TRAFFIC IMPACT REPORT

8902 QUAIL ROAD
LONGMONT, COLORADO

August 7, 2024

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I. INTRODUCTION

A. Project Overview

Vista Residential Partners is proposing to redevelop approximately 17.3 acres of property situated at 8902 Quail Road in Longmont, Colorado. More specifically, the subject property is bound by Quail Rd. on the north, Wildfire Ct. on the east, Clover Basin Dr. on the south, and private residential property adjacent to Airport Rd. on the west. For the purpose of this study, the proposed development will be referred to as the 8902 Quail Road development. Upon build-out, the proposed development will consist of 310 multi-family (low-rise) residential dwelling units and associated amenities.

Vehicular access for the proposed 8902 Quail Road development will be provided via an internal roadway network providing connectivity to the external transportation system at the following locations:

- SW Site Access – The SW Site Access will be constructed as a full movement access intersecting Clover Basin Dr. at the southwest corner of the project site.
- SE Site Access – The SE Site Access will be constructed as a full movement access intersecting Clover Basin Dr. at Larkspur Dr. in order to provide access to the project site and provide connectivity within public Right-Of-Way from Quail Rd. to Clover Basin Dr.

Figure 1 provides a site location map of the proposed project and surrounding transportation system, and Figure 2 graphically illustrates the conceptual site plan and proposed access points for the proposed 8902 Quail Road development.

B. Purpose of Study

The purpose of this study is to evaluate the impact of the vehicular trips projected to be generated by the proposed 8902 Quail Road development on the study area intersections and roadway system. The study includes 2024 (existing), 2027 (year of anticipated project build-out), and 2050 (long-term) analysis horizons.

C. Study Area

The study area encompasses the existing roadway system in the vicinity of the project site. Specifically, the following intersections are included in the study:

- Airport Rd./Quail Rd. (TWSC)
- Airport Rd./Clover Basin Dr. (Signalized)
- Clover Basin Dr./Larkspur Dr. (TWSC)
- Clover Basin Dr./S Fordham St. (TWSC)
- Airport Rd./Pike Rd. (Signalized)
- Clover Basin Dr./SW Site Access (Proposed)

II. EXISTING CONDITIONS

A. Existing Traffic Volumes

Existing traffic volume and speed counts were collected for this study at the following locations on Tuesday March 12, 2024, and Wednesday March 13, 2024:

- Peak Hour Intersection Turning Movement Counts:
  - Airport Rd./Quail Rd.
  - Airport Rd./Clover Basin Dr.
  - Clover Basin Dr./Larkspur Dr.
  - Clover Basin Dr./S Fordham St.
  - Airport Rd./Pike Rd.

- 48-Hour Directional Counts:
  - Clover Basin Dr. west of Larkspur Dr.
  - Clover Basin Dr. west of S Fordham St.
  - Clover Basin Dr. east of S Fordham St.
  - S Fordham St. north of Clover Basin Dr.
  - S Fordham St. south of Clover Basin Dr.

- 48-Hour Speed Counts:
  - Clover Basin Dr. west of Larkspur Dr.

A summary of the 2024 existing traffic volume counts used in this study are graphically illustrated in Figure 3. Detailed traffic volume and speed count data can both be found in Appendix “A”.

B. Existing Roadway System

The existing transportation network in the vicinity of the proposed 8902 Quail Road development is graphically illustrated in Figure 1. The following narrative provides a description of the study area roadways and associated intersections:

Study Area Roadways:

- **Airport Rd.** – Within the study area, Airport Rd. is classified as an Arterial roadway under the jurisdiction of the City of Longmont. The roadway section consists of two travel lanes and a bike lane in each direction with a striped center median. There is curb and gutter and detached sidewalks along both sides of the roadway. The posted speed limit is 45 mph.
- **Quail Rd.** – Within the study area, between Airport Rd. and Boxelder Dr., Quail Rd. is classified as a Local roadway under the jurisdiction of the City of Longmont. West of Boxelder Dr., Quail Rd. is paved and has one travel lane in each direction with curb and gutter and attached sidewalk along both sides of the roadway. There is no posted speed limit, so it is assumed to be 25 mph. East of Boxelder Dr., Quail Rd. is under the jurisdiction of Boulder County. The roadway is paved and has one travel lane in each direction. There is no posted speed limit, so it is assumed to be 25 mph.
- **Clover Basin Dr.** – Within the study area, Clover Basin Dr. is classified as a Minor Arterial roadway under the jurisdiction of the City of Longmont. The roadway section consists of one travel lane in each direction with a striped center median. There is curb

and gutter and detached sidewalk along the south side of the roadway. There is a paved shoulder along the north side of the roadway. The posted speed limit is 35 mph.

- **S Fordham St.** – Within the study area, S Fordham St. is classified as a Collector roadway under the jurisdiction of the City of Longmont. The roadway section consists of one travel lane in each direction with a striped center median. There is curb and gutter and attached sidewalk along both the east and west sides of the roadway. The posted speed limit is 35 mph.

Study Area Intersections:

- **Airport Rd./Quail Rd. –** The Airport Rd./Quail Rd. intersection is a "T" intersection operating under stop sign control on the westbound approach. The east leg of the intersection has one shared left/right turn lane on the westbound approach, and one eastbound departure lane. The north leg of the intersection has one left turn lane with approximately 225 feet of storage and two through lanes on the southbound approach, and two northbound departure lanes. The south leg of the intersection has one through lane and one shared through/right turn lane on the northbound approach, and two southbound departure lanes.
- **Airport Rd./Clover Basin Dr. –** The Airport Rd./Clover Basin Dr. intersection is a four-legged intersection operating under actuated/coordinated signalized control with protected only left turn phasing on all four approaches. The east leg of the intersection has one left turn lane with approximately 150 feet of storage, one through lane, and one right turn lane with approximately 150 feet of storage on the westbound approach, and one eastbound departure lane along with an eastbound bike lane. The west leg of the intersection has one left turn lane with approximately 100 feet of storage, one through lane, one bike lane, and one right turn lane with approximately 200 feet of storage on the eastbound approach, and one westbound departure lane. The north leg of the intersection has one left turn lane with approximately 400 feet of storage, two through lanes, one bike lane, and one right turn lane with approximately 350 feet of storage on the southbound approach, and two northbound departure lanes. The south leg of the intersection has one left turn lane with approximately 335 feet of storage, two through lanes, one bike lane, and one right turn lane with approximately 350 feet of storage on the northbound approach, and two southbound departure lanes.
- **Clover Basin Dr./Larkspur Dr. –** The Clover Basin Dr./Larkspur Dr. intersection is a "T" intersection operating under stop sign control on the northbound approach. The east leg of the intersection has one shared left turn/through lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection has one through lane, one bike lane, and one right turn lane with approximately 225 feet of storage on the eastbound approach, and one westbound departure lane. The south leg of the intersection has one shared left/right turn lane on the northbound approach, and one southbound departure lane. It is anticipated that a north leg will be added to this intersection with the construction of the proposed 8902 Quail Road development.
- **Clover Basin Dr./S Fordham St.** – The Clover Basin Dr./S Fordham St. intersection is a four-legged intersection operating under stop sign control on the northbound and southbound approaches. The east leg of the intersection has one left turn lane with approximately 200 feet of storage and one shared through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection has one left turn lane with approximately 100 feet of storage and one shared through/right turn lane on the eastbound approach, and one westbound departure lane.

The north leg of the intersection has one left turn lane with approximately 200 feet of storage and one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection has one left turn lane with approximately 100 feet of storage and one shared through/right turn lane on the northbound approach, and one southbound departure lane.

- **Airport Rd./Pike Rd. –** The Airport Rd./Pike Rd. intersection is a four-legged intersection operating under actuated/coordinated signalized control with protected plus permitted left turn phasing on all four approaches. The east leg of the intersection has one left turn lane with approximately 250 feet of storage and one shared through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection has one left turn lane with approximately 150 feet of storage and one shared through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection has one left turn lane with approximately 150 feet of storage, two through lanes, one bike lane, and one right turn lane with approximately 200 feet of storage on the southbound approach, and two northbound departure lanes. The south leg of the intersection has one left turn lane with approximately 300 feet of storage, two through lanes, one bike lane, and one right turn lane with approximately 150 feet of storage on the northbound approach, and two southbound departure lanes.

C. 2024 Existing Conditions Operational Analysis

In order to establish a base condition in which to evaluate and compare the impacts of the traffic generated by the proposed 8902 Quail Road development on the study area intersections, peak hour capacity analyses were performed for the 2024 existing conditions scenario. These analyses utilized the methodologies contained in the *Highway Capacity Manual 7th Edition* (HCM 7) employing *Synchro 12* software and resulted in a qualitative measure of the operational characteristics of the intersection, described by a letter designation ranging from “A” to “F” known as “Level of Service” (LOS). LOS “A” represents free-flow operating conditions, whereas LOS “F” represents excessive congestion and delay. Unsignalized intersection capacity analysis reports a LOS designation for each impeded intersection movement. Signalized intersection capacity analysis reports the overall LOS designation for the intersection as well as for each lane group and approach. LOS “D” is considered the minimum acceptable standard of operation.

The study area intersections included in the 2024 existing conditions analysis are as follows:

- Airport Rd./Quail Rd. (TWSC)
- Airport Rd./Clover Basin Dr. (Signalized)
- Clover Basin Dr./Larkspur Dr. (TWSC)
- Clover Basin Dr./S Fordham St. (TWSC)
- Airport Rd./Pike Rd. (Signalized)

Traffic signal timing plans were obtained from the City of Longmont and utilized in the operational analyses of the signalized intersections.

The results of the 2024 (existing) conditions operational analysis are summarized in Table 1, below. Figure 4 graphically illustrates the results of the existing conditions analysis and detailed *Synchro 12* software intersection capacity analysis reports are provided in Appendix “B”.

As shown in Table 1, all of the existing study area intersections are projected to operate at acceptable levels of service (LOS "D" or better), overall, under existing conditions.

The following intersections are projected to be operating at acceptable levels of service (LOS "D" or better) overall, however, one or more lane groups are shown to be experiencing poor to failing levels of service (LOS "E" or "F"):

- Airport Rd./Clover Basin Dr.
  - The eastbound left turn lane group is projected to have a poor level of service (LOS "E") during both the a.m. and p.m. peak hours.
  - The westbound left turn lane group is projected to have a poor level of service (LOS "E") during both the a.m. and p.m. peak hours.
  - The northbound left turn lane group is projected to have a poor level of service (LOS "E") during both the a.m. and p.m. peak hours.
  - The southbound left turn lane group is projected to have a poor level of service (LOS "E") during both the a.m. and p.m. peak hours.
- Clover Basin Dr./S Fordham St.
  - The southbound left turn lane group is projected to have a poor level of service (LOS "E") during the p.m. peak hour.

D. 2024 Existing Conditions Queuing Analysis

Queue lengths and associated storage requirements for through and auxiliary lanes (turn bays) at the existing study area intersections were computed utilizing the *Synchro 12* 95th percentile reported queues. Queue length calculations are based on a 25-foot vehicle length and reported as the total cumulative computed queue length for all traffic lanes in the lane group.

Existing storage capacity for auxiliary lane groups (left turn and right turn lanes) is reported as the cumulative capacity of all lanes in the group or the distance to the next upstream intersection. Table 2 provides a summary of this analysis and comparison to the actual vehicle storage lengths provided for each of the existing study area intersections.

As shown in Table 2, the following queue related issues are being experienced at the existing study area intersections based on the reported queues in the 2024 (existing) conditions analysis scenario:

- Airport Rd./Clover Basin Dr.
  - The eastbound left turn lane queue is shown to exceed its capacity and spill back into the eastbound through lane during the p.m. peak hour.

E. Existing Traffic Roadway Capacity Analysis

General roadway capacities were evaluated for the following roadway segments based on guidance presented in the *Highway Capacity Manual, 6th Edition (HCM 6), Chapter 16, Exhibit 16-16*, and traffic volume and roadway data collected for this study:

- **Clover Basin Dr.** – In the vicinity of the proposed development site, Clover Basin Dr. is a two-lane minor arterial roadway posted at 35 mph. The existing daily two-way traffic volumes for this roadway segment (Clover Basin Dr. west of Larkspur Dr.) are 9,285 vpd.

Based on HCM 6 Exhibit 16-16 (K = 0.10, D = 0.55) the daily capacity of this roadway segment is 16,200 vpd. Therefore, Clover Basin Dr. in the vicinity of the proposed 8902 Quail Road development is below its daily traffic volume capacity threshold in the existing scenario.

TABLE 1
2024 EXISTING CONDITIONS
SUMMARY OF OPERATIONAL ANALYSIS

INTERSECTION	CONTROL	2024 EXISTING TRAFFIC			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
1. Airport Rd. & Quail Rd.	**TWSC**				
a. WB LR	Stop	C	16.7	C	15.9
b. SB L		A	8.0	A	9.2
c. INTERSECTION		**A**	**0.1**	**A**	**0.1**
2. Airport Rd. & Clover Basin Dr.	**Signal**				
a. EB L (Prot)		E	66.7	E	66.8
b. EB T		D	50.6	D	52.0
c. EB R		D	40.1	D	38.9
d. WB L (Prot)		E	69.2	E	69.3
e. WB T		D	48.1	D	47.6
f. WB R		D	42.2	D	41.7
g. NB L (Prot)		E	68.3	E	70.9
h. NB T		B	15.8	C	20.8
i. NB R		B	15.5	B	18.7
j. SB L (Prot)		E	61.8	E	61.1
k. SB T		B	15.6	B	15.3
l. SB R		B	15.0	B	14.9
m. INTERSECTION		**C**	**33.2**	**D**	**36.5**
3. Clover Basin Dr. & Larkspur Dr.	**TWSC**				
a. WB LT		A	8.4	A	8.8
b. NB LR	Stop	B	14.6	C	16.8
c. INTERSECTION		**A**	**1.7**	**A**	**1.6**
4. Clover Basin Dr. & S Fordham St.	**TWSC**				
a. EB L		A	7.9	A	8.6
b. WB L		A	8.6	A	8.6
c. NB L	Stop	D	27.8	D	31.4
d. NB TR	Stop	B	14.9	C	23.6
e. SB L	Stop	D	26.8	E	49.0
f. SB TR	Stop	C	20.1	C	16.6
g. INTERSECTION		**A**	**3.7**	**A**	**4.3**
5. Airport Rd. & Pike Rd.	**Signal**				
a. EB L (Prot+Perm)		D	42.8	C	30.7
b. EB TR		D	54.6	C	31.9
c. WB L (Prot+Perm)		D	43.2	C	30.9
d. WB TR		D	47.5	D	39.4
e. NB L (Prot+Perm)		A	6.9	A	8.1
f. NB T		A	8.1	B	10.2
g. NB R		A	7.6	A	8.4
h. SB L (Prot+Perm)		A	6.5	A	8.8
i. SB T		A	9.6	B	10.6
j. SB R		A	8.0	B	10.1
k. INTERSECTION		**B**	**16.4**	**B**	**14.2**

TABLE 2
2024 EXISTING CONDITIONS
SUMMARY OF QUEUING ANALYSIS

INTERSECTION (# OF LANES IN LANE GROUP)	EXISTING STORAGE (FT)	2024 EXISTING TRAFFIC QUEUE LENGTH (FT) 95TH%	
		AM PEAK	PM PEAK
1. Airport Rd. & Quail Rd.			
a. WB LR (1)	200	3	0
b. SB L (1)	225	0	0
2. Airport Rd. & Clover Basin Dr.			
a. EB L (1)	100	94	102
b. EB T (1)	625	284	285
c. EB R (1)	200	5	35
d. WB L (1)	150	57	116
e. WB T (1)	1300	217	271
f. WB R (1)	150	80	24
g. NB L (1)	335	89	79
h. NB T (2)	1260	186	464
i. NB R (1)	350	42	72
j. SB L (1)	400	144	160
k. SB T (2)	1250	481	243
l. SB R (1)	350	52	20
3. Clover Basin Dr. & Larkspur Dr.			
a. WB LT (1)	225	3	8
b. NB LR (1)	100	18	18
4. Clover Basin Dr. & S Fordham St.			
a. EB L (1)	100	3	3
b. WB L (1)	200	5	3
c. NB L (1)	100	3	0
d. NB TR (1)	250	10	50
e. SB L (1)	200	13	15
f. SB TR (1)	200	25	15
5. Airport Rd. & Pike Rd.			
a. EB L (1)	150	46	43
b. EB TR (1)	350	61	45
c. WB L (1)	250	42	19
d. WB TR (1)	250	44	53
e. NB L (1)	300	23	36
f. NB T (2)	1300	116	268
g. NB R (1)	150	5	10
h. SB L (1)	150	26	14
i. SB T (2)	1800	120	141
j. SB R (1)	200	22	25

III. BACKGROUND TRAFFIC

A. Background Traffic Volumes

For the purposes of this study, background traffic volumes were developed incorporating the following methodology. The overall background traffic volumes used in this study are the result of combining two distinct components, “regional” and “local” traffic volumes. The “regional” background traffic volume component accounts for the larger scale traffic growth along the major roadways within the study area. The “regional” background traffic component utilizes regional travel planning models and documents in order to establish an average annual traffic volume growth rate on these roadways. The “local” background traffic volume component accounts for the influence of anticipated future development on properties within in the immediate study area that may not otherwise be captured by the “regional” component.

The development of the background traffic models for the 2027 (build-out) and 2050 (long-term) analysis horizons were developed for this study employing the following strategy:

- 2027 (build-out) background traffic volumes - The 2027 (build-out) background traffic volumes were developed employing a two-step process. The first step of the process was to apply a “regional” background traffic growth factor to the 2024 (existing) traffic volumes to forecast the 2027 (build-out) “regional” background traffic volume component. The second step was to develop a “local” background traffic volume model component. This component took into account surrounding developments within the study area that haven’t been fully built out yet but are anticipated to be in place by the 2027 (build-out) analysis horizon. The only other known development within the study area expected to be in place by the 2027 (build-out) analysis horizon is the Kanemoto Estates mixed-use development. The projected site generated traffic volumes from the Kanemoto Estates mixed-use development were taken directly from *Figure 7a – Assignment of Primary Site-Generated Traffic – No Cross Access to North* in the study entitled, *Kanemoto Estates, Traffic Impact Analysis Update, Longmont, CO, LSC #220131 (May 4, 2023)*, by LSC Transportation Consultants (LSC Study), and then assigned to the study area intersections within the local background traffic model. Combining the “regional” and “local” background traffic volume components results in the 2027 (build-out) total background traffic volume forecast for this study.

- 2050 (long-term) background traffic volumes – The 2050 (long-term) background traffic volumes were developed employing the same two-step process as the 2027 (build-out) background traffic volumes. However, the “local” background traffic volume model component for the 2050 (long-term) analysis horizon also assumes that the 7.5-acre property west of the 8902 Quail Road development will be redeveloped by the 2050 (long-term) analysis horizon. No development is currently planned for this property, but per city direction it was assumed that this property would eventually be redeveloped with a similar land use to the proposed 8902 Quail Road development. In order to be consistent with the land use intensities and density within the 8902 Quail Road development, it was assumed that the 7.5-acre property would consist of 135 multifamily (low-rise) residential dwelling units. The vehicular traffic volumes projected to be generated by this redevelopment were assigned to the study area roadways and intersections utilizing the same overall trip distribution used within this study, but with a north access point connecting to Quail Rd. forming a “T” intersection with Boxelder Drive. Combining the “regional” and “local” background traffic volume components results in the 2050 (long-term) total background traffic volume forecast for this study.

The following describes the methodology utilized in developing the 2027 (build-out) and 2050 (long-term) analysis horizons background traffic models.

- "Regional" Background Traffic Volumes:
  - Based on the current DRCOG 2020 and 2050 travel models for the roadways within the study area, Airport Rd. is forecasting an average annual traffic volume growth rate (AGR) of approximately 0.67%, respectively. Clover Basin Dr. is forecasting an average annual traffic volume growth rate (AGR) of approximately 0.81%, respectively. Based on this data an AGR of 0.67% was employed for through moving traffic volumes on Airport Rd. and an AGR of 0.81% was employed for through moving volumes on Clover Basin Dr. An AGR of 0.67% results in a 3-year (2024 to 2027) growth factor of 1.0202 and a 26-year (2024 to 2050) growth factor of 1.189. An AGR of 0.81% results in a 3-year (2024 to 2027) growth factor of 1.024 and a 26-year (2024 to 2050) growth factor of 1.233.
  - The appropriate AGR factors were applied to the 2024 (existing) traffic volumes in order to develop the forecast 2027 (build-out) and 2050 (long-term) "regional" background traffic volumes. Due to the local background component of this study accounting for future development within the study area and surrounding neighborhoods being fully built out, no growth rate was applied to traffic volumes on Quail Rd., Larkspur Dr., S Fordham St., or Pike Rd. Traffic volume growth on these roadways is captured in the local background traffic component.
  - For the purposes of this study, it was assumed that the distribution of the regional intersection approach traffic (left turn, through, right turn) will remain static through the 2050 (long-term) analysis horizon.
  - Figure 5 graphically illustrates the forecast 2027 (build-out) analysis horizon "regional" background traffic volumes on the study area roadways and intersections.
  - Figure 6 graphically illustrates the forecast 2050 (long-term) analysis horizon "regional" background traffic volumes on the study area roadways and intersections.

