5
Actuated g/C Ratio	0.34	0.34	0.56	0.56	0.56
v/c Ratio	0.27	0.04	0.05	0.25	0.41
Control Delay	23.2	8.9	9.6	10.5	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	23.2	8.9	9.6	10.5	10.4
LOS	C	A	A	B	B
Approach Delay	21.7			10.5	10.4
Approach LOS	C			B	B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 41 (46%), Referenced to phase 4:SBT and 8:NBTL, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.41	
Intersection Signal Delay: 11.8	Intersection LOS: B
Intersection Capacity Utilization 37.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Liggett Rd & Hwy-85





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	153	19	15	475	541	204
Future Volume (veh/h)	153	19	15	475	541	204
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	163	20	16	505	576	190
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	604	537	387	1994	1474	485
Arrive On Green	0.34	0.34	0.56	0.56	0.56	0.56
Sat Flow, veh/h	1781	1585	702	3647	2721	864
Grp Volume(v), veh/h	163	20	16	505	389	377
Grp Sat Flow(s),veh/h/ln	1781	1585	702	1777	1777	1715
Q Serve(g_s), s	6.0	0.8	1.2	6.5	11.1	11.1
Cycle Q Clear(g_c), s	6.0	0.8	12.3	6.5	11.1	11.1
Prop In Lane	1.00	1.00	1.00			0.50
Lane Grp Cap(c), veh/h	604	537	387	1994	997	962
V/C Ratio(X)	0.27	0.04	0.04	0.25	0.39	0.39
Avail Cap(c_a), veh/h	604	537	387	1994	997	962
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.6	19.9	14.6	10.1	11.1	11.1
Incr Delay (d2), s/veh	1.1	0.1	0.2	0.3	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.3	0.2	2.5	4.3	4.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.7	20.0	14.8	10.4	12.2	12.3
LnGrp LOS	C	C	B	B	B	B
Approach Vol, veh/h	183			521	766	
Approach Delay, s/veh	22.5			10.5	12.3	
Approach LOS	C			B	B	

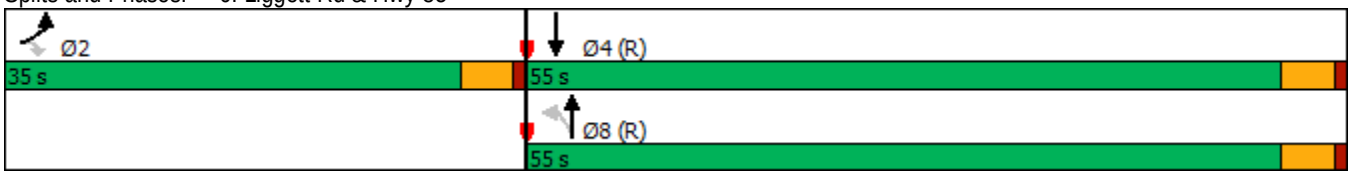
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		35.0		55.0		55.0
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		30.5		50.5		50.5
Max Q Clear Time (g_c+I1), s		8.0		13.1		14.3
Green Ext Time (p_c), s		0.5		5.7		3.9

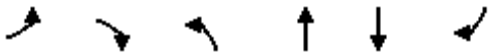
Intersection Summary		
HCM 6th Ctrl Delay		12.9
HCM 6th LOS		B

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	149	29	30	439	517	148
Future Volume (vph)	149	29	30	439	517	148
Turn Type	Prot	Perm	Perm	NA	NA	Free
Protected Phases	2			8	4	
Permitted Phases		2	8			Free
Detector Phase	2	2	8	8	4	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	35.0	35.0	55.0	55.0	55.0	
Total Split (%)	38.9%	38.9%	61.1%	61.1%	61.1%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	C-Max	C-Max	C-Max	
Act Effct Green (s)	30.5	30.5	50.5	50.5	50.5	90.0
Actuated g/C Ratio	0.34	0.34	0.56	0.56	0.56	1.00
v/c Ratio	0.27	0.06	0.07	0.24	0.28	0.10
Control Delay	23.1	7.7	9.7	10.4	10.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.1	7.7	9.7	10.4	10.7	0.1
LOS	C	A	A	B	B	A
Approach Delay	20.6			10.3	8.4	
Approach LOS	C			B	A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 41 (46%), Referenced to phase 4:SBT and 8:NBTL, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.28	
Intersection Signal Delay: 10.7	Intersection LOS: B
Intersection Capacity Utilization 38.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Liggett Rd & Hwy-85





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	149	29	30	439	517	148
Future Volume (veh/h)	149	29	30	439	517	148
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	159	31	32	467	550	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	604	537	492	1994	1994	
Arrive On Green	0.34	0.34	0.56	0.56	0.56	0.00
Sat Flow, veh/h	1781	1585	858	3647	3647	1585
Grp Volume(v), veh/h	159	31	32	467	550	0
Grp Sat Flow(s),veh/h/ln	1781	1585	858	1777	1777	1585
Q Serve(g_s), s	5.8	1.2	1.8	6.0	7.2	0.0
Cycle Q Clear(g_c), s	5.8	1.2	9.0	6.0	7.2	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	604	537	492	1994	1994	
V/C Ratio(X)	0.26	0.06	0.07	0.23	0.28	
Avail Cap(c_a), veh/h	604	537	492	1994	1994	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.6	20.1	12.6	10.0	10.3	0.0
Incr Delay (d2), s/veh	1.1	0.2	0.3	0.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.5	0.4	2.2	2.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.7	20.3	12.9	10.3	10.6	0.0
LnGrp LOS	C	C	B	B	B	
Approach Vol, veh/h	190			499	550	A
Approach Delay, s/veh	22.3			10.4	10.6	
Approach LOS	C			B	B	

Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		35.0		55.0		55.0
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		30.5		50.5		50.5
Max Q Clear Time (g_c+I1), s		7.8		9.2		11.0
Green Ext Time (p_c), s		0.5		4.2		3.7

Intersection Summary		
HCM 6th Ctrl Delay		12.3
HCM 6th LOS		B

Notes

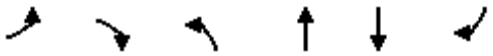
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	165	26	16	570	696	121
Future Volume (vph)	165	26	16	570	696	121
Turn Type	Prot	Perm	Perm	NA	NA	Free
Protected Phases	2			8	4	
Permitted Phases		2	8			Free
Detector Phase	2	2	8	8	4	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	52.0	52.0	38.0	38.0	38.0	
Total Split (%)	57.8%	57.8%	42.2%	42.2%	42.2%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	C-Max	C-Max	C-Max	
Act Effct Green (s)	47.5	47.5	33.5	33.5	33.5	90.0
Actuated g/C Ratio	0.53	0.53	0.37	0.37	0.37	1.00
v/c Ratio	0.19	0.03	0.10	0.46	0.56	0.08
Control Delay	11.8	4.1	20.4	22.8	24.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.8	4.1	20.4	22.8	24.5	0.1
LOS	B	A	C	C	C	A
Approach Delay	10.8			22.8	20.8	
Approach LOS	B			C	C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 41 (46%), Referenced to phase 4:SBT and 8:NBTL, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 20.3	Intersection LOS: C
Intersection Capacity Utilization 35.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Liggett Rd & Hwy-85





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	165	26	16	570	696	121
Future Volume (veh/h)	165	26	16	570	696	121
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	176	28	17	606	740	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	940	837	229	1323	1323	
Arrive On Green	0.53	0.53	0.37	0.37	0.37	0.00
Sat Flow, veh/h	1781	1585	719	3647	3647	1585
Grp Volume(v), veh/h	176	28	17	606	740	0
Grp Sat Flow(s),veh/h/ln	1781	1585	719	1777	1777	1585
Q Serve(g_s), s	4.7	0.8	1.7	11.6	14.9	0.0
Cycle Q Clear(g_c), s	4.7	0.8	16.6	11.6	14.9	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	940	837	229	1323	1323	
V/C Ratio(X)	0.19	0.03	0.07	0.46	0.56	
Avail Cap(c_a), veh/h	940	837	229	1323	1323	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.1	10.2	29.0	21.4	22.4	0.0
Incr Delay (d2), s/veh	0.4	0.1	0.6	1.1	1.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.3	0.3	4.9	6.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.6	10.3	29.6	22.5	24.1	0.0
LnGrp LOS	B	B	C	C	C	
Approach Vol, veh/h	204			623	740	A
Approach Delay, s/veh	11.4			22.7	24.1	
Approach LOS	B			C	C	

Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		52.0		38.0		38.0
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		47.5		33.5		33.5
Max Q Clear Time (g_c+I1), s		6.7		16.9		18.6
Green Ext Time (p_c), s		0.6		4.8		3.7

Intersection Summary	
HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

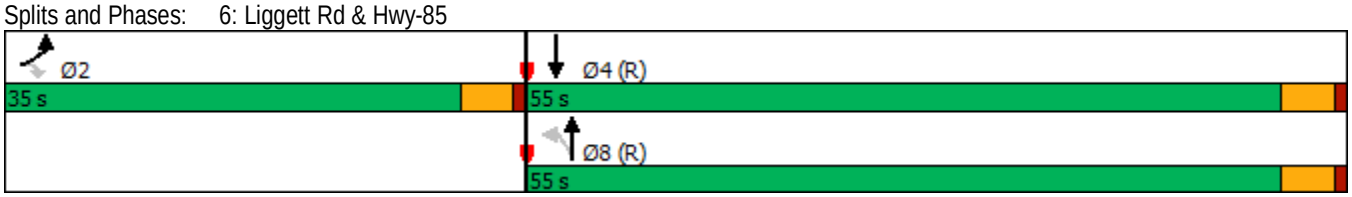
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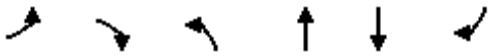
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	308	55	30	577	594	567
Future Volume (vph)	308	55	30	577	594	567
Turn Type	Prot	Perm	Perm	NA	NA	Free
Protected Phases	2			8	4	
Permitted Phases		2	8			Free
Detector Phase	2	2	8	8	4	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	35.0	35.0	55.0	55.0	55.0	
Total Split (%)	38.9%	38.9%	61.1%	61.1%	61.1%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	C-Max	C-Max	C-Max	
Act Effct Green (s)	30.5	30.5	50.5	50.5	50.5	90.0
Actuated g/C Ratio	0.34	0.34	0.56	0.56	0.56	1.00
v/c Ratio	0.55	0.11	0.08	0.31	0.32	0.38
Control Delay	28.3	11.8	9.8	11.0	11.1	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.3	11.8	9.8	11.0	11.1	0.7
LOS	C	B	A	B	B	A
Approach Delay	25.8			11.0	6.0	
Approach LOS	C			B	A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 41 (46%), Referenced to phase 4:SBT and 8:NBTL, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 10.8	Intersection LOS: B
Intersection Capacity Utilization 48.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Liggett Rd & Hwy-85





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	308	55	30	577	594	567
Future Volume (veh/h)	308	55	30	577	594	567
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	328	59	32	614	632	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	604	537	451	1994	1994	
Arrive On Green	0.34	0.34	0.56	0.56	0.56	0.00
Sat Flow, veh/h	1781	1585	795	3647	3647	1585
Grp Volume(v), veh/h	328	59	32	614	632	0
Grp Sat Flow(s),veh/h/ln	1781	1585	795	1777	1777	1585
Q Serve(g_s), s	13.4	2.3	2.0	8.3	8.5	0.0
Cycle Q Clear(g_c), s	13.4	2.3	10.6	8.3	8.5	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	604	537	451	1994	1994	
V/C Ratio(X)	0.54	0.11	0.07	0.31	0.32	
Avail Cap(c_a), veh/h	604	537	451	1994	1994	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	24.1	20.4	13.4	10.5	10.5	0.0
Incr Delay (d2), s/veh	3.5	0.4	0.3	0.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	0.9	0.4	3.1	3.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.6	20.8	13.7	10.9	11.0	0.0
LnGrp LOS	C	C	B	B	B	
Approach Vol, veh/h	387			646	632	A
Approach Delay, s/veh	26.6			11.0	11.0	
Approach LOS	C			B	B	

Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		35.0		55.0		55.0
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		30.5		50.5		50.5
Max Q Clear Time (g_c+I1), s		15.4		10.5		12.6
Green Ext Time (p_c), s		1.1		5.0		5.1

Intersection Summary		
HCM 6th Ctrl Delay		14.6
HCM 6th LOS		B

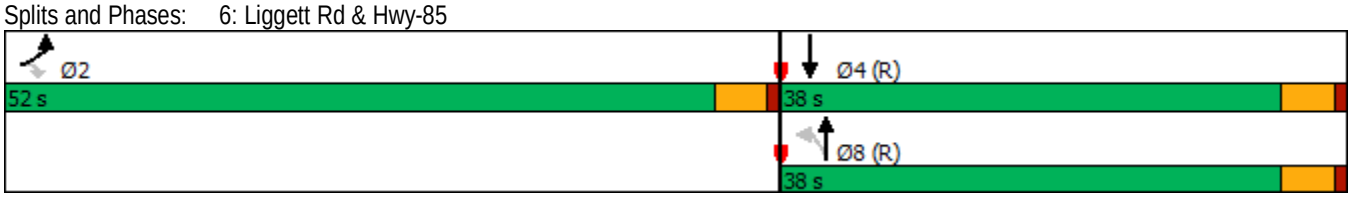
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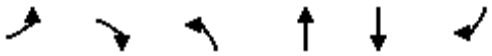
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	527	98	16	661	833	283
Future Volume (vph)	527	98	16	661	833	283
Turn Type	Prot	Perm	Perm	NA	NA	Free
Protected Phases	2			8	4	
Permitted Phases		2	8			Free
Detector Phase	2	2	8	8	4	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	52.0	52.0	38.0	38.0	38.0	
Total Split (%)	57.8%	57.8%	42.2%	42.2%	42.2%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	C-Max	C-Max	C-Max	
Act Effct Green (s)	47.5	47.5	33.5	33.5	33.5	90.0
Actuated g/C Ratio	0.53	0.53	0.37	0.37	0.37	1.00
v/c Ratio	0.60	0.12	0.14	0.53	0.67	0.19
Control Delay	18.1	7.0	22.5	24.0	26.8	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.1	7.0	22.5	24.0	26.8	0.3
LOS	B	A	C	C	C	A
Approach Delay	16.4			23.9	20.0	
Approach LOS	B			C	C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 41 (46%), Referenced to phase 4:SBT and 8:NBTL, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 20.2	Intersection LOS: C
Intersection Capacity Utilization 59.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: Liggett Rd & Hwy-85





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	527	98	16	661	833	283
Future Volume (veh/h)	527	98	16	661	833	283
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	561	104	17	703	886	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	940	837	183	1323	1323	
Arrive On Green	0.53	0.53	0.37	0.37	0.37	0.00
Sat Flow, veh/h	1781	1585	627	3647	3647	1585
Grp Volume(v), veh/h	561	104	17	703	886	0
Grp Sat Flow(s),veh/h/ln	1781	1585	627	1777	1777	1585
Q Serve(g_s), s	19.5	3.0	2.1	13.9	18.8	0.0
Cycle Q Clear(g_c), s	19.5	3.0	20.9	13.9	18.8	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	940	837	183	1323	1323	
V/C Ratio(X)	0.60	0.12	0.09	0.53	0.67	
Avail Cap(c_a), veh/h	940	837	183	1323	1323	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.6	10.7	32.3	22.1	23.6	0.0
Incr Delay (d2), s/veh	2.8	0.3	1.0	1.5	2.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	1.1	0.4	5.9	8.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.4	11.0	33.4	23.6	26.3	0.0
LnGrp LOS	B	B	C	C	C	
Approach Vol, veh/h	665			720	886	A
Approach Delay, s/veh	16.4			23.9	26.3	
Approach LOS	B			C	C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	52.0	38.0	38.0
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	47.5	33.5	33.5
Max Q Clear Time (g_c+I1), s	21.5	20.8	22.9
Green Ext Time (p_c), s	2.3	5.0	3.7

Intersection Summary	
HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

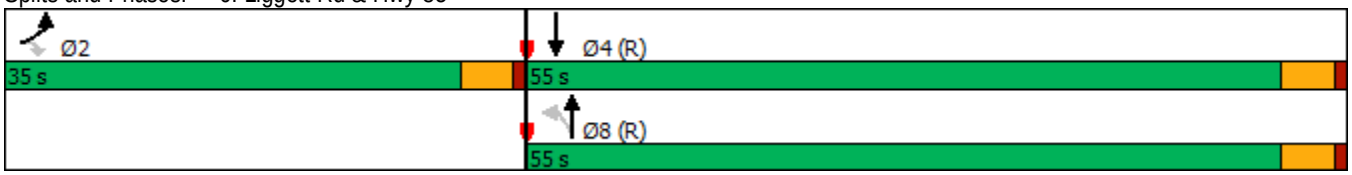
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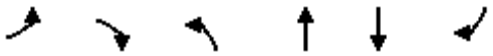
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	201	34	40	641	727	201
Future Volume (vph)	201	34	40	641	727	201
Turn Type	Prot	Perm	Perm	NA	NA	Free
Protected Phases	2			8	4	
Permitted Phases		2	8			Free
Detector Phase	2	2	8	8	4	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	35.0	35.0	55.0	55.0	55.0	
Total Split (%)	38.9%	38.9%	61.1%	61.1%	61.1%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	C-Max	C-Max	C-Max	
Act Effct Green (s)	30.5	30.5	50.5	50.5	50.5	90.0
Actuated g/C Ratio	0.34	0.34	0.56	0.56	0.56	1.00
v/c Ratio	0.36	0.06	0.13	0.34	0.39	0.14
Control Delay	24.5	9.0	10.8	11.3	11.8	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.5	9.0	10.8	11.3	11.8	0.2
LOS	C	A	B	B	B	A
Approach Delay	22.3			11.3	9.3	
Approach LOS	C			B	A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 41 (46%), Referenced to phase 4:SBT and 8:NBTL, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.39	
Intersection Signal Delay: 11.7	Intersection LOS: B
Intersection Capacity Utilization 46.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Liggett Rd & Hwy-85





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	201	34	40	641	727	201
Future Volume (veh/h)	201	34	40	641	727	201
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	214	36	43	682	773	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	604	537	386	1994	1994	
Arrive On Green	0.34	0.34	0.56	0.56	0.56	0.00
Sat Flow, veh/h	1781	1585	697	3647	3647	1585
Grp Volume(v), veh/h	214	36	43	682	773	0
Grp Sat Flow(s),veh/h/ln	1781	1585	697	1777	1777	1585
Q Serve(g_s), s	8.1	1.4	3.3	9.4	11.0	0.0
Cycle Q Clear(g_c), s	8.1	1.4	14.3	9.4	11.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	604	537	386	1994	1994	
V/C Ratio(X)	0.35	0.07	0.11	0.34	0.39	
Avail Cap(c_a), veh/h	604	537	386	1994	1994	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.4	20.1	15.1	10.7	11.1	0.0
Incr Delay (d2), s/veh	1.6	0.2	0.6	0.5	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.5	0.6	3.5	4.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.0	20.4	15.7	11.2	11.6	0.0
LnGrp LOS	C	C	B	B	B	
Approach Vol, veh/h	250			725	773	A
Approach Delay, s/veh	23.5			11.5	11.6	
Approach LOS	C			B	B	

Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		35.0		55.0		55.0
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		30.5		50.5		50.5
Max Q Clear Time (g_c+I1), s		10.1		13.0		16.3
Green Ext Time (p_c), s		0.7		6.4		5.8

Intersection Summary	
HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

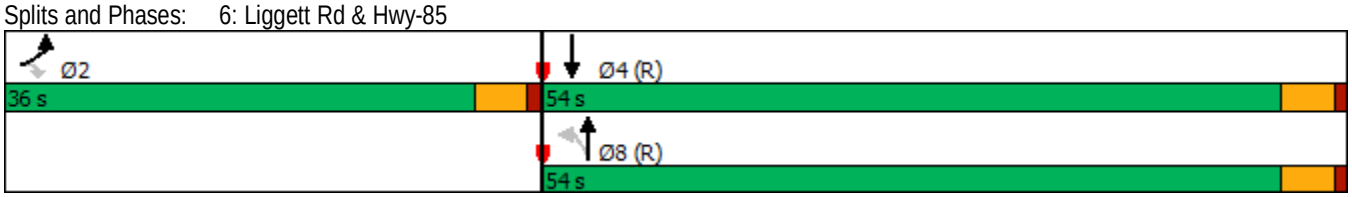
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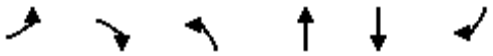
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	223	53	40	798	978	167
Future Volume (vph)	223	53	40	798	978	167
Turn Type	Prot	Perm	Perm	NA	NA	Free
Protected Phases	2			8	4	
Permitted Phases		2	8			Free
Detector Phase	2	2	8	8	4	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	36.0	36.0	54.0	54.0	54.0	
Total Split (%)	40.0%	40.0%	60.0%	60.0%	60.0%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	C-Max	C-Max	C-Max	
Act Effct Green (s)	31.5	31.5	49.5	49.5	49.5	90.0
Actuated g/C Ratio	0.35	0.35	0.55	0.55	0.55	1.00
v/c Ratio	0.38	0.10	0.21	0.44	0.53	0.11
Control Delay	24.2	8.8	13.6	12.9	14.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.2	8.8	13.6	12.9	14.2	0.1
LOS	C	A	B	B	B	A
Approach Delay	21.3			12.9	12.1	
Approach LOS	C			B	B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 41 (46%), Referenced to phase 4:SBT and 8:NBTL, Start of Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.53	
Intersection Signal Delay: 13.5	Intersection LOS: B
Intersection Capacity Utilization 53.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Liggett Rd & Hwy-85





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	223	53	40	798	978	167
Future Volume (veh/h)	223	53	40	798	978	167
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	237	56	43	849	1040	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	623	555	277	1955	1955	
Arrive On Green	0.35	0.35	0.55	0.55	0.55	0.00
Sat Flow, veh/h	1781	1585	542	3647	3647	1585
Grp Volume(v), veh/h	237	56	43	849	1040	0
Grp Sat Flow(s),veh/h/ln	1781	1585	542	1777	1777	1585
Q Serve(g_s), s	9.0	2.1	4.9	12.7	16.8	0.0
Cycle Q Clear(g_c), s	9.0	2.1	21.7	12.7	16.8	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	623	555	277	1955	1955	
V/C Ratio(X)	0.38	0.10	0.16	0.43	0.53	
Avail Cap(c_a), veh/h	623	555	277	1955	1955	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.9	19.7	19.8	12.0	12.9	0.0
Incr Delay (d2), s/veh	1.8	0.4	1.2	0.7	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.8	0.7	4.8	6.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.7	20.1	21.0	12.7	13.9	0.0
LnGrp LOS	C	C	C	B	B	
Approach Vol, veh/h	293			892	1040	A
Approach Delay, s/veh	23.0			13.1	13.9	
Approach LOS	C			B	B	

Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		36.0		54.0		54.0
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		31.5		49.5		49.5
Max Q Clear Time (g_c+I1), s		11.0		18.8		23.7
Green Ext Time (p_c), s		0.8		9.0		7.2

Intersection Summary		
HCM 6th Ctrl Delay		14.8
HCM 6th LOS		B

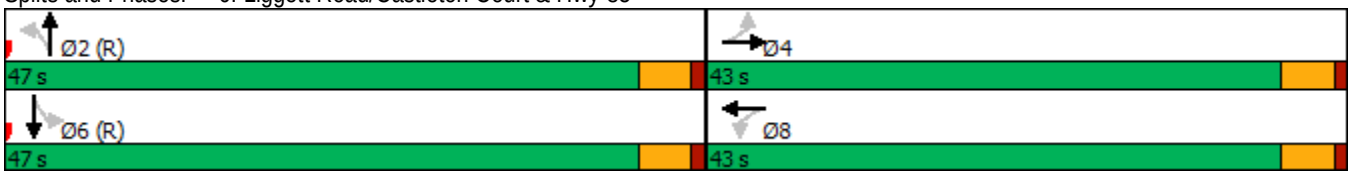
Notes

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

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	360	65	50	65	40	745	95	785	620
Future Volume (vph)	360	65	50	65	40	745	95	785	620
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Free
Protected Phases		4		8		2		6	
Permitted Phases	4		8		2		6		Free
Detector Phase	4	4	8	8	2	2	6	6	
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	43.0	43.0	43.0	43.0	47.0	47.0	47.0	47.0	
Total Split (%)	47.8%	47.8%	47.8%	47.8%	52.2%	52.2%	52.2%	52.2%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	
Act Effct Green (s)	31.5	31.5	31.5	31.5	49.5	49.5	49.5	49.5	90.0
Actuated g/C Ratio	0.35	0.35	0.35	0.35	0.55	0.55	0.55	0.55	1.00
v/c Ratio	0.84	0.21	0.12	0.14	0.15	0.52	0.46	0.43	0.42
Control Delay	43.5	10.6	18.1	14.0	14.3	14.5	23.5	14.0	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.5	10.6	18.1	14.0	14.3	14.5	23.5	14.0	0.8
LOS	D	B	B	B	B	B	C	B	A
Approach Delay		34.9		15.5		14.5		9.1	
Approach LOS		C		B		B		A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 44 (49%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 15.1	Intersection LOS: B
Intersection Capacity Utilization 71.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 6: Liggett Road/Castleton Court & Hwy-85



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	360	65	60	50	65	20	40	745	180	95	785	620
Future Volume (veh/h)	360	65	60	50	65	20	40	745	180	95	785	620
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	383	71	64	54	71	22	43	793	196	103	835	0
Peak Hour Factor	0.94	0.92	0.94	0.92	0.92	0.92	0.94	0.94	0.92	0.92	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	498	322	291	458	487	151	346	1537	380	288	1934	
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.54	0.54	0.54	0.54	0.54	0.00
Sat Flow, veh/h	1303	906	817	1254	1370	424	658	2824	698	569	3554	1585
Grp Volume(v), veh/h	383	0	135	54	0	93	43	499	490	103	835	0
Grp Sat Flow(s),veh/h/ln	1303	0	1723	1254	0	1794	658	1777	1745	569	1777	1585
Q Serve(g_s), s	25.5	0.0	4.9	2.8	0.0	3.2	3.8	16.0	16.0	12.6	12.6	0.0
Cycle Q Clear(g_c), s	28.6	0.0	4.9	7.8	0.0	3.2	16.3	16.0	16.0	28.6	12.6	0.0
Prop In Lane	1.00		0.47	1.00		0.24	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	498	0	613	458	0	638	346	967	950	288	1934	
V/C Ratio(X)	0.77	0.00	0.22	0.12	0.00	0.15	0.12	0.52	0.52	0.36	0.43	
Avail Cap(c_a), veh/h	592	0	737	548	0	767	346	967	950	288	1934	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.4	0.0	20.3	23.0	0.0	19.7	17.1	13.0	13.0	22.1	12.2	0.0
Incr Delay (d2), s/veh	5.1	0.0	0.2	0.1	0.0	0.1	0.7	2.0	2.0	3.4	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	0.0	2.0	0.8	0.0	1.3	0.6	6.4	6.3	1.9	4.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	0.0	20.4	23.1	0.0	19.8	17.8	15.0	15.0	25.5	12.9	0.0
LnGrp LOS	C	A	C	C	A	B	B	B	B	C	B	
Approach Vol, veh/h		518			147			1032			938	A
Approach Delay, s/veh		30.9			21.0			15.1			14.3	
Approach LOS		C			C			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		53.5		36.5		53.5		36.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		42.5		38.5		42.5		38.5				
Max Q Clear Time (g_c+I1), s		18.3		30.6		30.6		9.8				
Green Ext Time (p_c), s		7.7		1.4		5.3		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			18.2									
HCM 6th LOS			B									

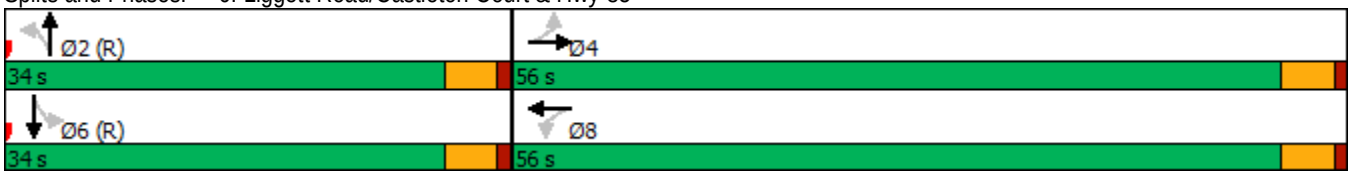
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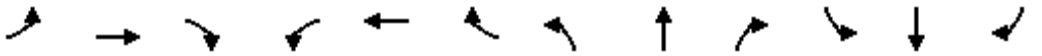
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	585	65	280	65	40	866	15	1081	329
Future Volume (vph)	585	65	280	65	40	866	15	1081	329
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA	Free
Protected Phases		4		8		2		6	
Permitted Phases	4		8		2		6		Free
Detector Phase	4	4	8	8	2	2	6	6	
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	56.0	56.0	56.0	56.0	34.0	34.0	34.0	34.0	
Total Split (%)	62.2%	62.2%	62.2%	62.2%	37.8%	37.8%	37.8%	37.8%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	
Act Effct Green (s)	49.8	49.8	49.8	49.8	31.2	31.2	31.2	31.2	90.0
Actuated g/C Ratio	0.55	0.55	0.55	0.55	0.35	0.35	0.35	0.35	1.00
v/c Ratio	0.94	0.22	0.47	0.19	0.52	0.80	0.20	0.94	0.22
Control Delay	42.6	10.0	14.7	8.7	52.0	33.3	29.2	44.9	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.6	10.0	14.7	8.7	52.0	33.3	29.2	44.9	0.3
LOS	D	A	B	A	D	C	C	D	A
Approach Delay		34.6		12.5		34.1		34.4	
Approach LOS		C		B		C		C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 82 (91%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 31.6	Intersection LOS: C
Intersection Capacity Utilization 86.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 6: Liggett Road/Castleton Court & Hwy-85





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	585	65	125	280	65	100	40	866	55	15	1081	329
Future Volume (veh/h)	585	65	125	280	65	100	40	866	55	15	1081	329
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	622	71	133	304	71	109	43	921	60	16	1150	0
Peak Hour Factor	0.94	0.92	0.94	0.92	0.92	0.92	0.94	0.94	0.92	0.92	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	707	333	624	684	381	584	83	1110	72	124	1165	
Arrive On Green	0.57	0.57	0.57	0.57	0.57	0.57	0.33	0.33	0.33	0.33	0.33	0.00
Sat Flow, veh/h	1204	583	1091	1178	665	1021	489	3387	221	574	3554	1585
Grp Volume(v), veh/h	622	0	204	304	0	180	43	483	498	16	1150	0
Grp Sat Flow(s),veh/h/ln	1204	0	1674	1178	0	1687	489	1777	1831	574	1777	1585
Q Serve(g_s), s	46.1	0.0	5.3	15.2	0.0	4.6	0.6	22.6	22.6	2.4	28.9	0.0
Cycle Q Clear(g_c), s	50.7	0.0	5.3	20.6	0.0	4.6	29.5	22.6	22.6	25.0	28.9	0.0
Prop In Lane	1.00		0.65	1.00		0.61	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	707	0	958	684	0	965	83	582	600	124	1165	
V/C Ratio(X)	0.88	0.00	0.21	0.44	0.00	0.19	0.52	0.83	0.83	0.13	0.99	
Avail Cap(c_a), veh/h	707	0	958	684	0	965	83	582	600	124	1165	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.3	0.0	9.4	14.4	0.0	9.2	45.0	27.9	27.9	39.5	30.1	0.0
Incr Delay (d2), s/veh	12.2	0.0	0.1	0.5	0.0	0.1	21.2	12.9	12.6	2.1	23.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.1	0.0	1.8	3.9	0.0	1.6	1.4	11.3	11.6	0.4	15.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.6	0.0	9.5	14.8	0.0	9.3	66.2	40.8	40.5	41.6	53.6	0.0
LnGrp LOS	C	A	A	B	A	A	E	D	D	D	D	
Approach Vol, veh/h		826			484			1024			1166	A
Approach Delay, s/veh		27.6			12.8			41.7			53.4	
Approach LOS		C			B			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		34.0		56.0		34.0		56.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		29.5		51.5		29.5		51.5				
Max Q Clear Time (g_c+I1), s		31.5		52.7		30.9		22.6				
Green Ext Time (p_c), s		0.0		0.0		0.0		2.4				

Intersection Summary												
HCM 6th Ctrl Delay			38.3									
HCM 6th LOS			D									

Notes

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

Intersection	
Intersection Delay, s/veh	13.4
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	518	147	1032	1598
Demand Flow Rate, veh/h	528	149	1053	1630
Vehicles Circulating, veh/h	1012	1244	568	171
Vehicles Exiting, veh/h	116	377	972	1222
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	39.5	12.1	14.6	4.2
Approach LOS	E	B	B	A

Lane	Left	Left	Left	Right	Left	Right	Bypass
Designated Moves	LTR	LTR	LT	TR	LT	TR	R
Assumed Moves	LTR	LTR	LT	TR	LT	TR	R
RT Channelized							Free
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530	
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328	673
Entry Flow, veh/h	528	149	495	558	450	507	1938
Cap Entry Lane, veh/h	601	493	801	876	1153	1228	0.980
Entry HV Adj Factor	0.980	0.984	0.980	0.980	0.980	0.981	660
Flow Entry, veh/h	518	147	485	547	441	497	1900
Cap Entry, veh/h	589	485	785	859	1130	1204	0.347
V/C Ratio	0.879	0.302	0.618	0.637	0.390	0.413	0.0
Control Delay, s/veh	39.5	12.1	14.8	14.4	7.2	7.1	A
LOS	E	B	B	B	A	A	2
95th %tile Queue, veh	10	1	4	5	2	2	

Intersection	
Intersection Delay, s/veh	120.9
Intersection LOS	F

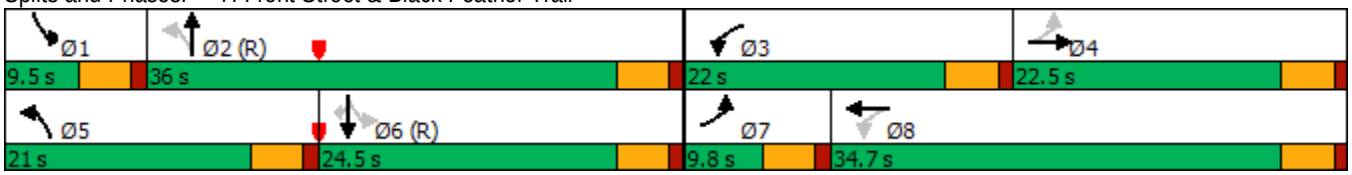
Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	826	484	1024	1516
Demand Flow Rate, veh/h	842	493	1044	1546
Vehicles Circulating, veh/h	1499	1617	722	426
Vehicles Exiting, veh/h	116	149	1619	1684
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	439.0	138.4	20.0	10.2
Approach LOS	F	F	C	B

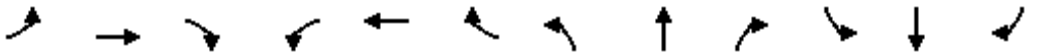
Lane	Left	Right	Left	Right	Left	Right	Left	Right	Bypass
Designated Moves	LT	R	LT	R	LT	TR	LT	TR	R
Assumed Moves	LT	R	LT	R	LT	TR	LT	TR	R
RT Channelized									Free
Lane Util	0.838	0.162	0.775	0.225	0.470	0.530	0.470	0.530	
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535	
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328	357
Entry Flow, veh/h	706	136	382	111	491	553	559	630	1938
Cap Entry Lane, veh/h	340	397	305	359	695	769	912	989	0.980
Entry HV Adj Factor	0.981	0.978	0.981	0.982	0.980	0.981	0.980	0.981	350
Flow Entry, veh/h	693	133	375	109	481	543	548	618	1900
Cap Entry, veh/h	334	388	299	353	681	754	894	970	0.184
V/C Ratio	2.077	0.343	1.252	0.309	0.707	0.719	0.613	0.637	0.0
Control Delay, s/veh	520.3	15.7	173.9	16.3	20.5	19.6	13.2	13.2	A
LOS	F	C	F	C	C	C	B	B	1
95th %tile Queue, veh	50	1	17	1	6	6	4	5	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	42	117	190	264	180	312	401	11	203	41
Future Volume (vph)	42	117	190	264	180	312	401	11	203	41
Turn Type	pm+pt	NA	Free	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases	4		Free	8		2		6		6
Detector Phase	7	4		3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	9.8	22.5		22.0	34.7	21.0	36.0	9.5	24.5	24.5
Total Split (%)	10.9%	25.0%		24.4%	38.6%	23.3%	40.0%	10.6%	27.2%	27.2%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	17.2	11.9	90.0	32.6	26.7	48.4	46.2	34.1	28.2	28.2
Actuated g/C Ratio	0.19	0.13	1.00	0.36	0.30	0.54	0.51	0.38	0.31	0.31
v/c Ratio	0.20	0.56	0.14	0.67	0.48	0.56	0.38	0.04	0.22	0.07
Control Delay	20.3	44.7	0.2	28.9	27.8	15.1	12.1	13.7	25.9	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.3	44.7	0.2	28.9	27.8	15.1	12.1	13.7	25.9	0.2
LOS	C	D	A	C	C	B	B	B	C	A
Approach Delay		17.5			28.4		13.2		21.3	
Approach LOS		B			C		B		C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 18.7	Intersection LOS: B
Intersection Capacity Utilization 58.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 7: Front Street & Black Feather Trail





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	117	190	264	180	44	312	401	179	11	203	41
Future Volume (veh/h)	42	117	190	264	180	44	312	401	179	11	203	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	138	0	311	212	52	367	472	211	13	239	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	260	184		423	338	83	724	1226	544	398	1363	
Arrive On Green	0.04	0.10	0.00	0.17	0.23	0.23	0.14	0.51	0.51	0.02	0.38	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1451	356	1781	2393	1063	1781	3554	1585
Grp Volume(v), veh/h	49	138	0	311	0	264	367	350	333	13	239	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1806	1781	1777	1679	1781	1777	1585
Q Serve(g_s), s	2.2	6.5	0.0	13.4	0.0	11.8	10.5	10.8	10.9	0.4	4.0	0.0
Cycle Q Clear(g_c), s	2.2	6.5	0.0	13.4	0.0	11.8	10.5	10.8	10.9	0.4	4.0	0.0
Prop In Lane	1.00		1.00	1.00		0.20	1.00		0.63	1.00		1.00
Lane Grp Cap(c), veh/h	260	184		423	0	421	724	910	860	398	1363	
V/C Ratio(X)	0.19	0.75		0.74	0.00	0.63	0.51	0.38	0.39	0.03	0.18	
Avail Cap(c_a), veh/h	295	374		460	0	606	793	910	860	470	1363	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.4	39.5	0.0	27.7	0.0	31.0	11.8	13.3	13.4	16.4	18.3	0.0
Incr Delay (d2), s/veh	0.3	5.9	0.0	5.6	0.0	1.5	0.6	1.2	1.3	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	3.2	0.0	6.2	0.0	5.2	4.0	4.4	4.2	0.2	1.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.7	45.4	0.0	33.2	0.0	32.5	12.3	14.6	14.7	16.4	18.6	0.0
LnGrp LOS	C	D		C	A	C	B	B	B	B	B	
Approach Vol, veh/h		187	A		575			1050			252	A
Approach Delay, s/veh		42.6			32.9			13.8			18.5	
Approach LOS		D			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	50.6	20.1	13.4	17.5	39.0	8.0	25.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	31.5	17.5	18.0	16.5	20.0	5.3	30.2
Max Q Clear Time (g_c+I1), s	2.4	12.9	15.4	8.5	12.5	6.0	4.2	13.8
Green Ext Time (p_c), s	0.0	4.2	0.2	0.4	0.5	1.2	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	22.3
HCM 6th LOS	C

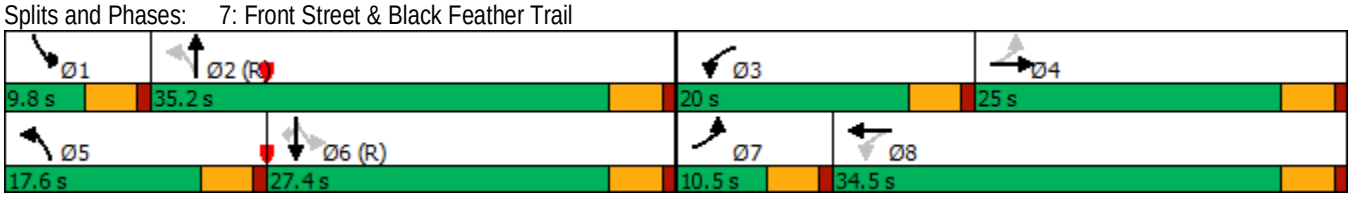
Notes

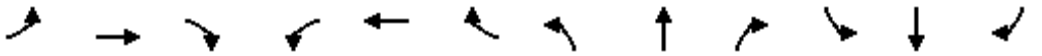
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	101	235	430	246	160	191	433	52	557	109
Future Volume (vph)	101	235	430	246	160	191	433	52	557	109
Turn Type	pm+pt	NA	Free	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases	4		Free	8		2		6		6
Detector Phase	7	4		3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	10.5	25.0		20.0	34.5	17.6	35.2	9.8	27.4	27.4
Total Split (%)	11.7%	27.8%		22.2%	38.3%	19.6%	39.1%	10.9%	30.4%	30.4%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	22.6	16.6	90.0	35.0	26.6	45.7	37.4	36.6	30.6	30.6
Actuated g/C Ratio	0.25	0.18	1.00	0.39	0.30	0.51	0.42	0.41	0.34	0.34
v/c Ratio	0.32	0.72	0.29	0.65	0.39	0.49	0.46	0.16	0.49	0.17
Control Delay	20.1	46.5	0.5	26.8	25.2	16.0	19.0	15.0	27.1	0.5
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.1	46.6	0.5	26.8	25.2	16.0	19.0	15.0	27.1	0.5
LOS	C	D	A	C	C	B	B	B	C	A
Approach Delay		17.2			26.1		18.4		22.2	
Approach LOS		B			C		B		C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 20.3	Intersection LOS: C
Intersection Capacity Utilization 67.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: Front Street & Black Feather Trail





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	235	430	246	160	40	191	433	208	52	557	109
Future Volume (veh/h)	101	235	430	246	160	40	191	433	208	52	557	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	106	247	0	259	168	42	201	456	219	55	586	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	352	296		364	336	84	482	1074	512	404	1477	
Arrive On Green	0.07	0.16	0.00	0.14	0.23	0.23	0.09	0.46	0.46	0.04	0.42	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1444	361	1781	2334	1113	1781	3554	1585
Grp Volume(v), veh/h	106	247	0	259	0	210	201	346	329	55	586	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1805	1781	1777	1670	1781	1777	1585
Q Serve(g_s), s	4.4	11.5	0.0	10.4	0.0	9.1	5.5	11.8	11.9	1.6	10.4	0.0
Cycle Q Clear(g_c), s	4.4	11.5	0.0	10.4	0.0	9.1	5.5	11.8	11.9	1.6	10.4	0.0
Prop In Lane	1.00		1.00	1.00		0.20	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	352	296		364	0	419	482	817	768	404	1477	
V/C Ratio(X)	0.30	0.83		0.71	0.00	0.50	0.42	0.42	0.43	0.14	0.40	
Avail Cap(c_a), veh/h	353	426		421	0	602	588	817	768	435	1477	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.8	36.7	0.0	25.6	0.0	30.0	12.8	16.3	16.3	14.1	18.4	0.0
Incr Delay (d2), s/veh	0.5	9.2	0.0	4.7	0.0	0.9	0.6	1.6	1.7	0.2	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	5.9	0.0	4.7	0.0	4.0	2.1	4.9	4.7	0.6	4.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	46.0	0.0	30.2	0.0	30.9	13.4	17.9	18.1	14.2	19.2	0.0
LnGrp LOS	C	D		C	A	C	B	B	B	B	B	
Approach Vol, veh/h		353	A		469			876			641	A
Approach Delay, s/veh		41.0			30.6			16.9			18.8	
Approach LOS		D			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	45.9	17.1	18.8	12.2	41.9	10.5	25.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.3	30.7	15.5	20.5	13.1	22.9	6.0	30.0
Max Q Clear Time (g_c+I1), s	3.6	13.9	12.4	13.5	7.5	12.4	6.4	11.1
Green Ext Time (p_c), s	0.0	4.0	0.2	0.7	0.3	2.9	0.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	23.8
HCM 6th LOS	C

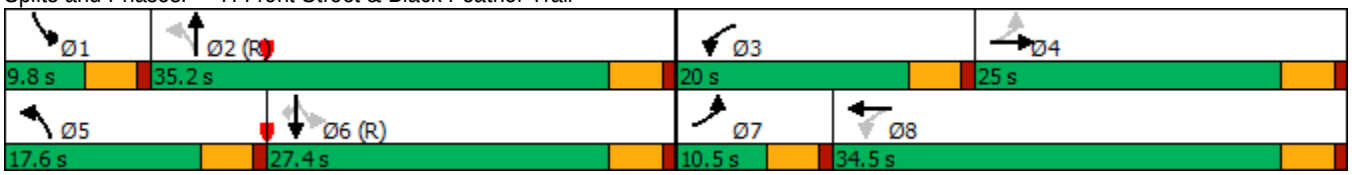
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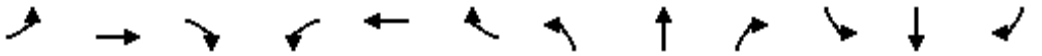
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	61	126	286	286	195	408	434	11	219	45
Future Volume (vph)	61	126	286	286	195	408	434	11	219	45
Turn Type	pm+pt	NA	Free	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases	4		Free	8		2		6		6
Detector Phase	7	4		3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	10.5	25.0		20.0	34.5	17.6	35.2	9.8	27.4	27.4
Total Split (%)	11.7%	27.8%		22.2%	38.3%	19.6%	39.1%	10.9%	30.4%	30.4%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	17.6	11.7	90.0	31.0	22.6	50.0	47.8	34.2	28.4	28.4
Actuated g/C Ratio	0.20	0.13	1.00	0.34	0.25	0.56	0.53	0.38	0.32	0.32
v/c Ratio	0.25	0.55	0.19	0.69	0.55	0.62	0.36	0.03	0.21	0.07
Control Delay	22.0	44.7	0.3	31.6	32.4	12.9	8.5	12.5	25.1	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.0	44.7	0.3	31.6	32.4	12.9	8.5	12.5	25.1	0.2
LOS	C	D	A	C	C	B	A	B	C	A
Approach Delay		14.9			31.9		10.2		20.5	
Approach LOS		B			C		B		C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 17.4	Intersection LOS: B
Intersection Capacity Utilization 66.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: Front Street & Black Feather Trail





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	126	286	286	195	47	408	434	194	11	219	45
Future Volume (veh/h)	61	126	286	286	195	47	408	434	194	11	219	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	133	0	301	205	49	429	457	204	12	231	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	263	181		413	321	77	739	1249	553	407	1386	
Arrive On Green	0.04	0.10	0.00	0.17	0.22	0.22	0.15	0.52	0.52	0.01	0.39	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1459	349	1781	2395	1061	1781	3554	1585
Grp Volume(v), veh/h	64	133	0	301	0	254	429	338	323	12	231	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1808	1781	1777	1679	1781	1777	1585
Q Serve(g_s), s	2.9	6.2	0.0	13.1	0.0	11.5	12.6	10.1	10.3	0.4	3.8	0.0
Cycle Q Clear(g_c), s	2.9	6.2	0.0	13.1	0.0	11.5	12.6	10.1	10.3	0.4	3.8	0.0
Prop In Lane	1.00		1.00	1.00		0.19	1.00		0.63	1.00		1.00
Lane Grp Cap(c), veh/h	263	181		413	0	398	739	926	875	407	1386	
V/C Ratio(X)	0.24	0.74		0.73	0.00	0.64	0.58	0.36	0.37	0.03	0.17	
Avail Cap(c_a), veh/h	303	426		421	0	603	739	926	875	487	1386	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.4	39.5	0.0	28.1	0.0	31.9	11.9	12.7	12.8	16.1	17.9	0.0
Incr Delay (d2), s/veh	0.5	5.7	0.0	6.1	0.0	1.7	1.1	1.1	1.2	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.1	0.0	6.1	0.0	5.1	4.8	4.1	3.9	0.1	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	45.3	0.0	34.2	0.0	33.6	13.0	13.8	14.0	16.1	18.2	0.0
LnGrp LOS	C	D		C	A	C	B	B	B	B	B	
Approach Vol, veh/h		197	A		555			1090			243	A
Approach Delay, s/veh		41.9			33.9			13.6			18.1	
Approach LOS		D			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	51.4	19.6	13.2	17.6	39.6	8.5	24.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.3	30.7	15.5	20.5	13.1	22.9	6.0	30.0
Max Q Clear Time (g_c+I1), s	2.4	12.3	15.1	8.2	14.6	5.8	4.9	13.5
Green Ext Time (p_c), s	0.0	4.1	0.0	0.5	0.0	1.3	0.0	1.3

Intersection Summary	
HCM 6th Ctrl Delay	22.2
HCM 6th LOS	C

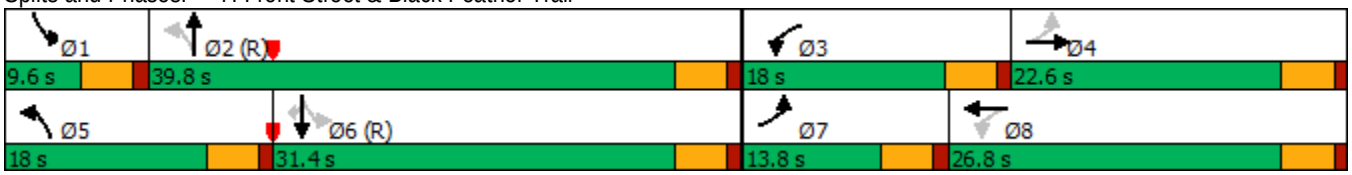
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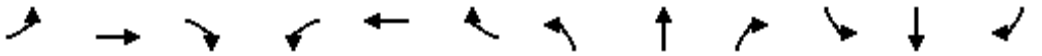
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	114	254	575	266	173	262	469	56	603	118
Future Volume (vph)	114	254	575	266	173	262	469	56	603	118
Turn Type	pm+pt	NA	Free	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases	4		Free	8		2		6		6
Detector Phase	7	4		3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	13.8	22.6		18.0	26.8	18.0	39.8	9.6	31.4	31.4
Total Split (%)	15.3%	25.1%		20.0%	29.8%	20.0%	44.2%	10.7%	34.9%	34.9%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	25.0	16.4	90.0	33.8	20.9	47.0	39.1	35.8	30.3	30.3
Actuated g/C Ratio	0.28	0.18	1.00	0.38	0.23	0.52	0.43	0.40	0.34	0.34
v/c Ratio	0.33	0.79	0.38	0.79	0.53	0.66	0.48	0.18	0.53	0.19
Control Delay	21.1	52.1	0.7	37.8	33.1	21.1	19.1	14.0	27.1	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.1	52.1	0.7	37.8	33.1	21.1	19.1	14.0	27.1	1.8
LOS	C	D	A	D	C	C	B	B	C	A
Approach Delay		17.0			35.7		19.6		22.3	
Approach LOS		B			D		B		C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 22.0	Intersection LOS: C
Intersection Capacity Utilization 74.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 7: Front Street & Black Feather Trail





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	254	575	266	173	44	262	469	225	56	603	118
Future Volume (veh/h)	114	254	575	266	173	44	262	469	225	56	603	118
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	120	267	0	280	182	46	276	494	237	59	635	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	360	311		372	344	87	472	1037	495	369	1322	
Arrive On Green	0.07	0.17	0.00	0.15	0.24	0.24	0.12	0.44	0.44	0.04	0.37	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1441	364	1781	2333	1114	1781	3554	1585
Grp Volume(v), veh/h	120	267	0	280	0	228	276	376	355	59	635	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1805	1781	1777	1670	1781	1777	1585
Q Serve(g_s), s	4.9	12.5	0.0	11.2	0.0	9.9	8.1	13.4	13.5	1.8	12.3	0.0
Cycle Q Clear(g_c), s	4.9	12.5	0.0	11.2	0.0	9.9	8.1	13.4	13.5	1.8	12.3	0.0
Prop In Lane	1.00		1.00	1.00		0.20	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	360	311		372	0	431	472	789	742	369	1322	
V/C Ratio(X)	0.33	0.86		0.75	0.00	0.53	0.59	0.48	0.48	0.16	0.48	
Avail Cap(c_a), veh/h	413	376		378	0	447	534	789	742	394	1322	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.9	36.5	0.0	25.1	0.0	29.8	14.6	17.6	17.7	16.2	21.6	0.0
Incr Delay (d2), s/veh	0.5	15.4	0.0	8.2	0.0	1.1	1.3	2.1	2.2	0.2	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	6.9	0.0	5.4	0.0	4.3	3.2	5.7	5.4	0.7	5.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.5	51.8	0.0	33.3	0.0	30.9	15.9	19.7	19.9	16.4	22.9	0.0
LnGrp LOS	C	D		C	A	C	B	B	B	B	C	
Approach Vol, veh/h		387	A		508			1007			694	A
Approach Delay, s/veh		44.6			32.2			18.7			22.3	
Approach LOS		D			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	44.5	17.7	19.5	14.9	38.0	11.1	26.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.1	35.3	13.5	18.1	13.5	26.9	9.3	22.3
Max Q Clear Time (g_c+I1), s	3.8	15.5	13.2	14.5	10.1	14.3	6.9	11.9
Green Ext Time (p_c), s	0.0	4.7	0.0	0.5	0.3	3.5	0.1	0.9

Intersection Summary	
HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

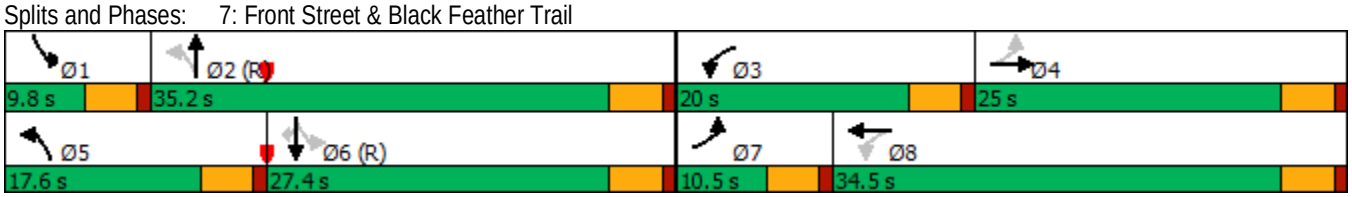
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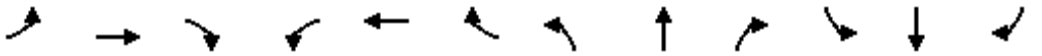
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	74	139	363	375	195	546	671	11	420	45
Future Volume (vph)	74	139	363	375	195	546	671	11	420	45
Turn Type	pm+pt	NA	Free	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases	4		Free	8		2		6		6
Detector Phase	7	4		3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	10.5	25.0		20.0	34.5	17.6	35.2	9.8	27.4	27.4
Total Split (%)	11.7%	27.8%		22.2%	38.3%	19.6%	39.1%	10.9%	30.4%	30.4%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	18.2	12.3	90.0	32.3	23.9	48.7	46.5	28.7	22.9	22.9
Actuated g/C Ratio	0.20	0.14	1.00	0.36	0.27	0.54	0.52	0.32	0.25	0.25
v/c Ratio	0.29	0.57	0.24	0.88	0.52	0.97	0.53	0.05	0.49	0.08
Control Delay	22.3	44.8	0.4	46.9	31.0	50.4	13.4	13.1	30.8	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.3	44.8	0.4	46.9	31.0	50.4	13.4	13.1	30.8	0.3
LOS	C	D	A	D	C	D	B	B	C	A
Approach Delay		13.9			40.7		27.4		27.5	
Approach LOS		B			D		C		C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 27.6	Intersection LOS: C
Intersection Capacity Utilization 85.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 7: Front Street & Black Feather Trail





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	139	363	375	195	47	546	671	228	11	420	45
Future Volume (veh/h)	74	139	363	375	195	47	546	671	228	11	420	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	146	0	395	205	49	575	706	240	12	442	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	282	194		421	326	78	614	1326	451	299	1345	
Arrive On Green	0.05	0.10	0.00	0.17	0.22	0.22	0.15	0.51	0.51	0.01	0.38	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1459	349	1781	2603	885	1781	3554	1585
Grp Volume(v), veh/h	78	146	0	395	0	254	575	482	464	12	442	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1808	1781	1777	1711	1781	1777	1585
Q Serve(g_s), s	3.5	6.8	0.0	15.5	0.0	11.4	13.1	16.4	16.4	0.4	7.9	0.0
Cycle Q Clear(g_c), s	3.5	6.8	0.0	15.5	0.0	11.4	13.1	16.4	16.4	0.4	7.9	0.0
Prop In Lane	1.00		1.00	1.00		0.19	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	282	194		421	0	404	614	905	872	299	1345	
V/C Ratio(X)	0.28	0.75		0.94	0.00	0.63	0.94	0.53	0.53	0.04	0.33	
Avail Cap(c_a), veh/h	308	426		421	0	603	614	905	872	379	1345	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.5	39.2	0.0	30.1	0.0	31.5	19.5	14.9	14.9	16.8	19.9	0.0
Incr Delay (d2), s/veh	0.5	5.8	0.0	28.6	0.0	1.6	22.0	2.2	2.3	0.1	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	3.4	0.0	10.8	0.0	5.1	9.0	6.8	6.5	0.2	3.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.0	45.0	0.0	58.6	0.0	33.2	41.5	17.1	17.2	16.9	20.5	0.0
LnGrp LOS	C	D		E	A	C	D	B	B	B	C	
Approach Vol, veh/h		224	A		649			1521			454	A
Approach Delay, s/veh		41.2			48.7			26.3			20.4	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	50.4	20.0	13.8	17.6	38.6	9.2	24.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.3	30.7	15.5	20.5	13.1	22.9	6.0	30.0
Max Q Clear Time (g_c+I1), s	2.4	18.4	17.5	8.8	15.1	9.9	5.5	13.4
Green Ext Time (p_c), s	0.0	5.0	0.0	0.5	0.0	2.4	0.0	1.3

Intersection Summary	
HCM 6th Ctrl Delay	31.7
HCM 6th LOS	C

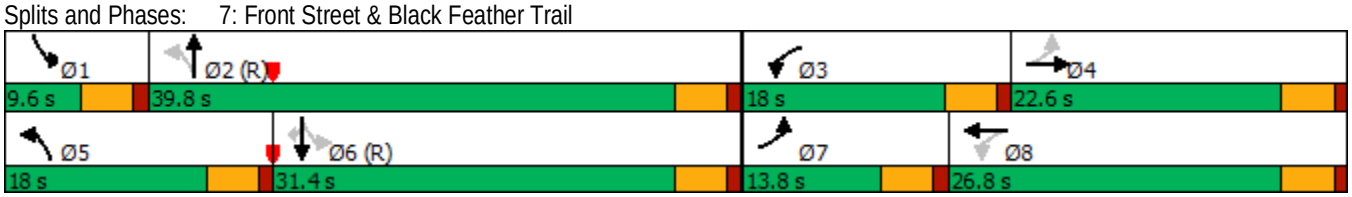
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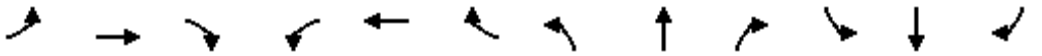
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	150	290	712	312	173	353	685	56	836	118
Future Volume (vph)	150	290	712	312	173	353	685	56	836	118
Turn Type	pm+pt	NA	Free	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases	4		Free	8		2		6		6
Detector Phase	7	4		3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	13.8	22.6		18.0	26.8	18.0	39.8	9.6	31.4	31.4
Total Split (%)	15.3%	25.1%		20.0%	29.8%	20.0%	44.2%	10.7%	34.9%	34.9%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	26.2	17.3	90.0	35.1	21.9	45.7	38.0	32.1	26.9	26.9
Actuated g/C Ratio	0.29	0.19	1.00	0.39	0.24	0.51	0.42	0.36	0.30	0.30
v/c Ratio	0.41	0.85	0.47	0.95	0.51	1.02	0.68	0.27	0.83	0.21
Control Delay	22.0	58.3	1.0	60.3	32.1	77.9	24.7	16.2	37.8	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.0	58.3	1.0	60.3	32.1	77.9	24.7	16.2	37.8	1.9
LOS	C	E	A	E	C	E	C	B	D	A
Approach Delay		18.2			48.7		39.0		32.4	
Approach LOS		B			D		D		C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 32.6	Intersection LOS: C
Intersection Capacity Utilization 90.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 7: Front Street & Black Feather Trail





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	290	712	312	173	44	353	685	275	56	836	118
Future Volume (veh/h)	150	290	712	312	173	44	353	685	275	56	836	118
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	158	305	0	328	182	46	372	721	289	59	880	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	397	345		375	350	89	404	1046	419	260	1121	
Arrive On Green	0.09	0.18	0.00	0.15	0.24	0.24	0.15	0.42	0.42	0.04	0.32	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1441	364	1781	2476	992	1781	3554	1585
Grp Volume(v), veh/h	158	305	0	328	0	228	372	517	493	59	880	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1805	1781	1777	1692	1781	1777	1585
Q Serve(g_s), s	6.3	14.3	0.0	13.1	0.0	9.8	12.2	21.3	21.4	2.0	20.3	0.0
Cycle Q Clear(g_c), s	6.3	14.3	0.0	13.1	0.0	9.8	12.2	21.3	21.4	2.0	20.3	0.0
Prop In Lane	1.00		1.00	1.00		0.20	1.00		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	397	345		375	0	439	404	751	715	260	1121	
V/C Ratio(X)	0.40	0.88		0.88	0.00	0.52	0.92	0.69	0.69	0.23	0.79	
Avail Cap(c_a), veh/h	418	376		375	0	447	404	751	715	284	1121	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.0	35.8	0.0	24.6	0.0	29.5	19.4	21.2	21.2	20.0	28.0	0.0
Incr Delay (d2), s/veh	0.6	20.1	0.0	20.0	0.0	1.0	26.1	5.1	5.4	0.4	5.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	8.3	0.0	7.4	0.0	4.3	7.6	9.5	9.1	0.8	9.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.7	55.9	0.0	44.6	0.0	30.5	45.6	26.3	26.5	20.5	33.6	0.0
LnGrp LOS	C	E		D	A	C	D	C	C	C	C	
Approach Vol, veh/h		463	A		556			1382			939	A
Approach Delay, s/veh		45.9			38.8			31.6			32.8	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	42.5	18.0	21.1	18.0	32.9	12.7	26.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.1	35.3	13.5	18.1	13.5	26.9	9.3	22.3
Max Q Clear Time (g_c+I1), s	4.0	23.4	15.1	16.3	14.2	22.3	8.3	11.8
Green Ext Time (p_c), s	0.0	5.3	0.0	0.3	0.0	2.4	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	35.1
HCM 6th LOS	D

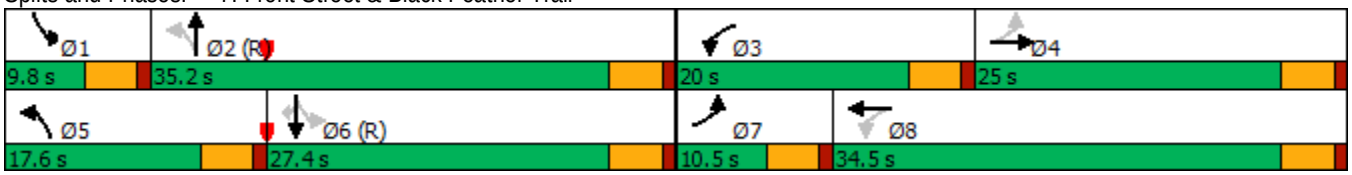
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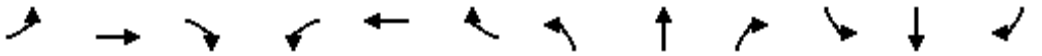
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	77	170	382	185	263	565	649	15	330	60
Future Volume (vph)	77	170	382	185	263	565	649	15	330	60
Turn Type	pm+pt	NA	Free	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases	4		Free	8		2		6		6
Detector Phase	7	4		3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	10.5	25.0		20.0	34.5	17.6	35.2	9.8	27.4	27.4
Total Split (%)	11.7%	27.8%		22.2%	38.3%	19.6%	39.1%	10.9%	30.4%	30.4%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	20.7	14.7	90.0	31.8	23.4	49.2	47.1	28.7	22.9	22.9
Actuated g/C Ratio	0.23	0.16	1.00	0.35	0.26	0.55	0.52	0.32	0.25	0.25
v/c Ratio	0.33	0.59	0.25	0.49	0.71	0.92	0.48	0.06	0.39	0.11
Control Delay	22.1	42.1	0.4	24.1	37.6	36.8	11.8	13.9	29.2	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.1	42.1	0.4	24.1	37.6	36.8	11.8	13.9	29.2	0.4
LOS	C	D	A	C	D	D	B	B	C	A
Approach Delay		14.3			32.7		21.9		24.4	
Approach LOS		B			C		C		C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 22.5	Intersection LOS: C
Intersection Capacity Utilization 77.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 7: Front Street & Black Feather Trail





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	170	382	185	263	63	565	649	186	15	330	60
Future Volume (veh/h)	77	170	382	185	263	63	565	649	186	15	330	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	81	179	0	195	277	66	595	683	196	16	347	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	214	305		367	324	77	663	1384	397	329	1353	
Arrive On Green	0.05	0.16	0.00	0.11	0.22	0.22	0.15	0.51	0.51	0.02	0.38	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1460	348	1781	2725	782	1781	3554	1585
Grp Volume(v), veh/h	81	179	0	195	0	343	595	445	434	16	347	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1808	1781	1777	1730	1781	1777	1585
Q Serve(g_s), s	3.4	8.0	0.0	7.8	0.0	16.4	13.1	14.8	14.8	0.5	6.0	0.0
Cycle Q Clear(g_c), s	3.4	8.0	0.0	7.8	0.0	16.4	13.1	14.8	14.8	0.5	6.0	0.0
Prop In Lane	1.00		1.00	1.00		0.19	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	214	305		367	0	401	663	902	878	329	1353	
V/C Ratio(X)	0.38	0.59		0.53	0.00	0.85	0.90	0.49	0.49	0.05	0.26	
Avail Cap(c_a), veh/h	240	426		477	0	603	663	902	878	401	1353	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.8	34.9	0.0	25.7	0.0	33.6	18.7	14.5	14.5	16.5	19.1	0.0
Incr Delay (d2), s/veh	1.1	1.8	0.0	1.2	0.0	7.7	15.0	1.9	2.0	0.1	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	3.7	0.0	3.3	0.0	7.9	7.5	6.1	5.9	0.2	2.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.9	36.6	0.0	26.9	0.0	41.3	33.6	16.5	16.5	16.5	19.6	0.0
LnGrp LOS	C	D		C	A	D	C	B	B	B	B	
Approach Vol, veh/h		260	A		538			1474			363	A
Approach Delay, s/veh		34.9			36.1			23.4			19.5	
Approach LOS		C			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	50.2	14.5	19.2	17.6	38.8	9.2	24.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.3	30.7	15.5	20.5	13.1	22.9	6.0	30.0
Max Q Clear Time (g_c+I1), s	2.5	16.8	9.8	10.0	15.1	8.0	5.4	18.4
Green Ext Time (p_c), s	0.0	4.9	0.3	0.6	0.0	1.9	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	26.6
HCM 6th LOS	C

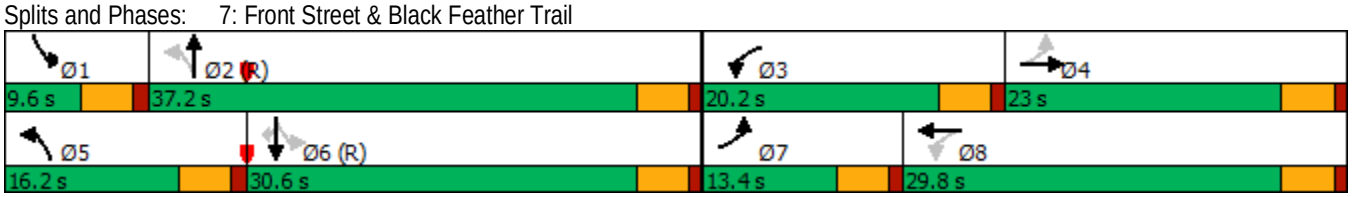
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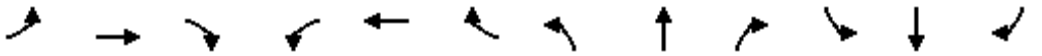
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	152	342	766	209	158	348	696	76	902	159
Future Volume (vph)	152	342	766	209	158	348	696	76	902	159
Turn Type	pm+pt	NA	Free	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases	4		Free	8		2		6		6
Detector Phase	7	4		3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	13.4	23.0		20.2	29.8	16.2	37.2	9.6	30.6	30.6
Total Split (%)	14.9%	25.6%		22.4%	33.1%	18.0%	41.3%	10.7%	34.0%	34.0%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	28.8	20.2	90.0	36.1	24.2	43.7	35.9	31.4	26.1	26.1
Actuated g/C Ratio	0.32	0.22	1.00	0.40	0.27	0.49	0.40	0.35	0.29	0.29
v/c Ratio	0.39	0.86	0.51	0.67	0.46	1.08	0.66	0.35	0.92	0.27
Control Delay	20.1	55.5	1.2	28.7	27.9	92.1	27.2	18.6	47.0	2.0
Queue Delay	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.1	59.5	1.2	28.7	27.9	92.1	27.2	18.6	47.0	2.0
LOS	C	E	A	C	C	F	C	B	D	A
Approach Delay		19.3			28.3		45.7		38.8	
Approach LOS		B			C		D		D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 33.7	Intersection LOS: C
Intersection Capacity Utilization 88.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 7: Front Street & Black Feather Trail





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	152	342	766	209	158	59	348	696	178	76	902	159
Future Volume (veh/h)	152	342	766	209	158	59	348	696	178	76	902	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	160	360	0	220	166	62	366	733	187	80	949	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	382	384		310	305	114	374	1196	305	301	1225	
Arrive On Green	0.09	0.21	0.00	0.12	0.23	0.23	0.13	0.43	0.43	0.05	0.34	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1298	485	1781	2803	715	1781	3554	1585
Grp Volume(v), veh/h	160	360	0	220	0	228	366	465	455	80	949	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1783	1781	1777	1742	1781	1777	1585
Q Serve(g_s), s	6.3	17.0	0.0	8.5	0.0	10.1	11.7	18.3	18.3	2.6	21.5	0.0
Cycle Q Clear(g_c), s	6.3	17.0	0.0	8.5	0.0	10.1	11.7	18.3	18.3	2.6	21.5	0.0
Prop In Lane	1.00		1.00	1.00		0.27	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	382	384		310	0	419	374	758	743	301	1225	
V/C Ratio(X)	0.42	0.94		0.71	0.00	0.54	0.98	0.61	0.61	0.27	0.77	
Avail Cap(c_a), veh/h	398	384		407	0	501	374	758	743	317	1225	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	24.9	35.2	0.0	25.1	0.0	30.2	19.6	20.0	20.0	18.1	26.4	0.0
Incr Delay (d2), s/veh	0.7	30.2	0.0	3.9	0.0	1.1	40.5	3.7	3.8	0.5	4.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	10.8	0.0	3.8	0.0	4.4	8.6	8.0	7.8	1.1	9.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.6	65.4	0.0	29.0	0.0	31.3	60.1	23.7	23.8	18.6	31.2	0.0
LnGrp LOS	C	E		C	A	C	E	C	C	B	C	
Approach Vol, veh/h		520	A		448			1286			1029	A
Approach Delay, s/veh		53.1			30.2			34.1			30.2	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	42.9	15.3	23.0	16.2	35.5	12.6	25.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.1	32.7	15.7	18.5	11.7	26.1	8.9	25.3
Max Q Clear Time (g_c+I1), s	4.6	20.3	10.5	19.0	13.7	23.5	8.3	12.1
Green Ext Time (p_c), s	0.0	4.9	0.3	0.0	0.0	1.6	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	35.4
HCM 6th LOS	D

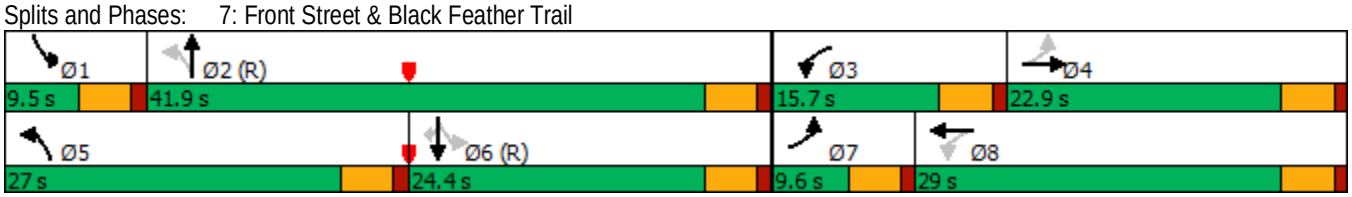
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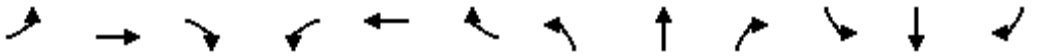
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	90	222	401	262	332	600	761	27	461	60
Future Volume (vph)	90	222	401	262	332	600	761	27	461	60
Turn Type	pm+pt	NA	Free	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases	4		Free	8		2		6		6
Detector Phase	7	4		3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	9.6	22.9		15.7	29.0	27.0	41.9	9.5	24.4	24.4
Total Split (%)	10.7%	25.4%		17.4%	32.2%	30.0%	46.6%	10.6%	27.1%	27.1%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	21.9	16.8	90.0	32.5	24.9	48.5	44.7	25.0	19.9	19.9
Actuated g/C Ratio	0.24	0.19	1.00	0.36	0.28	0.54	0.50	0.28	0.22	0.22
v/c Ratio	0.51	0.67	0.27	0.77	0.86	1.07	0.59	0.13	0.62	0.12
Control Delay	30.3	43.9	0.4	31.4	42.8	80.2	27.1	14.8	35.7	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.3	43.9	0.4	31.4	42.8	80.2	27.1	14.8	35.7	0.5
LOS	C	D	A	C	D	F	C	B	D	A
Approach Delay		17.7			38.4		47.6		30.8	
Approach LOS		B			D		D		C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay: 37.1	Intersection LOS: D
Intersection Capacity Utilization 88.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 7: Front Street & Black Feather Trail





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	222	401	262	332	84	600	761	199	27	461	60
Future Volume (veh/h)	90	222	401	262	332	84	600	761	199	27	461	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	95	234	0	276	349	88	632	801	209	28	485	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	205	369		396	382	96	622	1255	328	257	811	
Arrive On Green	0.06	0.20	0.00	0.04	0.09	0.09	0.25	0.45	0.45	0.03	0.23	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1441	363	1781	2789	728	1781	3554	1585
Grp Volume(v), veh/h	95	234	0	276	0	437	632	510	500	28	485	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1805	1781	1777	1739	1781	1777	1585
Q Serve(g_s), s	3.8	10.3	0.0	10.6	0.0	21.6	22.5	19.9	19.9	1.1	11.0	0.0
Cycle Q Clear(g_c), s	3.8	10.3	0.0	10.6	0.0	21.6	22.5	19.9	19.9	1.1	11.0	0.0
Prop In Lane	1.00		1.00	1.00		0.20	1.00		0.42	1.00		1.00
Lane Grp Cap(c), veh/h	205	369		396	0	479	622	800	783	257	811	
V/C Ratio(X)	0.46	0.63		0.70	0.00	0.91	1.02	0.64	0.64	0.11	0.60	
Avail Cap(c_a), veh/h	205	382		396	0	491	622	800	783	306	811	
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.91	0.00	0.91	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.9	33.1	0.0	26.3	0.0	40.0	20.1	19.1	19.1	25.3	31.0	0.0
Incr Delay (d2), s/veh	1.6	3.2	0.0	4.8	0.0	19.7	40.2	3.9	4.0	0.2	3.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	4.9	0.0	5.4	0.0	13.0	16.1	8.6	8.5	0.5	5.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.6	36.4	0.0	31.0	0.0	59.8	60.3	23.0	23.0	25.5	34.3	0.0
LnGrp LOS	C	D		C	A	E	F	C	C	C	C	
Approach Vol, veh/h		329	A		713			1642			513	A
Approach Delay, s/veh		34.4			48.6			37.3			33.8	
Approach LOS		C			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	45.0	15.7	22.3	27.0	25.0	9.6	28.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	37.4	11.2	18.4	22.5	19.9	5.1	24.5
Max Q Clear Time (g_c+I1), s	3.1	21.9	12.6	12.3	24.5	13.0	5.8	23.6
Green Ext Time (p_c), s	0.0	6.1	0.0	0.6	0.0	1.8	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	39.0
HCM 6th LOS	D