- "Local" Background Traffic Volumes:
  - In order to account for the influence of the development of the properties in the immediate area of the study area roadways and intersections a "local" background traffic volume component was developed. A "local" background traffic component was developed for the 2027 (build-out) and 2050 (long-term) analysis horizon background traffic models based on the properties that are assumed to be developed prior to each analysis horizon.
  - For the purposes of this study, two such developments were identified that will have a significant influence on the study area roadways and intersections. They include the Kanemoto Estates mixed-use development, and the eventual redevelopment of the 7.5-acre property west of the 8902 Quail Road development.
  - The forecast site traffic generated from these developments was assigned to the study area roadways and intersections utilizing the *LSC Study* and the methodology described above.
  - Figures 7 and 8 graphically illustrate the forecast 2027 (build-out) and 2050 (long-term) analysis horizon "local" background traffic volumes on the study area roadways and intersections, respectively.

- 2027 (Build-Out) Total Background Traffic Volumes:
    - The 2027 (build-out) total background traffic volumes for this study are the sum of the 2027 (build-out) "regional" background traffic volumes plus the 2027 (build-out) "local" background traffic volumes. Figure 9 graphically illustrates the 2027 (build-out) total background traffic volumes on the study area roadways and intersections.

- 2050 (Long-Term) Total Background Traffic Volumes
    - The 2050 (long-term) total background traffic volumes for this study are the sum of the 2050 (long-term) "regional" background traffic volumes plus the 2050 (long-term) "local" background traffic volumes. Figure 10 graphically illustrates the 2050 (long-term) total background traffic volumes on the study area roadways and intersections.

B. Background Traffic Operational Analysis

The following study area intersections were analyzed for the 2027 (build-out) and 2050 (long-term) analysis horizon total background traffic scenarios in order to provide a basis for comparison of their operational characteristics with and without the proposed 8902 Quail Road development site traffic:

- Airport Rd./Quail Rd. (TWSC)
- Airport Rd./Clover Basin Dr. (Signalized)
- Clover Basin Dr./Larkspur Dr. (TWSC)
- Clover Basin Dr./S Fordham St. (TWSC)
- Airport Rd./Pike Rd. (Signalized)

Per city direction, the Clover Basin Dr./S Fordham St. intersection was also analyzed under all-way stop control (AWSC) in order to provide an alternative analysis and comparison of operational characteristics. A 1-lane roundabout was also included as another alternative for comparative analysis.

The results of the background traffic operational analyses are summarized graphically for the 2027 (build-out) and 2050 (long-term) background traffic analysis horizons in Figures 11 and 12, respectively. A summary of the results of the intersection capacity analyses is provided in Table 3 and detailed *Synchro 12* software intersection capacity analysis reports in Appendix "B".

As shown in Table 3, all the existing study area intersections are projected to operate at acceptable levels of service (LOS "D" or better) overall, during the 2027 (build-out) and 2050 (long term) analysis horizon background traffic scenarios with the exception of the following:

- Clover Basin Dr./S Fordham St. (AWSC) – Operating with all-way stop control, the intersection, overall, is projected to experience a failing level of service (LOS "F") during the p.m. peak hour by the 2027 (build-out) analysis horizon. By the 2050 (long-term) analysis, the intersection, overall, is projected to experience a failing level of service (LOS "F") during both the a.m. and p.m. peak hours.

The following intersections have at least one lane group that is projected to experience a poor to falling level of service (LOS "E" or "F") in the 2027 (build-out) or 2050 (long-term) analysis horizon background traffic scenario that wasn't already present under existing conditions:

- Clover Basin Dr./S Fordham St. (TWSC)

- By the 2027 (build-out) analysis horizon the northbound left turn lane and southbound left turn lane are projected to have a poor or failing level of service (LOS "E" or worse) during the p.m. peak hour.
- By the 2050 (long-term) analysis horizon the northbound shared through/right turn lane is projected to have a poor level of service (LOS "E") during the p.m. peak hour. The northbound left turn lane and southbound left turn lane are projected to have a poor or failing level of service (LOS "E" or worse) during the a.m. peak hour as well.

- Clover Basin Dr./S Fordham St. (AWSC)
  - By the 2027 (build-out) analysis horizon the eastbound shared through/right turn lane is projected to have a poor or failing level of service (LOS "E" or worse) during both the a.m. and p.m. peak hours. The westbound shared through/right turn lane is projected to have a failing level of service (LOS "F") during the p.m. peak hour.
  - By the 2050 (long-term) analysis horizon the eastbound shared through/right turn lane is projected to have a failing level of service (LOS "F") during both the a.m. and p.m. peak hours.

C. Background Traffic Queuing Analysis

Queue lengths and associated storage requirements for through and auxiliary lanes (turn bays) at the study area intersections were computed utilizing the *Synchro 12* 95th percentile reported queues for the 2027 (build-out) and 2050 (long-term) analysis horizons background traffic scenarios. Queue length calculations are based on a 25-foot vehicle length and reported as the total cumulative computed queue length for all traffic lanes in the lane group. Table 4 provides a summary of this analysis and comparison to the existing/proposed vehicle storage lengths provided for each of the study area intersections.

As shown in Table 4, the following queue related issues are projected to be experienced at the study area intersections based on the reported queues in the 2027 (build-out) and 2050 (long-term) analysis horizon background traffic analysis scenarios that weren't already present under existing conditions:

- Airport Rd. & Clover Basin Dr.
  - The eastbound left turn queue is projected to exceed its capacity during both the a.m. and p.m. peak hour by the 2050 (long-term) analysis horizon background traffic scenario. Modifying the existing raised median and lengthening the turn bay by 25 feet would mitigate this queuing issue.
  - The westbound left turn queue is projected to exceed its capacity during the p.m. peak hour by the 2027 (build-out) analysis horizon background traffic scenario. Lenghtneing the turn bay by 100 feet would mitigate this queuing issue.

- Clover Basin Dr./S Fordham St. (AWSC)
  - The eastbound shared through/right turn lane queue is projected to exceed its capacity during the p.m. peak hour by the 2027 (build-out) analysis horizon background traffic scenario, and during both the a.m. and p.m. peak hour by the 2050 (long-term) analysis horizon. Implementing all-way stop control would cause this queuing issue on the eastbound approach. Leaving the intersection under two-way stop control or modifying the intersection to be a 1-lane roundabout is not

projected to cause any queuing issues through the 2050 (long-term) analysis horizon background traffic scenario.

D. Background Traffic Roadway Capacity Analysis

General roadway capacities were evaluated for the following roadway segments based on guidance presented in the *Highway Capacity Manual, 6th Edition (HCM 6), Chapter 16, Exhibit 16-16*, and traffic volume and roadway data collected for this study:

- **Clover Basin Dr.** – In the vicinity of the proposed development site, Clover Basin Dr. is a two-lane minor arterial roadway posted at 35 mph. The forecast 2027 (buildout) and 2050 (long-range) analysis horizons daily two-way background traffic volumes for this roadway segment (Clover Basin Dr. west of Larkspur Dr.) are 10,500 vpd and 12,650 vpd, respectively. Based on HCM 6 Exhibit 16-16 (K = 0.10, D = 0.55) the daily capacity of this roadway segment is 16,200 vpd. Therefore, Clover Basin Dr. in the vicinity of the proposed 8902 Quail Road development is projected to be below its daily traffic volume capacity threshold through the 2050 (long-range) analysis horizon background traffic scenarios.

TABLE 3
2027 (BUILD-OUT) & 2050 (LONG-TERM) BACKGROUND TRAFFIC
SUMMARY OF OPERATIONAL ANALYSIS

INTERSECTION	CONTROL	2027 BACKGROUND TRAFFIC				2050 BACKGROUND TRAFFIC			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
1. Airport Rd. & Quail Rd.	**TWSC**								
a. WB LR	Stop	C	17.8	C	16.8	C	15.9	C	15.0
b. SB L		A	8.1	A	9.4	A	8.3	A	9.9
c. INTERSECTION		**A**	**0.1**	**A**	**0.1**	**A**	**0.1**	**A**	**0.1**
2. Airport Rd. & Clover Basin Dr.	**Signal**								
a. EB L (Prot)		E	66.5	E	66.4	E	64.7	E	64.8
b. EB T		D	50.4	D	52.3	D	50.9	D	52.9
c. EB R		D	39.7	D	38.5	D	36.5	D	35.0
d. WB L (Prot)		E	68.1	E	74.6	E	66.1	E	78.2
e. WB T		D	44.9	D	41.5	D	42.9	D	40.1
f. WB R		D	40.0	D	37.4	D	36.8	D	44.2
g. NB L (Prot)		E	67.9	E	70.5	E	65.6	E	67.4
h. NB T		B	17.6	C	24.7	C	21.9	C	32.0
i. NB R		B	17.9	C	22.8	C	22.4	C	29.0
j. SB L (Prot)		E	62.2	E	61.9	E	67.2	E	66.8
k. SB T		B	17.4	B	18.4	C	22.3	C	23.0
l. SB R		B	16.7	B	17.7	C	21.4	C	22.0
m. INTERSECTION		**C**	**33.3**	**D**	**37.6**	**D**	**35.9**	**D**	**40.8**
3. Clover Basin Dr. & Larkspur Dr.	**TWSC**								
a. WB LT	Stop	A	8.6	A	9.0	A	9.1	A	9.5
b. NB LR		C	16.1	C	18.9	C	20.0	D	25.4
c. INTERSECTION		**A**	**1.7**	**A**	**1.6**	**A**	**1.7**	**A**	**1.6**

TABLE 3 (CONTINUED)
2027 (BUILD-OUT) & 2050 (LONG-TERM) BACKGROUND TRAFFIC
SUMMARY OF OPERATIONAL ANALYSIS

INTERSECTION	CONTROL	2027 BACKGROUND TRAFFIC				2050 BACKGROUND TRAFFIC			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
4. Clover Basin Dr. & S Fordham St.	**TWSC**								
a. EB L		A	8.0	A	8.8	A	8.2	A	9.2
b. WB L		A	8.8	A	8.8	A	9.3	A	9.2
c. NB L	Stop	D	33.2	E	38.4	F	51.2	F	70.8
d. NB TR	Stop	C	16.2	D	28.6	C	19.7	E	47.2
e. SB L	Stop	D	31.8	F	67.7	E	47.1	F	155.1
f. SB TR	Stop	C	23.0	C	18.7	D	31.3	C	23.7
g. INTERSECTION		**A**	**3.8**	**A**	**4.8**	**A**	**4.3**	**A**	**7.3**
4.A. Clover Basin Dr. & S Fordham St.	**AWSC**								
a. EB L	Stop	A	9.1	A	10.0	A	9.4	B	10.4
b. EB TR	Stop	E	35.6	F	72.9	F	93.2	F	156.8
c. WB L	Stop	A	9.7	A	10.0	A	10.0	B	10.3
d. WB TR	Stop	C	15.5	F	72.0	C	20.0	F	149.6
e. NB L	Stop	B	10.7	B	11.5	B	11.3	B	12.4
f. NB TR	Stop	B	10.3	B	13.7	B	11.0	B	14.5
g. SB L	Stop	B	10.9	B	12.2	B	11.5	B	12.9
h. SB TR	Stop	B	11.0	B	12.0	B	11.7	B	13.0
i. INTERSECTION		**C**	**24.2**	**F**	**61.0**	**F**	**55.7**	**F**	**128.7**
4.B. Clover Basin Dr. & S Fordham St.	**Roundabout**								
a. EB LTR	Yield	A	8.7	A	8.0	B	11.0	A	9.8
b. WB LTR	Yield	A	5.6	A	8.2	A	6.2	B	10.2
c. NB LTR	Yield	A	5.8	A	7.5	A	6.8	A	9.0
d. SB LTR	Yield	A	5.2	A	6.2	A	5.6	A	7.4
e. INTERSECTION		**A**	**7.1**	**A**	**7.9**	**A**	**8.8**	**A**	**9.7**
5. Airport Rd. & Pike Rd.	**Signal**								
a. EB L (Prot+Perm)		D	41.7	C	30.5	D	40.6	C	30.1
b. EB TR		D	54.4	D	35.2	D	53.9	C	34.5
c. WB L (Prot+Perm)		D	42.4	C	30.0	D	41.5	C	29.6
d. WB TR		D	46.0	D	38.9	D	45.0	D	38.7
e. NB L (Prot+Perm)		A	7.5	A	8.3	A	8.3	A	8.8
f. NB T		A	8.8	B	10.7	A	9.5	B	11.7
g. NB R		A	8.3	A	8.7	A	8.9	A	9.1
h. SB L (Prot+Perm)		A	7.0	A	9.0	A	7.5	A	9.5
i. SB T		B	10.5	B	11.2	B	11.7	B	11.8
j. SB R		A	8.5	B	10.3	A	9.1	B	10.7
k. INTERSECTION		**B**	**16.4**	**B**	**14.6**	**B**	**17.1**	**B**	**15.2**

TABLE 4
2027 (BUILD-OUT) & 2050 (LONG-TERM) BACKGROUND TRAFFIC
SUMMARY OF QUEUING ANALYSIS

INTERSECTION (# OF LANES IN LANE GROUP)	EXISTING STORAGE (FT)	2027 BACKGROUND TRAFFIC QUEUE LENGTH (FT) 95TH%		2050 BACKGROUND TRAFFIC QUEUE LENGTH (FT) 95TH%	
		AM PEAK	PM PEAK	AM PEAK	PM PEAK
1. Airport Rd. & Quail Rd.					
a. WB LR (1)	200	3	0	3	0
b. SB L (1)	225	0	0	0	0
2. Airport Rd. & Clover Basin Dr.					
a. EB L (1)	100	96	102	107	114
b. EB T (1)	625	290	291	334	341
c. EB R (1)	200	5	35	14	40
d. WB L (1)	150	90	205	101	238
e. WB T (1)	1300	213	275	252	323
f. WB R (1)	150	80	26	85	39
g. NB L (1)	335	89	80	104	96
h. NB T (2)	1260	224	523	270	722
i. NB R (1)	350	80	75	85	78
j. SB L (1)	400	147	163	174	197
k. SB T (2)	1250	528	289	743	338
l. SB R (1)	350	56	23	77	38
3. Clover Basin Dr. & Larkspur Dr.					
a. WB LT (1)	225	3	8	3	8
b. NB LR (1)	100	20	20	28	28
4. Clover Basin Dr. & S Fordham St. (TWSC)					
a. EB L (1)	100	3	3	3	3
b. WB L (1)	200	5	3	5	3
c. NB L (1)	100	3	0	5	15
d. NB TR (1)	250	13	63	15	95
e. SB L (1)	200	15	23	23	40
f. SB TR (1)	200	30	20	43	30

INTERSECTION (# OF LANES IN LANE GROUP)	EXISTING STORAGE (FT)	2027 BACKGROUND TRAFFIC QUEUE LENGTH (FT) 95TH%		2050 BACKGROUND TRAFFIC QUEUE LENGTH (FT) 95TH%	
		AM PEAK	PM PEAK	AM PEAK	PM PEAK
4.A. Clover Basin Dr. & S Fordham St. (AWSC)					
a. EB L (1)	100	5	5	5	5
b. EB TR (1)	400	263	405	530	688
c. WB L (1)	200	8	3	8	5
d. WB TR (1)	1500	85	403	125	663
e. NB L (1)	100	0	0	0	3
f. NB TR (1)	250	8	30	8	30
g. SB L (1)	200	5	3	5	3
h. SB TR (1)	200	15	13	15	15
4.B. Clover Basin Dr. & S Fordham St. (Roundabout)					
a. EB LTR (1)	-	75	75	125	100
b. WB LTR (1)	-	25	75	50	100
c. NB LTR (1)	-	0	25	0	25
d. SB LTR (1)	-	0	0	0	25
5. Airport Rd. & Pike Rd.					
a. EB L (1)	150	46	43	50	48
b. EB TR (1)	350	62	46	64	47
c. WB L (1)	250	59	47	64	49
d. WB TR (1)	250	44	53	45	55
e. NB L (1)	300	26	37	26	37
f. NB T (2)	1300	162	310	184	367
g. NB R (1)	150	25	20	10	25
h. SB L (1)	150	27	14	27	14
i. SB T (2)	1800	355	186	428	213
j. SB R (1)	200	22	25	25	25

IV. PROJECT DEVELOPMENT

A. Trip Generation

The trip generation projections for the proposed 8902 Quail Road development were forecast using the publication *Trip Generation, 11th Edition*, by the Institute of Transportation Engineers (ITE). Estimates of total daily traffic volumes and a.m. and p.m. peak hour traffic volumes were calculated. Trip generation reductions as a result of internal trip capture, transportation demand management or transit use were not considered.

For the purposes of this study, it was assumed that the subject property will be fully developed by 2027 and consist of a residential complex containing 310 multi-family (low-rise) residential dwelling units and associated amenities. Based on these parameters, at buildout, the proposed 8902 Quail Road development is projected to generate 2,062 daily vehicle trips of which 119 are projected to be generated during the a.m. peak hour and 154 are projected to be generated during the p.m. peak hour. A summary of the trip generation projections is provided in Table 5.

TABLE 5
8902 QUAIL ROAD TRIP GENERATION SUMMARY

Land Use	Intensity		ITE Code	Daily (vpd)	AM Peak Hour (vph)					PM Peak Hour (vph)				
					Total	% In	% Out	In	Out	Total	% In	% Out	In	Out
Multi-family Housing (Low-Rise) (1-3 floors)	310	DU	220	2062	119	24%	76%	29	90	154	63%	37%	97	57
Total				**2,062**	**119**			**29**	**90**	**154**			**97**	**57**

B. Trip Distribution

The distribution of the projected vehicle trips generated by the proposed 8902 Quail Road development was established based on the current and projected future traffic patterns on the surrounding transportation system, efficiency of access to the principal transportation corridors serving the area, and potential trip origins/destinations for the proposed land use. Figure 13 graphically illustrates the projected site generated trip distribution patterns for the proposed 8902 Quail Road development.

C. Trip Assignment

The vehicular traffic volumes projected to be generated by the proposed 8902 Quail Road development, shown in Table 5, were assigned to the study area roadways and intersections utilizing the trip distribution methodology described above. Figure 14 graphically illustrate the site generated trip assignment for the proposed 8902 Quail Road development.

V. TOTAL TRAFFIC

Total traffic forecasts for the 2027 (build-out) and 2050 (long-term) analysis horizons were computed by combining the associated 2027 (build-out) and 2050 (long-term) background traffic volumes with the projected site generated traffic volumes. Figures 15 & 16 graphically illustrate the total traffic projections for the study area intersections for the 2027 (build-out) and 2050 (long-term) analysis horizons, respectively.

VI. PROJECT ANALYSIS

A. Operational Analysis

In order to evaluate the impact of the proposed 8902 Quail Road development on the study area roadway system, peak hour intersection capacity analyses for the total traffic conditions were performed for the 2027 (build-out) and 2050 (long-term) analysis horizon total traffic scenarios at each of the study area intersections listed below.

- Airport Rd./Quail Rd. (TWSC)
- Airport Rd./Clover Basin Dr. (Signalized)
- Clover Basin Dr./Larkspur Dr./SE Site Access (TWSC)
- Clover Basin Dr./S Fordham St. (TWSC)
- Airport Rd./Pike Rd. (Signalized)
- Quail Rd./N 89th St./NE Site Access (Proposed)
- Quail Rd./NW Site Access (Proposed)
- Clover Basin Dr./SW Site Access (Proposed)

The results of the total traffic operational analyses are summarized in Table 6, below. Figures 17 and 18 graphically illustrate the 2027 (build-out) and 2050 (long-term) analysis horizon total traffic scenarios operational analyses, respectively. Detailed *Synchro 12* software intersection capacity analysis reports are provided in Appendix "B".

A comparative analysis of the 2027 (build-out) and 2050 (long-term) analysis horizons background and total traffic operational analyses was performed to evaluate the level of impact, as measured by level of service, the proposed 8902 Quail Road development will have on the study area intersections. Based on the comparative analysis none of the study area intersections are projected to deteriorate from an overall acceptable level of service (LOS "D" or better) to a poor or failing level of service (LOS "E" or "F") with the addition of the traffic projected to be generated by the proposed 8902 Quail Road development project. In addition, no individual lane groups at any of the study area intersections are projected to deteriorate from an overall acceptable level of service (LOS "D" or better) to a poor or failing level of service (LOS "E" or "F") with the addition of the traffic projected to be generated by the proposed 8902 Quail Road development project, with the exception of the following:

- Clover Basin Dr. & S Fordham St. (TWSC) – Based on the addition of the traffic generated by the proposed 8902 Quail Road development to the background traffic forecasts it is projected that the level of service of the northbound left turn movement and southbound left turn movement will deteriorate from LOS "D" to "E" during the a.m. peak hour by the 2027 (build-out) analysis horizon. It is also projected that the level of service of the southbound shared through/right turn movement will deteriorate from LOS "D" to "E" during the a.m. peak hour by the 2050 (long-term) analysis horizon.

Table 7 provides a comparative summary of the 2027 (build-out) and 2050 (long-term) analysis horizons background and total traffic operational analyses.