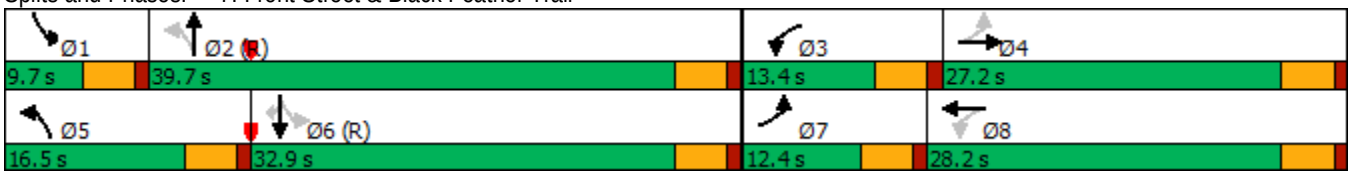
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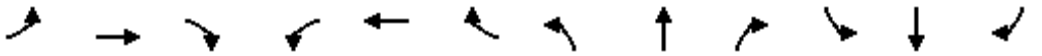
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	188	447	800	234	204	371	830	97	1011	159
Future Volume (vph)	188	447	800	234	204	371	830	97	1011	159
Turn Type	pm+pt	NA	Free	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases	4		Free	8		2		6		6
Detector Phase	7	4		3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5	9.5	22.5	9.5	22.5	22.5
Total Split (s)	12.4	27.2		13.4	28.2	16.5	39.7	9.7	32.9	32.9
Total Split (%)	13.8%	30.2%		14.9%	31.3%	18.3%	44.1%	10.8%	36.6%	36.6%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	30.6	22.7	90.0	32.6	23.7	44.9	37.1	33.6	28.4	28.4
Actuated g/C Ratio	0.34	0.25	1.00	0.36	0.26	0.50	0.41	0.37	0.32	0.32
v/c Ratio	0.58	1.00	0.53	0.96	0.60	1.23	0.76	0.55	0.95	0.27
Control Delay	26.9	78.2	1.3	64.6	25.8	146.9	37.0	25.2	49.1	4.2
Queue Delay	0.0	32.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.9	110.7	1.3	64.6	25.8	146.9	37.0	25.2	49.1	4.2
LOS	C	F	A	E	C	F	D	C	D	A
Approach Delay		38.8			43.5		65.8		41.6	
Approach LOS		D			D		E		D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.23	
Intersection Signal Delay: 48.4	Intersection LOS: D
Intersection Capacity Utilization 100.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 7: Front Street & Black Feather Trail





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	447	800	234	204	73	371	830	214	97	1011	159
Future Volume (veh/h)	188	447	800	234	204	73	371	830	214	97	1011	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	198	471	0	246	215	77	391	874	225	102	1064	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	358	472		257	346	124	330	1100	283	239	1121	
Arrive On Green	0.09	0.25	0.00	0.07	0.18	0.18	0.13	0.39	0.39	0.06	0.32	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1315	471	1781	2798	720	1781	3554	1585
Grp Volume(v), veh/h	198	471	0	246	0	292	391	555	544	102	1064	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	0	1786	1781	1777	1741	1781	1777	1585
Q Serve(g_s), s	7.4	22.7	0.0	8.9	0.0	13.6	12.0	24.8	24.8	3.4	26.3	0.0
Cycle Q Clear(g_c), s	7.4	22.7	0.0	8.9	0.0	13.6	12.0	24.8	24.8	3.4	26.3	0.0
Prop In Lane	1.00		1.00	1.00		0.26	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	358	472		257	0	470	330	699	684	239	1121	
V/C Ratio(X)	0.55	1.00		0.96	0.00	0.62	1.19	0.79	0.80	0.43	0.95	
Avail Cap(c_a), veh/h	358	472		257	0	470	330	699	684	243	1121	
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.94	0.00	0.94	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	23.1	33.6	0.0	26.2	0.0	32.9	24.0	24.1	24.1	21.1	30.1	0.0
Incr Delay (d2), s/veh	1.8	41.0	0.0	43.1	0.0	2.4	110.1	9.1	9.3	1.2	17.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	15.3	0.0	7.0	0.0	6.4	14.8	11.7	11.5	1.5	13.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.0	74.6	0.0	69.3	0.0	35.3	134.1	33.1	33.4	22.3	47.2	0.0
LnGrp LOS	C	E		E	A	D	F	C	C	C	D	
Approach Vol, veh/h		669	A		538			1490			1166	A
Approach Delay, s/veh		59.9			50.8			59.7			45.0	
Approach LOS		E			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	39.9	13.4	27.2	16.5	32.9	12.4	28.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.2	35.2	8.9	22.7	12.0	28.4	7.9	23.7
Max Q Clear Time (g_c+I1), s	5.4	26.8	10.9	24.7	14.0	28.3	9.4	15.6
Green Ext Time (p_c), s	0.0	4.5	0.0	0.0	0.0	0.1	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	54.1
HCM 6th LOS	D

Notes

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

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	152	24	27	0	82	22	47	29	0	5	14	273
Future Vol, veh/h	152	24	27	0	82	22	47	29	0	5	14	273
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	185	29	33	0	100	27	57	35	0	6	17	333
Number of Lanes	1	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	2
HCM Control Delay	12	10.9	10.1	13.5
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	100%	100%	0%	47%	79%	0%	100%	2%
Vol Right, %	0%	0%	0%	0%	53%	21%	0%	0%	98%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	47	15	15	152	51	104	5	9	278
LT Vol	47	0	0	152	0	0	5	0	0
Through Vol	0	15	15	0	24	82	0	9	5
RT Vol	0	0	0	0	27	22	0	0	273
Lane Flow Rate	57	18	18	185	62	127	6	11	339
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.114	0.033	0.024	0.345	0.101	0.224	0.011	0.019	0.509
Departure Headway (Hd)	7.184	6.674	4.908	6.701	5.829	6.348	6.621	6.114	5.415
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	498	535	725	536	614	564	540	584	664
Service Time	4.946	4.436	2.669	4.446	3.574	4.101	4.369	3.861	3.162
HCM Lane V/C Ratio	0.114	0.034	0.025	0.345	0.101	0.225	0.011	0.019	0.511
HCM Control Delay	10.9	9.7	7.8	13	9.2	10.9	9.4	9	13.7
HCM Lane LOS	B	A	A	B	A	B	A	A	B
HCM 95th-tile Q	0.4	0.1	0.1	1.5	0.3	0.9	0	0.1	2.9

Intersection	
Intersection Delay, s/veh	11.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	258	50	48	0	52	22	37	17	1	28	20	197
Future Vol, veh/h	258	50	48	0	52	22	37	17	1	28	20	197
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	280	54	52	0	57	24	40	18	1	30	22	214
Number of Lanes	1	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	2
HCM Control Delay	13.2	10	10.2	10.9
HCM LOS	B	A	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	100%	85%	0%	51%	70%	0%	100%	3%
Vol Right, %	0%	0%	15%	0%	49%	30%	0%	0%	97%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	37	11	7	258	98	74	28	13	204
LT Vol	37	0	0	258	0	0	28	0	0
Through Vol	0	11	6	0	50	52	0	13	7
RT Vol	0	0	1	0	48	22	0	0	197
Lane Flow Rate	40	12	7	280	107	80	30	14	221
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.08	0.023	0.013	0.486	0.16	0.139	0.057	0.025	0.341
Departure Headway (Hd)	7.204	6.694	6.587	6.242	5.399	6.232	6.747	6.239	5.551
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	497	535	543	578	666	575	531	574	649
Service Time	4.947	4.437	4.33	3.966	3.124	3.971	4.482	3.974	3.285
HCM Lane V/C Ratio	0.08	0.022	0.013	0.484	0.161	0.139	0.056	0.024	0.341
HCM Control Delay	10.6	9.6	9.4	14.7	9.2	10	9.9	9.1	11.1
HCM Lane LOS	B	A	A	B	A	A	A	A	B
HCM 95th-tile Q	0.3	0.1	0	2.6	0.6	0.5	0.2	0.1	1.5

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	164	26	29	0	88	24	51	31	0	6	15	295
Future Vol, veh/h	164	26	29	0	88	24	51	31	0	6	15	295
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	178	28	32	0	96	26	55	34	0	7	16	321
Number of Lanes	1	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	2
HCM Control Delay	11.7	10.7	9.9	12.8
HCM LOS	B	B	A	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	100%	100%	0%	47%	79%	0%	100%	2%
Vol Right, %	0%	0%	0%	0%	53%	21%	0%	0%	98%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	51	16	16	164	55	112	6	10	300
LT Vol	51	0	0	164	0	0	6	0	0
Through Vol	0	16	16	0	26	88	0	10	5
RT Vol	0	0	0	0	29	24	0	0	295
Lane Flow Rate	55	17	17	178	60	122	7	11	326
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.109	0.031	0.023	0.328	0.096	0.212	0.012	0.018	0.484
Departure Headway (Hd)	7.082	6.573	4.809	6.621	5.751	6.257	6.547	6.04	5.342
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	505	543	740	544	622	572	546	592	675
Service Time	4.839	4.33	2.564	4.364	3.494	4.006	4.291	3.784	3.085
HCM Lane V/C Ratio	0.109	0.031	0.023	0.327	0.096	0.213	0.013	0.019	0.483
HCM Control Delay	10.7	9.5	7.7	12.6	9.1	10.7	9.4	8.9	13
HCM Lane LOS	B	A	A	B	A	B	A	A	B
HCM 95th-tile Q	0.4	0.1	0.1	1.4	0.3	0.8	0	0.1	2.7

Intersection	
Intersection Delay, s/veh	12.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	279	54	52	0	56	24	40	18	1	30	22	214
Future Vol, veh/h	279	54	52	0	56	24	40	18	1	30	22	214
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	303	59	57	0	61	26	43	20	1	33	24	233
Number of Lanes	1	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	2
HCM Control Delay	14.4	10.4	10.5	11.6
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	100%	86%	0%	51%	70%	0%	100%	3%
Vol Right, %	0%	0%	14%	0%	49%	30%	0%	0%	97%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	12	7	279	106	80	30	15	221
LT Vol	40	0	0	279	0	0	30	0	0
Through Vol	0	12	6	0	54	56	0	15	7
RT Vol	0	0	1	0	52	24	0	0	214
Lane Flow Rate	43	13	8	303	115	87	33	16	241
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.09	0.025	0.014	0.536	0.177	0.155	0.063	0.028	0.381
Departure Headway (Hd)	7.412	6.901	6.799	6.366	5.523	6.417	6.903	6.395	5.706
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	483	517	525	567	650	557	518	559	630
Service Time	5.172	4.661	4.558	4.103	3.259	4.17	4.65	4.141	3.452
HCM Lane V/C Ratio	0.089	0.025	0.015	0.534	0.177	0.156	0.064	0.029	0.383
HCM Control Delay	10.9	9.8	9.7	16.3	9.5	10.4	10.1	9.3	11.9
HCM Lane LOS	B	A	A	C	A	B	B	A	B
HCM 95th-tile Q	0.3	0.1	0	3.2	0.6	0.5	0.2	0.1	1.8

Intersection	
Intersection Delay, s/veh	15.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	211	26	29	0	88	24	51	31	0	6	15	384
Future Vol, veh/h	211	26	29	0	88	24	51	31	0	6	15	384
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	229	28	32	0	96	26	55	34	0	7	16	417
Number of Lanes	1	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	2
HCM Control Delay	14.1	11.6	10.5	18.2
HCM LOS	B	B	B	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	100%	100%	0%	47%	79%	0%	100%	1%
Vol Right, %	0%	0%	0%	0%	53%	21%	0%	0%	99%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	51	16	16	211	55	112	6	10	389
LT Vol	51	0	0	211	0	0	6	0	0
Through Vol	0	16	16	0	26	88	0	10	5
RT Vol	0	0	0	0	29	24	0	0	384
Lane Flow Rate	55	17	17	229	60	122	7	11	423
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.117	0.033	0.025	0.445	0.101	0.229	0.012	0.019	0.658
Departure Headway (Hd)	7.601	7.089	5.316	6.979	6.109	6.759	6.814	6.306	5.603
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	468	501	666	514	583	528	523	565	643
Service Time	5.395	4.883	3.107	4.748	3.877	4.54	4.58	4.072	3.368
HCM Lane V/C Ratio	0.118	0.034	0.026	0.446	0.103	0.231	0.013	0.019	0.658
HCM Control Delay	11.4	10.1	8.2	15.3	9.6	11.6	9.7	9.2	18.6
HCM Lane LOS	B	B	A	C	A	B	A	A	C
HCM 95th-tile Q	0.4	0.1	0.1	2.3	0.3	0.9	0	0.1	4.9

Intersection	
Intersection Delay, s/veh	17.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	365	54	52	0	56	24	40	18	1	30	22	260
Future Vol, veh/h	365	54	52	0	56	24	40	18	1	30	22	260
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	397	59	57	0	61	26	43	20	1	33	24	283
Number of Lanes	1	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	2
HCM Control Delay	21.6	11	11.2	14
HCM LOS	C	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	100%	86%	0%	51%	70%	0%	100%	3%
Vol Right, %	0%	0%	14%	0%	49%	30%	0%	0%	97%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	12	7	365	106	80	30	15	267
LT Vol	40	0	0	365	0	0	30	0	0
Through Vol	0	12	6	0	54	56	0	15	7
RT Vol	0	0	1	0	52	24	0	0	260
Lane Flow Rate	43	13	8	397	115	87	33	16	291
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.096	0.027	0.015	0.726	0.184	0.166	0.066	0.03	0.49
Departure Headway (Hd)	7.948	7.434	7.331	6.592	5.749	6.885	7.279	6.768	6.073
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	448	479	485	547	622	518	490	527	590
Service Time	5.741	5.226	5.123	4.344	3.5	4.667	5.048	4.537	3.841
HCM Lane V/C Ratio	0.096	0.027	0.016	0.726	0.185	0.168	0.067	0.03	0.493
HCM Control Delay	11.6	10.4	10.2	25	9.8	11	10.6	9.7	14.6
HCM Lane LOS	B	B	B	C	A	B	B	A	B
HCM 95th-tile Q	0.3	0.1	0	6	0.7	0.6	0.2	0.1	2.7

Intersection	
Intersection Delay, s/veh	46.5
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	146	25	40	60	80	50	100	495	20	15	428	247
Future Vol, veh/h	146	25	40	60	80	50	100	495	20	15	428	247
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	159	27	43	65	87	54	109	538	22	16	465	268
Number of Lanes	1	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	2
HCM Control Delay	21.6	28.2	40.5	64.5
HCM LOS	C	D	E	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	32%	100%	0%	0%
Vol Thru, %	0%	100%	89%	0%	38%	42%	0%	100%	37%
Vol Right, %	0%	0%	11%	0%	62%	26%	0%	0%	63%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	100	330	185	146	65	190	15	285	390
LT Vol	100	0	0	146	0	60	15	0	0
Through Vol	0	330	165	0	25	80	0	285	143
RT Vol	0	0	20	0	40	50	0	0	247
Lane Flow Rate	109	359	201	159	71	207	16	310	424
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.293	0.916	0.509	0.485	0.197	0.601	0.044	0.799	1.036
Departure Headway (Hd)	9.966	9.443	9.364	11.308	10.341	10.645	9.794	9.272	8.809
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	363	387	388	321	349	341	367	394	415
Service Time	7.666	7.143	7.064	9.008	8.041	8.345	7.507	6.985	6.522
HCM Lane V/C Ratio	0.3	0.928	0.518	0.495	0.203	0.607	0.044	0.787	1.022
HCM Control Delay	16.7	58.4	21.4	24.2	15.6	28.2	13	40.1	84.3
HCM Lane LOS	C	F	C	C	C	D	B	E	F
HCM 95th-tile Q	1.2	9.6	2.8	2.5	0.7	3.7	0.1	7	13.5

Intersection	
Intersection Delay, s/veh	76
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	226	50	71	40	60	50	71	473	40	55	574	213
Future Vol, veh/h	226	50	71	40	60	50	71	473	40	55	574	213
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	246	54	77	43	65	54	77	514	43	60	624	232
Number of Lanes	1	1	0	0	1	0	1	2	0	1	2	0

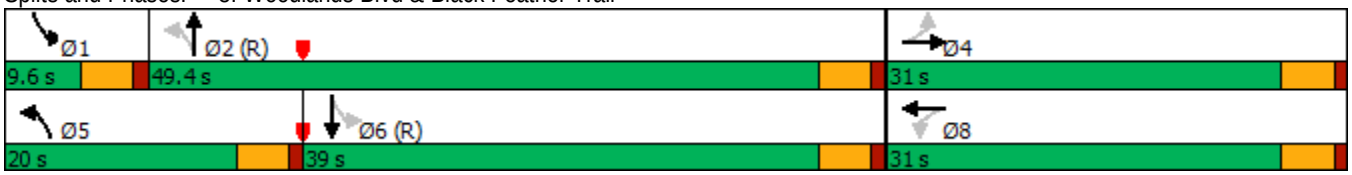
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	2
HCM Control Delay	36.6	27	49.8	119.2
HCM LOS	E	D	E	F

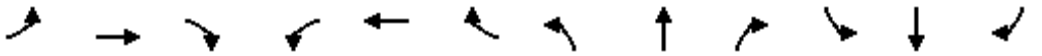
Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	27%	100%	0%	0%
Vol Thru, %	0%	100%	80%	0%	41%	40%	0%	100%	47%
Vol Right, %	0%	0%	20%	0%	59%	33%	0%	0%	53%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	71	315	198	226	121	150	55	383	404
LT Vol	71	0	0	226	0	40	55	0	0
Through Vol	0	315	158	0	50	60	0	383	191
RT Vol	0	0	40	0	71	50	0	0	213
Lane Flow Rate	77	343	215	246	132	163	60	416	439
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.226	0.956	0.591	0.774	0.381	0.523	0.173	1.145	1.163
Departure Headway (Hd)	11.059	10.533	10.384	11.796	10.853	11.913	10.44	9.914	9.527
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	326	346	350	310	334	305	344	366	382
Service Time	8.759	8.233	8.084	9.496	8.553	9.613	8.193	7.667	7.279
HCM Lane V/C Ratio	0.236	0.991	0.614	0.794	0.395	0.534	0.174	1.137	1.149
HCM Control Delay	17	71.4	27	45.5	20.1	27	15.4	124	128.7
HCM Lane LOS	C	F	D	E	C	D	C	F	F
HCM 95th-tile Q	0.9	10.2	3.6	6	1.7	2.8	0.6	16.1	17.2

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	172	25	60	80	190	654	15	517
Future Volume (vph)	172	25	60	80	190	654	15	517
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	31.0	31.0	31.0	31.0	20.0	49.4	9.6	39.0
Total Split (%)	34.4%	34.4%	34.4%	34.4%	22.2%	54.9%	10.7%	43.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	19.0	19.0	19.0	19.0	62.0	60.0	53.2	47.6
Actuated g/C Ratio	0.21	0.21	0.21	0.21	0.69	0.67	0.59	0.53
v/c Ratio	0.78	0.29	0.25	0.35	0.48	0.31	0.03	0.49
Control Delay	62.6	23.8	29.7	23.3	9.9	8.1	7.1	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.6	23.8	29.7	23.3	9.9	8.1	7.1	13.2
LOS	E	C	C	C	A	A	A	B
Approach Delay		47.0		25.4		8.5		13.1
Approach LOS		D		C		A		B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 16.8	Intersection LOS: B
Intersection Capacity Utilization 67.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 8: Woodlands Blvd & Black Feather Trail





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	172	25	90	60	80	50	190	654	20	15	517	324
Future Volume (veh/h)	172	25	90	60	80	50	190	654	20	15	517	324
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	187	27	98	65	87	54	207	711	22	16	562	352
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	298	85	310	306	261	162	435	2077	64	465	1120	701
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.07	0.59	0.59	0.02	0.53	0.53
Sat Flow, veh/h	1248	354	1285	1266	1080	670	1781	3519	109	1781	2098	1313
Grp Volume(v), veh/h	187	0	125	65	0	141	207	359	374	16	476	438
Grp Sat Flow(s),veh/h/ln	1248	0	1639	1266	0	1750	1781	1777	1851	1781	1777	1634
Q Serve(g_s), s	13.1	0.0	5.6	4.0	0.0	6.0	4.4	9.3	9.3	0.4	15.3	15.4
Cycle Q Clear(g_c), s	19.1	0.0	5.6	9.6	0.0	6.0	4.4	9.3	9.3	0.4	15.3	15.4
Prop In Lane	1.00		0.78	1.00		0.38	1.00		0.06	1.00		0.80
Lane Grp Cap(c), veh/h	298	0	396	306	0	422	435	1049	1092	465	949	873
V/C Ratio(X)	0.63	0.00	0.32	0.21	0.00	0.33	0.48	0.34	0.34	0.03	0.50	0.50
Avail Cap(c_a), veh/h	364	0	483	373	0	515	609	1049	1092	533	949	873
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.75	0.00	0.75	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	0.0	28.0	32.0	0.0	28.2	9.5	9.5	9.5	9.2	13.3	13.3
Incr Delay (d2), s/veh	1.8	0.0	0.3	0.3	0.0	0.5	0.8	0.9	0.9	0.0	1.9	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	2.2	1.2	0.0	2.5	1.6	3.6	3.7	0.1	6.2	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.8	0.0	28.4	32.3	0.0	28.6	10.3	10.4	10.3	9.2	15.2	15.4
LnGrp LOS	D	A	C	C	A	C	B	B	B	A	B	B
Approach Vol, veh/h		312			206			940			930	
Approach Delay, s/veh		34.0			29.8			10.3			15.2	
Approach LOS		C			C			B			B	

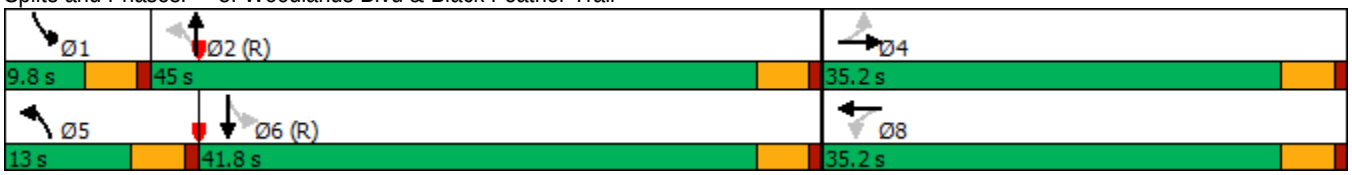
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	57.6		26.2	11.2	52.6		26.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	44.9		26.5	15.5	34.5		26.5				
Max Q Clear Time (g_c+I1), s	2.4	11.3		21.1	6.4	17.4		11.6				
Green Ext Time (p_c), s	0.0	5.2		0.7	0.4	5.8		0.8				

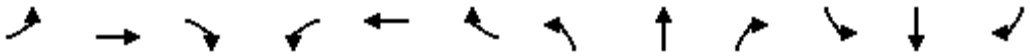
Intersection Summary			
HCM 6th Ctrl Delay		17.0	
HCM 6th LOS		B	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	298	50	40	60	130	578	55	732
Future Volume (vph)	298	50	40	60	130	578	55	732
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	35.2	35.2	35.2	35.2	13.0	45.0	9.8	41.8
Total Split (%)	39.1%	39.1%	39.1%	39.1%	14.4%	50.0%	10.9%	46.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	26.8	26.8	26.8	26.8	52.6	45.9	47.6	41.8
Actuated g/C Ratio	0.30	0.30	0.30	0.30	0.58	0.51	0.53	0.46
v/c Ratio	0.86	0.37	0.15	0.22	0.48	0.37	0.14	0.65
Control Delay	55.1	20.9	22.8	14.1	14.5	15.4	9.8	20.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.1	20.9	22.8	14.1	14.5	15.4	9.8	20.9
LOS	E	C	C	B	B	B	A	C
Approach Delay		41.0		16.4		15.2		20.3
Approach LOS		D		B		B		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 22.8	Intersection LOS: C
Intersection Capacity Utilization 72.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 8: Woodlands Blvd & Black Feather Trail





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	298	50	160	40	60	50	130	578	40	55	732	238
Future Volume (veh/h)	298	50	160	40	60	50	130	578	40	55	732	238
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	324	54	174	43	65	54	141	628	43	60	796	259
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	431	127	409	330	308	256	313	1624	111	435	1218	396
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.06	0.48	0.48	0.04	0.46	0.46
Sat Flow, veh/h	1273	389	1255	1153	944	785	1781	3375	231	1781	2636	857
Grp Volume(v), veh/h	324	0	228	43	0	119	141	330	341	60	537	518
Grp Sat Flow(s),veh/h/ln	1273	0	1644	1153	0	1729	1781	1777	1829	1781	1777	1716
Q Serve(g_s), s	22.3	0.0	9.8	2.7	0.0	4.5	3.7	10.7	10.7	1.6	20.9	21.0
Cycle Q Clear(g_c), s	26.7	0.0	9.8	12.5	0.0	4.5	3.7	10.7	10.7	1.6	20.9	21.0
Prop In Lane	1.00		0.76	1.00		0.45	1.00		0.13	1.00		0.50
Lane Grp Cap(c), veh/h	431	0	535	330	0	563	313	855	880	435	821	793
V/C Ratio(X)	0.75	0.00	0.43	0.13	0.00	0.21	0.45	0.39	0.39	0.14	0.65	0.65
Avail Cap(c_a), veh/h	451	0	561	348	0	590	371	855	880	463	821	793
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.26	0.00	0.26	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.7	0.0	23.8	28.7	0.0	22.0	14.4	14.9	14.9	11.9	18.6	18.7
Incr Delay (d2), s/veh	1.8	0.0	0.1	0.2	0.0	0.2	1.0	1.3	1.3	0.1	4.0	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	0.0	3.7	0.8	0.0	1.8	1.5	4.4	4.5	0.6	9.0	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	0.0	23.9	28.8	0.0	22.2	15.4	16.2	16.2	12.0	22.7	22.8
LnGrp LOS	C	A	C	C	A	C	B	B	B	B	C	C
Approach Vol, veh/h		552			162			812			1115	
Approach Delay, s/veh		29.5			23.9			16.0			22.2	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	47.8		33.8	10.1	46.1		33.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.3	40.5		30.7	8.5	37.3		30.7				
Max Q Clear Time (g_c+I1), s	3.6	12.7		28.7	5.7	23.0		14.5				
Green Ext Time (p_c), s	0.0	4.5		0.6	0.1	6.2		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			21.9									
HCM 6th LOS			C									

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	312	206	940	930
Demand Flow Rate, veh/h	319	210	958	948
Vehicles Circulating, veh/h	655	1127	235	366
Vehicles Exiting, veh/h	659	66	739	971
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.7	11.6	7.8	9.3
Approach LOS	A	B	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	R	LT	R	LT	TR	LT	TR
Assumed Moves	LT	R	LT	R	LT	TR	LT	TR
RT Channelized								
Lane Util	0.687	0.313	0.738	0.262	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	219	100	155	55	450	508	446	502
Cap Entry Lane, veh/h	739	814	479	545	1087	1163	964	1040
Entry HV Adj Factor	0.979	0.980	0.982	0.982	0.982	0.980	0.980	0.982
Flow Entry, veh/h	214	98	152	54	442	498	437	493
Cap Entry, veh/h	724	797	470	535	1067	1140	945	1021
V/C Ratio	0.296	0.123	0.324	0.101	0.414	0.437	0.463	0.483
Control Delay, s/veh	8.5	5.8	12.9	8.0	7.8	7.8	9.4	9.2
LOS	A	A	B	A	A	A	A	A
95th %tile Queue, veh	1	0	1	0	2	2	2	3

Intersection	
Intersection Delay, s/veh	11.0
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	552	162	812	1115
Demand Flow Rate, veh/h	562	165	829	1137
Vehicles Circulating, veh/h	917	1115	446	254
Vehicles Exiting, veh/h	474	160	1033	1026
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	17.4	9.9	9.2	9.3
Approach LOS	C	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	R	LT	R	LT	TR	LT	TR
Assumed Moves	LT	R	LT	R	LT	TR	LT	TR
RT Channelized								
Lane Util	0.685	0.315	0.667	0.333	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	385	177	110	55	390	439	534	603
Cap Entry Lane, veh/h	581	651	484	550	896	972	1069	1144
Entry HV Adj Factor	0.982	0.983	0.979	0.982	0.979	0.981	0.981	0.980
Flow Entry, veh/h	378	174	108	54	382	431	524	591
Cap Entry, veh/h	570	640	474	540	877	953	1049	1122
V/C Ratio	0.663	0.272	0.227	0.100	0.435	0.452	0.500	0.527
Control Delay, s/veh	21.2	9.1	11.0	7.9	9.4	9.1	9.3	9.4
LOS	C	A	B	A	A	A	A	A
95th %tile Queue, veh	5	1	1	0	2	2	3	3

Intersection	
Int Delay, s/veh	2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	208	1204	8	49	448
Future Vol, veh/h	10	208	1204	8	49	448
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	275	-	425	525	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	217	1254	8	51	467

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1590	627	0	0	1262	0
Stage 1	1254	-	-	-	-	-
Stage 2	336	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	98	426	-	-	547	-
Stage 1	232	-	-	-	-	-
Stage 2	696	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	89	426	-	-	547	-
Mov Cap-2 Maneuver	185	-	-	-	-	-
Stage 1	232	-	-	-	-	-
Stage 2	631	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.1	0	1.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	185	426	547	-
HCM Lane V/C Ratio	-	-	0.056	0.509	0.093	-
HCM Control Delay (s)	-	-	25.6	21.9	12.3	-
HCM Lane LOS	-	-	D	C	B	-
HCM 95th %tile Q(veh)	-	-	0.2	2.8	0.3	-

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	11	94	717	18	159	1249
Future Vol, veh/h	11	94	717	18	159	1249
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	275	-	425	525	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	100	763	19	169	1329

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1766	382	0	0	782	0
Stage 1	763	-	-	-	-	-
Stage 2	1003	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	75	616	-	-	832	-
Stage 1	421	-	-	-	-	-
Stage 2	315	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	60	616	-	-	832	-
Mov Cap-2 Maneuver	169	-	-	-	-	-
Stage 1	421	-	-	-	-	-
Stage 2	251	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.7	0	1.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	169	616	832	-
HCM Lane V/C Ratio	-	-	0.069	0.162	0.203	-
HCM Control Delay (s)	-	-	27.9	12	10.4	-
HCM Lane LOS	-	-	D	B	B	-
HCM 95th %tile Q(veh)	-	-	0.2	0.6	0.8	-

Intersection	
Int Delay, s/veh	4.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	235	1413	10	56	526
Future Vol, veh/h	12	235	1413	10	56	526
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	425	525	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	250	1503	11	60	560

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1903	752	0	0	1514	0
Stage 1	1503	-	-	-	-	-
Stage 2	400	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	61	353	-	-	437	-
Stage 1	170	-	-	-	-	-
Stage 2	646	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	53	353	-	-	437	-
Mov Cap-2 Maneuver	135	-	-	-	-	-
Stage 1	170	-	-	-	-	-
Stage 2	557	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	36.4	0	1.4
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	135	353	437	-
HCM Lane V/C Ratio	-	-	0.095	0.708	0.136	-
HCM Control Delay (s)	-	-	34.4	36.5	14.5	-
HCM Lane LOS	-	-	D	E	B	-
HCM 95th %tile Q(veh)	-	-	0.3	5.2	0.5	-

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	108	859	22	183	1480
Future Vol, veh/h	13	108	859	22	183	1480
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	425	525	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	115	914	23	195	1574

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2091	457	0	0	937	0
Stage 1	914	-	-	-	-	-
Stage 2	1177	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	45	551	-	-	727	-
Stage 1	351	-	-	-	-	-
Stage 2	255	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	33	551	-	-	727	-
Mov Cap-2 Maneuver	125	-	-	-	-	-
Stage 1	351	-	-	-	-	-
Stage 2	187	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.8	0	1.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	125	551	727	-
HCM Lane V/C Ratio	-	-	0.111	0.209	0.268	-
HCM Control Delay (s)	-	-	37.4	13.2	11.8	-
HCM Lane LOS	-	-	E	B	B	-
HCM 95th %tile Q(veh)	-	-	0.4	0.8	1.1	-

Intersection	
Int Delay, s/veh	45.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	76	0	48	12	0	235	27	1441	10	56	541	42
Future Vol, veh/h	76	0	48	12	0	235	27	1441	10	56	541	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	150	-	150	-	-	275	0	-	425	525	-	300
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	94	92	94	92	94	94	94	94	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	83	0	52	13	0	250	29	1533	11	60	576	46

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1521	2298	-	1999	2333	767	622	0	0	1544	0	0
Stage 1	696	696	-	1591	1591	-	-	-	-	-	-	-
Stage 2	825	1602	-	408	742	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	-	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	-	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 81	38	0	35	36	345	955	-	-	426	-	-
Stage 1	398	441	0	112	166	-	-	-	-	-	-	-
Stage 2	333	163	0	591	420	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 19	32	-	31	30	345	955	-	-	426	-	-
Mov Cap-2 Maneuver	~ 26	80	-	89	111	-	-	-	-	-	-	-
Stage 1	386	379	-	109	161	-	-	-	-	-	-	-
Stage 2	89	158	-	508	361	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay,$	1295.1	39.3	0.2	1.3
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	955	-	-	26	-	-	89	345	426	-	-
HCM Lane V/C Ratio	0.031	-	-	3.177	-	-	0.143	0.725	0.14	-	-
HCM Control Delay (s)	8.9	-	-	$ 1295.1	0	0	52.1	38.6	14.8	-	-
HCM Lane LOS	A	-	-	F	A	A	F	E	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	10.1	-	-	0.5	5.4	0.5	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	10.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	0	32	13	0	108	48	877	22	183	1507	75
Future Vol, veh/h	50	0	32	13	0	108	48	877	22	183	1507	75
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	150	-	150	-	-	275	300	-	425	525	-	300
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	94	92	94	92	94	94	94	94	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	54	0	35	14	0	115	52	933	23	195	1603	82

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2564	3053	-	2229	3112	467	1685	0	0	956	0	0
Stage 1	1993	1993	-	1037	1037	-	-	-	-	-	-	-
Stage 2	571	1060	-	1192	2075	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	-	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	-	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 13	12	0	24	11	542	376	-	-	715	-	-
Stage 1	62	104	0	247	307	-	-	-	-	-	-	-
Stage 2	473	299	0	199	94	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 7	8	-	17	7	542	376	-	-	715	-	-
Mov Cap-2 Maneuver	~ 37	35	-	66	14	-	-	-	-	-	-	-
Stage 1	~ 53	76	-	213	265	-	-	-	-	-	-	-
Stage 2	321	258	-	145	68	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 482.5	19.9	0.8	1.2
HCM LOS	F	C		

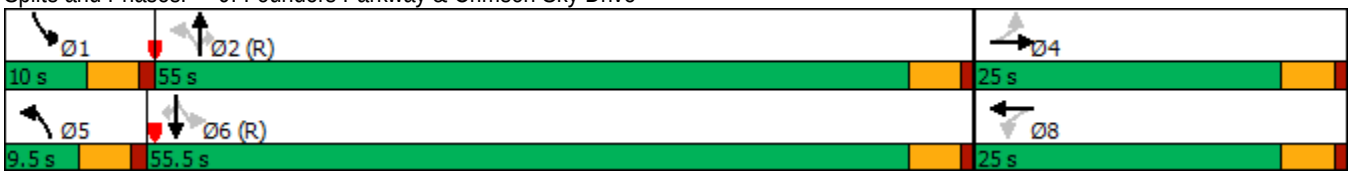
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	376	-	-	37	-	-	66	542	715	-	-
HCM Lane V/C Ratio	0.139	-	-	1.469	-	-	0.21	0.212	0.272	-	-
HCM Control Delay (s)	16.1	-	-	$ 482.5	0	0	73.5	13.4	11.9	-	-
HCM Lane LOS	C	-	-	F	A	A	F	B	B	-	-
HCM 95th %tile Q(veh)	0.5	-	-	5.7	-	-	0.7	0.8	1.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	76	48	12	0	27	1441	10	56	541	42
Future Volume (vph)	76	48	12	0	27	1441	10	56	541	42
Turn Type	Perm	Free	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases				8	5	2		1	6	
Permitted Phases	4	Free	8		2		2	6		6
Detector Phase	4		8	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5		22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	25.0		25.0	25.0	9.5	55.0	55.0	10.0	55.5	55.5
Total Split (%)	27.8%		27.8%	27.8%	10.6%	61.1%	61.1%	11.1%	61.7%	61.7%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None		None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.4	90.0	14.4	14.4	62.6	58.0	58.0	65.0	62.5	62.5
Actuated g/C Ratio	0.16	1.00	0.16	0.16	0.70	0.64	0.64	0.72	0.69	0.69
v/c Ratio	1.00	0.03	0.06	0.70	0.05	0.67	0.01	0.25	0.23	0.04
Control Delay	135.9	0.0	29.2	27.8	4.6	13.7	0.0	9.6	6.0	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	135.9	0.0	29.2	27.8	4.6	13.7	0.0	9.6	6.0	0.7
LOS	F	A	C	C	A	B	A	A	A	A
Approach Delay				27.9		13.5			6.0	
Approach LOS				C		B			A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 16.5	Intersection LOS: B
Intersection Capacity Utilization 76.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 9: Founders Parkway & Crimson Sky Drive



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	0	48	12	0	235	27	1441	10	56	541	42
Future Volume (veh/h)	76	0	48	12	0	235	27	1441	10	56	541	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	83	0	0	13	0	144	29	1533	11	60	576	46
Peak Hour Factor	0.92	0.92	0.92	0.94	0.92	0.94	0.92	0.94	0.94	0.94	0.94	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	319		322	0	271	599	2261	1008	278	2312	1031
Arrive On Green	0.17	0.00	0.00	0.17	0.00	0.17	0.03	0.64	0.64	0.04	0.65	0.65
Sat Flow, veh/h	1244	1870	1585	1418	0	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	83	0	0	13	0	144	29	1533	11	60	576	46
Grp Sat Flow(s),veh/h/ln	1244	1870	1585	1418	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.9	0.0	0.0	0.7	0.0	7.5	0.5	24.8	0.2	1.0	6.1	0.9
Cycle Q Clear(g_c), s	13.3	0.0	0.0	0.7	0.0	7.5	0.5	24.8	0.2	1.0	6.1	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	319		322	0	271	599	2261	1008	278	2312	1031
V/C Ratio(X)	0.44	0.00		0.04	0.00	0.53	0.05	0.68	0.01	0.22	0.25	0.04
Avail Cap(c_a), veh/h	260	426		403	0	361	647	2261	1008	310	2312	1031
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	0.0	0.0	31.2	0.0	34.0	5.3	10.5	6.0	9.0	6.6	5.7
Incr Delay (d2), s/veh	1.6	0.0	0.0	0.1	0.0	1.6	0.0	1.7	0.0	0.4	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.0	0.2	0.0	2.9	0.2	8.9	0.1	0.3	2.1	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.7	0.0	0.0	31.3	0.0	35.7	5.3	12.1	6.0	9.4	6.8	5.7
LnGrp LOS	D	A		C	A	D	A	B	A	A	A	A
Approach Vol, veh/h		83	A		157			1573			682	
Approach Delay, s/veh		41.7			35.3			12.0			7.0	
Approach LOS		D			D			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	61.8		19.9	7.1	63.1		19.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	50.5		20.5	5.0	51.0		20.5				
Max Q Clear Time (g_c+I1), s	3.0	26.8		15.3	2.5	8.1		9.5				
Green Ext Time (p_c), s	0.0	13.3		0.1	0.0	4.7		0.6				

Intersection Summary		
HCM 6th Ctrl Delay		13.1
HCM 6th LOS		B

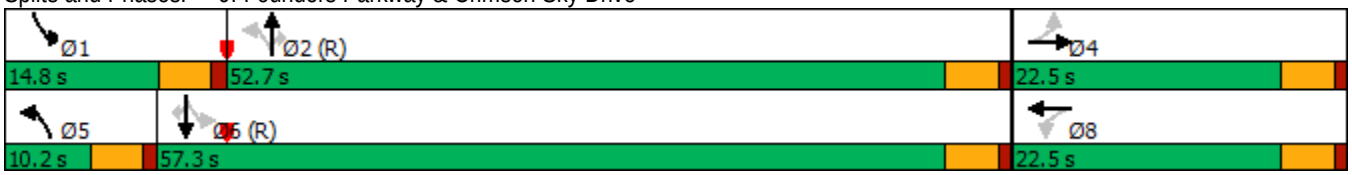
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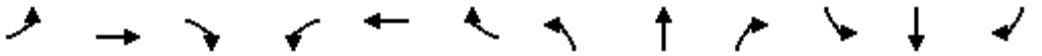
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	50	32	13	0	48	877	22	183	1507	75
Future Volume (vph)	50	32	13	0	48	877	22	183	1507	75
Turn Type	Perm	Free	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases				8	5	2		1	6	
Permitted Phases	4	Free	8		2		2	6		6
Detector Phase	4		8	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5		22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	22.5		22.5	22.5	10.2	52.7	52.7	14.8	57.3	57.3
Total Split (%)	25.0%		25.0%	25.0%	11.3%	58.6%	58.6%	16.4%	63.7%	63.7%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None		None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	9.4	90.0	9.4	9.4	67.4	61.3	61.3	72.4	68.0	68.0
Actuated g/C Ratio	0.10	1.00	0.10	0.10	0.75	0.68	0.68	0.80	0.76	0.76
v/c Ratio	0.47	0.02	0.10	0.32	0.19	0.39	0.02	0.39	0.60	0.07
Control Delay	50.3	0.0	35.9	2.4	4.5	7.9	0.0	4.7	6.9	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.3	0.0	35.9	2.4	4.5	7.9	0.0	4.7	6.9	1.5
LOS	D	A	D	A	A	A	A	A	A	A
Approach Delay				6.0		7.6			6.5	
Approach LOS				A		A			A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 7.5	Intersection LOS: A
Intersection Capacity Utilization 66.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Founders Parkway & Crimson Sky Drive





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	0	32	13	0	108	48	877	22	183	1507	75
Future Volume (veh/h)	50	0	32	13	0	108	48	877	22	183	1507	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	0	0	14	0	62	52	933	23	195	1603	82
Peak Hour Factor	0.92	0.92	0.92	0.94	0.92	0.94	0.92	0.94	0.94	0.94	0.94	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	158	178		215	0	151	292	2486	1109	526	2538	1132
Arrive On Green	0.10	0.00	0.00	0.10	0.00	0.10	0.04	0.70	0.70	0.06	0.71	0.71
Sat Flow, veh/h	1340	1870	1585	1418	0	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	54	0	0	14	0	62	52	933	23	195	1603	82
Grp Sat Flow(s),veh/h/ln	1340	1870	1585	1418	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	3.6	0.0	0.0	0.8	0.0	3.3	0.7	9.6	0.4	2.7	21.1	1.4
Cycle Q Clear(g_c), s	6.9	0.0	0.0	0.8	0.0	3.3	0.7	9.6	0.4	2.7	21.1	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	158	178		215	0	151	292	2486	1109	526	2538	1132
V/C Ratio(X)	0.34	0.00		0.07	0.00	0.41	0.18	0.38	0.02	0.37	0.63	0.07
Avail Cap(c_a), veh/h	299	374		364	0	317	333	2486	1109	632	2538	1132
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.6	0.0	0.0	37.2	0.0	38.3	5.8	5.5	4.1	3.8	6.7	3.9
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.1	0.0	1.8	0.3	0.4	0.0	0.4	1.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.0	0.3	0.0	1.3	0.2	3.1	0.1	0.8	6.7	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.8	0.0	0.0	37.3	0.0	40.1	6.1	5.9	4.2	4.2	7.9	4.0
LnGrp LOS	D	A		D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		54	A		76			1008			1880	
Approach Delay, s/veh		42.8			39.6			5.9			7.4	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.5	67.5		13.1	8.1	68.8		13.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	10.3	48.2		18.0	5.7	52.8		18.0				
Max Q Clear Time (g_c+I1), s	4.7	11.6		8.9	2.7	23.1		5.3				
Green Ext Time (p_c), s	0.2	8.2		0.1	0.0	16.4		0.2				

Intersection Summary		
HCM 6th Ctrl Delay		8.3
HCM 6th LOS		A

Notes

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

Intersection	
Int Delay, s/veh	9.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	235	1874	10	56	641
Future Vol, veh/h	12	235	1874	10	56	641
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	425	525	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	250	1994	11	60	682

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2455	997	0	0	2005	0
Stage 1	1994	-	-	-	-	-
Stage 2	461	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	25	~ 243	-	-	282	-
Stage 1	92	-	-	-	-	-
Stage 2	601	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	20	~ 243	-	-	282	-
Mov Cap-2 Maneuver	75	-	-	-	-	-
Stage 1	92	-	-	-	-	-
Stage 2	473	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	107.1	0	1.7
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	75	243	282	-
HCM Lane V/C Ratio	-	-	0.17	1.029	0.211	-
HCM Control Delay (s)	-	-	62.6	109.4	21.2	-
HCM Lane LOS	-	-	F	F	C	-
HCM 95th %tile Q(veh)	-	-	0.6	10.1	0.8	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	108	1152	22	183	1836
Future Vol, veh/h	13	108	1152	22	183	1836
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	425	525	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	115	1226	23	195	1953

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2593	613	0	0	1249	0
Stage 1	1226	-	-	-	-	-
Stage 2	1367	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	20	435	-	-	553	-
Stage 1	240	-	-	-	-	-
Stage 2	202	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 13	435	-	-	553	-
Mov Cap-2 Maneuver	83	-	-	-	-	-
Stage 1	240	-	-	-	-	-
Stage 2	131	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.6	0	1.4
HCM LOS	C		

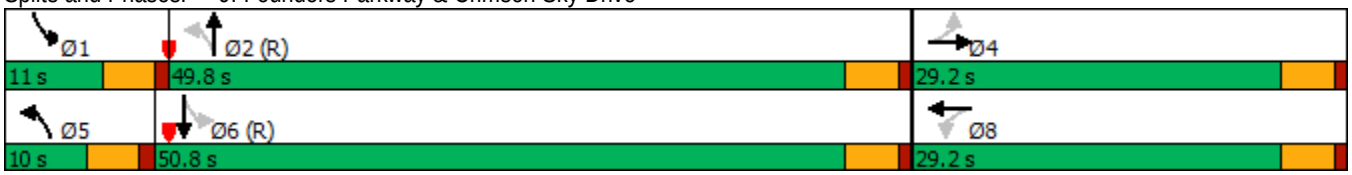
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	83	435	553	-
HCM Lane V/C Ratio	-	-	0.167	0.264	0.352	-
HCM Control Delay (s)	-	-	56.9	16.2	15	-
HCM Lane LOS	-	-	F	C	C	-
HCM 95th %tile Q(veh)	-	-	0.6	1	1.6	-

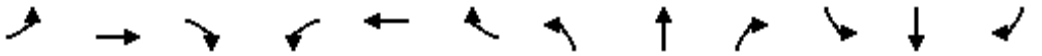
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	106	98	12	0	52	1902	56	656
Future Volume (vph)	106	98	12	0	52	1902	56	656
Turn Type	Perm	Free	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases				8	5	2	1	6
Permitted Phases	4	Free	8		2		6	
Detector Phase	4		8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5		22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	29.2		29.2	29.2	10.0	49.8	11.0	50.8
Total Split (%)	32.4%		32.4%	32.4%	11.1%	55.3%	12.2%	56.4%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None		None	None	None	C-Max	None	C-Max
Act Effct Green (s)	17.0	90.0	17.0	17.0	60.1	55.2	60.6	55.4
Actuated g/C Ratio	0.19	1.00	0.19	0.19	0.67	0.61	0.67	0.62
v/c Ratio	0.94	0.07	0.05	0.63	0.11	0.65	0.29	0.24
Control Delay	103.4	0.1	26.4	22.9	6.0	14.4	15.4	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	103.4	0.1	26.4	22.9	6.0	14.4	15.4	8.1
LOS	F	A	C	C	A	B	B	A
Approach Delay				23.1		14.2		8.6
Approach LOS				C		B		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 16.1	Intersection LOS: B
Intersection Capacity Utilization 76.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 9: Founders Parkway & Crimson Sky Drive





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	0	98	12	0	235	52	1902	10	56	656	57
Future Volume (veh/h)	106	0	98	12	0	235	52	1902	10	56	656	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	115	0	0	13	0	144	57	2023	11	60	698	62
Peak Hour Factor	0.92	0.92	0.92	0.94	0.92	0.94	0.92	0.94	0.94	0.94	0.94	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	222	364		356	0	308	541	3209	17	234	2930	258
Arrive On Green	0.19	0.00	0.00	0.19	0.00	0.19	0.04	0.61	0.61	0.04	0.61	0.61
Sat Flow, veh/h	1244	1870	1585	1418	0	1585	1781	5241	28	1781	4777	422
Grp Volume(v), veh/h	115	0	0	13	0	144	57	1314	720	60	496	264
Grp Sat Flow(s),veh/h/ln	1244	1870	1585	1418	0	1585	1781	1702	1865	1781	1702	1794
Q Serve(g_s), s	8.1	0.0	0.0	0.7	0.0	7.2	1.0	21.9	21.9	1.1	5.9	6.0
Cycle Q Clear(g_c), s	15.4	0.0	0.0	0.7	0.0	7.2	1.0	21.9	21.9	1.1	5.9	6.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		0.23
Lane Grp Cap(c), veh/h	222	364		356	0	308	541	2084	1142	234	2088	1100
V/C Ratio(X)	0.52	0.00		0.04	0.00	0.47	0.11	0.63	0.63	0.26	0.24	0.24
Avail Cap(c_a), veh/h	321	513		469	0	435	574	2084	1142	285	2088	1100
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.87	0.87	0.87	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.9	0.0	0.0	29.5	0.0	32.1	5.8	11.0	11.0	9.3	7.9	7.9
Incr Delay (d2), s/veh	1.9	0.0	0.0	0.0	0.0	1.1	0.1	1.3	2.3	0.6	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	0.0	0.2	0.0	2.8	0.3	7.6	8.7	0.4	2.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	0.0	0.0	29.5	0.0	33.2	5.8	12.3	13.3	9.9	8.1	8.4
LnGrp LOS	D	A		C	A	C	A	B	B	A	A	A
Approach Vol, veh/h		115	A		157			2091			820	
Approach Delay, s/veh		40.8			32.9			12.5			8.4	
Approach LOS		D			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	59.6		22.0	8.3	59.7		22.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.5	45.3		24.7	5.5	46.3		24.7				
Max Q Clear Time (g_c+I1), s	3.1	23.9		17.4	3.0	8.0		9.2				
Green Ext Time (p_c), s	0.0	15.3		0.2	0.0	5.8		0.7				

Intersection Summary		
HCM 6th Ctrl Delay		13.4
HCM 6th LOS		B

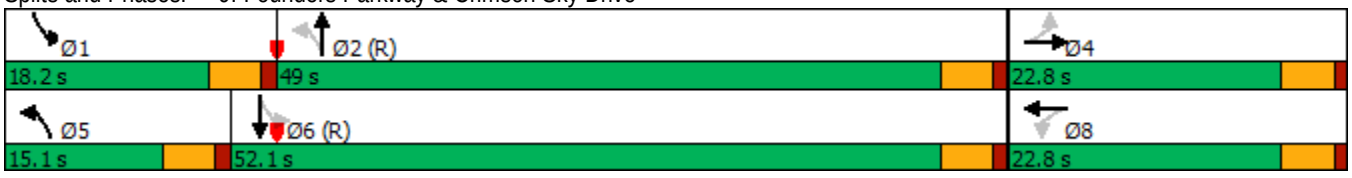
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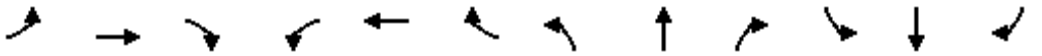
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	80	82	13	0	118	1170	183	1863
Future Volume (vph)	80	82	13	0	118	1170	183	1863
Turn Type	Perm	Free	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases				8	5	2	1	6
Permitted Phases	4	Free	8		2		6	
Detector Phase	4		8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5		22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	22.8		22.8	22.8	15.1	49.0	18.2	52.1
Total Split (%)	25.3%		25.3%	25.3%	16.8%	54.4%	20.2%	57.9%
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None		None	None	None	C-Max	None	C-Max
Act Effct Green (s)	11.6	90.0	11.4	11.4	66.1	58.2	68.1	59.2
Actuated g/C Ratio	0.13	1.00	0.13	0.13	0.73	0.65	0.76	0.66
v/c Ratio	0.59	0.06	0.08	0.28	0.54	0.39	0.50	0.64
Control Delay	51.8	0.1	32.9	1.7	21.4	9.5	11.3	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.8	0.1	32.9	1.7	21.4	9.5	11.3	8.7
LOS	D	A	C	A	C	A	B	A
Approach Delay				5.1		10.6		8.9
Approach LOS				A		B		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 10.1	Intersection LOS: B
Intersection Capacity Utilization 67.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Founders Parkway & Crimson Sky Drive





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	0	82	13	0	108	118	1170	22	183	1863	120
Future Volume (veh/h)	80	0	82	13	0	108	118	1170	22	183	1863	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	87	0	0	14	0	62	128	1245	23	195	1982	130
Peak Hour Factor	0.92	0.92	0.92	0.94	0.92	0.94	0.92	0.94	0.94	0.94	0.94	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	194	226		251	0	191	263	3462	64	432	3311	216
Arrive On Green	0.12	0.00	0.00	0.12	0.00	0.12	0.05	0.67	0.67	0.06	0.68	0.68
Sat Flow, veh/h	1340	1870	1585	1418	0	1585	1781	5162	95	1781	4897	320
Grp Volume(v), veh/h	87	0	0	14	0	62	128	821	447	195	1375	737
Grp Sat Flow(s),veh/h/ln	1340	1870	1585	1418	0	1585	1781	1702	1853	1781	1702	1813
Q Serve(g_s), s	5.7	0.0	0.0	0.8	0.0	3.2	1.9	9.4	9.4	3.0	19.8	20.0
Cycle Q Clear(g_c), s	8.9	0.0	0.0	0.8	0.0	3.2	1.9	9.4	9.4	3.0	19.8	20.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		0.18
Lane Grp Cap(c), veh/h	194	226		251	0	191	263	2283	1243	432	2302	1226
V/C Ratio(X)	0.45	0.00		0.06	0.00	0.32	0.49	0.36	0.36	0.45	0.60	0.60
Avail Cap(c_a), veh/h	305	380		368	0	322	377	2283	1243	598	2302	1226
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.3	0.0	0.0	35.2	0.0	36.2	10.0	6.4	6.4	4.6	7.9	8.0
Incr Delay (d2), s/veh	1.6	0.0	0.0	0.1	0.0	1.0	1.3	0.4	0.8	0.7	1.2	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.0	0.3	0.0	1.3	1.1	3.0	3.4	0.9	6.4	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.9	0.0	0.0	35.2	0.0	37.2	11.3	6.8	7.2	5.3	9.1	10.1
LnGrp LOS	D	A		D	A	D	B	A	A	A	A	B
Approach Vol, veh/h		87	A		76			1396			2307	
Approach Delay, s/veh		41.9			36.8			7.4			9.1	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.8	64.9		15.4	9.3	65.4		15.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	13.7	44.5		18.3	10.6	47.6		18.3				
Max Q Clear Time (g_c+I1), s	5.0	11.4		10.9	3.9	22.0		5.2				
Green Ext Time (p_c), s	0.3	10.9		0.1	0.2	18.2		0.2				

Intersection Summary	
HCM 6th Ctrl Delay	9.8
HCM 6th LOS	A

Notes

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

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	136	314	559	136	573
Future Volume (vph)	136	314	559	136	573
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	9.5	22.5
Total Split (s)	33.0	33.0	39.0	18.0	57.0
Total Split (%)	36.7%	36.7%	43.3%	20.0%	63.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	14.6	14.6	53.6	66.4	66.4
Actuated g/C Ratio	0.16	0.16	0.60	0.74	0.74
v/c Ratio	0.62	0.72	0.41	0.37	0.28
Control Delay	43.8	13.2	19.2	4.0	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	43.8	13.2	19.2	4.0	2.5
LOS	D	B	B	A	A
Approach Delay	22.4		19.2		2.8
Approach LOS	C		B		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 13.6	Intersection LOS: B
Intersection Capacity Utilization 45.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 10: Front St & E Scott Blvd





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	136	314	559	96	136	573
Future Volume (veh/h)	136	314	559	96	136	573
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	177	330	726	125	177	744
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	421	374	1664	286	551	2359
Arrive On Green	0.24	0.24	1.00	1.00	0.06	0.66
Sat Flow, veh/h	1781	1585	3125	522	1781	3647
Grp Volume(v), veh/h	177	330	425	426	177	744
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1776	1781	1777
Q Serve(g_s), s	7.6	18.1	0.0	0.0	3.6	8.0
Cycle Q Clear(g_c), s	7.6	18.1	0.0	0.0	3.6	8.0
Prop In Lane	1.00	1.00		0.29	1.00	
Lane Grp Cap(c), veh/h	421	374	976	975	551	2359
V/C Ratio(X)	0.42	0.88	0.44	0.44	0.32	0.32
Avail Cap(c_a), veh/h	564	502	976	975	703	2359
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.78	0.78	1.00	1.00
Uniform Delay (d), s/veh	29.1	33.2	0.0	0.0	6.7	6.4
Incr Delay (d2), s/veh	0.7	13.2	1.1	1.1	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	8.1	0.3	0.3	1.3	2.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	29.8	46.4	1.1	1.1	7.0	6.8
LnGrp LOS	C	D	A	A	A	A
Approach Vol, veh/h	507		851			921
Approach Delay, s/veh	40.6		1.1			6.8
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.3	53.9			64.2	25.8
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	13.5	34.5			52.5	28.5
Max Q Clear Time (g_c+I1), s	5.6	2.0			10.0	20.1
Green Ext Time (p_c), s	0.3	6.3			6.2	1.2

Intersection Summary	
HCM 6th Ctrl Delay	12.2
HCM 6th LOS	B

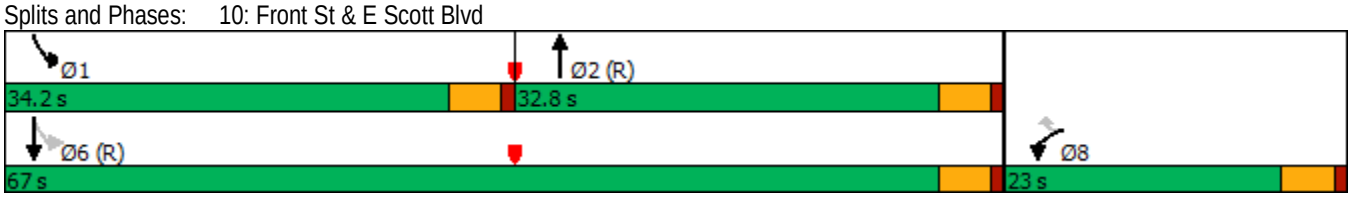
Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	39	179	644	415	904
Future Volume (vph)	39	179	644	415	904
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	9.5	22.5
Total Split (s)	23.0	23.0	32.8	34.2	67.0
Total Split (%)	25.6%	25.6%	36.4%	38.0%	74.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	8.1	8.1	51.3	72.9	72.9
Actuated g/C Ratio	0.09	0.09	0.57	0.81	0.81
v/c Ratio	0.26	0.61	0.37	0.65	0.34
Control Delay	41.1	14.4	14.8	11.1	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	41.1	14.4	14.8	11.1	1.4
LOS	D	B	B	B	A
Approach Delay	19.2		14.8		4.5
Approach LOS	B		B		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 9.1	Intersection LOS: A
Intersection Capacity Utilization 57.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 10: Front St & E Scott Blvd





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	39	179	644	44	415	904
Future Volume (veh/h)	39	179	644	44	415	904
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	127	692	47	446	972
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	182	162	2138	145	739	2834
Arrive On Green	0.10	0.10	1.00	1.00	0.11	0.80
Sat Flow, veh/h	1781	1585	3470	229	1781	3647
Grp Volume(v), veh/h	42	127	364	375	446	972
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1829	1781	1777
Q Serve(g_s), s	2.0	7.0	0.0	0.0	6.9	6.9
Cycle Q Clear(g_c), s	2.0	7.0	0.0	0.0	6.9	6.9
Prop In Lane	1.00	1.00		0.13	1.00	
Lane Grp Cap(c), veh/h	182	162	1125	1158	739	2834
V/C Ratio(X)	0.23	0.78	0.32	0.32	0.60	0.34
Avail Cap(c_a), veh/h	366	326	1125	1158	1123	2834
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.97	0.97	1.00	1.00
Uniform Delay (d), s/veh	37.1	39.4	0.0	0.0	3.2	2.5
Incr Delay (d2), s/veh	0.6	8.0	0.7	0.7	0.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	3.1	0.2	0.2	1.8	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.8	47.4	0.7	0.7	4.0	2.9
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	169		739			1418
Approach Delay, s/veh	45.0		0.7			3.2
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	14.8	61.5			76.3	13.7
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	29.7	28.3			62.5	18.5
Max Q Clear Time (g_c+I1), s	8.9	2.0			8.9	9.0
Green Ext Time (p_c), s	1.4	5.0			9.1	0.3

Intersection Summary	
HCM 6th Ctrl Delay	5.5
HCM 6th LOS	A

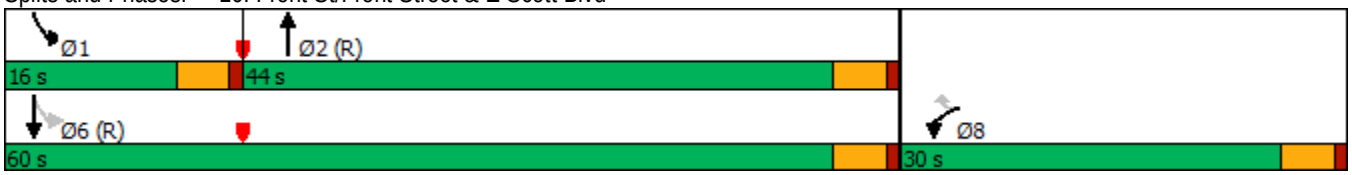
Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	147	267	675	117	700
Future Volume (vph)	147	267	675	117	700
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	9.5	22.5
Total Split (s)	30.0	30.0	44.0	16.0	60.0
Total Split (%)	33.3%	33.3%	48.9%	17.8%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	13.3	13.3	55.8	67.7	67.7
Actuated g/C Ratio	0.15	0.15	0.62	0.75	0.75
v/c Ratio	0.60	0.60	0.39	0.26	0.28
Control Delay	45.0	9.7	9.2	2.8	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	45.0	9.7	9.2	2.8	2.4
LOS	D	A	A	A	A
Approach Delay	22.3		9.2		2.5
Approach LOS	C		A		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 9.1	Intersection LOS: A
Intersection Capacity Utilization 47.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 10: Front St/Front Street & E Scott Blvd





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	147	267	675	103	117	700
Future Volume (veh/h)	147	267	675	103	117	700
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	158	222	726	111	126	753
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	300	267	1942	297	587	2600
Arrive On Green	0.17	0.17	1.00	1.00	0.05	0.73
Sat Flow, veh/h	1781	1585	3184	472	1781	3647
Grp Volume(v), veh/h	158	222	417	420	126	753
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1785	1781	1777
Q Serve(g_s), s	7.3	12.2	0.0	0.0	2.0	6.5
Cycle Q Clear(g_c), s	7.3	12.2	0.0	0.0	2.0	6.5
Prop In Lane	1.00	1.00		0.26	1.00	
Lane Grp Cap(c), veh/h	300	267	1117	1122	587	2600
V/C Ratio(X)	0.53	0.83	0.37	0.37	0.21	0.29
Avail Cap(c_a), veh/h	505	449	1117	1122	720	2600
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.90	0.90	1.00	1.00
Uniform Delay (d), s/veh	34.2	36.2	0.0	0.0	4.3	4.1
Incr Delay (d2), s/veh	1.4	6.6	0.9	0.9	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	5.1	0.3	0.3	0.6	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.6	42.8	0.9	0.9	4.5	4.4
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	380		837			879
Approach Delay, s/veh	39.8		0.9			4.4
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.3	61.1			70.4	19.6
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	11.5	39.5			55.5	25.5
Max Q Clear Time (g_c+I1), s	4.0	2.0			8.5	14.2
Green Ext Time (p_c), s	0.2	6.3			6.3	1.0

Intersection Summary	
HCM 6th Ctrl Delay	9.4
HCM 6th LOS	A

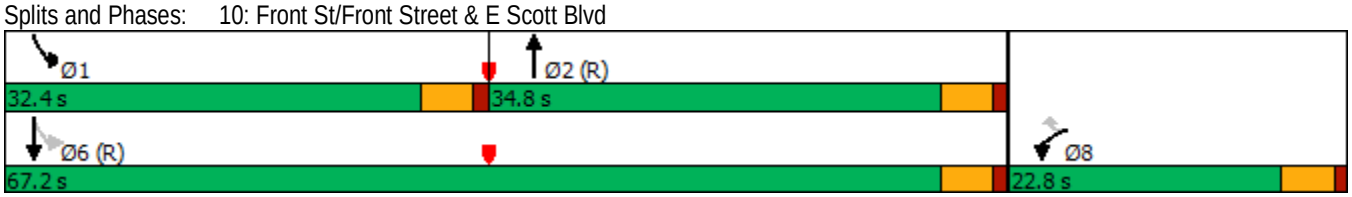
Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	43	166	752	379	1089
Future Volume (vph)	43	166	752	379	1089
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	9.5	22.5
Total Split (s)	22.8	22.8	34.8	32.4	67.2
Total Split (%)	25.3%	25.3%	38.7%	36.0%	74.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	8.2	8.2	51.0	72.8	72.8
Actuated g/C Ratio	0.09	0.09	0.57	0.81	0.81
v/c Ratio	0.29	0.58	0.43	0.65	0.41
Control Delay	41.7	14.2	15.0	13.0	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	41.7	14.2	15.0	13.0	1.6
LOS	D	B	B	B	A
Approach Delay	19.8		15.0		4.6
Approach LOS	B		B		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 9.2	Intersection LOS: A
Intersection Capacity Utilization 58.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 10: Front St/Front Street & E Scott Blvd





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	43	166	752	47	379	1089
Future Volume (veh/h)	43	166	752	47	379	1089
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	113	809	51	408	1171
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	166	148	2223	140	682	2866
Arrive On Green	0.09	0.09	1.00	1.00	0.10	0.81
Sat Flow, veh/h	1781	1585	3488	214	1781	3647
Grp Volume(v), veh/h	46	113	423	437	408	1171
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1832	1781	1777
Q Serve(g_s), s	2.2	6.3	0.0	0.0	5.9	8.6
Cycle Q Clear(g_c), s	2.2	6.3	0.0	0.0	5.9	8.6
Prop In Lane	1.00	1.00		0.12	1.00	
Lane Grp Cap(c), veh/h	166	148	1164	1200	682	2866
V/C Ratio(X)	0.28	0.76	0.36	0.36	0.60	0.41
Avail Cap(c_a), veh/h	362	322	1164	1200	1053	2866
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.96	0.96	1.00	1.00
Uniform Delay (d), s/veh	38.0	39.8	0.0	0.0	2.9	2.5
Incr Delay (d2), s/veh	0.9	7.9	0.8	0.8	0.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.7	0.3	0.3	1.5	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.9	47.7	0.8	0.8	3.8	2.9
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	159		860			1579
Approach Delay, s/veh	45.2		0.8			3.2
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	13.6	63.4			77.1	12.9
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	27.9	30.3			62.7	18.3
Max Q Clear Time (g_c+I1), s	7.9	2.0			10.6	8.3
Green Ext Time (p_c), s	1.2	6.2			12.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	5.0
HCM 6th LOS	A

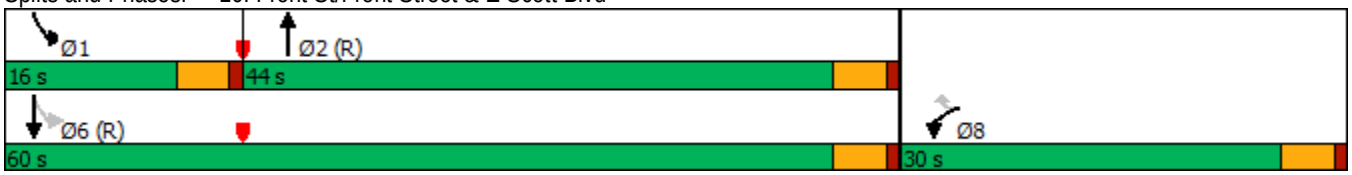
Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	147	267	744	117	746
Future Volume (vph)	147	267	744	117	746
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	9.5	22.5
Total Split (s)	30.0	30.0	44.0	16.0	60.0
Total Split (%)	33.3%	33.3%	48.9%	17.8%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	13.3	13.3	55.8	67.7	67.7
Actuated g/C Ratio	0.15	0.15	0.62	0.75	0.75
v/c Ratio	0.60	0.60	0.42	0.28	0.30
Control Delay	45.0	9.7	10.5	2.8	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	45.0	9.7	10.5	2.8	1.8
LOS	D	A	B	A	A
Approach Delay	22.3		10.5		2.0
Approach LOS	C		B		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 9.3	Intersection LOS: A
Intersection Capacity Utilization 49.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 10: Front St/Front Street & E Scott Blvd





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	147	267	744	103	117	746
Future Volume (veh/h)	147	267	744	103	117	746
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	158	222	800	111	126	802
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	300	267	1970	273	560	2600
Arrive On Green	0.17	0.17	1.00	1.00	0.05	0.73
Sat Flow, veh/h	1781	1585	3228	435	1781	3647
Grp Volume(v), veh/h	158	222	454	457	126	802
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1792	1781	1777
Q Serve(g_s), s	7.3	12.2	0.0	0.0	2.0	7.0
Cycle Q Clear(g_c), s	7.3	12.2	0.0	0.0	2.0	7.0
Prop In Lane	1.00	1.00		0.24	1.00	
Lane Grp Cap(c), veh/h	300	267	1117	1126	560	2600
V/C Ratio(X)	0.53	0.83	0.41	0.41	0.23	0.31
Avail Cap(c_a), veh/h	505	449	1117	1126	693	2600
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.88	0.88	1.00	1.00
Uniform Delay (d), s/veh	34.2	36.2	0.0	0.0	4.3	4.2
Incr Delay (d2), s/veh	1.4	6.6	1.0	1.0	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	5.1	0.3	0.3	0.6	2.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.6	42.8	1.0	1.0	4.5	4.5
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	380		911			928
Approach Delay, s/veh	39.8		1.0			4.5
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.3	61.1			70.4	19.6
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	11.5	39.5			55.5	25.5
Max Q Clear Time (g_c+I1), s	4.0	2.0			9.0	14.2
Green Ext Time (p_c), s	0.2	7.1			6.8	1.0

Intersection Summary	
HCM 6th Ctrl Delay	9.1
HCM 6th LOS	A

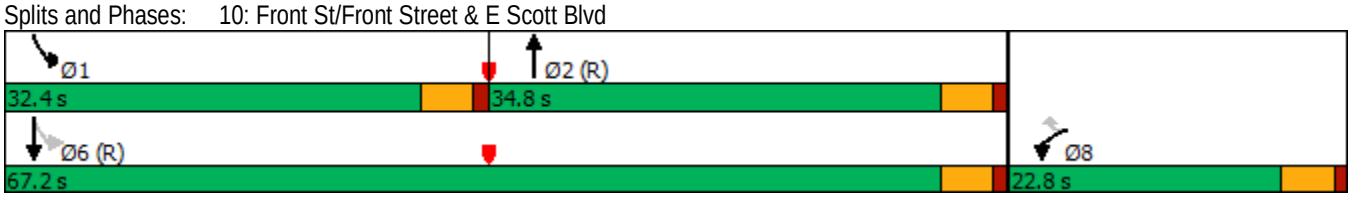
Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	43	166	796	379	1157
Future Volume (vph)	43	166	796	379	1157
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	9.5	22.5
Total Split (s)	22.8	22.8	34.8	32.4	67.2
Total Split (%)	25.3%	25.3%	38.7%	36.0%	74.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	8.2	8.2	49.7	72.8	72.8
Actuated g/C Ratio	0.09	0.09	0.55	0.81	0.81
v/c Ratio	0.29	0.58	0.47	0.65	0.43
Control Delay	41.7	14.2	16.5	15.1	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	41.7	14.2	16.5	15.1	1.6
LOS	D	B	B	B	A
Approach Delay	19.8		16.5		4.9
Approach LOS	B		B		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 9.9	Intersection LOS: A
Intersection Capacity Utilization 59.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 10: Front St/Front Street & E Scott Blvd





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	43	166	796	47	379	1157
Future Volume (veh/h)	43	166	796	47	379	1157
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	113	856	51	408	1244
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	166	148	2232	133	664	2866
Arrive On Green	0.09	0.09	1.00	1.00	0.10	0.81
Sat Flow, veh/h	1781	1585	3501	203	1781	3647
Grp Volume(v), veh/h	46	113	446	461	408	1244
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1834	1781	1777
Q Serve(g_s), s	2.2	6.3	0.0	0.0	5.9	9.4
Cycle Q Clear(g_c), s	2.2	6.3	0.0	0.0	5.9	9.4
Prop In Lane	1.00	1.00		0.11	1.00	
Lane Grp Cap(c), veh/h	166	148	1164	1201	664	2866
V/C Ratio(X)	0.28	0.76	0.38	0.38	0.61	0.43
Avail Cap(c_a), veh/h	362	322	1164	1201	1035	2866
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.95	0.95	1.00	1.00
Uniform Delay (d), s/veh	38.0	39.8	0.0	0.0	2.9	2.6
Incr Delay (d2), s/veh	0.9	7.9	0.9	0.9	0.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.7	0.3	0.3	1.5	2.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.9	47.7	0.9	0.9	3.9	3.1
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	159		907			1652
Approach Delay, s/veh	45.2		0.9			3.3
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	13.6	63.4			77.1	12.9
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	27.9	30.3			62.7	18.3
Max Q Clear Time (g_c+I1), s	7.9	2.0			11.4	8.3
Green Ext Time (p_c), s	1.2	6.6			13.2	0.3

Intersection Summary	
HCM 6th Ctrl Delay	4.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	198	258	940	119	897
Future Volume (vph)	198	258	940	119	897
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	9.5	22.5
Total Split (s)	30.0	30.0	44.0	16.0	60.0
Total Split (%)	33.3%	33.3%	48.9%	17.8%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	16.2	16.2	52.4	64.8	64.8
Actuated g/C Ratio	0.18	0.18	0.58	0.72	0.72
v/c Ratio	0.67	0.54	0.57	0.37	0.38
Control Delay	44.1	9.0	24.4	6.0	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	44.1	9.0	24.4	6.0	4.6
LOS	D	A	C	A	A
Approach Delay	24.3		24.4		4.7
Approach LOS	C		C		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 16.5	Intersection LOS: B
Intersection Capacity Utilization 59.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 10: Front Street & E Scott Blvd





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	198	258	940	139	119	897
Future Volume (veh/h)	198	258	940	139	119	897
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	213	212	1011	149	128	965
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	292	259	1967	290	481	2617
Arrive On Green	0.16	0.16	1.00	1.00	0.05	0.74
Sat Flow, veh/h	1781	1585	3201	458	1781	3647
Grp Volume(v), veh/h	213	212	578	582	128	965
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1788	1781	1777
Q Serve(g_s), s	10.2	11.6	0.0	0.0	2.0	8.8
Cycle Q Clear(g_c), s	10.2	11.6	0.0	0.0	2.0	8.8
Prop In Lane	1.00	1.00		0.26	1.00	
Lane Grp Cap(c), veh/h	292	259	1125	1132	481	2617
V/C Ratio(X)	0.73	0.82	0.51	0.51	0.27	0.37
Avail Cap(c_a), veh/h	505	449	1125	1132	614	2617
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.63	0.63	1.00	1.00
Uniform Delay (d), s/veh	35.8	36.3	0.0	0.0	4.1	4.3
Incr Delay (d2), s/veh	3.5	6.2	1.1	1.1	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	4.9	0.3	0.3	0.6	2.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.3	42.6	1.1	1.1	4.4	4.7
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	425		1160			1093
Approach Delay, s/veh	40.9		1.1			4.7
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.3	61.5			70.8	19.2
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	11.5	39.5			55.5	25.5
Max Q Clear Time (g_c+I1), s	4.0	2.0			10.8	13.6
Green Ext Time (p_c), s	0.2	10.1			8.8	1.1

Intersection Summary	
HCM 6th Ctrl Delay	8.9
HCM 6th LOS	A

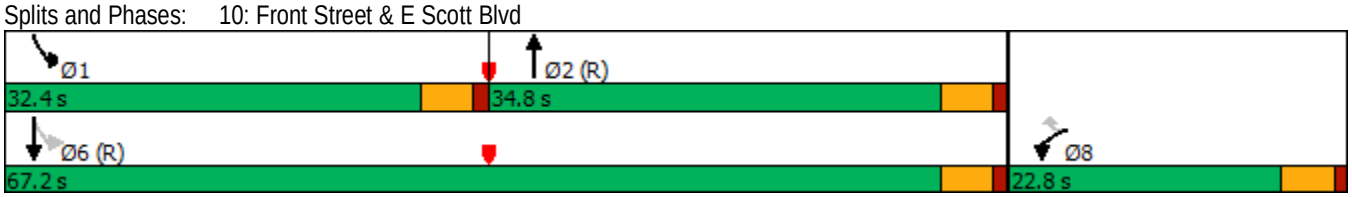
Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	57	120	1053	397	1385
Future Volume (vph)	57	120	1053	397	1385
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	9.5	22.5
Total Split (s)	22.8	22.8	34.8	32.4	67.2
Total Split (%)	25.3%	25.3%	38.7%	36.0%	74.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	8.5	8.5	47.9	72.5	72.5
Actuated g/C Ratio	0.09	0.09	0.53	0.81	0.81
v/c Ratio	0.37	0.48	0.64	0.79	0.52
Control Delay	51.6	21.6	34.0	31.3	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	51.6	21.6	34.0	31.3	1.8
LOS	D	C	C	C	A
Approach Delay	31.2		34.0		8.4
Approach LOS	C		C		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 19.0	Intersection LOS: B
Intersection Capacity Utilization 68.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: Front Street & E Scott Blvd





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	57	120	1053	63	397	1385
Future Volume (veh/h)	57	120	1053	63	397	1385
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	64	1132	68	427	1489
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	110	98	2357	141	574	2979
Arrive On Green	0.06	0.06	1.00	1.00	0.10	0.84
Sat Flow, veh/h	1781	1585	3499	204	1781	3647
Grp Volume(v), veh/h	61	64	590	610	427	1489
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1834	1781	1777
Q Serve(g_s), s	3.0	3.6	0.0	0.0	5.4	10.5
Cycle Q Clear(g_c), s	3.0	3.6	0.0	0.0	5.4	10.5
Prop In Lane	1.00	1.00		0.11	1.00	
Lane Grp Cap(c), veh/h	110	98	1229	1269	574	2979
V/C Ratio(X)	0.56	0.66	0.48	0.48	0.74	0.50
Avail Cap(c_a), veh/h	362	322	1229	1269	955	2979
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.83	0.83	1.00	1.00
Uniform Delay (d), s/veh	41.0	41.3	0.0	0.0	2.4	2.0
Incr Delay (d2), s/veh	4.3	7.2	1.1	1.1	1.9	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.6	0.4	0.4	1.3	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	45.4	48.5	1.1	1.1	4.3	2.6
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	125		1200			1916
Approach Delay, s/veh	47.0		1.1			3.0
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	13.2	66.8			80.0	10.0
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	27.9	30.3			62.7	18.3
Max Q Clear Time (g_c+I1), s	7.4	2.0			12.5	5.6
Green Ext Time (p_c), s	1.3	9.7			17.9	0.2

Intersection Summary	
HCM 6th Ctrl Delay	4.0
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	198	258	1009	119	943
Future Volume (vph)	198	258	1009	119	943
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	9.5	22.5
Total Split (s)	26.0	26.0	49.0	15.0	64.0
Total Split (%)	28.9%	28.9%	54.4%	16.7%	71.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	16.0	16.0	52.8	65.0	65.0
Actuated g/C Ratio	0.18	0.18	0.59	0.72	0.72
v/c Ratio	0.68	0.57	0.60	0.40	0.40
Control Delay	43.2	9.4	22.0	15.3	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	43.2	9.4	22.0	15.3	5.8
LOS	D	A	C	B	A
Approach Delay	24.1		22.0		6.9
Approach LOS	C		C		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 16.3	Intersection LOS: B
Intersection Capacity Utilization 61.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 10: Front Street & E Scott Blvd





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	198	258	1009	139	119	943
Future Volume (veh/h)	198	258	1009	139	119	943
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	213	212	1085	149	128	1014
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	288	256	1994	273	462	2624
Arrive On Green	0.16	0.16	1.00	1.00	0.05	0.74
Sat Flow, veh/h	1781	1585	3233	430	1781	3647
Grp Volume(v), veh/h	213	212	613	621	128	1014
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1793	1781	1777
Q Serve(g_s), s	10.2	11.6	0.0	0.0	2.0	9.4
Cycle Q Clear(g_c), s	10.2	11.6	0.0	0.0	2.0	9.4
Prop In Lane	1.00	1.00		0.24	1.00	
Lane Grp Cap(c), veh/h	288	256	1128	1139	462	2624
V/C Ratio(X)	0.74	0.83	0.54	0.55	0.28	0.39
Avail Cap(c_a), veh/h	426	379	1128	1139	574	2624
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.58	0.58	0.73	0.73
Uniform Delay (d), s/veh	35.9	36.5	0.0	0.0	4.1	4.3
Incr Delay (d2), s/veh	3.7	9.3	1.1	1.1	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	5.1	0.3	0.3	0.6	2.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.7	45.8	1.1	1.1	4.3	4.6
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	425		1234			1142
Approach Delay, s/veh	42.7		1.1			4.6
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.3	61.7			71.0	19.0
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	10.5	44.5			59.5	21.5
Max Q Clear Time (g_c+I1), s	4.0	2.0			11.4	13.6
Green Ext Time (p_c), s	0.2	11.5			9.5	0.9

Intersection Summary	
HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	57	120	1097	397	1453
Future Volume (vph)	57	120	1097	397	1453
Turn Type	Prot	Perm	NA	pm+pt	NA
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	9.5	22.5
Total Split (s)	22.6	22.6	39.4	28.0	67.4
Total Split (%)	25.1%	25.1%	43.8%	31.1%	74.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	8.5	8.5	46.7	72.5	72.5
Actuated g/C Ratio	0.09	0.09	0.52	0.81	0.81
v/c Ratio	0.37	0.48	0.68	0.79	0.55
Control Delay	55.9	24.3	37.0	21.0	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	55.9	24.3	37.0	21.0	7.6
LOS	E	C	D	C	A
Approach Delay	34.4		37.0		10.5
Approach LOS	C		D		B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 21.5	Intersection LOS: C
Intersection Capacity Utilization 69.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: Front Street & E Scott Blvd





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	57	120	1097	63	397	1453
Future Volume (veh/h)	57	120	1097	63	397	1453
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	64	1180	68	427	1562
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	110	98	2366	136	559	2980
Arrive On Green	0.06	0.06	1.00	1.00	0.10	0.84
Sat Flow, veh/h	1781	1585	3509	197	1781	3647
Grp Volume(v), veh/h	61	64	613	635	427	1562
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1835	1781	1777
Q Serve(g_s), s	3.0	3.6	0.0	0.0	5.4	11.4
Cycle Q Clear(g_c), s	3.0	3.6	0.0	0.0	5.4	11.4
Prop In Lane	1.00	1.00		0.11	1.00	
Lane Grp Cap(c), veh/h	110	98	1231	1271	559	2980
V/C Ratio(X)	0.56	0.66	0.50	0.50	0.76	0.52
Avail Cap(c_a), veh/h	358	319	1231	1271	854	2980
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.81	0.81	0.35	0.35
Uniform Delay (d), s/veh	41.0	41.3	0.0	0.0	2.7	2.1
Incr Delay (d2), s/veh	4.3	7.3	1.2	1.1	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.6	0.4	0.4	1.1	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	45.4	48.5	1.2	1.1	3.4	2.3
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	125		1248			1989
Approach Delay, s/veh	47.0		1.2			2.6
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	13.1	66.8			80.0	10.0
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	23.5	34.9			62.9	18.1
Max Q Clear Time (g_c+I1), s	7.4	2.0			13.4	5.6
Green Ext Time (p_c), s	1.2	10.8			19.3	0.2

Intersection Summary	
HCM 6th Ctrl Delay	3.7
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	160	427	177	136	10
Future Vol, veh/h	5	160	427	177	136	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	300	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	174	464	192	148	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1178	80	159	0	-	0
Stage 1	154	-	-	-	-	-
Stage 2	1024	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	184	964	1418	-	-	-
Stage 1	858	-	-	-	-	-
Stage 2	307	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	124	964	1418	-	-	-
Mov Cap-2 Maneuver	232	-	-	-	-	-
Stage 1	577	-	-	-	-	-
Stage 2	307	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	6.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1418	-	232	964	-	-
HCM Lane V/C Ratio	0.327	-	0.023	0.18	-	-
HCM Control Delay (s)	8.8	-	20.9	9.6	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	1.4	-	0.1	0.7	-	-

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	352	150	129	171	5
Future Vol, veh/h	10	352	150	129	171	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	300	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	383	163	140	186	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	585	96	191	0	-	0
Stage 1	189	-	-	-	-	-
Stage 2	396	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	442	942	1380	-	-	-
Stage 1	824	-	-	-	-	-
Stage 2	649	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	390	942	1380	-	-	-
Mov Cap-2 Maneuver	490	-	-	-	-	-
Stage 1	727	-	-	-	-	-
Stage 2	649	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.4	4.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1380	-	490	942	-	-
HCM Lane V/C Ratio	0.118	-	0.022	0.406	-	-
HCM Control Delay (s)	8	-	12.5	11.4	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.4	-	0.1	2	-	-

Intersection	
Intersection Delay, s/veh	5.0
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	2	2
Conflicting Circle Lanes	2	2	2
Adj Approach Flow, veh/h	179	656	159
Demand Flow Rate, veh/h	182	669	162
Vehicles Circulating, veh/h	151	5	473
Vehicles Exiting, veh/h	484	328	201
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	4.2	5.3	4.9
Approach LOS	A	A	A

Lane	Left	Left	Right	Left	Right
Designated Moves	LR	LT	TR	LT	TR
Assumed Moves	LR	L	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.707	0.293	0.469	0.531
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	182	473	196	76	86
Cap Entry Lane, veh/h	1249	1344	1414	874	950
Entry HV Adj Factor	0.984	0.981	0.980	0.984	0.980
Flow Entry, veh/h	179	464	192	75	84
Cap Entry, veh/h	1228	1318	1386	859	931
V/C Ratio	0.146	0.352	0.139	0.087	0.091
Control Delay, s/veh	4.2	6.0	3.7	5.0	4.7
LOS	A	A	A	A	A
95th %tile Queue, veh	1	2	0	0	0

Intersection	
Intersection Delay, s/veh	4.8
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	2	2
Conflicting Circle Lanes	2	2	2
Adj Approach Flow, veh/h	394	303	191
Demand Flow Rate, veh/h	402	309	195
Vehicles Circulating, veh/h	190	11	166
Vehicles Exiting, veh/h	171	581	154
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.2	3.6	3.7
Approach LOS	A	A	A

Lane	Left	Left	Right	Left	Right
Designated Moves	LR	LT	TR	LT	TR
Assumed Moves	LR	L	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.537	0.463	0.472	0.528
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	402	166	143	92	103
Cap Entry Lane, veh/h	1208	1336	1407	1159	1233
Entry HV Adj Factor	0.980	0.982	0.980	0.977	0.984
Flow Entry, veh/h	394	163	140	90	101
Cap Entry, veh/h	1184	1312	1379	1132	1214
V/C Ratio	0.333	0.124	0.102	0.079	0.084
Control Delay, s/veh	6.2	3.8	3.4	3.9	3.7
LOS	A	A	A	A	A
95th %tile Queue, veh	1	0	0	0	0

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	169	407	332	301	10
Future Vol, veh/h	5	169	407	332	301	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	300	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	184	442	361	327	11

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1398	169	338	0	-	0
Stage 1	333	-	-	-	-	-
Stage 2	1065	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	132	845	1218	-	-	-
Stage 1	698	-	-	-	-	-
Stage 2	292	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	84	845	1218	-	-	-
Mov Cap-2 Maneuver	197	-	-	-	-	-
Stage 1	445	-	-	-	-	-
Stage 2	292	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	5.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1218	-	197	845	-	-
HCM Lane V/C Ratio	0.363	-	0.028	0.217	-	-
HCM Control Delay (s)	9.6	-	23.8	10.4	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	1.7	-	0.1	0.8	-	-

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	366	139	329	366	5
Future Vol, veh/h	10	366	139	329	366	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	300	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	398	151	358	398	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	882	202	403	0	-	0
Stage 1	401	-	-	-	-	-
Stage 2	481	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	286	805	1152	-	-	-
Stage 1	645	-	-	-	-	-
Stage 2	588	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	249	805	1152	-	-	-
Mov Cap-2 Maneuver	376	-	-	-	-	-
Stage 1	561	-	-	-	-	-
Stage 2	588	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.8	2.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1152	-	376	805	-	-
HCM Lane V/C Ratio	0.131	-	0.029	0.494	-	-
HCM Control Delay (s)	8.6	-	14.9	13.8	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0.1	2.8	-	-

Intersection	
Intersection Delay, s/veh	5.4
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	2	2
Conflicting Circle Lanes	2	2	2
Adj Approach Flow, veh/h	189	803	338
Demand Flow Rate, veh/h	193	819	345
Vehicles Circulating, veh/h	334	5	451
Vehicles Exiting, veh/h	462	522	373
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.1	5.3	5.8
Approach LOS	A	A	A

Lane	Left	Left	Right	Left	Right
Designated Moves	LR	LT	TR	LT	TR
Assumed Moves	LR	L	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.551	0.449	0.470	0.530
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	193	451	368	162	183
Cap Entry Lane, veh/h	1069	1344	1414	891	968
Entry HV Adj Factor	0.979	0.980	0.980	0.982	0.980
Flow Entry, veh/h	189	442	361	159	179
Cap Entry, veh/h	1047	1317	1386	875	949
V/C Ratio	0.181	0.336	0.260	0.182	0.189
Control Delay, s/veh	5.1	5.8	4.8	5.9	5.6
LOS	A	A	A	A	A
95th %tile Queue, veh	1	1	1	1	1

Intersection	
Intersection Delay, s/veh	5.6
Intersection LOS	A

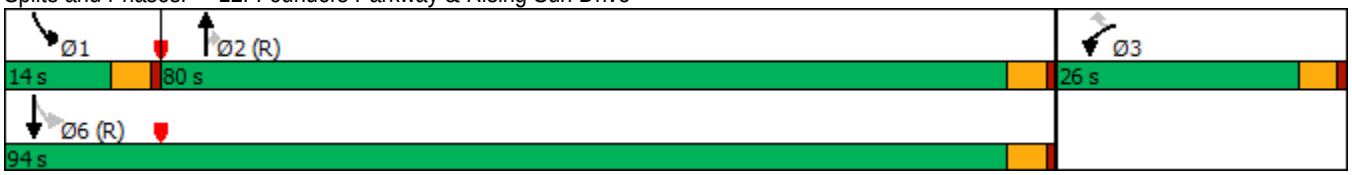
Approach	EB	NB	SB
Entry Lanes	1	2	2
Conflicting Circle Lanes	2	2	2
Adj Approach Flow, veh/h	409	509	403
Demand Flow Rate, veh/h	417	519	411
Vehicles Circulating, veh/h	406	11	154
Vehicles Exiting, veh/h	159	812	376
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.3	4.2	4.5
Approach LOS	A	A	A

Lane	Left	Left	Right	Left	Right
Designated Moves	LR	LT	TR	LT	TR
Assumed Moves	LR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	417	244	275	193	218
Cap Entry Lane, veh/h	1006	1336	1407	1172	1246
Entry HV Adj Factor	0.981	0.980	0.981	0.981	0.980
Flow Entry, veh/h	409	239	270	189	214
Cap Entry, veh/h	986	1310	1380	1150	1221
V/C Ratio	0.415	0.183	0.195	0.165	0.175
Control Delay, s/veh	8.3	4.3	4.2	4.6	4.4
LOS	A	A	A	A	A
95th %tile Queue, veh	2	1	1	1	1

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	65	135	1071	32	47	354
Future Volume (vph)	65	135	1071	32	47	354
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	3		2		1	6
Permitted Phases		3		2	6	
Detector Phase	3	3	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	26.0	26.0	80.0	80.0	14.0	94.0
Total Split (%)	21.7%	21.7%	66.7%	66.7%	11.7%	78.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	10.0	10.0	92.5	92.5	101.0	101.0
Actuated g/C Ratio	0.08	0.08	0.77	0.77	0.84	0.84
v/c Ratio	0.46	0.54	0.41	0.03	0.12	0.13
Control Delay	61.9	16.2	7.9	3.9	2.5	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.9	16.2	7.9	3.9	2.5	1.9
LOS	E	B	A	A	A	A
Approach Delay	31.0		7.8			2.0
Approach LOS	C		A			A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 9.2	Intersection LOS: A
Intersection Capacity Utilization 49.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Founders Parkway & Rising Sun Drive





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	65	135	1071	32	47	354
Future Volume (veh/h)	65	135	1071	32	47	354
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	79	1127	34	49	373
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	121	107	2794	1246	452	3047
Arrive On Green	0.07	0.07	0.79	0.79	0.03	0.86
Sat Flow, veh/h	1781	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	68	79	1127	34	49	373
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1781	1777
Q Serve(g_s), s	4.4	5.9	11.9	0.6	0.6	2.0
Cycle Q Clear(g_c), s	4.4	5.9	11.9	0.6	0.6	2.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	121	107	2794	1246	452	3047
V/C Ratio(X)	0.56	0.74	0.40	0.03	0.11	0.12
Avail Cap(c_a), veh/h	319	284	2794	1246	533	3047
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.2	54.9	4.0	2.8	2.5	1.4
Incr Delay (d2), s/veh	4.1	9.4	0.4	0.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	2.6	3.7	0.2	0.1	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	58.3	64.3	4.4	2.8	2.7	1.4
LnGrp LOS	E	E	A	A	A	A
Approach Vol, veh/h	147		1161			422
Approach Delay, s/veh	61.5		4.4			1.6
Approach LOS	E		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.5	98.9			107.4	12.6
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	9.5	75.5			89.5	21.5
Max Q Clear Time (g_c+I1), s	2.6	13.9			4.0	7.9
Green Ext Time (p_c), s	0.0	11.7			2.8	0.3

Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	50	93	652	65	135	1054
Future Volume (vph)	50	93	652	65	135	1054
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	3		2		1	6
Permitted Phases		3		2	6	
Detector Phase	3	3	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	28.0	28.0	68.0	68.0	24.0	92.0
Total Split (%)	23.3%	23.3%	56.7%	56.7%	20.0%	76.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	9.0	9.0	90.4	90.4	102.0	102.0
Actuated g/C Ratio	0.08	0.08	0.75	0.75	0.85	0.85
v/c Ratio	0.40	0.47	0.26	0.06	0.22	0.37
Control Delay	61.0	17.5	13.2	6.0	2.5	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.0	17.5	13.2	6.0	2.5	2.5
LOS	E	B	B	A	A	A
Approach Delay	32.8		12.6			2.5
Approach LOS	C		B			A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 8.1	Intersection LOS: A
Intersection Capacity Utilization 40.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Founders Parkway & Rising Sun Drive





Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Traffic Volume (veh/h)	50	93	652	65	135	1054		
Future Volume (veh/h)	50	93	652	65	135	1054		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach	No		No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870		
Adj Flow Rate, veh/h	53	66	686	68	142	1109		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	2	2	2	2		
Cap, veh/h	104	93	2799	1248	656	3079		
Arrive On Green	0.06	0.06	0.79	0.79	0.04	0.87		
Sat Flow, veh/h	1781	1585	3647	1585	1781	3647		
Grp Volume(v), veh/h	53	66	686	68	142	1109		
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1781	1777		
Q Serve(g_s), s	3.5	4.9	6.1	1.1	1.6	7.3		
Cycle Q Clear(g_c), s	3.5	4.9	6.1	1.1	1.6	7.3		
Prop In Lane	1.00	1.00		1.00	1.00			
Lane Grp Cap(c), veh/h	104	93	2799	1248	656	3079		
V/C Ratio(X)	0.51	0.71	0.25	0.05	0.22	0.36		
Avail Cap(c_a), veh/h	349	310	2799	1248	872	3079		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	54.8	55.5	3.4	2.8	1.9	1.6		
Incr Delay (d2), s/veh	3.8	9.5	0.2	0.1	0.2	0.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.7	2.2	1.9	0.3	0.4	1.4		
Unsig. Movement Delay, s/veh								
LnGrp Delay(d),s/veh	58.6	65.0	3.6	2.9	2.1	1.9		
LnGrp LOS	E	E	A	A	A	A		
Approach Vol, veh/h	119		754			1251		
Approach Delay, s/veh	62.1		3.5			1.9		
Approach LOS	E		A			A		
Timer - Assigned Phs	1	2				6	8	
Phs Duration (G+Y+Rc), s	9.5	99.0				108.5	11.5	
Change Period (Y+Rc), s	4.5	4.5				4.5	4.5	
Max Green Setting (Gmax), s	19.5	63.5				87.5	23.5	
Max Q Clear Time (g_c+I1), s	3.6	8.1				9.3	6.9	
Green Ext Time (p_c), s	0.3	5.9				11.4	0.3	

Intersection Summary	
HCM 6th Ctrl Delay	5.8
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	83	178	1237	38	63	416
Future Volume (vph)	83	178	1237	38	63	416
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	3		2		1	6
Permitted Phases		3		2	6	
Detector Phase	3	3	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	27.0	27.0	80.0	80.0	13.0	93.0
Total Split (%)	22.5%	22.5%	66.7%	66.7%	10.8%	77.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	11.2	11.2	91.0	91.0	99.8	99.8
Actuated g/C Ratio	0.09	0.09	0.76	0.76	0.83	0.83
v/c Ratio	0.53	0.62	0.49	0.03	0.19	0.15
Control Delay	62.6	18.6	10.4	4.6	3.4	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.6	18.6	10.4	4.6	3.4	2.3
LOS	E	B	B	A	A	A
Approach Delay	32.6		10.2			2.4
Approach LOS	C		B			A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 11.3	Intersection LOS: B
Intersection Capacity Utilization 54.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Founders Parkway & Rising Sun Drive





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	83	178	1237	38	63	416
Future Volume (veh/h)	83	178	1237	38	63	416
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	87	155	1302	40	66	438
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	207	185	2608	1163	362	2873
Arrive On Green	0.12	0.12	0.73	0.73	0.04	0.81
Sat Flow, veh/h	1781	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	87	155	1302	40	66	438
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1781	1777
Q Serve(g_s), s	5.4	11.5	18.5	0.8	1.0	3.2
Cycle Q Clear(g_c), s	5.4	11.5	18.5	0.8	1.0	3.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	207	185	2608	1163	362	2873
V/C Ratio(X)	0.42	0.84	0.50	0.03	0.18	0.15
Avail Cap(c_a), veh/h	334	297	2608	1163	422	2873
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	51.9	6.7	4.4	4.9	2.5
Incr Delay (d2), s/veh	1.3	11.1	0.7	0.1	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	5.1	6.4	0.3	0.3	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.6	63.0	7.4	4.4	5.1	2.6
LnGrp LOS	D	E	A	A	A	A
Approach Vol, veh/h	242		1342			504
Approach Delay, s/veh	58.5		7.3			2.9
Approach LOS	E		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.9	92.6			101.5	18.5
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	8.5	75.5			88.5	22.5
Max Q Clear Time (g_c+I1), s	3.0	20.5			5.2	13.5
Green Ext Time (p_c), s	0.0	14.7			3.3	0.5

Intersection Summary	
HCM 6th Ctrl Delay	12.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	62	121	769	84	180	1236
Future Volume (vph)	62	121	769	84	180	1236
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	3		2		1	6
Permitted Phases		3		2	6	
Detector Phase	3	3	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	27.0	27.0	65.0	65.0	28.0	93.0
Total Split (%)	22.5%	22.5%	54.2%	54.2%	23.3%	77.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	9.8	9.8	88.9	88.9	101.2	101.2
Actuated g/C Ratio	0.08	0.08	0.74	0.74	0.84	0.84
v/c Ratio	0.45	0.52	0.31	0.07	0.34	0.44
Control Delay	61.7	16.4	2.5	0.1	3.5	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.7	16.4	2.5	0.1	3.5	3.0
LOS	E	B	A	A	A	A
Approach Delay	31.7		2.3			3.1
Approach LOS	C		A			A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 4.9	Intersection LOS: A
Intersection Capacity Utilization 46.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Founders Parkway & Rising Sun Drive





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	62	121	769	84	180	1236
Future Volume (veh/h)	62	121	769	84	180	1236
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	95	809	88	189	1301
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	139	124	2729	1217	568	3010
Arrive On Green	0.08	0.08	0.77	0.77	0.04	0.85
Sat Flow, veh/h	1781	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	65	95	809	88	189	1301
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1781	1777
Q Serve(g_s), s	4.2	7.1	8.2	1.6	2.5	10.6
Cycle Q Clear(g_c), s	4.2	7.1	8.2	1.6	2.5	10.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	139	124	2729	1217	568	3010
V/C Ratio(X)	0.47	0.77	0.30	0.07	0.33	0.43
Avail Cap(c_a), veh/h	334	297	2729	1217	843	3010
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.9	54.3	4.2	3.4	2.7	2.2
Incr Delay (d2), s/veh	2.4	9.5	0.3	0.1	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	3.1	2.6	0.5	0.7	2.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	55.4	63.8	4.5	3.5	3.0	2.7
LnGrp LOS	E	E	A	A	A	A
Approach Vol, veh/h	160		897			1490
Approach Delay, s/veh	60.4		4.4			2.7
Approach LOS	E		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.5	96.6			106.1	13.9
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	23.5	60.5			88.5	22.5
Max Q Clear Time (g_c+I1), s	4.5	10.2			12.6	9.1
Green Ext Time (p_c), s	0.5	7.3			15.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	6.9
HCM 6th LOS	A

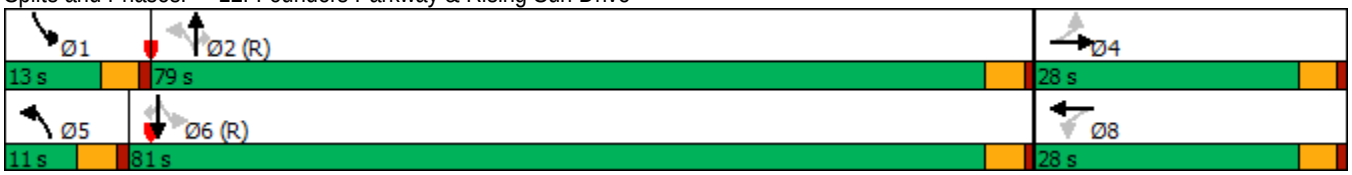
Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	28	0	83	0	12	1264	38	63	464	15
Future Volume (vph)	28	0	83	0	12	1264	38	63	464	15
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	28.0	28.0	28.0	28.0	11.0	79.0	79.0	13.0	81.0	81.0
Total Split (%)	23.3%	23.3%	23.3%	23.3%	9.2%	65.8%	65.8%	10.8%	67.5%	67.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	12.9	12.9	12.9	12.9	93.8	89.2	89.2	96.8	93.9	93.9
Actuated g/C Ratio	0.11	0.11	0.11	0.11	0.78	0.74	0.74	0.81	0.78	0.78
v/c Ratio	0.48	0.04	0.59	0.63	0.02	0.51	0.03	0.20	0.18	0.01
Control Delay	74.5	0.1	66.0	23.1	5.0	12.3	4.0	4.1	4.3	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.5	0.1	66.0	23.1	5.0	12.3	4.0	4.1	4.3	0.0
LOS	E	A	E	C	A	B	A	A	A	A
Approach Delay		42.3		36.7		12.0			4.2	
Approach LOS		D		D		B			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 13.7	Intersection LOS: B
Intersection Capacity Utilization 69.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: Founders Parkway & Rising Sun Drive



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	0	21	83	0	178	12	1264	38	63	464	15
Future Volume (veh/h)	28	0	21	83	0	178	12	1264	38	63	464	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	0	23	87	0	155	13	1331	40	66	488	16
Peak Hour Factor	0.92	0.92	0.92	0.95	0.92	0.95	0.92	0.95	0.95	0.95	0.95	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	0	214	230	0	214	709	2543	1134	342	2622	1170
Arrive On Green	0.13	0.00	0.13	0.13	0.00	0.13	0.01	0.72	0.72	0.04	0.74	0.74
Sat Flow, veh/h	1232	0	1585	1388	0	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	30	0	23	87	0	155	13	1331	40	66	488	16
Grp Sat Flow(s),veh/h/ln	1232	0	1585	1388	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.9	0.0	1.5	7.0	0.0	11.3	0.2	20.4	0.9	1.1	5.0	0.3
Cycle Q Clear(g_c), s	14.1	0.0	1.5	8.6	0.0	11.3	0.2	20.4	0.9	1.1	5.0	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	111	0	214	230	0	214	709	2543	1134	342	2622	1170
V/C Ratio(X)	0.27	0.00	0.11	0.38	0.00	0.72	0.02	0.52	0.04	0.19	0.19	0.01
Avail Cap(c_a), veh/h	186	0	310	314	0	310	779	2543	1134	402	2622	1170
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.5	0.0	45.6	49.3	0.0	49.8	4.4	7.8	5.0	5.9	4.8	4.2
Incr Delay (d2), s/veh	1.3	0.0	0.2	1.0	0.0	4.6	0.0	0.8	0.1	0.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.6	2.5	0.0	4.7	0.1	7.3	0.3	0.4	1.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.8	0.0	45.8	50.4	0.0	54.4	4.4	8.5	5.0	6.2	4.9	4.2
LnGrp LOS	E	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		53			242			1384			570	
Approach Delay, s/veh		52.6			52.9			8.4			5.1	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.9	90.4		20.7	6.3	93.1		20.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	8.5	74.5		23.5	6.5	76.5		23.5				
Max Q Clear Time (g_c+I1), s	3.1	22.4		16.1	2.2	7.0		13.3				
Green Ext Time (p_c), s	0.0	15.1		0.1	0.0	3.8		0.8				

Intersection Summary			
HCM 6th Ctrl Delay		13.4	
HCM 6th LOS		B	

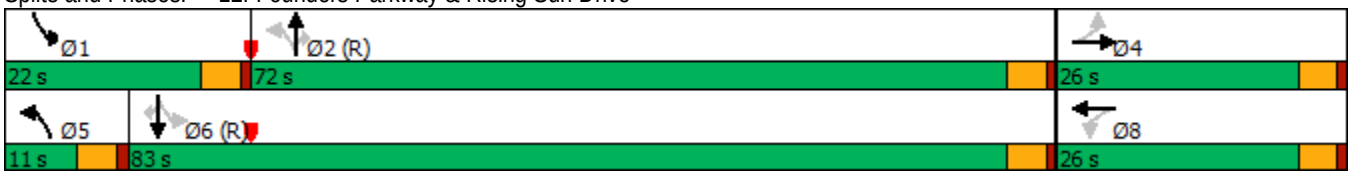
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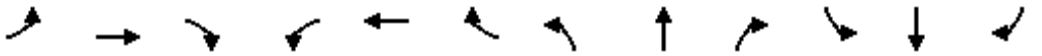
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	18	0	62	0	21	817	84	180	1268	27
Future Volume (vph)	18	0	62	0	21	817	84	180	1268	27
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	26.0	26.0	26.0	26.0	11.0	72.0	72.0	22.0	83.0	83.0
Total Split (%)	21.7%	21.7%	21.7%	21.7%	9.2%	60.0%	60.0%	18.3%	69.2%	69.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	10.9	10.9	10.9	10.9	93.3	87.5	87.5	99.1	93.8	93.8
Actuated g/C Ratio	0.09	0.09	0.09	0.09	0.78	0.73	0.73	0.83	0.78	0.78
v/c Ratio	0.27	0.05	0.52	0.31	0.07	0.33	0.07	0.36	0.48	0.02
Control Delay	58.1	0.4	65.2	1.9	1.4	2.6	0.1	4.1	6.3	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.1	0.4	65.2	1.9	1.4	2.6	0.1	4.1	6.3	0.4
LOS	E	A	E	A	A	A	A	A	A	A
Approach Delay		33.3		23.3		2.4			5.9	
Approach LOS		C		C		A			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 6.2	Intersection LOS: A
Intersection Capacity Utilization 65.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: Founders Parkway & Rising Sun Drive





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	0	14	62	0	121	21	817	84	180	1268	27
Future Volume (veh/h)	18	0	14	62	0	121	21	817	84	180	1268	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	0	15	65	0	95	23	860	88	189	1335	29
Peak Hour Factor	0.92	0.92	0.92	0.95	0.92	0.95	0.92	0.95	0.95	0.95	0.95	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	102	0	143	174	0	143	355	2678	1194	537	2755	1229
Arrive On Green	0.09	0.00	0.09	0.09	0.00	0.09	0.02	0.75	0.75	0.04	0.78	0.78
Sat Flow, veh/h	1301	0	1585	1398	0	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	20	0	15	65	0	95	23	860	88	189	1335	29
Grp Sat Flow(s),veh/h/ln	1301	0	1585	1398	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.8	0.0	1.0	5.4	0.0	7.0	0.4	9.4	1.7	2.9	16.2	0.5
Cycle Q Clear(g_c), s	8.8	0.0	1.0	6.4	0.0	7.0	0.4	9.4	1.7	2.9	16.2	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	102	0	143	174	0	143	355	2678	1194	537	2755	1229
V/C Ratio(X)	0.20	0.00	0.11	0.37	0.00	0.67	0.06	0.32	0.07	0.35	0.48	0.02
Avail Cap(c_a), veh/h	218	0	284	298	0	284	412	2678	1194	719	2755	1229
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.1	0.0	50.2	53.1	0.0	52.8	3.9	4.8	3.9	3.3	4.9	3.1
Incr Delay (d2), s/veh	0.9	0.0	0.3	1.3	0.0	5.2	0.1	0.3	0.1	0.4	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.4	2.0	0.0	3.0	0.1	3.1	0.5	0.9	5.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.0	0.0	50.5	54.4	0.0	58.1	4.0	5.1	4.0	3.7	5.5	3.1
LnGrp LOS	E	A	D	D	A	E	A	A	A	A	A	A
Approach Vol, veh/h		35			160			971			1553	
Approach Delay, s/veh		54.8			56.6			5.0			5.2	
Approach LOS		D			E			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.8	94.9		15.3	7.2	97.5		15.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	17.5	67.5		21.5	6.5	78.5		21.5				
Max Q Clear Time (g_c+I1), s	4.9	11.4		10.8	2.4	18.2		9.0				
Green Ext Time (p_c), s	0.4	8.0		0.0	0.0	15.5		0.5				

Intersection Summary		
HCM 6th Ctrl Delay		8.8
HCM 6th LOS		A

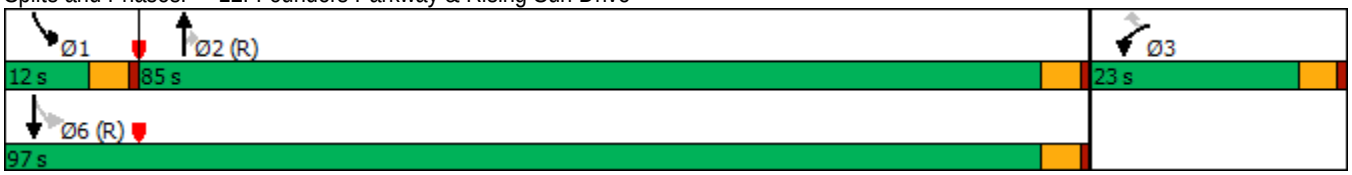
Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	83	178	1673	38	63	623
Future Volume (vph)	83	178	1673	38	63	623
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	3		2		1	6
Permitted Phases		3		2	6	
Detector Phase	3	3	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	23.0	23.0	85.0	85.0	12.0	97.0
Total Split (%)	19.2%	19.2%	70.8%	70.8%	10.0%	80.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	11.9	11.9	90.2	90.2	99.1	99.1
Actuated g/C Ratio	0.10	0.10	0.75	0.75	0.83	0.83
v/c Ratio	0.49	0.70	0.66	0.03	0.30	0.22
Control Delay	59.6	33.2	10.9	3.7	6.0	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.6	33.2	10.9	3.7	6.0	2.7
LOS	E	C	B	A	A	A
Approach Delay	41.6		10.7			3.0
Approach LOS	D		B			A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 11.7	Intersection LOS: B
Intersection Capacity Utilization 64.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: Founders Parkway & Rising Sun Drive





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	83	178	1673	38	63	623
Future Volume (veh/h)	83	178	1673	38	63	623
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	87	155	1761	40	66	656
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	205	183	2613	1165	250	2878
Arrive On Green	0.12	0.12	0.74	0.74	0.04	0.81
Sat Flow, veh/h	1781	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	87	155	1761	40	66	656
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1781	1777
Q Serve(g_s), s	5.5	11.5	31.2	0.8	1.0	5.2
Cycle Q Clear(g_c), s	5.5	11.5	31.2	0.8	1.0	5.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	205	183	2613	1165	250	2878
V/C Ratio(X)	0.42	0.85	0.67	0.03	0.26	0.23
Avail Cap(c_a), veh/h	275	244	2613	1165	296	2878
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.4	52.1	8.3	4.3	8.9	2.7
Incr Delay (d2), s/veh	1.4	18.5	1.4	0.1	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	5.5	10.9	0.3	0.6	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.8	70.6	9.8	4.4	9.5	2.8
LnGrp LOS	D	E	A	A	A	A
Approach Vol, veh/h	242		1801			722
Approach Delay, s/veh	63.5		9.6			3.5
Approach LOS	E		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.9	92.7			101.7	18.3
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	7.5	80.5			92.5	18.5
Max Q Clear Time (g_c+I1), s	3.0	33.2			7.2	13.5
Green Ext Time (p_c), s	0.0	23.6			5.4	0.3

Intersection Summary			
HCM 6th Ctrl Delay			12.7
HCM 6th LOS			B

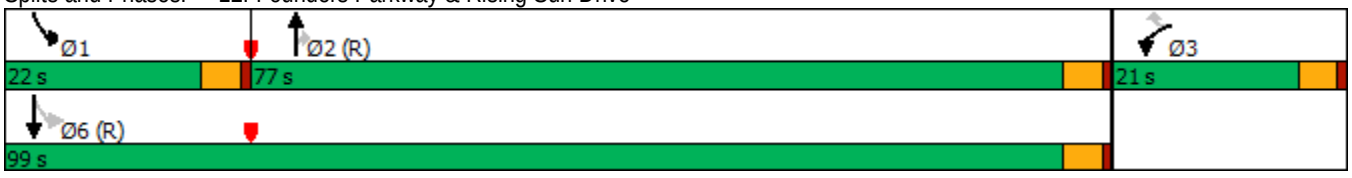
Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	62	121	1113	84	180	1705
Future Volume (vph)	62	121	1113	84	180	1705
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	3		2		1	6
Permitted Phases		3		2	6	
Detector Phase	3	3	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	21.0	21.0	77.0	77.0	22.0	99.0
Total Split (%)	17.5%	17.5%	64.2%	64.2%	18.3%	82.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	9.8	9.8	88.9	88.9	101.2	101.2
Actuated g/C Ratio	0.08	0.08	0.74	0.74	0.84	0.84
v/c Ratio	0.45	0.52	0.45	0.07	0.47	0.60
Control Delay	61.8	16.4	2.5	0.0	5.7	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.8	16.4	2.5	0.0	5.7	4.2
LOS	E	B	A	A	A	A
Approach Delay	31.8		2.3			4.4
Approach LOS	C		A			A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 5.2	Intersection LOS: A
Intersection Capacity Utilization 58.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Founders Parkway & Rising Sun Drive





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	62	121	1113	84	180	1705
Future Volume (veh/h)	62	121	1113	84	180	1705
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	95	1172	88	189	1795
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	137	122	2732	1218	422	3013
Arrive On Green	0.08	0.08	0.77	0.77	0.04	0.85
Sat Flow, veh/h	1781	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	65	95	1172	88	189	1795
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1781	1777
Q Serve(g_s), s	4.2	7.1	13.7	1.6	2.5	18.6
Cycle Q Clear(g_c), s	4.2	7.1	13.7	1.6	2.5	18.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	137	122	2732	1218	422	3013
V/C Ratio(X)	0.47	0.78	0.43	0.07	0.45	0.60
Avail Cap(c_a), veh/h	245	218	2732	1218	608	3013
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.0	54.4	4.8	3.4	3.8	2.8
Incr Delay (d2), s/veh	2.5	10.1	0.5	0.1	0.7	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	3.2	4.4	0.5	0.7	4.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	55.5	64.4	5.3	3.5	4.5	3.7
LnGrp LOS	E	E	A	A	A	A
Approach Vol, veh/h	160		1260			1984
Approach Delay, s/veh	60.8		5.2			3.8
Approach LOS	E		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.5	96.7			106.2	13.8
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	17.5	72.5			94.5	16.5
Max Q Clear Time (g_c+I1), s	4.5	15.7			20.6	9.1
Green Ext Time (p_c), s	0.4	12.7			28.6	0.2

Intersection Summary	
HCM 6th Ctrl Delay	7.0
HCM 6th LOS	A

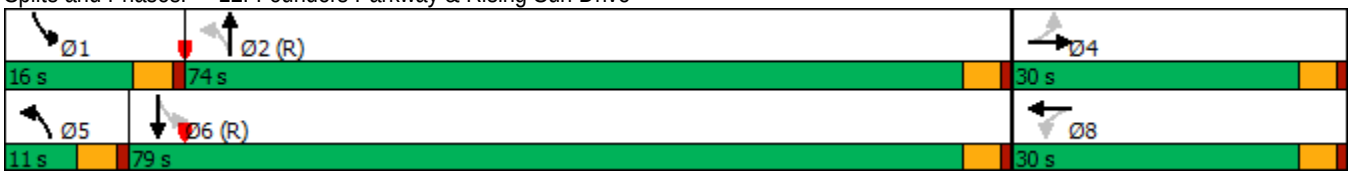
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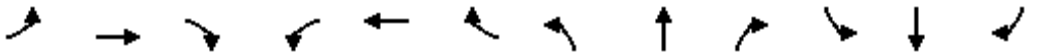
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	28	0	83	0	12	1700	63	671
Future Volume (vph)	28	0	83	0	12	1700	63	671
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	30.0	30.0	30.0	30.0	11.0	74.0	16.0	79.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	9.2%	61.7%	13.3%	65.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	13.0	13.0	13.0	13.0	93.6	89.0	96.8	93.8
Actuated g/C Ratio	0.11	0.11	0.11	0.11	0.78	0.74	0.81	0.78
v/c Ratio	0.49	0.05	0.58	0.68	0.02	0.49	0.29	0.18
Control Delay	74.6	0.2	65.4	33.6	5.7	11.9	6.0	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.6	0.2	65.4	33.6	5.7	11.9	6.0	4.3
LOS	E	A	E	C	A	B	A	A
Approach Delay		42.3		43.7		11.9		4.4
Approach LOS		D		D		B		A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 13.4	Intersection LOS: B
Intersection Capacity Utilization 68.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: Founders Parkway & Rising Sun Drive





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	0	21	83	0	178	12	1700	38	63	671	15
Future Volume (veh/h)	28	0	21	83	0	178	12	1700	38	63	671	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	0	23	87	0	155	13	1789	40	66	706	16
Peak Hour Factor	0.92	0.92	0.92	0.95	0.92	0.95	0.92	0.95	0.95	0.95	0.95	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	0	214	230	0	214	595	3676	82	269	3790	86
Arrive On Green	0.14	0.00	0.14	0.14	0.00	0.14	0.01	0.72	0.72	0.04	0.74	0.74
Sat Flow, veh/h	1232	0	1585	1388	0	1585	1781	5139	115	1781	5137	116
Grp Volume(v), veh/h	30	0	23	87	0	155	13	1185	644	66	467	255
Grp Sat Flow(s),veh/h/ln	1232	0	1585	1388	0	1585	1781	1702	1850	1781	1702	1849
Q Serve(g_s), s	2.9	0.0	1.5	7.0	0.0	11.3	0.2	18.2	18.3	1.1	5.0	5.0
Cycle Q Clear(g_c), s	14.1	0.0	1.5	8.6	0.0	11.3	0.2	18.2	18.3	1.1	5.0	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		0.06
Lane Grp Cap(c), veh/h	111	0	214	230	0	214	595	2435	1323	269	2512	1365
V/C Ratio(X)	0.27	0.00	0.11	0.38	0.00	0.72	0.02	0.49	0.49	0.25	0.19	0.19
Avail Cap(c_a), veh/h	206	0	337	337	0	337	665	2435	1323	374	2512	1365
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98
Uniform Delay (d), s/veh	56.5	0.0	45.6	49.3	0.0	49.8	4.4	7.5	7.5	5.7	4.8	4.8
Incr Delay (d2), s/veh	1.3	0.0	0.2	1.0	0.0	4.6	0.0	0.7	1.3	0.5	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.6	2.5	0.0	4.7	0.1	6.2	7.0	0.4	1.6	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.8	0.0	45.8	50.3	0.0	54.4	4.4	8.2	8.7	6.1	4.9	5.1
LnGrp LOS	E	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		53			242			1842			788	
Approach Delay, s/veh		52.6			52.9			8.3			5.1	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.9	90.3		20.7	6.3	93.0		20.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	11.5	69.5		25.5	6.5	74.5		25.5				
Max Q Clear Time (g_c+I1), s	3.1	20.3		16.1	2.2	7.0		13.3				
Green Ext Time (p_c), s	0.1	21.8		0.1	0.0	5.6		0.9				

Intersection Summary		
HCM 6th Ctrl Delay		11.9
HCM 6th LOS		B

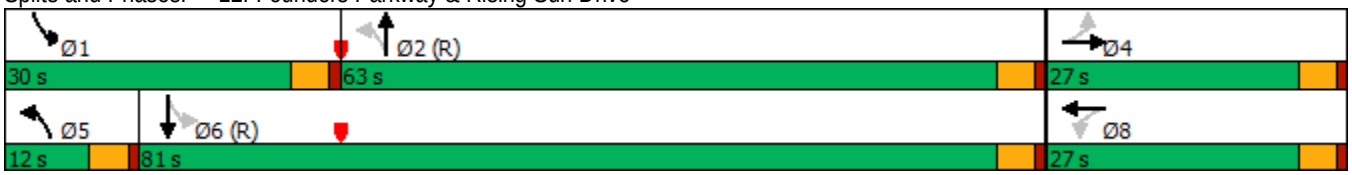
Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	18	0	62	0	21	1161	180	1737
Future Volume (vph)	18	0	62	0	21	1161	180	1737
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	27.0	27.0	27.0	27.0	12.0	63.0	30.0	81.0
Total Split (%)	22.5%	22.5%	22.5%	22.5%	10.0%	52.5%	25.0%	67.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	10.9	10.9	10.9	10.9	92.1	86.3	99.6	93.8
Actuated g/C Ratio	0.09	0.09	0.09	0.09	0.77	0.72	0.83	0.78
v/c Ratio	0.27	0.06	0.52	0.29	0.10	0.36	0.50	0.47
Control Delay	58.1	0.4	65.2	1.7	2.4	3.6	6.9	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.1	0.4	65.2	1.7	2.4	3.6	6.9	5.8
LOS	E	A	E	A	A	A	A	A
Approach Delay		33.4		23.2		3.6		5.9
Approach LOS		C		C		A		A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 6.3	Intersection LOS: A
Intersection Capacity Utilization 64.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: Founders Parkway & Rising Sun Drive



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	0	14	62	0	121	21	1161	84	180	1737	27
Future Volume (veh/h)	18	0	14	62	0	121	21	1161	84	180	1737	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	0	15	65	0	95	23	1222	88	189	1828	29
Peak Hour Factor	0.92	0.92	0.92	0.95	0.92	0.95	0.92	0.95	0.95	0.95	0.95	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	102	0	143	174	0	143	261	3660	264	421	4013	64
Arrive On Green	0.09	0.00	0.09	0.09	0.00	0.09	0.02	0.75	0.75	0.04	0.78	0.78
Sat Flow, veh/h	1301	0	1585	1398	0	1585	1781	4861	350	1781	5178	82
Grp Volume(v), veh/h	20	0	15	65	0	95	23	856	454	189	1202	655
Grp Sat Flow(s),veh/h/ln	1301	0	1585	1398	0	1585	1781	1702	1807	1781	1702	1856
Q Serve(g_s), s	1.8	0.0	1.0	5.4	0.0	7.0	0.4	10.0	10.0	2.9	14.7	14.7
Cycle Q Clear(g_c), s	8.8	0.0	1.0	6.4	0.0	7.0	0.4	10.0	10.0	2.9	14.7	14.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.04
Lane Grp Cap(c), veh/h	102	0	143	174	0	143	261	2563	1361	421	2639	1438
V/C Ratio(X)	0.20	0.00	0.11	0.37	0.00	0.67	0.09	0.33	0.33	0.45	0.46	0.46
Avail Cap(c_a), veh/h	228	0	297	310	0	297	333	2563	1361	720	2639	1438
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.76	0.76	0.76
Uniform Delay (d), s/veh	57.1	0.0	50.2	53.1	0.0	52.8	3.7	4.9	4.9	3.5	4.7	4.7
Incr Delay (d2), s/veh	0.9	0.0	0.3	1.3	0.0	5.2	0.1	0.4	0.7	0.6	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.4	2.0	0.0	3.0	0.1	3.2	3.5	0.9	4.4	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.0	0.0	50.5	54.4	0.0	58.1	3.9	5.2	5.6	4.1	5.1	5.5
LnGrp LOS	E	A	D	D	A	E	A	A	A	A	A	A
Approach Vol, veh/h		35			160			1333			2046	
Approach Delay, s/veh		54.8			56.6			5.3			5.1	
Approach LOS		D			E			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.8	94.8		15.3	7.2	97.5		15.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	25.5	58.5		22.5	7.5	76.5		22.5				
Max Q Clear Time (g_c+I1), s	4.9	12.0		10.8	2.4	16.7		9.0				
Green Ext Time (p_c), s	0.5	12.5		0.0	0.0	23.9		0.5				

Intersection Summary	
HCM 6th Ctrl Delay	8.0
HCM 6th LOS	A

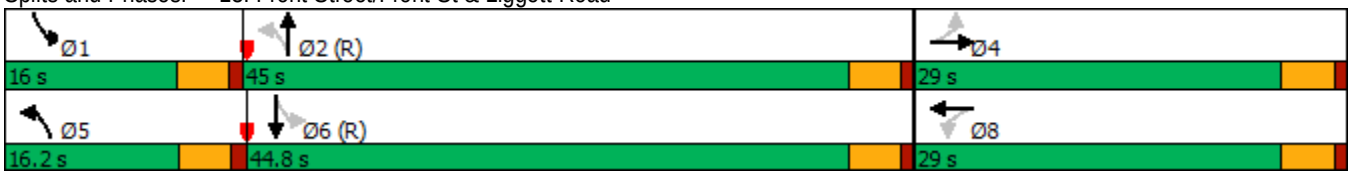
Notes

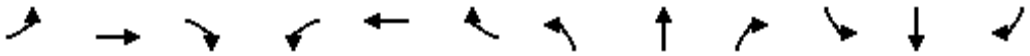
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	17	25	58	15	142	574	100	378
Future Volume (vph)	17	25	58	15	142	574	100	378
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	29.0	29.0	29.0	29.0	16.2	45.0	16.0	44.8
Total Split (%)	32.2%	32.2%	32.2%	32.2%	18.0%	50.0%	17.8%	49.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		17.6		17.6	59.7	50.5	58.1	49.7
Actuated g/C Ratio		0.20		0.20	0.66	0.56	0.65	0.55
v/c Ratio		0.52		0.92	0.36	0.59	0.43	0.29
Control Delay		16.3		62.0	7.3	15.2	11.9	11.1
Queue Delay		0.1		0.0	0.0	0.0	0.0	0.0
Total Delay		16.3		62.0	7.3	15.2	11.9	11.1
LOS		B		E	A	B	B	B
Approach Delay		16.3		62.0		14.0		11.3
Approach LOS		B		E		B		B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 18.1	Intersection LOS: B
Intersection Capacity Utilization 60.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 13: Front Street/Front St & Liggett Road





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	25	102	58	15	94	142	574	195	100	378	7
Future Volume (veh/h)	17	25	102	58	15	94	142	574	195	100	378	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	25	37	107	87	22	95	212	857	246	149	564	10
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	77	177	147	40	113	718	1718	493	412	2203	39
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.07	0.63	0.63	0.11	1.00	1.00
Sat Flow, veh/h	153	468	1071	544	241	683	1781	2725	782	1781	3572	63
Grp Volume(v), veh/h	169	0	0	204	0	0	212	559	544	149	280	294
Grp Sat Flow(s),veh/h/ln	1692	0	0	1467	0	0	1781	1777	1730	1781	1777	1859
Q Serve(g_s), s	0.0	0.0	0.0	3.8	0.0	0.0	3.8	15.3	15.3	2.8	0.0	0.0
Cycle Q Clear(g_c), s	8.3	0.0	0.0	12.1	0.0	0.0	3.8	15.3	15.3	2.8	0.0	0.0
Prop In Lane	0.15		0.63	0.43		0.47	1.00		0.45	1.00		0.03
Lane Grp Cap(c), veh/h	326	0	0	300	0	0	718	1120	1090	412	1096	1147
V/C Ratio(X)	0.52	0.00	0.00	0.68	0.00	0.00	0.30	0.50	0.50	0.36	0.26	0.26
Avail Cap(c_a), veh/h	495	0	0	454	0	0	829	1120	1090	543	1096	1147
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	34.8	0.0	0.0	36.2	0.0	0.0	5.1	9.0	9.0	6.5	0.0	0.0
Incr Delay (d2), s/veh	1.3	0.0	0.0	2.7	0.0	0.0	0.2	1.6	1.6	0.5	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.0	0.0	4.5	0.0	0.0	1.2	5.7	5.5	0.9	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.1	0.0	0.0	38.9	0.0	0.0	5.3	10.6	10.6	7.0	0.5	0.5
LnGrp LOS	D	A	A	D	A	A	A	B	B	A	A	A
Approach Vol, veh/h		169			204			1315			723	
Approach Delay, s/veh		36.1			38.9			9.7			1.9	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.4	61.2		19.4	10.6	60.0		19.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	11.5	40.5		24.5	11.7	40.3		24.5				
Max Q Clear Time (g_c+I1), s	4.8	17.3		10.3	5.8	2.0		14.1				
Green Ext Time (p_c), s	0.2	8.2		0.8	0.3	3.9		0.8				

Intersection Summary												
HCM 6th Ctrl Delay			11.7									
HCM 6th LOS			B									

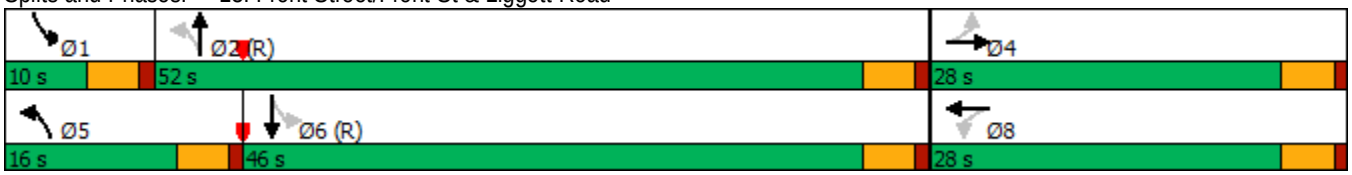
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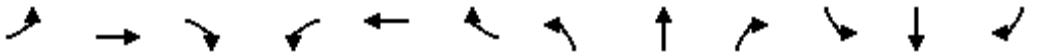
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	4	6	35	6	101	603	29	833
Future Volume (vph)	4	6	35	6	101	603	29	833
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	28.0	28.0	28.0	28.0	16.0	52.0	10.0	46.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	17.8%	57.8%	11.1%	51.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5		4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		9.4		9.4	69.7	65.2	67.1	62.3
Actuated g/C Ratio		0.10		0.10	0.77	0.72	0.75	0.69
v/c Ratio		0.70		0.81	0.23	0.28	0.05	0.38
Control Delay		18.6		54.0	3.8	5.8	2.8	5.1
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		18.6		54.0	3.8	5.8	2.8	5.1
LOS		B		D	A	A	A	A
Approach Delay		18.6		54.0		5.5		5.0
Approach LOS		B		D		A		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 9.5	Intersection LOS: A
Intersection Capacity Utilization 64.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 13: Front Street/Front St & Liggett Road





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	6	221	35	6	67	101	603	33	29	833	5
Future Volume (veh/h)	4	6	221	35	6	67	101	603	33	29	833	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	7	146	39	7	63	112	670	37	32	926	6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	43	12	185	105	31	113	577	2379	131	594	2436	16
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.05	0.69	0.69	0.06	1.00	1.00
Sat Flow, veh/h	15	97	1485	406	252	902	1781	3424	189	1781	3620	23
Grp Volume(v), veh/h	157	0	0	109	0	0	112	347	360	32	455	477
Grp Sat Flow(s),veh/h/ln	1597	0	0	1561	0	0	1781	1777	1836	1781	1777	1866
Q Serve(g_s), s	1.4	0.0	0.0	0.0	0.0	0.0	1.7	6.7	6.7	0.5	0.0	0.0
Cycle Q Clear(g_c), s	8.6	0.0	0.0	5.7	0.0	0.0	1.7	6.7	6.7	0.5	0.0	0.0
Prop In Lane	0.03		0.93	0.36		0.58	1.00		0.10	1.00		0.01
Lane Grp Cap(c), veh/h	240	0	0	249	0	0	577	1234	1276	594	1196	1256
V/C Ratio(X)	0.65	0.00	0.00	0.44	0.00	0.00	0.19	0.28	0.28	0.05	0.38	0.38
Avail Cap(c_a), veh/h	457	0	0	447	0	0	712	1234	1276	649	1196	1256
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.95	0.95	0.95
Uniform Delay (d), s/veh	38.2	0.0	0.0	36.9	0.0	0.0	3.6	5.2	5.2	4.0	0.0	0.0
Incr Delay (d2), s/veh	3.0	0.0	0.0	1.2	0.0	0.0	0.2	0.6	0.6	0.0	0.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.0	0.0	2.3	0.0	0.0	0.5	2.2	2.3	0.1	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.2	0.0	0.0	38.1	0.0	0.0	3.8	5.8	5.8	4.1	0.9	0.8
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		157			109			819			964	
Approach Delay, s/veh		41.2			38.1			5.5			1.0	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	67.0		15.7	9.2	65.1		15.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	47.5		23.5	11.5	41.5		23.5				
Max Q Clear Time (g_c+I1), s	2.5	8.7		10.6	3.7	2.0		7.7				
Green Ext Time (p_c), s	0.0	5.0		0.7	0.1	7.2		0.5				

Intersection Summary			
HCM 6th Ctrl Delay		7.8	
HCM 6th LOS		A	

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	63	681	138	459
Future Volume (vph)	63	681	138	459
Turn Type	Prot	NA	pm+pt	NA
Protected Phases	8	2	1	6
Permitted Phases			6	
Detector Phase	8	2	1	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5
Total Split (s)	25.0	48.0	17.0	65.0
Total Split (%)	27.8%	53.3%	18.9%	72.2%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	C-Max	None	C-Max
Act Effct Green (s)	11.4	57.5	69.6	69.6
Actuated g/C Ratio	0.13	0.64	0.77	0.77
v/c Ratio	0.68	0.45	0.35	0.19
Control Delay	30.7	9.3	6.5	3.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	30.7	9.3	6.5	3.6
LOS	C	A	A	A
Approach Delay	30.7	9.3		4.3
Approach LOS	C	A		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 9.8	Intersection LOS: A
Intersection Capacity Utilization 55.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 13: Front Street/Front St





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	63	117	681	211	138	459
Future Volume (veh/h)	63	117	681	211	138	459
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	119	757	234	153	510
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	83	142	1760	544	474	2712
Arrive On Green	0.14	0.14	0.66	0.66	0.11	1.00
Sat Flow, veh/h	609	1036	2766	826	1781	3647
Grp Volume(v), veh/h	190	0	503	488	153	510
Grp Sat Flow(s),veh/h/ln	1653	0	1777	1722	1781	1777
Q Serve(g_s), s	10.1	0.0	12.1	12.1	2.3	0.0
Cycle Q Clear(g_c), s	10.1	0.0	12.1	12.1	2.3	0.0
Prop In Lane	0.37	0.63		0.48	1.00	
Lane Grp Cap(c), veh/h	226	0	1170	1134	474	2712
V/C Ratio(X)	0.84	0.00	0.43	0.43	0.32	0.19
Avail Cap(c_a), veh/h	377	0	1170	1134	625	2712
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.95	0.95
Uniform Delay (d), s/veh	37.9	0.0	7.3	7.3	4.7	0.0
Incr Delay (d2), s/veh	8.3	0.0	1.2	1.2	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	4.3	4.2	0.6	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	46.2	0.0	8.5	8.5	5.0	0.1
LnGrp LOS	D	A	A	A	A	A
Approach Vol, veh/h	190		991			663
Approach Delay, s/veh	46.2		8.5			1.3
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.4	63.8			73.2	16.8
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	12.5	43.5			60.5	20.5
Max Q Clear Time (g_c+I1), s	4.3	14.1			2.0	12.1
Green Ext Time (p_c), s	0.2	7.7			3.9	0.3

Intersection Summary	
HCM 6th Ctrl Delay	9.8
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	38	697	41	1002
Future Volume (vph)	38	697	41	1002
Turn Type	Prot	NA	pm+pt	NA
Protected Phases	8	2	1	6
Permitted Phases			6	
Detector Phase	8	2	1	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5
Total Split (s)	26.0	52.0	12.0	64.0
Total Split (%)	28.9%	57.8%	13.3%	71.1%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	C-Max	None	C-Max
Act Effct Green (s)	8.4	66.1	72.6	72.6
Actuated g/C Ratio	0.09	0.73	0.81	0.81
v/c Ratio	0.56	0.32	0.09	0.39
Control Delay	23.8	5.5	2.3	2.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	23.8	5.5	2.3	2.4
LOS	C	A	A	A
Approach Delay	23.8	5.5		2.4
Approach LOS	C	A		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 4.9	Intersection LOS: A
Intersection Capacity Utilization 43.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 13: Front Street/Front St





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	38	82	697	36	41	1002
Future Volume (veh/h)	38	82	697	36	41	1002
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	80	774	40	46	1113
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	53	100	2470	128	575	2866
Arrive On Green	0.09	0.09	0.72	0.72	0.05	1.00
Sat Flow, veh/h	563	1073	3531	178	1781	3647
Grp Volume(v), veh/h	123	0	400	414	46	1113
Grp Sat Flow(s),veh/h/ln	1649	0	1777	1838	1781	1777
Q Serve(g_s), s	6.6	0.0	7.4	7.4	0.5	0.0
Cycle Q Clear(g_c), s	6.6	0.0	7.4	7.4	0.5	0.0
Prop In Lane	0.34	0.65		0.10	1.00	
Lane Grp Cap(c), veh/h	154	0	1277	1321	575	2866
V/C Ratio(X)	0.80	0.00	0.31	0.31	0.08	0.39
Avail Cap(c_a), veh/h	394	0	1277	1321	656	2866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.92	0.92
Uniform Delay (d), s/veh	40.0	0.0	4.6	4.6	2.7	0.0
Incr Delay (d2), s/veh	9.0	0.0	0.6	0.6	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	2.4	2.4	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	49.0	0.0	5.2	5.2	2.8	0.4
LnGrp LOS	D	A	A	A	A	A
Approach Vol, veh/h	123		814			1159
Approach Delay, s/veh	49.0		5.2			0.5
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.9	69.2			77.1	12.9
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	7.5	47.5			59.5	21.5
Max Q Clear Time (g_c+I1), s	2.5	9.4			2.0	8.6
Green Ext Time (p_c), s	0.0	6.0			11.2	0.2

Intersection Summary	
HCM 6th Ctrl Delay	5.2
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	63	750	138	505
Future Volume (vph)	63	750	138	505
Turn Type	Prot	NA	pm+pt	NA
Protected Phases	8	2	1	6
Permitted Phases			6	
Detector Phase	8	2	1	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5
Total Split (s)	25.0	48.0	17.0	65.0
Total Split (%)	27.8%	53.3%	18.9%	72.2%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	C-Max	None	C-Max
Act Effct Green (s)	11.4	57.5	69.6	69.6
Actuated g/C Ratio	0.13	0.64	0.77	0.77
v/c Ratio	0.68	0.48	0.37	0.20
Control Delay	30.7	9.8	7.2	3.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	30.7	9.8	7.2	3.4
LOS	C	A	A	A
Approach Delay	30.7	9.8		4.2
Approach LOS	C	A		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 9.9	Intersection LOS: A
Intersection Capacity Utilization 57.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 13: Front Street/Front St





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	63	117	750	211	138	505
Future Volume (veh/h)	63	117	750	211	138	505
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	119	833	234	153	561
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	83	142	1805	507	446	2712
Arrive On Green	0.14	0.14	0.66	0.66	0.11	1.00
Sat Flow, veh/h	609	1036	2833	769	1781	3647
Grp Volume(v), veh/h	190	0	540	527	153	561
Grp Sat Flow(s),veh/h/ln	1653	0	1777	1732	1781	1777
Q Serve(g_s), s	10.1	0.0	13.4	13.4	2.3	0.0
Cycle Q Clear(g_c), s	10.1	0.0	13.4	13.4	2.3	0.0
Prop In Lane	0.37	0.63		0.44	1.00	
Lane Grp Cap(c), veh/h	226	0	1170	1141	446	2712
V/C Ratio(X)	0.84	0.00	0.46	0.46	0.34	0.21
Avail Cap(c_a), veh/h	377	0	1170	1141	597	2712
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.94	0.94
Uniform Delay (d), s/veh	37.9	0.0	7.5	7.5	5.0	0.0
Incr Delay (d2), s/veh	8.3	0.0	1.3	1.3	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	4.8	4.7	0.6	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	46.2	0.0	8.8	8.9	5.4	0.2
LnGrp LOS	D	A	A	A	A	A
Approach Vol, veh/h	190		1067			714
Approach Delay, s/veh	46.2		8.9			1.3
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.4	63.8			73.2	16.8
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	12.5	43.5			60.5	20.5
Max Q Clear Time (g_c+I1), s	4.3	15.4			2.0	12.1
Green Ext Time (p_c), s	0.2	8.4			4.4	0.3

Intersection Summary	
HCM 6th Ctrl Delay	9.7
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	38	741	41	1070
Future Volume (vph)	38	741	41	1070
Turn Type	Prot	NA	pm+pt	NA
Protected Phases	8	2	1	6
Permitted Phases			6	
Detector Phase	8	2	1	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5
Total Split (s)	26.0	52.0	12.0	64.0
Total Split (%)	28.9%	57.8%	13.3%	71.1%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	C-Max	None	C-Max
Act Effct Green (s)	8.4	66.1	72.6	72.6
Actuated g/C Ratio	0.09	0.73	0.81	0.81
v/c Ratio	0.56	0.33	0.09	0.42
Control Delay	23.8	5.6	2.3	2.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	23.8	5.6	2.3	2.4
LOS	C	A	A	A
Approach Delay	23.8	5.6		2.4
Approach LOS	C	A		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 4.9	Intersection LOS: A
Intersection Capacity Utilization 44.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 13: Front Street/Front St





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	38	82	741	36	41	1070
Future Volume (veh/h)	38	82	741	36	41	1070
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	80	823	40	46	1189
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	53	100	2478	120	551	2866
Arrive On Green	0.09	0.09	0.72	0.72	0.05	1.00
Sat Flow, veh/h	563	1073	3543	168	1781	3647
Grp Volume(v), veh/h	123	0	424	439	46	1189
Grp Sat Flow(s),veh/h/ln	1649	0	1777	1840	1781	1777
Q Serve(g_s), s	6.6	0.0	7.9	7.9	0.5	0.0
Cycle Q Clear(g_c), s	6.6	0.0	7.9	7.9	0.5	0.0
Prop In Lane	0.34	0.65		0.09	1.00	
Lane Grp Cap(c), veh/h	154	0	1277	1322	551	2866
V/C Ratio(X)	0.80	0.00	0.33	0.33	0.08	0.41
Avail Cap(c_a), veh/h	394	0	1277	1322	632	2866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.91	0.91
Uniform Delay (d), s/veh	40.0	0.0	4.7	4.7	2.8	0.0
Incr Delay (d2), s/veh	9.0	0.0	0.7	0.7	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	2.6	2.7	0.1	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	49.0	0.0	5.4	5.4	2.9	0.4
LnGrp LOS	D	A	A	A	A	A
Approach Vol, veh/h	123		863			1235
Approach Delay, s/veh	49.0		5.4			0.5
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.9	69.2			77.1	12.9
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	7.5	47.5			59.5	21.5
Max Q Clear Time (g_c+I1), s	2.5	9.9			2.0	8.6
Green Ext Time (p_c), s	0.0	6.5			12.5	0.2

Intersection Summary	
HCM 6th Ctrl Delay	5.1
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	85	936	185	645
Future Volume (vph)	85	936	185	645
Turn Type	Prot	NA	pm+pt	NA
Protected Phases	8	2	1	6
Permitted Phases			6	
Detector Phase	8	2	1	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5
Total Split (s)	24.0	48.0	18.0	66.0
Total Split (%)	26.7%	53.3%	20.0%	73.3%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	C-Max	None	C-Max
Act Effct Green (s)	14.4	51.9	66.6	66.6
Actuated g/C Ratio	0.16	0.58	0.74	0.74
v/c Ratio	0.77	0.66	0.60	0.27
Control Delay	37.2	16.0	23.3	2.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	37.2	16.0	23.3	2.9
LOS	D	B	C	A
Approach Delay	37.2	16.0		7.4
Approach LOS	D	B		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 15.2	Intersection LOS: B
Intersection Capacity Utilization 71.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 13: Front Street





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	85	163	936	284	185	645
Future Volume (veh/h)	85	163	936	284	185	645
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	92	166	1017	309	201	701
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	104	188	1636	494	345	2565
Arrive On Green	0.18	0.18	0.61	0.61	0.04	0.48
Sat Flow, veh/h	586	1058	2783	812	1781	3647
Grp Volume(v), veh/h	259	0	670	656	201	701
Grp Sat Flow(s),veh/h/ln	1651	0	1777	1724	1781	1777
Q Serve(g_s), s	13.8	0.0	21.3	21.7	3.4	10.6
Cycle Q Clear(g_c), s	13.8	0.0	21.3	21.7	3.4	10.6
Prop In Lane	0.36	0.64		0.47	1.00	
Lane Grp Cap(c), veh/h	294	0	1081	1049	345	2565
V/C Ratio(X)	0.88	0.00	0.62	0.63	0.58	0.27
Avail Cap(c_a), veh/h	358	0	1081	1049	499	2565
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.67	0.67
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.90	0.90
Uniform Delay (d), s/veh	36.1	0.0	11.1	11.2	11.2	9.2
Incr Delay (d2), s/veh	19.0	0.0	2.7	2.8	1.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	0.0	8.2	8.2	1.6	4.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	55.0	0.0	13.8	14.0	12.6	9.4
LnGrp LOS	E	A	B	B	B	A
Approach Vol, veh/h	259		1326			902
Approach Delay, s/veh	55.0		13.9			10.1
Approach LOS	E		B			B

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.2	59.2			69.5	20.5
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	13.5	43.5			61.5	19.5
Max Q Clear Time (g_c+I1), s	5.4	23.7			12.6	15.8
Green Ext Time (p_c), s	0.3	9.7			5.8	0.3

Intersection Summary	
HCM 6th Ctrl Delay	16.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	51	983	52	1374
Future Volume (vph)	51	983	52	1374
Turn Type	Prot	NA	pm+pt	NA
Protected Phases	8	2	1	6
Permitted Phases			6	
Detector Phase	8	2	1	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5
Total Split (s)	25.0	54.0	11.0	65.0
Total Split (%)	27.8%	60.0%	12.2%	72.2%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	C-Max	None	C-Max
Act Effct Green (s)	9.4	62.9	71.6	71.6
Actuated g/C Ratio	0.10	0.70	0.80	0.80
v/c Ratio	0.63	0.46	0.14	0.53
Control Delay	25.6	7.7	2.1	2.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	25.6	7.7	2.1	2.1
LOS	C	A	A	A
Approach Delay	25.6	7.7		2.1
Approach LOS	C	A		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 5.7	Intersection LOS: A
Intersection Capacity Utilization 54.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 13: Front Street





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	51	107	983	48	52	1374
Future Volume (veh/h)	51	107	983	48	52	1374
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	105	1068	52	57	1493
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	67	128	2376	116	431	2776
Arrive On Green	0.12	0.12	0.69	0.69	0.04	0.78
Sat Flow, veh/h	563	1075	3543	168	1781	3647
Grp Volume(v), veh/h	161	0	550	570	57	1493
Grp Sat Flow(s),veh/h/ln	1649	0	1777	1840	1781	1777
Q Serve(g_s), s	8.6	0.0	12.6	12.6	0.7	14.3
Cycle Q Clear(g_c), s	8.6	0.0	12.6	12.6	0.7	14.3
Prop In Lane	0.34	0.65		0.09	1.00	
Lane Grp Cap(c), veh/h	196	0	1224	1268	431	2776
V/C Ratio(X)	0.82	0.00	0.45	0.45	0.13	0.54
Avail Cap(c_a), veh/h	376	0	1224	1268	485	2776
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.85	0.85
Uniform Delay (d), s/veh	38.7	0.0	6.3	6.3	4.2	3.7
Incr Delay (d2), s/veh	8.3	0.0	1.2	1.2	0.1	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	4.3	4.4	0.2	3.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	47.0	0.0	7.5	7.5	4.3	4.4
LnGrp LOS	D	A	A	A	A	A
Approach Vol, veh/h	161		1120			1550
Approach Delay, s/veh	47.0		7.5			4.4
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.3	66.5			74.8	15.2
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	6.5	49.5			60.5	20.5
Max Q Clear Time (g_c+I1), s	2.7	14.6			16.3	10.6
Green Ext Time (p_c), s	0.0	9.3			17.2	0.3

Intersection Summary	
HCM 6th Ctrl Delay	8.0
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	85	1005	185	691
Future Volume (vph)	85	1005	185	691
Turn Type	Prot	NA	pm+pt	NA
Protected Phases	8	2	1	6
Permitted Phases			6	
Detector Phase	8	2	1	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5
Total Split (s)	24.0	49.0	17.0	66.0
Total Split (%)	26.7%	54.4%	18.9%	73.3%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	C-Max	None	C-Max
Act Effct Green (s)	14.4	52.1	66.6	66.6
Actuated g/C Ratio	0.16	0.58	0.74	0.74
v/c Ratio	0.77	0.70	0.63	0.29
Control Delay	37.2	16.7	19.6	6.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	37.2	16.7	19.6	6.4
LOS	D	B	B	A
Approach Delay	37.2	16.7		9.2
Approach LOS	D	B		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 16.1	Intersection LOS: B
Intersection Capacity Utilization 73.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 13: Front Street





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	85	163	1005	284	185	691
Future Volume (veh/h)	85	163	1005	284	185	691
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	92	166	1092	309	201	751
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	104	188	1668	467	326	2565
Arrive On Green	0.18	0.18	0.61	0.61	0.04	0.48
Sat Flow, veh/h	586	1058	2834	768	1781	3647
Grp Volume(v), veh/h	259	0	704	697	201	751
Grp Sat Flow(s),veh/h/ln	1651	0	1777	1732	1781	1777
Q Serve(g_s), s	13.8	0.0	23.1	23.7	3.4	11.4
Cycle Q Clear(g_c), s	13.8	0.0	23.1	23.7	3.4	11.4
Prop In Lane	0.36	0.64		0.44	1.00	
Lane Grp Cap(c), veh/h	294	0	1081	1054	326	2565
V/C Ratio(X)	0.88	0.00	0.65	0.66	0.62	0.29
Avail Cap(c_a), veh/h	358	0	1081	1054	460	2565
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.67	0.67
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.90	0.90
Uniform Delay (d), s/veh	36.1	0.0	11.4	11.5	12.9	9.4
Incr Delay (d2), s/veh	19.0	0.0	3.1	3.3	1.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	0.0	9.0	9.0	2.0	4.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	55.0	0.0	14.5	14.8	14.6	9.7
LnGrp LOS	E	A	B	B	B	A
Approach Vol, veh/h	259		1401			952
Approach Delay, s/veh	55.0		14.6			10.7
Approach LOS	E		B			B

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.2	59.3			69.5	20.5
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	12.5	44.5			61.5	19.5
Max Q Clear Time (g_c+I1), s	5.4	25.7			13.4	15.8
Green Ext Time (p_c), s	0.3	10.0			6.3	0.3