TABLE 6
2027 (BUILD-OUT) & 2050 (LONG-TERM) TOTAL TRAFFIC
SUMMARY OF OPERATIONAL ANALYSIS

INTERSECTION	CONTROL	2027 TOTAL TRAFFIC				2050 TOTAL TRAFFIC			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
1. Airport Rd. & Quail Rd.	**TWSC**								
a. WB LR	Stop	C	18.0	C	16.9	C	16.1	C	15.2
b. SB L		A	8.1	A	9.4	A	8.3	A	10.0
c. INTERSECTION		**A**	**0.1**	**A**	**0.0**	**A**	**0.1**	**A**	**0.1**
2. Airport Rd. & Clover Basin Dr.	**Signal**								
a. EB L (Prot)		E	66.5	E	66.4	E	64.7	E	64.8
b. EB T		D	50.2	D	52.9	D	51.0	D	53.4
c. EB R		D	39.5	D	37.7	D	36.3	D	34.2
d. WB L (Prot)		E	66.3	E	75.9	E	64.9	E	79.6
e. WB T		D	44.3	D	40.5	D	42.8	D	39.0
f. WB R		D	39.4	D	36.4	D	36.2	C	33.1
g. NB L (Prot)		E	67.9	E	70.5	E	65.6	E	67.4
h. NB T		B	18.3	C	26.3	C	22.7	C	34.2
i. NB R		B	18.7	C	24.5	C	23.3	C	31.2
j. SB L (Prot)		E	62.9	E	63.6	E	67.7	E	68.5
k. SB T		B	18.0	B	19.2	C	23.1	C	24.0
l. SB R		B	17.3	B	18.5	C	22.1	C	23.0
m. INTERSECTION		**C**	**33.9**	**D**	**38.6**	**D**	**36.5**	**D**	**41.9**
3. Clover Basin Dr. & Larkspur Dr./SE Site Access	**TWSC**								
a. EB L		A	8.0	A	8.8	A	8.2	A	9.3
b. WB L		A	8.7	A	9.1	A	9.2	A	9.6
c. NB LTR	Stop	C	18.7	C	23.2	C	24.6	D	34.2
d. SB LTR	Stop	C	23.5	E	42.6	D	33.0	F	72.6
e. INTERSECTION		**A**	**2.7**	**A**	**2.5**	**A**	**3.1**	**A**	**3.1**
3.A. Clover Basin Dr. & Larkspur Dr./SE Site Access	**Roundabout**								
a. EB LTR	Yield	A	7.5	A	8.7	A	9.3	B	10.7
b. WB LTR	Yield	A	5.4	A	8.7	A	5.9	B	10.8
c. NB LTR	Yield	A	6.4	A	6.1	A	7.4	A	7.0
d. SB LTR	Yield	A	4.5	A	5.8	A	4.9	A	6.8
e. INTERSECTION		**A**	**6.6**	**A**	**8.5**	**A**	**7.8**	**B**	**10.6**
4. Clover Basin Dr. & S Fordham St.	**TWSC**								
a. EB L		A	8.1	A	9.0	A	8.3	A	9.4
b. WB L		A	9.0	A	8.9	A	9.5	A	9.3
c. NB L	Stop	E	40.9	F	52.4	F	67.8	F	119.4
d. NB TR	Stop	C	17.5	D	33.6	C	21.6	F	59.4
e. SB L	Stop	E	37.5	F	88.7	F	57.3	F	232.5
f. SB TR	Stop	D	25.9	C	20.1	E	36.6	D	26.3
g. INTERSECTION		**A**	**4.2**	**A**	**5.8**	**A**	**5.1**	**A**	**9.9**
4.A. Clover Basin Dr. & S Fordham St.	**AWSC**								
a. EB L	Stop	A	9.4	B	10.4	A	9.6	B	10.8
b. EB TR	Stop	F	51.5	F	95.9	F	124.9	F	191.6
c. WB L	Stop	A	9.9	B	10.2	B	10.1	B	10.5
d. WB TR	Stop	C	16.9	F	102.7	C	22.2	F	193.3
e. NB L	Stop	B	11.0	B	12.1	B	11.6	B	13.0
f. NB TR	Stop	B	10.6	B	14.1	B	11.2	B	15.0
g. SB L	Stop	B	11.2	B	12.5	B	11.7	B	13.2
h. SB TR	Stop	B	11.4	B	12.7	B	12.0	B	13.8
i. INTERSECTION		**D**	**32.7**	**F**	**82.0**	**F**	**72.9**	**F**	**159.3**
4.B. Clover Basin Dr. & S Fordham St.	**Roundabout**								
a. EB LTR	Yield	A	9.7	A	8.5	B	12.5	B	10.5
b. WB LTR	Yield	A	5.8	A	9.1	A	6.5	B	11.5
c. NB LTR	Yield	A	6.3	A	8.0	A	7.3	A	9.7
d. SB LTR	Yield	A	5.3	A	6.8	A	5.8	A	8.3
e. INTERSECTION		**A**	**7.9**	**A**	**8.6**	**A**	**9.8**	**B**	**10.7**

TABLE 6 (CONTINUED)
2027 (BUILD-OUT) & 2050 (LONG-TERM) TOTAL TRAFFIC
SUMMARY OF OPERATIONAL ANALYSIS

INTERSECTION	CONTROL	2027 TOTAL TRAFFIC				2050 TOTAL TRAFFIC			
		AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY	AM PEAK LOS	AM PEAK DELAY	PM PEAK LOS	PM PEAK DELAY
5. Airport Rd. & Pike Rd.	**Signal**								
a. EB L (Prot+Perm)		D	41.7	C	30.5	D	40.6	C	30.1
b. EB TR		D	54.4	D	35.2	D	53.9	C	34.5
c. WB L (Prot+Perm)		D	42.4	C	30.0	D	41.5	C	29.6
d. WB TR		D	46.0	D	38.9	D	45.0	D	38.7
e. NB L (Prot+Perm)		A	7.5	A	8.3	A	8.4	A	8.8
f. NB T		A	8.8	B	10.7	A	9.6	B	11.7
g. NB R		A	8.3	A	8.7	A	8.9	A	9.1
h. SB L (Prot+Perm)		A	7.0	A	9.0	A	7.5	A	9.5
i. SB T		B	10.5	B	11.2	B	11.7	B	11.9
j. SB R		A	8.5	B	10.3	A	9.1	B	10.7
k. INTERSECTION		**B**	**16.4**	**B**	**14.6**	**B**	**17.1**	**B**	**15.2**
6. Clover Basin Dr. & SW Site Access	**TWSC**								
a. EB L		A	8.1	A	8.9	A	8.3	A	9.4
b. SB LR	Stop	C	15.7	C	20.9	C	23.1	D	34.2
c. INTERSECTION		**A**	**0.9**	**A**	**0.7**	**A**	**1.9**	**A**	**1.5**

TABLE 7
BACKGROUND & TOTAL TRAFFIC
OPERATIONAL ANALYSIS COMPARISON

INTERSECTION	CONTROL	2027 (BUILD-OUT)				2050 (LONG-TERM)			
		BACKGROUND		TOTAL		BACKGROUND		TOTAL	
		AM PEAK LOS	PM PEAK LOS	AM PEAK LOS	PM PEAK LOS	AM PEAK LOS	PM PEAK LOS	AM PEAK LOS	PM PEAK LOS
1. Airport Rd. & Quail Rd.	**TWSC**								
a. WB LR	Stop	C	C	C	C	C	C	C	C
b. SB L		A	A	A	A	A	A	A	A
c. INTERSECTION		**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**
2. Airport Rd. & Clover Basin Dr.	**Signal**								
a. EB L (Prot)		E	E	E	E	E	E	E	E
b. EB T		D	D	D	D	D	D	D	D
c. EB R		D	D	D	D	D	D	D	D
d. WB L (Prot)		E	E	E	E	E	E	E	E
e. WB T		D	D	D	D	D	D	D	D
f. WB R		D	D	D	D	D	D	D	C
g. NB L (Prot)		E	E	E	E	E	E	E	E
h. NB T		B	C	B	C	C	C	C	C
i. NB R		B	C	B	C	C	C	C	C
j. SB L (Prot)		E	E	E	E	E	E	E	E
k. SB T		B	B	B	B	C	C	C	C
l. SB R		B	B	B	B	C	C	C	C
m. INTERSECTION		**C**	**D**	**C**	**D**	**D**	**D**	**D**	**D**

TABLE 7 (CONTINUED)
BACKGROUND & TOTAL TRAFFIC
OPERATIONAL ANALYSIS COMPARISON

INTERSECTION	CONTROL	2027 (BUILD-OUT)				2050 (LONG-TERM)			
		BACKGROUND		TOTAL		BACKGROUND		TOTAL	
		AM PEAK LOS	PM PEAK LOS	AM PEAK LOS	PM PEAK LOS	AM PEAK LOS	PM PEAK LOS	AM PEAK LOS	PM PEAK LOS
3. Clover Basin Dr. & Larkspur Dr./SE Site Access	**TWSC**								
a. EB L		-	-	A	A	-	-	A	A
b. WB LT		A	A	-	-	A	A	-	-
c. WB L		-	-	A	A	-	-	A	A
d. NB LR	Stop	C	C	-	-	C	D	-	-
e. NB LTR	Stop	-	-	C	C	-	-	C	D
f. SB LTR	Stop	-	-	C	E	-	-	D	F
g. INTERSECTION		**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**
3.A. Clover Basin Dr. & Larkspur Dr./SE Site Access	**Roundabout**								
a. EB LTR	Yield	-	-	A	A	-	-	A	B
b. WB LTR	Yield	-	-	A	A	-	-	A	B
c. NB LTR	Yield	-	-	A	A	-	-	A	A
d. SB LTR	Yield	-	-	A	A	-	-	A	A
e. INTERSECTION		**-**	**-**	**A**	**A**	**-**	**-**	**A**	**B**
4. Clover Basin Dr. & S Fordham St.	**TWSC**								
a. EB L		A	A	A	A	A	A	A	A
b. WB L		A	A	A	A	A	A	A	A
c. NB L	Stop	D	E	E	F	F	F	F	F
d. NB TR	Stop	C	D	C	D	C	E	C	F
e. SB L	Stop	D	F	E	F	E	F	F	F
f. SB TR	Stop	C	C	D	C	D	C	E	D
g. INTERSECTION		**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**
4.A. Clover Basin Dr. & S Fordham St.	**AWSC**								
a. EB L	Stop	A	A	A	B	A	B	A	B
b. EB TR	Stop	E	F	F	F	F	F	F	F
c. WB L	Stop	A	A	A	B	A	B	B	B
d. WB TR	Stop	C	F	C	F	C	F	C	F
e. NB L	Stop	B	B	B	B	B	B	B	B
f. NB TR	Stop	B	B	B	B	B	B	B	B
g. SB L	Stop	B	B	B	B	B	B	B	B
h. SB TR	Stop	B	B	B	B	B	B	B	B
i. INTERSECTION		**C**	**F**	**D**	**F**	**F**	**F**	**F**	**F**
4.B. Clover Basin Dr. & S Fordham St.	**Roundabout**								
a. EB LTR	Yield	A	A	A	A	B	A	B	B
b. WB LTR	Yield	A	A	A	A	A	B	A	B
c. NB LTR	Yield	A	A	A	A	A	A	A	A
d. SB LTR	Yield	A	A	A	A	A	A	A	A
e. INTERSECTION		**A**	**A**	**A**	**A**	**A**	**A**	**A**	**B**
5. Airport Rd. & Pike Rd.	**Signal**								
a. EB L (Prot+Perm)		D	C	D	C	D	C	D	C
b. EB TR		D	D	D	D	D	C	D	C
c. WB L (Prot+Perm)		D	C	D	C	D	C	D	C
d. WB TR		D	D	D	D	D	D	D	D
e. NB L (Prot+Perm)		A	A	A	A	A	A	A	A
f. NB T		A	B	A	B	A	B	A	B
g. NB R		A	A	A	A	A	A	A	A
h. SB L (Prot+Perm)		A	A	A	A	A	A	A	A
i. SB T		B	B	B	B	B	B	B	B
j. SB R		A	B	A	B	A	B	A	B
k. INTERSECTION		**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**
6. Clover Basin Dr. & SW Site Access	**TWSC**								
a. EB L		-	-	A	A	-	-	A	A
b. SB LR	Stop	-	-	C	C	-	-	C	D
c. INTERSECTION		**-**	**-**	**A**	**A**	**-**	**-**	**A**	**A**

B. Queuing Analysis

Queue lengths and associated storage requirements for through and auxiliary lanes (turn bays) at the study area intersections were computed utilizing the *Synchro 12* 95th percentile reported queues for the 2027 (build-out) and 2050 (long-term) analysis horizons total traffic scenarios. Queue length calculations are based on a 25-foot vehicle length and reported as the total cumulative computed queue length for all traffic lanes in the lane group. Table 8 provides a summary of this analysis and comparison to the existing/proposed vehicle storage lengths provided for each of the study area intersections.

As shown in Table 8, the addition of the projected site generated vehicle trips from the proposed 8902 Quail Road development does not create any additional queuing issues beyond those identified in the background traffic analysis scenarios, described above.

TABLE 8
2027 (BUILD-OUT) & 2050 (LONG-TERM) TOTAL TRAFFIC
SUMMARY OF QUEUING ANALYSIS

INTERSECTION (# OF LANES IN LANE GROUP)	EXISTING STORAGE (FT)	2027 TOTAL TRAFFIC QUEUE LENGTH (FT) 95TH%		2050 TOTAL TRAFFIC QUEUE LENGTH (FT) 95TH%	
		AM PEAK	PM PEAK	AM PEAK	PM PEAK
1. Airport Rd. & Quail Rd.					
a. WB LR (1)	200	3	0	3	0
b. SB L (1)	225	0	0	0	0
2. Airport Rd. & Clover Basin Dr.					
a. EB L (1)	100	96	100	107	114
b. EB T (1)	625	292	303	337	358
c. EB R (1)	200	5	0	14	0
d. WB L (1)	150	101	216	113	250
e. WB T (1)	1300	226	281	265	331
f. WB R (1)	150	0	30	0	44
g. NB L (1)	335	89	81	104	96
h. NB T (2)	1260	228	530	270	722
i. NB R (1)	350	17	44	30	60
j. SB L (1)	400	150	174	177	211
k. SB T (2)	1250	532	289	751	338
l. SB R (1)	350	56	23	77	38
3. Clover Basin Dr. & Larkspur Dr./SE Site Access					
a. EB L (1)	100	0	0	0	0
b. WB L (1)	100	3	8	3	8
c. NB LTR (1)	100	25	25	35	38
d. SB LTR (1)	-	18	20	25	35
3.A. Clover Basin Dr. & Larkspur Dr./SE Site Access (Roundabout)					
a. EB LTR (1)	-	50	75	100	125
b. WB LTR (1)	-	25	75	50	125
c. NB LTR (1)	-	0	0	25	0
d. SB LTR (1)	-	0	0	0	0
4. Clover Basin Dr. & S Fordham St. (TWSC)					
a. EB L (1)	100	3	3	3	5
b. WB L (1)	200	5	3	5	3
c. NB L (1)	100	5	13	10	40
d. NB TR (1)	250	13	73	18	113
e. SB L (1)	200	18	28	25	50
f. SB TR (1)	200	35	25	53	40

INTERSECTION (# OF LANES IN LANE GROUP)	EXISTING STORAGE (FT)	2027 TOTAL TRAFFIC QUEUE LENGTH (FT) 95TH%		2050 TOTAL TRAFFIC QUEUE LENGTH (FT) 95TH%	
		AM PEAK	PM PEAK	AM PEAK	PM PEAK
4.A. Clover Basin Dr. & S Fordham St. (AWSC)					
a. EB L (1)	100	5	5	8	8
b. EB TR (1)	400	350	480	653	785
c. WB L (1)	200	8	5	8	5
d. WB TR (1)	1500	95	505	140	790
e. NB L (1)	100	0	3	3	5
f. NB TR (1)	250	8	30	8	30
g. SB L (1)	200	5	3	5	3
h. SB TR (1)	200	15	15	15	18
4.B. Clover Basin Dr. & S Fordham St. (Roundabout)					
a. EB LTR (1)	-	100	75	150	125
b. WB LTR (1)	-	25	75	50	125
c. NB LTR (1)	-	0	25	0	25
d. SB LTR (1)	-	0	25	0	25
5. Airport Rd. & Pike Rd.					
a. EB L (1)	150	46	43	50	48
b. EB TR (1)	350	62	46	64	47
c. WB L (1)	250	59	47	64	49
d. WB TR (1)	250	44	53	45	55
e. NB L (1)	300	26	37	26	37
f. NB T (2)	1300	163	314	184	372
g. NB R (1)	150	0	0	0	0
h. SB L (1)	150	27	14	27	14
i. SB T (2)	1800	363	190	433	217
j. SB R (1)	200	0	0	0	0
6. Clover Basin Dr. & SW Site Access					
a. EB L (1)	-	0	3	0	3
b. SB LR (1)	-	13	10	35	33

C. Total Traffic Roadway Capacity Analysis

General roadway capacities were evaluated for the following roadway segments based on guidance presented in the *Highway Capacity Manual, 6th Edition (HCM 6), Chapter 16, Exhibit 16-16*, and traffic volume and roadway data collected for this study:

- **Clover Basin Dr.** – In the vicinity of the proposed development site, Clover Basin Dr. is a two-lane minor arterial roadway posted at 35 mph. The forecast 2027 (buildout) and 2050 (long-range) analysis horizons daily two-way total traffic volumes for this roadway segment (Clover Basin Dr. west of Larkspur Dr.) are 11,225 vpd and 13,375 vpd, respectively. Based on HCM 6 Exhibit 16-16 (K = 0.10, D = 0.55) the daily capacity of this roadway segment is 16,200 vpd. Therefore, Clover Basin Dr. in the vicinity of the proposed 8902 Quail Road development is projected to be below its daily traffic volume capacity threshold through the 2050 (long-range) analysis horizon total traffic scenarios.

D. Traffic Signal & All-Way Stop Control Warrant Analysis

Existing and forecast traffic volumes were evaluated for satisfying the criteria for the installation of a traffic signal and All-Way Stop Control based on the methodology presented in the *Manual on Uniform Traffic Control Devices for Streets and Highways, 11th Edition, 2023* at the following intersection:

- Clover Basin Dr. & S Fordham St.

Warrant 1 – Eight Hour Vehicular Volume, Warrant 2 – Four Hour Vehicular Volume, and Warrant 3 – Peak Hour were evaluated based on existing and projected background and total traffic volumes for the installation of a traffic signal. This intersection was also analyzed to determine if the All-Way Stop Control Warrant D: 8-Hour Volume Warrant would be satisfied based on the criteria set forth in the MUTCD for All-Way Stop Control.

The forecast hourly background traffic volumes for the 2027 (build-out) and 2050 (long-term) analysis horizons were forecast using the methodology described in Section III of this study. The distribution of the intersection approach movement (left turn, right turn) volumes were based on the turn movement distribution (left turn, right turn) of the peak hour volumes that were collected for this study. Hourly approach volumes were derived assuming the same hourly distribution of the approach volumes on Clover Basin Dr. from the 48-hour directional counts collected on Tuesday March 12, 2024, and Wednesday March 13, 2024. In order to develop a 24-hour traffic volume profile for the site generated trips projected, the same hourly distribution was used.

Based on these parameters and the analysis performed herein, it was determined that the Clover Basin Dr./S Fordham St. intersection is not projected to meet Traffic Signal Warrants 1, 2 or 3 by the 2050 (long-term) analysis horizon total traffic scenario.

Based on the parameters described above, and the analysis performed herein, it was determined that the Clover Basin Dr./S Fordham St. intersection is not projected to meet the Warrant D: 8-Hour Volume threshold by the 2050 (long-term) analysis horizon. This is due to the minor street approaches (S Fordham St.) not meeting the minimum volume threshold.

A summary of the results of the traffic signal and all-way stop control warrant analyses is presented in Table 9, below. Detailed traffic signal warrant analysis worksheets and the volume data used for this analysis are provided in Appendix “C”.

TABLE 9
TRAFFIC SIGNAL & AWSC WARRANT ANALYSIS SUMMARY

	Analysis Horizon	Eight Hour - Warrant 1 Met?	Four Hour - Warrant 2 Met?	Peak Hour - Warrant 3 Met?	AWSC - Eight Hour Warrant D Met?
Clover Basin Dr. & S Fordham St.	2024 Existing Traffic	NO	NO	NO	NO
	2027 Background Traffic	NO	NO	NO	NO
	2027 Total Traffic	NO	NO	NO	NO
	2050 Background Traffic	NO	NO	NO	NO
	2050 Total Traffic	NO	NO	NO	NO

E. Traffic Speed Analysis

48-hour traffic speed data was collected at the following locations on Tuesday March 12, 2024, and Wednesday March 13, 2024:

- Clover Basin Dr. west of Larkspur Dr.

A summary of the results of the speed data collection is presented in Table 10, below. Detailed speed count data can be found in Appendix "A".

TABLE 10
OVERALL SPEED DATA SUMMARY

Speed Parameter	Cover Basin Dr. west of Larkspur Dr.	
	Eastbound	Westbound
Average Speed	36 MPH	36 MPH
15th Percentile Speed	31 MPH	30 MPH
50th Percentile Speed	35 MPH	34 MPH
85th Percentile Speed	39 MPH	39 MPH
95th Percentile Speed	42 MPH	43 MPH

These results show that the average speed on Clover Basin Dr. is only slightly above the posted speed limit. The 85th percentile speed found to be 4 mph over the posted speed limit for the roadway. While this is within the recommended guidance from the *Manual for Uniform Traffic Control Devices, 2009 (MUTCD)* to have a posted speed limit within 5 mph from the 85th percentile speed, it is slightly higher than desired. However, it is not recommended to raise the speed limit in this location due to the roadway context, which features on-street bike lanes and adjacent bus stops. Increasing the density of intersections in this stretch of roadway, as well as utilizing existing empty roadway space for auxiliary turn lanes may also function as a way of slightly reducing travel speeds. Based on the observed speeds as well as the volumes associated with this roadway, other more substantial methods of traffic calming are not recommended.