Intersection Summary	
HCM 6th Ctrl Delay	17.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	51	1027	52	1442
Future Volume (vph)	51	1027	52	1442
Turn Type	Prot	NA	pm+pt	NA
Protected Phases	8	2	1	6
Permitted Phases			6	
Detector Phase	8	2	1	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5
Total Split (s)	24.0	55.0	11.0	66.0
Total Split (%)	26.7%	61.1%	12.2%	73.3%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	C-Max	None	C-Max
Act Effct Green (s)	9.5	62.8	71.5	71.5
Actuated g/C Ratio	0.11	0.70	0.79	0.79
v/c Ratio	0.63	0.48	0.15	0.56
Control Delay	25.7	8.0	3.3	5.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	25.7	8.0	3.3	5.0
LOS	C	A	A	A
Approach Delay	25.7	8.0		4.9
Approach LOS	C	A		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 7.3	Intersection LOS: A
Intersection Capacity Utilization 56.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 13: Front Street





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	51	107	1027	48	52	1442
Future Volume (veh/h)	51	107	1027	48	52	1442
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	105	1116	52	57	1567
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	67	128	2383	111	415	2777
Arrive On Green	0.12	0.12	0.69	0.69	0.04	0.78
Sat Flow, veh/h	563	1075	3551	161	1781	3647
Grp Volume(v), veh/h	161	0	573	595	57	1567
Grp Sat Flow(s),veh/h/ln	1649	0	1777	1841	1781	1777
Q Serve(g_s), s	8.6	0.0	13.3	13.3	0.7	15.5
Cycle Q Clear(g_c), s	8.6	0.0	13.3	13.3	0.7	15.5
Prop In Lane	0.34	0.65		0.09	1.00	
Lane Grp Cap(c), veh/h	196	0	1225	1269	415	2777
V/C Ratio(X)	0.82	0.00	0.47	0.47	0.14	0.56
Avail Cap(c_a), veh/h	357	0	1225	1269	469	2777
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.82	0.82
Uniform Delay (d), s/veh	38.7	0.0	6.4	6.4	4.3	3.8
Incr Delay (d2), s/veh	8.4	0.0	1.3	1.2	0.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	4.6	4.7	0.2	3.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	47.1	0.0	7.7	7.7	4.4	4.5
LnGrp LOS	D	A	A	A	A	A
Approach Vol, veh/h	161		1168			1624
Approach Delay, s/veh	47.1		7.7			4.5
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.3	66.5			74.8	15.2
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	6.5	50.5			61.5	19.5
Max Q Clear Time (g_c+I1), s	2.7	15.3			17.5	10.6
Green Ext Time (p_c), s	0.0	9.9			18.6	0.3

Intersection Summary	
HCM 6th Ctrl Delay	8.1
HCM 6th LOS	A

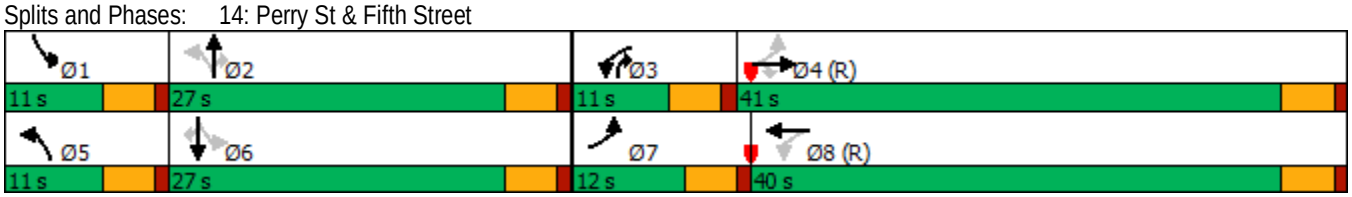
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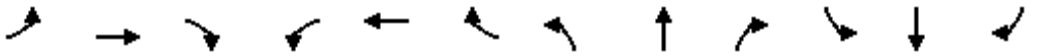
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	50	248	47	53	613	28	148	29	16	131	99
Future Volume (vph)	50	248	47	53	613	28	148	29	16	131	99
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+ov	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2	3	1	6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	7	4	4	3	8	5	2	3	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5
Total Split (s)	12.0	41.0	41.0	11.0	40.0	11.0	27.0	11.0	11.0	27.0	27.0
Total Split (%)	13.3%	45.6%	45.6%	12.2%	44.4%	12.2%	30.0%	12.2%	12.2%	30.0%	30.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max	Max
Act Effct Green (s)	44.3	38.8	38.8	44.4	40.5	31.7	29.1	39.8	30.7	26.9	26.9
Actuated g/C Ratio	0.49	0.43	0.43	0.49	0.45	0.35	0.32	0.44	0.34	0.30	0.30
v/c Ratio	0.14	0.33	0.07	0.11	0.42	0.07	0.26	0.04	0.04	0.25	0.19
Control Delay	11.4	19.4	0.2	6.6	10.9	18.6	25.8	0.4	18.4	27.3	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.4	19.4	0.2	6.6	11.4	18.6	25.8	0.4	18.4	27.3	4.4
LOS	B	B	A	A	B	B	C	A	B	C	A
Approach Delay		15.6			11.1		21.2			17.5	
Approach LOS		B			B		C			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 42 (47%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.42	
Intersection Signal Delay: 14.6	Intersection LOS: B
Intersection Capacity Utilization 48.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Perry St & Fifth Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	248	47	53	613	17	28	148	29	16	131	99
Future Volume (veh/h)	50	248	47	53	613	17	28	148	29	16	131	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	264	50	56	652	18	30	157	31	17	139	73
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	453	896	759	573	1695	47	343	486	479	344	468	396
Arrive On Green	0.04	0.48	0.48	0.06	0.64	0.64	0.03	0.26	0.26	0.01	0.08	0.08
Sat Flow, veh/h	1781	1870	1585	1781	3532	97	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	53	264	50	56	328	342	30	157	31	17	139	73
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1853	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	1.3	7.7	1.5	1.4	8.0	8.0	1.1	6.1	1.3	0.6	6.3	3.9
Cycle Q Clear(g_c), s	1.3	7.7	1.5	1.4	8.0	8.0	1.1	6.1	1.3	0.6	6.3	3.9
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	453	896	759	573	853	889	343	486	479	344	468	396
V/C Ratio(X)	0.12	0.29	0.07	0.10	0.38	0.38	0.09	0.32	0.06	0.05	0.30	0.18
Avail Cap(c_a), veh/h	529	896	759	628	853	889	419	486	479	438	468	396
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	0.70	0.70	0.70	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.1	14.2	12.6	10.9	9.9	9.9	24.0	26.9	22.4	24.7	33.9	32.7
Incr Delay (d2), s/veh	0.1	0.8	0.2	0.1	0.9	0.9	0.1	1.8	0.3	0.1	1.6	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.3	0.6	0.5	2.9	3.0	0.5	2.9	0.5	0.3	3.2	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.2	15.1	12.8	10.9	10.8	10.8	24.1	28.6	22.6	24.8	35.5	33.8
LnGrp LOS	B	B	B	B	B	B	C	C	C	C	D	C
Approach Vol, veh/h		367			726			218			229	
Approach Delay, s/veh		14.2			10.8			27.2			34.1	
Approach LOS		B			B			C			C	

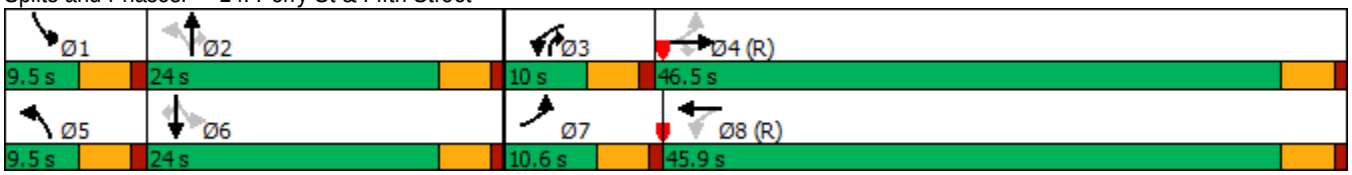
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	27.9	8.3	47.6	7.1	27.0	8.2	47.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	22.5	6.5	36.5	6.5	22.5	7.5	35.5
Max Q Clear Time (g_c+I1), s	2.6	8.1	3.4	9.7	3.1	8.3	3.3	10.0
Green Ext Time (p_c), s	0.0	0.7	0.0	1.7	0.0	0.8	0.0	4.4

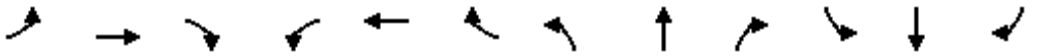
Intersection Summary	
HCM 6th Ctrl Delay	17.4
HCM 6th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	121	602	52	75	408	48	273	126	62	265	139
Future Volume (vph)	121	602	52	75	408	48	273	126	62	265	139
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+ov	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2	3	1	6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	7	4	4	3	8	5	2	3	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5
Total Split (s)	10.6	46.5	46.5	10.0	45.9	9.5	24.0	10.0	9.5	24.0	24.0
Total Split (%)	11.8%	51.7%	51.7%	11.1%	51.0%	10.6%	26.7%	11.1%	10.6%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max	Max
Act Effct Green (s)	48.1	42.0	42.0	46.9	41.4	25.4	21.4	31.4	26.3	23.3	23.3
Actuated g/C Ratio	0.53	0.47	0.47	0.52	0.46	0.28	0.24	0.35	0.29	0.26	0.26
v/c Ratio	0.25	0.74	0.07	0.30	0.27	0.19	0.66	0.21	0.26	0.59	0.29
Control Delay	10.1	25.8	0.2	6.5	7.6	23.3	40.3	5.0	24.5	36.5	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.1	25.8	0.2	6.5	8.1	23.3	40.3	5.0	24.5	36.5	6.9
LOS	B	C	A	A	A	C	D	A	C	D	A
Approach Delay		21.6			7.9		28.5			26.1	
Approach LOS		C			A		C			C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 42 (47%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 20.9	Intersection LOS: C
Intersection Capacity Utilization 69.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 14: Perry St & Fifth Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	121	602	52	75	408	10	48	273	126	62	265	139
Future Volume (veh/h)	121	602	52	75	408	10	48	273	126	62	265	139
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	129	640	55	80	434	11	51	290	102	66	282	116
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	550	917	777	334	1708	43	225	405	420	232	414	351
Arrive On Green	0.06	0.49	0.49	0.03	0.32	0.32	0.04	0.22	0.22	0.01	0.07	0.07
Sat Flow, veh/h	1781	1870	1585	1781	3541	90	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	129	640	55	80	217	228	51	290	102	66	282	116
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1854	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	3.2	23.9	1.6	2.0	8.1	8.1	2.0	12.9	4.6	2.6	13.2	6.3
Cycle Q Clear(g_c), s	3.2	23.9	1.6	2.0	8.1	8.1	2.0	12.9	4.6	2.6	13.2	6.3
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	550	917	777	334	857	894	225	405	420	232	414	351
V/C Ratio(X)	0.23	0.70	0.07	0.24	0.25	0.25	0.23	0.72	0.24	0.28	0.68	0.33
Avail Cap(c_a), veh/h	571	917	777	358	857	894	252	405	420	251	414	351
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	0.70	0.70	0.70	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.8	17.8	12.1	14.0	18.5	18.5	26.6	32.7	26.0	27.3	38.6	35.4
Incr Delay (d2), s/veh	0.2	4.4	0.2	0.3	0.5	0.5	0.5	10.3	1.4	0.7	8.7	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	10.7	0.6	0.8	3.5	3.7	0.9	6.9	1.8	1.1	7.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.0	22.2	12.3	14.2	19.0	19.0	27.1	43.0	27.4	28.0	47.3	37.9
LnGrp LOS	B	C	B	B	B	B	C	D	C	C	D	D
Approach Vol, veh/h		824			525			443			464	
Approach Delay, s/veh		19.7			18.3			37.6			42.2	
Approach LOS		B			B			D			D	

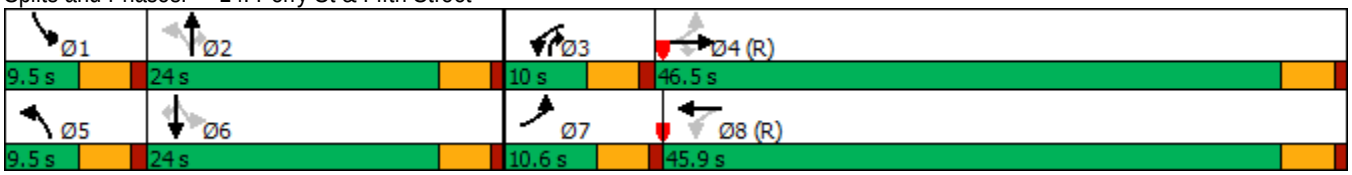
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	24.0	8.8	48.6	8.1	24.4	9.6	47.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	19.5	5.5	42.0	5.0	19.5	6.1	41.4
Max Q Clear Time (g_c+I1), s	4.6	14.9	4.0	25.9	4.0	15.2	5.2	10.1
Green Ext Time (p_c), s	0.0	0.8	0.0	4.2	0.0	0.8	0.0	2.8

Intersection Summary	
HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	54	304	51	57	747	30	160	31	17	141	107
Future Volume (vph)	54	304	51	57	747	30	160	31	17	141	107
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+ov	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2	3	1	6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	7	4	4	3	8	5	2	3	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5
Total Split (s)	10.6	46.5	46.5	10.0	45.9	9.5	24.0	10.0	9.5	24.0	24.0
Total Split (%)	11.8%	51.7%	51.7%	11.1%	51.0%	10.6%	26.7%	11.1%	10.6%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max	Max
Act Effct Green (s)	48.9	44.0	44.0	47.9	43.5	27.2	25.2	35.2	26.3	23.3	23.3
Actuated g/C Ratio	0.54	0.49	0.49	0.53	0.48	0.30	0.28	0.39	0.29	0.26	0.26
v/c Ratio	0.17	0.35	0.06	0.11	0.48	0.09	0.33	0.05	0.05	0.31	0.23
Control Delay	9.6	16.4	0.2	4.3	9.1	21.9	29.5	0.9	21.5	30.7	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.6	16.4	0.2	4.3	9.8	21.9	29.5	0.9	21.5	30.7	5.9
LOS	A	B	A	A	A	C	C	A	C	C	A
Approach Delay		13.5			9.5		24.4			20.1	
Approach LOS		B			A		C			C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 42 (47%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.48	
Intersection Signal Delay: 14.0	Intersection LOS: B
Intersection Capacity Utilization 53.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Perry St & Fifth Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	304	51	57	747	18	30	160	31	17	141	107
Future Volume (veh/h)	54	304	51	57	747	18	30	160	31	17	141	107
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	323	54	61	795	19	32	170	1	18	150	82
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	429	953	807	567	1811	43	295	425	429	298	405	343
Arrive On Green	0.04	0.51	0.51	0.06	0.68	0.68	0.03	0.23	0.23	0.01	0.07	0.07
Sat Flow, veh/h	1781	1870	1585	1781	3547	85	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	57	323	54	61	398	416	32	170	1	18	150	82
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1855	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	1.3	9.2	1.6	1.4	9.2	9.2	1.2	7.0	0.0	0.7	6.9	4.4
Cycle Q Clear(g_c), s	1.3	9.2	1.6	1.4	9.2	9.2	1.2	7.0	0.0	0.7	6.9	4.4
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	429	953	807	567	907	947	295	425	429	298	405	343
V/C Ratio(X)	0.13	0.34	0.07	0.11	0.44	0.44	0.11	0.40	0.00	0.06	0.37	0.24
Avail Cap(c_a), veh/h	474	953	807	598	907	947	340	425	429	361	405	343
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	0.70	0.70	0.70	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.9	13.1	11.2	9.7	8.5	8.6	26.2	29.6	24.0	27.1	35.9	34.8
Incr Delay (d2), s/veh	0.1	1.0	0.2	0.1	1.1	1.0	0.2	2.8	0.0	0.1	2.6	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.9	0.6	0.5	3.1	3.3	0.5	3.4	0.0	0.3	3.6	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.0	14.1	11.4	9.7	9.6	9.6	26.4	32.4	24.0	27.1	38.5	36.4
LnGrp LOS	A	B	B	A	A	A	C	C	C	C	D	D
Approach Vol, veh/h		434			875			203			250	
Approach Delay, s/veh		13.2			9.6			31.4			37.0	
Approach LOS		B			A			C			D	

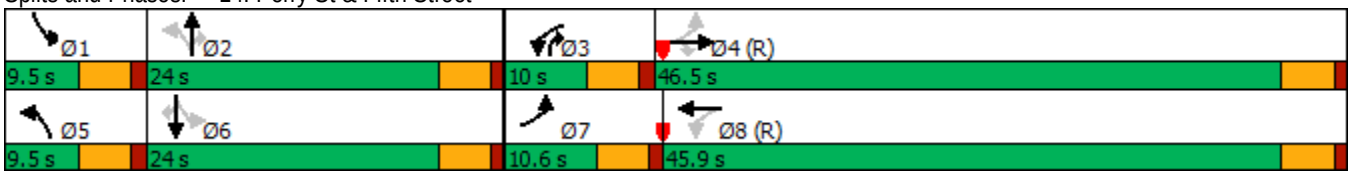
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	24.9	8.4	50.3	7.3	24.0	8.3	50.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	19.5	5.5	42.0	5.0	19.5	6.1	41.4
Max Q Clear Time (g_c+I1), s	2.7	9.0	3.4	11.2	3.2	8.9	3.3	11.2
Green Ext Time (p_c), s	0.0	0.6	0.0	2.2	0.0	0.7	0.0	5.8

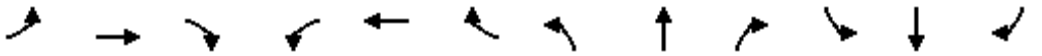
Intersection Summary	
HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	131	756	56	82	514	52	295	137	67	287	150
Future Volume (vph)	131	756	56	82	514	52	295	137	67	287	150
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+ov	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2	3	1	6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	7	4	4	3	8	5	2	3	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5
Total Split (s)	10.6	46.5	46.5	10.0	45.9	9.5	24.0	10.0	9.5	24.0	24.0
Total Split (%)	11.8%	51.7%	51.7%	11.1%	51.0%	10.6%	26.7%	11.1%	10.6%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max	Max
Act Effct Green (s)	48.1	42.0	42.0	46.9	41.4	25.4	21.4	31.4	25.4	21.4	21.4
Actuated g/C Ratio	0.53	0.47	0.47	0.52	0.46	0.28	0.24	0.35	0.28	0.24	0.24
v/c Ratio	0.31	0.93	0.07	0.45	0.34	0.24	0.71	0.23	0.31	0.69	0.32
Control Delay	10.8	41.1	0.2	18.7	8.2	24.2	42.9	4.9	25.7	41.9	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.8	41.1	0.2	18.7	8.9	24.2	42.9	4.9	25.7	41.9	7.0
LOS	B	D	A	B	A	C	D	A	C	D	A
Approach Delay		34.4			10.2		30.1			29.3	
Approach LOS		C			B		C			C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 42 (47%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 26.8	Intersection LOS: C
Intersection Capacity Utilization 79.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 14: Perry St & Fifth Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	756	56	82	514	10	52	295	137	67	287	150
Future Volume (veh/h)	131	756	56	82	514	10	52	295	137	67	287	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	139	804	60	87	547	11	55	314	114	71	305	128
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	494	913	773	233	1701	34	213	405	421	218	414	351
Arrive On Green	0.06	0.49	0.49	0.03	0.32	0.32	0.04	0.22	0.22	0.02	0.07	0.07
Sat Flow, veh/h	1781	1870	1585	1781	3563	72	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	139	804	60	87	273	285	55	314	114	71	305	128
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1857	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	3.5	34.7	1.8	2.2	10.5	10.5	2.1	14.2	5.1	2.8	14.4	6.9
Cycle Q Clear(g_c), s	3.5	34.7	1.8	2.2	10.5	10.5	2.1	14.2	5.1	2.8	14.4	6.9
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	494	913	773	233	848	887	213	405	421	218	414	351
V/C Ratio(X)	0.28	0.88	0.08	0.37	0.32	0.32	0.26	0.77	0.27	0.33	0.74	0.36
Avail Cap(c_a), veh/h	508	913	773	254	848	887	238	405	421	235	414	351
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	0.70	0.70	0.70	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.2	20.7	12.3	18.3	19.5	19.6	26.7	33.2	26.1	27.6	39.1	35.7
Incr Delay (d2), s/veh	0.3	11.9	0.2	0.7	0.7	0.7	0.6	13.5	1.6	0.9	11.1	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	17.0	0.7	0.9	4.7	4.9	0.9	7.8	2.1	1.2	8.4	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.5	32.6	12.5	19.0	20.3	20.2	27.3	46.7	27.7	28.4	50.3	38.6
LnGrp LOS	B	C	B	B	C	C	C	D	C	C	D	D
Approach Vol, veh/h		1003			645			483			504	
Approach Delay, s/veh		28.5			20.1			40.0			44.2	
Approach LOS		C			C			D			D	

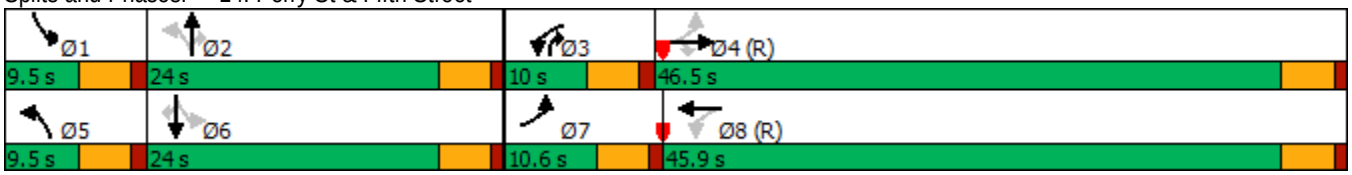
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	24.0	8.9	48.4	8.2	24.4	9.9	47.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	19.5	5.5	42.0	5.0	19.5	6.1	41.4
Max Q Clear Time (g_c+I1), s	4.8	16.2	4.2	36.7	4.1	16.4	5.5	12.5
Green Ext Time (p_c), s	0.0	0.7	0.0	2.6	0.0	0.7	0.0	3.6

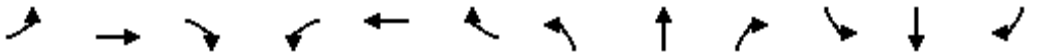
Intersection Summary	
HCM 6th Ctrl Delay	31.6
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	97	346	51	71	823	30	187	39	17	156	139
Future Volume (vph)	97	346	51	71	823	30	187	39	17	156	139
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+ov	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2	3	1	6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	7	4	4	3	8	5	2	3	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5
Total Split (s)	10.6	46.5	46.5	10.0	45.9	9.5	24.0	10.0	9.5	24.0	24.0
Total Split (%)	11.8%	51.7%	51.7%	11.1%	51.0%	10.6%	26.7%	11.1%	10.6%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max	Max
Act Effct Green (s)	48.9	44.0	44.0	47.9	43.5	27.2	25.2	35.2	26.3	23.3	23.3
Actuated g/C Ratio	0.54	0.49	0.49	0.53	0.48	0.30	0.28	0.39	0.29	0.26	0.26
v/c Ratio	0.34	0.40	0.06	0.15	0.52	0.09	0.38	0.06	0.05	0.34	0.29
Control Delay	11.8	17.1	0.2	4.9	10.6	21.9	30.3	2.1	21.5	31.2	6.9
Queue Delay	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.8	17.1	0.2	4.9	11.6	21.9	30.3	2.1	21.5	31.2	6.9
LOS	B	B	A	A	B	C	C	A	C	C	A
Approach Delay		14.3			11.0		25.1			19.8	
Approach LOS		B			B		C			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 42 (47%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 15.1	Intersection LOS: B
Intersection Capacity Utilization 57.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 14: Perry St & Fifth Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	346	51	71	823	18	30	187	39	17	156	139
Future Volume (veh/h)	97	346	51	71	823	18	30	187	39	17	156	139
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	103	368	54	76	876	19	32	199	9	18	166	116
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	407	945	801	535	1783	39	279	425	435	274	405	343
Arrive On Green	0.05	0.51	0.51	0.06	0.67	0.67	0.03	0.23	0.23	0.01	0.07	0.07
Sat Flow, veh/h	1781	1870	1585	1781	3556	77	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	103	368	54	76	438	457	32	199	9	18	166	116
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1856	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	2.5	10.9	1.6	1.8	11.0	11.0	1.2	8.3	0.4	0.7	7.6	6.3
Cycle Q Clear(g_c), s	2.5	10.9	1.6	1.8	11.0	11.0	1.2	8.3	0.4	0.7	7.6	6.3
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	407	945	801	535	891	931	279	425	435	274	405	343
V/C Ratio(X)	0.25	0.39	0.07	0.14	0.49	0.49	0.11	0.47	0.02	0.07	0.41	0.34
Avail Cap(c_a), veh/h	437	945	801	560	891	931	324	425	435	338	405	343
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	0.70	0.70	0.70	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.4	13.7	11.4	10.1	9.3	9.3	26.3	30.1	23.8	27.2	36.3	35.6
Incr Delay (d2), s/veh	0.3	1.2	0.2	0.1	1.4	1.3	0.2	3.7	0.1	0.1	3.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	4.7	0.6	0.7	3.7	3.8	0.5	4.1	0.1	0.3	4.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.7	14.9	11.6	10.2	10.7	10.6	26.5	33.8	23.9	27.3	39.3	38.3
LnGrp LOS	B	B	B	B	B	B	C	C	C	C	D	D
Approach Vol, veh/h		525			971			240			300	
Approach Delay, s/veh		13.7			10.6			32.4			38.2	
Approach LOS		B			B			C			D	

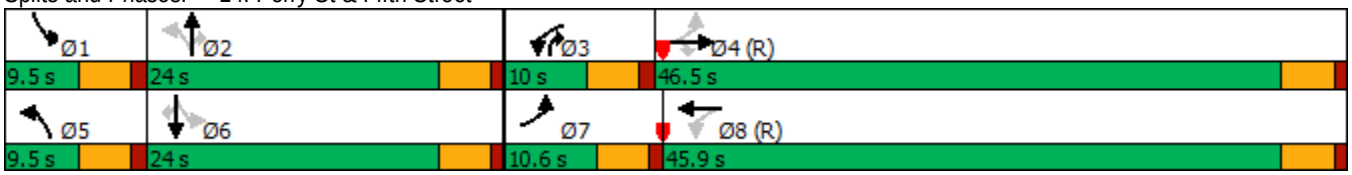
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	24.9	8.8	50.0	7.3	24.0	9.1	49.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	19.5	5.5	42.0	5.0	19.5	6.1	41.4
Max Q Clear Time (g_c+I1), s	2.7	10.3	3.8	12.9	3.2	9.6	4.5	13.0
Green Ext Time (p_c), s	0.0	0.7	0.0	2.6	0.0	0.9	0.0	6.5

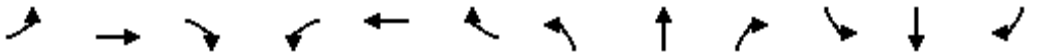
Intersection Summary	
HCM 6th Ctrl Delay	18.0
HCM 6th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	162	831	56	91	564	52	309	151	67	314	193
Future Volume (vph)	162	831	56	91	564	52	309	151	67	314	193
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+ov	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2	3	1	6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	7	4	4	3	8	5	2	3	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5
Total Split (s)	10.6	46.5	46.5	10.0	45.9	9.5	24.0	10.0	9.5	24.0	24.0
Total Split (%)	11.8%	51.7%	51.7%	11.1%	51.0%	10.6%	26.7%	11.1%	10.6%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max	Max
Act Effct Green (s)	48.1	42.0	42.0	46.9	41.4	25.4	21.4	31.4	25.4	21.4	21.4
Actuated g/C Ratio	0.53	0.47	0.47	0.52	0.46	0.28	0.24	0.35	0.28	0.24	0.24
v/c Ratio	0.41	1.02	0.07	0.51	0.38	0.26	0.74	0.25	0.33	0.76	0.39
Control Delay	12.2	60.6	0.2	22.1	8.5	24.8	44.8	7.2	26.2	45.6	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.2	60.6	0.2	22.1	9.3	24.8	44.8	7.2	26.2	45.6	8.5
LOS	B	E	A	C	A	C	D	A	C	D	A
Approach Delay		49.9			11.0		31.7			30.8	
Approach LOS		D			B		C			C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 42 (47%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 33.4	Intersection LOS: C
Intersection Capacity Utilization 84.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 14: Perry St & Fifth Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	831	56	91	564	10	52	309	151	67	314	193
Future Volume (veh/h)	162	831	56	91	564	10	52	309	151	67	314	193
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	172	884	60	97	600	11	55	329	129	71	334	173
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	494	910	771	186	1676	31	194	405	424	208	414	351
Arrive On Green	0.07	0.49	0.49	0.05	0.47	0.47	0.04	0.22	0.22	0.02	0.07	0.07
Sat Flow, veh/h	1781	1870	1585	1781	3570	65	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	172	884	60	97	298	313	55	329	129	71	334	173
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1859	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	4.5	41.4	1.8	2.5	9.6	9.7	2.1	15.0	5.8	2.8	15.8	9.4
Cycle Q Clear(g_c), s	4.5	41.4	1.8	2.5	9.6	9.7	2.1	15.0	5.8	2.8	15.8	9.4
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	494	910	771	186	834	872	194	405	424	208	414	351
V/C Ratio(X)	0.35	0.97	0.08	0.52	0.36	0.36	0.28	0.81	0.30	0.34	0.81	0.49
Avail Cap(c_a), veh/h	494	910	771	205	834	872	219	405	424	225	414	351
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	0.70	0.70	0.70	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.3	22.5	12.3	20.7	15.2	15.2	27.0	33.5	26.3	27.7	39.8	36.9
Incr Delay (d2), s/veh	0.4	23.7	0.2	1.6	0.8	0.8	0.8	16.1	1.8	1.0	15.4	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	22.7	0.7	1.0	3.9	4.1	0.9	8.5	2.4	1.2	9.7	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.7	46.2	12.5	22.3	16.1	16.0	27.7	49.6	28.1	28.7	55.3	41.7
LnGrp LOS	B	D	B	C	B	B	C	D	C	C	E	D
Approach Vol, veh/h		1116			708			513			578	
Approach Delay, s/veh		39.0			16.9			41.9			47.9	
Approach LOS		D			B			D			D	

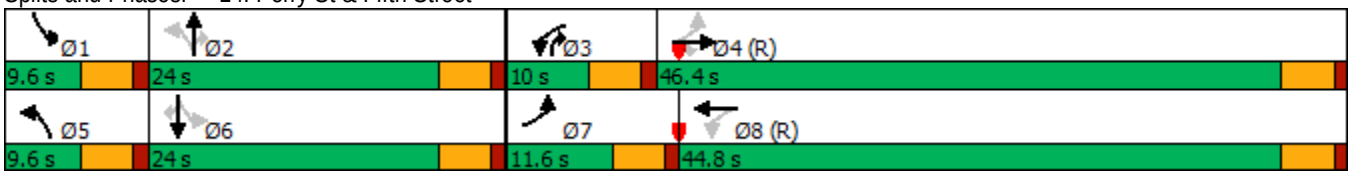
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	24.0	9.1	48.3	8.2	24.4	10.6	46.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	19.5	5.5	42.0	5.0	19.5	6.1	41.4
Max Q Clear Time (g_c+I1), s	4.8	17.0	4.5	43.4	4.1	17.8	6.5	11.7
Green Ext Time (p_c), s	0.0	0.6	0.0	0.0	0.0	0.5	0.0	4.0

Intersection Summary	
HCM 6th Ctrl Delay	35.9
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	88	447	68	77	1077	40	215	42	23	190	174
Future Volume (vph)	88	447	68	77	1077	40	215	42	23	190	174
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+ov	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2	3	1	6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	7	4	4	3	8	5	2	3	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5
Total Split (s)	11.6	46.4	46.4	10.0	44.8	9.6	24.0	10.0	9.6	24.0	24.0
Total Split (%)	12.9%	51.6%	51.6%	11.1%	49.8%	10.7%	26.7%	11.1%	10.7%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max	Max
Act Effct Green (s)	49.5	43.9	43.9	47.1	42.7	27.3	25.3	35.3	26.4	23.3	23.3
Actuated g/C Ratio	0.55	0.49	0.49	0.52	0.47	0.30	0.28	0.39	0.29	0.26	0.26
v/c Ratio	0.42	0.52	0.09	0.21	0.70	0.13	0.44	0.07	0.07	0.42	0.34
Control Delay	14.7	19.2	0.7	6.8	16.3	22.3	31.3	2.5	21.7	32.4	6.6
Queue Delay	0.0	0.0	0.0	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.7	19.2	0.7	6.8	20.2	22.3	31.3	2.5	21.7	32.4	6.6
LOS	B	B	A	A	C	C	C	A	C	C	A
Approach Delay		16.5			19.3		26.0			20.2	
Approach LOS		B			B		C			C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 42 (47%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 19.6	Intersection LOS: B
Intersection Capacity Utilization 65.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 14: Perry St & Fifth Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	447	68	77	1077	25	40	215	42	23	190	174
Future Volume (veh/h)	88	447	68	77	1077	25	40	215	42	23	190	174
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	94	476	72	82	1146	27	43	229	13	24	202	153
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	404	932	790	447	1762	42	261	427	438	262	405	343
Arrive On Green	0.05	0.50	0.50	0.10	0.99	0.99	0.04	0.23	0.23	0.01	0.07	0.07
Sat Flow, veh/h	1781	1870	1585	1781	3549	84	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	94	476	72	82	574	599	43	229	13	24	202	153
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1855	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	2.3	15.4	2.1	2.0	0.6	0.6	1.7	9.7	0.5	0.9	9.4	8.3
Cycle Q Clear(g_c), s	2.3	15.4	2.1	2.0	0.6	0.6	1.7	9.7	0.5	0.9	9.4	8.3
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	404	932	790	447	882	921	261	427	438	262	405	343
V/C Ratio(X)	0.23	0.51	0.09	0.18	0.65	0.65	0.16	0.54	0.03	0.09	0.50	0.45
Avail Cap(c_a), veh/h	455	932	790	470	882	921	297	427	438	318	405	343
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	0.70	0.70	0.70	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.8	15.2	11.9	10.6	0.2	0.2	26.2	30.5	23.7	27.1	37.1	36.6
Incr Delay (d2), s/veh	0.3	2.0	0.2	0.1	2.6	2.5	0.3	4.8	0.1	0.1	4.3	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	6.7	0.8	0.7	0.7	0.7	0.7	4.8	0.2	0.4	5.1	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.1	17.2	12.1	10.8	2.8	2.7	26.5	35.3	23.9	27.3	41.4	40.7
LnGrp LOS	B	B	B	B	A	A	C	D	C	C	D	D
Approach Vol, veh/h		642			1255			285			379	
Approach Delay, s/veh		15.6			3.2			33.5			40.2	
Approach LOS		B			A			C			D	

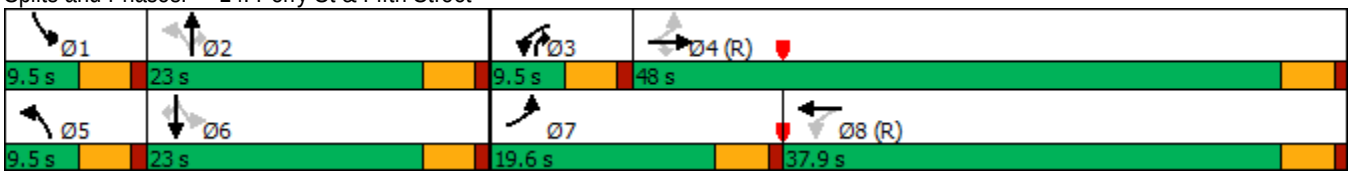
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	25.0	8.9	49.4	7.8	24.0	9.0	49.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.1	19.5	5.5	41.9	5.1	19.5	7.1	40.3
Max Q Clear Time (g_c+I1), s	2.9	11.7	4.0	17.4	3.7	11.4	4.3	2.6
Green Ext Time (p_c), s	0.0	0.8	0.0	3.4	0.0	1.0	0.0	10.1

Intersection Summary	
HCM 6th Ctrl Delay	15.2
HCM 6th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	221	1117	76	110	767	70	397	184	90	386	233
Future Volume (vph)	221	1117	76	110	767	70	397	184	90	386	233
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+ov	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2	3	1	6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	7	4	4	3	8	5	2	3	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5
Total Split (s)	19.6	48.0	48.0	9.5	37.9	9.5	23.0	9.5	9.5	23.0	23.0
Total Split (%)	21.8%	53.3%	53.3%	10.6%	42.1%	10.6%	25.6%	10.6%	10.6%	25.6%	25.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max	Max
Act Effct Green (s)	52.7	43.5	43.5	42.2	37.2	24.4	20.4	29.9	24.4	20.4	20.4
Actuated g/C Ratio	0.59	0.48	0.48	0.47	0.41	0.27	0.23	0.33	0.27	0.23	0.23
v/c Ratio	0.60	1.32	0.10	0.64	0.57	0.42	1.00	0.32	0.54	0.98	0.50
Control Delay	15.8	176.2	1.1	36.9	14.8	30.2	82.5	10.8	35.8	76.1	13.5
Queue Delay	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.8	176.2	1.1	36.9	16.6	30.2	82.5	10.8	35.8	76.1	13.5
LOS	B	F	A	D	B	C	F	B	D	E	B
Approach Delay		141.7			19.1		56.6			50.4	
Approach LOS		F			B		E			D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 42 (47%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.32	
Intersection Signal Delay: 79.1	Intersection LOS: E
Intersection Capacity Utilization 105.8%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 14: Perry St & Fifth Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	221	1117	76	110	767	14	70	397	184	90	386	233
Future Volume (veh/h)	221	1117	76	110	767	14	70	397	184	90	386	233
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	235	1188	81	117	816	15	74	422	164	96	411	216
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	453	906	768	177	1587	29	163	384	412	179	401	340
Arrive On Green	0.09	0.48	0.48	0.07	0.59	0.59	0.05	0.21	0.21	0.04	0.14	0.14
Sat Flow, veh/h	1781	1870	1585	1781	3570	66	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	235	1188	81	117	406	425	74	422	164	96	411	216
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1859	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	6.1	43.6	2.5	3.2	12.1	12.1	2.9	18.5	7.7	3.8	19.3	11.6
Cycle Q Clear(g_c), s	6.1	43.6	2.5	3.2	12.1	12.1	2.9	18.5	7.7	3.8	19.3	11.6
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	453	906	768	177	790	826	163	384	412	179	401	340
V/C Ratio(X)	0.52	1.31	0.11	0.66	0.51	0.51	0.45	1.10	0.40	0.54	1.03	0.64
Avail Cap(c_a), veh/h	584	906	768	179	790	826	179	384	412	179	401	340
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	0.70	0.70	0.70	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.9	23.2	12.6	20.6	12.7	12.7	28.1	35.8	27.5	28.4	38.5	35.2
Incr Delay (d2), s/veh	0.9	148.0	0.3	6.1	1.7	1.6	2.0	74.8	2.9	3.1	51.6	8.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	54.9	0.9	1.5	4.3	4.5	1.3	16.2	3.2	1.8	14.9	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.9	171.2	12.9	26.7	14.4	14.3	30.1	110.6	30.3	31.5	90.1	44.0
LnGrp LOS	B	F	B	C	B	B	C	F	C	C	F	D
Approach Vol, veh/h		1504			948			660			723	
Approach Delay, s/veh		137.9			15.9			81.6			68.6	
Approach LOS		F			B			F			E	

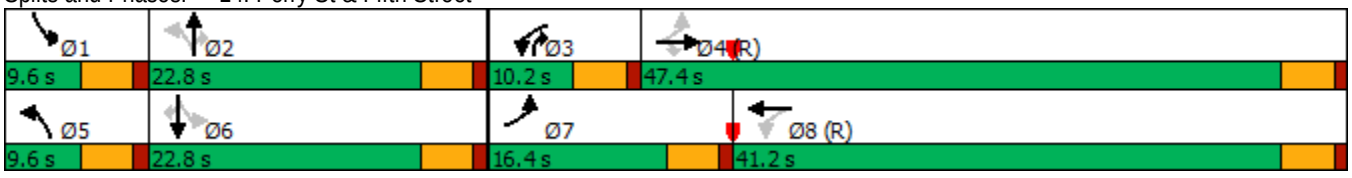
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	23.0	9.4	48.1	8.7	23.8	13.0	44.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.5	5.0	43.5	5.0	18.5	15.1	33.4
Max Q Clear Time (g_c+I1), s	5.8	20.5	5.2	45.6	4.9	21.3	8.1	14.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.4	5.2

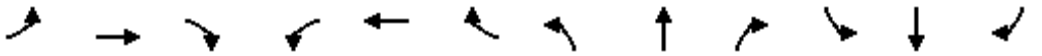
Intersection Summary	
HCM 6th Ctrl Delay	85.0
HCM 6th LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	131	489	68	91	1153	40	242	50	23	205	206
Future Volume (vph)	131	489	68	91	1153	40	242	50	23	205	206
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+ov	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2	3	1	6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	7	4	4	3	8	5	2	3	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5
Total Split (s)	16.4	47.4	47.4	10.2	41.2	9.6	22.8	10.2	9.6	22.8	22.8
Total Split (%)	18.2%	52.7%	52.7%	11.3%	45.8%	10.7%	25.3%	11.3%	10.7%	25.3%	25.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max	Max
Act Effct Green (s)	52.2	44.9	44.9	45.4	39.7	26.1	24.1	34.3	25.2	22.1	22.1
Actuated g/C Ratio	0.58	0.50	0.50	0.50	0.44	0.29	0.27	0.38	0.28	0.25	0.25
v/c Ratio	0.53	0.29	0.08	0.20	0.80	0.14	0.52	0.08	0.08	0.48	0.40
Control Delay	18.2	14.4	0.7	6.7	23.9	23.4	34.1	0.2	22.7	34.6	6.9
Queue Delay	0.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.2	14.4	0.7	6.7	27.1	23.4	34.1	0.2	22.7	34.6	6.9
LOS	B	B	A	A	C	C	C	A	C	C	A
Approach Delay		13.8			25.7		27.7			20.8	
Approach LOS		B			C		C			C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 42 (47%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 22.1	Intersection LOS: C
Intersection Capacity Utilization 71.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 14: Perry St & Fifth Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	489	68	91	1153	25	40	242	50	23	205	206
Future Volume (veh/h)	131	489	68	91	1153	25	40	242	50	23	205	206
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	139	520	72	97	1227	27	43	257	21	24	218	187
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	408	1810	807	521	1780	39	234	402	421	224	380	322
Arrive On Green	0.06	0.51	0.51	0.10	1.00	1.00	0.04	0.21	0.21	0.01	0.07	0.07
Sat Flow, veh/h	1781	3554	1585	1781	3555	78	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	139	520	72	97	613	641	43	257	21	24	218	187
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1856	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	3.4	7.6	2.1	2.3	0.0	0.0	1.7	11.3	0.9	1.0	10.2	10.3
Cycle Q Clear(g_c), s	3.4	7.6	2.1	2.3	0.0	0.0	1.7	11.3	0.9	1.0	10.2	10.3
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	408	1810	807	521	889	929	234	402	421	224	380	322
V/C Ratio(X)	0.34	0.29	0.09	0.19	0.69	0.69	0.18	0.64	0.05	0.11	0.57	0.58
Avail Cap(c_a), veh/h	537	1810	807	544	889	929	269	402	421	280	380	322
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.4	12.7	11.3	9.3	0.0	0.0	27.2	32.2	24.6	28.2	38.2	38.3
Incr Delay (d2), s/veh	0.5	0.4	0.2	0.2	4.1	4.0	0.4	7.6	0.2	0.2	6.2	7.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.0	0.8	0.8	1.0	1.0	0.7	5.8	0.4	0.4	5.7	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.9	13.1	11.6	9.5	4.1	4.0	27.6	39.7	24.8	28.4	44.4	45.7
LnGrp LOS	A	B	B	A	A	A	C	D	C	C	D	D
Approach Vol, veh/h		731			1351			321			429	
Approach Delay, s/veh		12.3			4.4			37.1			44.0	
Approach LOS		B			A			D			D	

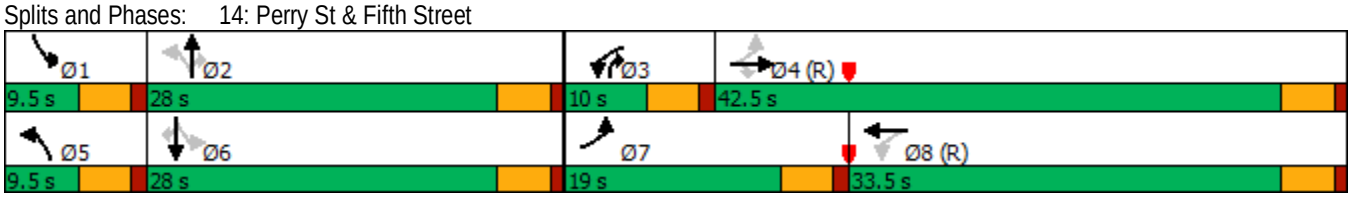
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	23.8	9.1	50.3	7.8	22.8	9.9	49.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.1	18.3	5.7	42.9	5.1	18.3	11.9	36.7
Max Q Clear Time (g_c+I1), s	3.0	13.3	4.3	9.6	3.7	12.3	5.4	2.0
Green Ext Time (p_c), s	0.0	0.6	0.0	4.1	0.0	1.0	0.2	11.0

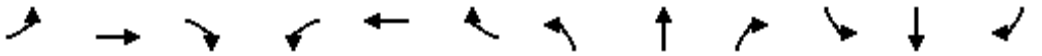
Intersection Summary	
HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	252	1192	76	119	817	70	411	198	90	413	276
Future Volume (vph)	252	1192	76	119	817	70	411	198	90	413	276
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	pm+ov	pm+pt	NA	Perm
Protected Phases	7	4		3	8	5	2	3	1	6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	7	4	4	3	8	5	2	3	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	9.5	22.5	9.5	9.5	22.5	22.5
Total Split (s)	19.0	42.5	42.5	10.0	33.5	9.5	28.0	10.0	9.5	28.0	28.0
Total Split (%)	21.1%	47.2%	47.2%	11.1%	37.2%	10.6%	31.1%	11.1%	10.6%	31.1%	31.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	Max	None	None	Max	Max
Act Effct Green (s)	47.9	38.0	38.0	36.1	30.6	29.4	25.4	35.4	29.4	25.4	25.4
Actuated g/C Ratio	0.53	0.42	0.42	0.40	0.34	0.33	0.28	0.39	0.33	0.28	0.28
v/c Ratio	0.78	0.85	0.11	0.66	0.74	0.39	0.83	0.30	0.50	0.84	0.49
Control Delay	34.0	30.2	1.3	47.3	22.0	25.3	47.0	9.6	29.5	47.4	11.2
Queue Delay	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	30.2	1.3	47.3	24.5	25.3	47.0	9.6	29.5	47.4	11.2
LOS	C	C	A	D	C	C	D	A	C	D	B
Approach Delay		29.4			27.4		33.9			32.5	
Approach LOS		C			C		C			C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 42 (47%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 30.3	Intersection LOS: C
Intersection Capacity Utilization 81.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 14: Perry St & Fifth Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	252	1192	76	119	817	14	70	411	198	90	413	276
Future Volume (veh/h)	252	1192	76	119	817	14	70	411	198	90	413	276
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	268	1268	81	127	869	15	74	437	179	96	439	262
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	400	1500	669	230	1322	23	201	488	511	208	505	428
Arrive On Green	0.11	0.42	0.42	0.08	0.49	0.49	0.05	0.26	0.26	0.07	0.36	0.36
Sat Flow, veh/h	1781	3554	1585	1781	3574	62	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	268	1268	81	127	432	452	74	437	179	96	439	262
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1859	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	7.9	28.8	2.8	3.9	16.4	16.4	2.7	20.3	7.8	3.5	19.7	12.2
Cycle Q Clear(g_c), s	7.9	28.8	2.8	3.9	16.4	16.4	2.7	20.3	7.8	3.5	19.7	12.2
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	400	1500	669	230	657	688	201	488	511	208	505	428
V/C Ratio(X)	0.67	0.85	0.12	0.55	0.66	0.66	0.37	0.89	0.35	0.46	0.87	0.61
Avail Cap(c_a), veh/h	485	1500	669	230	657	688	217	488	511	208	505	428
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.2	23.4	15.8	19.9	18.6	18.6	24.7	32.1	23.3	24.3	27.4	25.0
Incr Delay (d2), s/veh	2.7	6.0	0.4	2.7	4.8	4.6	1.1	21.5	1.9	1.6	18.2	6.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	12.6	1.1	1.7	6.5	6.8	1.2	11.8	3.1	1.5	10.3	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.9	29.4	16.2	22.6	23.4	23.2	25.8	53.6	25.2	25.9	45.6	31.4
LnGrp LOS	B	C	B	C	C	C	C	D	C	C	D	C
Approach Vol, veh/h		1617			1011			690			797	
Approach Delay, s/veh		27.0			23.2			43.3			38.5	
Approach LOS		C			C			D			D	

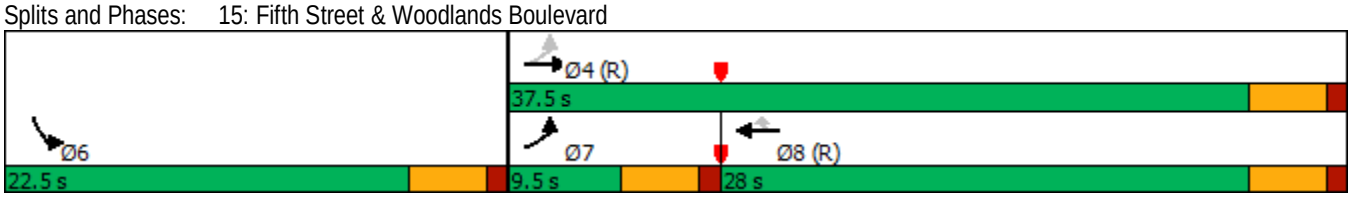
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	28.0	10.0	42.5	8.7	28.8	14.7	37.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	23.5	5.5	38.0	5.0	23.5	14.5	29.0
Max Q Clear Time (g_c+I1), s	5.5	22.3	5.9	30.8	4.7	21.7	9.9	18.4
Green Ext Time (p_c), s	0.0	0.5	0.0	4.8	0.0	0.7	0.3	4.1

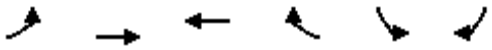
Intersection Summary	
HCM 6th Ctrl Delay	31.0
HCM 6th LOS	C

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	39	225	644	417	169	53
Future Volume (vph)	39	225	644	417	169	53
Turn Type	pm+pt	NA	NA	Perm	Prot	Free
Protected Phases	7	4	8		6	
Permitted Phases	4			8		Free
Detector Phase	7	4	8	8	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	
Total Split (s)	9.5	37.5	28.0	28.0	22.5	
Total Split (%)	15.8%	62.5%	46.7%	46.7%	37.5%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	
Act Effct Green (s)	39.1	39.1	34.7	34.7	11.9	60.0
Actuated g/C Ratio	0.65	0.65	0.58	0.58	0.20	1.00
v/c Ratio	0.13	0.11	0.69	0.43	0.56	0.04
Control Delay	5.5	4.7	15.1	2.5	27.4	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.5	4.7	15.1	2.5	27.4	0.0
LOS	A	A	B	A	C	A
Approach Delay		4.8	10.1		20.8	
Approach LOS		A	B		C	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 10.8	Intersection LOS: B
Intersection Capacity Utilization 50.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 15: Fifth Street & Woodlands Boulevard





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	39	225	644	417	169	53
Future Volume (veh/h)	39	225	644	417	169	53
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	45	262	749	409	197	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	352	2520	1104	936	251	
Arrive On Green	0.04	0.71	0.59	0.59	0.14	0.00
Sat Flow, veh/h	1781	3647	1870	1585	1781	1585
Grp Volume(v), veh/h	45	262	749	409	197	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1870	1585	1781	1585
Q Serve(g_s), s	0.5	1.4	16.4	8.5	6.4	0.0
Cycle Q Clear(g_c), s	0.5	1.4	16.4	8.5	6.4	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	352	2520	1104	936	251	
V/C Ratio(X)	0.13	0.10	0.68	0.44	0.79	
Avail Cap(c_a), veh/h	422	2520	1104	936	534	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	6.5	2.7	8.4	6.8	24.9	0.0
Incr Delay (d2), s/veh	0.2	0.1	3.4	1.5	5.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.3	5.9	2.6	2.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	6.7	2.8	11.8	8.3	30.3	0.0
LnGrp LOS	A	A	B	A	C	
Approach Vol, veh/h		307	1158		197	A
Approach Delay, s/veh		3.4	10.5		30.3	
Approach LOS		A	B		C	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		47.1		12.9	7.1	39.9
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		33.0		18.0	5.0	23.5
Max Q Clear Time (g_c+I1), s		3.4		8.4	2.5	18.4
Green Ext Time (p_c), s		1.7		0.4	0.0	2.9

Intersection Summary	
HCM 6th Ctrl Delay	11.6
HCM 6th LOS	B

Notes

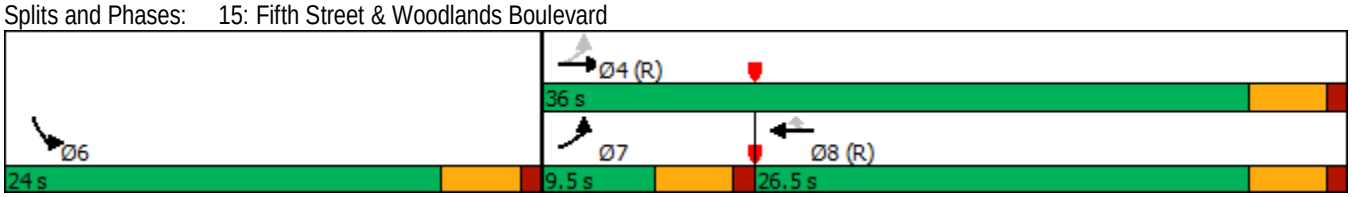
User approved pedestrian interval to be less than phase max green.

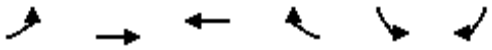
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	59	688	372	128	307	44
Future Volume (vph)	59	688	372	128	307	44
Turn Type	pm+pt	NA	NA	Perm	Prot	Free
Protected Phases	7	4	8		6	
Permitted Phases	4			8		Free
Detector Phase	7	4	8	8	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	
Total Split (s)	9.5	36.0	26.5	26.5	24.0	
Total Split (%)	15.8%	60.0%	44.2%	44.2%	40.0%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	
Act Effct Green (s)	35.0	35.0	28.9	28.9	16.0	60.0
Actuated g/C Ratio	0.58	0.58	0.48	0.48	0.27	1.00
v/c Ratio	0.13	0.37	0.46	0.17	0.73	0.03
Control Delay	7.2	7.9	14.1	4.4	29.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.2	7.9	14.1	4.4	29.0	0.0
LOS	A	A	B	A	C	A
Approach Delay		7.8	11.6		25.4	
Approach LOS		A	B		C	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 12.9	Intersection LOS: B
Intersection Capacity Utilization 52.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 15: Fifth Street & Woodlands Boulevard





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	59	688	372	128	307	44
Future Volume (veh/h)	59	688	372	128	307	44
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	66	764	413	70	341	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	538	2218	923	782	402	
Arrive On Green	0.06	0.62	0.49	0.49	0.23	0.00
Sat Flow, veh/h	1781	3647	1870	1585	1781	1585
Grp Volume(v), veh/h	66	764	413	70	341	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1870	1585	1781	1585
Q Serve(g_s), s	1.0	6.2	8.6	1.4	11.0	0.0
Cycle Q Clear(g_c), s	1.0	6.2	8.6	1.4	11.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	538	2218	923	782	402	
V/C Ratio(X)	0.12	0.34	0.45	0.09	0.85	
Avail Cap(c_a), veh/h	588	2218	923	782	579	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	6.4	5.4	9.9	8.0	22.2	0.0
Incr Delay (d2), s/veh	0.1	0.4	1.6	0.2	7.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.8	3.3	0.5	5.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	6.5	5.8	11.4	8.3	30.2	0.0
LnGrp LOS	A	A	B	A	C	
Approach Vol, veh/h		830	483		341	A
Approach Delay, s/veh		5.9	11.0		30.2	
Approach LOS		A	B		C	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		42.0		18.0	7.8	34.1
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		31.5		19.5	5.0	22.0
Max Q Clear Time (g_c+I1), s		8.2		13.0	3.0	10.6
Green Ext Time (p_c), s		5.6		0.6	0.0	2.1

Intersection Summary	
HCM 6th Ctrl Delay	12.4
HCM 6th LOS	B

Notes

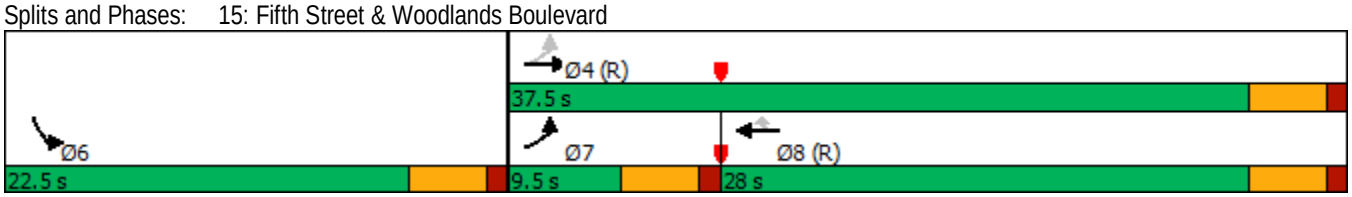
User approved pedestrian interval to be less than phase max green.

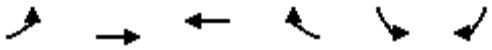
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	43	279	780	451	183	57
Future Volume (vph)	43	279	780	451	183	57
Turn Type	pm+pt	NA	NA	Perm	Prot	Free
Protected Phases	7	4	8		6	
Permitted Phases	4			8		Free
Detector Phase	7	4	8	8	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	
Total Split (s)	9.5	37.5	28.0	28.0	22.5	
Total Split (%)	15.8%	62.5%	46.7%	46.7%	37.5%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	
Act Effct Green (s)	38.9	38.9	32.4	32.4	12.1	60.0
Actuated g/C Ratio	0.65	0.65	0.54	0.54	0.20	1.00
v/c Ratio	0.16	0.14	0.86	0.46	0.57	0.04
Control Delay	6.1	4.8	23.8	2.6	27.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.1	4.8	23.8	2.6	27.4	0.1
LOS	A	A	C	A	C	A
Approach Delay		5.0	16.0		20.9	
Approach LOS		A	B		C	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 14.7	Intersection LOS: B
Intersection Capacity Utilization 58.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 15: Fifth Street & Woodlands Boulevard





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	43	279	780	451	183	57
Future Volume (veh/h)	43	279	780	451	183	57
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	310	867	429	203	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	298	2507	1093	927	257	
Arrive On Green	0.05	0.71	0.58	0.58	0.14	0.00
Sat Flow, veh/h	1781	3647	1870	1585	1781	1585
Grp Volume(v), veh/h	48	310	867	429	203	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1870	1585	1781	1585
Q Serve(g_s), s	0.6	1.7	21.5	9.2	6.6	0.0
Cycle Q Clear(g_c), s	0.6	1.7	21.5	9.2	6.6	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	298	2507	1093	927	257	
V/C Ratio(X)	0.16	0.12	0.79	0.46	0.79	
Avail Cap(c_a), veh/h	364	2507	1093	927	534	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.7	2.9	9.7	7.1	24.8	0.0
Incr Delay (d2), s/veh	0.3	0.1	5.9	1.7	5.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.4	8.4	2.8	3.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.9	3.0	15.6	8.8	30.1	0.0
LnGrp LOS	A	A	B	A	C	
Approach Vol, veh/h		358	1296		203	A
Approach Delay, s/veh		3.8	13.3		30.1	
Approach LOS		A	B		C	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			46.8		13.2	7.3	39.6
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			33.0		18.0	5.0	23.5
Max Q Clear Time (g_c+I1), s			3.7		8.6	2.6	23.5
Green Ext Time (p_c), s			2.1		0.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Notes

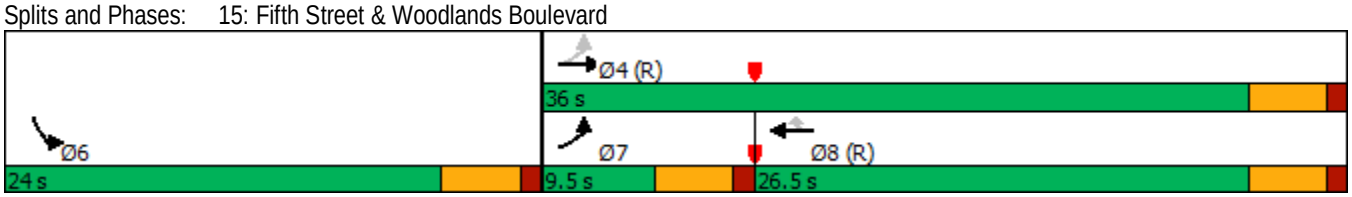
User approved pedestrian interval to be less than phase max green.

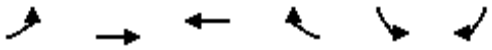
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	64	849	476	139	332	47
Future Volume (vph)	64	849	476	139	332	47
Turn Type	pm+pt	NA	NA	Perm	Prot	Free
Protected Phases	7	4	8		6	
Permitted Phases	4			8		Free
Detector Phase	7	4	8	8	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	
Total Split (s)	9.5	36.0	26.5	26.5	24.0	
Total Split (%)	15.8%	60.0%	44.2%	44.2%	40.0%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	
Act Effct Green (s)	34.4	34.4	28.4	28.4	16.6	60.0
Actuated g/C Ratio	0.57	0.57	0.47	0.47	0.28	1.00
v/c Ratio	0.18	0.46	0.60	0.19	0.76	0.03
Control Delay	7.8	9.0	20.6	4.4	30.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.8	9.0	20.6	4.4	30.0	0.0
LOS	A	A	C	A	C	A
Approach Delay		8.9	17.0		26.3	
Approach LOS		A	B		C	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 15.0	Intersection LOS: B
Intersection Capacity Utilization 58.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 15: Fifth Street & Woodlands Boulevard





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	64	849	476	139	332	47
Future Volume (veh/h)	64	849	476	139	332	47
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	943	529	82	369	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	441	2164	890	755	429	
Arrive On Green	0.06	0.61	0.48	0.48	0.24	0.00
Sat Flow, veh/h	1781	3647	1870	1585	1781	1585
Grp Volume(v), veh/h	71	943	529	82	369	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1870	1585	1781	1585
Q Serve(g_s), s	1.1	8.5	12.4	1.7	11.9	0.0
Cycle Q Clear(g_c), s	1.1	8.5	12.4	1.7	11.9	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	441	2164	890	755	429	
V/C Ratio(X)	0.16	0.44	0.59	0.11	0.86	
Avail Cap(c_a), veh/h	487	2164	890	755	579	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	7.7	6.2	11.5	8.7	21.8	0.0
Incr Delay (d2), s/veh	0.2	0.6	2.9	0.3	9.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.5	5.0	0.6	5.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.9	6.9	14.4	9.0	31.4	0.0
LnGrp LOS	A	A	B	A	C	
Approach Vol, veh/h		1014	611		369	A
Approach Delay, s/veh		7.0	13.7		31.4	
Approach LOS		A	B		C	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		41.0		19.0	8.0	33.1
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		31.5		19.5	5.0	22.0
Max Q Clear Time (g_c+I1), s		10.5		13.9	3.1	14.4
Green Ext Time (p_c), s		7.0		0.6	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	13.5
HCM 6th LOS	B

Notes

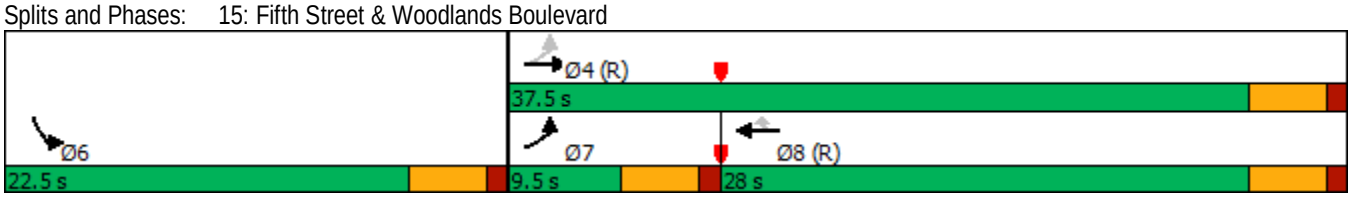
User approved pedestrian interval to be less than phase max green.

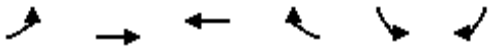
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	82	291	801	540	230	126
Future Volume (vph)	82	291	801	540	230	126
Turn Type	pm+pt	NA	NA	Perm	Prot	Free
Protected Phases	7	4	8		6	
Permitted Phases	4			8		Free
Detector Phase	7	4	8	8	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	
Total Split (s)	9.5	37.5	28.0	28.0	22.5	
Total Split (%)	15.8%	62.5%	46.7%	46.7%	37.5%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	
Act Effct Green (s)	37.4	37.4	28.8	28.8	13.6	60.0
Actuated g/C Ratio	0.62	0.62	0.48	0.48	0.23	1.00
v/c Ratio	0.30	0.15	1.00	0.56	0.64	0.09
Control Delay	8.3	5.5	44.5	3.2	27.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.3	5.5	44.5	3.2	27.9	0.1
LOS	A	A	D	A	C	A
Approach Delay		6.1	27.9		18.1	
Approach LOS		A	C		B	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 22.3	Intersection LOS: C
Intersection Capacity Utilization 70.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 15: Fifth Street & Woodlands Boulevard





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	82	291	801	540	230	126
Future Volume (veh/h)	82	291	801	540	230	126
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	91	323	890	528	256	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	277	2393	998	845	315	
Arrive On Green	0.07	0.67	0.53	0.53	0.18	0.00
Sat Flow, veh/h	1781	3647	1870	1585	1781	1585
Grp Volume(v), veh/h	91	323	890	528	256	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1870	1585	1781	1585
Q Serve(g_s), s	1.2	2.0	25.4	14.0	8.3	0.0
Cycle Q Clear(g_c), s	1.2	2.0	25.4	14.0	8.3	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	277	2393	998	845	315	
V/C Ratio(X)	0.33	0.13	0.89	0.62	0.81	
Avail Cap(c_a), veh/h	310	2393	998	845	534	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.4	3.5	12.5	9.8	23.8	0.0
Incr Delay (d2), s/veh	0.7	0.1	12.0	3.5	5.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.5	11.6	4.7	3.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.1	3.6	24.4	13.3	28.9	0.0
LnGrp LOS	B	A	C	B	C	
Approach Vol, veh/h		414	1418		256	A
Approach Delay, s/veh		5.7	20.3		28.9	
Approach LOS		A	C		C	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			44.9		15.1	8.4	36.5
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			33.0		18.0	5.0	23.5
Max Q Clear Time (g_c+I1), s			4.0		10.3	3.2	27.4
Green Ext Time (p_c), s			2.2		0.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	18.4
HCM 6th LOS	B

Notes

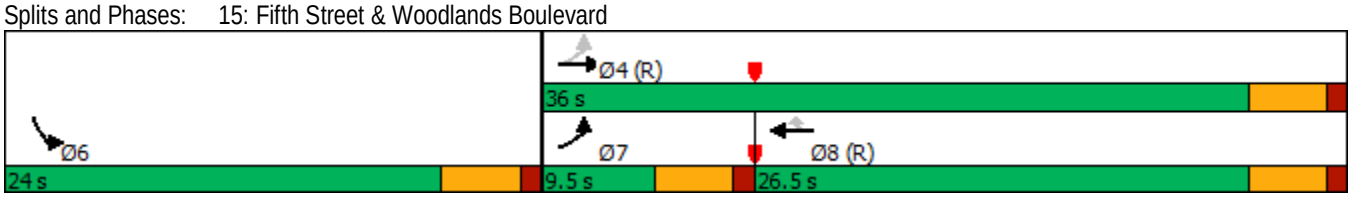
User approved pedestrian interval to be less than phase max green.

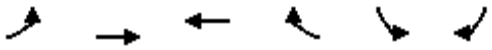
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	133	870	490	185	418	93
Future Volume (vph)	133	870	490	185	418	93
Turn Type	pm+pt	NA	NA	Perm	Prot	Free
Protected Phases	7	4	8		6	
Permitted Phases	4			8		Free
Detector Phase	7	4	8	8	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	
Total Split (s)	9.5	36.0	26.5	26.5	24.0	
Total Split (%)	15.8%	60.0%	44.2%	44.2%	40.0%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	
Act Effct Green (s)	32.7	32.7	24.9	24.9	18.3	60.0
Actuated g/C Ratio	0.54	0.54	0.42	0.42	0.30	1.00
v/c Ratio	0.44	0.50	0.70	0.27	0.86	0.07
Control Delay	11.6	10.0	25.0	5.8	37.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.6	10.0	25.0	5.8	37.5	0.1
LOS	B	B	C	A	D	A
Approach Delay		10.2	19.7		30.7	
Approach LOS		B	B		C	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 17.9	Intersection LOS: B
Intersection Capacity Utilization 67.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 15: Fifth Street & Woodlands Boulevard





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	133	870	490	185	418	93
Future Volume (veh/h)	133	870	490	185	418	93
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	148	967	544	134	464	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	382	1988	764	647	517	
Arrive On Green	0.08	0.56	0.41	0.41	0.29	0.00
Sat Flow, veh/h	1781	3647	1870	1585	1781	1585
Grp Volume(v), veh/h	148	967	544	134	464	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1870	1585	1781	1585
Q Serve(g_s), s	2.6	9.9	14.6	3.3	15.0	0.0
Cycle Q Clear(g_c), s	2.6	9.9	14.6	3.3	15.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	382	1988	764	647	517	
V/C Ratio(X)	0.39	0.49	0.71	0.21	0.90	
Avail Cap(c_a), veh/h	395	1988	764	647	579	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	10.4	8.0	14.8	11.5	20.4	0.0
Incr Delay (d2), s/veh	0.6	0.9	5.6	0.7	15.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	3.2	6.6	1.2	7.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.1	8.8	20.4	12.2	36.0	0.0
LnGrp LOS	B	A	C	B	D	
Approach Vol, veh/h		1115	678		464	A
Approach Delay, s/veh		9.1	18.8		36.0	
Approach LOS		A	B		D	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		38.1		21.9	9.1	29.0
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		31.5		19.5	5.0	22.0
Max Q Clear Time (g_c+I1), s		11.9		17.0	4.6	16.6
Green Ext Time (p_c), s		7.0		0.4	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	17.6
HCM 6th LOS	B

Notes

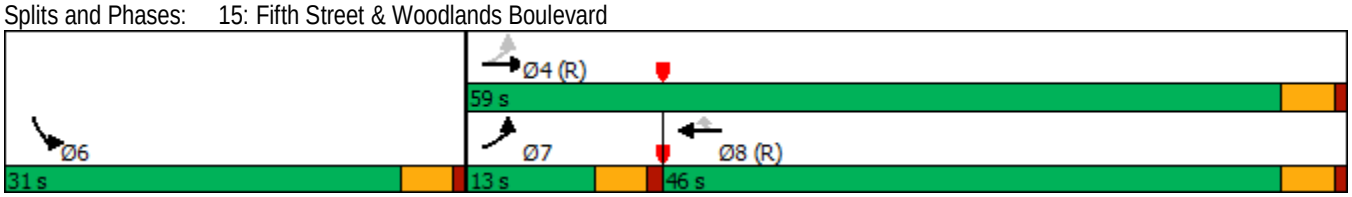
User approved pedestrian interval to be less than phase max green.

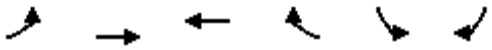
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	92	378	1051	622	276	142
Future Volume (vph)	92	378	1051	622	276	142
Turn Type	pm+pt	NA	NA	Perm	Prot	Free
Protected Phases	7	4	8		6	
Permitted Phases	4			8		Free
Detector Phase	7	4	8	8	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	
Total Split (s)	13.0	59.0	46.0	46.0	31.0	
Total Split (%)	14.4%	65.6%	51.1%	51.1%	34.4%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	
Act Effct Green (s)	60.7	60.7	51.1	51.1	20.3	90.0
Actuated g/C Ratio	0.67	0.67	0.57	0.57	0.23	1.00
v/c Ratio	0.45	0.17	1.08	0.57	0.75	0.10
Control Delay	18.6	9.3	75.9	3.3	44.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.6	9.3	75.9	3.3	44.2	0.1
LOS	B	A	E	A	D	A
Approach Delay		11.1	48.9		29.3	
Approach LOS		B	D		C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 38.7	Intersection LOS: D
Intersection Capacity Utilization 87.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 15: Fifth Street & Woodlands Boulevard





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	92	378	1051	622	276	142
Future Volume (veh/h)	92	378	1051	622	276	142
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	100	411	1142	605	300	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	171	2513	1134	961	343	
Arrive On Green	0.05	0.71	0.61	0.61	0.19	0.00
Sat Flow, veh/h	1781	3647	1870	1585	1781	1585
Grp Volume(v), veh/h	100	411	1142	605	300	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1870	1585	1781	1585
Q Serve(g_s), s	1.7	3.4	54.6	21.9	14.7	0.0
Cycle Q Clear(g_c), s	1.7	3.4	54.6	21.9	14.7	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	171	2513	1134	961	343	
V/C Ratio(X)	0.59	0.16	1.01	0.63	0.87	
Avail Cap(c_a), veh/h	248	2513	1134	961	524	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.7	4.4	17.7	11.3	35.3	0.0
Incr Delay (d2), s/veh	3.2	0.1	28.5	3.1	10.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.1	29.0	7.6	7.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.8	4.5	46.2	14.4	45.4	0.0
LnGrp LOS	C	A	F	B	D	
Approach Vol, veh/h		511	1747		300	A
Approach Delay, s/veh		8.7	35.2		45.4	
Approach LOS		A	D		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			68.2		21.8	9.1	59.1
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			54.5		26.5	8.5	41.5
Max Q Clear Time (g_c+I1), s			5.4		16.7	3.7	56.6
Green Ext Time (p_c), s			3.1		0.6	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	31.1
HCM 6th LOS	C

Notes

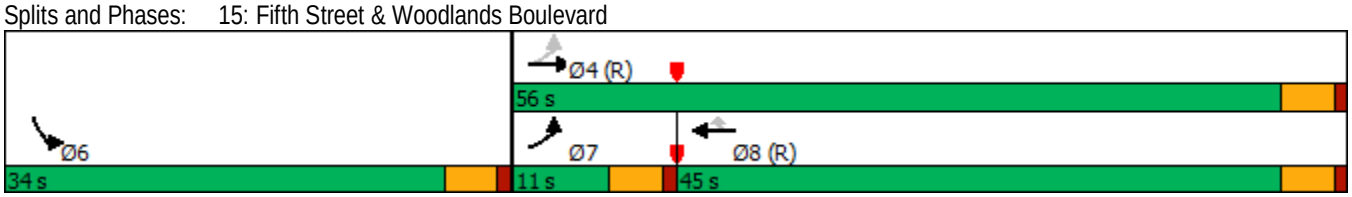
User approved pedestrian interval to be less than phase max green.

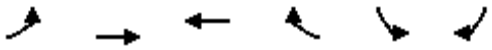
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	177	1152	646	223	477	128
Future Volume (vph)	177	1152	646	223	477	128
Turn Type	pm+pt	NA	NA	Perm	Prot	Free
Protected Phases	7	4	8		6	
Permitted Phases	4			8		Free
Detector Phase	7	4	8	8	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	
Total Split (s)	11.0	56.0	45.0	45.0	34.0	
Total Split (%)	12.2%	62.2%	50.0%	50.0%	37.8%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	
Act Effct Green (s)	52.5	52.5	41.2	41.2	28.5	90.0
Actuated g/C Ratio	0.58	0.58	0.46	0.46	0.32	1.00
v/c Ratio	0.76	0.61	0.82	0.28	0.93	0.09
Control Delay	32.8	15.2	31.6	3.0	54.3	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.8	15.2	31.6	3.0	54.3	0.1
LOS	C	B	C	A	D	A
Approach Delay		17.5	24.3		42.9	
Approach LOS		B	C		D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 25.1	Intersection LOS: C
Intersection Capacity Utilization 81.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 15: Fifth Street & Woodlands Boulevard





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	177	1152	646	223	477	128
Future Volume (veh/h)	177	1152	646	223	477	128
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	192	1252	702	171	518	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	303	2097	875	742	552	
Arrive On Green	0.07	0.59	0.47	0.47	0.31	0.00
Sat Flow, veh/h	1781	3647	1870	1585	1781	1585
Grp Volume(v), veh/h	192	1252	702	171	518	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1870	1585	1781	1585
Q Serve(g_s), s	4.8	20.1	28.8	5.8	25.5	0.0
Cycle Q Clear(g_c), s	4.8	20.1	28.8	5.8	25.5	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	303	2097	875	742	552	
V/C Ratio(X)	0.63	0.60	0.80	0.23	0.94	
Avail Cap(c_a), veh/h	303	2097	875	742	584	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.2	11.7	20.4	14.3	30.2	0.0
Incr Delay (d2), s/veh	4.3	1.3	7.7	0.7	22.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	7.5	13.6	2.1	14.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.5	12.9	28.1	15.0	52.8	0.0
LnGrp LOS	C	B	C	B	D	
Approach Vol, veh/h		1444	873		518	A
Approach Delay, s/veh		14.1	25.5		52.8	
Approach LOS		B	C		D	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	57.6	32.4	11.0	46.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	51.5	29.5	6.5	40.5
Max Q Clear Time (g_c+I1), s	22.1	27.5	6.8	30.8
Green Ext Time (p_c), s	11.4	0.4	0.0	3.8

Intersection Summary	
HCM 6th Ctrl Delay	24.7
HCM 6th LOS	C

Notes

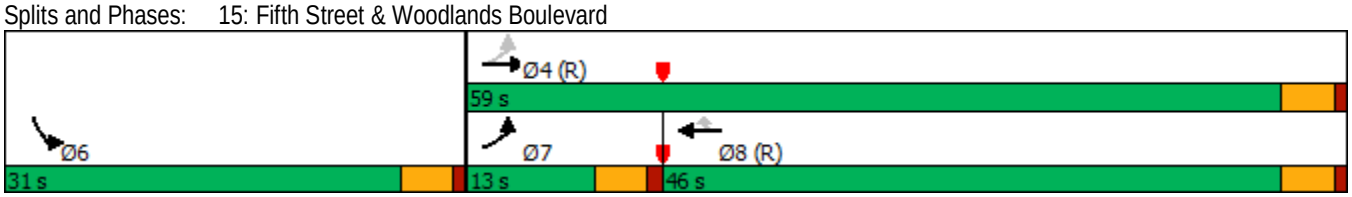
User approved pedestrian interval to be less than phase max green.

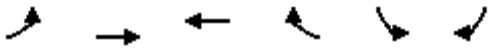
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	131	390	1072	711	323	211
Future Volume (vph)	131	390	1072	711	323	211
Turn Type	pm+pt	NA	NA	Perm	Prot	Free
Protected Phases	7	4	8		6	
Permitted Phases	4			8		Free
Detector Phase	7	4	8	8	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	
Total Split (s)	13.0	59.0	46.0	46.0	31.0	
Total Split (%)	14.4%	65.6%	51.1%	51.1%	34.4%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	
Act Effct Green (s)	58.9	58.9	46.6	46.6	22.1	90.0
Actuated g/C Ratio	0.65	0.65	0.52	0.52	0.25	1.00
v/c Ratio	0.60	0.18	1.21	0.65	0.81	0.14
Control Delay	28.5	12.7	128.1	4.1	46.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.5	12.7	128.1	4.1	46.5	0.2
LOS	C	B	F	A	D	A
Approach Delay		16.7	78.7		28.2	
Approach LOS		B	E		C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.21	
Intersection Signal Delay: 57.8	Intersection LOS: E
Intersection Capacity Utilization 92.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 15: Fifth Street & Woodlands Boulevard





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	131	390	1072	711	323	211
Future Volume (veh/h)	131	390	1072	711	323	211
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	142	424	1165	702	351	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	178	2414	1074	910	393	
Arrive On Green	0.05	0.68	0.57	0.57	0.22	0.00
Sat Flow, veh/h	1781	3647	1870	1585	1781	1585
Grp Volume(v), veh/h	142	424	1165	702	351	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1870	1585	1781	1585
Q Serve(g_s), s	3.0	3.9	51.7	30.5	17.2	0.0
Cycle Q Clear(g_c), s	3.0	3.9	51.7	30.5	17.2	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	178	2414	1074	910	393	
V/C Ratio(X)	0.80	0.18	1.08	0.77	0.89	
Avail Cap(c_a), veh/h	248	2414	1074	910	524	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	23.1	5.3	19.2	14.6	34.0	0.0
Incr Delay (d2), s/veh	11.7	0.2	53.4	6.3	14.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	1.3	35.5	11.4	8.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.8	5.4	72.5	20.9	48.2	0.0
LnGrp LOS	C	A	F	C	D	
Approach Vol, veh/h		566	1867		351	A
Approach Delay, s/veh		12.8	53.1		48.2	
Approach LOS		B	D		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			65.6		24.4	9.4	56.2
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			54.5		26.5	8.5	41.5
Max Q Clear Time (g_c+I1), s			5.9		19.2	5.0	53.7
Green Ext Time (p_c), s			3.2		0.7	0.1	0.0

Intersection Summary		
HCM 6th Ctrl Delay	44.3	
HCM 6th LOS	D	

Notes

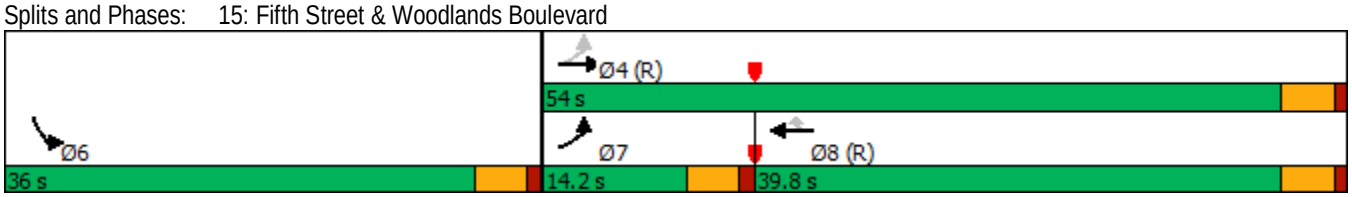
User approved pedestrian interval to be less than phase max green.

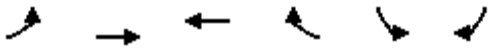
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	246	1173	660	269	563	174
Future Volume (vph)	246	1173	660	269	563	174
Turn Type	pm+pt	NA	NA	Perm	Prot	Free
Protected Phases	7	4	8		6	
Permitted Phases	4			8		Free
Detector Phase	7	4	8	8	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	
Total Split (s)	14.2	54.0	39.8	39.8	36.0	
Total Split (%)	15.8%	60.0%	44.2%	44.2%	40.0%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	
Act Effct Green (s)	49.5	49.5	35.3	35.3	31.5	90.0
Actuated g/C Ratio	0.55	0.55	0.39	0.39	0.35	1.00
v/c Ratio	0.98	0.66	0.98	0.37	0.99	0.12
Control Delay	73.0	17.9	58.0	3.7	64.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.0	17.9	58.0	3.7	64.4	0.2
LOS	E	B	E	A	E	A
Approach Delay		27.5	42.3		49.3	
Approach LOS		C	D		D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 37.1	Intersection LOS: D
Intersection Capacity Utilization 90.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 15: Fifth Street & Woodlands Boulevard





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	246	1173	660	269	563	174
Future Volume (veh/h)	246	1173	660	269	563	174
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	267	1275	717	221	612	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	281	1955	734	622	623	
Arrive On Green	0.11	0.55	0.39	0.39	0.35	0.00
Sat Flow, veh/h	1781	3647	1870	1585	1781	1585
Grp Volume(v), veh/h	267	1275	717	221	612	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1870	1585	1781	1585
Q Serve(g_s), s	8.9	22.7	34.0	8.9	30.6	0.0
Cycle Q Clear(g_c), s	8.9	22.7	34.0	8.9	30.6	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	281	1955	734	622	623	
V/C Ratio(X)	0.95	0.65	0.98	0.36	0.98	
Avail Cap(c_a), veh/h	281	1955	734	622	623	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	24.0	14.2	27.0	19.3	29.0	0.0
Incr Delay (d2), s/veh	40.7	1.7	28.2	1.6	31.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	8.8	20.0	3.4	17.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	64.7	15.9	55.1	20.9	60.3	0.0
LnGrp LOS	E	B	E	C	E	
Approach Vol, veh/h		1542	938		612	A
Approach Delay, s/veh		24.4	47.0		60.3	
Approach LOS		C	D		E	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		54.0		36.0	14.2	39.8
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		49.5		31.5	9.7	35.3
Max Q Clear Time (g_c+I1), s		24.7		32.6	10.9	36.0
Green Ext Time (p_c), s		10.9		0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	38.4
HCM 6th LOS	D

Notes

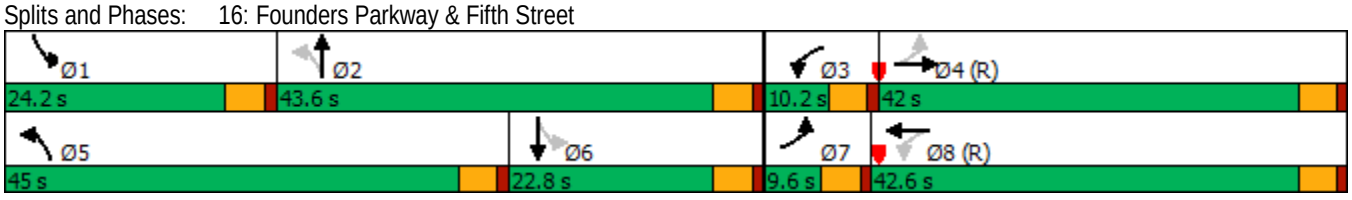
User approved pedestrian interval to be less than phase max green.

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	202	155	69	436	574	432	431	44	203	122	144
Future Volume (vph)	67	202	155	69	436	574	432	431	44	203	122	144
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		Free	6		Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	9.6	42.0		10.2	42.6		45.0	43.6		24.2	22.8	
Total Split (%)	8.0%	35.0%		8.5%	35.5%		37.5%	36.3%		20.2%	19.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Act Effct Green (s)	50.1	44.8	120.0	50.7	45.1	120.0	57.0	37.1	120.0	36.8	21.4	120.0
Actuated g/C Ratio	0.42	0.37	1.00	0.42	0.38	1.00	0.48	0.31	1.00	0.31	0.18	1.00
v/c Ratio	0.36	0.34	0.12	0.18	0.74	0.43	0.81	0.89	0.03	0.83	0.44	0.11
Control Delay	26.3	29.6	0.1	22.6	42.6	0.9	33.3	58.2	0.0	58.0	43.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.3	29.6	0.1	22.6	42.6	0.9	33.3	58.2	0.0	58.0	43.5	0.1
LOS	C	C	A	C	D	A	C	E	A	E	D	A
Approach Delay		18.3			19.1			43.5			36.5	
Approach LOS		B			B			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 29.5	Intersection LOS: C
Intersection Capacity Utilization 76.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 16: Founders Parkway & Fifth Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	202	155	69	436	574	432	431	44	203	122	144
Future Volume (veh/h)	67	202	155	69	436	574	432	431	44	203	122	144
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	240	0	82	519	0	514	513	0	242	145	0
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	263	718		468	720		638	552		316	318	
Arrive On Green	0.04	0.38	0.00	0.04	0.38	0.00	0.25	0.30	0.00	0.13	0.17	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	80	240	0	82	519	0	514	513	0	242	145	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	3.2	10.9	0.0	3.3	28.4	0.0	27.2	32.0	0.0	13.2	8.4	0.0
Cycle Q Clear(g_c), s	3.2	10.9	0.0	3.3	28.4	0.0	27.2	32.0	0.0	13.2	8.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	263	718		468	720		638	552		316	318	
V/C Ratio(X)	0.30	0.33		0.18	0.72		0.81	0.93		0.77	0.46	
Avail Cap(c_a), veh/h	267	718		479	720		786	609		378	318	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	24.5	26.1	0.0	21.3	31.4	0.0	27.1	41.1	0.0	35.7	44.8	0.0
Incr Delay (d2), s/veh	0.6	1.3	0.0	0.2	6.2	0.0	5.1	19.8	0.0	7.6	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	5.1	0.0	1.4	13.9	0.0	12.2	17.6	0.0	6.4	4.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.1	27.4	0.0	21.5	37.6	0.0	32.2	60.8	0.0	43.2	45.9	0.0
LnGrp LOS	C	C		C	D		C	E		D	D	
Approach Vol, veh/h		320	A		601	A		1027	A		387	A
Approach Delay, s/veh		26.8			35.4			46.5			44.2	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	39.9	9.5	50.6	35.1	24.9	9.4	50.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.7	39.1	5.7	37.5	40.5	18.3	5.1	38.1
Max Q Clear Time (g_c+I1), s	15.2	34.0	5.3	12.9	29.2	10.4	5.2	30.4
Green Ext Time (p_c), s	0.3	1.5	0.0	1.4	1.4	0.4	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	40.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	128	395	449	91	208	310	198	295	57	537	482	109
Future Volume (vph)	128	395	449	91	208	310	198	295	57	537	482	109
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		Free	6		Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	13.4	39.2		9.6	35.4		22.5	30.2		41.0	48.7	
Total Split (%)	11.2%	32.7%		8.0%	29.5%		18.8%	25.2%		34.2%	40.6%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Act Effct Green (s)	46.2	37.4	120.0	40.7	34.7	120.0	36.4	23.5	120.0	63.0	45.6	120.0
Actuated g/C Ratio	0.38	0.31	1.00	0.34	0.29	1.00	0.30	0.20	1.00	0.52	0.38	1.00
v/c Ratio	0.34	0.72	0.30	0.42	0.41	0.21	0.60	0.85	0.04	0.96	0.72	0.07
Control Delay	29.2	47.8	0.4	32.4	38.7	0.3	26.5	68.4	0.1	70.9	34.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.2	47.8	0.4	32.4	38.7	0.3	26.5	68.4	0.1	70.9	34.9	0.1
LOS	C	D	A	C	D	A	C	E	A	E	C	A
Approach Delay		23.5			18.2			46.3			48.7	
Approach LOS		C			B			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 35.1	Intersection LOS: D
Intersection Capacity Utilization 86.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 16: Founders Parkway & Fifth Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	395	449	91	208	310	198	295	57	537	482	109
Future Volume (veh/h)	128	395	449	91	208	310	198	295	57	537	482	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	135	416	0	96	219	0	208	311	0	565	507	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	437	631		279	586		366	346		592	670	
Arrive On Green	0.07	0.34	0.00	0.04	0.31	0.00	0.11	0.18	0.00	0.29	0.36	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	135	416	0	96	219	0	208	311	0	565	507	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	6.1	22.7	0.0	4.4	10.9	0.0	11.2	19.5	0.0	31.6	28.6	0.0
Cycle Q Clear(g_c), s	6.1	22.7	0.0	4.4	10.9	0.0	11.2	19.5	0.0	31.6	28.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	437	631		279	586		366	346		592	670	
V/C Ratio(X)	0.31	0.66		0.34	0.37		0.57	0.90		0.95	0.76	
Avail Cap(c_a), veh/h	450	631		279	586		434	401		626	689	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	25.3	33.9	0.0	28.1	32.1	0.0	33.9	47.8	0.0	30.4	33.9	0.0
Incr Delay (d2), s/veh	0.4	5.3	0.0	0.7	1.8	0.0	1.4	20.8	0.0	24.6	4.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	11.2	0.0	1.9	5.3	0.0	5.0	11.1	0.0	17.3	13.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.7	39.2	0.0	28.9	33.9	0.0	35.3	68.6	0.0	55.0	38.6	0.0
LnGrp LOS	C	D		C	C		D	E		E	D	
Approach Vol, veh/h		551	A		315	A		519	A		1072	A
Approach Delay, s/veh		35.9			32.3			55.3			47.2	
Approach LOS		D			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	38.7	26.7	9.6	45.0	17.9	47.5	12.5	42.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	36.5	25.7	5.1	34.7	18.0	44.2	8.9	30.9
Max Q Clear Time (g_c+I1), s	33.6	21.5	6.4	24.7	13.2	30.6	8.1	12.9
Green Ext Time (p_c), s	0.6	0.7	0.0	1.8	0.2	2.7	0.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	44.5
HCM 6th LOS	D

Notes

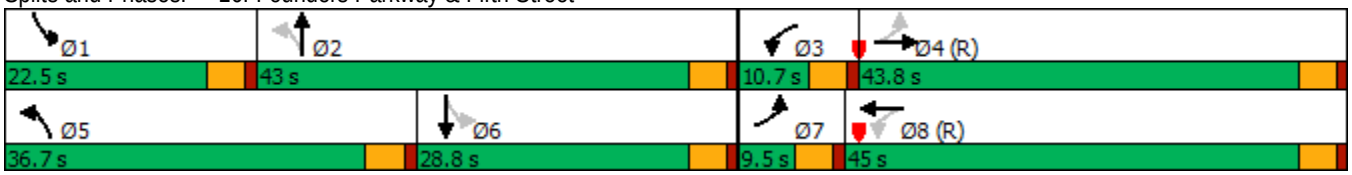
User approved pedestrian interval to be less than phase max green.

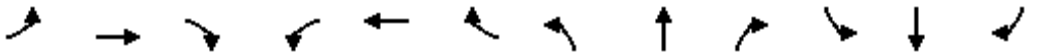
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	84	236	173	90	507	669	483	529	69	250	159	189
Future Volume (vph)	84	236	173	90	507	669	483	529	69	250	159	189
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		Free	6		Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	9.5	43.8		10.7	45.0		36.7	43.0		22.5	28.8	
Total Split (%)	7.9%	36.5%		8.9%	37.5%		30.6%	35.8%		18.8%	24.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Act Effct Green (s)	46.6	41.2	120.0	48.6	42.2	120.0	58.9	38.0	120.0	42.5	26.1	120.0
Actuated g/C Ratio	0.39	0.34	1.00	0.40	0.35	1.00	0.49	0.32	1.00	0.35	0.22	1.00
v/c Ratio	0.49	0.39	0.11	0.23	0.82	0.44	0.81	0.94	0.05	0.87	0.41	0.13
Control Delay	32.4	30.5	0.1	23.0	47.6	0.9	32.7	66.1	0.1	63.1	38.7	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.4	30.5	0.1	23.0	47.6	0.9	32.7	66.1	0.1	63.1	38.7	0.2
LOS	C	C	A	C	D	A	C	E	A	E	D	A
Approach Delay		20.1			21.2			46.9			36.7	
Approach LOS		C			C			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 31.8	Intersection LOS: C
Intersection Capacity Utilization 88.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 16: Founders Parkway & Fifth Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	236	173	90	507	669	483	529	69	250	159	189
Future Volume (veh/h)	84	236	173	90	507	669	483	529	69	250	159	189
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	248	0	95	534	0	508	557	0	263	167	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	229	667		438	679		642	585		314	388	
Arrive On Green	0.04	0.36	0.00	0.05	0.36	0.00	0.24	0.31	0.00	0.13	0.21	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	88	248	0	95	534	0	508	557	0	263	167	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	3.8	11.8	0.0	4.0	30.5	0.0	25.8	35.0	0.0	13.7	9.3	0.0
Cycle Q Clear(g_c), s	3.8	11.8	0.0	4.0	30.5	0.0	25.8	35.0	0.0	13.7	9.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	229	667		438	679		642	585		314	388	
V/C Ratio(X)	0.38	0.37		0.22	0.79		0.79	0.95		0.84	0.43	
Avail Cap(c_a), veh/h	229	667		444	679		696	600		345	388	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.0	28.6	0.0	23.1	34.1	0.0	25.2	40.3	0.0	33.2	41.4	0.0
Incr Delay (d2), s/veh	1.1	1.6	0.0	0.2	8.9	0.0	5.8	25.1	0.0	15.2	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	5.6	0.0	1.7	15.4	0.0	11.7	19.9	0.0	7.2	4.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.0	30.2	0.0	23.3	43.0	0.0	31.0	65.4	0.0	48.4	42.1	0.0
LnGrp LOS	C	C		C	D		C	E		D	D	
Approach Vol, veh/h		336	A		629	A		1065	A		430	A
Approach Delay, s/veh		29.7			40.0			49.0			45.9	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.4	42.0	10.3	47.3	33.0	29.4	9.5	48.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	38.5	6.2	39.3	32.2	24.3	5.0	40.5
Max Q Clear Time (g_c+I1), s	15.7	37.0	6.0	13.8	27.8	11.3	5.8	32.5
Green Ext Time (p_c), s	0.2	0.6	0.0	1.4	0.8	0.7	0.0	2.1

Intersection Summary	
HCM 6th Ctrl Delay	43.5
HCM 6th LOS	D

Notes

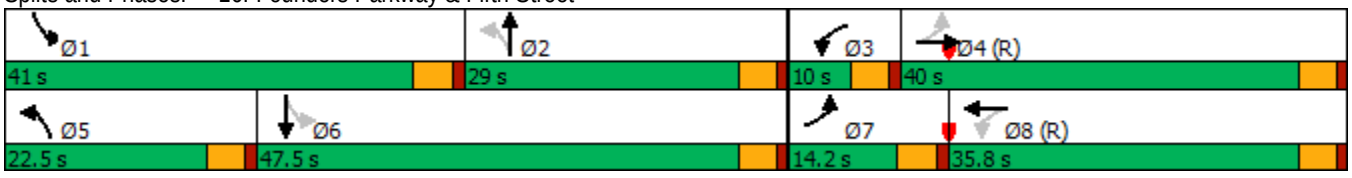
User approved pedestrian interval to be less than phase max green.

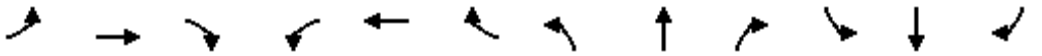
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	174	482	501	139	269	403	224	364	99	660	587	138
Future Volume (vph)	174	482	501	139	269	403	224	364	99	660	587	138
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		Free	6		Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	14.2	40.0		10.0	35.8		22.5	29.0		41.0	47.5	
Total Split (%)	11.8%	33.3%		8.3%	29.8%		18.8%	24.2%		34.2%	39.6%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Act Effct Green (s)	45.1	35.5	120.0	36.9	31.4	120.0	40.0	24.5	120.0	65.5	45.5	120.0
Actuated g/C Ratio	0.38	0.30	1.00	0.31	0.26	1.00	0.33	0.20	1.00	0.55	0.38	1.00
v/c Ratio	0.58	0.92	0.33	1.03	0.58	0.27	0.78	1.01	0.07	1.16	0.88	0.09
Control Delay	34.7	65.1	0.5	115.4	44.3	0.4	46.2	96.0	0.1	117.9	48.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.7	65.1	0.5	115.4	44.3	0.4	46.2	96.0	0.1	117.9	48.7	0.1
LOS	C	E	A	F	D	A	D	F	A	F	D	A
Approach Delay		32.5			34.6			66.0			76.9	
Approach LOS		C			C			E			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 47.2 (39%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.16	
Intersection Signal Delay: 53.9	Intersection LOS: D
Intersection Capacity Utilization 103.8%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 16: Founders Parkway & Fifth Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	174	482	501	139	269	403	224	364	99	660	587	138
Future Volume (veh/h)	174	482	501	139	269	403	224	364	99	660	587	138
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	183	507	0	146	283	0	236	383	0	695	618	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	345	553		172	488		344	382		602	723	
Arrive On Green	0.08	0.30	0.00	0.05	0.26	0.00	0.12	0.20	0.00	0.30	0.39	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	183	507	0	146	283	0	236	383	0	695	618	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	8.9	31.4	0.0	5.5	15.8	0.0	12.4	24.5	0.0	36.5	36.3	0.0
Cycle Q Clear(g_c), s	8.9	31.4	0.0	5.5	15.8	0.0	12.4	24.5	0.0	36.5	36.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	345	553		172	488		344	382		602	723	
V/C Ratio(X)	0.53	0.92		0.85	0.58		0.69	1.00		1.15	0.85	
Avail Cap(c_a), veh/h	345	553		172	488		395	382		602	723	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.3	40.8	0.0	40.5	38.6	0.0	32.7	47.7	0.0	34.2	33.7	0.0
Incr Delay (d2), s/veh	1.5	22.3	0.0	30.9	5.0	0.0	4.1	46.8	0.0	87.5	9.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	17.7	0.0	3.2	7.9	0.0	5.7	16.3	0.0	32.0	18.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.8	63.2	0.0	71.4	43.6	0.0	36.8	94.5	0.0	121.7	43.5	0.0
LnGrp LOS	C	E		E	D		D	F		F	D	
Approach Vol, veh/h		690	A		429	A		619	A		1313	A
Approach Delay, s/veh		54.6			53.1			72.5			84.9	
Approach LOS		D			D			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	41.0	29.0	10.0	40.0	19.1	50.9	14.2	35.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	36.5	24.5	5.5	35.5	18.0	43.0	9.7	31.3
Max Q Clear Time (g_c+I1), s	38.5	26.5	7.5	33.4	14.4	38.3	10.9	17.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.7	0.2	1.7	0.0	1.3

Intersection Summary	
HCM 6th Ctrl Delay	71.1
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

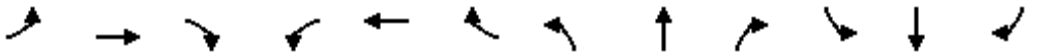
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	96	263	193	90	553	681	525	544	69	271	187	210
Future Volume (vph)	96	263	193	90	553	681	525	544	69	271	187	210
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		Free	6		Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	9.5	43.8		10.7	45.0		36.7	43.0		22.5	28.8	
Total Split (%)	7.9%	36.5%		8.9%	37.5%		30.6%	35.8%		18.8%	24.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Act Effct Green (s)	45.9	40.4	120.0	47.4	41.2	120.0	59.9	38.1	120.0	42.4	25.1	120.0
Actuated g/C Ratio	0.38	0.34	1.00	0.40	0.34	1.00	0.50	0.32	1.00	0.35	0.21	1.00
v/c Ratio	0.71	0.44	0.13	0.26	0.91	0.45	0.89	0.97	0.05	0.90	0.51	0.14
Control Delay	52.7	32.5	0.2	23.5	58.1	0.9	40.0	71.2	0.1	66.6	48.8	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.7	32.5	0.2	23.5	58.1	0.9	40.0	71.2	0.1	66.6	48.8	0.2
LOS	D	C	A	C	E	A	D	E	A	E	D	A
Approach Delay		24.7			26.3			52.5			40.7	
Approach LOS		C			C			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 36.8	Intersection LOS: D
Intersection Capacity Utilization 93.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 16: Founders Parkway & Fifth Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	263	193	90	553	681	525	544	69	271	187	210
Future Volume (veh/h)	96	263	193	90	553	681	525	544	69	271	187	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	101	277	0	95	582	0	553	573	0	285	197	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	178	636		396	650		648	596		328	384	
Arrive On Green	0.04	0.34	0.00	0.05	0.35	0.00	0.26	0.32	0.00	0.14	0.21	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	101	277	0	95	582	0	553	573	0	285	197	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	4.5	13.8	0.0	4.1	35.4	0.0	28.2	36.1	0.0	14.9	11.2	0.0
Cycle Q Clear(g_c), s	4.5	13.8	0.0	4.1	35.4	0.0	28.2	36.1	0.0	14.9	11.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	178	636		396	650		648	596		328	384	
V/C Ratio(X)	0.57	0.44		0.24	0.90		0.85	0.96		0.87	0.51	
Avail Cap(c_a), veh/h	178	636		401	650		670	600		342	384	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.9	30.7	0.0	24.5	37.1	0.0	25.1	40.1	0.0	32.9	42.4	0.0
Incr Delay (d2), s/veh	4.1	2.2	0.0	0.3	17.3	0.0	10.2	27.1	0.0	20.1	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	6.6	0.0	1.8	19.1	0.0	13.5	20.9	0.0	8.2	5.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	32.8	0.0	24.8	54.4	0.0	35.3	67.2	0.0	53.0	43.5	0.0
LnGrp LOS	C	C		C	D		D	E		D	D	
Approach Vol, veh/h		378	A		677	A		1126	A		482	A
Approach Delay, s/veh		33.2			50.2			51.6			49.1	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.5	42.8	10.4	45.3	35.2	29.1	9.5	46.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	38.5	6.2	39.3	32.2	24.3	5.0	40.5
Max Q Clear Time (g_c+I1), s	16.9	38.1	6.1	15.8	30.2	13.2	6.5	37.4
Green Ext Time (p_c), s	0.1	0.2	0.0	1.6	0.5	0.7	0.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	48.2
HCM 6th LOS	D

Notes

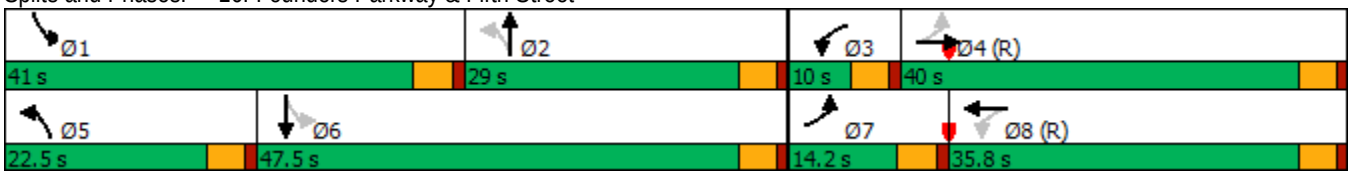
User approved pedestrian interval to be less than phase max green.

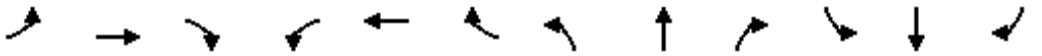
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	195	527	542	139	295	424	243	391	99	674	605	152
Future Volume (vph)	195	527	542	139	295	424	243	391	99	674	605	152
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		Free	6		Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	14.2	40.0		10.0	35.8		22.5	29.0		41.0	47.5	
Total Split (%)	11.8%	33.3%		8.3%	29.8%		18.8%	24.2%		34.2%	39.6%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Act Effct Green (s)	45.2	35.5	120.0	36.8	31.3	120.0	40.8	24.5	120.0	65.5	44.7	120.0
Actuated g/C Ratio	0.38	0.30	1.00	0.31	0.26	1.00	0.34	0.20	1.00	0.55	0.37	1.00
v/c Ratio	0.69	1.01	0.36	1.02	0.64	0.28	0.85	1.08	0.07	1.18	0.92	0.10
Control Delay	40.5	81.7	0.5	113.7	46.4	0.4	57.3	115.7	0.1	125.2	51.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.5	81.7	0.5	113.7	46.4	0.4	57.3	115.7	0.1	125.2	51.2	0.1
LOS	D	F	A	F	D	A	E	F	A	F	D	A
Approach Delay		40.5			34.6			80.8			80.6	
Approach LOS		D			C			F			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 47.2 (39%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.18	
Intersection Signal Delay: 59.6	Intersection LOS: E
Intersection Capacity Utilization 108.4%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 16: Founders Parkway & Fifth Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	527	542	139	295	424	243	391	99	674	605	152
Future Volume (veh/h)	195	527	542	139	295	424	243	391	99	674	605	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	205	555	0	146	311	0	256	412	0	709	637	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	325	553		142	488		337	382		602	708	
Arrive On Green	0.08	0.30	0.00	0.05	0.26	0.00	0.13	0.20	0.00	0.30	0.38	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	205	555	0	146	311	0	256	412	0	709	637	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	9.7	35.5	0.0	5.5	17.7	0.0	13.4	24.5	0.0	36.5	38.5	0.0
Cycle Q Clear(g_c), s	9.7	35.5	0.0	5.5	17.7	0.0	13.4	24.5	0.0	36.5	38.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	325	553		142	488		337	382		602	708	
V/C Ratio(X)	0.63	1.00		1.03	0.64		0.76	1.08		1.18	0.90	
Avail Cap(c_a), veh/h	325	553		142	488		372	382		602	708	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.6	42.3	0.0	40.4	39.3	0.0	33.0	47.7	0.0	34.2	35.2	0.0
Incr Delay (d2), s/veh	3.9	39.0	0.0	84.0	6.2	0.0	8.0	68.8	0.0	96.6	14.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	22.2	0.0	4.9	9.0	0.0	6.5	18.6	0.0	33.6	20.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.5	81.3	0.0	124.4	45.6	0.0	41.0	116.5	0.0	130.8	49.8	0.0
LnGrp LOS	C	F		F	D		D	F		F	D	
Approach Vol, veh/h		760	A		457	A		668	A		1346	A
Approach Delay, s/veh		68.6			70.7			87.6			92.5	
Approach LOS		E			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	41.0	29.0	10.0	40.0	20.1	49.9	14.2	35.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	36.5	24.5	5.5	35.5	18.0	43.0	9.7	31.3
Max Q Clear Time (g_c+I1), s	38.5	26.5	7.5	37.5	15.4	40.5	11.7	19.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.2	1.0	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	82.8
HCM 6th LOS	F

Notes

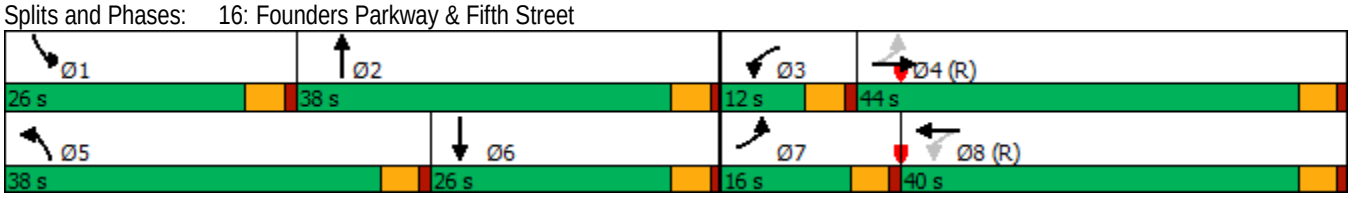
User approved pedestrian interval to be less than phase max green.

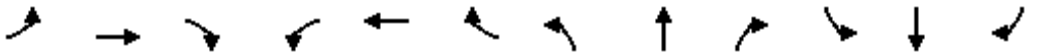
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	96	263	193	90	553	681	525	544	69	271	187	210
Future Volume (vph)	96	263	193	90	553	681	525	544	69	271	187	210
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	16.0	44.0		12.0	40.0		38.0	38.0		26.0	26.0	
Total Split (%)	13.3%	36.7%		10.0%	33.3%		31.7%	31.7%		21.7%	21.7%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Act Effct Green (s)	61.5	52.5	120.0	60.8	52.1	120.0	24.8	25.7	120.0	15.2	16.1	120.0
Actuated g/C Ratio	0.51	0.44	1.00	0.51	0.43	1.00	0.21	0.21	1.00	0.13	0.13	1.00
v/c Ratio	0.24	0.18	0.13	0.16	0.38	0.45	0.78	0.76	0.05	0.66	0.42	0.14
Control Delay	16.4	22.9	0.2	15.9	25.8	0.9	53.0	50.8	0.1	59.2	56.2	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.4	22.9	0.2	15.9	25.8	0.9	53.0	50.8	0.1	59.2	56.2	0.2
LOS	B	C	A	B	C	A	D	D	A	E	E	A
Approach Delay		13.8			12.3			48.7			39.8	
Approach LOS		B			B			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 28.8	Intersection LOS: C
Intersection Capacity Utilization 58.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 16: Founders Parkway & Fifth Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	263	193	90	553	681	525	544	69	271	187	210
Future Volume (veh/h)	96	263	193	90	553	681	525	544	69	271	187	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	101	277	0	95	582	0	553	573	0	285	197	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	478	1808		648	1800		644	701		356	406	
Arrive On Green	0.04	0.51	0.00	0.04	0.51	0.00	0.19	0.20	0.00	0.10	0.11	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	101	277	0	95	582	0	553	573	0	285	197	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	3.2	5.0	0.0	3.1	11.6	0.0	18.6	18.5	0.0	9.7	6.2	0.0
Cycle Q Clear(g_c), s	3.2	5.0	0.0	3.1	11.6	0.0	18.6	18.5	0.0	9.7	6.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	478	1808		648	1800		644	701		356	406	
V/C Ratio(X)	0.21	0.15		0.15	0.32		0.86	0.82		0.80	0.49	
Avail Cap(c_a), veh/h	572	1808		686	1800		965	992		619	637	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.5	15.7	0.0	13.1	17.5	0.0	47.3	46.1	0.0	52.6	49.8	0.0
Incr Delay (d2), s/veh	0.2	0.2	0.0	0.1	0.5	0.0	5.2	3.7	0.0	4.2	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.1	0.0	1.2	4.8	0.0	8.4	8.5	0.0	4.4	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.8	15.9	0.0	13.2	17.9	0.0	52.5	49.8	0.0	56.8	50.7	0.0
LnGrp LOS	B	B		B	B		D	D		E	D	
Approach Vol, veh/h		378	A		677	A		1126	A		482	A
Approach Delay, s/veh		15.3			17.3			51.1			54.3	
Approach LOS		B			B			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.9	28.2	9.4	65.6	26.9	18.2	9.7	65.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	21.5	33.5	7.5	39.5	33.5	21.5	11.5	35.5
Max Q Clear Time (g_c+I1), s	11.7	20.5	5.1	7.0	20.6	8.2	5.2	13.6
Green Ext Time (p_c), s	0.7	3.2	0.0	1.9	1.7	0.9	0.1	4.0

Intersection Summary	
HCM 6th Ctrl Delay	38.0
HCM 6th LOS	D

Notes

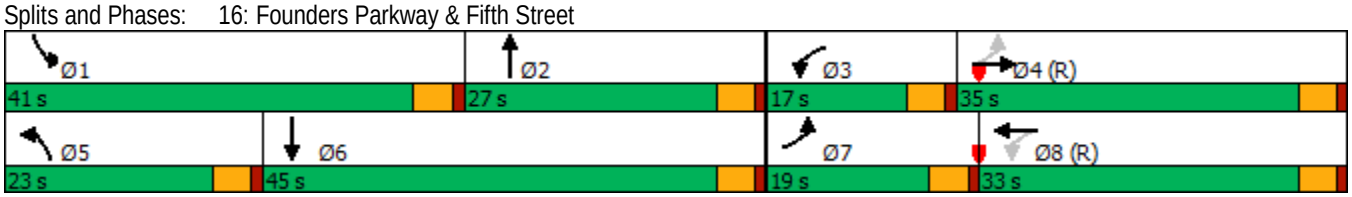
User approved pedestrian interval to be less than phase max green.

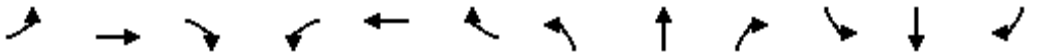
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	195	527	542	139	295	424	243	391	99	674	605	152
Future Volume (vph)	195	527	542	139	295	424	243	391	99	674	605	152
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	19.0	35.0		17.0	33.0		23.0	27.0		41.0	45.0	
Total Split (%)	15.8%	29.2%		14.2%	27.5%		19.2%	22.5%		34.2%	37.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Act Effct Green (s)	55.0	42.1	120.0	50.5	39.8	120.0	14.2	19.0	120.0	30.2	35.0	120.0
Actuated g/C Ratio	0.46	0.35	1.00	0.42	0.33	1.00	0.12	0.16	1.00	0.25	0.29	1.00
v/c Ratio	0.40	0.45	0.36	0.39	0.27	0.28	0.63	0.74	0.07	0.82	0.62	0.10
Control Delay	23.9	35.0	0.5	23.5	32.7	0.4	57.3	56.1	0.1	44.7	34.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.9	35.0	0.5	23.5	32.7	0.4	57.3	56.1	0.1	44.7	34.5	0.1
LOS	C	D	A	C	C	A	E	E	A	D	C	A
Approach Delay		18.5			15.3			48.9			35.7	
Approach LOS		B			B			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 61.6 (51%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 28.8	Intersection LOS: C
Intersection Capacity Utilization 67.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 16: Founders Parkway & Fifth Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	527	542	139	295	424	243	391	99	674	605	152
Future Volume (veh/h)	195	527	542	139	295	424	243	391	99	674	605	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	205	555	0	146	311	0	256	412	0	709	637	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	567	1456		434	1383		323	503		804	998	
Arrive On Green	0.09	0.41	0.00	0.07	0.39	0.00	0.09	0.14	0.00	0.23	0.28	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	205	555	0	146	311	0	256	412	0	709	637	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	8.2	13.1	0.0	5.8	7.0	0.0	8.7	13.5	0.0	23.8	18.9	0.0
Cycle Q Clear(g_c), s	8.2	13.1	0.0	5.8	7.0	0.0	8.7	13.5	0.0	23.8	18.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	567	1456		434	1383		323	503		804	998	
V/C Ratio(X)	0.36	0.38		0.34	0.22		0.79	0.82		0.88	0.64	
Avail Cap(c_a), veh/h	628	1456		502	1383		533	666		1051	1199	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.9	24.8	0.0	20.0	24.5	0.0	53.2	50.0	0.0	44.4	37.8	0.0
Incr Delay (d2), s/veh	0.4	0.8	0.0	0.5	0.4	0.0	4.4	6.0	0.0	7.2	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	5.7	0.0	2.5	3.1	0.0	4.0	6.4	0.0	10.9	8.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.3	25.5	0.0	20.4	24.9	0.0	57.6	56.1	0.0	51.6	38.7	0.0
LnGrp LOS	B	C		C	C		E	E		D	D	
Approach Vol, veh/h		760	A		457	A		668	A		1346	A
Approach Delay, s/veh		23.8			23.5			56.6			45.5	
Approach LOS		C			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.4	21.5	12.4	53.7	15.7	38.2	14.9	51.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	36.5	22.5	12.5	30.5	18.5	40.5	14.5	28.5
Max Q Clear Time (g_c+I1), s	25.8	15.5	7.8	15.1	10.7	20.9	10.2	9.0
Green Ext Time (p_c), s	2.2	1.5	0.1	3.3	0.5	4.3	0.2	1.9

Intersection Summary	
HCM 6th Ctrl Delay	39.6
HCM 6th LOS	D

Notes

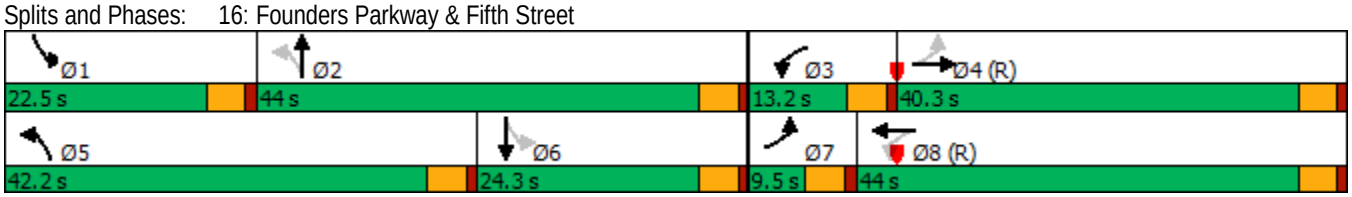
User approved pedestrian interval to be less than phase max green.

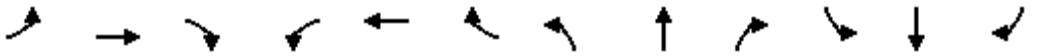
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	124	327	246	115	677	894	651	701	85	346	225	278
Future Volume (vph)	124	327	246	115	677	894	651	701	85	346	225	278
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		Free	6		Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	9.5	40.3		13.2	44.0		42.2	44.0		22.5	24.3	
Total Split (%)	7.9%	33.6%		11.0%	36.7%		35.2%	36.7%		18.8%	20.3%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Act Effct Green (s)	41.1	36.1	120.0	47.9	39.5	120.0	62.0	39.5	120.0	37.8	19.8	120.0
Actuated g/C Ratio	0.34	0.30	1.00	0.40	0.33	1.00	0.52	0.33	1.00	0.32	0.16	1.00
v/c Ratio	0.97	0.62	0.16	0.40	1.16	0.59	1.07	1.20	0.06	1.11	0.77	0.19
Control Delay	99.2	41.8	0.2	26.8	127.5	1.7	84.1	142.9	0.1	120.2	63.3	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	99.2	41.8	0.2	26.8	127.5	1.7	84.1	142.9	0.1	120.2	63.3	0.3
LOS	F	D	A	C	F	A	F	F	A	F	E	A
Approach Delay		37.4			53.9			107.9			65.8	
Approach LOS		D			D			F			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.20	
Intersection Signal Delay: 70.2	Intersection LOS: E
Intersection Capacity Utilization 113.6%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 16: Founders Parkway & Fifth Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	327	246	115	677	894	651	701	85	346	225	278
Future Volume (veh/h)	124	327	246	115	677	894	651	701	85	346	225	278
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	131	344	0	121	713	0	685	738	0	364	237	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	578		329	616		670	616		327	309	
Arrive On Green	0.04	0.31	0.00	0.06	0.33	0.00	0.31	0.33	0.00	0.15	0.16	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	131	344	0	121	713	0	685	738	0	364	237	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	5.0	18.7	0.0	5.5	39.5	0.0	37.7	39.5	0.0	18.0	14.5	0.0
Cycle Q Clear(g_c), s	5.0	18.7	0.0	5.5	39.5	0.0	37.7	39.5	0.0	18.0	14.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	134	578		329	616		670	616		327	309	
V/C Ratio(X)	0.98	0.59		0.37	1.16		1.02	1.20		1.11	0.77	
Avail Cap(c_a), veh/h	134	578		348	616		670	616		327	309	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.6	35.1	0.0	27.1	40.3	0.0	27.9	40.3	0.0	36.5	47.9	0.0
Incr Delay (d2), s/veh	70.1	4.5	0.0	0.7	88.4	0.0	40.7	104.5	0.0	83.6	11.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	9.2	0.0	2.4	33.0	0.0	23.1	35.7	0.0	15.6	7.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	107.6	39.6	0.0	27.8	128.6	0.0	68.6	144.8	0.0	120.1	59.0	0.0
LnGrp LOS	F	D		C	F		F	F		F	E	
Approach Vol, veh/h		475	A		834	A		1423	A		601	A
Approach Delay, s/veh		58.3			114.0			108.1			96.0	
Approach LOS		E			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.5	44.0	11.9	41.6	42.2	24.3	9.5	44.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	39.5	8.7	35.8	37.7	19.8	5.0	39.5
Max Q Clear Time (g_c+I1), s	20.0	41.5	7.5	20.7	39.7	16.5	7.0	41.5
Green Ext Time (p_c), s	0.0	0.0	0.0	1.8	0.0	0.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	100.3
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	267	645	684	173	365	544	316	505	120	881	787	214
Future Volume (vph)	267	645	684	173	365	544	316	505	120	881	787	214
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		Free	6		Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	15.9	39.0		10.0	33.1		22.5	30.0		41.0	48.5	
Total Split (%)	13.3%	32.5%		8.3%	27.6%		18.8%	25.0%		34.2%	40.4%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Act Effct Green (s)	44.5	34.5	120.0	34.1	28.6	120.0	43.5	25.5	120.0	66.5	44.0	120.0
Actuated g/C Ratio	0.37	0.29	1.00	0.28	0.24	1.00	0.36	0.21	1.00	0.55	0.37	1.00
v/c Ratio	1.19	1.27	0.45	1.27	0.86	0.36	1.02	1.35	0.08	1.54	1.21	0.14
Control Delay	139.1	167.9	0.6	195.9	64.2	0.6	91.4	209.6	0.1	278.4	139.9	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	139.1	167.9	0.6	195.9	64.2	0.6	91.4	209.6	0.1	278.4	139.9	0.2
LOS	F	F	A	F	E	A	F	F	A	F	F	A
Approach Delay		91.4			53.3			143.2			188.8	
Approach LOS		F			D			F			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 47.2 (39%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.54	
Intersection Signal Delay: 126.1	Intersection LOS: F
Intersection Capacity Utilization 133.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 16: Founders Parkway & Fifth Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	267	645	684	173	365	544	316	505	120	881	787	214
Future Volume (veh/h)	267	645	684	173	365	544	316	505	120	881	787	214
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	281	679	0	182	384	0	333	532	0	927	828	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	271	538		142	446		327	397		602	686	
Arrive On Green	0.09	0.29	0.00	0.05	0.24	0.00	0.15	0.21	0.00	0.30	0.37	0.00
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	281	679	0	182	384	0	333	532	0	927	828	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	11.4	34.5	0.0	5.5	23.6	0.0	18.0	25.5	0.0	36.5	44.0	0.0
Cycle Q Clear(g_c), s	11.4	34.5	0.0	5.5	23.6	0.0	18.0	25.5	0.0	36.5	44.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	271	538		142	446		327	397		602	686	
V/C Ratio(X)	1.04	1.26		1.28	0.86		1.02	1.34		1.54	1.21	
Avail Cap(c_a), veh/h	271	538		142	446		327	397		602	686	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	36.9	42.7	0.0	41.9	43.8	0.0	35.3	47.2	0.0	34.3	38.0	0.0
Incr Delay (d2), s/veh	64.9	132.6	0.0	171.1	19.2	0.0	54.3	168.5	0.0	251.4	106.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	35.5	0.0	8.3	13.2	0.0	12.7	30.4	0.0	59.4	40.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	101.8	175.3	0.0	213.1	63.0	0.0	89.7	215.8	0.0	285.8	144.7	0.0
LnGrp LOS	F	F		F	E		F	F		F	F	
Approach Vol, veh/h		960	A		566	A		865	A		1755	A
Approach Delay, s/veh		153.8			111.3			167.2			219.2	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	41.0	30.0	10.0	39.0	22.5	48.5	15.9	33.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	36.5	25.5	5.5	34.5	18.0	44.0	11.4	28.6
Max Q Clear Time (g_c+I1), s	38.5	27.5	7.5	36.5	20.0	46.0	13.4	25.6
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	178.5
HCM 6th LOS	F

Notes

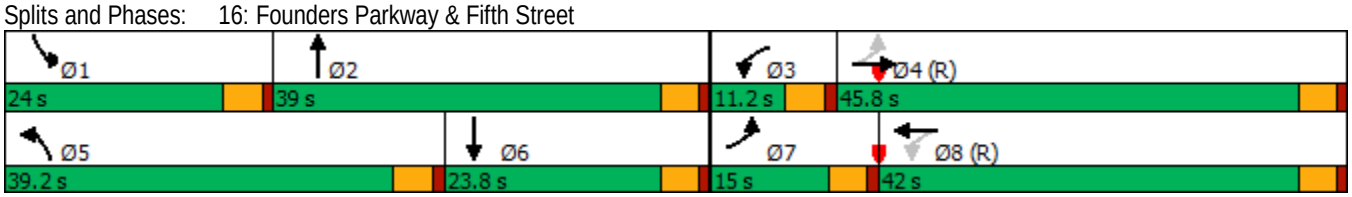
User approved pedestrian interval to be less than phase max green.

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	136	354	266	115	723	906	693	716	85	367	253	299
Future Volume (vph)	136	354	266	115	723	906	693	716	85	367	253	299
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	15.0	45.8		11.2	42.0		39.2	39.0		24.0	23.8	
Total Split (%)	12.5%	38.2%		9.3%	35.0%		32.7%	32.5%		20.0%	19.8%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Act Effct Green (s)	55.2	45.4	120.0	51.2	43.4	120.0	30.4	31.2	120.0	17.6	18.4	120.0
Actuated g/C Ratio	0.46	0.38	1.00	0.43	0.36	1.00	0.25	0.26	1.00	0.15	0.15	1.00
v/c Ratio	0.49	0.28	0.18	0.27	0.59	0.60	0.84	0.82	0.06	0.77	0.49	0.20
Control Delay	25.2	27.7	0.2	21.3	34.8	1.7	51.6	49.7	0.1	61.6	51.0	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.2	27.7	0.2	21.3	34.8	1.7	51.6	49.7	0.1	61.6	51.0	0.4
LOS	C	C	A	C	C	A	D	D	A	E	D	A
Approach Delay		17.6			16.7			47.8			38.7	
Approach LOS		B			B			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 30.4	Intersection LOS: C
Intersection Capacity Utilization 72.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 16: Founders Parkway & Fifth Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	136	354	266	115	723	906	693	716	85	367	253	299
Future Volume (veh/h)	136	354	266	115	723	906	693	716	85	367	253	299
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	143	373	0	121	761	0	729	754	0	386	266	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	348	1486		511	1456		819	875		452	499	
Arrive On Green	0.06	0.42	0.00	0.05	0.41	0.00	0.24	0.25	0.00	0.13	0.14	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	143	373	0	121	761	0	729	754	0	386	266	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	5.5	8.2	0.0	4.7	19.3	0.0	24.5	24.4	0.0	13.1	8.3	0.0
Cycle Q Clear(g_c), s	5.5	8.2	0.0	4.7	19.3	0.0	24.5	24.4	0.0	13.1	8.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	348	1486		511	1456		819	875		452	499	
V/C Ratio(X)	0.41	0.25		0.24	0.52		0.89	0.86		0.85	0.53	
Avail Cap(c_a), veh/h	391	1486		513	1456		999	1022		562	572	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.1	22.7	0.0	18.7	26.6	0.0	44.3	43.3	0.0	51.0	47.9	0.0
Incr Delay (d2), s/veh	0.8	0.4	0.0	0.2	1.3	0.0	8.8	6.8	0.0	10.2	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	3.5	0.0	2.0	8.4	0.0	11.4	11.5	0.0	6.3	3.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	23.1	0.0	18.9	27.9	0.0	53.0	50.1	0.0	61.2	48.8	0.0
LnGrp LOS	C	C		B	C		D	D		E	D	
Approach Vol, veh/h		516	A		882	A		1483	A		652	A
Approach Delay, s/veh		22.5			26.7			51.5			56.2	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.2	34.1	11.1	54.7	32.9	21.3	12.1	53.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	19.5	34.5	6.7	41.3	34.7	19.3	10.5	37.5
Max Q Clear Time (g_c+I1), s	15.1	26.4	6.7	10.2	26.5	10.3	7.5	21.3
Green Ext Time (p_c), s	0.6	3.2	0.0	2.6	1.9	1.0	0.1	4.8

Intersection Summary	
HCM 6th Ctrl Delay	41.9
HCM 6th LOS	D

Notes

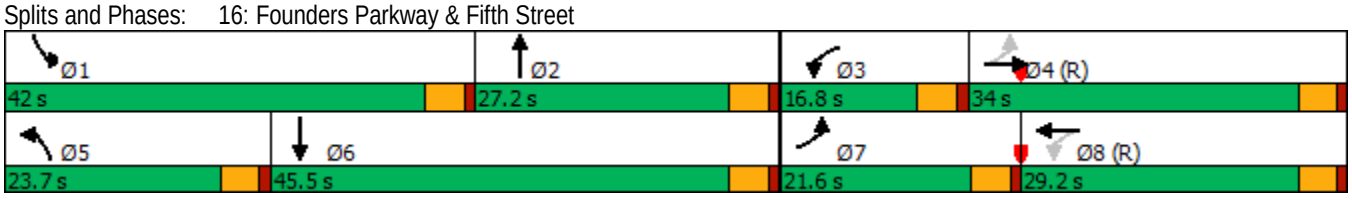
User approved pedestrian interval to be less than phase max green.

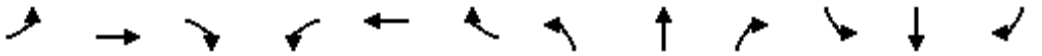
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	288	690	725	173	391	565	335	532	120	895	805	228
Future Volume (vph)	288	690	725	173	391	565	335	532	120	895	805	228
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free			Free			Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		22.5	22.5		22.5	22.5	
Total Split (s)	21.6	34.0		16.8	29.2		23.7	27.2		42.0	45.5	
Total Split (%)	18.0%	28.3%		14.0%	24.3%		19.8%	22.7%		35.0%	37.9%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Act Effct Green (s)	48.2	32.0	120.0	38.9	27.2	120.0	16.9	22.0	120.0	36.2	41.3	120.0
Actuated g/C Ratio	0.40	0.27	1.00	0.32	0.23	1.00	0.14	0.18	1.00	0.30	0.34	1.00
v/c Ratio	0.77	0.77	0.48	0.73	0.51	0.38	0.73	0.86	0.08	0.91	0.70	0.15
Control Delay	41.3	47.8	1.1	44.6	44.2	0.7	58.5	61.8	0.1	48.4	33.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.3	47.8	1.1	44.6	44.2	0.7	58.5	61.8	0.1	48.4	33.4	0.2
LOS	D	D	A	D	D	A	E	E	A	D	C	A
Approach Delay		26.8			22.5			53.2			36.5	
Approach LOS		C			C			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 61.6 (51%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 33.7	Intersection LOS: C
Intersection Capacity Utilization 83.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 16: Founders Parkway & Fifth Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	288	690	725	173	391	565	335	532	120	895	805	228
Future Volume (veh/h)	288	690	725	173	391	565	335	532	120	895	805	228
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	303	726	0	182	412	0	353	560	0	942	847	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	445	1015		300	846		420	630		1015	1242	
Arrive On Green	0.14	0.29	0.00	0.09	0.24	0.00	0.12	0.18	0.00	0.29	0.35	0.00
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	303	726	0	182	412	0	353	560	0	942	847	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	14.9	22.0	0.0	9.1	12.0	0.0	12.0	18.5	0.0	31.8	24.4	0.0
Cycle Q Clear(g_c), s	14.9	22.0	0.0	9.1	12.0	0.0	12.0	18.5	0.0	31.8	24.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	445	1015		300	846		420	630		1015	1242	
V/C Ratio(X)	0.68	0.71		0.61	0.49		0.84	0.89		0.93	0.68	
Avail Cap(c_a), veh/h	448	1015		317	846		553	672		1080	1242	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.6	38.5	0.0	31.4	39.4	0.0	51.6	48.2	0.0	41.1	33.3	0.0
Incr Delay (d2), s/veh	4.1	4.3	0.0	3.0	2.0	0.0	8.7	13.3	0.0	13.0	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	10.2	0.0	4.2	5.5	0.0	5.7	9.3	0.0	15.2	10.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.7	42.8	0.0	34.4	41.4	0.0	60.2	61.5	0.0	54.1	34.9	0.0
LnGrp LOS	C	D		C	D		E	E		D	C	
Approach Vol, veh/h		1029	A		594	A		913	A		1789	A
Approach Delay, s/veh		39.5			39.3			61.0			45.0	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	39.8	25.8	15.7	38.8	19.1	46.4	21.4	33.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	37.5	22.7	12.3	29.5	19.2	41.0	17.1	24.7
Max Q Clear Time (g_c+I1), s	33.8	20.5	11.1	24.0	14.0	26.4	16.9	14.0
Green Ext Time (p_c), s	1.5	0.8	0.1	2.3	0.6	5.2	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	46.3
HCM 6th LOS	D

Notes

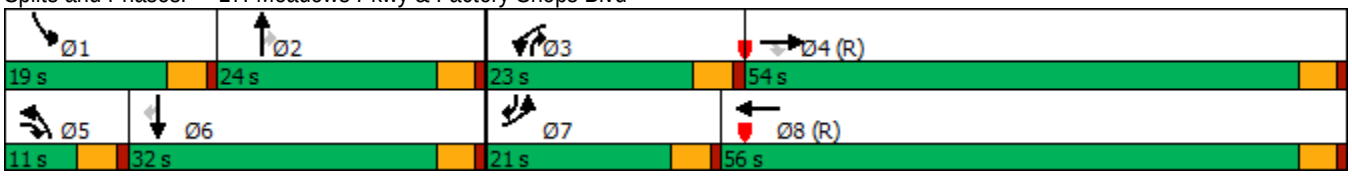
User approved pedestrian interval to be less than phase max green.

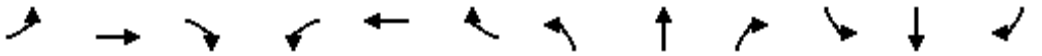
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	193	1091	80	220	898	301	37	34	121	254	42	164
Future Volume (vph)	193	1091	80	220	898	301	37	34	121	254	42	164
Turn Type	Prot	NA	pm+ov	Prot	NA	Free	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			Free			2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5	9.5	22.5	9.5
Total Split (s)	21.0	54.0	11.0	23.0	56.0		11.0	24.0	23.0	19.0	32.0	21.0
Total Split (%)	17.5%	45.0%	9.2%	19.2%	46.7%		9.2%	20.0%	19.2%	15.8%	26.7%	17.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max		None	Max	None	None	Max	None
Act Effct Green (s)	12.7	54.3	65.0	13.7	55.3	120.0	6.2	22.0	40.3	12.0	27.8	45.0
Actuated g/C Ratio	0.11	0.45	0.54	0.11	0.46	1.00	0.05	0.18	0.34	0.10	0.23	0.38
v/c Ratio	0.58	0.52	0.10	0.62	0.47	0.21	0.23	0.11	0.22	0.56	0.11	0.28
Control Delay	53.7	35.9	11.0	55.0	27.2	0.3	57.7	43.0	10.6	55.8	37.5	13.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.7	35.9	11.0	55.0	27.2	0.3	57.7	43.0	10.6	55.8	37.5	13.5
LOS	D	D	B	D	C	A	E	D	B	E	D	B
Approach Delay		37.0			26.5			25.4			39.0	
Approach LOS		D			C			C			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 32.3	Intersection LOS: C
Intersection Capacity Utilization 50.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: Meadows Pkwy & Factory Shops Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	1091	80	220	898	301	37	34	121	254	42	164
Future Volume (veh/h)	193	1091	80	220	898	301	37	34	121	254	42	164
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	212	1199	88	242	989	0	41	37	133	279	46	180
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	279	2560	844	315	2856		107	346	433	378	429	491
Arrive On Green	0.03	0.17	0.17	0.03	0.17	0.00	0.03	0.18	0.18	0.08	0.23	0.23
Sat Flow, veh/h	3456	5106	1585	3563	5611	1585	3456	1870	1585	5023	1870	1585
Grp Volume(v), veh/h	212	1199	88	242	989	0	41	37	133	279	46	180
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1870	1585	1728	1870	1585	1674	1870	1585
Q Serve(g_s), s	7.3	25.5	5.3	8.1	18.7	0.0	1.4	2.0	8.0	6.5	2.3	10.6
Cycle Q Clear(g_c), s	7.3	25.5	5.3	8.1	18.7	0.0	1.4	2.0	8.0	6.5	2.3	10.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	279	2560	844	315	2856		107	346	433	378	429	491
V/C Ratio(X)	0.76	0.47	0.10	0.77	0.35		0.38	0.11	0.31	0.74	0.11	0.37
Avail Cap(c_a), veh/h	475	2560	844	549	2856		187	346	433	607	429	491
HCM Platoon Ratio	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	0.92	0.92	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.2	35.6	24.0	57.0	32.3	0.0	57.0	40.7	34.6	54.3	36.5	32.2
Incr Delay (d2), s/veh	3.4	0.5	0.2	3.6	0.3	0.0	2.2	0.6	1.8	2.8	0.5	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	11.8	2.1	4.0	9.5	0.0	0.6	1.0	3.3	2.8	1.1	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.6	36.1	24.2	60.7	32.6	0.0	59.2	41.3	36.4	57.1	37.1	34.3
LnGrp LOS	E	D	C	E	C		E	D	D	E	D	C
Approach Vol, veh/h		1499			1231	A		211			505	
Approach Delay, s/veh		38.9			38.1			41.7			47.2	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.5	26.7	15.1	64.7	8.2	32.0	14.2	65.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	14.5	19.5	18.5	49.5	6.5	27.5	16.5	51.5
Max Q Clear Time (g_c+I1), s	8.5	10.0	10.1	27.5	3.4	12.6	9.3	20.7
Green Ext Time (p_c), s	0.5	0.4	0.5	9.6	0.0	0.7	0.4	8.3

Intersection Summary	
HCM 6th Ctrl Delay	40.0
HCM 6th LOS	D

Notes

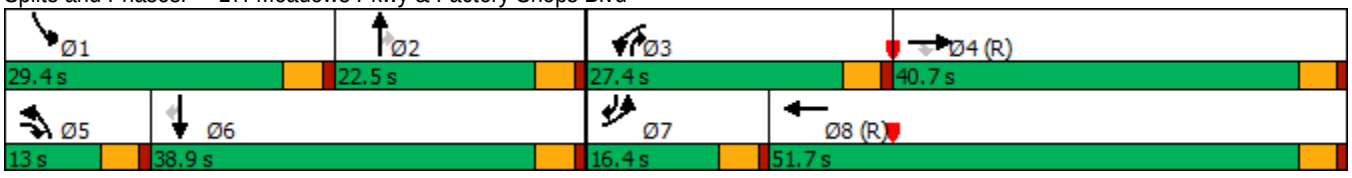
User approved volume balancing among the lanes for turning movement.

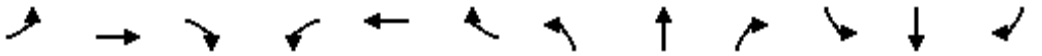
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	207	984	129	304	1195	758	101	90	347	812	60	339
Future Volume (vph)	207	984	129	304	1195	758	101	90	347	812	60	339
Turn Type	Prot	NA	pm+ov	Prot	NA	Free	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			Free			2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5	9.5	22.5	9.5
Total Split (s)	16.4	40.7	13.0	27.4	51.7		13.0	22.5	27.4	29.4	38.9	16.4
Total Split (%)	13.7%	33.9%	10.8%	22.8%	43.1%		10.8%	18.8%	22.8%	24.5%	32.4%	13.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max		None	Max	None	None	Max	None
Act Effct Green (s)	11.2	42.7	55.2	16.4	47.9	120.0	8.0	19.1	40.1	23.8	34.9	50.6
Actuated g/C Ratio	0.09	0.36	0.46	0.14	0.40	1.00	0.07	0.16	0.33	0.20	0.29	0.42
v/c Ratio	0.66	0.56	0.16	0.66	0.81	0.33	0.45	0.31	0.60	0.84	0.11	0.48
Control Delay	55.5	25.8	10.0	46.5	36.5	0.5	60.3	48.6	28.3	54.8	32.3	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	1.6	50.7	0.0	0.0
Total Delay	55.5	25.8	10.0	46.5	36.6	0.5	60.3	48.6	29.9	105.5	32.3	20.3
LOS	E	C	B	D	D	A	E	D	C	F	C	C
Approach Delay		28.9			30.8			38.7			78.0	
Approach LOS		C			C			D			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 41.9	Intersection LOS: D
Intersection Capacity Utilization 68.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 17: Meadows Pkwy & Factory Shops Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	207	984	129	304	1195	758	101	90	347	812	60	339
Future Volume (veh/h)	207	984	129	304	1195	758	101	90	347	812	60	339
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	211	1004	132	310	1088	0	103	92	303	829	61	346
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	272	2055	709	391	1621		156	281	412	944	548	589
Arrive On Green	0.03	0.13	0.13	0.04	0.14	0.00	0.05	0.15	0.15	0.19	0.29	0.29
Sat Flow, veh/h	3456	5106	1585	3563	3741	3170	3456	1870	1585	5023	1870	1585
Grp Volume(v), veh/h	211	1004	132	310	1088	0	103	92	303	829	61	346
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1870	1585	1728	1870	1585	1674	1870	1585
Q Serve(g_s), s	7.3	21.9	8.2	10.4	33.1	0.0	3.5	5.3	18.0	19.3	2.9	21.1
Cycle Q Clear(g_c), s	7.3	21.9	8.2	10.4	33.1	0.0	3.5	5.3	18.0	19.3	2.9	21.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	272	2055	709	391	1621		156	281	412	944	548	589
V/C Ratio(X)	0.78	0.49	0.19	0.79	0.67		0.66	0.33	0.74	0.88	0.11	0.59
Avail Cap(c_a), veh/h	343	2055	709	680	1621		245	281	412	1042	548	589
HCM Platoon Ratio	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	0.75	0.75	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.4	40.6	29.9	56.5	43.3	0.0	56.4	45.6	40.7	47.4	31.0	30.3
Incr Delay (d2), s/veh	6.7	0.7	0.5	2.8	1.7	0.0	4.7	3.1	11.2	8.1	0.4	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	10.1	3.5	5.1	17.0	0.0	1.6	2.7	9.4	8.7	1.4	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.1	41.2	30.3	59.3	45.0	0.0	61.1	48.7	51.8	55.5	31.4	34.6
LnGrp LOS	E	D	C	E	D		E	D	D	E	C	C
Approach Vol, veh/h		1347			1398	A		498			1236	
Approach Delay, s/veh		43.8			48.2			53.2			48.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.1	22.5	17.7	52.8	9.9	39.6	13.9	56.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	24.9	18.0	22.9	36.2	8.5	34.4	11.9	47.2
Max Q Clear Time (g_c+I1), s	21.3	20.0	12.4	23.9	5.5	23.1	9.3	35.1
Green Ext Time (p_c), s	1.3	0.0	0.8	5.9	0.1	1.2	0.2	6.1

Intersection Summary	
HCM 6th Ctrl Delay	47.5
HCM 6th LOS	D

Notes

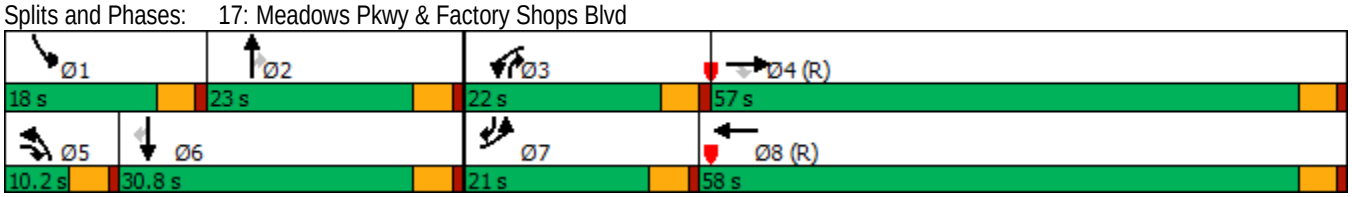
User approved volume balancing among the lanes for turning movement.

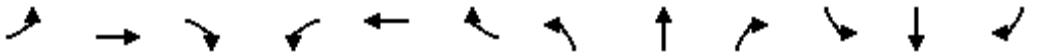
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	222	1253	92	253	1032	346	43	39	139	292	48	188
Future Volume (vph)	222	1253	92	253	1032	346	43	39	139	292	48	188
Turn Type	Prot	NA	pm+ov	Prot	NA	Free	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			Free			2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5	9.5	22.5	9.5
Total Split (s)	21.0	57.0	10.2	22.0	58.0		10.2	23.0	22.0	18.0	30.8	21.0
Total Split (%)	17.5%	47.5%	8.5%	18.3%	48.3%		8.5%	19.2%	18.3%	15.0%	25.7%	17.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max		None	Max	None	None	Max	None
Act Effct Green (s)	13.1	55.9	66.0	14.1	56.9	120.0	5.7	19.9	38.6	12.1	26.3	44.0
Actuated g/C Ratio	0.11	0.47	0.55	0.12	0.47	1.00	0.05	0.17	0.32	0.10	0.22	0.37
v/c Ratio	0.61	0.54	0.10	0.64	0.48	0.23	0.27	0.13	0.25	0.59	0.12	0.31
Control Delay	52.4	35.3	11.3	51.2	30.6	0.4	59.6	44.8	12.1	56.6	38.6	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
Total Delay	52.4	35.3	11.3	51.2	30.6	0.4	59.6	44.8	12.1	57.1	38.6	17.3
LOS	D	D	B	D	C	A	E	D	B	E	D	B
Approach Delay		36.3			28.1			27.1			41.3	
Approach LOS		D			C			C			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 33.1	Intersection LOS: C
Intersection Capacity Utilization 54.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: Meadows Pkwy & Factory Shops Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	222	1253	92	253	1032	346	43	39	139	292	48	188
Future Volume (veh/h)	222	1253	92	253	1032	346	43	39	139	292	48	188
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	227	1279	94	258	1055	0	44	40	91	298	49	192
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	295	2584	853	330	2882		111	323	420	395	410	482
Arrive On Green	0.03	0.17	0.17	0.03	0.17	0.00	0.03	0.17	0.17	0.08	0.22	0.22
Sat Flow, veh/h	3456	5106	1585	3563	5611	1585	3456	1870	1585	5023	1870	1585
Grp Volume(v), veh/h	227	1279	94	258	1055	0	44	40	91	298	49	192
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1870	1585	1728	1870	1585	1674	1870	1585
Q Serve(g_s), s	7.8	27.3	5.7	8.6	20.0	0.0	1.5	2.2	5.4	7.0	2.5	11.5
Cycle Q Clear(g_c), s	7.8	27.3	5.7	8.6	20.0	0.0	1.5	2.2	5.4	7.0	2.5	11.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	295	2584	853	330	2882		111	323	420	395	410	482
V/C Ratio(X)	0.77	0.49	0.11	0.78	0.37		0.40	0.12	0.22	0.76	0.12	0.40
Avail Cap(c_a), veh/h	475	2584	853	520	2882		164	323	420	565	410	482
HCM Platoon Ratio	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.74	0.90	0.90	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.1	36.0	23.8	57.0	32.5	0.0	56.9	42.0	34.4	54.2	37.6	33.0
Incr Delay (d2), s/veh	3.2	0.5	0.2	3.7	0.3	0.0	2.3	0.8	1.2	3.5	0.6	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	12.6	2.2	4.3	10.1	0.0	0.7	1.1	2.2	3.1	1.2	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.3	36.6	24.0	60.6	32.9	0.0	59.2	42.8	35.5	57.7	38.2	35.5
LnGrp LOS	E	D	C	E	C		E	D	D	E	D	D
Approach Vol, veh/h		1600			1313	A		175			539	
Approach Delay, s/veh		39.2			38.3			43.1			48.0	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	25.2	15.6	65.2	8.3	30.8	14.7	66.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	18.5	17.5	52.5	5.7	26.3	16.5	53.5
Max Q Clear Time (g_c+I1), s	9.0	7.4	10.6	29.3	3.5	13.5	9.8	22.0
Green Ext Time (p_c), s	0.5	0.3	0.5	10.6	0.0	0.7	0.4	9.0

Intersection Summary	
HCM 6th Ctrl Delay	40.4
HCM 6th LOS	D

Notes

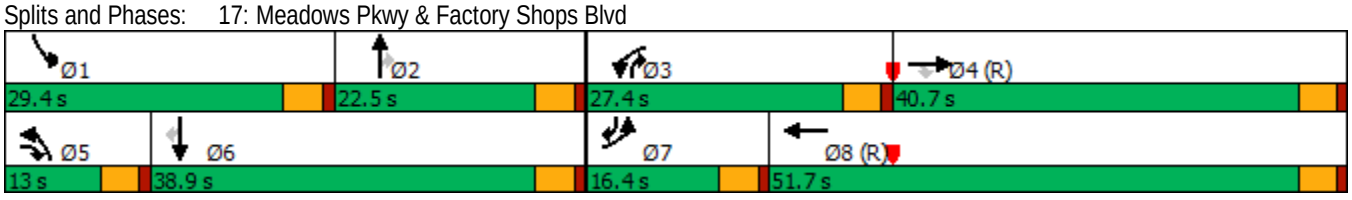
User approved volume balancing among the lanes for turning movement.