F. Multimodal Assessment

The proposed 8902 Quail Road development has the potential to incorporate various multimodal and travel demand management (TDM) strategies and amenities that encourage and promote multimodal travel options. Incorporating multimodal and TDM strategies and amenities can help offset the impacts of the traffic generated by the development, as well enhance the overall safety, mobility, and environment of the surrounding transportation system. Some of the options may include:

- Enhanced Wayfinding – Enhanced route/guide signing to existing/proposed pedestrian, bicycle, transit, commercial/retail and recreational facilities. The existing RTD stop #25612 at the Clover Basin Dr./Larkspur Dr. intersection will remain active with the completion of this project.
- Resident Communications System – On-site resident communication system that provide residents with a conduit to share information on a variety of topics including ridesharing, car sharing, and bike sharing. The format of the system may incorporate on-site kiosks, newsletters, web site, etc.
- Electric Vehicle Charging Stations – On-site electric vehicle charging stations.
- Bicycle Amenities – On-site bicycle amenities such as long-term storage, bike racks, repair/maintenance shop, and wash areas.
- Bike/Scooter/Car Share Station(s) – Bike, scooter, and/or car sharing station(s) adjacent to or near the proposed development to encourage multimodal travel among residents.
- Improving existing and/or adding ADA compliant sidewalks and accessible routes.
- Adding crosswalk markings at strategic locations.
- Adding pavement markings and signage for on-street bicycle lanes.

As the development process moves forward, the development team looks forward to working collaboratively with city staff to develop a plan that provides appropriate and beneficial on-site amenities, as well as off-site enhancements to encourage and promote multimodal options in the travel decisions made by the residents of the proposed 8902 Quail Road development. A figure depicting the preliminary multimodal plan for the site can be found in Appendix “D”.

G. Summary of Operational Analysis & Recommended Improvements

The following is a summary of analysis and improvement recommendations to the existing and proposed study area intersections and roadways based on the proposed 8902 Quail Road development:

Study Area Roadways:

- **Airport Rd.** – There are no geometric or operational modifications being recommended for Airport Rd. within the study area as a result of the proposed 8902 Quail Rd. development. No other defined modifications are known, and it is anticipated that the roadway section will remain unchanged through the 2050 (long-term) analysis horizon.
- **Quail Rd.** – There are no geometric or operational modifications being recommended for Airport Rd. within the study area as a result of the proposed 8902 Quail Rd. development. No other defined modifications are known, and it is anticipated that the roadway section will remain unchanged through the 2050 (long-term) analysis horizon.
- **Clover Basin Dr.** – The northern half of Clover Basin Dr. adjacent to the project site will be modified concurrently with construction of the 8902 Quail Road development to include curb and gutter, and a detached sidewalk. The proposed final cross-section will include one travel lane in each direction, one bicycle lane in each direction, and a two-way center left turn lane.
- **S. Fordham St.** – There are no geometric or operational modifications being recommended for S. Fordham St. within the study area as a result of the proposed 8902 Quail Rd. development. No other modifications are known, and it is anticipated that the roadway section will remain unchanged through the 2050 (long-term) analysis horizon.

Study Area Intersections:

- **Airport Rd./Quail Rd.** – The Airport Rd./Quail Rd. intersection is not anticipated to undergo any significant geometric or operational modifications through the 2050 (long-term) analysis horizon. It is anticipated that the intersection will remain a "T" intersection operating under stop sign control on the westbound approach. The east leg of the intersection has one shared left/right turn lane on the westbound approach, and one eastbound departure lane. The north leg of the intersection has one left turn lane with approximately 225 feet of storage and two through lanes on the southbound approach, and two northbound departure lanes. The south leg of the intersection has one through lane and one shared through/right turn lane on the northbound approach, and two southbound departure lanes.

  Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS "D" or better) to a poor or failing level of service (LOS "E" or "F") with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenario. There are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenario.

  By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS "D" or better) to a poor or failing level of service (LOS "E" or "F") with the addition of the site generated traffic. There are no additional projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios. There are no geometric or operational modifications being recommended for the Airport Rd./Quail Rd. intersection as a result of the proposed 8902 Quail Road development.

- **Airport Rd./Clover Basin Dr.** – The Airport Rd./Clover Basin Dr. intersection is not anticipated to undergo any significant geometric or operational modifications through the 2050 (long-term) analysis horizon. It is anticipated that the intersection will remain a four-legged intersection operating under actuated/coordinated signalized control with protected only left turn phasing on all four approaches. The east leg of the intersection has one left turn lane with approximately 150 feet of storage, one through lane, and one right turn lane with approximately 150 feet of storage on the westbound approach, and one eastbound departure lane along with an eastbound bike lane. The west leg of the intersection has one left turn lane with approximately 100 feet of storage, one through lane, one bike lane, and one right turn lane with approximately 200 feet of storage on the eastbound approach, and one westbound departure lane. The north leg of the intersection has one left turn lane with approximately 400 feet of storage, two through lanes, one bike lane, and one right turn lane with approximately 350 feet of storage on the southbound approach, and two northbound departure lanes. The south leg of the intersection has one left turn lane with approximately 335 feet of storage, two through lanes, one bike lane, and one right turn lane with approximately 350 feet of storage on the northbound approach, and two southbound departure lanes.

  Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS "D" or better) to a poor or failing level of service (LOS "E" or "F") with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios. However, it is projected that the left turn lane group on

each approach will continue to experience a poor or failing level of service (LOS “E” or worse) during both the a.m. and p.m. peak hour in both the background and total traffic scenarios. A potential mitigation measure that would fully mitigate these poor movements would be modifying the left turn phasing on each approach to allow protected plus permitted phasing for all left turn lane groups. If this measure is not attainable, optimizing the traffic signal timing for actual traffic conditions will be the most effective means to mitigate these issues. Based on the queuing analysis, there are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenarios.

By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic. However, it is projected that the left turn lane group on each approach will continue to experience a poor or failing level of service (LOS “E” or worse) during both the a.m. and p.m. peak hour in both the background and total traffic scenarios. A potential mitigation measure that would fully mitigate these poor movements would be modifying the left turn phasing on each approach to allow protected plus permitted phasing for all left turn lane groups. If this measure is not attainable, optimizing the traffic signal timing for actual traffic conditions will be the most effective means to mitigate these issues. There are no additional projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios. There are no geometric or operational modifications being recommended for the Airport Rd./Clover Basin Dr. intersection as a result of the proposed 8902 Quail Road development.

- **Clover Basin Dr./Larkspur Dr./SE Site Access** – The Clover Basin Dr./Larkspur Dr./SE Site Access intersection is anticipated to be modified as follows concurrent with construction of the proposed 8902 Quail Road development. A north leg to the intersection will be constructed to serve as the SE Site Access driveway, providing access within public right-of-way through the project site to connect to Quail Rd. The intersection was first analyzed to operate under stop sign control on the northbound and southbound approaches. Based on this condition, it is projected that the southbound shared left/through/ right turn lane will operate with a poor level of service (LOS “E”) during the p.m. peak hour in the total traffic scenario by the 2027 (build-out) analysis horizon and will operate with a failing level of service (LOS “F”) during the p.m. peak hour by the 2050 (long-term) analysis horizon. This poor to failing level of service for the southbound approach is fairly typical for a stop controlled minor street approach due to the high background traffic through volumes on Clover Basin Dr. causing the delay for vehicles on the minor approach attempting to turn left at the intersection. There are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios.

  However, based on these issues with the newly created north leg being stop controlled, the intersection was also analyzed to operate as a roundabout with yield control on all four approaches. Based on these parameters, it is projected that the intersection, overall, as well as all impeded lane groups will operate at acceptable levels of service (LOS “D” or better) through the 2050 (long-term) analysis horizon total traffic scenario. Therefore, it is recommended that the Clover Basin Dr./Larkspur Dr./SE Site Access intersection being updated to operate as a single-lane roundabout along with the proposed 8902 Quail Road development.

- **Clover Basin Dr./S Fordham St.** – The Clover Basin Dr./S Fordham St. intersection is not anticipated to undergo any significant geometric or operational modifications through the 2050 (long-term) analysis horizon. It is anticipated that the intersection will remain a four-legged intersection operating under stop sign control on the northbound and southbound approaches. The east leg of the intersection has one left turn lane with approximately 200 feet of storage and one shared through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection has one left turn lane with approximately 100 feet of storage and one shared through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection has one left turn lane with approximately 200 feet of storage and one shared through/right turn lane on the southbound approach, and one northbound departure lane. The south leg of the intersection has one left turn lane with approximately 100 feet of storage and one shared through/right turn lane on the northbound approach, and one southbound departure lane.

  Based on these parameters and the forecast total traffic volumes, it is projected that the intersection, overall, will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios. However, it is projected that the level of service of the northbound left turn movement and southbound left turn movement will deteriorate from LOS “D” to “E” during the a.m. peak hour by the 2027 (build-out) analysis horizon with the addition of site generated traffic. It is also projected that the level of service of the southbound shared through/right turn movement will deteriorate from LOS “D” to “E” during the a.m. peak hour by the 2050 (long-term) analysis horizon. The northbound shared through/right turn lane group will continue to experience a poor or failing level of service (LOS “E” or worse) during the p.m. peak hour in both the background and total traffic scenarios by the 2050 (long-term) analysis horizon. These poor to failing levels of service for the stop-controlled lane groups are fairly typical for a stop controlled minor street approach due to the high background traffic through volumes on Clover Basin Dr. causing the delay for vehicles on the stop-controlled minor approach attempting to turn or cross at the intersection. There are no projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios. There are no additional geometric or operational modifications being recommended for the Clover Basin Dr./S Fordham St. intersection as a result of the proposed 8902 Quail Road development.

  As described in section VI.C. above, the Clover Basin Dr./S Fordham St. intersection was evaluated for satisfying the criteria for the installation of a traffic signal and All-Way Stop Control based on the methodology presented in the *MUTCD,* and it was found that the intersection is not projected to meet any of the warrants analyzed by the 2050 (long-term) analysis horizon. Signalized control was therefore not analyzed for the Clover Basin Dr./S Fordham St. intersection, but all-way stop control (AWSC) and a single lane roundabout were analyzed to provide potential mitigation measures for the unacceptable operational characteristics at the intersection and to provide an alternative analysis and comparison of operational characteristics.

  Under all-way stop control, no geometric modifications would be made to the intersection. Based on these parameters, it is projected that the eastbound shared through/right turn lane, westbound shared through/right turn lane, and the intersection, overall, would operate at poor to failing levels of service (LOS “E” or worse) during both the a.m. and p.m. peak hour in both the background and total traffic scenarios. As a

single lane roundabout, operating under yield control, each leg of the intersection would have one shared left/through/right turn lane on the entering approach, and one departure lane. Based on these parameters, it is projected that the intersection, overall, as well as all lane groups would operate at acceptable levels of service (LOS “D” or better) through the 2050 (long-term) analysis horizon total traffic scenario.

- **Airport Rd./Pike Rd.** – The Airport Rd./Pike Rd. intersection is not anticipated to undergo any significant geometric or operational modifications through the 2050 (long-term) analysis horizon. It is anticipated that the intersection will remain a four-legged intersection operating under actuated/coordinated signalized control with protected plus permitted left turn phasing on all four approaches. The east leg of the intersection has one left turn lane with approximately 250 feet of storage and one shared through/right turn lane on the westbound approach, and one eastbound departure lane. The west leg of the intersection has one left turn lane with approximately 150 feet of storage and one shared through/right turn lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection has one left turn lane with approximately 150 feet of storage, two through lanes, one bike lane, and one right turn lane with approximately 200 feet of storage on the southbound approach, and two northbound departure lanes. The south leg of the intersection has one left turn lane with approximately 300 feet of storage, two through lanes, one bike lane, and one right turn lane with approximately 150 feet of storage on the northbound approach, and two southbound departure lanes.

  Based on these parameters, it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenario. There are no projected queue related issues associated with the addition of the site generated traffic by the 2027 (build-out) analysis horizon total traffic scenario.

  By the 2050 (long-term) analysis horizon it is projected that the intersection, overall, as well as all lane groups will not experience a decline from an acceptable level of service (LOS “D” or better) to a poor or failing level of service (LOS “E” or “F”) with the addition of the site generated traffic. There are no additional projected queue related issues associated with the addition of the site generated traffic by the 2050 (long-term) analysis horizon total traffic scenarios. There are no geometric or operational modifications being recommended for the Airport Rd./Pike Rd. intersection as a result of the proposed 8902 Quail Road development.

- **Clover Basin Dr./SW Site Access (Proposed) –** The Clover Basin Dr./SW Site Access intersection will be constructed concurrently with the proposed 8902 Quail Road development as a full movement “T” intersection. The intersection will operate under stop sign control on the southbound approach. The east leg of the intersection will have one through lane and one right turn lane with a minimum of 100 feet of storage on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have left turns utilizing a center TWLTL with at least 100 feet of storage and one through lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will be constructed to have one shared left/right turn lane on the southbound approach, and one northbound departure lane. Based on these parameters it is projected that the intersection, overall, as well as all impeded lane groups will operate at acceptable levels of service (LOS “D” or better) through the 2050 (long-term) analysis horizon total traffic scenario.

VII. CONCLUSIONS

Vista Residential Partners is proposing to redevelop approximately 17.3 acres of property situated at 8902 Quail Road in Longmont, Colorado. More specifically, the subject property is bound by Quail Rd. on the north, Wildfire Ct. on the east, Clover Basin Dr. on the south, and private residential property adjacent to Airport Rd. on the west. Upon build-out, the proposed development will consist of 310 multi-family (low-rise) residential dwelling units and associated amenities.

Vehicular access for the proposed 8902 Quail Road development will be provided via an internal roadway network providing connectivity to the external transportation system at the following locations:

- SW Site Access – The SW Site Access will be constructed as a full movement access intersecting Clover Basin Dr. at the southwest corner of the project site.
- SE Site Access – The SE Site Access will be constructed as a full movement access intersecting Clover Basin Dr. at Larkspur Dr. in order to provide access to the project site and provide connectivity within public Right-Of-Way from Quail Rd. to Clover Basin Dr.

Based on these parameters, at buildout, the proposed 8902 Quail Road development is projected to generate 2,062 daily vehicle trips of which 119 are projected to be generated during the a.m. peak hour and 154 are projected to be generated during the p.m. peak hour.

The purpose of this study is to evaluate the impact of the vehicular trips projected to be generated by the proposed 8902 Quail Road development on the study area intersections and roadway system. The study includes 2024 (existing), 2027 (year of anticipated project build-out), and 2050 (long-term) analysis horizons.

Based on the analyses contained herein, recommendations for intersection and roadway improvements to accommodate the addition of the proposed 8902 Quail Road development traffic were developed. The following is a summary of the recommendations to be the responsibility of the developer in order to mitigate the impact of the traffic projected to be generated by the proposed 8902 Quail Road development:

- **Clover Basin Dr. –** The developer shall be responsible for the design and construction of the northern half of Clover Basin Dr. adjacent to the project site to include curb and gutter, and a detached sidewalk. The proposed final cross-section will include one travel lane in each direction, one bicycle lane in each direction, and a two-way center left turn lane.
- **Clover Basin Dr./Larkspur Dr./SE Site Access** – The developer will be responsible for the design and construction of the intersection modifications concurrently with the 8902 Quail Road development to include the following. A north leg to the intersection will be constructed to serve as the SE Site Access driveway, providing access within public right-of-way through the project site to connect to Quail Rd. The intersection will then be updated to operate under roundabout control with a single approach and departure lane on each leg as well as a single circulating lane.
- **Clover Basin Dr./SW Site Access** – The developer will be responsible for the design and construction of the intersection concurrently with the 8902 Quail Road development to include the following. The intersection will be constructed concurrently with the

proposed 8902 Quail Road development as a full movement “T” intersection. The intersection will operate under stop sign control on the southbound approach. The east leg of the intersection will have one through lane and one right turn lane with a minimum of 100 feet of storage on the westbound approach, and one eastbound departure lane. The west leg of the intersection will have one left turn lane with approximately 100 feet of storage and one through lane on the eastbound approach, and one westbound departure lane. The north leg of the intersection will be constructed to have one shared left/right turn lane on the southbound approach, and one northbound departure lane.

In addition to these specific improvements, the developer will also contribute funds through the Transportation Community Investment Fee (TCIF) which can be utilized for other nearby roadway improvements, such as potential improvements for the Clover Basin Dr./S. Fordham St. intersection.

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Vicinity Map

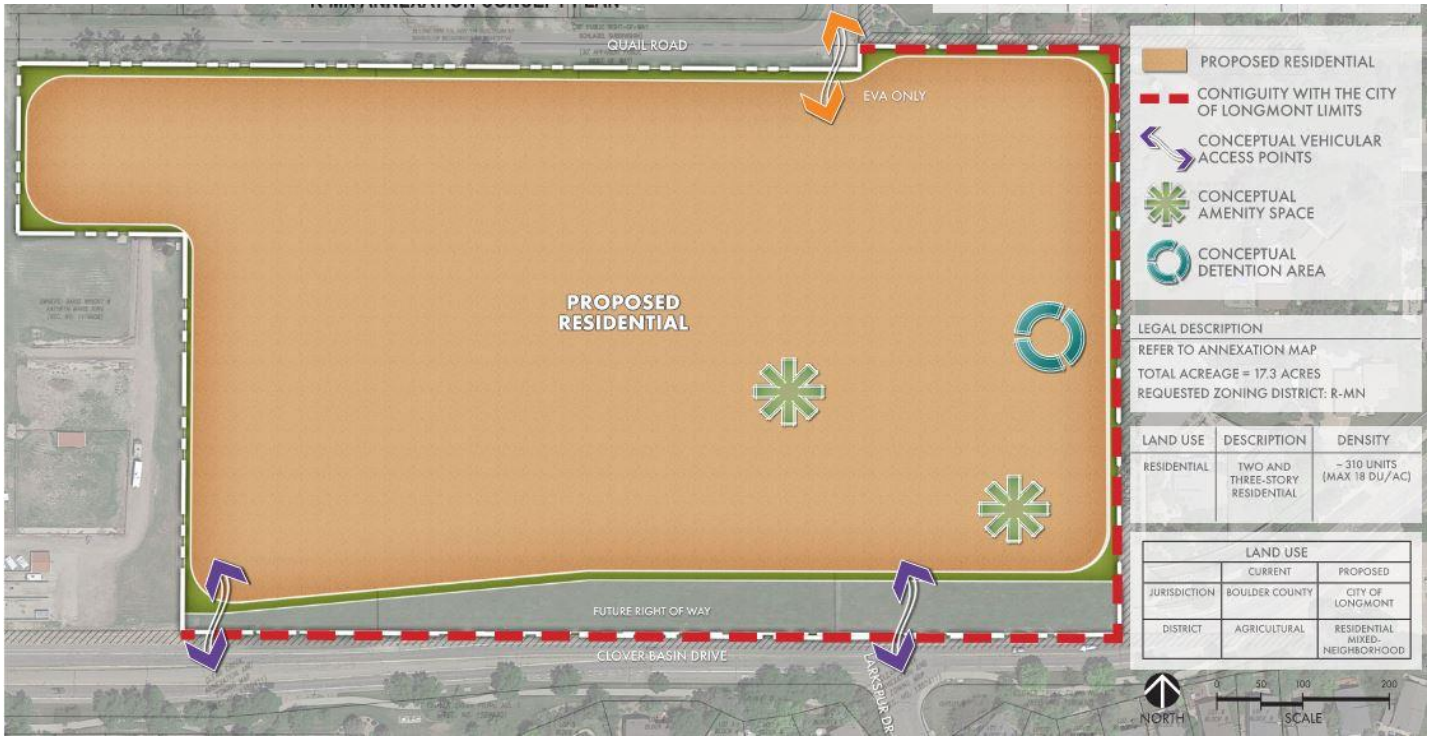
8902 Quail Road

Vista Residential Partners

HKS #230835

Figure 1

N



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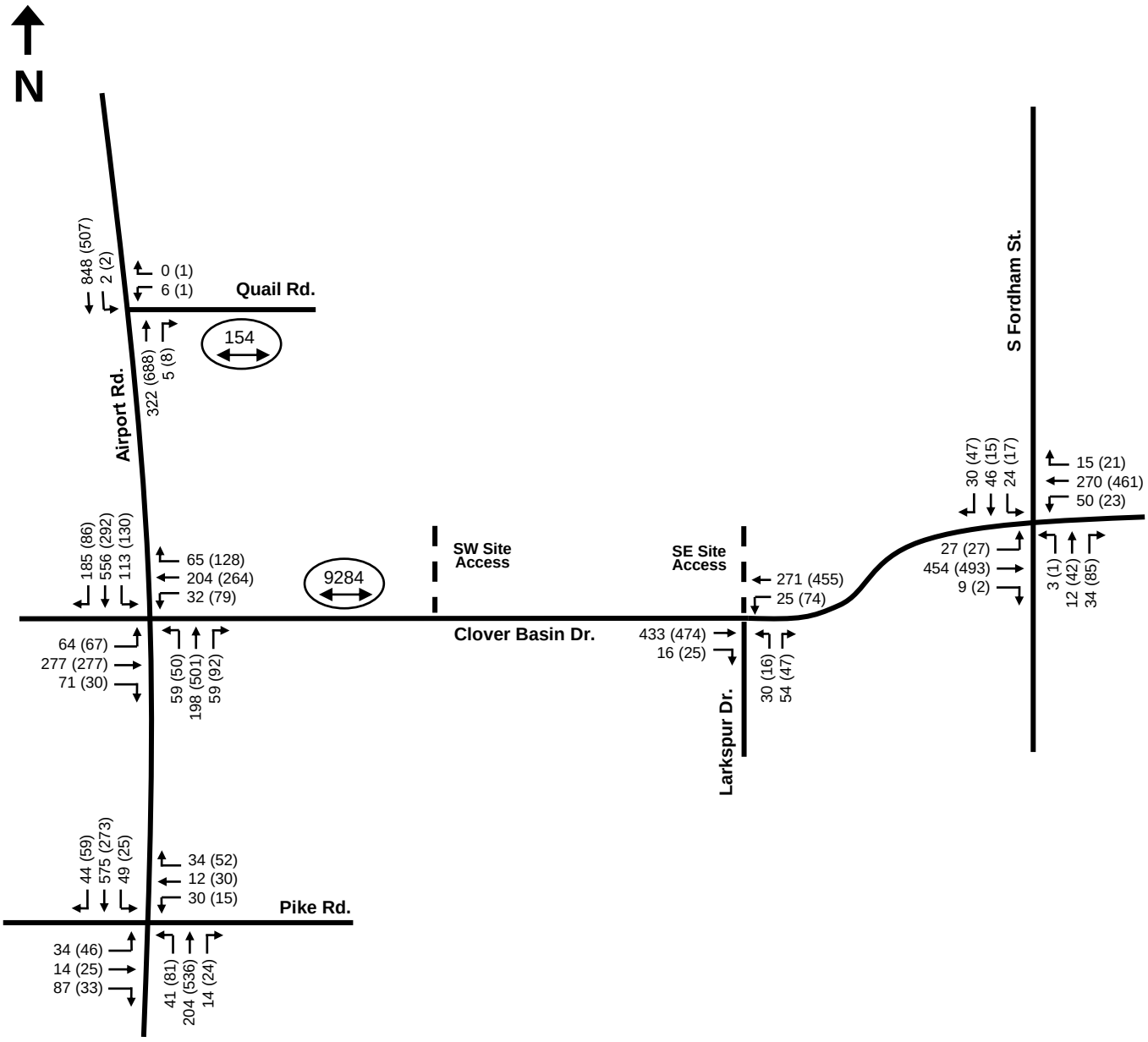
Conceptual Site Plan

8902 Quail Road

Vista Residential Partners

HKS #230835

Figure 2



Proposed Roadway

Legend:

Drawing Not To Scale

5 (8) / 64 (50) / 8 (7) — Weekday AM (PM) Peak Hour Traffic Volumes, vph

3200 — Daily Traffic Volumes, vpd

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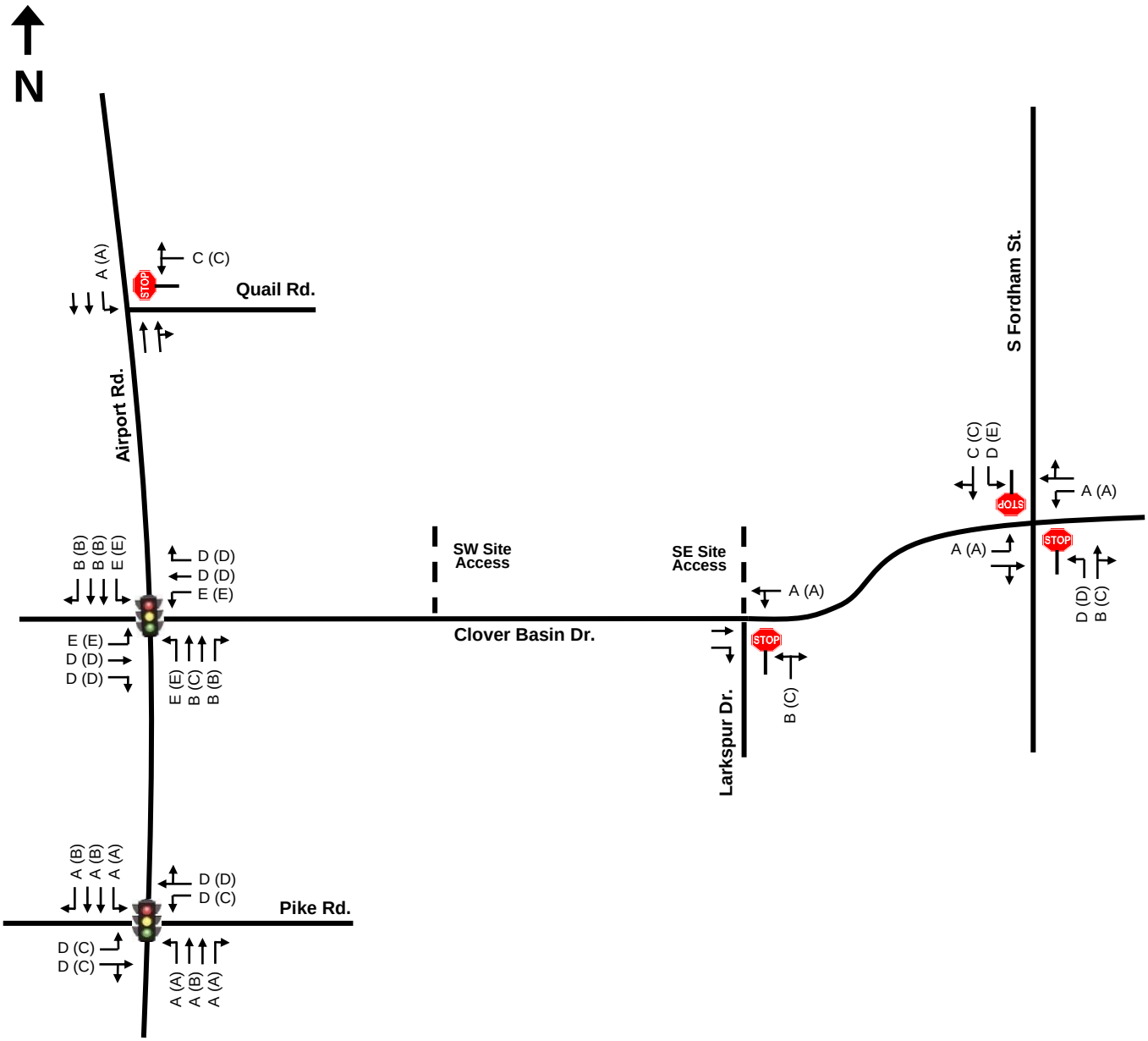
2024 (Existing) Traffic Volumes

8902 Quail Road

Vista Residential Partners

HKS #230835

Figure 3



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2024 (Existing) Traffic Operational Conditions

8902 Quail Road

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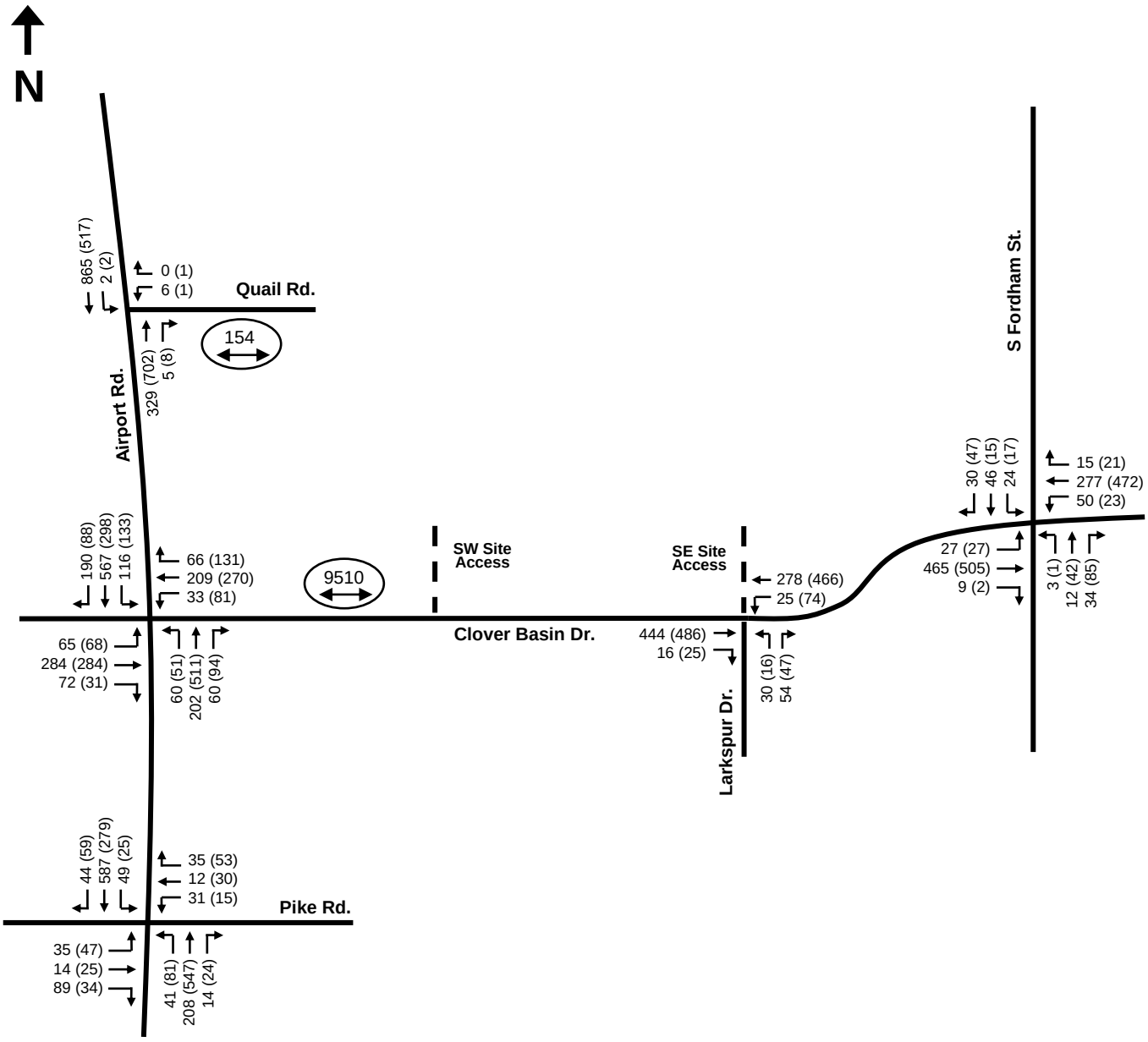
HKS #230835

Figure 4



Proposed Roadway

Legend:

Drawing Not To Scale

5 (8) / 64 (50) / 8 (7) — Weekday AM (PM) Peak Hour Traffic Volumes, vph

3200 — Daily Traffic Volumes, vpd

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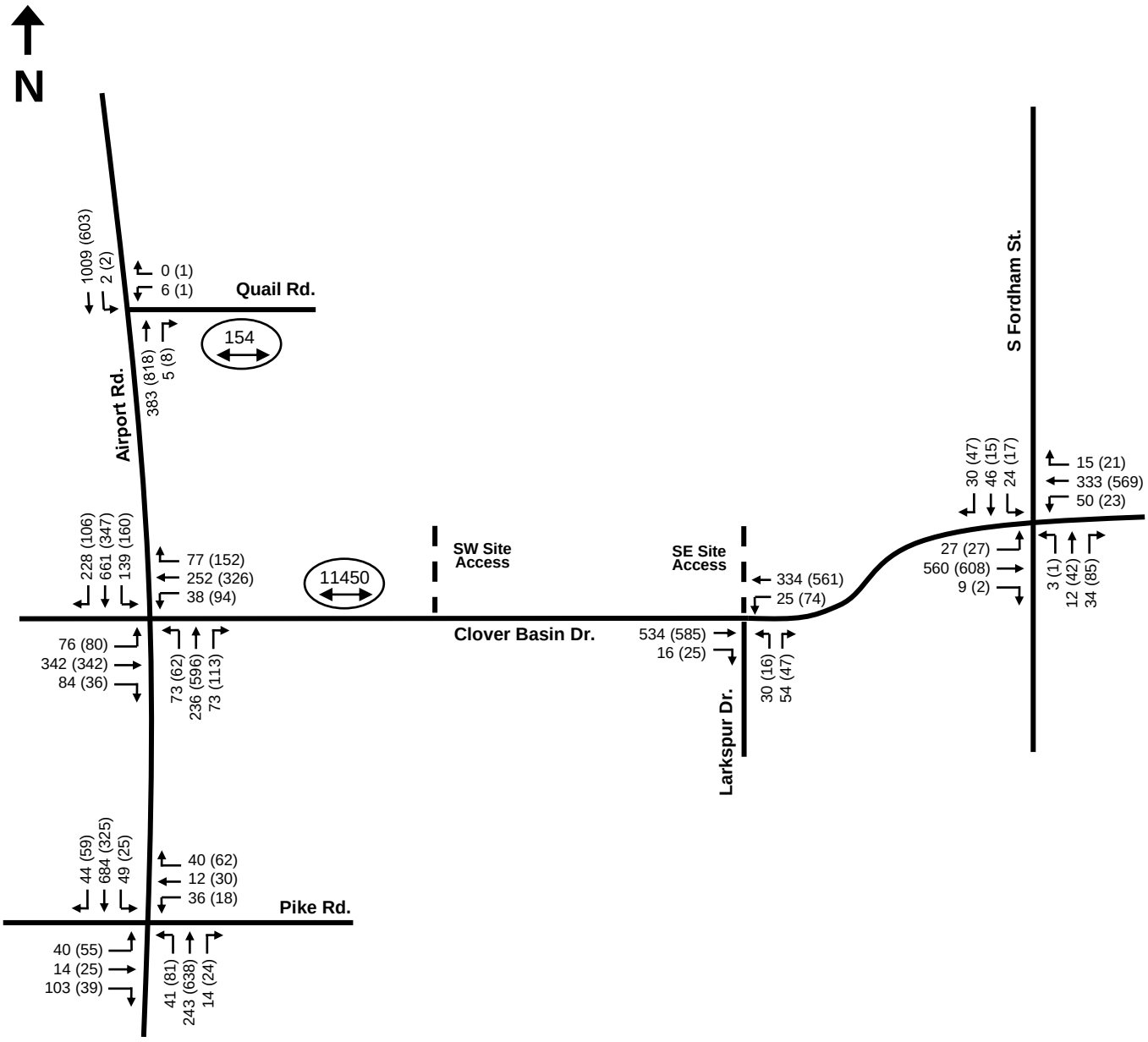
2027 (Build-Out) Analysis Horizon
Regional Background Traffic Volumes

8902 Quail Road

Vista Residential Partners

HKS #230835

Figure 5



Proposed Roadway

Legend:

Drawing Not To Scale

5 (8)
64 (50)
8 (7)
Weekday AM (PM) Peak Hour Traffic Volumes, vph

3200
Daily Traffic Volumes, vpd

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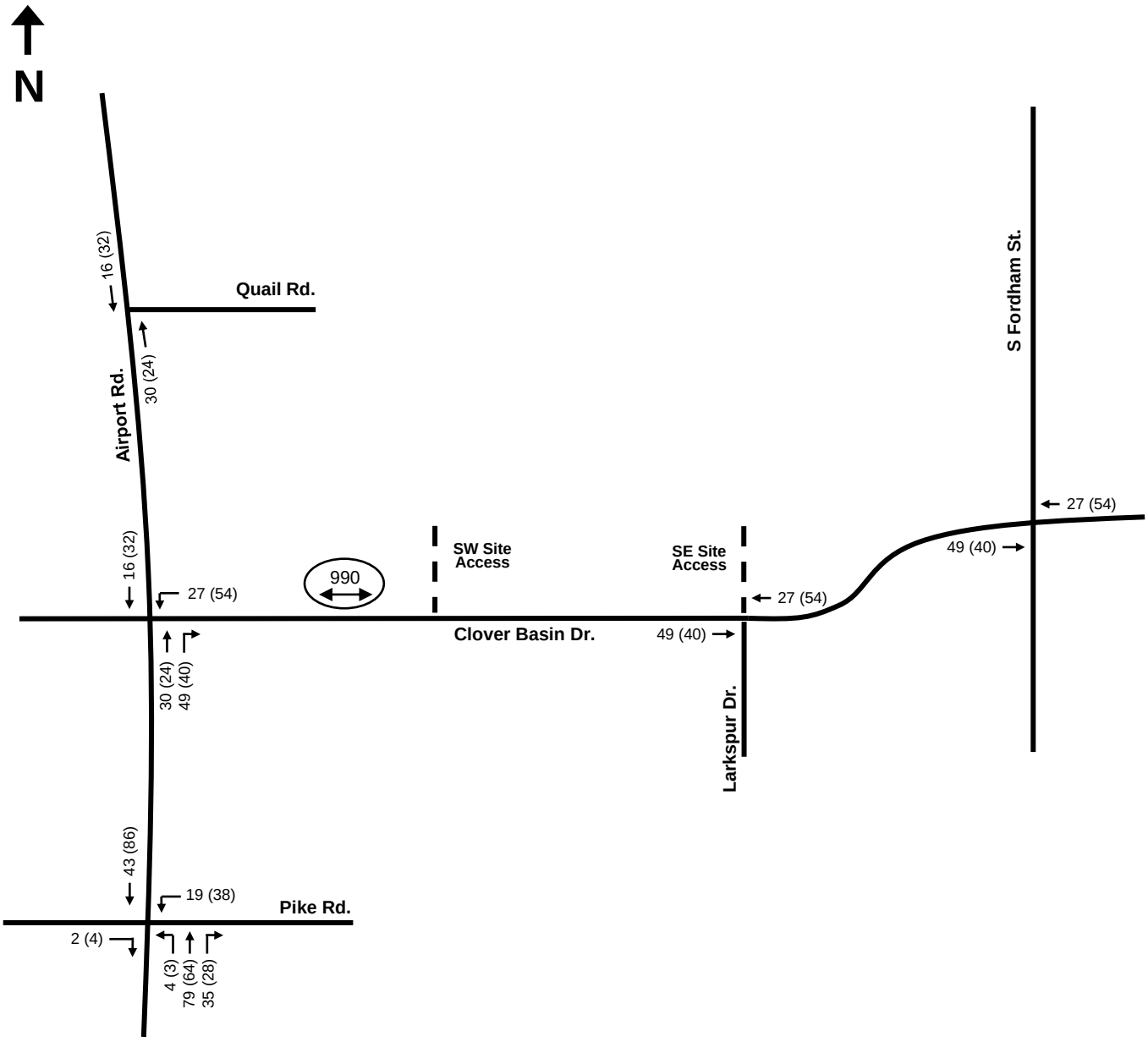
2050 (Long-Term) Analysis Horizon
Regional Background Traffic Volumes

8902 Quail Road

Vista Residential Partners

HKS #230835

Figure 6



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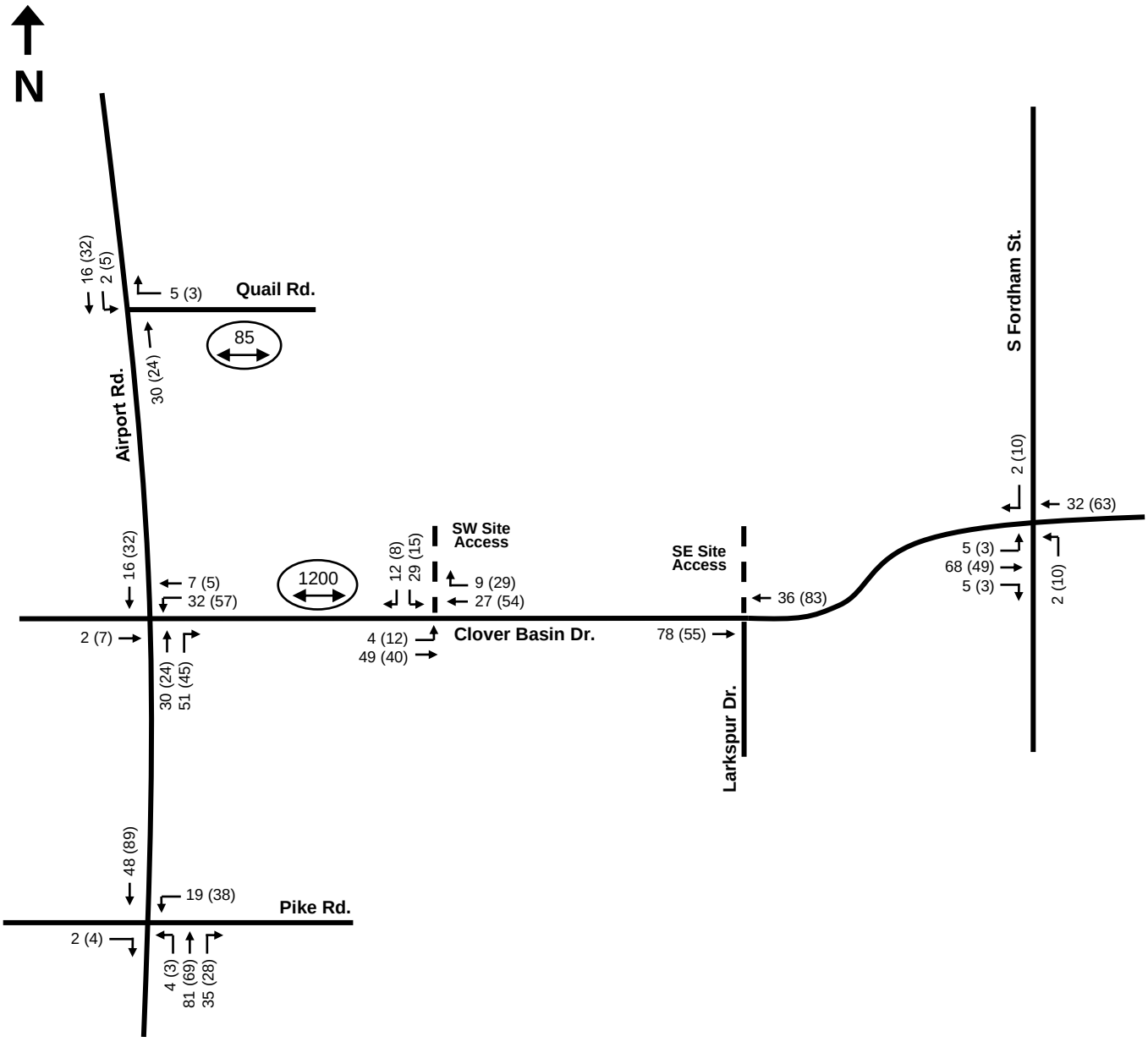
2027 (Build-Out) Analysis Horizon
Local Background Traffic Volumes