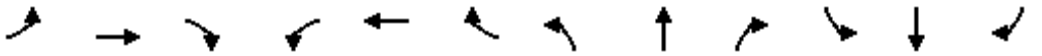
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	238	1130	148	349	1373	871	116	103	399	933	69	389
Future Volume (vph)	238	1130	148	349	1373	871	116	103	399	933	69	389
Turn Type	Prot	NA	pm+ov	Prot	NA	Free	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			Free			2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5	9.5	22.5	9.5
Total Split (s)	16.4	40.7	13.0	27.4	51.7		13.0	22.5	27.4	29.4	38.9	16.4
Total Split (%)	13.7%	33.9%	10.8%	22.8%	43.1%		10.8%	18.8%	22.8%	24.5%	32.4%	13.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max		None	Max	None	None	Max	None
Act Effct Green (s)	11.5	41.0	53.6	18.1	47.6	120.0	8.2	18.0	40.7	24.9	34.7	50.8
Actuated g/C Ratio	0.10	0.34	0.45	0.15	0.40	1.00	0.07	0.15	0.34	0.21	0.29	0.42
v/c Ratio	0.74	0.66	0.19	0.69	0.94	0.38	0.51	0.38	0.68	0.92	0.13	0.55
Control Delay	58.4	27.7	9.4	44.8	45.5	0.5	61.8	50.4	31.6	61.3	32.6	22.6
Queue Delay	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	3.9	50.1	0.0	0.0
Total Delay	58.4	27.7	9.4	44.8	46.3	0.5	61.8	50.4	35.5	111.4	32.6	22.6
LOS	E	C	A	D	D	A	E	D	D	F	C	C
Approach Delay		30.7			37.1			42.9			82.7	
Approach LOS		C			D			D			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 46.5	Intersection LOS: D
Intersection Capacity Utilization 75.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 17: Meadows Pkwy & Factory Shops Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	238	1130	148	349	1373	871	116	103	399	933	69	389
Future Volume (veh/h)	238	1130	148	349	1373	871	116	103	399	933	69	389
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	243	1153	151	356	1250	0	118	105	356	952	70	397
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	303	1899	669	438	1524		172	281	433	1030	571	623
Arrive On Green	0.03	0.12	0.12	0.04	0.13	0.00	0.05	0.15	0.15	0.20	0.31	0.31
Sat Flow, veh/h	3456	5106	1585	3563	3741	3170	3456	1870	1585	5023	1870	1585
Grp Volume(v), veh/h	243	1153	151	356	1250	0	118	105	356	952	70	397
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1870	1585	1728	1870	1585	1674	1870	1585
Q Serve(g_s), s	8.4	25.7	9.5	11.9	39.0	0.0	4.0	6.1	18.0	22.3	3.2	24.4
Cycle Q Clear(g_c), s	8.4	25.7	9.5	11.9	39.0	0.0	4.0	6.1	18.0	22.3	3.2	24.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	303	1899	669	438	1524		172	281	433	1030	571	623
V/C Ratio(X)	0.80	0.61	0.23	0.81	0.82		0.69	0.37	0.82	0.92	0.12	0.64
Avail Cap(c_a), veh/h	343	1899	669	680	1524		245	281	433	1042	571	623
HCM Platoon Ratio	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	0.62	0.62	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.2	44.3	31.9	56.2	47.7	0.0	56.1	45.9	40.9	46.8	30.1	29.5
Incr Delay (d2), s/veh	8.7	1.1	0.6	2.7	3.2	0.0	4.8	3.8	16.1	13.3	0.4	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	11.9	4.1	5.9	20.3	0.0	1.9	3.1	11.7	10.5	1.5	10.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.0	45.4	32.4	58.9	50.9	0.0	60.8	49.7	56.9	60.1	30.5	34.5
LnGrp LOS	E	D	C	E	D		E	D	E	E	C	C
Approach Vol, veh/h		1547			1606	A		579			1419	
Approach Delay, s/veh		47.4			52.6			56.4			51.5	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.1	22.5	19.3	49.1	10.5	41.1	15.0	53.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	24.9	18.0	22.9	36.2	8.5	34.4	11.9	47.2
Max Q Clear Time (g_c+I1), s	24.3	20.0	13.9	27.7	6.0	26.4	10.4	41.0
Green Ext Time (p_c), s	0.3	0.0	0.9	5.2	0.1	1.2	0.1	4.1

Intersection Summary	
HCM 6th Ctrl Delay	51.2
HCM 6th LOS	D

Notes

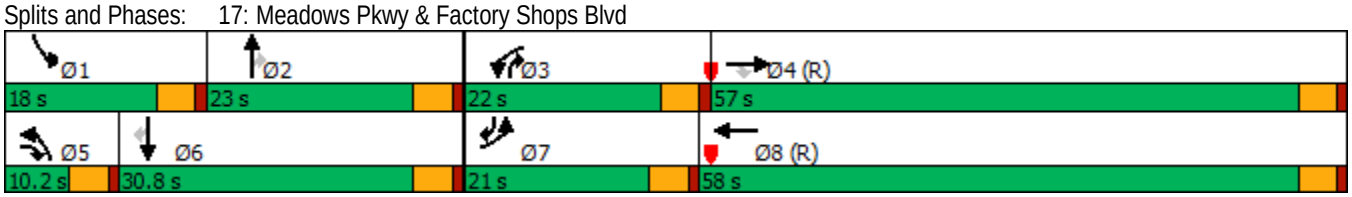
User approved volume balancing among the lanes for turning movement.

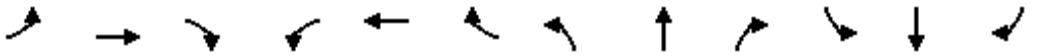
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	241	1391	92	253	1330	346	43	39	139	292	48	211
Future Volume (vph)	241	1391	92	253	1330	346	43	39	139	292	48	211
Turn Type	Prot	NA	pm+ov	Prot	NA	Free	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			Free			2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5	9.5	22.5	9.5
Total Split (s)	21.0	57.0	10.2	22.0	58.0		10.2	23.0	22.0	18.0	30.8	21.0
Total Split (%)	17.5%	47.5%	8.5%	18.3%	48.3%		8.5%	19.2%	18.3%	15.0%	25.7%	17.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max		None	Max	None	None	Max	None
Act Effct Green (s)	13.6	55.9	66.0	14.1	56.4	120.0	5.7	19.9	38.6	12.1	26.3	44.5
Actuated g/C Ratio	0.11	0.47	0.55	0.12	0.47	1.00	0.05	0.17	0.32	0.10	0.22	0.37
v/c Ratio	0.63	0.60	0.10	0.64	0.62	0.23	0.27	0.13	0.25	0.59	0.12	0.35
Control Delay	47.7	31.2	9.2	53.6	28.8	0.3	59.6	44.8	12.1	56.6	38.6	21.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0
Total Delay	47.7	31.2	9.2	53.6	28.8	0.3	59.6	44.8	12.1	58.1	38.6	21.2
LOS	D	C	A	D	C	A	E	D	B	E	D	C
Approach Delay		32.3			27.4			27.1			42.3	
Approach LOS		C			C			C			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 31.2	Intersection LOS: C
Intersection Capacity Utilization 58.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 17: Meadows Pkwy & Factory Shops Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	241	1391	92	253	1330	346	43	39	139	292	48	211
Future Volume (veh/h)	241	1391	92	253	1330	346	43	39	139	292	48	211
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	246	1419	94	258	1357	0	44	40	91	298	49	215
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	314	2584	853	330	2850		111	323	420	395	410	491
Arrive On Green	0.03	0.17	0.17	0.03	0.17	0.00	0.03	0.17	0.17	0.08	0.22	0.22
Sat Flow, veh/h	3456	5106	1585	3563	5611	1585	3456	1870	1585	5023	1870	1585
Grp Volume(v), veh/h	246	1419	94	258	1357	0	44	40	91	298	49	215
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1870	1585	1728	1870	1585	1674	1870	1585
Q Serve(g_s), s	8.5	30.6	5.7	8.6	26.3	0.0	1.5	2.2	5.4	7.0	2.5	13.0
Cycle Q Clear(g_c), s	8.5	30.6	5.7	8.6	26.3	0.0	1.5	2.2	5.4	7.0	2.5	13.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	314	2584	853	330	2850		111	323	420	395	410	491
V/C Ratio(X)	0.78	0.55	0.11	0.78	0.48		0.40	0.12	0.22	0.76	0.12	0.44
Avail Cap(c_a), veh/h	475	2584	853	520	2850		164	323	420	565	410	491
HCM Platoon Ratio	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	0.80	0.80	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.0	37.4	23.8	57.0	35.5	0.0	56.9	42.0	34.4	54.2	37.6	33.0
Incr Delay (d2), s/veh	3.0	0.5	0.2	3.3	0.5	0.0	2.3	0.8	1.2	3.5	0.6	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	14.1	2.2	4.2	13.3	0.0	0.7	1.1	2.2	3.1	1.2	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.0	37.9	23.9	60.2	36.0	0.0	59.2	42.8	35.5	57.7	38.2	35.9
LnGrp LOS	E	D	C	E	D		E	D	D	E	D	D
Approach Vol, veh/h		1759			1615	A		175			562	
Approach Delay, s/veh		40.3			39.8			43.1			47.6	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.9	25.2	15.6	65.2	8.3	30.8	15.4	65.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	18.5	17.5	52.5	5.7	26.3	16.5	53.5
Max Q Clear Time (g_c+I1), s	9.0	7.4	10.6	32.6	3.5	15.0	10.5	28.3
Green Ext Time (p_c), s	0.5	0.3	0.5	10.9	0.0	0.7	0.4	11.4

Intersection Summary	
HCM 6th Ctrl Delay	41.2
HCM 6th LOS	D

Notes

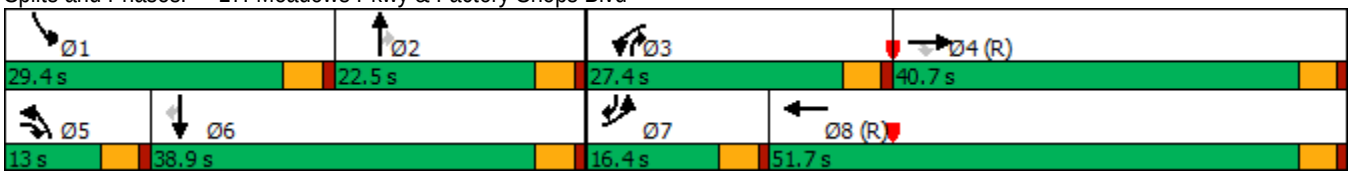
User approved volume balancing among the lanes for turning movement.

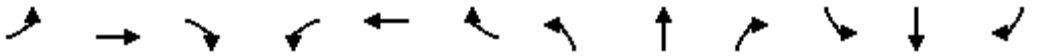
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	261	1382	148	349	1521	871	116	103	399	933	69	408
Future Volume (vph)	261	1382	148	349	1521	871	116	103	399	933	69	408
Turn Type	Prot	NA	pm+ov	Prot	NA	Free	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			Free			2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5	9.5	22.5	9.5
Total Split (s)	16.4	40.7	13.0	27.4	51.7		13.0	22.5	27.4	29.4	38.9	16.4
Total Split (%)	13.7%	33.9%	10.8%	22.8%	43.1%		10.8%	18.8%	22.8%	24.5%	32.4%	13.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max		None	Max	None	None	Max	None
Act Effct Green (s)	11.7	41.0	53.6	18.1	47.4	120.0	8.2	18.0	40.7	24.9	34.7	51.0
Actuated g/C Ratio	0.10	0.34	0.45	0.15	0.40	1.00	0.07	0.15	0.34	0.21	0.29	0.42
v/c Ratio	0.79	0.81	0.19	0.69	1.01	0.40	0.51	0.38	0.68	0.92	0.13	0.57
Control Delay	61.8	31.7	7.0	44.4	58.3	0.5	61.8	50.4	31.6	61.3	32.6	23.5
Queue Delay	0.0	0.0	0.0	0.0	4.2	0.0	0.0	0.0	4.4	59.2	0.0	0.0
Total Delay	61.8	31.7	7.0	44.4	62.5	0.5	61.8	50.4	36.0	120.5	32.6	23.5
LOS	E	C	A	D	E	A	E	D	D	F	C	C
Approach Delay		34.0			48.0			43.2			88.2	
Approach LOS		C			D			D			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 52.4	Intersection LOS: D
Intersection Capacity Utilization 80.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 17: Meadows Pkwy & Factory Shops Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	261	1382	148	349	1521	871	116	103	399	933	69	408
Future Volume (veh/h)	261	1382	148	349	1521	871	116	103	399	933	69	408
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	266	1410	151	356	1970	0	118	105	356	952	70	416
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	324	1899	669	438	2251		172	281	433	1030	571	632
Arrive On Green	0.03	0.12	0.12	0.04	0.13	0.00	0.05	0.15	0.15	0.20	0.31	0.31
Sat Flow, veh/h	3456	5106	1585	3563	5611	1585	3456	1870	1585	5023	1870	1585
Grp Volume(v), veh/h	266	1410	151	356	1970	0	118	105	356	952	70	416
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1870	1585	1728	1870	1585	1674	1870	1585
Q Serve(g_s), s	9.2	32.0	9.5	11.9	41.3	0.0	4.0	6.1	18.0	22.3	3.2	25.7
Cycle Q Clear(g_c), s	9.2	32.0	9.5	11.9	41.3	0.0	4.0	6.1	18.0	22.3	3.2	25.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	324	1899	669	438	2251		172	281	433	1030	571	632
V/C Ratio(X)	0.82	0.74	0.23	0.81	0.88		0.69	0.37	0.82	0.92	0.12	0.66
Avail Cap(c_a), veh/h	343	1899	669	680	2251		245	281	433	1042	571	632
HCM Platoon Ratio	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.60	0.60	0.60	0.53	0.53	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.1	47.1	31.9	56.2	49.1	0.0	56.1	45.9	40.9	46.8	30.1	29.4
Incr Delay (d2), s/veh	8.9	1.6	0.5	2.3	2.8	0.0	4.8	3.8	16.1	13.3	0.4	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	14.9	4.1	5.9	21.4	0.0	1.9	3.1	11.7	10.5	1.5	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.1	48.7	32.3	58.5	51.9	0.0	60.8	49.7	56.9	60.1	30.5	34.7
LnGrp LOS	E	D	C	E	D		E	D	E	E	C	C
Approach Vol, veh/h		1827			2326	A		579			1438	
Approach Delay, s/veh		49.9			52.9			56.4			51.3	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.1	22.5	19.3	49.1	10.5	41.1	15.8	52.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	24.9	18.0	22.9	36.2	8.5	34.4	11.9	47.2
Max Q Clear Time (g_c+I1), s	24.3	20.0	13.9	34.0	6.0	27.7	11.2	43.3
Green Ext Time (p_c), s	0.3	0.0	0.9	1.8	0.1	1.1	0.1	3.4

Intersection Summary	
HCM 6th Ctrl Delay	52.0
HCM 6th LOS	D

Notes

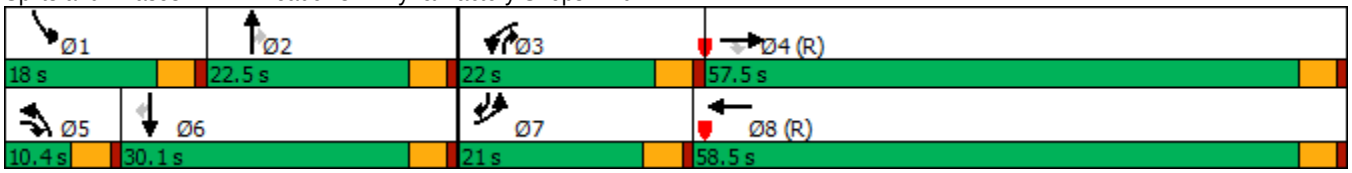
User approved volume balancing among the lanes for turning movement.

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	298	1772	124	340	1553	480	57	53	187	398	65	254
Future Volume (vph)	298	1772	124	340	1553	480	57	53	187	398	65	254
Turn Type	Prot	NA	pm+ov	Prot	NA	Free	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			Free			2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5	9.5	22.5	9.5
Total Split (s)	21.0	57.5	10.4	22.0	58.5		10.4	22.5	22.0	18.0	30.1	21.0
Total Split (%)	17.5%	47.9%	8.7%	18.3%	48.8%		8.7%	18.8%	18.3%	15.0%	25.1%	17.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max		None	Max	None	None	Max	None
Act Effct Green (s)	14.9	54.4	64.7	16.1	55.6	120.0	5.8	18.4	39.0	13.1	25.7	45.1
Actuated g/C Ratio	0.12	0.45	0.54	0.13	0.46	1.00	0.05	0.15	0.32	0.11	0.21	0.38
v/c Ratio	0.71	0.78	0.14	0.75	0.74	0.32	0.35	0.19	0.33	0.74	0.17	0.41
Control Delay	48.4	40.2	9.9	54.2	32.9	0.5	61.2	46.7	16.5	60.8	39.9	23.4
Queue Delay	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.2	62.1	0.0	0.0
Total Delay	48.4	40.2	9.9	54.2	33.4	0.5	61.2	46.7	16.7	122.9	39.9	23.4
LOS	D	D	A	D	C	A	E	D	B	F	D	C
Approach Delay		39.6			30.4			30.6			80.2	
Approach LOS		D			C			C			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 40.4	Intersection LOS: D
Intersection Capacity Utilization 69.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 17: Meadows Pkwy & Factory Shops Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	298	1772	124	340	1553	480	57	53	187	398	65	254
Future Volume (veh/h)	298	1772	124	340	1553	480	57	53	187	398	65	254
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	304	1808	127	347	1585	0	58	54	140	406	66	259
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	371	2470	823	418	2770		123	281	424	496	399	508
Arrive On Green	0.04	0.16	0.16	0.04	0.16	0.00	0.04	0.15	0.15	0.10	0.21	0.21
Sat Flow, veh/h	3456	5106	1585	3563	5611	1585	3456	1870	1585	5023	1870	1585
Grp Volume(v), veh/h	304	1808	127	347	1585	0	58	54	140	406	66	259
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1870	1585	1728	1870	1585	1674	1870	1585
Q Serve(g_s), s	10.5	40.4	7.7	11.6	31.3	0.0	2.0	3.0	8.5	9.5	3.5	15.9
Cycle Q Clear(g_c), s	10.5	40.4	7.7	11.6	31.3	0.0	2.0	3.0	8.5	9.5	3.5	15.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	371	2470	823	418	2770		123	281	424	496	399	508
V/C Ratio(X)	0.82	0.73	0.15	0.83	0.57		0.47	0.19	0.33	0.82	0.17	0.51
Avail Cap(c_a), veh/h	475	2470	823	520	2770		170	281	424	565	399	508
HCM Platoon Ratio	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.39	0.39	0.39	0.75	0.75	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.7	43.0	25.6	56.5	38.5	0.0	56.8	44.6	35.3	53.0	38.5	33.1
Incr Delay (d2), s/veh	3.6	0.8	0.2	6.9	0.7	0.0	2.8	1.5	2.1	8.3	0.9	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	18.6	3.1	6.0	15.9	0.0	0.9	1.5	3.6	4.4	1.7	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.3	43.8	25.7	63.4	39.2	0.0	59.5	46.1	37.4	61.3	39.4	36.7
LnGrp LOS	E	D	C	E	D		E	D	D	E	D	D
Approach Vol, veh/h		2239			1932	A		252			731	
Approach Delay, s/veh		45.0			43.5			44.4			50.6	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.4	22.5	18.6	62.5	8.8	30.1	17.4	63.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	18.0	17.5	53.0	5.9	25.6	16.5	54.0
Max Q Clear Time (g_c+I1), s	11.5	10.5	13.6	42.4	4.0	17.9	12.5	33.3
Green Ext Time (p_c), s	0.3	0.4	0.5	8.4	0.0	0.8	0.4	12.1

Intersection Summary	
HCM 6th Ctrl Delay	45.2
HCM 6th LOS	D

Notes

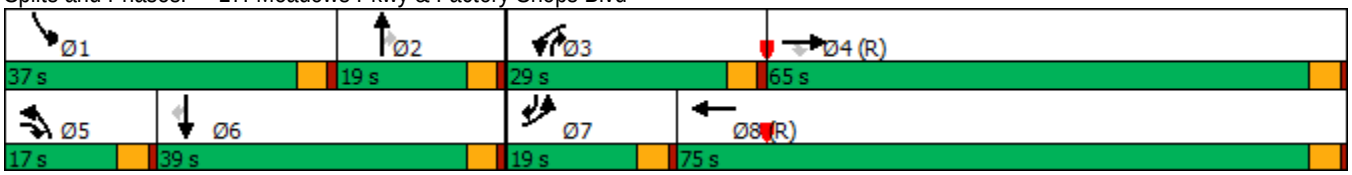
User approved volume balancing among the lanes for turning movement.

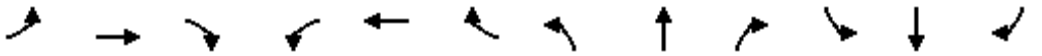
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	320	1746	199	470	2012	1187	156	139	536	1270	93	524
Future Volume (vph)	320	1746	199	470	2012	1187	156	139	536	1270	93	524
Turn Type	Prot	NA	pm+ov	Prot	NA	Free	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			Free			2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5	9.5	22.5	9.5
Total Split (s)	19.0	65.0	17.0	29.0	75.0		17.0	19.0	29.0	37.0	39.0	19.0
Total Split (%)	12.7%	43.3%	11.3%	19.3%	50.0%		11.3%	12.7%	19.3%	24.7%	26.0%	12.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max		None	Max	None	None	Max	None
Act Effct Green (s)	14.5	60.5	76.4	24.5	70.5	150.0	11.4	14.5	43.5	32.5	35.6	54.6
Actuated g/C Ratio	0.10	0.40	0.51	0.16	0.47	1.00	0.08	0.10	0.29	0.22	0.24	0.36
v/c Ratio	0.99	0.87	0.23	0.86	1.14	0.54	0.61	0.79	1.07	1.20	0.22	0.86
Control Delay	113.0	46.8	5.9	76.6	105.0	1.6	77.2	94.8	101.5	147.7	48.0	52.6
Queue Delay	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	113.0	46.8	5.9	76.6	105.5	1.6	77.2	94.8	101.5	147.7	48.0	52.6
LOS	F	D	A	E	F	A	E	F	F	F	D	D
Approach Delay		52.6			81.3			95.8			116.4	
Approach LOS		D			F			F			F	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.20	
Intersection Signal Delay: 82.8	Intersection LOS: F
Intersection Capacity Utilization 103.3%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 17: Meadows Pkwy & Factory Shops Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	320	1746	199	470	2012	1187	156	139	536	1270	93	524
Future Volume (veh/h)	320	1746	199	470	2012	1187	156	139	536	1270	93	524
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	327	1782	203	480	2646	0	159	142	496	1296	95	535
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	334	2131	756	532	2637		206	181	390	1088	475	555
Arrive On Green	0.10	0.42	0.42	0.15	0.47	0.00	0.06	0.10	0.10	0.22	0.25	0.25
Sat Flow, veh/h	3456	5106	1585	3563	5611	1585	3456	1870	1585	5023	1870	1585
Grp Volume(v), veh/h	327	1782	203	480	2646	0	159	142	496	1296	95	535
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1870	1585	1728	1870	1585	1674	1870	1585
Q Serve(g_s), s	14.2	46.8	11.5	19.9	70.5	0.0	6.8	11.1	14.5	32.5	6.0	38.1
Cycle Q Clear(g_c), s	14.2	46.8	11.5	19.9	70.5	0.0	6.8	11.1	14.5	32.5	6.0	38.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	334	2131	756	532	2637		206	181	390	1088	475	555
V/C Ratio(X)	0.98	0.84	0.27	0.90	1.00		0.77	0.79	1.27	1.19	0.20	0.96
Avail Cap(c_a), veh/h	334	2131	756	582	2637		288	181	390	1088	475	555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.23	0.23	0.23	0.30	0.30	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.6	39.1	23.5	62.7	39.8	0.0	69.5	66.2	56.6	58.8	44.0	47.8
Incr Delay (d2), s/veh	18.7	1.0	0.2	6.0	10.4	0.0	8.1	28.2	141.3	95.2	0.9	30.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	19.7	4.4	9.5	34.4	0.0	3.3	6.8	30.0	23.4	2.9	24.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.3	40.1	23.7	68.7	50.1	0.0	77.7	94.4	197.8	153.9	45.0	77.9
LnGrp LOS	F	D	C	E	F		E	F	F	F	D	E
Approach Vol, veh/h		2312			3126	A		797			1926	
Approach Delay, s/veh		45.2			53.0			155.4			127.4	
Approach LOS		D			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	37.0	19.0	26.9	67.1	13.4	42.6	19.0	75.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	32.5	14.5	24.5	60.5	12.5	34.5	14.5	70.5
Max Q Clear Time (g_c+I1), s	34.5	16.5	21.9	48.8	8.8	40.1	16.2	72.5
Green Ext Time (p_c), s	0.0	0.0	0.5	9.1	0.2	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	78.4
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

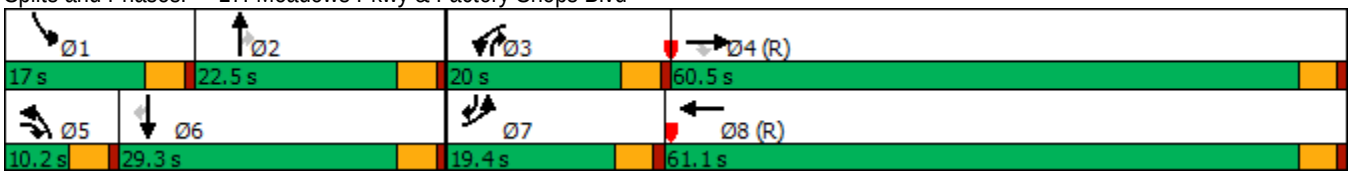
User approved volume balancing among the lanes for turning movement.

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	317	1897	124	340	1853	480	57	53	187	398	65	277
Future Volume (vph)	317	1897	124	340	1853	480	57	53	187	398	65	277
Turn Type	Prot	NA	pm+ov	Prot	NA	Free	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			Free			2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5	9.5	22.5	9.5
Total Split (s)	19.4	60.5	10.2	20.0	61.1		10.2	22.5	20.0	17.0	29.3	19.4
Total Split (%)	16.2%	50.4%	8.5%	16.7%	50.9%		8.5%	18.8%	16.7%	14.2%	24.4%	16.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max		None	Max	None	None	Max	None
Act Effct Green (s)	14.4	56.5	66.7	15.0	57.1	120.0	5.7	18.1	37.7	12.4	24.8	43.7
Actuated g/C Ratio	0.12	0.47	0.56	0.12	0.48	1.00	0.05	0.15	0.31	0.10	0.21	0.36
v/c Ratio	0.78	0.81	0.14	0.81	0.85	0.32	0.36	0.19	0.34	0.79	0.17	0.46
Control Delay	49.6	35.9	9.1	59.5	35.0	0.5	61.8	46.7	17.3	64.6	40.6	25.9
Queue Delay	0.0	0.3	0.0	0.0	3.7	0.0	0.0	0.0	0.2	76.8	0.0	0.0
Total Delay	49.6	36.1	9.1	59.5	38.7	0.5	61.8	46.7	17.5	141.3	40.6	25.9
LOS	D	D	A	E	D	A	E	D	B	F	D	C
Approach Delay		36.5			35.1			31.2			89.3	
Approach LOS		D			D			C			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 42.1	Intersection LOS: D
Intersection Capacity Utilization 73.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 17: Meadows Pkwy & Factory Shops Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	317	1897	124	340	1853	480	57	53	187	398	65	277
Future Volume (veh/h)	317	1897	124	340	1853	480	57	53	187	398	65	277
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	323	1936	127	347	1891	0	58	54	140	406	66	283
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	385	2486	828	412	2756		123	281	421	490	396	512
Arrive On Green	0.04	0.16	0.16	0.04	0.16	0.00	0.04	0.15	0.15	0.10	0.21	0.21
Sat Flow, veh/h	3456	5106	1585	3563	5611	1585	3456	1870	1585	5023	1870	1585
Grp Volume(v), veh/h	323	1936	127	347	1891	0	58	54	140	406	66	283
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1870	1585	1728	1870	1585	1674	1870	1585
Q Serve(g_s), s	11.1	43.6	7.7	11.6	38.1	0.0	2.0	3.0	8.5	9.5	3.5	17.7
Cycle Q Clear(g_c), s	11.1	43.6	7.7	11.6	38.1	0.0	2.0	3.0	8.5	9.5	3.5	17.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	385	2486	828	412	2756		123	281	421	490	396	512
V/C Ratio(X)	0.84	0.78	0.15	0.84	0.69		0.47	0.19	0.33	0.83	0.17	0.55
Avail Cap(c_a), veh/h	429	2486	828	460	2756		164	281	421	523	396	512
HCM Platoon Ratio	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.46	0.46	0.46	0.61	0.61	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.7	44.2	25.4	56.6	41.6	0.0	56.8	44.6	35.5	53.2	38.6	33.5
Incr Delay (d2), s/veh	6.3	1.2	0.2	7.9	0.9	0.0	2.8	1.5	2.1	10.2	0.9	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	20.2	3.1	6.0	19.4	0.0	0.9	1.5	3.6	4.5	1.7	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.0	45.3	25.6	64.5	42.4	0.0	59.5	46.2	37.6	63.4	39.5	37.7
LnGrp LOS	E	D	C	E	D		E	D	D	E	D	D
Approach Vol, veh/h		2386			2238	A		252			755	
Approach Delay, s/veh		46.7			45.9			44.5			51.7	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.2	22.5	18.4	62.9	8.8	29.9	17.9	63.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.5	18.0	15.5	56.0	5.7	24.8	14.9	56.6
Max Q Clear Time (g_c+I1), s	11.5	10.5	13.6	45.6	4.0	19.7	13.1	40.1
Green Ext Time (p_c), s	0.2	0.4	0.3	8.5	0.0	0.6	0.2	12.1

Intersection Summary	
HCM 6th Ctrl Delay	46.9
HCM 6th LOS	D

Notes

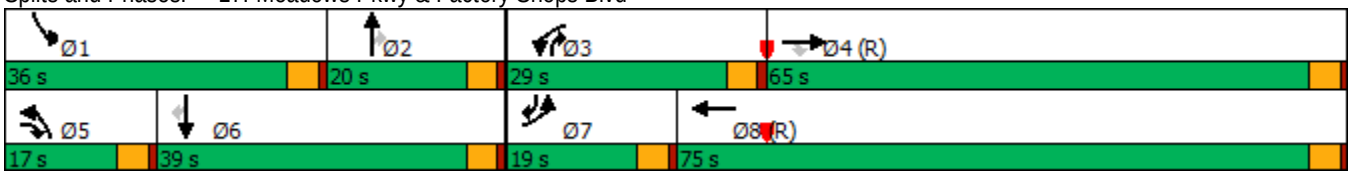
User approved volume balancing among the lanes for turning movement.

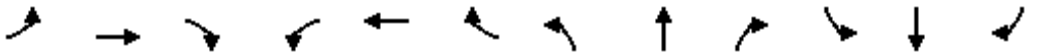
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	343	1998	199	470	2148	1187	156	139	536	1270	93	543
Future Volume (vph)	343	1998	199	470	2148	1187	156	139	536	1270	93	543
Turn Type	Prot	NA	pm+ov	Prot	NA	Free	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			Free			2			6
Detector Phase	7	4	5	3	8		5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	9.5	22.5		9.5	22.5	9.5	9.5	22.5	9.5
Total Split (s)	19.0	65.0	17.0	29.0	75.0		17.0	20.0	29.0	36.0	39.0	19.0
Total Split (%)	12.7%	43.3%	11.3%	19.3%	50.0%		11.3%	13.3%	19.3%	24.0%	26.0%	12.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max		None	Max	None	None	Max	None
Act Effct Green (s)	14.5	60.5	76.4	24.5	70.5	150.0	11.4	15.5	44.5	31.5	35.6	54.6
Actuated g/C Ratio	0.10	0.40	0.51	0.16	0.47	1.00	0.08	0.10	0.30	0.21	0.24	0.36
v/c Ratio	1.06	0.99	0.23	0.86	1.19	0.56	0.61	0.74	1.05	1.24	0.22	0.89
Control Delay	128.1	62.9	7.4	86.2	117.5	2.1	77.2	87.8	95.1	163.3	48.0	56.2
Queue Delay	0.0	39.4	0.0	0.0	0.0	0.0	0.0	0.0	7.2	0.0	0.0	0.0
Total Delay	128.1	102.2	7.4	86.2	117.5	2.1	77.2	87.8	102.3	163.3	48.0	56.2
LOS	F	F	A	F	F	A	E	F	F	F	D	E
Approach Delay		98.3			91.0			95.2			127.2	
Approach LOS		F			F			F			F	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.24	
Intersection Signal Delay: 101.0	Intersection LOS: F
Intersection Capacity Utilization 107.2%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 17: Meadows Pkwy & Factory Shops Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	343	1998	199	470	2148	1187	156	139	536	1270	93	543
Future Volume (veh/h)	343	1998	199	470	2148	1187	156	139	536	1270	93	543
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	350	2039	203	480	2732	0	159	142	343	1296	95	452
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	334	2131	756	532	2637		206	193	400	1055	475	555
Arrive On Green	0.10	0.42	0.42	0.15	0.47	0.00	0.06	0.10	0.10	0.21	0.25	0.25
Sat Flow, veh/h	3456	5106	1585	3563	5611	1585	3456	1870	1585	5023	1870	1585
Grp Volume(v), veh/h	350	2039	203	480	2732	0	159	142	343	1296	95	452
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1781	1870	1585	1728	1870	1585	1674	1870	1585
Q Serve(g_s), s	14.5	58.1	11.5	19.9	70.5	0.0	6.8	11.1	15.5	31.5	6.0	38.1
Cycle Q Clear(g_c), s	14.5	58.1	11.5	19.9	70.5	0.0	6.8	11.1	15.5	31.5	6.0	38.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	334	2131	756	532	2637		206	193	400	1055	475	555
V/C Ratio(X)	1.05	0.96	0.27	0.90	1.04		0.77	0.73	0.86	1.23	0.20	0.81
Avail Cap(c_a), veh/h	334	2131	756	582	2637		288	193	400	1055	475	555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.38	0.38	0.38	0.76	0.76	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.8	42.4	23.5	62.7	39.8	0.0	69.5	65.3	53.5	59.3	44.0	44.3
Incr Delay (d2), s/veh	43.6	5.5	0.3	13.3	25.6	0.0	8.1	21.8	20.4	111.3	0.9	12.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	25.3	4.5	10.0	38.1	0.0	3.3	6.5	14.6	24.2	2.9	17.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	111.4	47.9	23.9	76.0	65.4	0.0	77.7	87.1	73.9	170.6	45.0	56.6
LnGrp LOS	F	D	C	E	F		E	F	E	F	D	E
Approach Vol, veh/h		2592			3212	A		644			1843	
Approach Delay, s/veh		54.6			67.0			77.7			136.2	
Approach LOS		D			E			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.0	20.0	26.9	67.1	13.4	42.6	19.0	75.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	31.5	15.5	24.5	60.5	12.5	34.5	14.5	70.5
Max Q Clear Time (g_c+I1), s	33.5	17.5	21.9	60.1	8.8	40.1	16.5	72.5
Green Ext Time (p_c), s	0.0	0.0	0.5	0.4	0.2	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	79.3
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

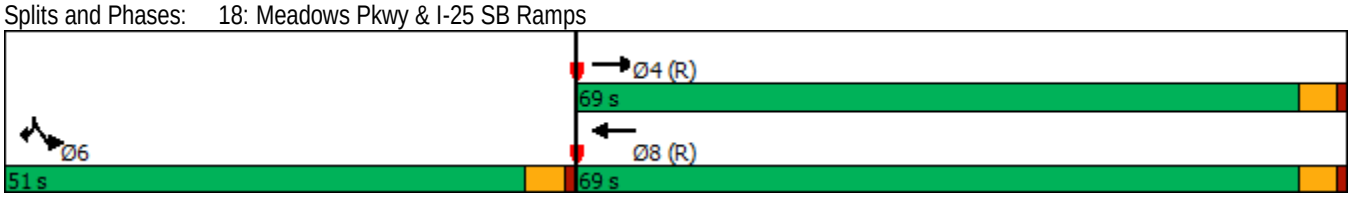
User approved volume balancing among the lanes for turning movement.

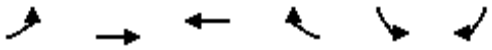
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Traffic Volume (vph)	1344	797	693	553
Future Volume (vph)	1344	797	693	553
Turn Type	NA	NA	Prot	Prot
Protected Phases	4	8	6	6
Permitted Phases				
Detector Phase	4	8	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	69.0	69.0	51.0	51.0
Total Split (%)	57.5%	57.5%	42.5%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	Max	Max
Act Effct Green (s)	64.5	64.5	46.5	46.5
Actuated g/C Ratio	0.54	0.54	0.39	0.39
v/c Ratio	0.55	0.32	0.40	0.51
Control Delay	36.0	13.6	27.4	19.0
Queue Delay	0.8	0.0	0.0	0.0
Total Delay	36.8	13.6	27.4	19.0
LOS	D	B	C	B
Approach Delay	36.8	13.6	23.7	
Approach LOS	D	B	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 53 (44%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 26.5	Intersection LOS: C
Intersection Capacity Utilization 55.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 18: Meadows Pkwy & I-25 SB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↰↰↰	↱↱
Traffic Volume (veh/h)	0	1344	797	0	693	553
Future Volume (veh/h)	0	1344	797	0	693	553
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	1493	886	0	770	614
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2745	2745	0	1947	1081
Arrive On Green	0.00	0.18	0.18	0.00	0.39	0.39
Sat Flow, veh/h	0	5443	5443	0	5023	2790
Grp Volume(v), veh/h	0	1493	886	0	770	614
Grp Sat Flow(s),veh/h/ln	0	1702	1702	0	1674	1395
Q Serve(g_s), s	0.0	31.9	18.2	0.0	13.3	20.7
Cycle Q Clear(g_c), s	0.0	31.9	18.2	0.0	13.3	20.7
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2745	2745	0	1947	1081
V/C Ratio(X)	0.00	0.54	0.32	0.00	0.40	0.57
Avail Cap(c_a), veh/h	0	2745	2745	0	1947	1081
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.86	0.60	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	36.0	30.3	0.0	26.6	28.9
Incr Delay (d2), s/veh	0.0	0.7	0.2	0.0	0.6	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	14.7	8.3	0.0	5.4	7.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	36.6	30.5	0.0	27.2	31.0
LnGrp LOS	A	D	C	A	C	C
Approach Vol, veh/h		1493	886		1384	
Approach Delay, s/veh		36.6	30.5		28.9	
Approach LOS		D	C		C	

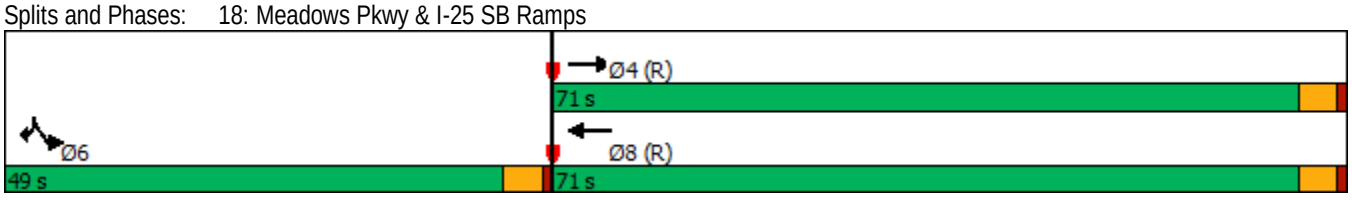
Timer - Assigned Phs		4		6	8
Phs Duration (G+Y+Rc), s		69.0		51.0	69.0
Change Period (Y+Rc), s		4.5		4.5	4.5
Max Green Setting (Gmax), s		64.5		46.5	64.5
Max Q Clear Time (g_c+I1), s		33.9		22.7	20.2
Green Ext Time (p_c), s		14.0		6.3	7.7

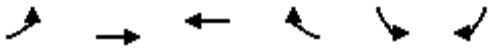
Intersection Summary	
HCM 6th Ctrl Delay	32.3
HCM 6th LOS	C

Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Traffic Volume (vph)	2143	1457	1165	770
Future Volume (vph)	2143	1457	1165	770
Turn Type	NA	NA	Prot	Prot
Protected Phases	4	8	6	6
Permitted Phases				
Detector Phase	4	8	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	71.0	71.0	49.0	49.0
Total Split (%)	59.2%	59.2%	40.8%	40.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	Max	Max
Act Effct Green (s)	66.5	66.5	44.5	44.5
Actuated g/C Ratio	0.55	0.55	0.37	0.37
v/c Ratio	0.80	0.54	0.66	0.76
Control Delay	34.4	19.9	33.6	36.9
Queue Delay	33.1	0.0	0.0	0.0
Total Delay	67.5	19.9	33.6	36.9
LOS	E	B	C	D
Approach Delay	67.5	19.9	34.9	
Approach LOS	E	B	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 53 (44%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 43.6	Intersection LOS: D
Intersection Capacity Utilization 71.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 18: Meadows Pkwy & I-25 SB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↰↰↰	↱↱
Traffic Volume (veh/h)	0	2143	1457	0	1165	770
Future Volume (veh/h)	0	2143	1457	0	1165	770
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	2256	1534	0	1226	811
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2830	2830	0	1863	1035
Arrive On Green	0.00	0.37	0.18	0.00	0.37	0.37
Sat Flow, veh/h	0	5443	5443	0	5023	2790
Grp Volume(v), veh/h	0	2256	1534	0	1226	811
Grp Sat Flow(s),veh/h/ln	0	1702	1702	0	1674	1395
Q Serve(g_s), s	0.0	47.4	32.7	0.0	24.4	30.9
Cycle Q Clear(g_c), s	0.0	47.4	32.7	0.0	24.4	30.9
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2830	2830	0	1863	1035
V/C Ratio(X)	0.00	0.80	0.54	0.00	0.66	0.78
Avail Cap(c_a), veh/h	0	2830	2830	0	1863	1035
HCM Platoon Ratio	1.00	0.67	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.69	0.75	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	31.7	35.2	0.0	31.4	33.5
Incr Delay (d2), s/veh	0.0	1.7	0.6	0.0	1.8	5.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	20.8	15.1	0.0	10.1	11.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	33.4	35.8	0.0	33.3	39.4
LnGrp LOS	A	C	D	A	C	D
Approach Vol, veh/h		2256	1534		2037	
Approach Delay, s/veh		33.4	35.8		35.7	
Approach LOS		C	D		D	

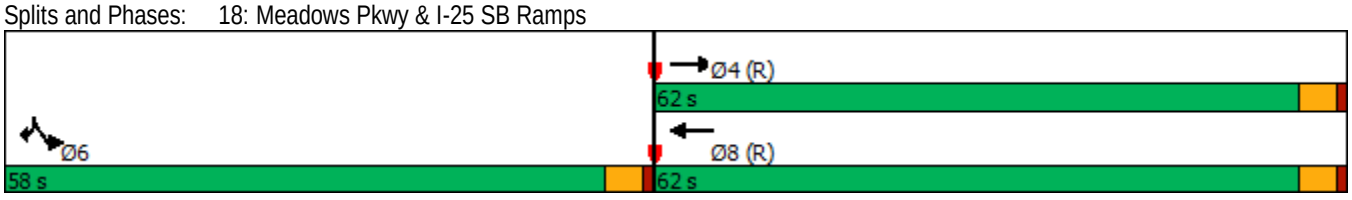
Timer - Assigned Phs		4		6	8
Phs Duration (G+Y+Rc), s		71.0		49.0	71.0
Change Period (Y+Rc), s		4.5		4.5	4.5
Max Green Setting (Gmax), s		66.5		44.5	66.5
Max Q Clear Time (g_c+I1), s		49.4		32.9	34.7
Green Ext Time (p_c), s		14.3		6.9	14.8

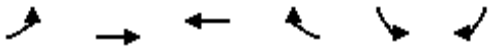
Intersection Summary	
HCM 6th Ctrl Delay	34.8
HCM 6th LOS	C

Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Traffic Volume (vph)	1554	931	806	635
Future Volume (vph)	1554	931	806	635
Turn Type	NA	NA	Prot	Prot
Protected Phases	4	8	6	6
Permitted Phases				
Detector Phase	4	8	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	62.0	62.0	58.0	58.0
Total Split (%)	51.7%	51.7%	48.3%	48.3%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	Max	Max
Act Effct Green (s)	57.5	57.5	53.5	53.5
Actuated g/C Ratio	0.48	0.48	0.45	0.45
v/c Ratio	0.67	0.40	0.38	0.51
Control Delay	36.5	24.6	22.8	20.5
Queue Delay	1.4	0.0	0.0	0.0
Total Delay	37.9	24.6	22.8	20.5
LOS	D	C	C	C
Approach Delay	37.9	24.6	21.8	
Approach LOS	D	C	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 53 (44%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 28.8	Intersection LOS: C
Intersection Capacity Utilization 63.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 18: Meadows Pkwy & I-25 SB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↰↰↰	↱↱
Traffic Volume (veh/h)	0	1554	931	0	806	635
Future Volume (veh/h)	0	1554	931	0	806	635
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	1636	980	0	848	668
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2447	2447	0	2240	1244
Arrive On Green	0.00	0.16	0.16	0.00	0.45	0.45
Sat Flow, veh/h	0	5443	5443	0	5023	2790
Grp Volume(v), veh/h	0	1636	980	0	848	668
Grp Sat Flow(s),veh/h/ln	0	1702	1702	0	1674	1395
Q Serve(g_s), s	0.0	36.2	20.7	0.0	13.5	20.9
Cycle Q Clear(g_c), s	0.0	36.2	20.7	0.0	13.5	20.9
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2447	2447	0	2240	1244
V/C Ratio(X)	0.00	0.67	0.40	0.00	0.38	0.54
Avail Cap(c_a), veh/h	0	2447	2447	0	2240	1244
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.84	0.56	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	41.5	35.0	0.0	22.2	24.2
Incr Delay (d2), s/veh	0.0	1.2	0.3	0.0	0.5	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	16.8	9.5	0.0	5.4	7.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	42.8	35.3	0.0	22.7	25.9
LnGrp LOS	A	D	D	A	C	C
Approach Vol, veh/h		1636	980		1516	
Approach Delay, s/veh		42.8	35.3		24.1	
Approach LOS		D	D		C	

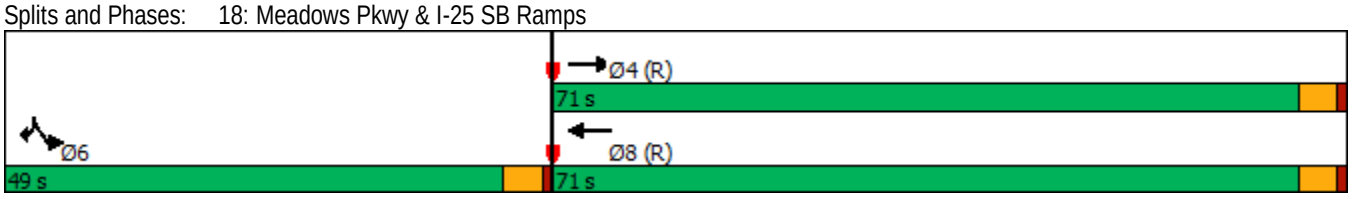
Timer - Assigned Phs	4	6	8
Phs Duration (G+Y+Rc), s	62.0	58.0	62.0
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	57.5	53.5	57.5
Max Q Clear Time (g_c+I1), s	38.2	22.9	22.7
Green Ext Time (p_c), s	12.0	7.4	8.4

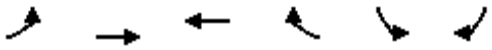
Intersection Summary	
HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Traffic Volume (vph)	2472	1684	1383	884
Future Volume (vph)	2472	1684	1383	884
Turn Type	NA	NA	Prot	Prot
Protected Phases	4	8	6	6
Permitted Phases				
Detector Phase	4	8	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	71.0	71.0	49.0	49.0
Total Split (%)	59.2%	59.2%	40.8%	40.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	Max	Max
Act Effct Green (s)	66.5	66.5	44.5	44.5
Actuated g/C Ratio	0.55	0.55	0.37	0.37
v/c Ratio	0.92	0.63	0.79	0.89
Control Delay	39.0	21.0	37.3	46.2
Queue Delay	45.5	0.0	0.1	10.2
Total Delay	84.4	21.0	37.4	56.4
LOS	F	C	D	E
Approach Delay	84.4	21.0	44.8	
Approach LOS	F	C	D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 53 (44%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 53.8	Intersection LOS: D
Intersection Capacity Utilization 81.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 18: Meadows Pkwy & I-25 SB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↰↰↰	↱↱
Traffic Volume (veh/h)	0	2472	1684	0	1383	884
Future Volume (veh/h)	0	2472	1684	0	1383	884
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	2602	1773	0	1456	931
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2830	2830	0	1863	1035
Arrive On Green	0.00	0.37	0.37	0.00	0.37	0.37
Sat Flow, veh/h	0	5443	5443	0	5023	2790
Grp Volume(v), veh/h	0	2602	1773	0	1456	931
Grp Sat Flow(s),veh/h/ln	0	1702	1702	0	1674	1395
Q Serve(g_s), s	0.0	58.4	34.1	0.0	30.8	37.8
Cycle Q Clear(g_c), s	0.0	58.4	34.1	0.0	30.8	37.8
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2830	2830	0	1863	1035
V/C Ratio(X)	0.00	0.92	0.63	0.00	0.78	0.90
Avail Cap(c_a), veh/h	0	2830	2830	0	1863	1035
HCM Platoon Ratio	1.00	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.56	0.62	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	35.2	27.5	0.0	33.4	35.6
Incr Delay (d2), s/veh	0.0	3.7	0.7	0.0	3.3	12.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	26.0	14.8	0.0	12.9	14.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	38.9	28.2	0.0	36.8	47.9
LnGrp LOS	A	D	C	A	D	D
Approach Vol, veh/h		2602	1773		2387	
Approach Delay, s/veh		38.9	28.2		41.1	
Approach LOS		D	C		D	

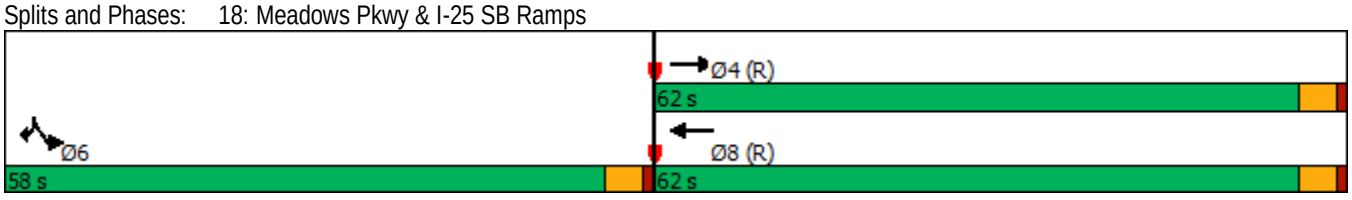
Timer - Assigned Phs		4		6	8
Phs Duration (G+Y+Rc), s		71.0		49.0	71.0
Change Period (Y+Rc), s		4.5		4.5	4.5
Max Green Setting (Gmax), s		66.5		44.5	66.5
Max Q Clear Time (g_c+I1), s		60.4		39.8	36.1
Green Ext Time (p_c), s		5.8		3.7	17.4

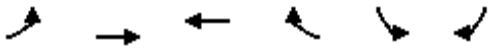
Intersection Summary	
HCM 6th Ctrl Delay	36.9
HCM 6th LOS	D

Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Traffic Volume (vph)	1692	967	1006	897
Future Volume (vph)	1692	967	1006	897
Turn Type	NA	NA	Prot	Prot
Protected Phases	4	8	6	6
Permitted Phases				
Detector Phase	4	8	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	62.0	62.0	58.0	58.0
Total Split (%)	51.7%	51.7%	48.3%	48.3%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	Max	Max
Act Effct Green (s)	57.5	57.5	53.5	53.5
Actuated g/C Ratio	0.48	0.48	0.45	0.45
v/c Ratio	0.73	0.42	0.48	0.72
Control Delay	38.5	24.3	24.3	27.6
Queue Delay	3.6	0.0	0.0	0.0
Total Delay	42.0	24.3	24.3	27.6
LOS	D	C	C	C
Approach Delay	42.0	24.3	25.8	
Approach LOS	D	C	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 53 (44%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 31.5	Intersection LOS: C
Intersection Capacity Utilization 59.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 18: Meadows Pkwy & I-25 SB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↰↰↰	↱↱
Traffic Volume (veh/h)	0	1692	967	0	1006	897
Future Volume (veh/h)	0	1692	967	0	1006	897
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	1781	1018	0	1059	944
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2447	2447	0	2240	1244
Arrive On Green	0.00	0.16	0.16	0.00	0.45	0.45
Sat Flow, veh/h	0	5443	5443	0	5023	2790
Grp Volume(v), veh/h	0	1781	1018	0	1059	944
Grp Sat Flow(s),veh/h/ln	0	1702	1702	0	1674	1395
Q Serve(g_s), s	0.0	39.8	21.6	0.0	17.8	34.0
Cycle Q Clear(g_c), s	0.0	39.8	21.6	0.0	17.8	34.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2447	2447	0	2240	1244
V/C Ratio(X)	0.00	0.73	0.42	0.00	0.47	0.76
Avail Cap(c_a), veh/h	0	2447	2447	0	2240	1244
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.80	0.45	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	43.1	35.4	0.0	23.3	27.9
Incr Delay (d2), s/veh	0.0	1.6	0.2	0.0	0.7	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	18.5	9.9	0.0	7.1	11.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	44.6	35.6	0.0	24.1	32.2
LnGrp LOS	A	D	D	A	C	C
Approach Vol, veh/h		1781	1018		2003	
Approach Delay, s/veh		44.6	35.6		27.9	
Approach LOS		D	D		C	

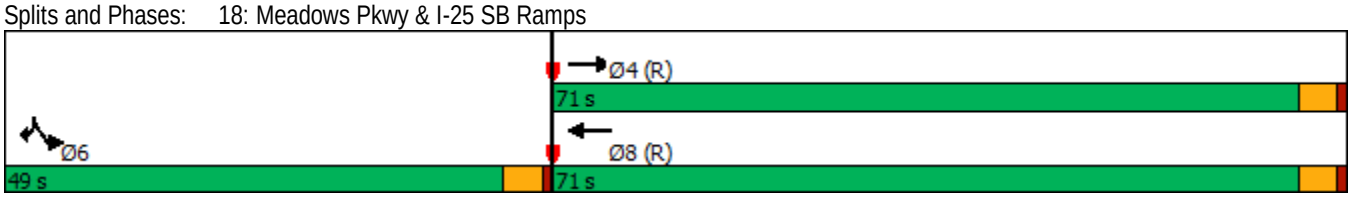
Timer - Assigned Phs		4		6	8
Phs Duration (G+Y+Rc), s		62.0		58.0	62.0
Change Period (Y+Rc), s		4.5		4.5	4.5
Max Green Setting (Gmax), s		57.5		53.5	57.5
Max Q Clear Time (g_c+I1), s		41.8		36.0	23.6
Green Ext Time (p_c), s		11.1		8.7	8.8

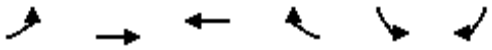
Intersection Summary	
HCM 6th Ctrl Delay	35.7
HCM 6th LOS	D

Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Traffic Volume (vph)	2724	1703	1628	1013
Future Volume (vph)	2724	1703	1628	1013
Turn Type	NA	NA	Prot	Prot
Protected Phases	4	8	6	6
Permitted Phases				
Detector Phase	4	8	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	71.0	71.0	49.0	49.0
Total Split (%)	59.2%	59.2%	40.8%	40.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	Max	Max
Act Effct Green (s)	66.5	66.5	44.5	44.5
Actuated g/C Ratio	0.55	0.55	0.37	0.37
v/c Ratio	1.02	0.64	0.93	1.02
Control Delay	55.2	20.6	46.0	69.4
Queue Delay	33.5	0.0	45.3	31.1
Total Delay	88.6	20.6	91.4	100.5
LOS	F	C	F	F
Approach Delay	88.6	20.6	94.9	
Approach LOS	F	C	F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 53 (44%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 74.6	Intersection LOS: E
Intersection Capacity Utilization 91.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 18: Meadows Pkwy & I-25 SB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↰↰↰	↱↱
Traffic Volume (veh/h)	0	2724	1703	0	1628	1013
Future Volume (veh/h)	0	2724	1703	0	1628	1013
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	2867	1793	0	1714	1066
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2830	2830	0	1863	1035
Arrive On Green	0.00	0.18	0.37	0.00	0.37	0.37
Sat Flow, veh/h	0	5443	5443	0	5023	2790
Grp Volume(v), veh/h	0	2867	1793	0	1714	1066
Grp Sat Flow(s),veh/h/ln	0	1702	1702	0	1674	1395
Q Serve(g_s), s	0.0	66.5	34.6	0.0	39.1	44.5
Cycle Q Clear(g_c), s	0.0	66.5	34.6	0.0	39.1	44.5
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2830	2830	0	1863	1035
V/C Ratio(X)	0.00	1.01	0.63	0.00	0.92	1.03
Avail Cap(c_a), veh/h	0	2830	2830	0	1863	1035
HCM Platoon Ratio	1.00	0.33	0.67	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.45	0.51	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	49.0	27.7	0.0	36.1	37.8
Incr Delay (d2), s/veh	0.0	14.8	0.6	0.0	8.9	36.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	34.2	15.0	0.0	17.2	20.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	63.8	28.3	0.0	45.0	73.8
LnGrp LOS	A	F	C	A	D	F
Approach Vol, veh/h		2867	1793		2780	
Approach Delay, s/veh		63.8	28.3		56.0	
Approach LOS		E	C		E	

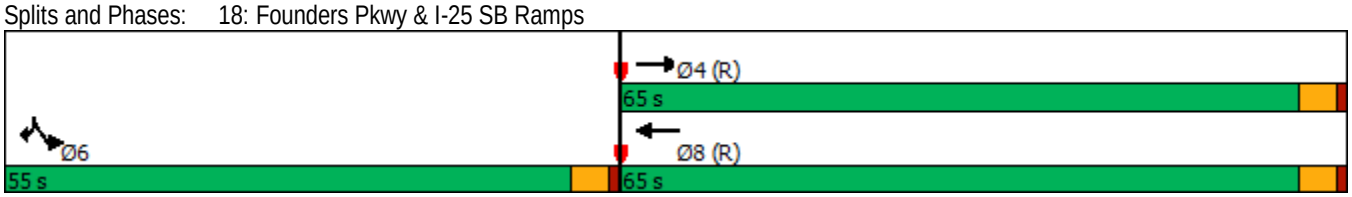
Timer - Assigned Phs		4		6	8
Phs Duration (G+Y+Rc), s		71.0		49.0	71.0
Change Period (Y+Rc), s		4.5		4.5	4.5
Max Green Setting (Gmax), s		66.5		44.5	66.5
Max Q Clear Time (g_c+I1), s		68.5		46.5	36.6
Green Ext Time (p_c), s		0.0		0.0	17.4

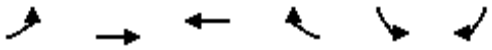
Intersection Summary	
HCM 6th Ctrl Delay	52.3
HCM 6th LOS	D

Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Traffic Volume (vph)	1878	1277	1046	855
Future Volume (vph)	1878	1277	1046	855
Turn Type	NA	NA	Prot	Prot
Protected Phases	4	8	6	6
Permitted Phases				
Detector Phase	4	8	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	65.0	65.0	55.0	55.0
Total Split (%)	54.2%	54.2%	45.8%	45.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	Max	Max
Act Effct Green (s)	60.5	60.5	50.5	50.5
Actuated g/C Ratio	0.50	0.50	0.42	0.42
v/c Ratio	0.77	0.52	0.52	0.75
Control Delay	34.6	23.6	26.9	32.3
Queue Delay	19.8	0.0	0.0	0.0
Total Delay	54.4	23.6	26.9	32.3
LOS	D	C	C	C
Approach Delay	54.4	23.6	29.4	
Approach LOS	D	C	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 53 (44%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 37.2	Intersection LOS: D
Intersection Capacity Utilization 78.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 18: Founders Pkwy & I-25 SB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↰↰↰	↱↱
Traffic Volume (veh/h)	0	1878	1277	0	1046	855
Future Volume (veh/h)	0	1878	1277	0	1046	855
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	1977	1344	0	1101	900
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2574	2574	0	2114	1174
Arrive On Green	0.00	0.17	0.17	0.00	0.42	0.42
Sat Flow, veh/h	0	5443	5443	0	5023	2790
Grp Volume(v), veh/h	0	1977	1344	0	1101	900
Grp Sat Flow(s),veh/h/ln	0	1702	1702	0	1674	1395
Q Serve(g_s), s	0.0	44.4	28.8	0.0	19.5	33.1
Cycle Q Clear(g_c), s	0.0	44.4	28.8	0.0	19.5	33.1
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2574	2574	0	2114	1174
V/C Ratio(X)	0.00	0.77	0.52	0.00	0.52	0.77
Avail Cap(c_a), veh/h	0	2574	2574	0	2114	1174
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.59	0.22	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	43.3	36.8	0.0	25.8	29.7
Incr Delay (d2), s/veh	0.0	1.3	0.2	0.0	0.9	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	20.6	13.2	0.0	7.9	11.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	44.7	37.0	0.0	26.7	34.5
LnGrp LOS	A	D	D	A	C	C
Approach Vol, veh/h		1977	1344		2001	
Approach Delay, s/veh		44.7	37.0		30.2	
Approach LOS		D	D		C	

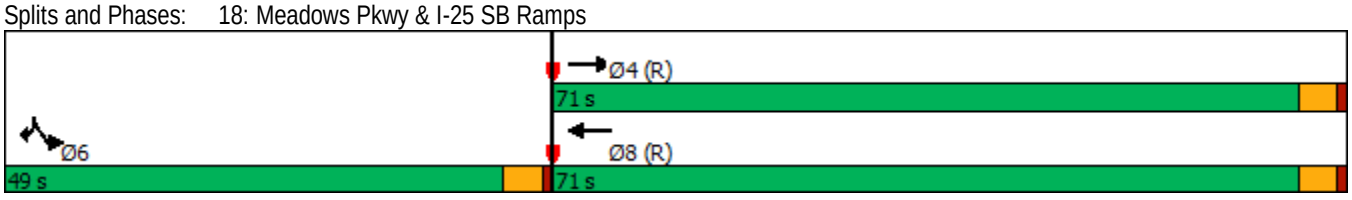
Timer - Assigned Phs	4	6	8
Phs Duration (G+Y+Rc), s	65.0	55.0	65.0
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	60.5	50.5	60.5
Max Q Clear Time (g_c+I1), s	46.4	35.1	30.8
Green Ext Time (p_c), s	11.1	8.1	12.1

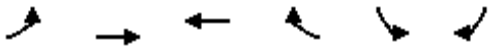
Intersection Summary	
HCM 6th Ctrl Delay	37.3
HCM 6th LOS	D

Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Traffic Volume (vph)	2863	1942	1656	1190
Future Volume (vph)	2863	1942	1656	1190
Turn Type	NA	NA	Prot	Prot
Protected Phases	4	8	6	6
Permitted Phases				
Detector Phase	4	8	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	71.0	71.0	49.0	49.0
Total Split (%)	59.2%	59.2%	40.8%	40.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	Max	Max
Act Effct Green (s)	66.5	66.5	44.5	44.5
Actuated g/C Ratio	0.55	0.55	0.37	0.37
v/c Ratio	1.07	0.73	0.94	1.20
Control Delay	63.0	20.2	47.9	135.1
Queue Delay	13.6	1.2	44.9	4.1
Total Delay	76.5	21.4	92.8	139.2
LOS	E	C	F	F
Approach Delay	76.5	21.4	112.2	
Approach LOS	E	C	F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 53 (44%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.20	
Intersection Signal Delay: 75.8	Intersection LOS: E
Intersection Capacity Utilization 94.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 18: Meadows Pkwy & I-25 SB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↰↰↰	↱↱
Traffic Volume (veh/h)	0	2863	1942	0	1656	1190
Future Volume (veh/h)	0	2863	1942	0	1656	1190
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	3014	2044	0	1743	1253
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2830	2830	0	1863	1035
Arrive On Green	0.00	0.18	0.55	0.00	0.37	0.37
Sat Flow, veh/h	0	5443	5443	0	5023	2790
Grp Volume(v), veh/h	0	3014	2044	0	1743	1253
Grp Sat Flow(s),veh/h/ln	0	1702	1702	0	1674	1395
Q Serve(g_s), s	0.0	66.5	35.7	0.0	40.1	44.5
Cycle Q Clear(g_c), s	0.0	66.5	35.7	0.0	40.1	44.5
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2830	2830	0	1863	1035
V/C Ratio(X)	0.00	1.07	0.72	0.00	0.94	1.21
Avail Cap(c_a), veh/h	0	2830	2830	0	1863	1035
HCM Platoon Ratio	1.00	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.31	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	49.0	19.9	0.0	36.4	37.8
Incr Delay (d2), s/veh	0.0	30.2	0.5	0.0	10.4	104.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	38.3	13.7	0.0	17.9	29.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	79.3	20.4	0.0	46.7	141.9
LnGrp LOS	A	F	C	A	D	F
Approach Vol, veh/h		3014	2044		2996	
Approach Delay, s/veh		79.3	20.4		86.5	
Approach LOS		E	C		F	

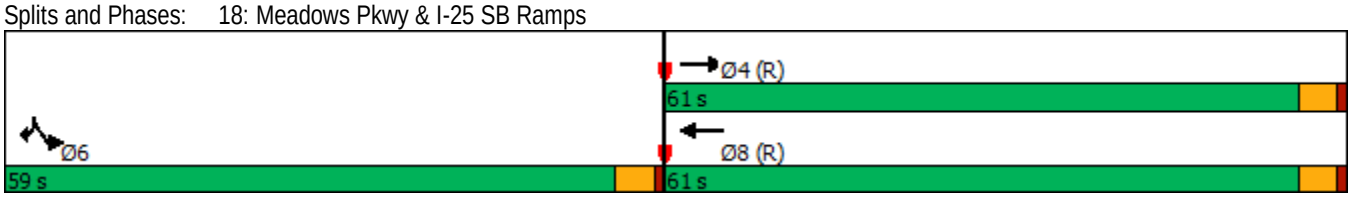
Timer - Assigned Phs	4	6	8
Phs Duration (G+Y+Rc), s	71.0	49.0	71.0
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	66.5	44.5	66.5
Max Q Clear Time (g_c+I1), s	68.5	46.5	37.7
Green Ext Time (p_c), s	0.0	0.0	19.8

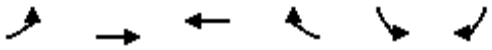
Intersection Summary	
HCM 6th Ctrl Delay	67.0
HCM 6th LOS	E

Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Traffic Volume (vph)	2003	1327	1258	1105
Future Volume (vph)	2003	1327	1258	1105
Turn Type	NA	NA	Prot	Prot
Protected Phases	4	8	6	6
Permitted Phases				
Detector Phase	4	8	6	6
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	61.0	61.0	59.0	59.0
Total Split (%)	50.8%	50.8%	49.2%	49.2%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	Max	Max
Act Effct Green (s)	56.5	56.5	54.5	54.5
Actuated g/C Ratio	0.47	0.47	0.45	0.45
v/c Ratio	0.88	0.58	0.58	0.91
Control Delay	36.3	25.2	25.6	40.8
Queue Delay	46.3	0.0	0.0	6.8
Total Delay	82.7	25.2	25.6	47.5
LOS	F	C	C	D
Approach Delay	82.7	25.2	35.9	
Approach LOS	F	C	D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 53 (44%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 49.8	Intersection LOS: D
Intersection Capacity Utilization 71.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 18: Meadows Pkwy & I-25 SB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↰↰↰	↱↱
Traffic Volume (veh/h)	0	2003	1327	0	1258	1105
Future Volume (veh/h)	0	2003	1327	0	1258	1105
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	2108	1397	0	1324	1163
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2404	2404	0	2281	1267
Arrive On Green	0.00	0.16	0.16	0.00	0.45	0.45
Sat Flow, veh/h	0	5443	5443	0	5023	2790
Grp Volume(v), veh/h	0	2108	1397	0	1324	1163
Grp Sat Flow(s),veh/h/ln	0	1702	1702	0	1674	1395
Q Serve(g_s), s	0.0	48.4	30.5	0.0	23.4	46.8
Cycle Q Clear(g_c), s	0.0	48.4	30.5	0.0	23.4	46.8
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2404	2404	0	2281	1267
V/C Ratio(X)	0.00	0.88	0.58	0.00	0.58	0.92
Avail Cap(c_a), veh/h	0	2404	2404	0	2281	1267
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.55	0.09	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	47.3	39.7	0.0	24.3	30.7
Incr Delay (d2), s/veh	0.0	2.8	0.1	0.0	1.1	12.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	22.7	13.9	0.0	9.4	17.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	50.1	39.8	0.0	25.4	42.7
LnGrp LOS	A	D	D	A	C	D
Approach Vol, veh/h		2108	1397		2487	
Approach Delay, s/veh		50.1	39.8		33.4	
Approach LOS		D	D		C	

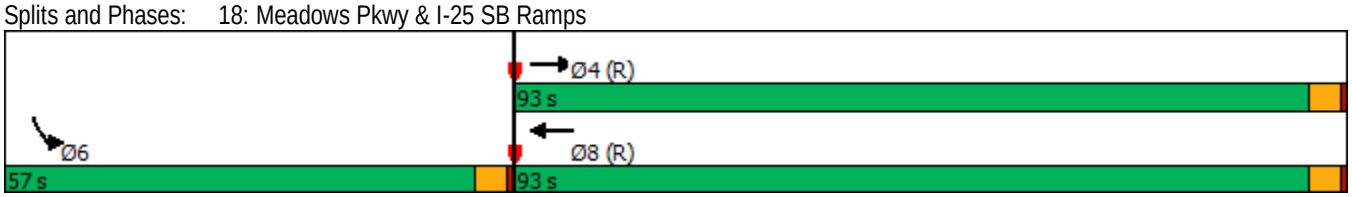
Timer - Assigned Phs	4	6	8
Phs Duration (G+Y+Rc), s	61.0	59.0	61.0
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	56.5	54.5	56.5
Max Q Clear Time (g_c+I1), s	50.4	48.8	32.5
Green Ext Time (p_c), s	5.4	4.6	11.5

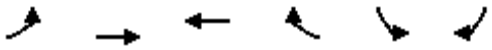
Intersection Summary	
HCM 6th Ctrl Delay	40.8
HCM 6th LOS	D

Lane Group	EBT	WBT	SBL	SBR
Lane Configurations				
Traffic Volume (vph)	3115	1970	1921	1298
Future Volume (vph)	3115	1970	1921	1298
Turn Type	NA	NA	Prot	Free
Protected Phases	4	8	6	
Permitted Phases				Free
Detector Phase	4	8	6	
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5	
Total Split (s)	93.0	93.0	57.0	
Total Split (%)	62.0%	62.0%	38.0%	
Yellow Time (s)	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	C-Max	C-Max	Max	
Act Effct Green (s)	88.5	88.5	52.5	150.0
Actuated g/C Ratio	0.59	0.59	0.35	1.00
v/c Ratio	1.08	0.68	1.15	0.49
Control Delay	63.9	22.6	116.7	0.6
Queue Delay	8.2	1.2	0.0	0.1
Total Delay	72.0	23.8	116.7	0.7
LOS	E	C	F	A
Approach Delay	72.0	23.8	69.9	
Approach LOS	E	C	E	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.15	
Intersection Signal Delay: 59.8	Intersection LOS: E
Intersection Capacity Utilization 104.2%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 18: Meadows Pkwy & I-25 SB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↰↰↰	↱↱
Traffic Volume (veh/h)	0	3115	1970	0	1921	1298
Future Volume (veh/h)	0	3115	1970	0	1921	1298
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	3245	2052	0	2001	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	3013	3013	0	1758	
Arrive On Green	0.00	1.00	0.59	0.00	0.35	0.00
Sat Flow, veh/h	0	5443	5443	0	5023	2790
Grp Volume(v), veh/h	0	3245	2052	0	2001	0
Grp Sat Flow(s),veh/h/ln	0	1702	1702	0	1674	1395
Q Serve(g_s), s	0.0	88.5	41.3	0.0	52.5	0.0
Cycle Q Clear(g_c), s	0.0	88.5	41.3	0.0	52.5	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	3013	3013	0	1758	
V/C Ratio(X)	0.00	1.08	0.68	0.00	1.14	
Avail Cap(c_a), veh/h	0	3013	3013	0	1758	
HCM Platoon Ratio	1.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.16	0.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	21.1	0.0	48.7	0.0
Incr Delay (d2), s/veh	0.0	35.5	0.2	0.0	69.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.9	16.3	0.0	33.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	35.5	21.3	0.0	118.4	0.0
LnGrp LOS	A	F	C	A	F	
Approach Vol, veh/h		3245	2052		2001	A
Approach Delay, s/veh		35.5	21.3		118.4	
Approach LOS		D	C		F	

Timer - Assigned Phs		4		6	8
Phs Duration (G+Y+Rc), s		93.0		57.0	93.0
Change Period (Y+Rc), s		4.5		4.5	4.5
Max Green Setting (Gmax), s		88.5		52.5	88.5
Max Q Clear Time (g_c+I1), s		90.5		54.5	43.3
Green Ext Time (p_c), s		0.0		0.0	26.5

Intersection Summary	
HCM 6th Ctrl Delay	54.2
HCM 6th LOS	D

Notes

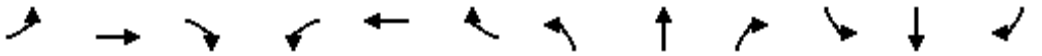
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	991	850	1520	245	0	221
Future Volume (vph)	991	850	1520	245	0	221
Turn Type	NA	NA	Free	Perm	NA	Prot
Protected Phases	4	8			2	2
Permitted Phases			Free	2		
Detector Phase	4	8		2	2	2
Switch Phase						
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5
Total Split (s)	92.0	92.0		28.0	28.0	28.0
Total Split (%)	76.7%	76.7%		23.3%	23.3%	23.3%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max		Max	Max	Max
Act Effct Green (s)	87.5	87.5	120.0	23.5	23.5	23.5
Actuated g/C Ratio	0.73	0.73	1.00	0.20	0.20	0.20
v/c Ratio	0.31	0.76	0.61	0.47	0.50	0.31
Control Delay	9.3	4.8	4.1	48.2	45.4	6.3
Queue Delay	0.0	1.1	0.0	0.0	0.0	0.0
Total Delay	9.3	5.9	4.1	48.2	45.4	6.3
LOS	A	A	A	D	D	A
Approach Delay	9.3	5.3			29.5	
Approach LOS	A	A			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 9.3	Intersection LOS: A
Intersection Capacity Utilization 55.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 19: I-25 NB Ramps & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	991	0	0	850	1520	245	0	221	0	0	0
Future Volume (veh/h)	0	991	0	0	850	1520	245	0	221	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	0	1139	0	0	977	0	329	0	203			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	0	2	0	0	2	2	2	2	2			
Cap, veh/h	0	3723	0	0	1364		698	0	621			
Arrive On Green	0.00	1.00	0.00	0.00	0.73	0.00	0.20	0.00	0.20			
Sat Flow, veh/h	0	5443	0	0	1870	3170	3563	0	3170			
Grp Volume(v), veh/h	0	1139	0	0	977	0	329	0	203			
Grp Sat Flow(s),veh/h/ln	0	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	0.0	0.0	0.0	0.0	35.5	0.0	9.8	0.0	6.6			
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	35.5	0.0	9.8	0.0	6.6			
Prop In Lane	0.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3723	0	0	1364		698	0	621			
V/C Ratio(X)	0.00	0.31	0.00	0.00	0.72		0.47	0.00	0.33			
Avail Cap(c_a), veh/h	0	3723	0	0	1364		698	0	621			
HCM Platoon Ratio	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.86	0.00	0.00	0.70	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	9.2	0.0	42.7	0.0	41.5			
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	2.3	0.0	2.3	0.0	1.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	0.0	13.4	0.0	4.6	0.0	2.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.2	0.0	0.0	11.5	0.0	45.0	0.0	42.9			
LnGrp LOS	A	A	A	A	B		D	A	D			
Approach Vol, veh/h		1139			977	A		532				
Approach Delay, s/veh		0.2			11.5			44.2				
Approach LOS		A			B			D				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		28.0		92.0				92.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		23.5		87.5				87.5				
Max Q Clear Time (g_c+I1), s		11.8		2.0				37.5				
Green Ext Time (p_c), s		1.6		11.4				10.9				

Intersection Summary	
HCM 6th Ctrl Delay	13.2
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

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

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	2278	1228	863	353	0	303
Future Volume (vph)	2278	1228	863	353	0	303
Turn Type	NA	NA	Free	Perm	NA	Prot
Protected Phases	4	8			2	2
Permitted Phases			Free	2		
Detector Phase	4	8		2	2	2
Switch Phase						
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5
Total Split (s)	92.0	92.0		28.0	28.0	28.0
Total Split (%)	76.7%	76.7%		23.3%	23.3%	23.3%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max		Max	Max	Max
Act Effct Green (s)	87.5	87.5	120.0	23.5	23.5	23.5
Actuated g/C Ratio	0.73	0.73	1.00	0.20	0.20	0.20
v/c Ratio	0.63	0.62	0.46	0.61	0.64	0.48
Control Delay	12.3	4.0	1.6	52.9	51.7	42.2
Queue Delay	0.3	0.4	0.0	0.0	0.4	0.1
Total Delay	12.6	4.4	1.6	52.9	52.1	42.3
LOS	B	A	A	D	D	D
Approach Delay	12.6	3.6			48.3	
Approach LOS	B	A			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 13.5	Intersection LOS: B
Intersection Capacity Utilization 71.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 19: I-25 NB Ramps & Founders Pkwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	2278	0	0	1228	863	353	0	303	0	0	0
Future Volume (veh/h)	0	2278	0	0	1228	863	353	0	303	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	0	2348	0	0	1523	0	422	0	250			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	2	0	0	2	2	2	2	2			
Cap, veh/h	0	3723	0	0	2728		698	0	621			
Arrive On Green	0.00	0.97	0.00	0.00	0.73	0.00	0.20	0.00	0.20			
Sat Flow, veh/h	0	5443	0	0	3741	1585	3563	0	3170			
Grp Volume(v), veh/h	0	2348	0	0	1523	0	422	0	250			
Grp Sat Flow(s),veh/h/ln	0	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	0.0	4.3	0.0	0.0	22.3	0.0	13.0	0.0	8.3			
Cycle Q Clear(g_c), s	0.0	4.3	0.0	0.0	22.3	0.0	13.0	0.0	8.3			
Prop In Lane	0.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3723	0	0	2728		698	0	621			
V/C Ratio(X)	0.00	0.63	0.00	0.00	0.56		0.60	0.00	0.40			
Avail Cap(c_a), veh/h	0	3723	0	0	2728		698	0	621			
HCM Platoon Ratio	1.00	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.58	0.00	0.00	0.78	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	0.6	0.0	0.0	7.4	0.0	44.0	0.0	42.1			
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.0	0.6	0.0	3.9	0.0	1.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	0.7	0.0	0.0	8.1	0.0	6.1	0.0	3.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	1.0	0.0	0.0	8.1	0.0	47.9	0.0	44.1			
LnGrp LOS	A	A	A	A	A		D	A	D			
Approach Vol, veh/h		2348			1523	A		672				
Approach Delay, s/veh		1.0			8.1			46.5				
Approach LOS		A			A			D				

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		28.0		92.0				92.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		23.5		87.5				87.5				
Max Q Clear Time (g_c+I1), s		15.0		6.3				24.3				
Green Ext Time (p_c), s		1.8		45.6				19.7				

Intersection Summary		
HCM 6th Ctrl Delay		10.1
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

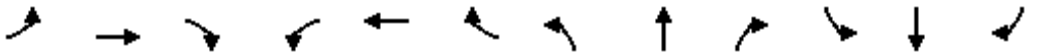
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	1153	1006	1786	281	0	259
Future Volume (vph)	1153	1006	1786	281	0	259
Turn Type	NA	NA	Free	Perm	NA	Prot
Protected Phases	4	8			2	2
Permitted Phases			Free	2		
Detector Phase	4	8		2	2	2
Switch Phase						
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5
Total Split (s)	95.0	95.0		25.0	25.0	25.0
Total Split (%)	79.2%	79.2%		20.8%	20.8%	20.8%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max		Max	Max	Max
Act Effct Green (s)	90.5	90.5	120.0	20.5	20.5	20.5
Actuated g/C Ratio	0.75	0.75	1.00	0.17	0.17	0.17
v/c Ratio	0.31	0.78	0.64	0.55	0.59	0.35
Control Delay	7.7	4.2	3.9	53.8	51.8	6.9
Queue Delay	0.0	1.4	0.0	0.0	0.0	0.0
Total Delay	7.7	5.7	3.9	53.8	51.8	6.9
LOS	A	A	A	D	D	A
Approach Delay	7.7	5.1			33.0	
Approach LOS	A	A			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 9.1	Intersection LOS: A
Intersection Capacity Utilization 63.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 19: I-25 NB Ramps & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1153	0	0	1006	1786	281	0	259	0	0	0
Future Volume (veh/h)	0	1153	0	0	1006	1786	281	0	259	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	0	1189	0	0	1037	0	340	0	214			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	2	0	0	2	2	2	2	2			
Cap, veh/h	0	3851	0	0	1411		609	0	542			
Arrive On Green	0.00	1.00	0.00	0.00	1.00	0.00	0.17	0.00	0.17			
Sat Flow, veh/h	0	5443	0	0	1870	3170	3563	0	3170			
Grp Volume(v), veh/h	0	1189	0	0	1037	0	340	0	214			
Grp Sat Flow(s),veh/h/ln	0	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	10.5	0.0	7.2			
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	10.5	0.0	7.2			
Prop In Lane	0.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3851	0	0	1411		609	0	542			
V/C Ratio(X)	0.00	0.31	0.00	0.00	0.74		0.56	0.00	0.40			
Avail Cap(c_a), veh/h	0	3851	0	0	1411		609	0	542			
HCM Platoon Ratio	1.00	2.00	1.00	1.00	1.33	1.33	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.80	0.00	0.00	0.62	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	45.6	0.0	44.2			
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	2.2	0.0	3.7	0.0	2.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	0.0	0.8	0.0	5.0	0.0	3.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.2	0.0	0.0	2.2	0.0	49.3	0.0	46.4			
LnGrp LOS	A	A	A	A	A		D	A	D			
Approach Vol, veh/h		1189			1037	A		554				
Approach Delay, s/veh		0.2			2.2			48.2				
Approach LOS		A			A			D				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		25.0		95.0				95.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		20.5		90.5				90.5				
Max Q Clear Time (g_c+I1), s		12.5		2.0				2.0				
Green Ext Time (p_c), s		1.4		12.3				13.0				

Intersection Summary	
HCM 6th Ctrl Delay	10.5
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

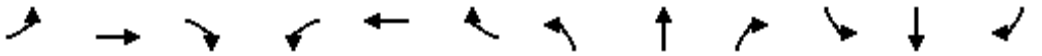
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	2672	1431	1021	405	0	363
Future Volume (vph)	2672	1431	1021	405	0	363
Turn Type	NA	NA	Free	Perm	NA	Prot
Protected Phases	4	8			2	2
Permitted Phases			Free	2		
Detector Phase	4	8		2	2	2
Switch Phase						
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5
Total Split (s)	92.0	92.0		28.0	28.0	28.0
Total Split (%)	76.7%	76.7%		23.3%	23.3%	23.3%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max		Max	Max	Max
Act Effct Green (s)	87.5	87.5	120.0	23.5	23.5	23.5
Actuated g/C Ratio	0.73	0.73	1.00	0.20	0.20	0.20
v/c Ratio	0.74	0.73	0.53	0.70	0.74	0.59
Control Delay	13.6	5.9	2.2	57.4	58.3	46.7
Queue Delay	0.8	0.7	0.0	0.0	1.6	0.3
Total Delay	14.4	6.6	2.2	57.4	59.8	47.0
LOS	B	A	A	E	E	D
Approach Delay	14.4	5.3			53.7	
Approach LOS	B	A			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 15.7	Intersection LOS: B
Intersection Capacity Utilization 81.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 19: I-25 NB Ramps & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	2672	0	0	1431	1021	405	0	363	0	0	0
Future Volume (veh/h)	0	2672	0	0	1431	1021	405	0	363	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	0	2755	0	0	1791	0	488	0	299			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	2	0	0	2	2	2	2	2			
Cap, veh/h	0	3723	0	0	2728		698	0	621			
Arrive On Green	0.00	0.73	0.00	0.00	0.97	0.00	0.20	0.00	0.20			
Sat Flow, veh/h	0	5443	0	0	3741	1585	3563	0	3170			
Grp Volume(v), veh/h	0	2755	0	0	1791	0	488	0	299			
Grp Sat Flow(s),veh/h/ln	0	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	0.0	38.1	0.0	0.0	4.8	0.0	15.3	0.0	10.0			
Cycle Q Clear(g_c), s	0.0	38.1	0.0	0.0	4.8	0.0	15.3	0.0	10.0			
Prop In Lane	0.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3723	0	0	2728		698	0	621			
V/C Ratio(X)	0.00	0.74	0.00	0.00	0.66		0.70	0.00	0.48			
Avail Cap(c_a), veh/h	0	3723	0	0	2728		698	0	621			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.36	0.00	0.00	0.72	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	9.6	0.0	0.0	0.6	0.0	45.0	0.0	42.8			
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.0	0.9	0.0	5.8	0.0	2.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	12.4	0.0	0.0	1.0	0.0	7.3	0.0	4.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	10.1	0.0	0.0	1.5	0.0	50.7	0.0	45.5			
LnGrp LOS	A	B	A	A	A		D	A	D			
Approach Vol, veh/h		2755			1791	A		787				
Approach Delay, s/veh		10.1			1.5			48.7				
Approach LOS		B			A			D				

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		28.0		92.0				92.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		23.5		87.5				87.5				
Max Q Clear Time (g_c+I1), s		17.3		40.1				6.8				
Green Ext Time (p_c), s		1.8		39.3				29.2				

Intersection Summary												
HCM 6th Ctrl Delay			12.9									
HCM 6th LOS			B									

Notes

User approved volume balancing among the lanes for turning movement.