8902 Quail Road

Vista Residential Partners

HKS #230835

Figure 7



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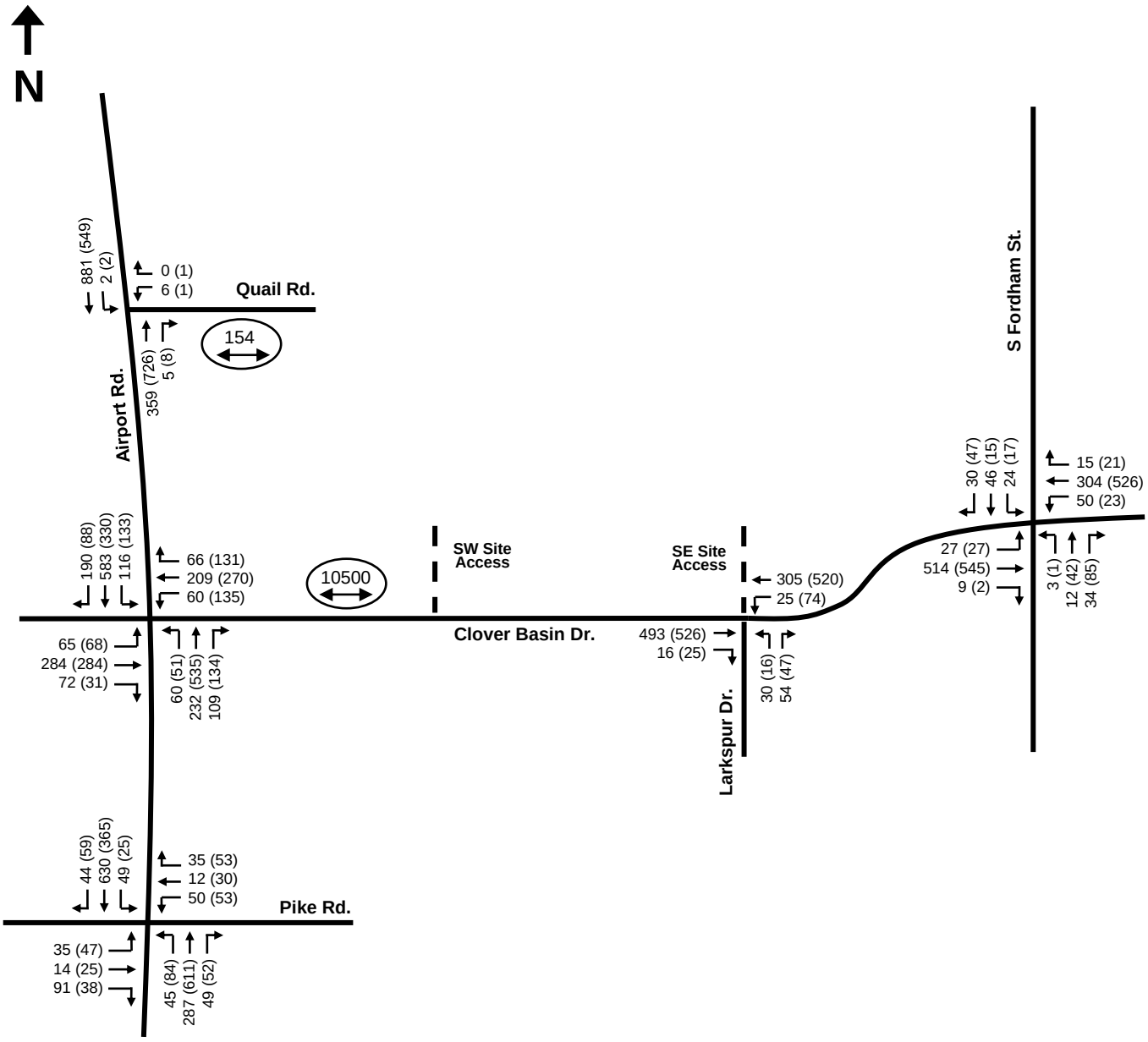
2050 (Long-Term) Analysis Horizon
Local Background Traffic Volumes

8902 Quail Road

Vista Residential Partners

HKS #230835

Figure 8



Proposed Roadway

Legend:

Drawing Not To Scale

5 (8)
64 (50)
8 (7)
Weekday AM (PM) Peak Hour Traffic Volumes, vph

3200
Daily Traffic Volumes, vpd

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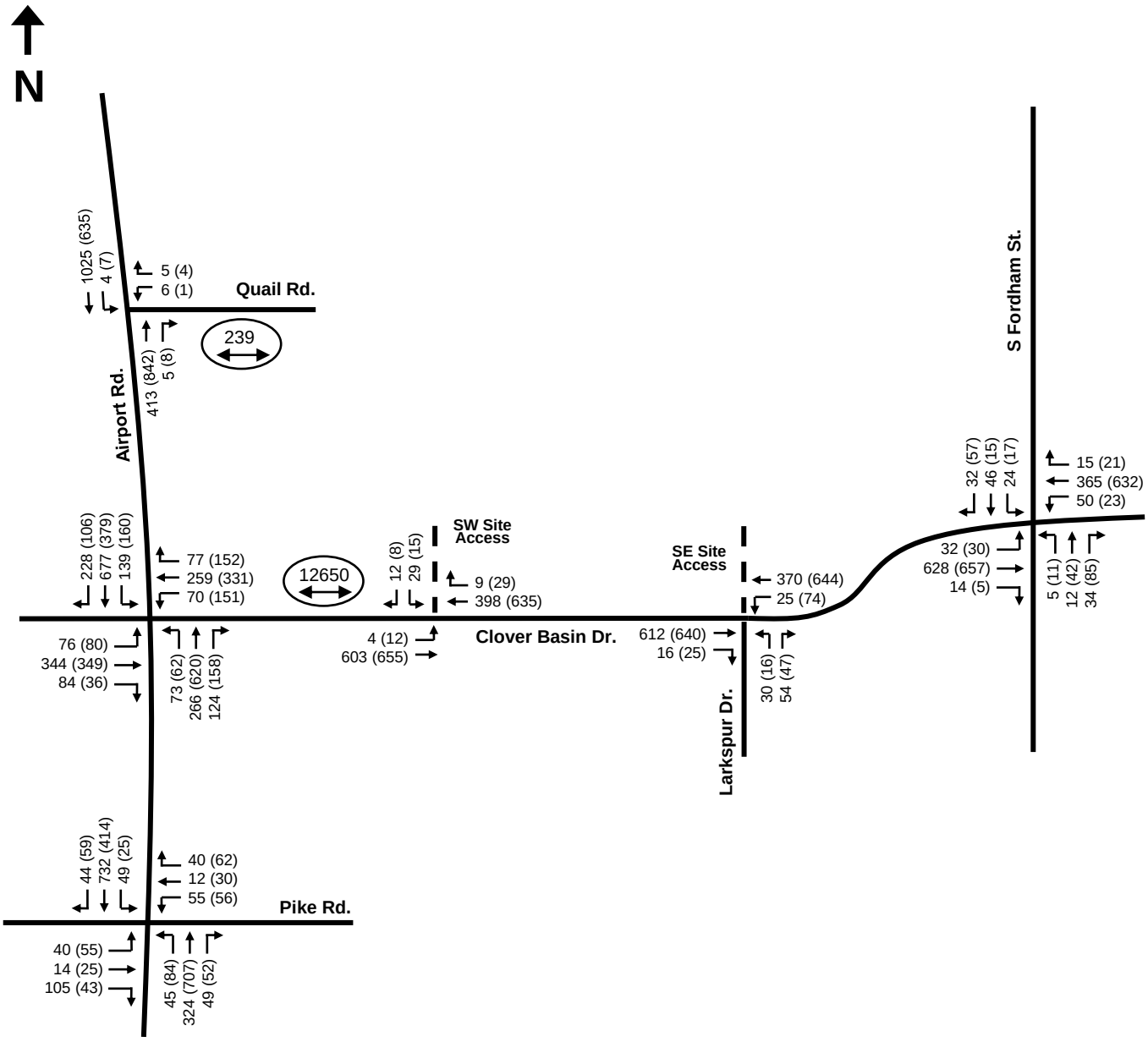
2027 (Build-Out) Analysis Horizon
Total Background Traffic Volumes

8902 Quail Road

Vista Residential Partners

HKS #230835

Figure 9



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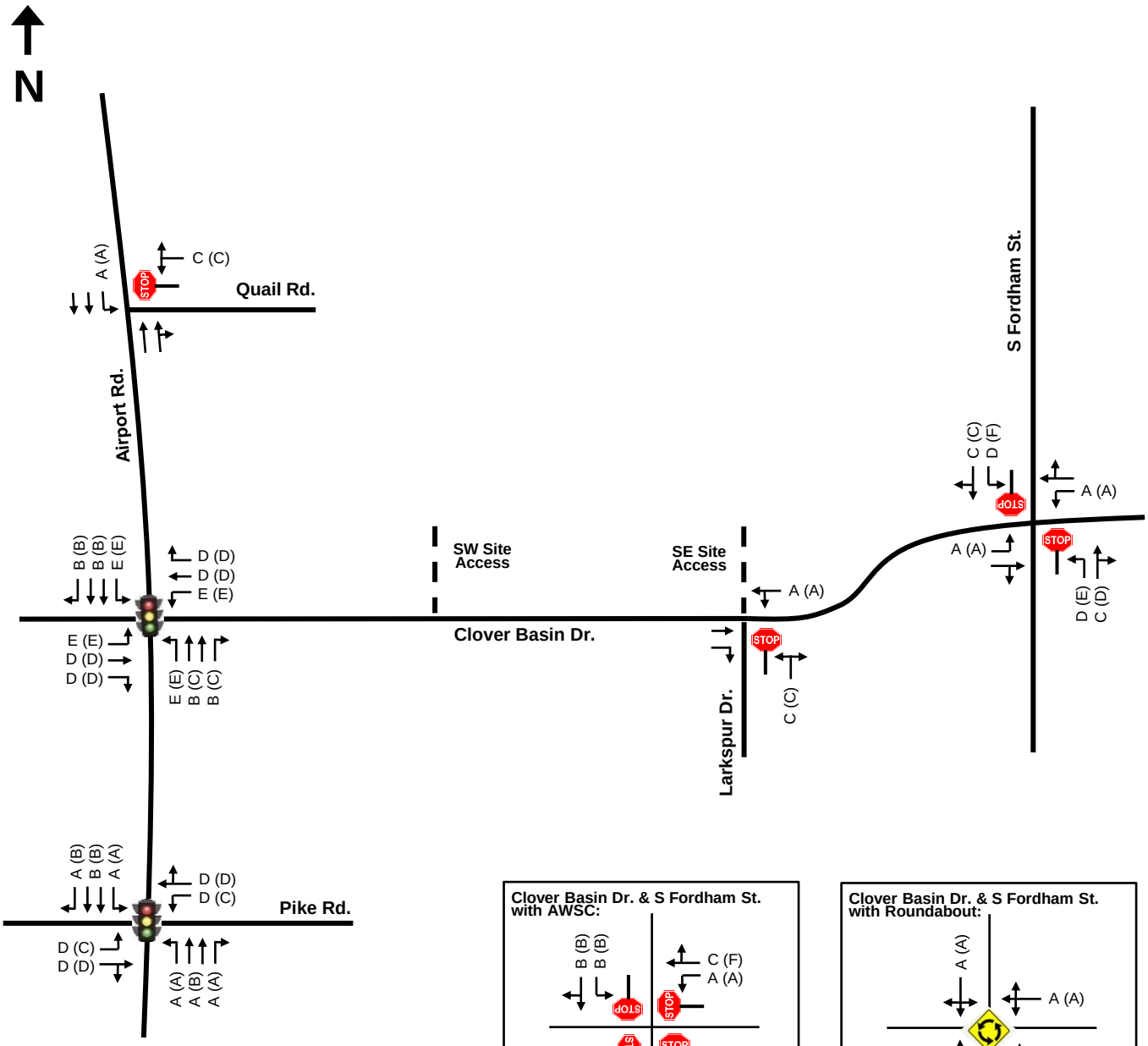
2050 (Long-Term) Analysis Horizon
Total Background Traffic Volumes

8902 Quail Road

Vista Residential Partners

HKS #230835

Figure 10



Proposed Roadway

Legend: Drawing Not To Scale

A (B)	Weekday AM (PM)
B (C)	Peak Hour
D (D)	Level of Service

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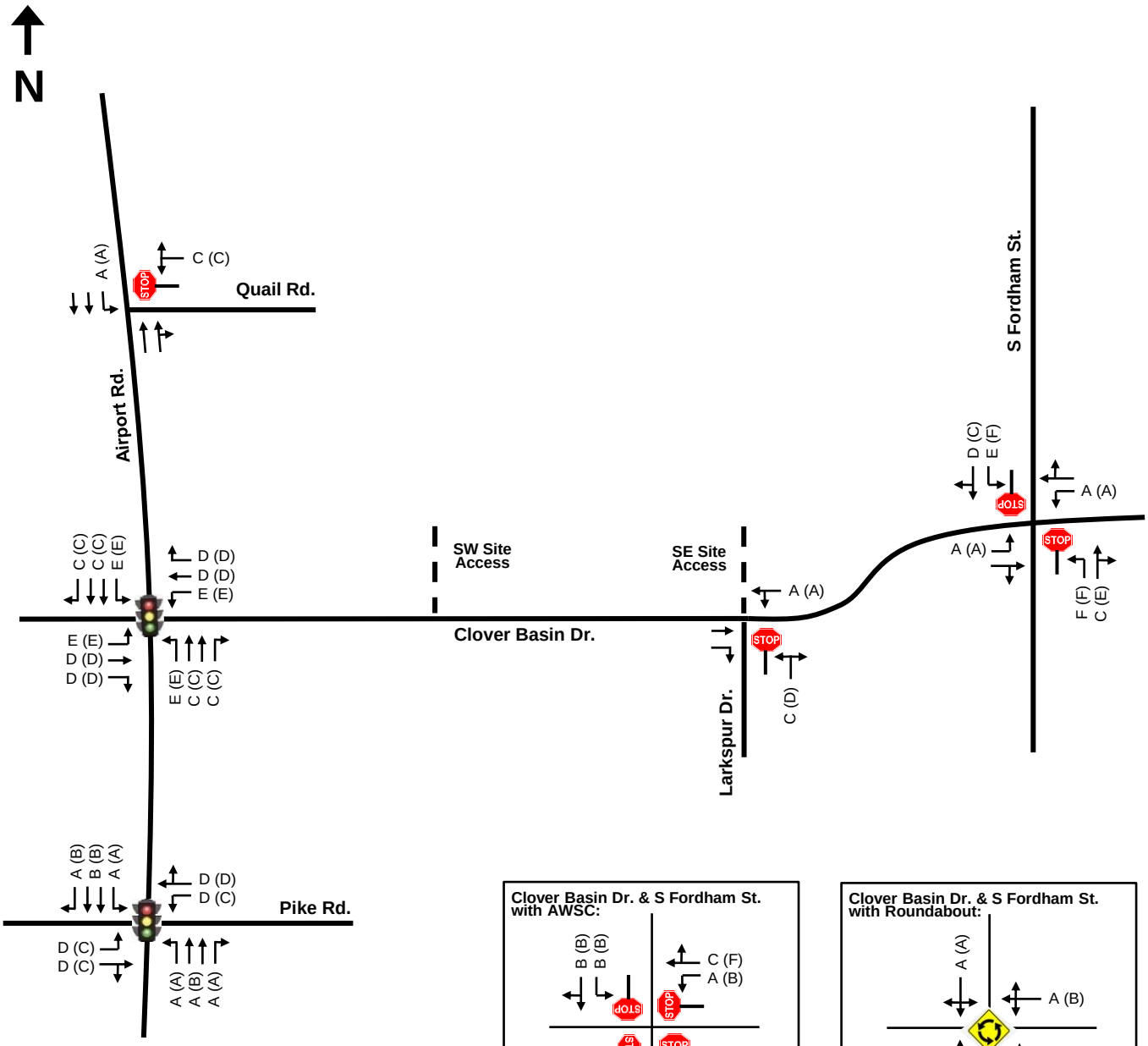
8902 Quail Road

Vista Residential Partners

HKS #230835

2027 (Build-Out) Analysis Horizon
Background Traffic
Operational Conditions

Figure 11



Clover Basin Dr. & S Fordham St. with AWSC:

Clover Basin Dr. & S Fordham St. with Roundabout:

Legend: Drawing Not To Scale

A (B)	Weekday AM (PM)
B (C)	Peak Hour
D (D)	Level of Service

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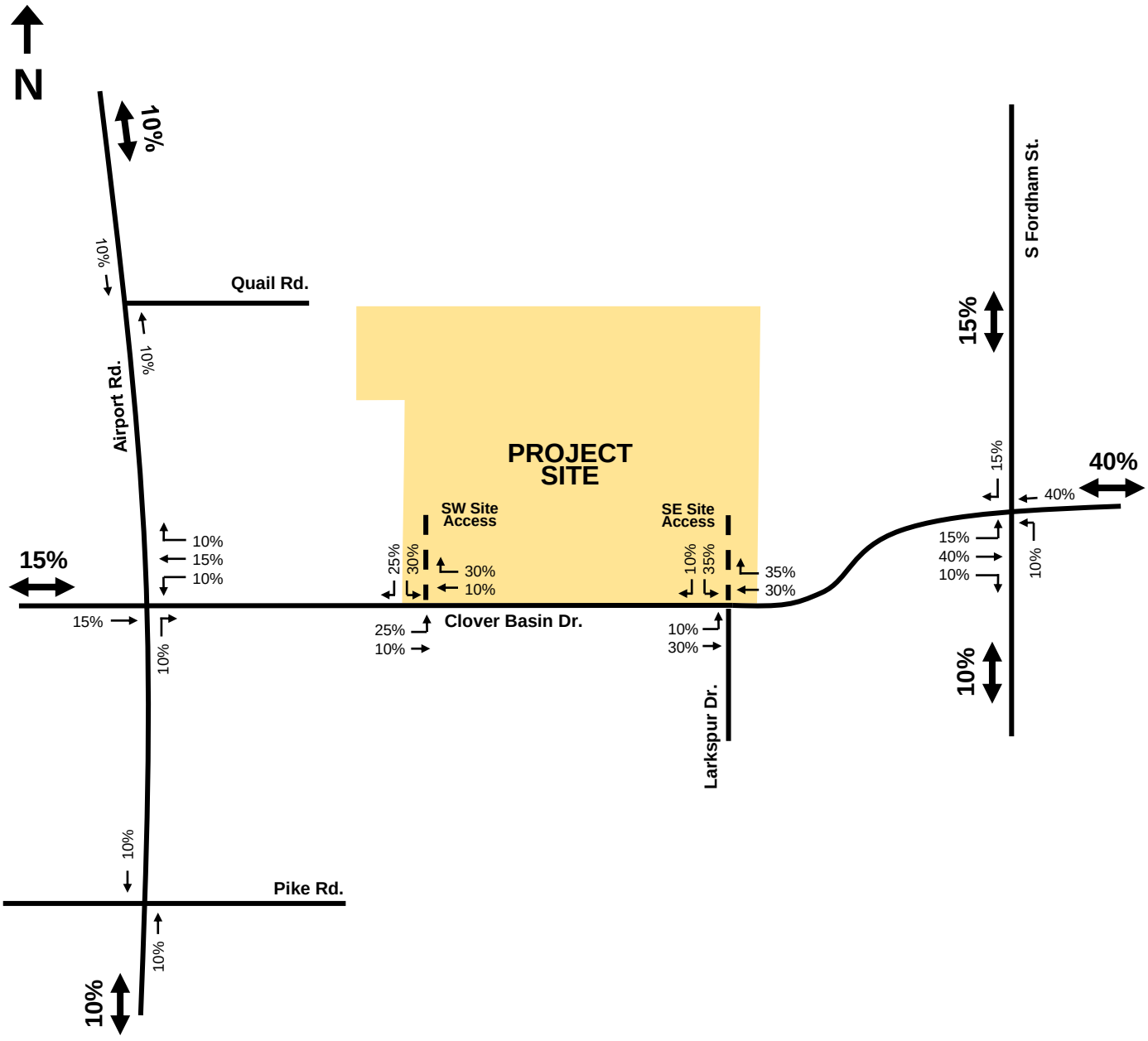
8902 Quail Road

Vista Residential Partners

HKS #230835

2050 (Long-Term) Analysis Horizon
Background Traffic
Operational Conditions

Figure 12



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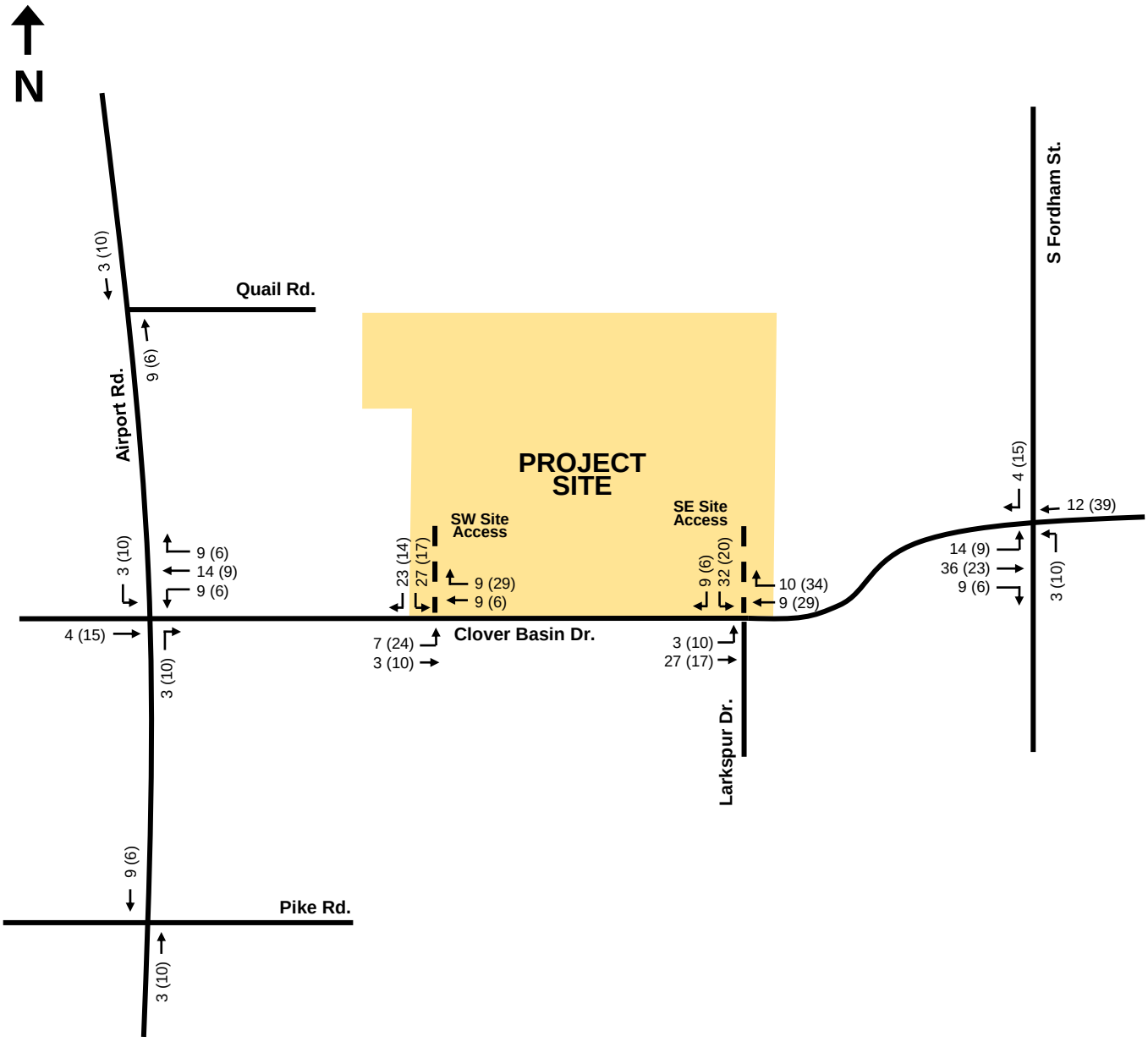
Site Generated Trip Distribution

8902 Quail Road

Vista Residential Partners

HKS #230835

Figure 13



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Site Generated Trip Assignment

8902 Quail Road

Vista Residential Partners

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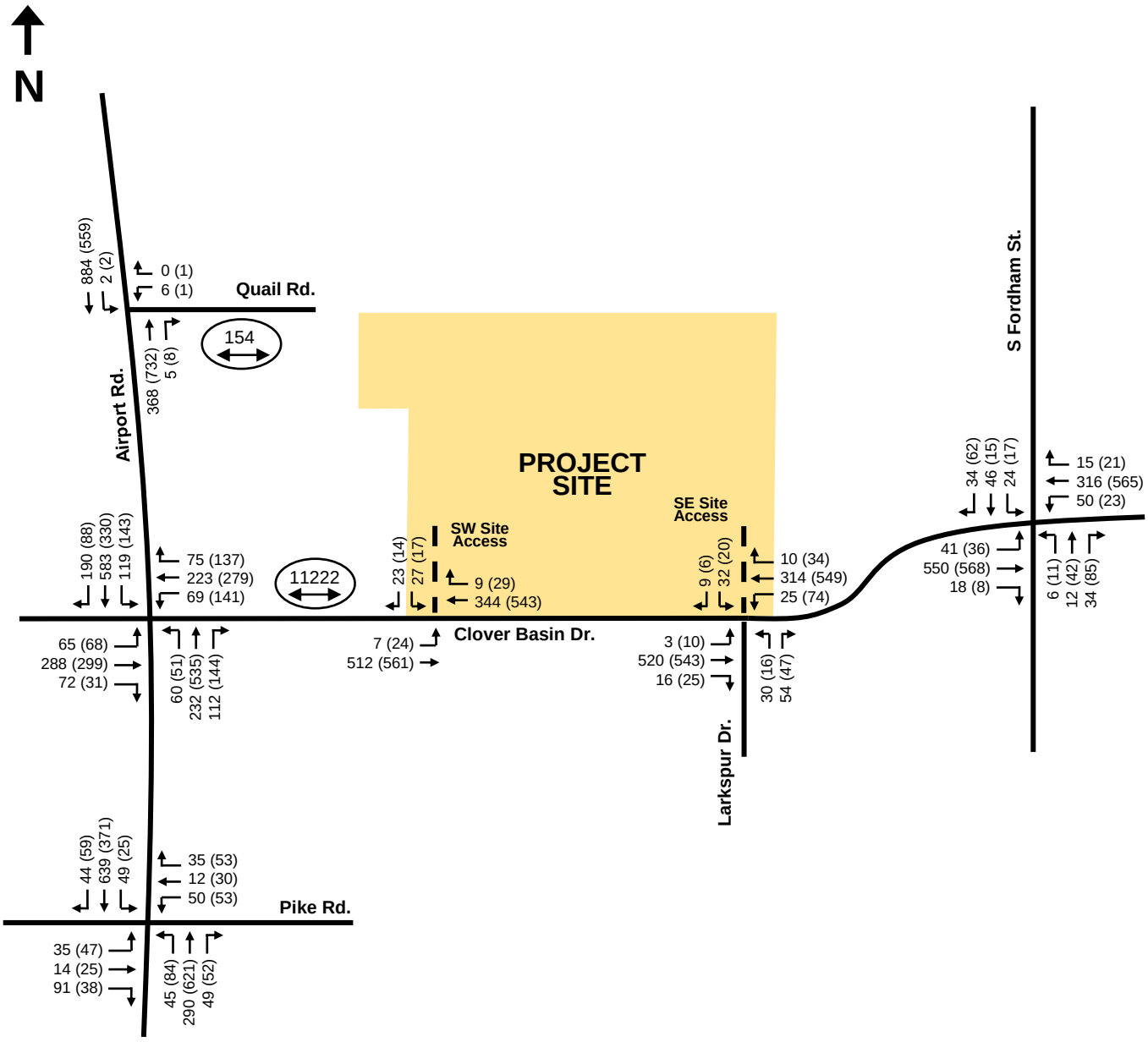
Figure 14



Proposed Roadway

Legend:

Drawing Not To Scale

5 (8)
64 (50)
8 (7)
Weekday AM (PM) Peak Hour Traffic Volumes, vph

3200
Daily Traffic Volumes, vpd

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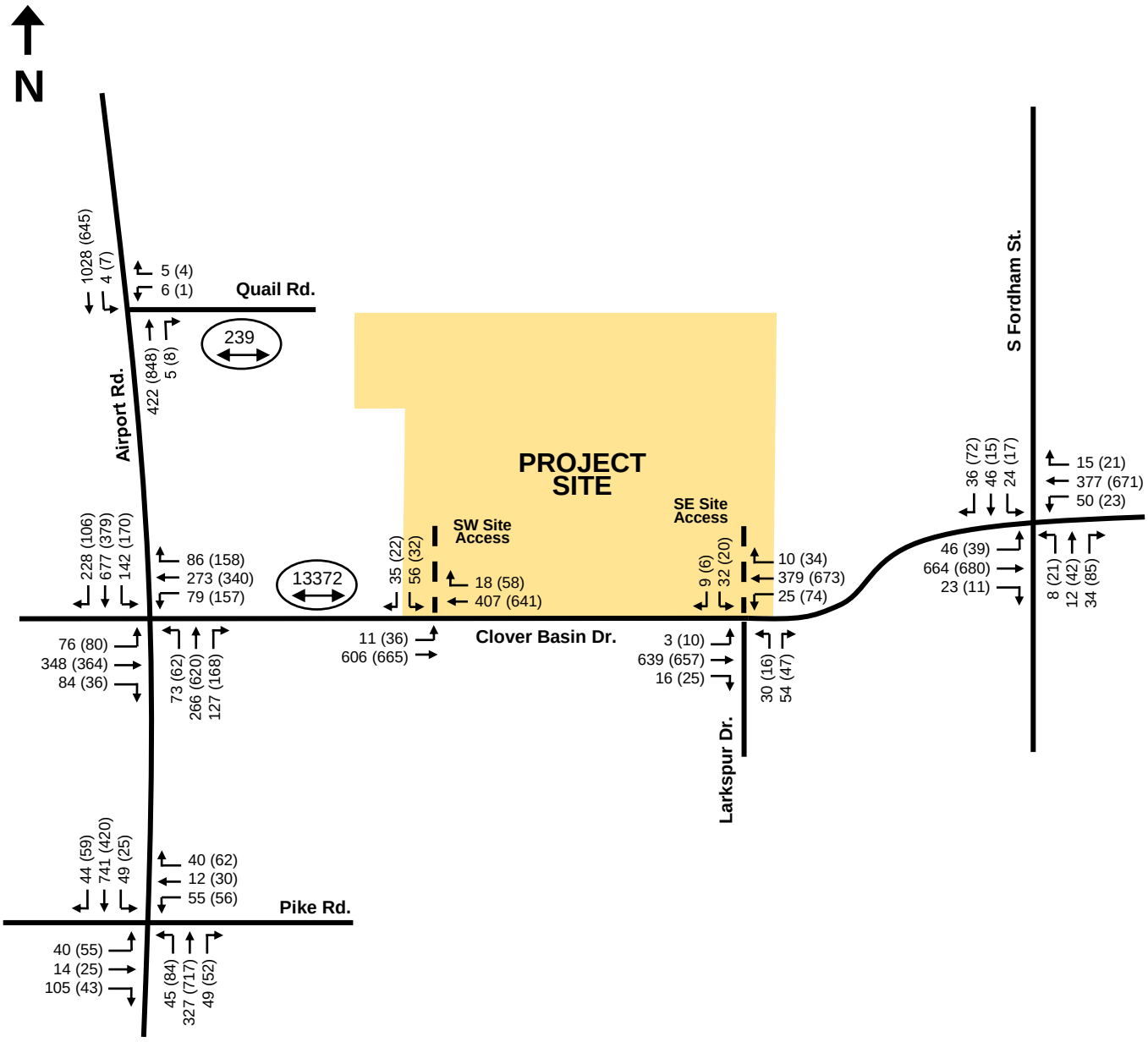
8902 Quail Road

Vista Residential Partners

HKS #230835

2027 (Build-Out) Analysis Horizon
Total Traffic Volumes
(Background + Site Generated)

Figure 15



Proposed Roadway

Legend:

Drawing Not To Scale

5 (8) — Weekday AM (PM) Peak Hour Traffic Volumes, vph

64 (50)

8 (7)

3200 — Daily Traffic Volumes, vpd

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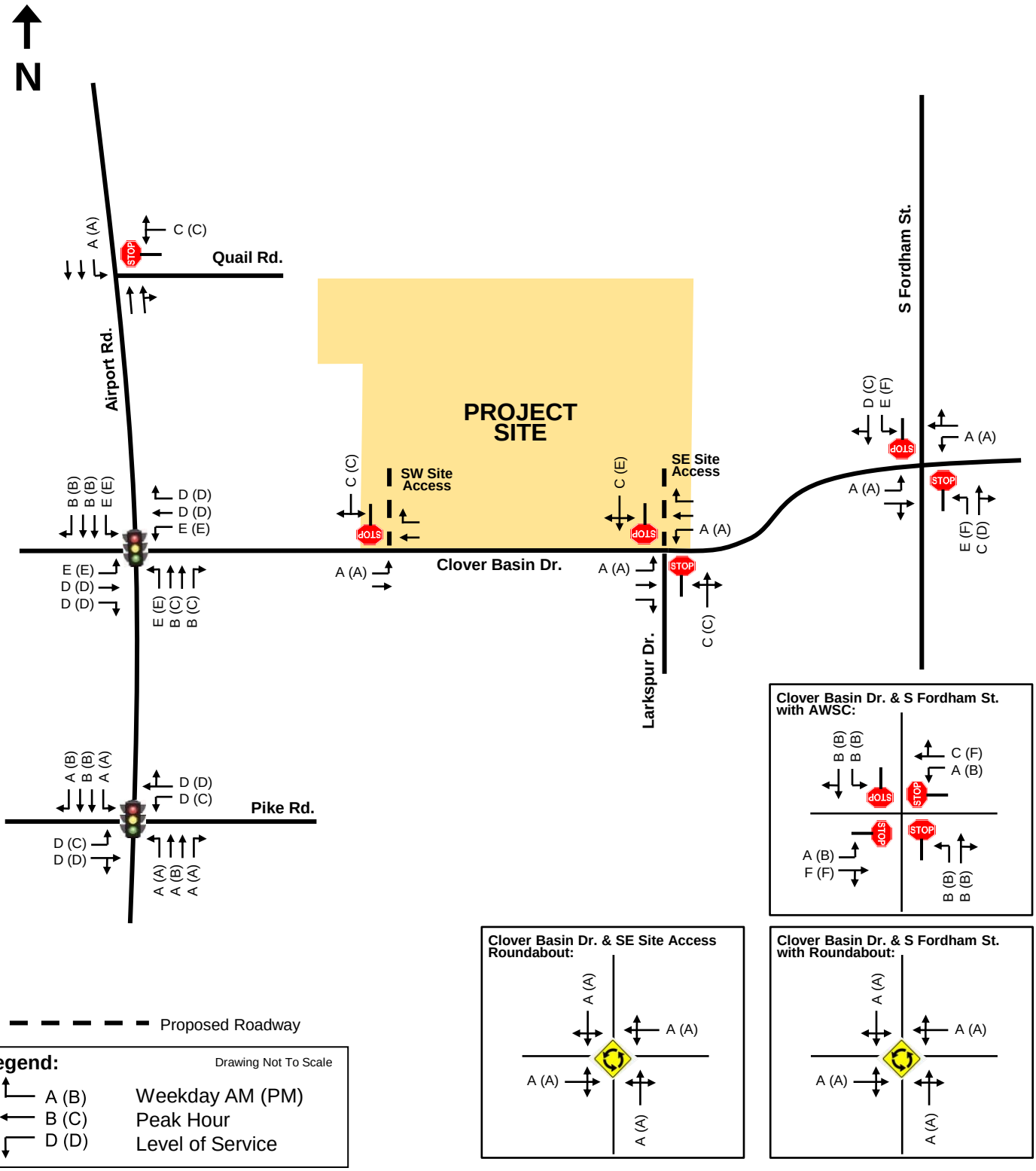
2050 (Long-Term) Analysis Horizon
Total Traffic Volumes
(Background + Site Generated)

8902 Quail Road

Vista Residential Partners

HKS #230835

Figure 16



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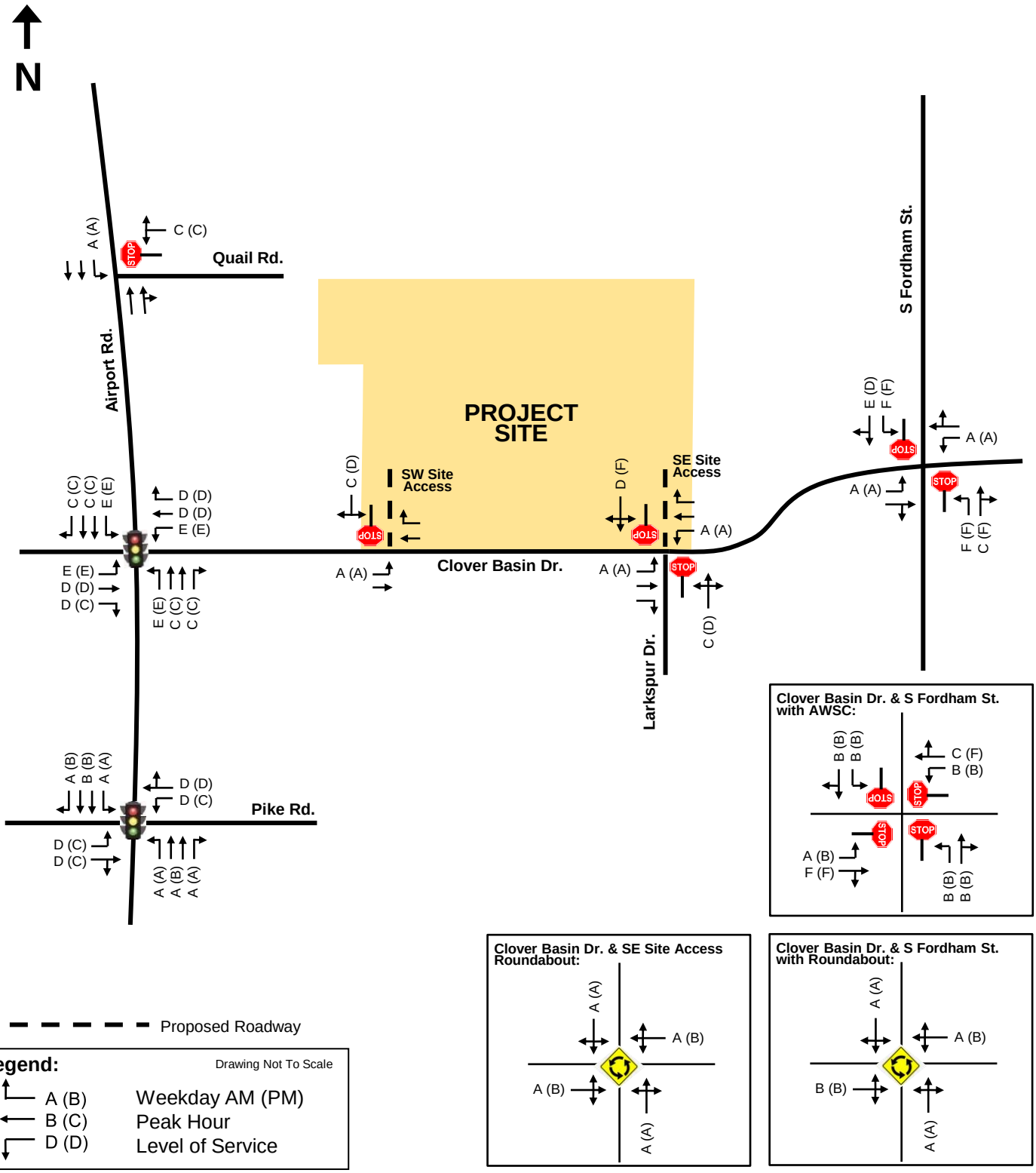
2027 (Build-Out) Analysis Horizon
Total Traffic Operational Conditions

8902 Quail Road

Vista Residential Partners

HKS #230835

Figure 17



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2050 (Long-Term) Analysis Horizon
Total Traffic Operational Conditions

8902 Quail Road

Vista Residential Partners

HKS #230835

Figure 18

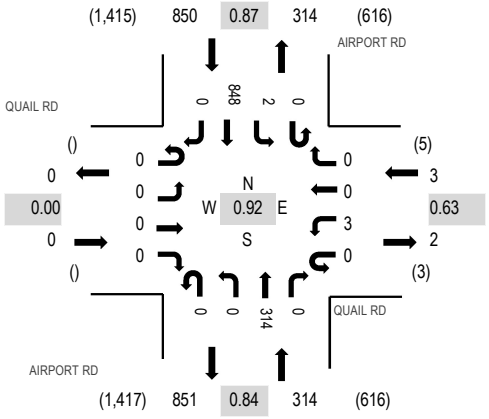
APPENDIX “A”

2024 (EXISTING)
TRAFFIC VOLUME & SPEED COUNTS

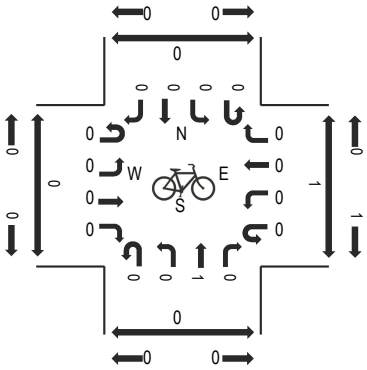
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 AIRPORT RD & QUAIL RD AM
Date: Tuesday, March 12, 2024
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