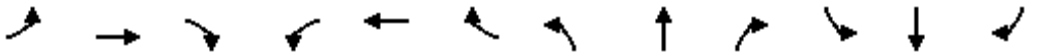
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	1370	1042	2047	281	0	259
Future Volume (vph)	1370	1042	2047	281	0	259
Turn Type	NA	NA	Free	Perm	NA	Prot
Protected Phases	4	8			2	2
Permitted Phases			Free	2		
Detector Phase	4	8		2	2	2
Switch Phase						
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5
Total Split (s)	95.0	95.0		25.0	25.0	25.0
Total Split (%)	79.2%	79.2%		20.8%	20.8%	20.8%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max		Max	Max	Max
Act Effct Green (s)	90.5	90.5	120.0	20.5	20.5	20.5
Actuated g/C Ratio	0.75	0.75	1.00	0.17	0.17	0.17
v/c Ratio	0.40	0.85	0.73	0.55	0.59	0.38
Control Delay	7.9	6.3	7.9	53.8	51.8	16.5
Queue Delay	0.0	6.0	0.0	0.0	0.0	0.0
Total Delay	7.9	12.3	7.9	53.8	51.8	16.5
LOS	A	B	A	D	D	B
Approach Delay	7.9	10.9			37.2	
Approach LOS	A	B			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 12.8	Intersection LOS: B
Intersection Capacity Utilization 67.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 19: I-25 NB Ramps & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1370	121	0	1042	2047	281	0	259	0	0	0
Future Volume (veh/h)	0	1370	121	0	1042	2047	281	0	259	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	0	1412	125	0	1074	0	340	0	214			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	2	2	0	2	2	2	2	2			
Cap, veh/h	0	3602	319	0	1411		609	0	542			
Arrive On Green	0.00	1.00	1.00	0.00	1.00	0.00	0.17	0.00	0.17			
Sat Flow, veh/h	0	4944	423	0	1870	3170	3563	0	3170			
Grp Volume(v), veh/h	0	1006	531	0	1074	0	340	0	214			
Grp Sat Flow(s),veh/h/ln	0	1702	1794	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	10.5	0.0	7.2			
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	10.5	0.0	7.2			
Prop In Lane	0.00		0.24	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2567	1353	0	1411		609	0	542			
V/C Ratio(X)	0.00	0.39	0.39	0.00	0.76		0.56	0.00	0.40			
Avail Cap(c_a), veh/h	0	2567	1353	0	1411		609	0	542			
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.33	1.33	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.73	0.73	0.00	0.49	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	45.6	0.0	44.2			
Incr Delay (d2), s/veh	0.0	0.3	0.6	0.0	2.0	0.0	3.7	0.0	2.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.2	0.0	0.8	0.0	5.0	0.0	3.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.3	0.6	0.0	2.0	0.0	49.3	0.0	46.4			
LnGrp LOS	A	A	A	A	A		D	A	D			
Approach Vol, veh/h		1537			1074	A		554				
Approach Delay, s/veh		0.4			2.0			48.2				
Approach LOS		A			A			D				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		25.0		95.0				95.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		20.5		90.5				90.5				
Max Q Clear Time (g_c+I1), s		12.5		2.0				2.0				
Green Ext Time (p_c), s		1.4		18.0				14.2				

Intersection Summary	
HCM 6th Ctrl Delay	9.3
HCM 6th LOS	A

Notes

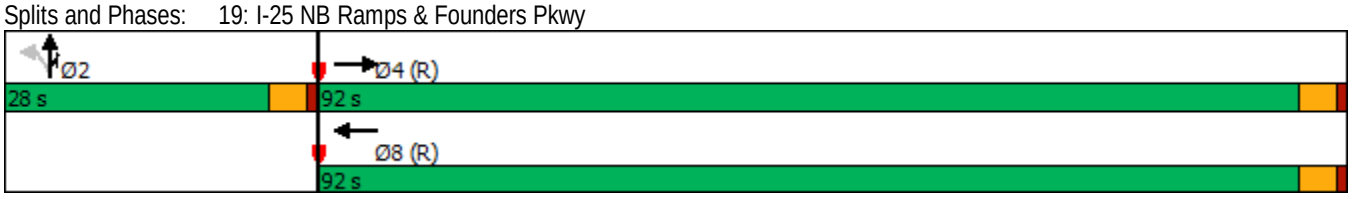
User approved volume balancing among the lanes for turning movement.

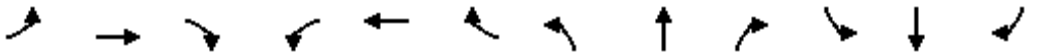
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	2951	1450	1275	405	0	363
Future Volume (vph)	2951	1450	1275	405	0	363
Turn Type	NA	NA	Free	Perm	NA	Prot
Protected Phases	4	8			2	2
Permitted Phases			Free	2		
Detector Phase	4	8		2	2	2
Switch Phase						
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5
Total Split (s)	92.0	92.0		28.0	28.0	28.0
Total Split (%)	76.7%	76.7%		23.3%	23.3%	23.3%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max		Max	Max	Max
Act Effct Green (s)	87.5	87.5	120.0	23.5	23.5	23.5
Actuated g/C Ratio	0.73	0.73	1.00	0.20	0.20	0.20
v/c Ratio	0.89	0.81	0.60	0.70	0.74	0.59
Control Delay	16.5	7.1	3.4	57.4	58.3	46.7
Queue Delay	18.2	2.1	0.0	0.0	85.1	74.0
Total Delay	34.7	9.3	3.4	57.4	143.4	120.7
LOS	C	A	A	E	F	F
Approach Delay	34.7	7.5			108.8	
Approach LOS	C	A			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 32.1	Intersection LOS: C
Intersection Capacity Utilization 82.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 19: I-25 NB Ramps & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	2951	216	0	1450	1275	405	0	363	0	0	0
Future Volume (veh/h)	0	2951	216	0	1450	1275	405	0	363	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	0	3042	223	0	2062	0	488	0	299			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	2	2	0	2	2	2	2	2			
Cap, veh/h	0	3546	254	0	2728		698	0	621			
Arrive On Green	0.00	0.73	0.73	0.00	0.97	0.00	0.20	0.00	0.20			
Sat Flow, veh/h	0	5032	348	0	3741	1585	3563	0	3170			
Grp Volume(v), veh/h	0	2107	1158	0	2062	0	488	0	299			
Grp Sat Flow(s),veh/h/ln	0	1702	1808	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	0.0	52.8	57.9	0.0	7.5	0.0	15.3	0.0	10.0			
Cycle Q Clear(g_c), s	0.0	52.8	57.9	0.0	7.5	0.0	15.3	0.0	10.0			
Prop In Lane	0.00		0.19	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2482	1318	0	2728		698	0	621			
V/C Ratio(X)	0.00	0.85	0.88	0.00	0.76		0.70	0.00	0.48			
Avail Cap(c_a), veh/h	0	2482	1318	0	2728		698	0	621			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.13	0.13	0.00	0.62	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	11.6	12.2	0.0	0.6	0.0	45.0	0.0	42.8			
Incr Delay (d2), s/veh	0.0	0.5	1.3	0.0	1.3	0.0	5.8	0.0	2.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	17.2	20.2	0.0	1.2	0.0	7.3	0.0	4.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	12.1	13.5	0.0	1.9	0.0	50.7	0.0	45.5			
LnGrp LOS	A	B	B	A	A		D	A	D			
Approach Vol, veh/h		3265			2062	A		787				
Approach Delay, s/veh		12.6			1.9			48.7				
Approach LOS		B			A			D				

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		28.0		92.0				92.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		23.5		87.5				87.5				
Max Q Clear Time (g_c+I1), s		17.3		59.9				9.5				
Green Ext Time (p_c), s		1.8		26.2				39.1				

Intersection Summary												
HCM 6th Ctrl Delay			13.6									
HCM 6th LOS			B									

Notes

User approved volume balancing among the lanes for turning movement.

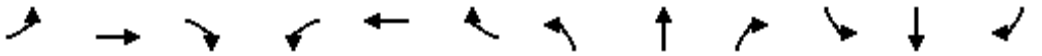
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	1452	1324	2070	379	0	347
Future Volume (vph)	1452	1324	2070	379	0	347
Turn Type	NA	NA	Free	Perm	NA	Prot
Protected Phases	4	8			2	2
Permitted Phases			Free	2		
Detector Phase	4	8		2	2	2
Switch Phase						
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5
Total Split (s)	95.0	95.0		25.0	25.0	25.0
Total Split (%)	79.2%	79.2%		20.8%	20.8%	20.8%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max		Max	Max	Max
Act Effct Green (s)	90.5	90.5	120.0	20.5	20.5	20.5
Actuated g/C Ratio	0.75	0.75	1.00	0.17	0.17	0.17
v/c Ratio	0.39	0.96	0.76	0.75	0.79	0.53
Control Delay	8.3	14.2	8.0	64.4	66.5	28.5
Queue Delay	0.0	43.1	0.0	0.0	0.0	0.0
Total Delay	8.3	57.3	8.0	64.4	66.5	28.5
LOS	A	E	A	E	E	C
Approach Delay	8.3	42.0			49.6	
Approach LOS	A	D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 34.2	Intersection LOS: C
Intersection Capacity Utilization 78.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 19: I-25 NB Ramps & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1452	0	0	1324	2070	379	0	347	0	0	0
Future Volume (veh/h)	0	1452	0	0	1324	2070	379	0	347	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	0	1497	0	0	1365	0	458	0	286			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	2	0	0	2	2	2	2	2			
Cap, veh/h	0	3851	0	0	1411		609	0	542			
Arrive On Green	0.00	1.00	0.00	0.00	1.00	0.00	0.17	0.00	0.17			
Sat Flow, veh/h	0	5443	0	0	1870	3170	3563	0	3170			
Grp Volume(v), veh/h	0	1497	0	0	1365	0	458	0	286			
Grp Sat Flow(s),veh/h/ln	0	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	14.7	0.0	9.9			
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	14.7	0.0	9.9			
Prop In Lane	0.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3851	0	0	1411		609	0	542			
V/C Ratio(X)	0.00	0.39	0.00	0.00	0.97		0.75	0.00	0.53			
Avail Cap(c_a), veh/h	0	3851	0	0	1411		609	0	542			
HCM Platoon Ratio	1.00	2.00	1.00	1.00	1.33	1.33	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.67	0.00	0.00	0.30	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	47.3	0.0	45.3			
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	7.5	0.0	8.4	0.0	3.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	0.0	3.0	0.0	7.2	0.0	4.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.2	0.0	0.0	7.5	0.0	55.7	0.0	49.0			
LnGrp LOS	A	A	A	A	A		E	A	D			
Approach Vol, veh/h		1497			1365	A		744				
Approach Delay, s/veh		0.2			7.5			53.1				
Approach LOS		A			A			D				

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		25.0		95.0				95.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		20.5		90.5				90.5				
Max Q Clear Time (g_c+I1), s		16.7		2.0				2.0				
Green Ext Time (p_c), s		1.2		18.5				30.3				

Intersection Summary		
HCM 6th Ctrl Delay		13.9
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

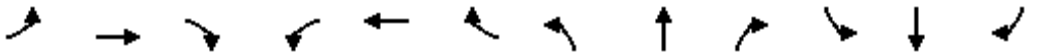
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	3127	1748	1219	546	0	408
Future Volume (vph)	3127	1748	1219	546	0	408
Turn Type	NA	NA	Free	Perm	NA	Prot
Protected Phases	4	8			2	2
Permitted Phases			Free	2		
Detector Phase	4	8		2	2	2
Switch Phase						
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5
Total Split (s)	88.0	88.0		32.0	32.0	32.0
Total Split (%)	73.3%	73.3%		26.7%	26.7%	26.7%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max		Max	Max	Max
Act Effct Green (s)	83.5	83.5	120.0	27.5	27.5	27.5
Actuated g/C Ratio	0.70	0.70	1.00	0.23	0.23	0.23
v/c Ratio	0.91	0.92	0.65	0.79	0.85	0.56
Control Delay	19.5	14.6	4.2	59.5	64.5	43.2
Queue Delay	32.7	24.2	0.0	0.0	66.8	62.7
Total Delay	52.2	38.8	4.2	59.5	131.3	105.9
LOS	D	D	A	E	F	F
Approach Delay	52.2	28.3			99.3	
Approach LOS	D	C			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 48.5	Intersection LOS: D
Intersection Capacity Utilization 94.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 19: I-25 NB Ramps & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	3127	0	0	1748	1219	546	0	408	0	0	0
Future Volume (veh/h)	0	3127	0	0	1748	1219	546	0	408	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	0	3224	0	0	2158	0	642	0	337			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	2	0	0	2	2	2	2	2			
Cap, veh/h	0	3553	0	0	2603		816	0	726			
Arrive On Green	0.00	0.70	0.00	0.00	0.93	0.00	0.23	0.00	0.23			
Sat Flow, veh/h	0	5443	0	0	3741	1585	3563	0	3170			
Grp Volume(v), veh/h	0	3224	0	0	2158	0	642	0	337			
Grp Sat Flow(s),veh/h/ln	0	1702	0	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	0.0	62.5	0.0	0.0	22.2	0.0	20.3	0.0	11.0			
Cycle Q Clear(g_c), s	0.0	62.5	0.0	0.0	22.2	0.0	20.3	0.0	11.0			
Prop In Lane	0.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	3553	0	0	2603		816	0	726			
V/C Ratio(X)	0.00	0.91	0.00	0.00	0.83		0.79	0.00	0.46			
Avail Cap(c_a), veh/h	0	3553	0	0	2603		816	0	726			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.09	0.00	0.00	0.49	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	15.1	0.0	0.0	2.2	0.0	43.5	0.0	39.9			
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.0	1.6	0.0	7.5	0.0	2.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	21.3	0.0	0.0	2.8	0.0	9.8	0.0	4.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	15.5	0.0	0.0	3.8	0.0	51.0	0.0	42.0			
LnGrp LOS	A	B	A	A	A		D	A	D			
Approach Vol, veh/h		3224			2158	A		979				
Approach Delay, s/veh		15.5			3.8			47.9				
Approach LOS		B			A			D				

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		32.0		88.0				88.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		27.5		83.5				83.5				
Max Q Clear Time (g_c+I1), s		22.3		64.5				24.2				
Green Ext Time (p_c), s		2.0		18.4				36.9				

Intersection Summary	
HCM 6th Ctrl Delay	16.5
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

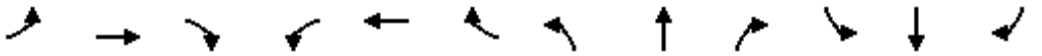
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	1688	1374	2352	379	0	347
Future Volume (vph)	1688	1374	2352	379	0	347
Turn Type	NA	NA	Free	Perm	NA	Prot
Protected Phases	4	8			2	2
Permitted Phases			Free	2		
Detector Phase	4	8		2	2	2
Switch Phase						
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5
Total Split (s)	96.6	96.6		23.4	23.4	23.4
Total Split (%)	80.5%	80.5%		19.5%	19.5%	19.5%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max		Max	Max	Max
Act Effct Green (s)	92.1	92.1	120.0	18.9	18.9	18.9
Actuated g/C Ratio	0.77	0.77	1.00	0.16	0.16	0.16
v/c Ratio	0.48	1.03	0.84	0.81	0.86	0.60
Control Delay	7.7	30.5	13.0	73.0	76.7	38.1
Queue Delay	0.0	28.5	0.0	0.0	0.0	0.0
Total Delay	7.8	59.0	13.0	73.0	76.7	38.1
LOS	A	E	B	E	E	D
Approach Delay	7.8	44.5			59.0	
Approach LOS	A	D			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 35.6	Intersection LOS: D
Intersection Capacity Utilization 83.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 19: I-25 NB Ramps & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1688	101	0	1374	2352	379	0	347	0	0	0
Future Volume (veh/h)	0	1688	101	0	1374	2352	379	0	347	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	0	1740	104	0	1416	0	458	0	286			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	2	2	0	2	2	2	2	2			
Cap, veh/h	0	3782	226	0	1436		561	0	499			
Arrive On Green	0.00	1.00	1.00	0.00	1.00	0.00	0.16	0.00	0.16			
Sat Flow, veh/h	0	5096	294	0	1870	3170	3563	0	3170			
Grp Volume(v), veh/h	0	1201	643	0	1416	0	458	0	286			
Grp Sat Flow(s),veh/h/ln	0	1702	1817	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	14.9	0.0	10.0			
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	14.9	0.0	10.0			
Prop In Lane	0.00		0.16	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2613	1395	0	1436		561	0	499			
V/C Ratio(X)	0.00	0.46	0.46	0.00	0.99		0.82	0.00	0.57			
Avail Cap(c_a), veh/h	0	2613	1395	0	1436		561	0	499			
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.33	1.33	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.55	0.55	0.00	0.09	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	48.9	0.0	46.8			
Incr Delay (d2), s/veh	0.0	0.3	0.6	0.0	4.7	0.0	12.4	0.0	4.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.2	0.0	1.9	0.0	7.6	0.0	4.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.3	0.6	0.0	4.7	0.0	61.3	0.0	51.5			
LnGrp LOS	A	A	A	A	A		E	A	D			
Approach Vol, veh/h		1844			1416	A		744				
Approach Delay, s/veh		0.4			4.7			57.5				
Approach LOS		A			A			E				

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		23.4		96.6				96.6				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		18.9		92.1				92.1				
Max Q Clear Time (g_c+I1), s		16.9		2.0				2.0				
Green Ext Time (p_c), s		0.7		26.2				34.9				

Intersection Summary	
HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

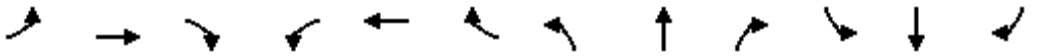
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	3440	1776	1487	546	0	408
Future Volume (vph)	3440	1776	1487	546	0	408
Turn Type	NA	NA	Free	Perm	NA	Prot
Protected Phases	4	8			2	2
Permitted Phases			Free	2		
Detector Phase	4	8		2	2	2
Switch Phase						
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5
Total Split (s)	91.0	91.0		29.0	29.0	29.0
Total Split (%)	75.8%	75.8%		24.2%	24.2%	24.2%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max		Max	Max	Max
Act Effct Green (s)	86.5	86.5	120.0	24.5	24.5	24.5
Actuated g/C Ratio	0.72	0.72	1.00	0.20	0.20	0.20
v/c Ratio	1.03	0.98	0.71	0.89	0.95	0.63
Control Delay	41.4	19.1	6.2	73.9	84.1	47.4
Queue Delay	28.8	41.3	0.0	0.0	162.6	178.5
Total Delay	70.2	60.3	6.2	73.9	246.6	225.9
LOS	E	E	A	E	F	F
Approach Delay	70.2	43.8			185.3	
Approach LOS	E	D			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 73.2	Intersection LOS: E
Intersection Capacity Utilization 96.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 19: I-25 NB Ramps & Founders Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	3440	203	0	1776	1487	546	0	408	0	0	0
Future Volume (veh/h)	0	3440	203	0	1776	1487	546	0	408	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	0	3546	209	0	2449	0	642	0	337			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	2	2	0	2	2	2	2	2			
Cap, veh/h	0	3559	206	0	2696		727	0	647			
Arrive On Green	0.00	0.72	0.72	0.00	0.96	0.00	0.20	0.00	0.20			
Sat Flow, veh/h	0	5106	286	0	3741	1585	3563	0	3170			
Grp Volume(v), veh/h	0	2423	1332	0	2449	0	642	0	337			
Grp Sat Flow(s),veh/h/ln	0	1702	1819	0	1870	1585	1781	0	1585			
Q Serve(g_s), s	0.0	82.8	86.5	0.0	25.1	0.0	21.0	0.0	11.4			
Cycle Q Clear(g_c), s	0.0	82.8	86.5	0.0	25.1	0.0	21.0	0.0	11.4			
Prop In Lane	0.00		0.16	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	0	2454	1311	0	2696		727	0	647			
V/C Ratio(X)	0.00	0.99	1.02	0.00	0.91		0.88	0.00	0.52			
Avail Cap(c_a), veh/h	0	2454	1311	0	2696		727	0	647			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33	1.00	1.00	1.00			
Upstream Filter(I)	0.00	0.09	0.09	0.00	0.32	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	16.2	16.8	0.0	1.2	0.0	46.4	0.0	42.5			
Incr Delay (d2), s/veh	0.0	3.3	11.8	0.0	2.0	0.0	14.6	0.0	3.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	28.1	34.4	0.0	2.0	0.0	10.7	0.0	4.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.5	28.5	0.0	3.2	0.0	60.9	0.0	45.5			
LnGrp LOS	A	B	F	A	A		E	A	D			
Approach Vol, veh/h		3755			2449	A		979				
Approach Delay, s/veh		22.7			3.2			55.6				
Approach LOS		C			A			E				

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		29.0		91.0				91.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		24.5		86.5				86.5				
Max Q Clear Time (g_c+I1), s		23.0		88.5				27.1				
Green Ext Time (p_c), s		0.7		0.0				44.6				

Intersection Summary												
HCM 6th Ctrl Delay			20.6									
HCM 6th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

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

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	0	3	8	0	120	8	168	23	246	334	23
Future Vol, veh/h	8	0	3	8	0	120	8	168	23	246	334	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	0	3	9	0	130	9	183	25	267	363	25

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1189	1136	376	1125	1136	196	388	0	0	208	0	0
Stage 1	910	910	-	214	214	-	-	-	-	-	-	-
Stage 2	279	226	-	911	922	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	165	202	670	182	202	845	1170	-	-	1363	-	-
Stage 1	329	353	-	788	725	-	-	-	-	-	-	-
Stage 2	728	717	-	328	349	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	118	161	670	153	161	845	1170	-	-	1363	-	-
Mov Cap-2 Maneuver	207	225	-	218	231	-	-	-	-	-	-	-
Stage 1	326	284	-	782	719	-	-	-	-	-	-	-
Stage 2	611	711	-	262	281	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.7	10.8	0.3	3.4
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1170	-	-	207	670	218	845	1363	-	-
HCM Lane V/C Ratio	0.007	-	-	0.042	0.005	0.04	0.154	0.196	-	-
HCM Control Delay (s)	8.1	-	-	23.2	10.4	22.2	10	8.3	-	-
HCM Lane LOS	A	-	-	C	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0.1	0.5	0.7	-	-

Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	0	7	22	0	270	2	214	7	101	196	7
Future Vol, veh/h	22	0	7	22	0	270	2	214	7	101	196	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	0	8	24	0	293	2	233	8	110	213	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	825	682	217	682	682	237	221	0	0	241	0	0
Stage 1	437	437	-	241	241	-	-	-	-	-	-	-
Stage 2	388	245	-	441	441	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	292	372	823	364	372	802	1348	-	-	1326	-	-
Stage 1	598	579	-	762	706	-	-	-	-	-	-	-
Stage 2	636	703	-	595	577	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	173	341	823	337	341	802	1348	-	-	1326	-	-
Mov Cap-2 Maneuver	243	410	-	432	424	-	-	-	-	-	-	-
Stage 1	597	531	-	761	705	-	-	-	-	-	-	-
Stage 2	403	702	-	541	529	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.5	12.2	0.1	2.6
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1348	-	-	243	823	432	802	1326	-	-
HCM Lane V/C Ratio	0.002	-	-	0.098	0.009	0.055	0.366	0.083	-	-
HCM Control Delay (s)	7.7	-	-	21.4	9.4	13.8	12.1	8	-	-
HCM Lane LOS	A	-	-	C	A	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0	0.2	1.7	0.3	-	-

Intersection	
Intersection Delay, s/veh	6.8
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	12	139	217	655
Demand Flow Rate, veh/h	12	142	222	668
Vehicles Circulating, veh/h	651	205	281	18
Vehicles Exiting, veh/h	34	297	382	329
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.2	4.4	5.6	7.8
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	12	142	222	668
Cap Entry Lane, veh/h	710	1120	1036	1355
Entry HV Adj Factor	1.000	0.979	0.979	0.980
Flow Entry, veh/h	12	139	217	655
Cap Entry, veh/h	710	1096	1014	1328
V/C Ratio	0.017	0.127	0.214	0.493
Control Delay, s/veh	5.2	4.4	5.6	7.8
LOS	A	A	A	A
95th %tile Queue, veh	0	0	1	3

Intersection	
Intersection Delay, s/veh	5.4
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	32	317	243	331
Demand Flow Rate, veh/h	32	323	248	337
Vehicles Circulating, veh/h	353	264	136	26
Vehicles Exiting, veh/h	10	120	249	561
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.0	6.5	4.9	4.9
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	32	323	248	337
Cap Entry Lane, veh/h	963	1054	1201	1344
Entry HV Adj Factor	1.000	0.981	0.981	0.981
Flow Entry, veh/h	32	317	243	331
Cap Entry, veh/h	963	1035	1179	1319
V/C Ratio	0.033	0.306	0.206	0.251
Control Delay, s/veh	4.0	6.5	4.9	4.9
LOS	A	A	A	A
95th %tile Queue, veh	0	1	1	1

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	0	3	8	0	120	8	212	23	246	391	23
Future Vol, veh/h	8	0	3	8	0	120	8	212	23	246	391	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	0	3	9	0	130	9	230	25	267	425	25

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1298	1245	438	1234	1245	243	450	0	0	255	0	0
Stage 1	972	972	-	261	261	-	-	-	-	-	-	-
Stage 2	326	273	-	973	984	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	139	174	619	153	174	796	1110	-	-	1310	-	-
Stage 1	304	331	-	744	692	-	-	-	-	-	-	-
Stage 2	687	684	-	303	327	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	97	137	619	128	137	796	1110	-	-	1310	-	-
Mov Cap-2 Maneuver	182	204	-	197	211	-	-	-	-	-	-	-
Stage 1	302	263	-	738	686	-	-	-	-	-	-	-
Stage 2	570	679	-	240	260	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.7	11.3	0.3	3.1
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1110	-	-	182	619	197	796	1310	-	-
HCM Lane V/C Ratio	0.008	-	-	0.048	0.005	0.044	0.164	0.204	-	-
HCM Control Delay (s)	8.3	-	-	25.8	10.8	24.1	10.4	8.5	-	-
HCM Lane LOS	A	-	-	D	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0.1	0.6	0.8	-	-

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	0	7	22	0	270	2	246	7	101	242	7
Future Vol, veh/h	22	0	7	22	0	270	2	246	7	101	242	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	0	8	24	0	293	2	267	8	110	263	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	909	766	267	766	766	271	271	0	0	275	0	0
Stage 1	487	487	-	275	275	-	-	-	-	-	-	-
Stage 2	422	279	-	491	491	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	256	333	772	320	333	768	1292	-	-	1288	-	-
Stage 1	562	550	-	731	683	-	-	-	-	-	-	-
Stage 2	609	680	-	559	548	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	148	304	772	296	304	768	1292	-	-	1288	-	-
Mov Cap-2 Maneuver	219	381	-	399	395	-	-	-	-	-	-	-
Stage 1	561	503	-	730	682	-	-	-	-	-	-	-
Stage 2	376	679	-	506	501	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.1	12.8	0.1	2.3
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1292	-	-	219	772	399	768	1288	-	-
HCM Lane V/C Ratio	0.002	-	-	0.109	0.01	0.06	0.382	0.085	-	-
HCM Control Delay (s)	7.8	-	-	23.4	9.7	14.6	12.6	8.1	-	-
HCM Lane LOS	A	-	-	C	A	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0	0.2	1.8	0.3	-	-

Intersection	
Intersection Delay, s/veh	5.3
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	8	71	252	437
Demand Flow Rate, veh/h	8	72	257	445
Vehicles Circulating, veh/h	443	220	155	23
Vehicles Exiting, veh/h	25	192	296	269
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.2	3.9	5.1	5.7
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	8	72	257	445
Cap Entry Lane, veh/h	878	1103	1178	1348
Entry HV Adj Factor	1.000	0.986	0.980	0.981
Flow Entry, veh/h	8	71	252	437
Cap Entry, veh/h	878	1087	1155	1322
V/C Ratio	0.009	0.065	0.218	0.330
Control Delay, s/veh	4.2	3.9	5.1	5.7
LOS	A	A	A	A
95th %tile Queue, veh	0	0	1	1

Intersection	
Intersection Delay, s/veh	5.7
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	32	317	277	381
Demand Flow Rate, veh/h	32	323	282	388
Vehicles Circulating, veh/h	404	298	136	26
Vehicles Exiting, veh/h	10	120	300	595
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.3	6.9	5.2	5.3
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	32	323	282	388
Cap Entry Lane, veh/h	914	1018	1201	1344
Entry HV Adj Factor	1.000	0.981	0.981	0.981
Flow Entry, veh/h	32	317	277	381
Cap Entry, veh/h	914	999	1178	1319
V/C Ratio	0.035	0.317	0.235	0.289
Control Delay, s/veh	4.3	6.9	5.2	5.3
LOS	A	A	A	A
95th %tile Queue, veh	0	1	1	1

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	3	13	0	52	8	149	38	135	188	15
Future Vol, veh/h	5	0	3	13	0	52	8	149	38	135	188	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	3	14	0	57	9	162	41	147	204	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	735	727	212	709	715	183	220	0	0	203	0	0
Stage 1	506	506	-	201	201	-	-	-	-	-	-	-
Stage 2	229	221	-	508	514	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	335	351	828	349	356	859	1349	-	-	1369	-	-
Stage 1	549	540	-	801	735	-	-	-	-	-	-	-
Stage 2	774	720	-	547	535	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	286	311	828	318	316	859	1349	-	-	1369	-	-
Mov Cap-2 Maneuver	385	378	-	399	390	-	-	-	-	-	-	-
Stage 1	545	482	-	795	730	-	-	-	-	-	-	-
Stage 2	718	715	-	486	478	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.6	10.5	0.3	3.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1349	-	-	385	828	399	859	1369	-	-
HCM Lane V/C Ratio	0.006	-	-	0.014	0.004	0.035	0.066	0.107	-	-
HCM Control Delay (s)	7.7	-	-	14.5	9.4	14.4	9.5	7.9	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0.1	0.2	0.4	-	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	0	7	36	0	128	2	87	12	49	166	5
Future Vol, veh/h	14	0	7	36	0	128	2	87	12	49	166	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	0	8	39	0	139	2	95	13	53	180	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	464	401	183	399	397	102	185	0	0	108	0	0
Stage 1	289	289	-	106	106	-	-	-	-	-	-	-
Stage 2	175	112	-	293	291	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	508	538	859	561	540	953	1390	-	-	1483	-	-
Stage 1	719	673	-	900	807	-	-	-	-	-	-	-
Stage 2	827	803	-	715	672	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	422	518	859	540	520	953	1390	-	-	1483	-	-
Mov Cap-2 Maneuver	503	549	-	585	554	-	-	-	-	-	-	-
Stage 1	718	649	-	899	806	-	-	-	-	-	-	-
Stage 2	705	802	-	683	648	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.3	9.9	0.2	1.7
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1390	-	-	503	859	585	953	1483	-	-
HCM Lane V/C Ratio	0.002	-	-	0.03	0.009	0.067	0.146	0.036	-	-
HCM Control Delay (s)	7.6	-	-	12.4	9.2	11.6	9.4	7.5	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0.2	0.5	0.1	-	-

Intersection	
Intersection Delay, s/veh	4.8
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	8	71	212	367
Demand Flow Rate, veh/h	8	72	216	374
Vehicles Circulating, veh/h	372	179	155	23
Vehicles Exiting, veh/h	25	192	225	228
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.9	3.7	4.7	5.2
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LT	TR	LTR	LR
Assumed Moves	LT	TR	LTR	LR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	8	72	216	374
Cap Entry Lane, veh/h	944	1150	1178	1348
Entry HV Adj Factor	1.000	0.986	0.980	0.981
Flow Entry, veh/h	8	71	212	367
Cap Entry, veh/h	944	1134	1155	1322
V/C Ratio	0.008	0.063	0.183	0.277
Control Delay, s/veh	3.9	3.7	4.7	5.2
LOS	A	A	A	A
95th %tile Queue, veh	0	0	1	1

Intersection	
Intersection Delay, s/veh	4.1
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	23	178	110	238
Demand Flow Rate, veh/h	23	182	112	243
Vehicles Circulating, veh/h	278	114	69	42
Vehicles Exiting, veh/h	7	67	232	254
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.7	4.3	3.6	4.3
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LT	TR	LTR	LR
Assumed Moves	LT	TR	LTR	LR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	23	182	112	243
Cap Entry Lane, veh/h	1039	1228	1286	1322
Entry HV Adj Factor	1.000	0.978	0.983	0.981
Flow Entry, veh/h	23	178	110	238
Cap Entry, veh/h	1039	1201	1264	1297
V/C Ratio	0.022	0.148	0.087	0.184
Control Delay, s/veh	3.7	4.3	3.6	4.3
LOS	A	A	A	A
95th %tile Queue, veh	0	1	0	1

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	0	3	13	0	52	8	186	38	135	252	15
Future Vol, veh/h	5	0	3	13	0	52	8	186	38	135	252	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	3	14	0	57	9	202	41	147	274	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	845	837	282	819	825	223	290	0	0	243	0	0
Stage 1	576	576	-	241	241	-	-	-	-	-	-	-
Stage 2	269	261	-	578	584	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	283	303	757	294	308	817	1272	-	-	1323	-	-
Stage 1	503	502	-	762	706	-	-	-	-	-	-	-
Stage 2	737	692	-	501	498	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	240	268	757	266	272	817	1272	-	-	1323	-	-
Mov Cap-2 Maneuver	345	343	-	357	356	-	-	-	-	-	-	-
Stage 1	499	446	-	757	701	-	-	-	-	-	-	-
Stage 2	681	687	-	443	443	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.4	10.9	0.3	2.7
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1272	-	-	345	757	357	817	1323	-	-
HCM Lane V/C Ratio	0.007	-	-	0.016	0.004	0.04	0.069	0.111	-	-
HCM Control Delay (s)	7.8	-	-	15.6	9.8	15.5	9.7	8.1	-	-
HCM Lane LOS	A	-	-	C	A	C	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0.1	0.2	0.4	-	-

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	0	7	36	0	128	2	114	12	49	217	5
Future Vol, veh/h	14	0	7	36	0	128	2	114	12	49	217	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	0	8	39	0	139	2	124	13	53	236	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	549	486	239	484	482	131	241	0	0	137	0	0
Stage 1	345	345	-	135	135	-	-	-	-	-	-	-
Stage 2	204	141	-	349	347	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	446	481	800	493	484	919	1326	-	-	1447	-	-
Stage 1	671	636	-	868	785	-	-	-	-	-	-	-
Stage 2	798	780	-	667	635	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	368	462	800	474	465	919	1326	-	-	1447	-	-
Mov Cap-2 Maneuver	462	509	-	536	515	-	-	-	-	-	-	-
Stage 1	670	612	-	866	783	-	-	-	-	-	-	-
Stage 2	676	778	-	636	612	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	10.2	0.1	1.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1326	-	-	462	800	536	919	1447	-	-
HCM Lane V/C Ratio	0.002	-	-	0.033	0.01	0.073	0.151	0.037	-	-
HCM Control Delay (s)	7.7	-	-	13.1	9.5	12.2	9.6	7.6	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0.2	0.5	0.1	-	-

Intersection	
Intersection Delay, s/veh	5.3
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	8	71	252	437
Demand Flow Rate, veh/h	8	72	257	445
Vehicles Circulating, veh/h	443	220	155	23
Vehicles Exiting, veh/h	25	192	296	269
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.2	3.9	5.1	5.7
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LT	TR	LTR	LR
Assumed Moves	LT	TR	LTR	LR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	8	72	257	445
Cap Entry Lane, veh/h	878	1103	1178	1348
Entry HV Adj Factor	1.000	0.986	0.980	0.981
Flow Entry, veh/h	8	71	252	437
Cap Entry, veh/h	878	1087	1155	1322
V/C Ratio	0.009	0.065	0.218	0.330
Control Delay, s/veh	4.2	3.9	5.1	5.7
LOS	A	A	A	A
95th %tile Queue, veh	0	0	1	1

Intersection	
Intersection Delay, s/veh	4.4
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	23	178	139	294
Demand Flow Rate, veh/h	23	182	141	300
Vehicles Circulating, veh/h	335	143	69	42
Vehicles Exiting, veh/h	7	67	289	283
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.9	4.4	3.7	4.7
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LT	TR	LTR	LR
Assumed Moves	LT	TR	LTR	LR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	23	182	141	300
Cap Entry Lane, veh/h	981	1193	1286	1322
Entry HV Adj Factor	1.000	0.978	0.982	0.981
Flow Entry, veh/h	23	178	139	294
Cap Entry, veh/h	981	1166	1264	1297
V/C Ratio	0.023	0.153	0.110	0.227
Control Delay, s/veh	3.9	4.4	3.7	4.7
LOS	A	A	A	A
95th %tile Queue, veh	0	1	0	1

Intersection	
Int Delay, s/veh	792.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	42	45	18	28	112	417	54	965	15	224	771	161
Future Vol, veh/h	42	45	18	28	112	417	54	965	15	224	771	161
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	300	-	-
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	46	49	20	30	122	453	59	1049	16	243	838	175

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2116	2595	507	2105	2674	533	1013	0	0	1065	0	0
Stage 1	1412	1412	-	1175	1175	-	-	-	-	-	-	-
Stage 2	704	1183	-	930	1499	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*~ 44	~ 22	511	45	~ 18	*691	680	-	-	*1033	-	-
Stage 1	*145	203	-	542	498	-	-	-	-	-	-	-
Stage 2	*651	492	-	287	184	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	-	~ 16	511	~ 19	~ 13	*691	680	-	-	*1033	-	-
Mov Cap-2 Maneuver	*~ -273	88	-	~ 19	~ 13	-	-	-	-	-	-	-
Stage 1	*132	155	-	495	455	-	-	-	-	-	-	-
Stage 2	*150	449	-	144	141	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s		$ 4050.5	0.6	1.9
HCM LOS	-	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	680	-	-	-	115	19	57 *	1033	-	-
HCM Lane V/C Ratio	0.086	-	-	-	0.595	1.602	10.088	0.236	-	-
HCM Control Delay (s)	10.8	-	-	-	74.4	$ 723.3	$ 4226.6	9.6	-	-
HCM Lane LOS	B	-	-	-	F	F	F	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-	2.9	4.2	67.9	0.9	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	115	106	50	18	48	257	17	931	27	404	1395	52
Future Vol, veh/h	115	106	50	18	48	257	17	931	27	404	1395	52
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	-	150	-	-	150	-	-	300	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	125	115	54	20	52	279	18	1012	29	439	1516	57

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2991	3500	787	2757	3514	521	1573	0	0	1041	0	0
Stage 1	2423	2423	-	1063	1063	-	-	-	-	-	-	-
Stage 2	568	1077	-	1694	2451	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*~ 4	*~ 3	334	*~ 8	*~ 3	*691	415	-	-	*1033	-	-
Stage 1	*~ 33	*~ 62	-	*651	*571	-	-	-	-	-	-	-
Stage 2	*651	*571	-	*96	*60	-	-	-	-	-	-	-
Platoon blocked, %	1	1		1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	-	*~ 1	334	-	*~ 1	*691	415	-	-	*1033	-	-
Mov Cap-2 Maneuver	*~ 44	*~ 25	-	*~ -18	*~ 15	-	-	-	-	-	-	-
Stage 1	*~ 32	*~ 36	-	*623	*546	-	-	-	-	-	-	-
Stage 2	*336	*546	-	-	*~ 35	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0.2	2.4
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	415	-	-	-	36	-	85	* 1033	-	-
HCM Lane V/C Ratio	0.045	-	-	-	4.71	-	3.9	0.425	-	-
HCM Control Delay (s)	14.1	-	-	-	$ 1893.1	-	$ 1407.1	11	-	-
HCM Lane LOS	B	-	-	-	F	-	F	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	19.9	-	34.4	2.2	-	-

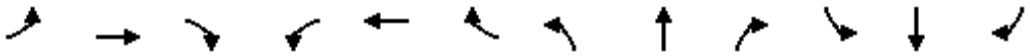
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	42	45	28	112	54	965	224	771
Future Volume (vph)	42	45	28	112	54	965	224	771
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	36.0	36.0	36.0	36.0	10.2	36.0	18.0	43.8
Total Split (%)	40.0%	40.0%	40.0%	40.0%	11.3%	40.0%	20.0%	48.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	26.3	26.3	26.3	26.3	44.5	38.6	54.7	46.3
Actuated g/C Ratio	0.29	0.29	0.29	0.29	0.49	0.43	0.61	0.51
v/c Ratio	0.56	0.13	0.08	0.90	0.20	0.70	0.72	0.57
Control Delay	52.0	16.3	20.9	35.8	11.1	24.7	27.7	28.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.0	16.3	20.9	35.8	11.1	24.7	27.7	28.6
LOS	D	B	C	D	B	C	C	C
Approach Delay		30.6		35.0		24.0		28.4
Approach LOS		C		D		C		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 28.2	Intersection LOS: C
Intersection Capacity Utilization 85.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 22: Front Street & Access





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	45	18	28	112	417	54	965	15	224	771	161
Future Volume (veh/h)	42	45	18	28	112	417	54	965	15	224	771	161
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	49	20	30	122	344	59	1049	16	243	838	175
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	146	421	172	488	144	406	302	1498	23	415	1386	289
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.09	0.84	0.84	0.10	0.47	0.47
Sat Flow, veh/h	927	1262	515	1332	432	1219	1781	3583	55	1781	2926	611
Grp Volume(v), veh/h	46	0	69	30	0	466	59	520	545	243	509	504
Grp Sat Flow(s),veh/h/ln	927	0	1778	1332	0	1651	1781	1777	1861	1781	1777	1760
Q Serve(g_s), s	4.4	0.0	2.4	1.4	0.0	23.6	1.6	10.4	10.4	6.6	19.0	19.0
Cycle Q Clear(g_c), s	28.0	0.0	2.4	3.9	0.0	23.6	1.6	10.4	10.4	6.6	19.0	19.0
Prop In Lane	1.00		0.29	1.00		0.74	1.00		0.03	1.00		0.35
Lane Grp Cap(c), veh/h	146	0	593	488	0	551	302	743	778	415	842	834
V/C Ratio(X)	0.31	0.00	0.12	0.06	0.00	0.85	0.20	0.70	0.70	0.58	0.60	0.60
Avail Cap(c_a), veh/h	161	0	622	510	0	578	339	743	778	507	842	834
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.8	0.0	20.8	22.1	0.0	27.8	14.1	5.1	5.1	12.7	17.5	17.5
Incr Delay (d2), s/veh	1.2	0.0	0.1	0.1	0.0	10.8	0.3	4.8	4.6	1.3	3.2	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	1.0	0.5	0.0	10.6	0.6	2.8	2.9	2.6	8.1	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.0	0.0	20.9	22.2	0.0	38.7	14.3	9.9	9.7	14.0	20.7	20.7
LnGrp LOS	D	A	C	C	A	D	B	A	A	B	C	C
Approach Vol, veh/h		115			496			1124			1256	
Approach Delay, s/veh		29.3			37.7			10.1			19.4	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.3	42.1		34.5	8.4	47.1		34.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	13.5	31.5		31.5	5.7	39.3		31.5				
Max Q Clear Time (g_c+I1), s	8.6	12.4		30.0	3.6	21.0		25.6				
Green Ext Time (p_c), s	0.3	7.0		0.1	0.0	6.6		1.6				

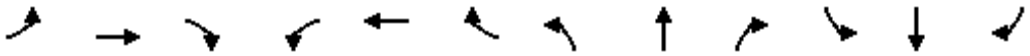
Intersection Summary			
HCM 6th Ctrl Delay		19.3	
HCM 6th LOS		B	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	115	106	18	48	17	931	404	1395
Future Volume (vph)	115	106	18	48	17	931	404	1395
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	28.0	28.0	28.0	28.0	9.6	35.0	27.0	52.4
Total Split (%)	31.1%	31.1%	31.1%	31.1%	10.7%	38.9%	30.0%	58.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	21.5	21.5	21.5	21.5	39.9	34.6	59.5	55.6
Actuated g/C Ratio	0.24	0.24	0.24	0.24	0.44	0.38	0.66	0.62
v/c Ratio	1.02	0.38	0.08	0.55	0.09	0.77	0.91	0.72
Control Delay	123.3	26.3	26.2	9.7	11.1	29.1	35.8	26.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	123.3	26.3	26.2	9.7	11.1	29.1	35.8	26.5
LOS	F	C	C	A	B	C	D	C
Approach Delay		67.5		10.6		28.8		28.6
Approach LOS		E		B		C		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 30.0	Intersection LOS: C
Intersection Capacity Utilization 88.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 22: Front Street & Access





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	106	50	18	48	257	17	931	27	404	1395	52
Future Volume (veh/h)	115	106	50	18	48	257	17	931	27	404	1395	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	125	115	54	20	52	225	18	1012	29	439	1516	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	201	314	148	303	80	346	193	1511	43	490	1986	75
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.03	0.57	0.57	0.16	0.57	0.57
Sat Flow, veh/h	1102	1204	565	1216	306	1325	1781	3528	101	1781	3493	131
Grp Volume(v), veh/h	125	0	169	20	0	277	18	510	531	439	769	804
Grp Sat Flow(s),veh/h/ln	1102	0	1769	1216	0	1632	1781	1777	1852	1781	1777	1847
Q Serve(g_s), s	9.9	0.0	7.0	1.2	0.0	13.6	0.5	18.0	18.0	11.4	29.6	29.9
Cycle Q Clear(g_c), s	23.5	0.0	7.0	8.3	0.0	13.6	0.5	18.0	18.0	11.4	29.6	29.9
Prop In Lane	1.00		0.32	1.00		0.81	1.00		0.05	1.00		0.07
Lane Grp Cap(c), veh/h	201	0	462	303	0	426	193	761	793	490	1011	1050
V/C Ratio(X)	0.62	0.00	0.37	0.07	0.00	0.65	0.09	0.67	0.67	0.90	0.76	0.77
Avail Cap(c_a), veh/h	201	0	462	303	0	426	258	761	793	649	1011	1050
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.87	0.87	0.87	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.2	0.0	27.2	30.5	0.0	29.6	15.5	14.9	14.9	15.3	14.8	14.8
Incr Delay (d2), s/veh	5.8	0.0	0.5	0.1	0.0	3.5	0.2	4.1	3.9	12.3	5.4	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	3.0	0.4	0.0	5.6	0.2	6.6	6.8	5.6	12.2	12.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.9	0.0	27.6	30.6	0.0	33.1	15.7	19.0	18.8	27.6	20.2	20.1
LnGrp LOS	D	A	C	C	A	C	B	B	B	C	C	C
Approach Vol, veh/h		294			297			1059			2012	
Approach Delay, s/veh		35.4			32.9			18.9			21.8	
Approach LOS		D			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.0	43.0		28.0	6.3	55.7		28.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	22.5	30.5		23.5	5.1	47.9		23.5				
Max Q Clear Time (g_c+I1), s	13.4	20.0		25.5	2.5	31.9		15.6				
Green Ext Time (p_c), s	1.0	4.9		0.0	0.0	10.1		1.1				

Intersection Summary												
HCM 6th Ctrl Delay			22.9									
HCM 6th LOS			C									

Intersection	
Intersection Delay, s/veh	15.5
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	115	605	1124	1256
Demand Flow Rate, veh/h	117	617	1146	1281
Vehicles Circulating, veh/h	1134	1177	345	215
Vehicles Exiting, veh/h	362	314	906	1579
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.1	36.8	10.9	10.0
Approach LOS	B	E	B	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	R	LT	R	LT	TR	LT	TR
Assumed Moves	LT	R	LT	R	LT	TR	LT	TR
RT Channelized								
Lane Util	0.829	0.171	0.251	0.749	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	97	20	155	462	539	607	602	679
Cap Entry Lane, veh/h	476	542	457	522	983	1059	1108	1183
Entry HV Adj Factor	0.980	1.000	0.978	0.981	0.980	0.981	0.981	0.981
Flow Entry, veh/h	95	20	152	453	528	596	590	666
Cap Entry, veh/h	466	542	447	512	963	1039	1086	1160
V/C Ratio	0.204	0.037	0.339	0.885	0.548	0.573	0.544	0.574
Control Delay, s/veh	10.7	7.1	13.8	44.5	10.9	10.9	9.9	10.1
LOS	B	A	B	E	B	B	A	B
95th %tile Queue, veh	1	0	1	10	3	4	3	4

Intersection	
Intersection Delay, s/veh	27.3
Intersection LOS	D

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	294	351	1059	2012
Demand Flow Rate, veh/h	300	358	1080	2052
Vehicles Circulating, veh/h	2014	1177	692	91
Vehicles Exiting, veh/h	129	595	1621	1444
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	133.5	16.4	19.9	17.5
Approach LOS	F	C	C	C

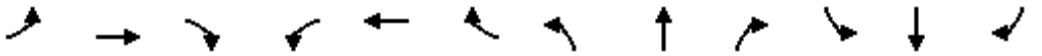
Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	R	LT	R	LT	TR	LT	TR
Assumed Moves	LT	R	LT	R	LT	TR	LT	TR
RT Channelized								
Lane Util	0.817	0.183	0.204	0.796	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	245	55	73	285	508	572	964	1088
Cap Entry Lane, veh/h	212	256	457	522	714	789	1241	1314
Entry HV Adj Factor	0.978	0.982	0.986	0.979	0.980	0.981	0.981	0.980
Flow Entry, veh/h	240	54	72	279	498	561	945	1066
Cap Entry, veh/h	207	252	451	511	700	774	1218	1288
V/C Ratio	1.157	0.215	0.160	0.546	0.711	0.725	0.777	0.828
Control Delay, s/veh	159.3	19.2	10.3	17.9	20.3	19.5	16.2	18.6
LOS	F	C	B	C	C	C	C	C
95th %tile Queue, veh	12	1	1	3	6	6	8	10

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	42	45	58	112	54	1327	120	1042
Future Volume (vph)	42	45	58	112	54	1327	120	1042
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	36.0	36.0	36.0	36.0	10.2	36.0	18.0	43.8
Total Split (%)	40.0%	40.0%	40.0%	40.0%	11.3%	40.0%	20.0%	48.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	20.3	20.3	20.3	20.3	54.3	47.9	58.8	51.8
Actuated g/C Ratio	0.23	0.23	0.23	0.23	0.60	0.53	0.65	0.58
v/c Ratio	0.56	0.17	0.21	0.80	0.23	0.78	0.53	0.65
Control Delay	53.7	19.4	27.0	33.0	14.3	28.2	20.0	28.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.7	19.4	27.0	33.0	14.3	28.2	20.0	28.2
LOS	D	B	C	C	B	C	B	C
Approach Delay		33.1		32.1		27.7		27.5
Approach LOS		C		C		C		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 28.3	Intersection LOS: C
Intersection Capacity Utilization 84.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 22: Front Street & Access





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	45	18	58	112	238	54	1327	30	120	1042	161
Future Volume (veh/h)	42	45	18	58	112	238	54	1327	30	120	1042	161
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	49	20	63	122	150	59	1442	33	130	1133	175
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	154	272	111	325	165	202	305	2063	47	383	1825	281
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.09	1.00	1.00	0.05	0.59	0.59
Sat Flow, veh/h	1107	1262	515	1332	763	938	1781	3551	81	1781	3086	475
Grp Volume(v), veh/h	46	0	69	63	0	272	59	721	754	130	651	657
Grp Sat Flow(s),veh/h/ln	1107	0	1778	1332	0	1701	1781	1777	1856	1781	1777	1785
Q Serve(g_s), s	3.6	0.0	2.9	3.6	0.0	13.4	1.1	0.0	0.0	2.6	21.3	21.4
Cycle Q Clear(g_c), s	17.1	0.0	2.9	6.5	0.0	13.4	1.1	0.0	0.0	2.6	21.3	21.4
Prop In Lane	1.00		0.29	1.00		0.55	1.00		0.04	1.00		0.27
Lane Grp Cap(c), veh/h	154	0	384	325	0	367	305	1032	1078	383	1051	1056
V/C Ratio(X)	0.30	0.00	0.18	0.19	0.00	0.74	0.19	0.70	0.70	0.34	0.62	0.62
Avail Cap(c_a), veh/h	302	0	622	504	0	596	341	1032	1078	555	1051	1056
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.77	0.77	0.77	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.9	0.0	28.8	31.4	0.0	32.9	8.9	0.0	0.0	6.5	11.9	11.9
Incr Delay (d2), s/veh	1.1	0.0	0.2	0.3	0.0	3.0	0.2	3.0	2.9	0.5	2.7	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	1.2	1.2	0.0	5.7	0.4	0.9	0.9	0.9	8.3	8.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.0	0.0	29.0	31.7	0.0	35.9	9.1	3.0	2.9	7.0	14.6	14.7
LnGrp LOS	D	A	C	C	A	D	A	A	A	A	B	B
Approach Vol, veh/h		115			335			1534			1438	
Approach Delay, s/veh		34.2			35.1			3.2			13.9	
Approach LOS		C			D			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	56.8		23.9	8.4	57.7		23.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	13.5	31.5		31.5	5.7	39.3		31.5				
Max Q Clear Time (g_c+I1), s	4.6	2.0		19.1	3.1	23.4		15.4				
Green Ext Time (p_c), s	0.2	13.3		0.3	0.0	8.3		1.7				

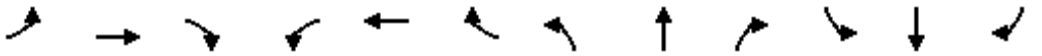
Intersection Summary			
HCM 6th Ctrl Delay		11.9	
HCM 6th LOS		B	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	115	106	48	48	17	1250	252	1891
Future Volume (vph)	115	106	48	48	17	1250	252	1891
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	9.5	22.5	9.5	22.5
Total Split (s)	23.0	23.0	23.0	23.0	9.6	47.6	19.4	57.4
Total Split (%)	25.6%	25.6%	25.6%	25.6%	10.7%	52.9%	21.6%	63.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	16.9	16.9	16.9	16.9	51.9	46.6	64.1	60.3
Actuated g/C Ratio	0.19	0.19	0.19	0.19	0.58	0.52	0.71	0.67
v/c Ratio	0.92	0.48	0.28	0.51	0.10	0.79	0.81	0.89
Control Delay	95.8	32.2	34.8	13.8	9.4	20.8	31.7	26.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	95.8	32.2	34.8	13.8	9.4	20.8	31.7	26.4
LOS	F	C	C	B	A	C	C	C
Approach Delay		59.3		17.7		20.6		27.0
Approach LOS		E		B		C		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 26.5	Intersection LOS: C
Intersection Capacity Utilization 92.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 22: Front Street & Access





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	106	50	48	48	163	17	1250	72	252	1891	52
Future Volume (veh/h)	115	106	50	48	48	163	17	1250	72	252	1891	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	125	115	54	52	52	123	18	1359	78	274	2055	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	215	247	116	228	101	240	134	1901	109	444	2205	61
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.04	1.00	1.00	0.09	0.62	0.62
Sat Flow, veh/h	1210	1204	565	1216	493	1167	1781	3416	196	1781	3532	98
Grp Volume(v), veh/h	125	0	169	52	0	175	18	705	732	274	1029	1083
Grp Sat Flow(s),veh/h/ln	1210	0	1769	1216	0	1660	1781	1777	1835	1781	1777	1853
Q Serve(g_s), s	9.2	0.0	7.6	3.5	0.0	8.4	0.4	0.0	0.0	5.5	46.5	47.6
Cycle Q Clear(g_c), s	17.6	0.0	7.6	11.1	0.0	8.4	0.4	0.0	0.0	5.5	46.5	47.6
Prop In Lane	1.00		0.32	1.00		0.70	1.00		0.11	1.00		0.05
Lane Grp Cap(c), veh/h	215	0	364	228	0	341	134	988	1021	444	1109	1157
V/C Ratio(X)	0.58	0.00	0.46	0.23	0.00	0.51	0.13	0.71	0.72	0.62	0.93	0.94
Avail Cap(c_a), veh/h	215	0	364	228	0	341	199	988	1021	582	1109	1157
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.70	0.70	0.70	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.6	0.0	31.4	36.3	0.0	31.7	18.3	0.0	0.0	6.0	15.1	15.3
Incr Delay (d2), s/veh	3.9	0.0	0.9	0.5	0.0	1.3	0.3	3.1	3.0	1.4	14.4	15.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	3.3	1.1	0.0	3.4	0.2	0.9	0.9	1.9	20.4	21.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	0.0	32.3	36.8	0.0	33.1	18.6	3.1	3.0	7.4	29.5	30.3
LnGrp LOS	D	A	C	D	A	C	B	A	A	A	C	C
Approach Vol, veh/h		294			227			1455			2386	
Approach Delay, s/veh		37.1			33.9			3.3			27.3	
Approach LOS		D			C			A			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.4	54.6		23.0	6.3	60.7		23.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	14.9	43.1		18.5	5.1	52.9		18.5				
Max Q Clear Time (g_c+I1), s	7.5	2.0		19.6	2.4	49.6		13.1				
Green Ext Time (p_c), s	0.5	14.6		0.0	0.0	3.1		0.5				

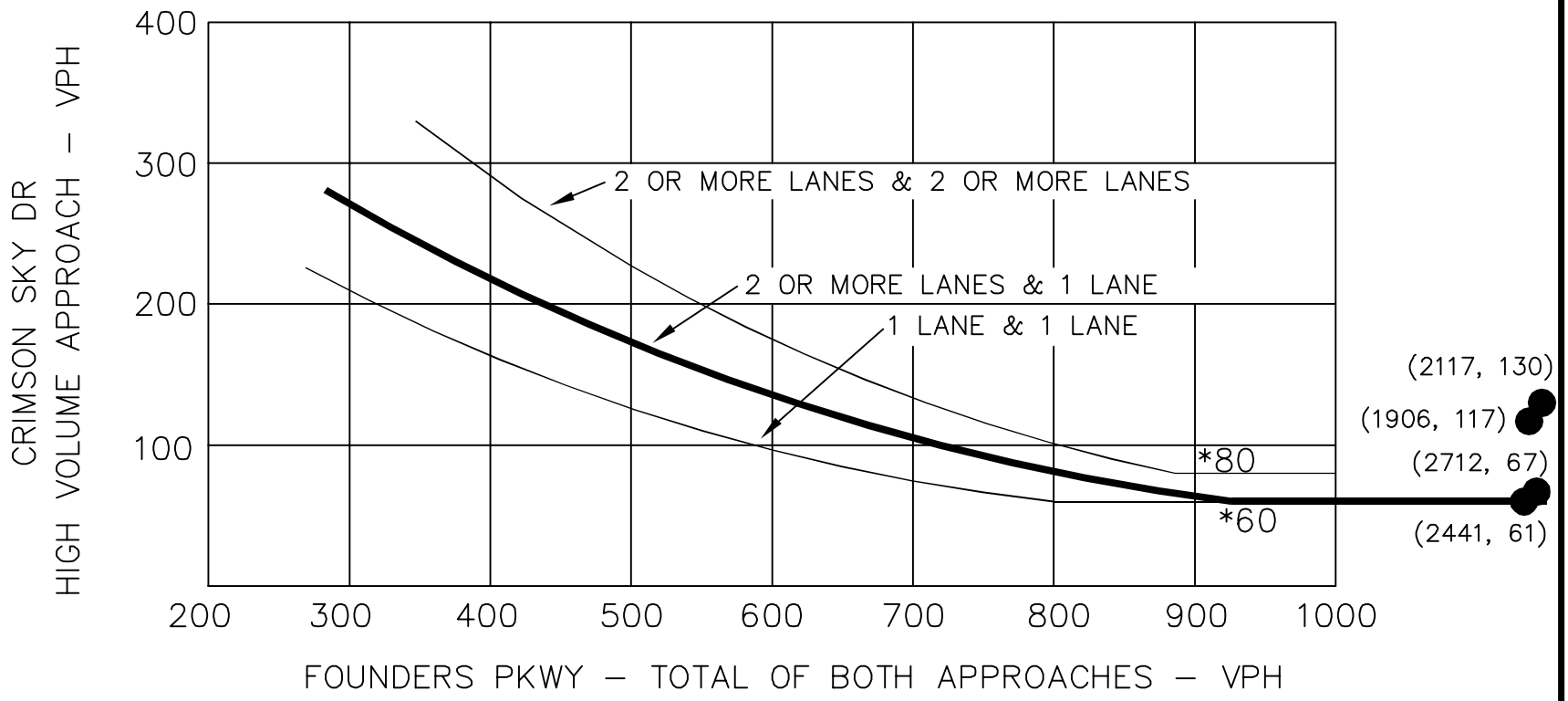
Intersection Summary												
HCM 6th Ctrl Delay			20.3									
HCM 6th LOS			C									

APPENDIX E

Signal Warrant Analysis Figures

WARRANT 2 - FOUR HOUR VEHICULAR VOLUME (70% FACTOR)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)



* NOTE: 80 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 60 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

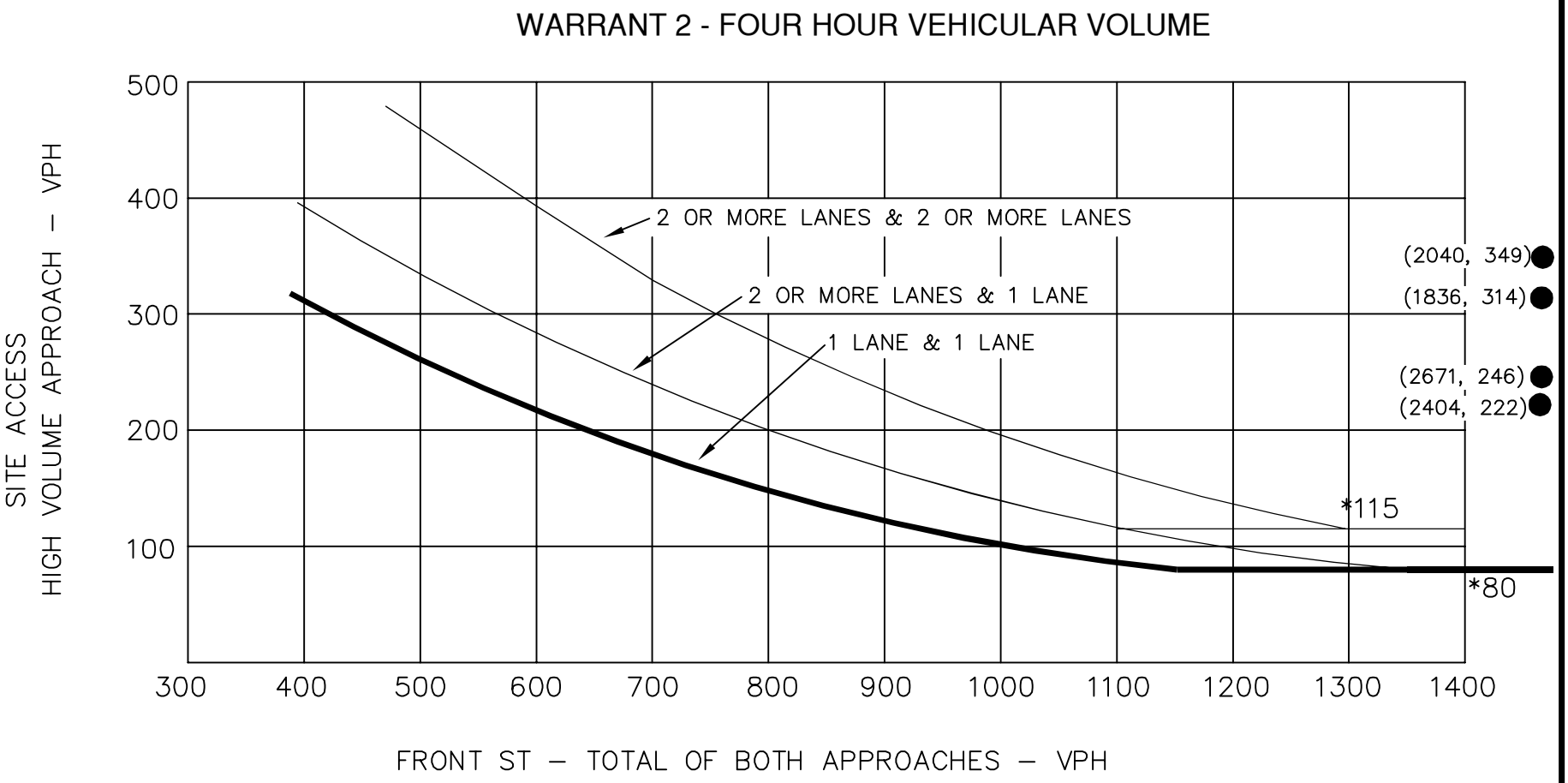
FOUNDERS PKWY & CRIMSON SKY DR (#9)
SIGNAL WARRANT ANALYSIS
FOUR HOUR VOLUME WARRANT

● 2025 TRAFFIC DATA POINT

FIGURE A1

Source: Manual of Uniform Traffic Control Devices 2009

Kimley»Horn



* NOTE: 115 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 80 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

FRONT ST & SITE ACCESS (#22)
FOUR HOUR VOLUME WARRANT

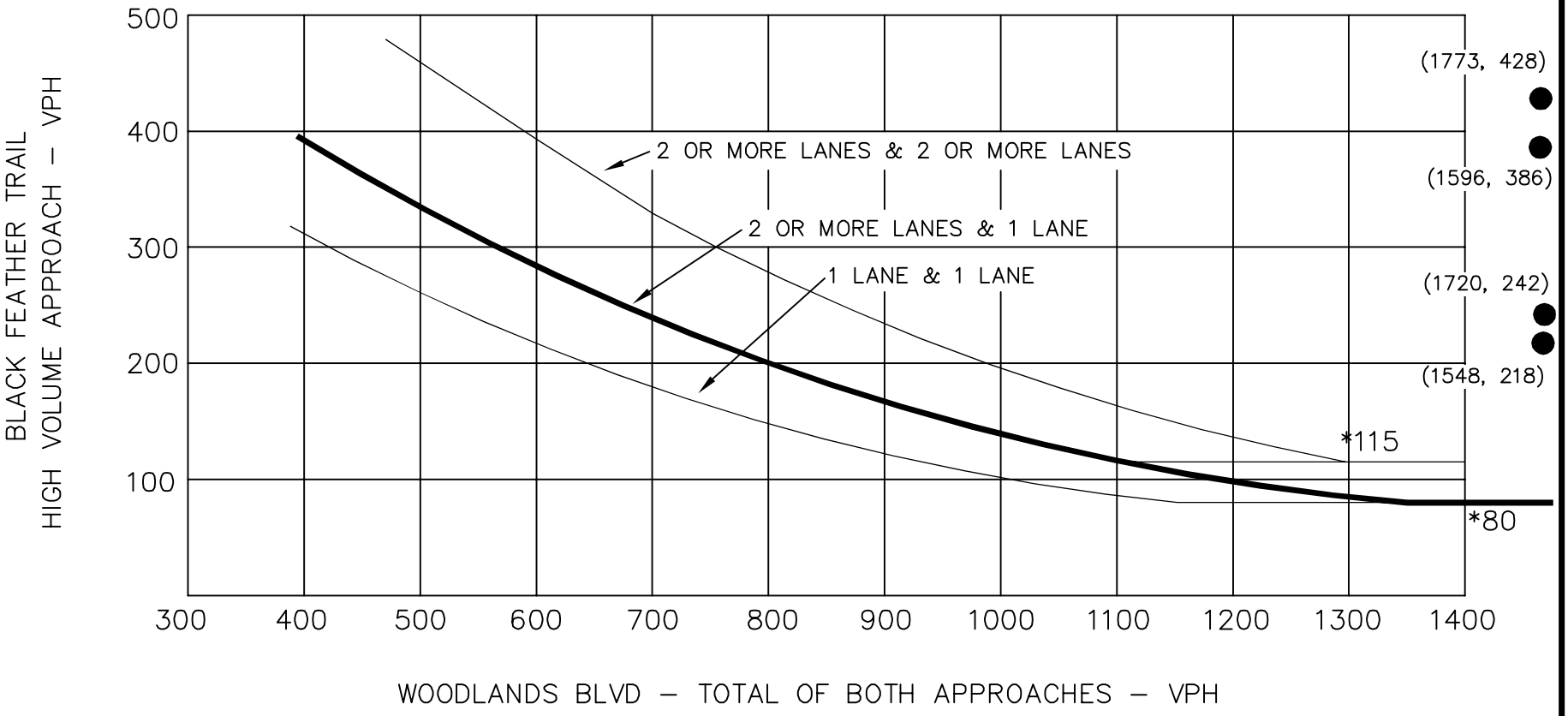
● 2025 TRAFFIC DATA POINT

Source: Manual of Uniform Traffic Control Devices 2009

FIGURE A2

Kimley»Horn

WARRANT 2 - FOUR HOUR VEHICULAR VOLUME



* NOTE: 115 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 80 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

BLACK FEATHER TRAIL & WOODLANDS BLVD (#8)
FOUR HOUR VOLUME WARRANT

● 2040 TRAFFIC DATA POINT

FIGURE A3

Source: Manual of Uniform Traffic Control Devices 2009

Kimley»Horn

APPENDIX F

Queueing Analysis Worksheets

Intersection	
Intersection Delay, s/veh	15.7
Intersection LOS	C

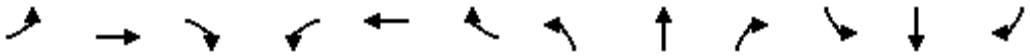
Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	115	444	1534	1438
Demand Flow Rate, veh/h	117	452	1565	1467
Vehicles Circulating, veh/h	1353	1578	230	248
Vehicles Exiting, veh/h	362	217	1240	1782
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	12.9	32.7	13.7	12.8
Approach LOS	B	D	B	B

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	R	LT	R	LT	TR	LT	TR
Assumed Moves	LT	R	LT	R	LT	TR	LT	TR
RT Channelized								
Lane Util	0.829	0.171	0.416	0.584	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	97	20	188	264	736	829	689	778
Cap Entry Lane, veh/h	389	450	316	371	1092	1168	1074	1150
Entry HV Adj Factor	0.980	1.000	0.982	0.981	0.980	0.981	0.981	0.980
Flow Entry, veh/h	95	20	185	259	721	813	676	762
Cap Entry, veh/h	381	450	310	364	1070	1146	1054	1127
V/C Ratio	0.249	0.044	0.595	0.711	0.674	0.710	0.641	0.676
Control Delay, s/veh	13.8	8.6	30.2	34.4	13.4	14.0	12.5	13.0
LOS	B	A	D	D	B	B	B	B
95th %tile Queue, veh	1	0	4	5	6	6	5	6

Intersection	
Intersection Delay, s/veh	45.1
Intersection LOS	E

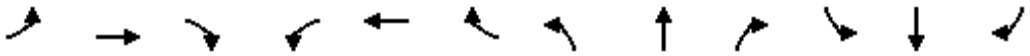
Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	286	274	1410	2311
Demand Flow Rate, veh/h	291	279	1438	2357
Vehicles Circulating, veh/h	2353	1483	507	122
Vehicles Exiting, veh/h	126	462	2137	1640
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	267.6	17.6	23.5	34.0
Approach LOS	F	C	C	D

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	R	LT	R	LT	TR	LT	TR
Assumed Moves	LT	R	LT	R	LT	TR	LT	TR
RT Channelized								
Lane Util	0.814	0.186	0.373	0.627	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	237	54	104	175	676	762	1108	1249
Cap Entry Lane, veh/h	155	192	345	403	847	923	1207	1280
Entry HV Adj Factor	0.982	0.981	0.981	0.983	0.980	0.980	0.980	0.981
Flow Entry, veh/h	233	53	102	172	663	747	1086	1225
Cap Entry, veh/h	152	189	338	396	830	905	1183	1256
V/C Ratio	1.529	0.281	0.301	0.435	0.798	0.826	0.918	0.976
Control Delay, s/veh	322.2	27.8	16.7	18.1	23.1	23.8	29.2	38.2
LOS	F	D	C	C	C	C	D	E
95th %tile Queue, veh	16	1	1	2	8	10	15	20



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	242	1024	328	447	689	440	235	371	256	422	483	152
v/c Ratio	0.78	0.73	0.21	0.81	0.51	0.28	0.65	0.74	0.58	0.81	0.72	0.36
Control Delay	64.0	35.7	0.3	41.5	28.7	0.4	60.3	58.4	11.0	61.8	52.1	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.0	35.7	0.3	41.5	28.7	0.4	60.3	58.4	11.0	61.8	52.1	8.8
Queue Length 50th (ft)	180	371	0	139	267	0	90	144	0	162	183	0
Queue Length 95th (ft)	260	456	0	191	344	0	133	198	76	219	243	56
Internal Link Dist (ft)		365			806			405			963	
Turn Bay Length (ft)	275		50	375			425		200	300		225
Base Capacity (vph)	390	1397	1583	586	1341	1583	397	545	460	557	712	440
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.73	0.21	0.76	0.51	0.28	0.59	0.68	0.56	0.76	0.68	0.35

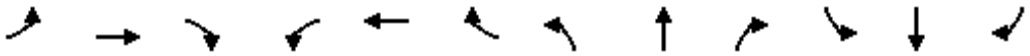
Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	241	946	268	333	1165	520	344	488	385	445	517	231
v/c Ratio	0.87	0.66	0.17	0.72	0.86	0.33	0.82	0.80	0.76	0.94	0.78	0.48
Control Delay	79.3	32.3	0.2	36.6	41.9	0.2	67.8	58.5	24.1	80.9	55.6	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.3	32.3	0.2	36.6	41.9	0.2	67.8	58.5	24.1	80.9	55.6	8.8
Queue Length 50th (ft)	183	315	0	111	500	0	135	191	74	178	201	0
Queue Length 95th (ft)	#321	398	0	m118	m494	m0	#202	253	196	#279	265	68
Internal Link Dist (ft)		365			806			405			963	
Turn Bay Length (ft)	275		50	375			425		200	300		225
Base Capacity (vph)	288	1435	1583	520	1359	1583	431	634	513	472	675	489
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.66	0.17	0.64	0.86	0.33	0.80	0.77	0.75	0.94	0.77	0.47

Intersection Summary

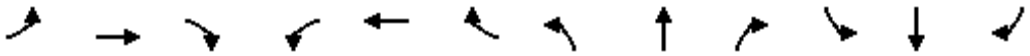
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	325	1425	413	480	1023	673	297	450	271	614	600	204
v/c Ratio	0.72	0.84	0.26	0.86	0.55	0.43	0.79	0.84	0.59	0.88	0.69	0.38
Control Delay	59.1	43.4	0.4	48.3	25.1	0.5	68.3	64.3	11.9	61.8	45.7	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.1	43.4	0.4	48.3	25.1	0.5	68.3	64.3	11.9	61.8	45.7	6.9
Queue Length 50th (ft)	125	384	0	157	284	0	117	179	6	237	220	0
Queue Length 95th (ft)	172	447	0	m211	339	m0	#178	#256	86	#324	285	59
Internal Link Dist (ft)		365			806			405			963	
Turn Bay Length (ft)	275		50	375			425		200	300		225
Base Capacity (vph)	512	1688	1583	580	1848	1583	383	552	468	723	899	554
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.84	0.26	0.83	0.55	0.43	0.78	0.82	0.58	0.85	0.67	0.37

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

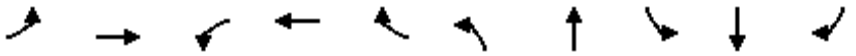


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	324	1405	342	371	1667	776	433	604	413	707	647	310
v/c Ratio	0.74	0.80	0.22	0.96	1.00	0.49	0.76	0.95	0.92	0.97	0.80	0.59
Control Delay	61.3	40.0	0.3	90.2	61.5	1.1	56.7	73.3	51.4	73.9	53.2	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.3	40.0	0.3	90.2	61.5	1.1	56.7	73.3	51.4	73.9	53.2	18.8
Queue Length 50th (ft)	124	358	0	150	~505	0	165	245	173	282	252	62
Queue Length 95th (ft)	174	420	0	#247	#602	0	215	#358	#366	#404	#372	166
Internal Link Dist (ft)		365			806			405			963	
Turn Bay Length (ft)	275		50	375			425		200	300		225
Base Capacity (vph)	472	1750	1583	386	1674	1583	672	639	450	729	804	525
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.80	0.22	0.96	1.00	0.49	0.64	0.95	0.92	0.97	0.80	0.59

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

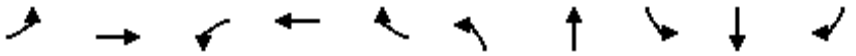
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	231	1350	41	2508	131	119	67	72	14	365
v/c Ratio	0.69	0.41	0.15	0.85	0.13	0.64	0.24	0.31	0.06	0.78
Control Delay	67.8	9.6	6.8	16.3	2.0	71.9	20.1	42.1	45.6	39.7
Queue Delay	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.8	9.8	6.8	16.5	2.0	71.9	20.1	42.1	45.6	39.8
Queue Length 50th (ft)	92	152	8	274	2	47	12	46	10	86
Queue Length 95th (ft)	#148	163	m13	319	m7	#84	54	85	29	141
Internal Link Dist (ft)		260		292			158		289	
Turn Bay Length (ft)	300		375		150	75		150		
Base Capacity (vph)	338	3255	276	2962	978	185	304	235	279	557
Starvation Cap Reductn	0	829	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	75	0	0	0	0	0	2
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.56	0.15	0.87	0.13	0.64	0.22	0.31	0.05	0.66

Intersection Summary

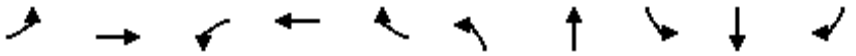
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	369	2836	40	2022	152	174	119	136	37	432
v/c Ratio	0.80	0.88	0.28	0.74	0.16	0.54	0.43	0.69	0.24	0.83
Control Delay	58.2	17.2	12.8	13.8	1.5	57.6	26.5	60.5	54.1	29.1
Queue Delay	0.0	16.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay	58.2	33.1	12.8	13.9	1.5	57.6	26.5	60.5	54.1	29.3
Queue Length 50th (ft)	147	401	6	222	2	67	35	88	27	49
Queue Length 95th (ft)	m173	694	m10	m250	m4	102	91	#152	62	#127
Internal Link Dist (ft)		260		292			158		289	
Turn Bay Length (ft)	300		375		150	75		150		
Base Capacity (vph)	475	3228	144	2726	930	414	327	198	180	553
Starvation Cap Reductn	0	465	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	93	0	0	0	0	0	5
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	1.03	0.28	0.77	0.16	0.42	0.36	0.69	0.21	0.79

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



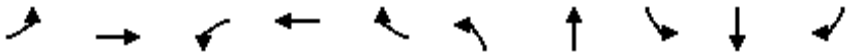
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	257	1711	55	3169	147	136	92	77	19	374
v/c Ratio	0.73	0.52	0.26	1.06	0.15	0.30	0.33	0.35	0.09	0.79
Control Delay	67.8	9.9	6.6	47.6	4.0	41.4	20.5	44.6	46.3	38.6
Queue Delay	0.0	0.1	0.0	6.5	0.0	0.8	0.0	0.0	0.0	4.3
Total Delay	67.8	10.1	6.6	54.0	4.0	42.2	20.5	44.6	46.3	42.9
Queue Length 50th (ft)	97	197	11	~988	8	45	18	50	13	84
Queue Length 95th (ft)	m#190	205	m12	m#1052	m8	71	66	91	36	139
Internal Link Dist (ft)		260		292			158		289	
Turn Bay Length (ft)	300		375		150	75		150		
Base Capacity (vph)	352	3306	211	2996	971	456	309	221	279	570
Starvation Cap Reductn	0	555	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	43	0	142	0	0	0	127
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.62	0.26	1.07	0.15	0.43	0.30	0.35	0.07	0.84

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

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



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	390	3537	54	2601	202	184	159	155	49	452
v/c Ratio	0.83	1.06	0.37	0.92	0.21	0.42	0.64	1.01	0.23	0.81
Control Delay	54.5	47.4	14.6	20.5	5.2	44.1	40.0	121.3	49.0	31.9
Queue Delay	0.0	18.6	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	54.5	66.1	14.6	21.8	5.2	44.1	40.0	121.3	49.0	32.0
Queue Length 50th (ft)	157	~1142	9	298	8	62	67	106	35	76
Queue Length 95th (ft)	m161	m#1116	m16	m482	m23	92	137	#222	71	139
Internal Link Dist (ft)		260		292			158		289	
Turn Bay Length (ft)	300		375		150	75		150		
Base Capacity (vph)	470	3347	146	2834	942	441	308	154	279	649
Starvation Cap Reductn	0	343	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	100	0	0	0	0	0	5
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	1.18	0.37	0.95	0.21	0.42	0.52	1.01	0.18	0.70

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

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



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	64	1290	76	2105	578	72	51	3	159
v/c Ratio	0.40	0.50	0.33	0.80	0.67	0.12	0.09	0.01	0.28
Control Delay	30.3	6.4	15.2	25.1	36.6	31.1	1.1	28.0	20.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.3	6.4	15.2	25.1	36.6	31.1	1.1	28.0	20.2
Queue Length 50th (ft)	9	54	22	314	184	38	0	2	22
Queue Length 95th (ft)	59	76	m49	501	239	83	5	9	54
Internal Link Dist (ft)		495		508		515			380
Turn Bay Length (ft)	500		250		325			225	
Base Capacity (vph)	161	2560	235	2629	863	592	568	277	573
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.50	0.32	0.80	0.67	0.12	0.09	0.01	0.28

Intersection Summary

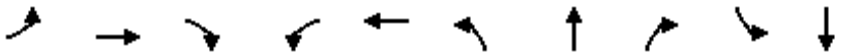
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	193	2671	126	1583	576	138	201	52	184
v/c Ratio	0.71	0.99	0.62	0.61	0.95	0.36	0.42	0.20	0.33
Control Delay	40.0	34.5	31.5	36.3	66.9	45.3	8.5	35.4	29.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.0	34.5	31.5	36.3	66.9	45.3	8.5	35.4	29.6
Queue Length 50th (ft)	99	330	58	414	202	95	0	30	41
Queue Length 95th (ft)	m137	#398	109	498	#316	158	64	63	76
Internal Link Dist (ft)		495		508		515			380
Turn Bay Length (ft)	500		250		325			225	
Base Capacity (vph)	323	2685	238	2598	607	381	484	266	562
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.99	0.53	0.61	0.95	0.36	0.42	0.20	0.33

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

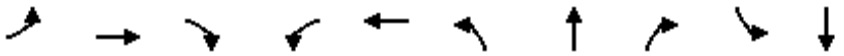


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	75	1277	402	96	2609	759	91	61	5	182
v/c Ratio	0.52	0.51	0.41	0.40	0.97	0.91	0.16	0.11	0.02	0.33
Control Delay	37.5	9.9	1.3	15.4	40.0	52.2	31.8	2.7	28.4	27.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.5	9.9	1.3	15.4	40.0	52.2	31.8	2.7	28.4	27.0
Queue Length 50th (ft)	18	83	0	30	~720	259	49	0	3	36
Queue Length 95th (ft)	71	106	6	54	#863	#367	101	14	12	72
Internal Link Dist (ft)		495			508		515			380
Turn Bay Length (ft)	500		300	250		325			225	
Base Capacity (vph)	143	2491	980	257	2686	831	586	563	271	555
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.51	0.41	0.37	0.97	0.91	0.16	0.11	0.02	0.33

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	208	2576	844	163	2104	718	180	263	62	242
v/c Ratio	0.90	1.00	0.80	0.94	0.87	1.00	0.39	0.51	0.24	0.42
Control Delay	44.7	31.3	9.3	82.7	33.2	71.7	41.4	18.4	32.6	30.3
Queue Delay	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.7	31.3	10.1	82.7	33.2	71.7	41.4	18.4	32.6	30.3
Queue Length 50th (ft)	131	552	164	75	520	~247	119	61	34	54
Queue Length 95th (ft)	m125	m443	m153	#213	592	#391	190	147	68	95
Internal Link Dist (ft)		495			508		515			380
Turn Bay Length (ft)	500		300	250		325			225	
Base Capacity (vph)	233	2584	1052	173	2415	717	464	520	262	580
Starvation Cap Reductn	0	0	53	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	1.00	0.84	0.94	0.87	1.00	0.39	0.51	0.24	0.42

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

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



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1	783	76	462	2031	96	126	26	203	41	13
v/c Ratio	0.01	0.39	0.08	0.72	0.74	0.08	0.73	0.20	0.68	0.30	0.06
Control Delay	12.0	18.6	4.9	13.1	11.3	1.4	73.3	54.6	19.0	52.2	45.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.0	18.6	4.9	13.1	11.3	1.4	73.3	54.6	19.0	52.2	45.2
Queue Length 50th (ft)	0	246	5	85	342	0	92	20	0	32	4
Queue Length 95th (ft)	m1	398	46	207	772	19	#174	47	71	59	14
Internal Link Dist (ft)		648			388			216			355
Turn Bay Length (ft)	500			525		425	300		225	150	
Base Capacity (vph)	151	2012	958	765	2744	1249	172	281	411	136	520
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.39	0.08	0.60	0.74	0.08	0.73	0.09	0.49	0.30	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	2	1942	134	219	1167	90	102	41	445	165	45
v/c Ratio	0.01	1.03	0.15	1.03	0.52	0.09	0.31	0.11	1.08	0.60	0.08
Control Delay	14.5	71.4	11.8	102.0	13.2	2.1	37.1	41.2	98.9	50.3	35.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.5	71.4	11.8	102.0	13.2	2.1	37.1	41.2	98.9	50.3	35.4
Queue Length 50th (ft)	1	~866	35	~129	226	0	61	27	~293	103	12
Queue Length 95th (ft)	m1	m#902	m42	#290	350	21	109	59	#502	167	30
Internal Link Dist (ft)		648			388			216			355
Turn Bay Length (ft)	500			525		425	300		225	150	
Base Capacity (vph)	270	1878	904	212	2256	1043	334	357	413	273	632
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	1.03	0.15	1.03	0.52	0.09	0.31	0.11	1.08	0.60	0.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

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



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	2	961	353	601	2433	130	564	35	302	55	18
v/c Ratio	0.02	0.40	0.38	0.83	0.68	0.11	0.90	0.12	0.60	0.52	0.12
Control Delay	12.0	26.0	4.0	62.7	14.5	2.0	73.8	50.0	10.3	68.4	57.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.0	26.0	4.0	62.7	14.5	2.0	73.8	50.0	10.3	68.4	57.8
Queue Length 50th (ft)	0	191	0	272	350	0	259	29	0	51	6
Queue Length 95th (ft)	4	292	65	321	674	27	#351	58	82	74	21
Internal Link Dist (ft)		648			388			216			355
Turn Bay Length (ft)	500			525		425	300		225	150	
Base Capacity (vph)	125	2419	938	835	3587	1155	649	518	658	106	446
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.40	0.38	0.72	0.68	0.11	0.87	0.07	0.46	0.52	0.04

Intersection Summary

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

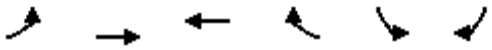


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	3	2334	697	534	1646	121	598	106	666	182	111
v/c Ratio	0.02	1.02	0.63	0.93	0.51	0.12	0.87	0.35	1.12	0.70	0.50
Control Delay	12.0	64.6	14.6	85.4	16.4	2.4	71.8	59.2	113.5	58.1	72.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.0	64.6	14.6	85.4	16.4	2.4	71.8	59.2	113.5	58.1	72.0
Queue Length 50th (ft)	1	~884	306	~276	302	0	291	93	~726	138	53
Queue Length 95th (ft)	5	#971	427	#408	415	30	364	154	#975	208	87
Internal Link Dist (ft)		648			388			216			355
Turn Bay Length (ft)	500			525		425	300		225	150	
Base Capacity (vph)	225	2288	1115	572	3218	1046	720	316	597	274	249
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	1.02	0.63	0.93	0.51	0.12	0.83	0.34	1.12	0.66	0.45

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

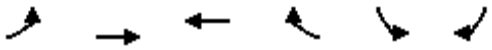
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	483	549	1617	188	601	487
v/c Ratio	0.82	0.21	0.89	0.21	0.99dr	0.34
Control Delay	48.9	4.2	27.8	2.6	28.1	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.9	4.2	27.8	2.6	28.1	0.6
Queue Length 50th (ft)	134	43	435	0	90	0
Queue Length 95th (ft)	#224	68	#608	33	145	0
Internal Link Dist (ft)		324	673		335	
Turn Bay Length (ft)	475				150	
Base Capacity (vph)	593	2611	1824	907	852	1441
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.21	0.89	0.21	0.71	0.34

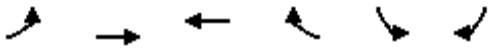
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	945	1618	899	164	495	296
v/c Ratio	0.84	0.59	0.64	0.23	0.74	0.21
Control Delay	36.0	5.9	26.1	4.7	21.7	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.0	5.9	26.1	4.7	21.7	0.3
Queue Length 50th (ft)	250	156	217	0	55	0
Queue Length 95th (ft)	325	274	316	42	100	0
Internal Link Dist (ft)		324	673		335	
Turn Bay Length (ft)	475				150	
Base Capacity (vph)	1172	2736	1405	727	881	1441
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.59	0.64	0.23	0.56	0.21

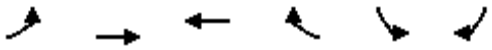
Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	536	697	2027	222	784	645
v/c Ratio	0.86	0.19	0.84	0.26	1.15dr	0.45
Control Delay	51.5	4.8	34.3	10.4	36.9	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.5	4.8	34.3	10.4	36.9	1.0
Queue Length 50th (ft)	153	44	460	41	138	0
Queue Length 95th (ft)	#236	57	506	118	#242	0
Internal Link Dist (ft)		324	673		335	
Turn Bay Length (ft)	475			350	150	
Base Capacity (vph)	631	3584	2411	867	892	1441
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.19	0.84	0.26	0.88	0.45

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

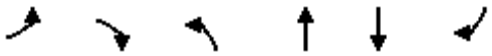


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	1361	2093	1283	401	838	505
v/c Ratio	1.01	0.58	0.95	0.57	0.91	0.35
Control Delay	55.2	7.4	49.9	16.0	34.2	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.2	7.4	49.9	16.0	34.2	0.7
Queue Length 50th (ft)	~432	189	281	69	134	0
Queue Length 95th (ft)	#562	226	#363	190	#240	0
Internal Link Dist (ft)		324	673		335	
Turn Bay Length (ft)	475			350	150	
Base Capacity (vph)	1351	3612	1356	700	951	1441
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.01	0.58	0.95	0.57	0.88	0.35

Intersection Summary

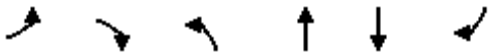
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	328	59	32	614	632	603
v/c Ratio	0.55	0.11	0.08	0.31	0.32	0.38
Control Delay	28.3	11.8	9.8	11.0	11.1	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.3	11.8	9.8	11.0	11.1	0.7
Queue Length 50th (ft)	150	10	8	91	94	0
Queue Length 95th (ft)	234	36	22	123	127	0
Internal Link Dist (ft)	402			178	292	
Turn Bay Length (ft)		50	150			150
Base Capacity (vph)	599	558	392	1985	1985	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.11	0.08	0.31	0.32	0.38

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	561	104	17	703	886	301
v/c Ratio	0.60	0.12	0.14	0.53	0.67	0.19
Control Delay	18.1	7.0	22.5	24.0	26.8	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.1	7.0	22.5	24.0	26.8	0.3
Queue Length 50th (ft)	208	16	6	162	217	0
Queue Length 95th (ft)	312	41	23	216	285	0
Internal Link Dist (ft)	402			178	292	
Turn Bay Length (ft)		50	150			150
Base Capacity (vph)	934	856	121	1317	1317	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.12	0.14	0.53	0.67	0.19

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	383	135	54	93	43	989	103	835	660
v/c Ratio	0.84	0.21	0.12	0.14	0.15	0.52	0.46	0.43	0.42
Control Delay	43.5	10.6	18.1	14.0	14.3	14.5	23.5	14.0	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.5	10.6	18.1	14.0	14.3	14.5	23.5	14.0	0.8
Queue Length 50th (ft)	192	27	20	26	12	173	34	143	0
Queue Length 95th (ft)	281	58	41	53	36	262	100	217	0
Internal Link Dist (ft)		402		289		178		292	
Turn Bay Length (ft)			150		150		150		150
Base Capacity (vph)	555	776	530	781	285	1908	225	1945	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.17	0.10	0.12	0.15	0.52	0.46	0.43	0.42

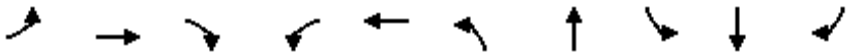
Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	622	204	304	180	43	981	16	1150	350
v/c Ratio	0.94	0.22	0.47	0.19	0.52	0.80	0.20	0.94	0.22
Control Delay	42.6	10.0	14.7	8.7	52.0	33.3	29.2	44.9	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.6	10.0	14.7	8.7	52.0	33.3	29.2	44.9	0.3
Queue Length 50th (ft)	292	50	93	39	20	268	6	339	0
Queue Length 95th (ft)	#537	86	159	71	#73	#360	25	#486	0
Internal Link Dist (ft)		402		381		178		292	
Turn Bay Length (ft)			150		150		150		150
Base Capacity (vph)	686	965	663	979	82	1220	82	1226	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.21	0.46	0.18	0.52	0.80	0.20	0.94	0.22

Intersection Summary

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

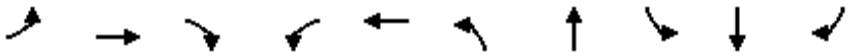


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	78	146	382	395	254	575	946	12	442	47
v/c Ratio	0.28	0.48	0.24	1.11	0.62	0.89	0.50	0.05	0.53	0.09
Control Delay	20.9	34.9	0.4	108.4	33.9	33.6	13.2	11.7	29.5	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.9	34.9	0.4	108.4	33.9	33.6	13.2	11.7	29.5	0.3
Queue Length 50th (ft)	27	67	0	~196	112	179	126	2	102	0
Queue Length 95th (ft)	52	113	0	#349	175	#433	257	11	147	0
Internal Link Dist (ft)		257			1166		312		637	
Turn Bay Length (ft)	200		200	175		450		450		300
Base Capacity (vph)	276	419	1583	355	476	647	1883	254	831	528
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.35	0.24	1.11	0.53	0.89	0.50	0.05	0.53	0.09

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

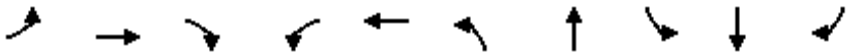


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	158	305	749	328	228	372	1010	59	880	124
v/c Ratio	0.41	0.85	0.47	0.95	0.51	1.02	0.68	0.27	0.83	0.21
Control Delay	22.0	58.3	1.0	60.3	32.1	77.9	24.7	16.2	37.8	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.0	58.3	1.0	60.3	32.1	77.9	24.7	16.2	37.8	1.9
Queue Length 50th (ft)	58	167	0	134	105	~183	288	17	244	0
Queue Length 95th (ft)	101	#300	0	#295	176	#371	355	37	#325	14
Internal Link Dist (ft)		257			1166		312		637	
Turn Bay Length (ft)	200		200	175		450		450		300
Base Capacity (vph)	393	374	1583	347	457	364	1475	216	1057	600
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.82	0.47	0.95	0.50	1.02	0.68	0.27	0.83	0.21

Intersection Summary

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Queue shown is maximum after two cycles.

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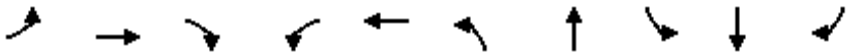


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	95	234	422	276	437	632	1010	28	485	63
v/c Ratio	0.47	0.59	0.27	0.90	0.95	1.07	0.58	0.12	0.59	0.12
Control Delay	26.5	34.7	0.4	56.4	63.5	78.6	16.4	12.6	30.9	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.5	34.7	0.4	56.4	63.5	78.6	16.4	12.6	30.9	0.5
Queue Length 50th (ft)	32	104	0	104	~213	~293	154	6	114	0
Queue Length 95th (ft)	65	176	0	#237	#403	#494	272	18	163	0
Internal Link Dist (ft)		257			1166		312		637	
Turn Bay Length (ft)	200		200	175		450		450		300
Base Capacity (vph)	200	419	1583	308	459	589	1727	234	818	523
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.56	0.27	0.90	0.95	1.07	0.58	0.12	0.59	0.12

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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



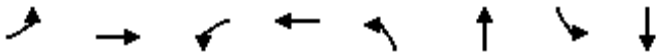
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	198	471	842	246	292	391	1099	102	1064	167
v/c Ratio	0.58	1.00	0.53	0.96	0.60	1.23	0.76	0.55	0.95	0.27
Control Delay	26.9	78.2	1.3	64.6	25.8	146.9	37.0	25.2	49.1	4.2
Queue Delay	0.0	32.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.9	110.7	1.3	64.6	25.8	146.9	37.0	25.2	49.1	4.2
Queue Length 50th (ft)	74	~269	0	71	145	~227	348	29	309	0
Queue Length 95th (ft)	125	#469	0	#230	227	m#360	417	#57	#443	36
Internal Link Dist (ft)		257			1166		312		637	
Turn Bay Length (ft)	200		200	175		450		450		300
Base Capacity (vph)	339	469	1583	257	484	318	1439	185	1116	624
Starvation Cap Reductn	0	50	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	1.12	0.53	0.96	0.60	1.23	0.76	0.55	0.95	0.27

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
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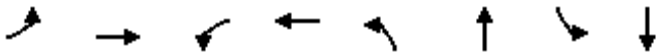
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	187	125	65	141	207	733	16	914
v/c Ratio	0.78	0.29	0.25	0.35	0.48	0.31	0.03	0.49
Control Delay	62.6	23.8	29.7	23.3	9.9	8.1	7.1	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.6	23.8	29.7	23.3	9.9	8.1	7.1	13.2
Queue Length 50th (ft)	116	39	31	51	36	74	3	128
Queue Length 95th (ft)	185	m83	60	93	80	175	11	242
Internal Link Dist (ft)		1166		474		405		741
Turn Bay Length (ft)	250		150		275		250	
Base Capacity (vph)	336	552	355	542	516	2351	477	1848
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.23	0.18	0.26	0.40	0.31	0.03	0.49

Intersection Summary

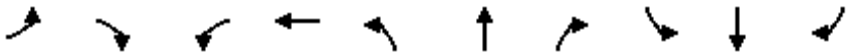
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	324	228	43	119	141	671	60	1055
v/c Ratio	0.86	0.37	0.15	0.22	0.48	0.37	0.14	0.65
Control Delay	55.1	20.9	22.8	14.1	14.5	15.4	9.8	20.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.1	20.9	22.8	14.1	14.5	15.4	9.8	20.9
Queue Length 50th (ft)	203	59	17	27	34	130	14	238
Queue Length 95th (ft)	m231	m71	41	65	65	174	32	320
Internal Link Dist (ft)		1166		474		405		741
Turn Bay Length (ft)	250		150		275		250	
Base Capacity (vph)	432	677	323	625	305	1792	429	1614
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.34	0.13	0.19	0.46	0.37	0.14	0.65

Intersection Summary

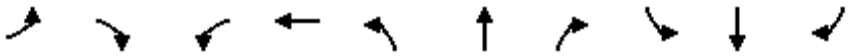
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	83	52	13	250	29	1533	11	60	576	46
v/c Ratio	1.00	0.03	0.06	0.70	0.05	0.67	0.01	0.25	0.23	0.04
Control Delay	135.9	0.0	29.2	27.8	4.6	13.7	0.0	9.6	6.0	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	135.9	0.0	29.2	27.8	4.6	13.7	0.0	9.6	6.0	0.7
Queue Length 50th (ft)	47	0	6	66	4	286	0	7	41	0
Queue Length 95th (ft)	#120	0	21	138	13	422	0	m27	98	m4
Internal Link Dist (ft)				1283		1727			575	
Turn Bay Length (ft)	150	150					425	525		300
Base Capacity (vph)	119	1583	321	455	623	2282	1046	238	2458	1121
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.03	0.04	0.55	0.05	0.67	0.01	0.25	0.23	0.04

Intersection Summary

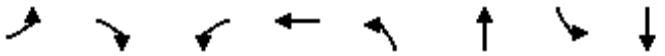
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	54	35	14	115	52	933	23	195	1603	82
v/c Ratio	0.47	0.02	0.10	0.32	0.19	0.39	0.02	0.39	0.60	0.07
Control Delay	50.3	0.0	35.9	2.4	4.5	7.9	0.0	4.7	6.9	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.3	0.0	35.9	2.4	4.5	7.9	0.0	4.7	6.9	1.5
Queue Length 50th (ft)	29	0	7	0	5	113	0	18	192	0
Queue Length 95th (ft)	64	0	24	0	14	188	0	47	252	m11
Internal Link Dist (ft)				1283		1727			575	
Turn Bay Length (ft)	150	150			300		425	525		300
Base Capacity (vph)	221	1583	282	487	273	2409	1118	536	2673	1215
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.02	0.05	0.24	0.19	0.39	0.02	0.36	0.60	0.07

Intersection Summary

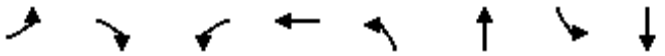
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	115	107	13	250	57	2034	60	760
v/c Ratio	0.94	0.07	0.05	0.63	0.11	0.65	0.29	0.24
Control Delay	103.4	0.1	26.4	22.9	6.0	14.4	15.4	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	103.4	0.1	26.4	22.9	6.0	14.4	15.4	8.1
Queue Length 50th (ft)	65	0	6	64	8	269	9	60
Queue Length 95th (ft)	#138	0	20	129	25	398	m35	m91
Internal Link Dist (ft)				1283		2361		575
Turn Bay Length (ft)	150	150			300		525	
Base Capacity (vph)	177	1583	386	522	500	3116	211	3104
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.07	0.03	0.48	0.11	0.65	0.28	0.24

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	87	89	14	115	128	1268	195	2112
v/c Ratio	0.59	0.06	0.08	0.28	0.54	0.39	0.50	0.64
Control Delay	51.8	0.1	32.9	1.7	21.4	9.5	11.3	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.8	0.1	32.9	1.7	21.4	9.5	11.3	8.7
Queue Length 50th (ft)	47	0	7	0	17	116	20	168
Queue Length 95th (ft)	90	0	23	0	79	199	m76	223
Internal Link Dist (ft)				1283		2361		575
Turn Bay Length (ft)	150	150			300		525	
Base Capacity (vph)	235	1583	286	512	297	3278	481	3319
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.06	0.05	0.22	0.43	0.39	0.41	0.64

Intersection Summary

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



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	158	287	911	126	802
v/c Ratio	0.60	0.60	0.42	0.28	0.30
Control Delay	45.0	9.7	10.5	2.8	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	45.0	9.7	10.5	2.8	1.8
Queue Length 50th (ft)	85	0	123	6	21
Queue Length 95th (ft)	139	64	203	m12	m33
Internal Link Dist (ft)	302		1442		1262
Turn Bay Length (ft)				275	
Base Capacity (vph)	501	654	2164	515	2660
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.32	0.44	0.42	0.24	0.30

Intersection Summary

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



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	46	178	907	408	1244
v/c Ratio	0.29	0.58	0.47	0.65	0.43
Control Delay	41.7	14.2	16.5	15.1	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	41.7	14.2	16.5	15.1	1.6
Queue Length 50th (ft)	25	0	149	65	35
Queue Length 95th (ft)	56	57	266	m85	m54
Internal Link Dist (ft)	355		1449		1297
Turn Bay Length (ft)				275	
Base Capacity (vph)	359	463	1941	762	2863
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.13	0.38	0.47	0.54	0.43

Intersection Summary

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



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	213	277	1234	128	1014
v/c Ratio	0.68	0.57	0.60	0.40	0.40
Control Delay	43.2	9.4	22.0	15.3	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	43.2	9.4	22.0	15.3	5.8
Queue Length 50th (ft)	113	4	261	14	28
Queue Length 95th (ft)	m163	56	307	m80	188
Internal Link Dist (ft)	302		1442		1262
Turn Bay Length (ft)				275	
Base Capacity (vph)	422	572	2049	368	2557
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.50	0.48	0.60	0.35	0.40

Intersection Summary

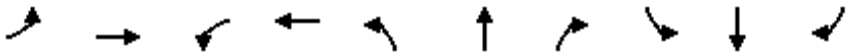
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	61	129	1248	427	1562
v/c Ratio	0.37	0.48	0.68	0.79	0.55
Control Delay	55.9	24.3	37.0	21.0	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	55.9	24.3	37.0	21.0	7.6
Queue Length 50th (ft)	35	8	381	169	183
Queue Length 95th (ft)	m60	m47	426	m235	m415
Internal Link Dist (ft)	355		1449		1297
Turn Bay Length (ft)				275	
Base Capacity (vph)	355	421	1826	606	2849
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.17	0.31	0.68	0.70	0.55

Intersection Summary

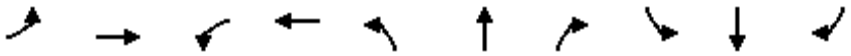
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	30	23	87	187	13	1331	40	66	488	16
v/c Ratio	0.48	0.04	0.59	0.63	0.02	0.51	0.03	0.20	0.18	0.01
Control Delay	74.5	0.1	66.0	23.1	5.0	12.3	4.0	4.1	4.3	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.5	0.1	66.0	23.1	5.0	12.3	4.0	4.1	4.3	0.0
Queue Length 50th (ft)	22	0	65	30	3	278	2	8	33	0
Queue Length 95th (ft)	54	0	115	101	m6	m346	m7	20	87	0
Internal Link Dist (ft)		511		297		1351			554	
Turn Bay Length (ft)	150				300		475	525		300
Base Capacity (vph)	112	680	270	426	743	2631	1191	351	2770	1251
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.03	0.32	0.44	0.02	0.51	0.03	0.19	0.18	0.01

Intersection Summary

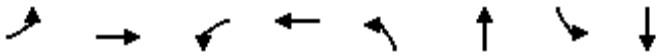
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	20	15	65	127	23	860	88	189	1335	29
v/c Ratio	0.27	0.05	0.52	0.31	0.07	0.33	0.07	0.36	0.48	0.02
Control Delay	58.1	0.4	65.2	1.9	1.4	2.6	0.1	4.1	6.3	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.1	0.4	65.2	1.9	1.4	2.6	0.1	4.1	6.3	0.4
Queue Length 50th (ft)	15	0	49	0	1	40	0	20	188	0
Queue Length 95th (ft)	39	0	93	0	m2	m55	m0	44	281	3
Internal Link Dist (ft)		375		297		1351			554	
Turn Bay Length (ft)	150				300		475	525		300
Base Capacity (vph)	147	410	249	528	345	2581	1180	631	2765	1248
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.04	0.26	0.24	0.07	0.33	0.07	0.30	0.48	0.02

Intersection Summary

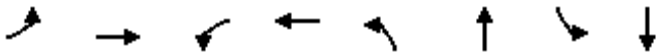
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	30	23	87	187	13	1829	66	722
v/c Ratio	0.49	0.05	0.58	0.68	0.02	0.49	0.29	0.18
Control Delay	74.6	0.2	65.4	33.6	5.7	11.9	6.0	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.6	0.2	65.4	33.6	5.7	11.9	6.0	4.3
Queue Length 50th (ft)	22	0	65	54	3	246	8	33
Queue Length 95th (ft)	54	0	114	126	m6	352	21	86
Internal Link Dist (ft)		511		297		1351		2361
Turn Bay Length (ft)	150				300		525	
Base Capacity (vph)	121	587	293	426	594	3759	293	3964
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.04	0.30	0.44	0.02	0.49	0.23	0.18

Intersection Summary

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



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	20	15	65	127	23	1310	189	1857
v/c Ratio	0.27	0.06	0.52	0.29	0.10	0.36	0.50	0.47
Control Delay	58.1	0.4	65.2	1.7	2.4	3.6	6.9	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.1	0.4	65.2	1.7	2.4	3.6	6.9	5.8
Queue Length 50th (ft)	15	0	49	0	1	53	20	179
Queue Length 95th (ft)	39	0	93	0	m4	87	44	252
Internal Link Dist (ft)		375		297		1351		2361
Turn Bay Length (ft)	150				300		525	
Base Capacity (vph)	153	396	261	553	247	3624	574	3967
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.04	0.25	0.23	0.09	0.36	0.33	0.47

Intersection Summary

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



Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	200	1067	153	561
v/c Ratio	0.68	0.48	0.37	0.20
Control Delay	30.7	9.8	7.2	3.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	30.7	9.8	7.2	3.4
Queue Length 50th (ft)	56	139	18	36
Queue Length 95th (ft)	118	244	40	58
Internal Link Dist (ft)	344	1876		1442
Turn Bay Length (ft)			350	
Base Capacity (vph)	454	2206	486	2737
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.44	0.48	0.31	0.20

Intersection Summary



Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	133	863	46	1189
v/c Ratio	0.56	0.33	0.09	0.42
Control Delay	23.8	5.6	2.3	2.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	23.8	5.6	2.3	2.4
Queue Length 50th (ft)	23	87	3	53
Queue Length 95th (ft)	74	148	10	72
Internal Link Dist (ft)	344	1876		1449
Turn Bay Length (ft)			350	
Base Capacity (vph)	466	2584	534	2855
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.29	0.33	0.09	0.42

Intersection Summary



Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	269	1401	201	751
v/c Ratio	0.77	0.70	0.63	0.29
Control Delay	37.2	16.7	19.6	6.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	37.2	16.7	19.6	6.4
Queue Length 50th (ft)	93	271	59	157
Queue Length 95th (ft)	170	422	120	110
Internal Link Dist (ft)	344	1876		1442
Turn Bay Length (ft)			350	
Base Capacity (vph)	438	2004	363	2618
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.61	0.70	0.55	0.29

Intersection Summary



Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	171	1168	57	1567
v/c Ratio	0.63	0.48	0.15	0.56
Control Delay	25.7	8.0	3.3	5.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	25.7	8.0	3.3	5.0
Queue Length 50th (ft)	34	142	8	185
Queue Length 95th (ft)	91	243	m15	157
Internal Link Dist (ft)	344	1876		1449
Turn Bay Length (ft)			350	
Base Capacity (vph)	445	2455	384	2811
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.38	0.48	0.15	0.56

Intersection Summary

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



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	103	368	54	76	895	32	199	41	18	166	148
v/c Ratio	0.34	0.40	0.06	0.15	0.52	0.09	0.38	0.06	0.05	0.34	0.29
Control Delay	11.8	17.1	0.2	4.9	10.6	21.9	30.3	2.1	21.5	31.2	6.9
Queue Delay	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.8	17.1	0.2	4.9	11.6	21.9	30.3	2.1	21.5	31.2	6.9
Queue Length 50th (ft)	24	134	0	6	164	12	85	0	7	82	0
Queue Length 95th (ft)	47	205	0	m10	172	33	167	9	22	142	48
Internal Link Dist (ft)		799			190		272			1416	
Turn Bay Length (ft)	125		100	75		150		150	125		125
Base Capacity (vph)	305	910	838	491	1707	360	521	663	347	482	519
Starvation Cap Reductn	0	0	0	0	513	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.40	0.06	0.15	0.75	0.09	0.38	0.06	0.05	0.34	0.29

Intersection Summary

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



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	172	884	60	97	611	55	329	161	71	334	205
v/c Ratio	0.41	1.02	0.07	0.51	0.38	0.26	0.74	0.25	0.33	0.76	0.39
Control Delay	12.2	60.6	0.2	22.1	8.5	24.8	44.8	7.2	26.2	45.6	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.2	60.6	0.2	22.1	9.3	24.8	44.8	7.2	26.2	45.6	8.5
Queue Length 50th (ft)	42	~507	0	9	78	22	179	11	28	182	8
Queue Length 95th (ft)	73	#764	0	m27	87	49	#316	54	59	#323	64
Internal Link Dist (ft)		799			190		272			1416	
Turn Bay Length (ft)	125		100	75		150		150	125		125
Base Capacity (vph)	424	869	806	192	1624	211	442	639	215	442	519
Starvation Cap Reductn	0	0	0	0	660	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	1.02	0.07	0.51	0.63	0.26	0.74	0.25	0.33	0.76	0.39

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

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



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	139	520	72	97	1254	43	257	53	24	218	219
v/c Ratio	0.53	0.29	0.08	0.20	0.80	0.14	0.52	0.08	0.08	0.48	0.40
Control Delay	18.2	14.4	0.7	6.7	23.9	23.4	34.1	0.2	22.7	34.6	6.9
Queue Delay	0.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.2	14.4	0.7	6.7	27.1	23.4	34.1	0.2	22.7	34.6	6.9
Queue Length 50th (ft)	32	91	0	9	375	17	116	0	10	113	0
Queue Length 95th (ft)	77	126	5	19	#476	41	#222	0	28	187	58
Internal Link Dist (ft)		799			190		272			1416	
Turn Bay Length (ft)	125		100	75		150		150	125		125
Base Capacity (vph)	316	1766	854	490	1559	304	497	681	291	458	554
Starvation Cap Reductn	0	0	0	0	210	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.29	0.08	0.20	0.93	0.14	0.52	0.08	0.08	0.48	0.40

Intersection Summary

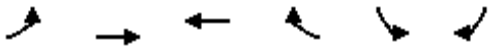
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	268	1268	81	127	884	74	437	211	96	439	294
v/c Ratio	0.78	0.85	0.11	0.66	0.74	0.39	0.83	0.30	0.50	0.84	0.49
Control Delay	34.0	30.2	1.3	47.3	22.0	25.3	47.0	9.6	29.5	47.4	11.2
Queue Delay	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	30.2	1.3	47.3	24.5	25.3	47.0	9.6	29.5	47.4	11.2
Queue Length 50th (ft)	89	332	0	42	265	27	240	31	36	242	34
Queue Length 95th (ft)	#196	425	10	#106	333	57	#413	81	70	#416	106
Internal Link Dist (ft)		799			190		272			1416	
Turn Bay Length (ft)	125		100	75		150		150	125		125
Base Capacity (vph)	371	1494	741	193	1200	189	525	699	191	525	603
Starvation Cap Reductn	0	0	0	0	199	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.85	0.11	0.66	0.88	0.39	0.83	0.30	0.50	0.84	0.49

Intersection Summary

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



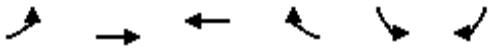
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	91	323	890	600	256	140
v/c Ratio	0.30	0.15	1.00	0.56	0.64	0.09
Control Delay	8.3	5.5	44.5	3.2	27.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.3	5.5	44.5	3.2	27.9	0.1
Queue Length 50th (ft)	11	21	~444	37	84	0
Queue Length 95th (ft)	31	44	m#856	m42	135	0
Internal Link Dist (ft)		633	515		1276	
Turn Bay Length (ft)	350			625		
Base Capacity (vph)	299	2206	894	1072	531	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.15	1.00	0.56	0.48	0.09

Intersection Summary

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

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

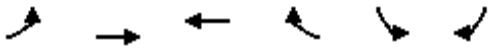


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	148	967	544	206	464	103
v/c Ratio	0.44	0.50	0.70	0.27	0.86	0.07
Control Delay	11.6	10.0	25.0	5.8	37.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.6	10.0	25.0	5.8	37.5	0.1
Queue Length 50th (ft)	25	110	220	36	151	0
Queue Length 95th (ft)	51	154	350	m55	#293	0
Internal Link Dist (ft)		633	515		1276	
Turn Bay Length (ft)	350			625		
Base Capacity (vph)	335	1928	773	777	575	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.50	0.70	0.27	0.81	0.07

Intersection Summary

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

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

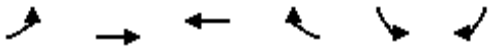


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	142	424	1165	773	351	229
v/c Ratio	0.60	0.18	1.21	0.65	0.81	0.14
Control Delay	28.5	12.7	128.1	4.1	46.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.5	12.7	128.1	4.1	46.5	0.2
Queue Length 50th (ft)	45	72	~831	0	186	0
Queue Length 95th (ft)	99	107	#1122	61	271	0
Internal Link Dist (ft)		633	515		1276	
Turn Bay Length (ft)	350			625		
Base Capacity (vph)	251	2316	963	1192	521	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.18	1.21	0.65	0.67	0.14

Intersection Summary

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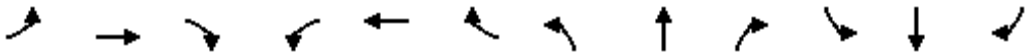
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	267	1275	717	292	612	189
v/c Ratio	0.98	0.66	0.98	0.37	0.99	0.12
Control Delay	73.0	17.9	58.0	3.7	64.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.0	17.9	58.0	3.7	64.4	0.2
Queue Length 50th (ft)	104	257	395	0	342	0
Queue Length 95th (ft)	#260	342	#634	48	#564	0
Internal Link Dist (ft)		633	515		1276	
Turn Bay Length (ft)	350			625		
Base Capacity (vph)	273	1946	730	798	619	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.98	0.66	0.98	0.37	0.99	0.12

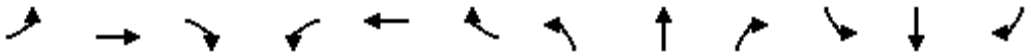
Intersection Summary

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



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	101	277	203	95	582	717	553	573	73	285	197	221
v/c Ratio	0.24	0.18	0.13	0.16	0.38	0.45	0.78	0.76	0.05	0.66	0.42	0.14
Control Delay	16.4	22.9	0.2	15.9	25.8	0.9	53.0	50.8	0.1	59.2	56.2	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.4	22.9	0.2	15.9	25.8	0.9	53.0	50.8	0.1	59.2	56.2	0.2
Queue Length 50th (ft)	41	0	0	34	156	0	210	221	0	111	73	0
Queue Length 95th (ft)	73	120	0	74	248	0	256	267	0	153	118	0
Internal Link Dist (ft)		1034			1456			441			1930	
Turn Bay Length (ft)	400		50	650		50	250		75	625		
Base Capacity (vph)	457	1547	1583	593	1537	1583	958	987	1583	615	634	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.18	0.13	0.16	0.38	0.45	0.58	0.58	0.05	0.46	0.31	0.14

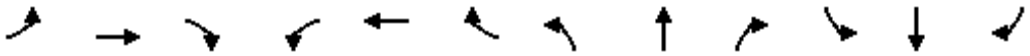
Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	205	555	571	146	311	446	256	412	104	709	637	160
v/c Ratio	0.40	0.45	0.36	0.39	0.27	0.28	0.63	0.74	0.07	0.82	0.62	0.10
Control Delay	23.9	35.0	0.5	23.5	32.7	0.4	57.3	56.1	0.1	44.7	34.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.9	35.0	0.5	23.5	32.7	0.4	57.3	56.1	0.1	44.7	34.5	0.1
Queue Length 50th (ft)	88	188	0	63	93	0	98	161	0	270	227	0
Queue Length 95th (ft)	m167	m267	0	122	150	0	138	211	0	261	271	0
Internal Link Dist (ft)		1034			1399			888			1930	
Turn Bay Length (ft)	400		50	650		50	250		75	625		
Base Capacity (vph)	531	1240	1583	404	1173	1583	529	663	1583	1044	1197	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.45	0.36	0.36	0.27	0.28	0.48	0.62	0.07	0.68	0.53	0.10

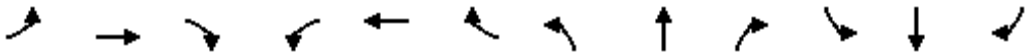
Intersection Summary

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



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	143	373	280	121	761	954	729	754	89	386	266	315
v/c Ratio	0.49	0.28	0.18	0.27	0.59	0.60	0.84	0.82	0.06	0.77	0.49	0.20
Control Delay	25.2	27.7	0.2	21.3	34.8	1.7	51.6	49.7	0.1	61.6	51.0	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.2	27.7	0.2	21.3	34.8	1.7	51.6	49.7	0.1	61.6	51.0	0.4
Queue Length 50th (ft)	63	110	0	53	261	0	273	286	0	150	87	0
Queue Length 95th (ft)	111	152	0	95	342	0	333	351	0	205	151	5
Internal Link Dist (ft)		1034			1399			925			1930	
Turn Bay Length (ft)	400		50	650		50	250		50	625		
Base Capacity (vph)	303	1339	1583	450	1279	1583	992	1017	1583	557	574	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.28	0.18	0.27	0.59	0.60	0.73	0.74	0.06	0.69	0.46	0.20

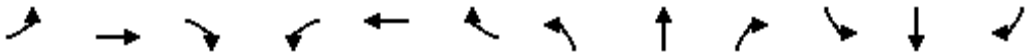
Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	303	726	763	182	412	595	353	560	126	942	847	240
v/c Ratio	0.77	0.77	0.48	0.73	0.51	0.38	0.73	0.86	0.08	0.91	0.70	0.15
Control Delay	41.3	47.8	1.1	44.6	44.2	0.7	58.5	61.8	0.1	48.4	33.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.3	47.8	1.1	44.6	44.2	0.7	58.5	61.8	0.1	48.4	33.4	0.2
Queue Length 50th (ft)	172	282	0	95	152	0	136	222	0	357	294	0
Queue Length 95th (ft)	#277	#358	0	#183	206	0	185	#306	0	#465	374	0
Internal Link Dist (ft)		1034			1399			918			1930	
Turn Bay Length (ft)	400		50	650		50	250		50	625		
Base Capacity (vph)	401	944	1583	256	801	1583	549	671	1583	1072	1234	1583
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.77	0.48	0.71	0.51	0.38	0.64	0.83	0.08	0.88	0.69	0.15

Intersection Summary

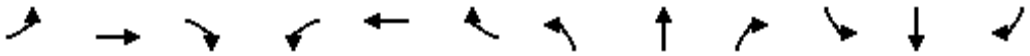
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	246	1419	94	258	1392	318	44	40	142	298	49	215
v/c Ratio	0.63	0.60	0.10	0.64	0.62	0.23	0.27	0.13	0.25	0.59	0.12	0.35
Control Delay	47.7	31.2	9.2	53.6	28.8	0.3	59.6	44.8	12.1	56.6	38.6	21.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0
Total Delay	47.7	31.2	9.2	53.6	28.8	0.3	59.6	44.8	12.1	58.1	38.6	21.2
Queue Length 50th (ft)	90	414	21	106	286	0	17	27	25	79	31	87
Queue Length 95th (ft)	m115	456	m41	m145	348	0	37	61	72	110	65	145
Internal Link Dist (ft)		806			511			584			758	
Turn Bay Length (ft)	400		225	350		275	150			300		300
Base Capacity (vph)	472	2367	914	500	2250	1362	163	309	615	561	409	657
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	34	123	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.60	0.10	0.52	0.62	0.23	0.27	0.13	0.24	0.68	0.12	0.33

Intersection Summary

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



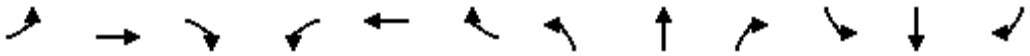
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	266	1410	151	356	1890	551	118	105	407	952	70	416
v/c Ratio	0.79	0.81	0.19	0.69	1.01	0.40	0.51	0.38	0.68	0.92	0.13	0.57
Control Delay	61.8	31.7	7.0	44.4	58.3	0.5	61.8	50.4	31.6	61.3	32.6	23.5
Queue Delay	0.0	0.0	0.0	0.0	4.2	0.0	0.0	0.0	4.4	59.2	0.0	0.0
Total Delay	61.8	31.7	7.0	44.4	62.5	0.5	61.8	50.4	36.0	120.5	32.6	23.5
Queue Length 50th (ft)	94	358	27	146	~572	0	46	74	208	258	40	186
Queue Length 95th (ft)	m#147	#480	m52	m159	m#648	m0	77	131	306	#336	78	291
Internal Link Dist (ft)		806			511			584			758	
Turn Bay Length (ft)	400		225	350		275	150			300		300
Base Capacity (vph)	340	1735	793	655	1871	1362	243	280	658	1035	539	728
Starvation Cap Reductn	0	0	0	0	25	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	177	822	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.81	0.19	0.54	1.02	0.40	0.49	0.38	0.85	4.47	0.13	0.57

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

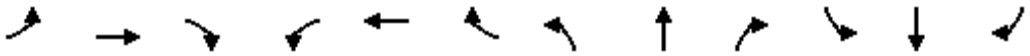
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	323	1936	127	347	1940	441	58	54	191	406	66	283
v/c Ratio	0.78	0.81	0.14	0.81	0.85	0.32	0.36	0.19	0.34	0.79	0.17	0.46
Control Delay	49.6	35.9	9.1	59.5	35.0	0.5	61.8	46.7	17.3	64.6	40.6	25.9
Queue Delay	0.0	0.3	0.0	0.0	3.7	0.0	0.0	0.0	0.2	76.8	0.0	0.0
Total Delay	49.6	36.1	9.1	59.5	38.7	0.5	61.8	46.7	17.5	141.3	40.6	25.9
Queue Length 50th (ft)	113	579	34	141	502	0	22	37	54	110	42	132
Queue Length 95th (ft)	m141	631	m50	m178	581	m0	45	76	117	#153	83	214
Internal Link Dist (ft)		806			511			584			758	
Turn Bay Length (ft)	400		225	350		275	150			300		300
Base Capacity (vph)	426	2393	933	443	2279	1362	163	281	568	519	385	617
Starvation Cap Reductn	0	0	0	0	258	0	0	0	0	0	0	0
Spillback Cap Reductn	0	88	0	0	0	0	0	0	74	425	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.84	0.14	0.78	0.96	0.32	0.36	0.19	0.39	4.32	0.17	0.46

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

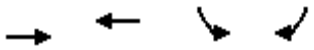


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	350	2039	203	480	2640	763	159	142	547	1296	95	554
v/c Ratio	1.06	0.99	0.23	0.86	1.19	0.56	0.61	0.74	1.05	1.24	0.22	0.89
Control Delay	128.1	62.9	7.4	86.2	117.5	2.1	77.2	87.8	95.1	163.3	48.0	56.2
Queue Delay	0.0	39.4	0.0	0.0	0.0	0.0	0.0	0.0	7.2	0.0	0.0	0.0
Total Delay	128.1	102.2	7.4	86.2	117.5	2.1	77.2	87.8	102.3	163.3	48.0	56.2
Queue Length 50th (ft)	~192	723	33	249	~1200	0	78	137	~524	~555	76	456
Queue Length 95th (ft)	#297	#845	78	#329	#1268	30	119	#239	#760	#649	130	#688
Internal Link Dist (ft)		806			511			584			758	
Turn Bay Length (ft)	400		225	350		275	150			300		300
Base Capacity (vph)	331	2050	883	560	2220	1362	286	192	523	1047	441	624
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	712	0	0	0	0	0	0	10	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.06	1.52	0.23	0.86	1.19	0.56	0.56	0.74	1.07	1.24	0.22	0.89

Intersection Summary

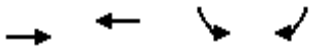
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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



Lane Group	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	1781	1018	1059	944
v/c Ratio	0.73	0.42	0.48	0.72
Control Delay	38.5	24.3	24.3	27.6
Queue Delay	3.6	0.0	0.0	0.0
Total Delay	42.0	24.3	24.3	27.6
Queue Length 50th (ft)	529	209	200	296
Queue Length 95th (ft)	577	227	240	384
Internal Link Dist (ft)	511	668	717	
Turn Bay Length (ft)			625	625
Base Capacity (vph)	2436	2436	2224	1304
Starvation Cap Reductn	550	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.94	0.42	0.48	0.72

Intersection Summary

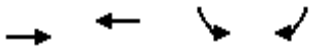


Lane Group	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	2867	1793	1714	1066
v/c Ratio	1.02	0.64	0.93	1.02
Control Delay	55.2	20.6	46.0	69.4
Queue Delay	33.5	0.0	45.3	31.1
Total Delay	88.6	20.6	91.4	100.5
Queue Length 50th (ft)	~885	422	447	~476
Queue Length 95th (ft)	#973	435	#528	#636
Internal Link Dist (ft)	511	668	717	
Turn Bay Length (ft)			625	625
Base Capacity (vph)	2817	2817	1850	1047
Starvation Cap Reductn	697	0	0	0
Spillback Cap Reductn	0	31	362	187
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.35	0.64	1.15	1.24

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

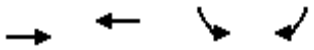
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	2108	1397	1324	1163
v/c Ratio	0.88	0.58	0.58	0.42
Control Delay	36.3	25.1	25.6	0.5
Queue Delay	46.3	0.0	0.0	0.1
Total Delay	82.7	25.1	25.6	0.5
Queue Length 50th (ft)	637	288	264	0
Queue Length 95th (ft)	682	m289	310	0
Internal Link Dist (ft)	511	668	717	
Turn Bay Length (ft)			625	625
Base Capacity (vph)	2394	2394	2266	2787
Starvation Cap Reductn	498	0	0	0
Spillback Cap Reductn	0	0	0	382
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.11	0.58	0.58	0.48

Intersection Summary

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



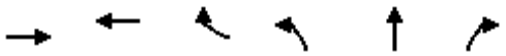
Lane Group	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	3245	2052	2001	1352
v/c Ratio	1.08	0.68	1.15	0.49
Control Delay	63.9	22.6	116.7	0.6
Queue Delay	8.2	1.2	0.0	0.1
Total Delay	72.0	23.8	116.7	0.7
Queue Length 50th (ft)	~1280	485	~811	0
Queue Length 95th (ft)	m#1040	536	#900	0
Internal Link Dist (ft)	511	668	717	
Turn Bay Length (ft)			625	625
Base Capacity (vph)	3000	3000	1746	2787
Starvation Cap Reductn	382	652	0	0
Spillback Cap Reductn	0	610	0	333
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.24	0.87	1.15	0.55

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

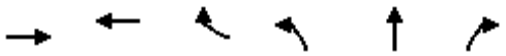
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

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



Lane Group	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	1537	2129	1055	159	158	240
v/c Ratio	0.40	0.85	0.73	0.55	0.59	0.38
Control Delay	7.9	6.3	7.9	53.8	51.8	16.5
Queue Delay	0.0	6.0	0.0	0.0	0.0	0.0
Total Delay	7.9	12.3	7.9	53.8	51.8	16.5
Queue Length 50th (ft)	147	35	575	120	120	27
Queue Length 95th (ft)	186	101	261	196	206	67
Internal Link Dist (ft)	668	260			268	
Turn Bay Length (ft)						250
Base Capacity (vph)	3797	2515	1441	287	267	629
Starvation Cap Reductn	0	347	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.98	0.73	0.55	0.59	0.38

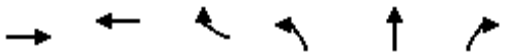
Intersection Summary



Lane Group	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	3265	1942	867	230	225	337
v/c Ratio	0.89	0.81	0.60	0.70	0.74	0.59
Control Delay	16.5	7.1	3.4	57.4	58.3	46.7
Queue Delay	18.2	2.1	0.0	0.0	85.1	74.0
Total Delay	34.7	9.3	3.4	57.4	143.4	120.7
Queue Length 50th (ft)	728	63	29	176	180	125
Queue Length 95th (ft)	m682	115	40	#272	#311	179
Internal Link Dist (ft)	668	260			268	
Turn Bay Length (ft)						250
Base Capacity (vph)	3677	2407	1441	329	304	575
Starvation Cap Reductn	519	316	0	0	0	0
Spillback Cap Reductn	119	0	0	0	238	458
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.93	0.60	0.70	3.41	2.88

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



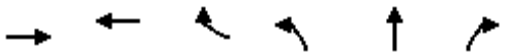
Lane Group	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	1844	2629	1212	215	212	322
v/c Ratio	0.48	1.03	0.84	0.81	0.86	0.60
Control Delay	7.7	30.5	13.0	73.0	76.7	38.1
Queue Delay	0.0	28.5	0.0	0.0	0.0	0.0
Total Delay	7.8	59.0	13.0	73.0	76.7	38.1
Queue Length 50th (ft)	190	~396	334	171	176	90
Queue Length 95th (ft)	236	m221	m229	#305	#337	142
Internal Link Dist (ft)	668	260			268	
Turn Bay Length (ft)						250
Base Capacity (vph)	3877	2550	1441	264	247	533
Starvation Cap Reductn	0	349	0	0	0	0
Spillback Cap Reductn	42	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.48	1.19	0.84	0.81	0.86	0.60

Intersection Summary

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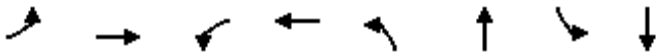
Lane Group	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	3755	2337	1027	304	301	379
v/c Ratio	1.03	0.98	0.71	0.89	0.95	0.63
Control Delay	41.4	19.1	6.2	73.9	84.1	47.4
Queue Delay	28.8	41.3	0.0	0.0	162.6	178.5
Total Delay	70.2	60.3	6.2	73.9	246.6	225.9
Queue Length 50th (ft)	~1141	1023	401	243	258	143
Queue Length 95th (ft)	#1213	#1178	m171	#412	#463	200
Internal Link Dist (ft)	668	260			268	
Turn Bay Length (ft)						250
Base Capacity (vph)	3641	2385	1441	343	318	599
Starvation Cap Reductn	294	306	0	0	0	0
Spillback Cap Reductn	386	0	0	0	307	588
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.15	1.12	0.71	0.89	27.36	34.45

Intersection Summary

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

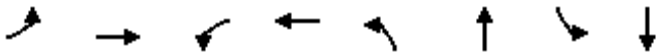
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	46	69	30	575	59	1065	243	1013
v/c Ratio	0.56	0.13	0.08	0.90	0.20	0.70	0.72	0.57
Control Delay	52.0	16.3	20.9	35.8	11.1	24.7	27.7	28.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.0	16.3	20.9	35.8	11.1	24.7	27.7	28.6
Queue Length 50th (ft)	21	19	12	191	16	208	98	298
Queue Length 95th (ft)	#66	47	30	#362	42	#311	m154	m361
Internal Link Dist (ft)		233		528		1262		1044
Turn Bay Length (ft)	150		150		150		300	
Base Capacity (vph)	99	637	464	723	299	1515	371	1789
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.11	0.06	0.80	0.20	0.70	0.65	0.57

Intersection Summary

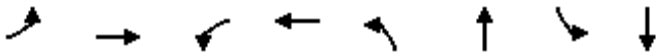
95th percentile volume exceeds capacity, queue may be longer.
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m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	125	169	20	331	18	1041	439	1573
v/c Ratio	1.02	0.38	0.08	0.55	0.09	0.77	0.91	0.72
Control Delay	123.3	26.3	26.2	9.7	11.1	29.1	35.8	26.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	123.3	26.3	26.2	9.7	11.1	29.1	35.8	26.5
Queue Length 50th (ft)	69	66	9	23	3	163	196	440
Queue Length 95th (ft)	#179	123	27	95	m15	#358	m#299	m552
Internal Link Dist (ft)		165		287		1297		1003
Turn Bay Length (ft)	150		150		150		300	
Base Capacity (vph)	134	481	278	631	190	1357	522	2179
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.35	0.07	0.52	0.09	0.77	0.84	0.72

Intersection Summary

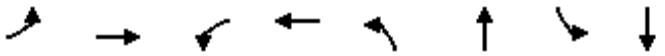
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	46	69	63	381	59	1475	130	1308
v/c Ratio	0.56	0.17	0.21	0.80	0.23	0.78	0.53	0.65
Control Delay	53.7	19.4	27.0	33.0	14.3	28.2	20.0	28.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.7	19.4	27.0	33.0	14.3	28.2	20.0	28.2
Queue Length 50th (ft)	23	22	29	137	13	337	38	366
Queue Length 95th (ft)	55	48	54	207	m45	#647	m88	474
Internal Link Dist (ft)		233		528		1262		1044
Turn Bay Length (ft)	150		150		150		300	
Base Capacity (vph)	128	637	464	670	262	1879	342	2005
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.11	0.14	0.57	0.23	0.78	0.38	0.65

Intersection Summary

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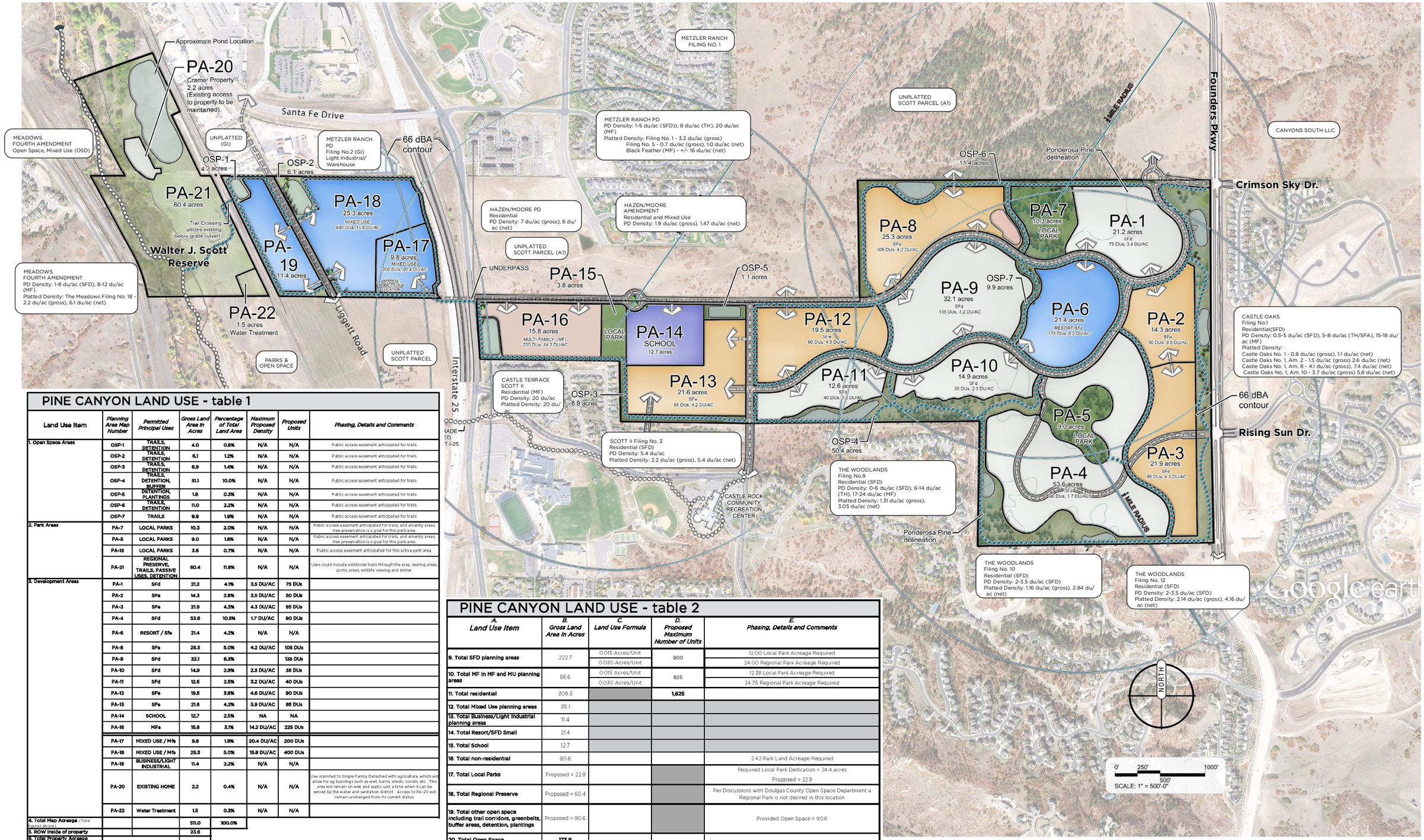
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	125	169	52	229	18	1437	274	2112
v/c Ratio	0.92	0.48	0.28	0.51	0.10	0.79	0.81	0.89
Control Delay	95.8	32.2	34.8	13.8	9.4	20.8	31.7	26.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	95.8	32.2	34.8	13.8	9.4	20.8	31.7	26.4
Queue Length 50th (ft)	69	72	25	27	3	155	112	501
Queue Length 95th (ft)	#170	133	59	92	m11	382	m153	m#750
Internal Link Dist (ft)		165		287		1297		1003
Turn Bay Length (ft)	150		150		150		300	
Base Capacity (vph)	149	383	203	474	186	1824	372	2361
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.44	0.26	0.48	0.10	0.79	0.74	0.89

Intersection Summary

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APPENDIX G

Conceptual Site Plan



PINE CANYON LAND USE - table 1

Land Use Item	Planning Area Map Number	Permitted Principal Uses	Gross Land Area in Acres	Percentage of Total Land Area	Maximum Proposed Density	Proposed Units	Phasing, Details and Comments
1. Open Space Areas	OSP-1	TRAILS, DETENTION	4.0	0.8%	N/A	N/A	Public access easement anticipated for trails.
	OSP-2	TRAILS, DETENTION	6.1	1.2%	N/A	N/A	Public access easement anticipated for trails.
	OSP-3	TRAILS, DETENTION	6.9	1.4%	N/A	N/A	Public access easement anticipated for trails.
	OSP-4	TRAILS, DETENTION, BUFFER	51.1	10.0%	N/A	N/A	Public access easement anticipated for trails.
	OSP-5	DETENTION, PLANTINGS	1.6	0.3%	N/A	N/A	Public access easement anticipated for trails.
	OSP-6	TRAILS, DETENTION	11.0	2.2%	N/A	N/A	Public access easement anticipated for trails.
	OSP-7	TRAILS	9.9	1.9%	N/A	N/A	Public access easement anticipated for trails.
2. Park Areas	PA-7	LOCAL PARKS	10.3	2.0%	N/A	N/A	Public access easement anticipated for trails, and amenity areas, tree preservation is a goal for this park area.
	PA-5	LOCAL PARKS	9.0	1.8%	N/A	N/A	Public access easement anticipated for trails, and amenity areas, tree preservation is a goal for this park area.
	PA-15	LOCAL PARKS	3.6	0.7%	N/A	N/A	Public access easement anticipated for this active park area.
	PA-21	REGIONAL PRESERVE, TRAILS, PASSIVE USES, DETENTION	60.4	11.8%	N/A	N/A	Uses could include additional trails through the area, seating areas, picnic areas, wildlife viewing and similar.
3. Development Areas	PA-1	SFd	21.2	4.1%	3.5 DU/AC	75 DUs	
	PA-2	SFe	14.3	2.8%	3.5 DU/AC	50 DUs	
	PA-3	SFe	21.9	4.3%	4.3 DU/AC	95 DUs	
	PA-4	SFd	53.6	10.5%	1.7 DU/AC	90 DUs	
	PA-6	RESORT / SFe	21.4	4.2%	N/A	N/A	
	PA-8	SFe	25.3	5.0%	4.2 DU/AC	105 DUs	
	PA-9	SFd	32.1	6.3%		135 DUs	
	PA-10	SFd	14.9	2.9%	2.3 DU/AC	35 DUs	
	PA-11	SFd	12.6	2.5%	3.2 DU/AC	40 DUs	
	PA-12	SFe	19.5	3.8%	4.6 DU/AC	90 DUs	
	PA-13	SFe	21.6	4.2%	3.9 DU/AC	85 DUs	
	PA-14	SCHOOL	12.7	2.5%	NA	NA	
	PA-16	MFa	15.8	3.1%	14.2 DU/AC	225 DUs	
	PA-17	MIXED USE / Mfa	9.8	1.9%	20.4 DU/AC	200 DUs	
	PA-18	MIXED USE / Mfa	25.3	5.0%	15.8 DU/AC	400 DUs	
	PA-19	BUSINESS/LIGHT INDUSTRIAL	11.4	2.2%	N/A	N/A	
	PA-20	EXISTING HOME	2.2	0.4%	N/A	N/A	Use is limited to Single Family Detached with agriculture, which will allow for ag buildings such as well, barns, sheds, corrals, etc. This area will remain on well and septic unit a time when it can be served by the water and sanitation district. Access to PA-20 will remain unchanged from its current status.
	PA-22	Water Treatment	1.5	0.3%	N/A	N/A	
4. Total Map Acreage (Total figures above.)			511.0	100.0%			
5. ROW inside of property			23.6				
6. Total Property Acreage			534.6				

PINE CANYON LAND USE - table 2

A. Land Use Item	B. Gross Land Area in Acres	C. Land Use Formula	D. Proposed Maximum Number of Units	E. Phasing, Details and Comments
9. Total SFD planning areas	222.7	0.015 Acres/Unit	800	12.00 Local Park Acreage Required
		0.030 Acres/Unit		24.00 Regional Park Acreage Required
10. Total MF in MF and MU planning areas	86.6	0.015 Acres/Unit	825	12.38 Local Park Acreage Required
		0.030 Acres/Unit		24.75 Regional Park Acreage Required
11. Total residential	309.3		1,625	
12. Total Mixed Use planning areas	35.1			
13. Total Business/Light Industrial planning areas	11.4			
14. Total Resort/SFD Small	21.4			
15. Total School	12.7			
16. Total non-residential	80.6			24.2 Park Land Acreage Required
17. Total Local Parks	Proposed = 22.9			Required Local Park Dedication = 24.4 acres Proposed = 22.9
18. Total Regional Preserve	Proposed = 60.4			Per Discussions with Douglas County Open Space Department a Regional Park is not desired in this location
19. Total other open space including trail corridors, greenbelts, buffer areas, detention, plantings	Proposed = 90.6			Provided Open Space = 90.6
20. Total Open Space	173.9			

PINE CANYON
PLANNED DEVELOPMENT PLAN - 3-25-2021

1. TRANSITION TO ADJACENT DEVELOPMENT: Pine Canyon will match or exceed the lot size within 300' of any existing adjacent Single Family Dwelling Unit along the southern property boundary.
2. Streets and access points are conceptual in nature.

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