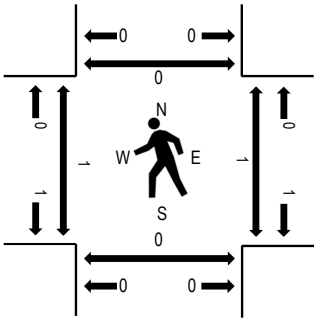
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

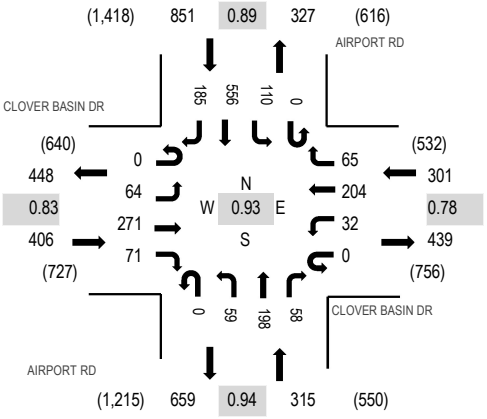
Traffic Counts - Motorized Vehicles

Interval Start Time	QUAIL RD Eastbound				QUAIL RD Westbound				AIRPORT RD Northbound				AIRPORT RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	0	0	0	0	0	49	0	0	0	116	0	165	951	0	1	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	65	0	0	0	156	0	221	1,102	1	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	87	0	0	1	182	0	270	1,167	0	1	0	0
7:45 AM	0	0	0	0	0	2	0	0	0	0	84	0	0	0	209	0	295	1,167	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	72	0	0	0	244	0	316	1,085	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	0	0	0	71	0	0	1	213	0	286		1	0	0	0
8:30 AM	0	0	0	0	0	2	0	0	0	0	99	0	0	1	168	0	270		0	1	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	89	0	0	0	124	0	213		0	0	0	0
Count Total	0	0	0	0	0	5	0	0	0	0	616	0	0	3	1,412	0	2,036		2	3	0	0
Peak Hour	0	0	0	0	0	3	0	0	0	0	314	0	0	2	848	0	1,167		1	1	0	0

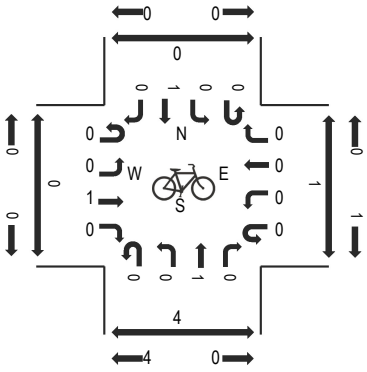
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 AIRPORT RD & CLOVER BASIN DR AM
Date: Tuesday, March 12, 2024
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

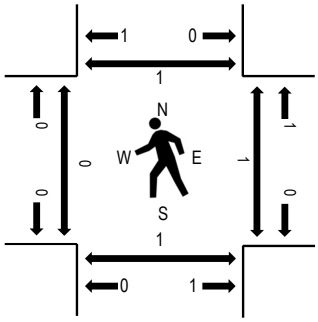
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	CLOVER BASIN DR Eastbound				CLOVER BASIN DR Westbound				AIRPORT RD Northbound				AIRPORT RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	7	41	14	0	4	13	10	0	2	32	11	0	20	92	3	249	1,493	0	1	1	0
7:15 AM	0	16	50	16	0	9	32	13	0	8	38	11	0	15	135	7	350	1,745	1	0	0	2
7:30 AM	0	14	69	21	0	11	47	24	0	18	48	7	0	23	138	11	431	1,862	0	0	0	0
7:45 AM	0	17	80	19	0	10	36	10	0	7	56	11	0	29	151	37	463	1,873	0	0	0	1
8:00 AM	0	9	52	16	0	9	72	20	0	29	44	11	0	30	146	63	501	1,734	0	0	1	0
8:15 AM	0	9	67	14	0	6	55	17	0	19	44	17	0	22	136	61	467		0	0	0	0
8:30 AM	0	29	72	22	0	7	41	18	0	4	54	19	0	29	123	24	442		0	1	0	0
8:45 AM	0	17	45	11	0	6	35	27	0	6	43	11	0	14	99	10	324		0	0	0	0
Count Total	0	118	476	133	0	62	331	139	0	93	359	98	0	182	1,020	216	3,227		1	2	2	3
Peak Hour	0	64	271	71	0	32	204	65	0	59	198	58	0	110	556	185	1,873		0	1	1	1

ALL TRAFFIC DATA SERVICES
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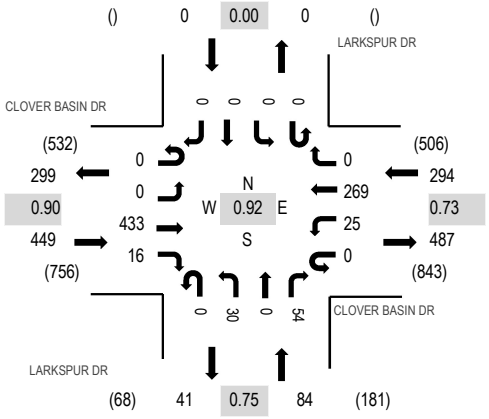
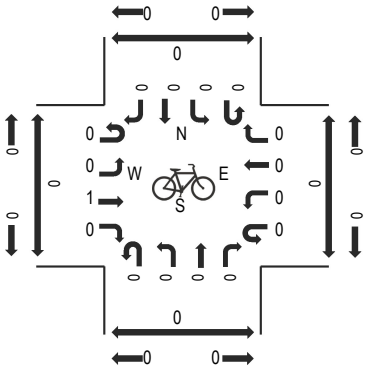
Location: 3 LARKSPUR DR & CLOVER BASIN DR AM
Date: Tuesday, March 12, 2024
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

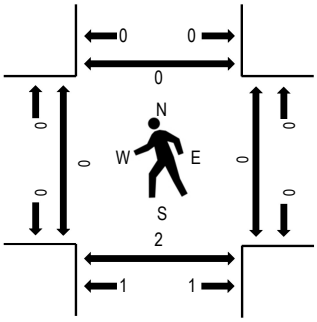
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	CLOVER BASIN DR Eastbound				CLOVER BASIN DR Westbound				LARKSPUR DR Northbound				LARKSPUR DR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	67	3	0	4	32	0	0	2	0	18	0	0	0	0	126	661	0	0	0	0
7:15 AM	0	0	77	1	0	2	34	0	0	15	0	10	0	0	0	0	139	759	1	0	0	1
7:30 AM	0	0	85	4	0	3	69	0	0	18	0	16	0	0	0	0	195	816	0	0	0	0
7:45 AM	0	0	121	4	0	9	46	0	0	5	0	16	0	0	0	0	201	827	0	0	0	0
8:00 AM	0	0	91	6	0	8	97	0	0	14	0	8	0	0	0	0	224	782	0	0	1	0
8:15 AM	0	0	103	4	0	4	65	0	0	7	0	13	0	0	0	0	196		0	0	0	0
8:30 AM	0	0	118	2	0	4	61	0	0	4	0	17	0	0	0	0	206		0	0	1	0
8:45 AM	0	0	67	3	0	7	61	0	0	2	0	16	0	0	0	0	156		0	0	0	0
Count Total	0	0	729	27	0	41	465	0	0	67	0	114	0	0	0	0	1,443		1	0	2	1
Peak Hour	0	0	433	16	0	25	269	0	0	30	0	54	0	0	0	0	827		0	0	2	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
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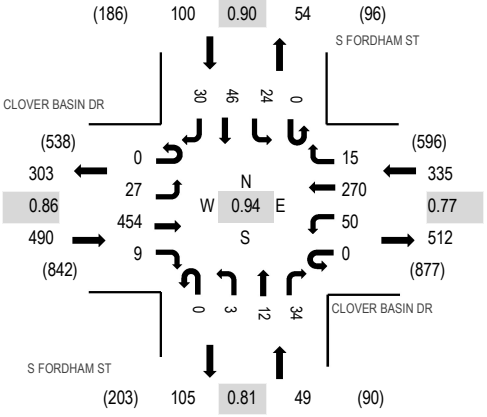
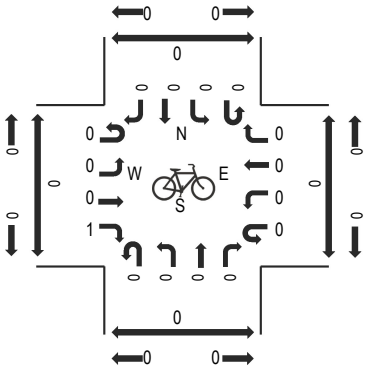
Location: 4 S FORDHAM ST & CLOVER BASIN DR AM
Date: Tuesday, March 12, 2024
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

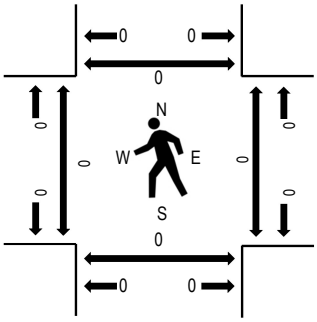
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	CLOVER BASIN DR Eastbound				CLOVER BASIN DR Westbound				S FORDHAM ST Northbound				S FORDHAM ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	1	82	2	0	9	34	0	0	2	5	3	0	3	9	5	155	797	0	0	0	1
7:15 AM	0	1	83	0	0	13	40	4	0	1	3	5	0	4	18	4	176	902	0	0	0	0
7:30 AM	0	8	87	1	0	10	70	2	0	0	8	2	0	8	14	6	216	968	0	0	0	0
7:45 AM	0	11	128	3	0	20	54	2	0	0	4	7	0	6	11	4	250	974	0	0	0	0
8:00 AM	0	5	90	3	0	11	98	6	0	0	3	13	0	10	10	11	260	917	0	0	0	0
8:15 AM	0	3	112	2	0	16	59	4	0	3	3	9	0	4	17	10	242		0	0	0	0
8:30 AM	0	8	124	1	0	3	59	3	0	0	2	5	0	4	8	5	222		0	0	0	0
8:45 AM	0	6	79	2	0	12	67	0	0	1	4	7	0	2	8	5	193		0	0	0	0
Count Total	0	43	785	14	0	94	481	21	0	7	32	51	0	41	95	50	1,714		0	0	0	1
Peak Hour	0	27	454	9	0	50	270	15	0	3	12	34	0	24	46	30	974		0	0	0	0

ALL TRAFFIC DATA SERVICES
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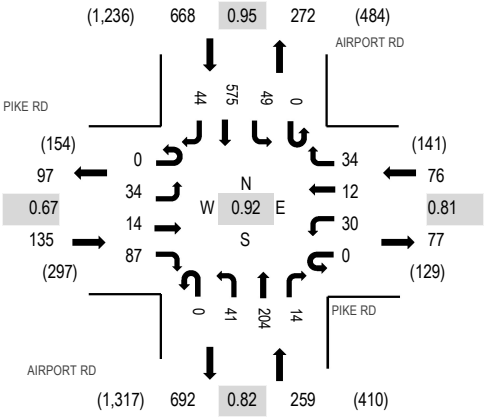
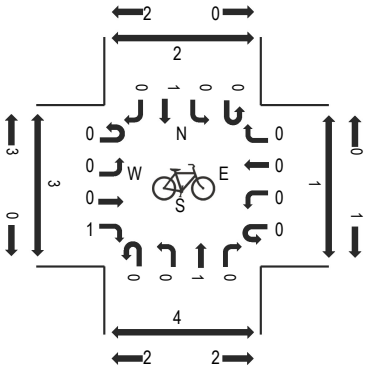
Location: 5 AIRPORT RD & PIKE RD AM
Date: Tuesday, March 12, 2024
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

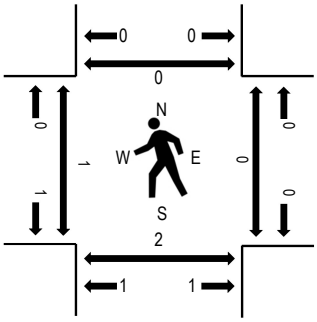
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	PIKE RD Eastbound				PIKE RD Westbound				AIRPORT RD Northbound				AIRPORT RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	7	0	23	0	4	2	3	0	2	28	1	0	6	107	2	185	1,039	0	0	0	1
7:15 AM	0	8	4	21	0	7	1	10	0	2	28	1	0	7	150	10	249	1,137	0	0	0	1
7:30 AM	0	8	2	29	0	3	4	9	0	8	50	7	0	11	155	10	296	1,138	0	0	0	0
7:45 AM	0	8	3	19	0	11	3	6	0	24	53	2	0	10	147	23	309	1,129	0	0	2	0
8:00 AM	0	10	6	21	0	8	2	9	0	4	57	2	0	16	141	7	283	1,045	0	0	0	0
8:15 AM	0	8	3	18	0	8	3	10	0	5	44	3	0	12	132	4	250		1	0	0	0
8:30 AM	0	30	8	24	0	5	3	6	0	6	36	3	0	12	146	8	287		0	0	1	0
8:45 AM	0	14	7	16	0	12	6	6	0	8	36	0	0	3	110	7	225		1	1	1	0
Count Total	0	93	33	171	0	58	24	59	0	59	332	19	0	77	1,088	71	2,084		2	1	4	2
Peak Hour	0	34	14	87	0	30	12	34	0	41	204	14	0	49	575	44	1,138		1	0	2	0

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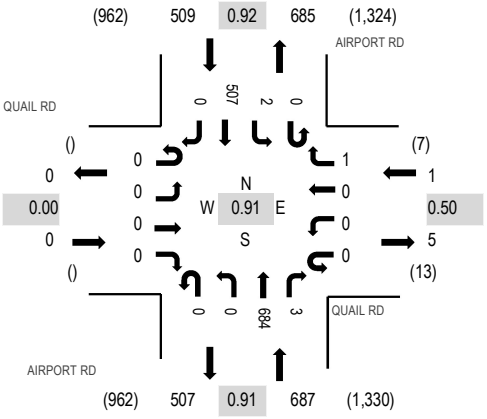
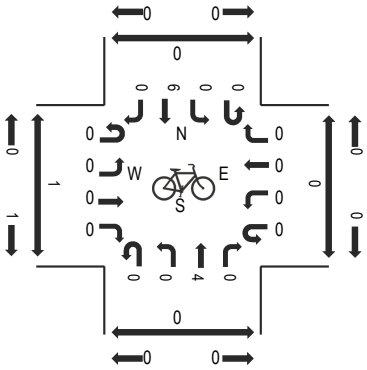
Location: 1 AIRPORT RD & QUAIL RD PM
Date: Tuesday, March 12, 2024
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

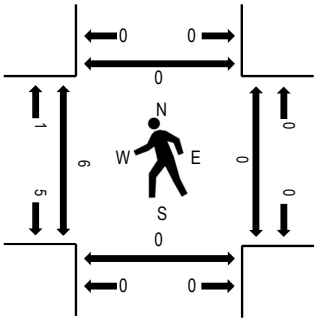
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	QUAIL RD Eastbound				QUAIL RD Westbound				AIRPORT RD Northbound				AIRPORT RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	0	0	0	1	0	1	0	0	177	2	0	1	118	0	300	1,163	0	0	0	0
4:15 PM	0	0	0	0	0	2	0	1	0	0	155	4	0	1	108	0	271	1,192	3	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	173	0	0	1	128	0	302	1,197	2	0	0	0
4:45 PM	0	0	0	0	0	0	0	1	0	0	164	2	0	0	123	0	290	1,156	3	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	189	1	0	1	138	0	329	1,136	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	158	0	0	0	118	0	276		1	0	0	0
5:30 PM	0	0	0	0	0	1	0	0	0	0	154	0	0	0	106	0	261		1	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	151	0	0	0	119	0	270		0	1	0	0
Count Total	0	0	0	0	0	4	0	3	0	0	1,321	9	0	4	958	0	2,299		10	1	0	0
Peak Hour	0	0	0	0	0	0	0	1	0	0	684	3	0	2	507	0	1,197		6	0	0	0

ALL TRAFFIC DATA SERVICES
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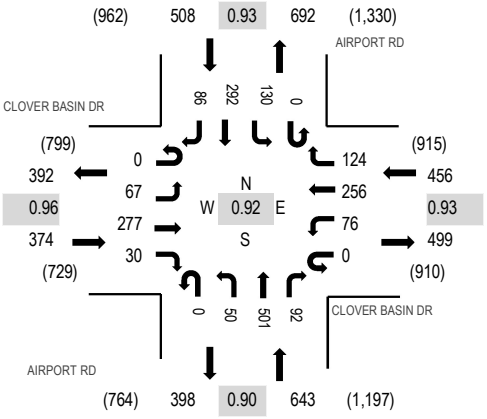
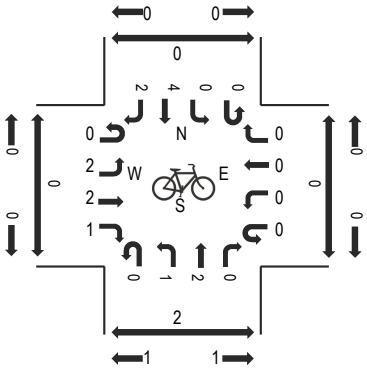
Location: 2 AIRPORT RD & CLOVER BASIN DR PM
Date: Tuesday, March 12, 2024
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

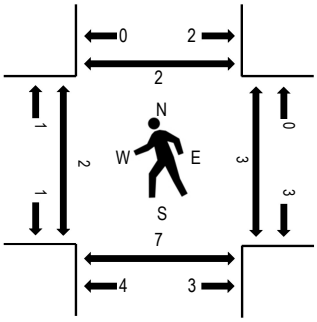
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	CLOVER BASIN DR Eastbound				CLOVER BASIN DR Westbound				AIRPORT RD Northbound				AIRPORT RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	19	51	12	0	13	77	38	0	7	123	15	0	29	63	28	475	1,877	1	3	2	3
4:15 PM	0	17	59	9	0	20	62	29	0	7	113	21	0	26	61	21	445	1,943	1	0	1	0
4:30 PM	0	20	67	3	0	15	55	27	0	9	126	17	0	31	77	21	468	1,981	1	0	3	1
4:45 PM	0	17	64	6	0	20	58	34	0	14	116	38	0	25	69	28	489	1,963	1	3	3	1
5:00 PM	0	10	81	9	0	19	71	37	0	16	143	19	0	37	80	19	541	1,926	0	0	0	0
5:15 PM	0	20	65	12	0	22	72	26	0	11	116	18	0	37	66	18	483		0	0	1	0
5:30 PM	0	17	70	13	0	13	73	27	0	10	105	18	0	19	65	20	450		0	0	0	0
5:45 PM	0	21	60	7	0	16	66	25	0	9	104	22	0	21	74	27	452		0	0	0	0
Count Total	0	141	517	71	0	138	534	243	0	83	946	168	0	225	555	182	3,803		4	6	10	5
Peak Hour	0	67	277	30	0	76	256	124	0	50	501	92	0	130	292	86	1,981		2	3	7	2

ALL TRAFFIC DATA SERVICES
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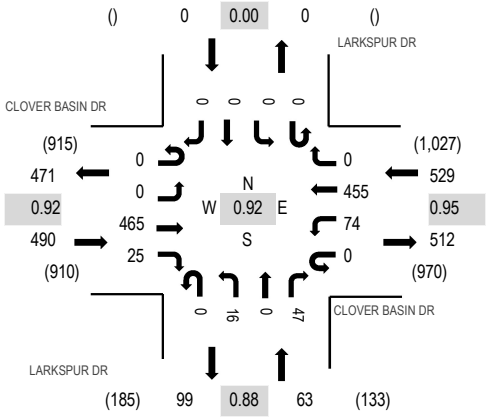
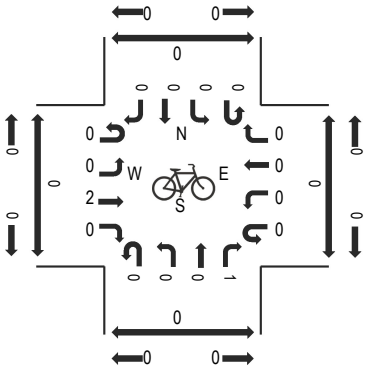
Location: 3 LARKSPUR DR & CLOVER BASIN DR PM
Date: Tuesday, March 12, 2024
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

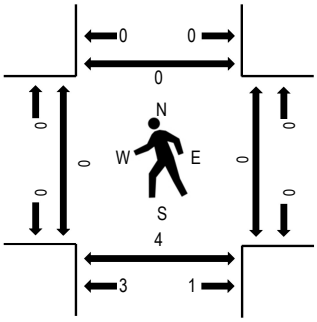
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	CLOVER BASIN DR Eastbound				CLOVER BASIN DR Westbound				LARKSPUR DR Northbound				LARKSPUR DR Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	89	4	0	16	119	0	0	5	0	10	0	0	0	0	243	1,011	0	0	2	0
4:15 PM	0	0	94	9	0	18	114	0	0	3	0	12	0	0	0	0	250	1,062	0	0	2	0
4:30 PM	0	0	116	3	0	15	94	0	0	4	0	16	0	0	0	0	248	1,081	0	0	0	0
4:45 PM	0	0	121	6	0	19	111	0	0	3	0	10	0	0	0	0	270	1,082	0	0	1	0
5:00 PM	0	0	126	9	0	17	122	0	0	4	0	16	0	0	0	0	294	1,059	0	0	1	0
5:15 PM	0	0	110	8	0	23	112	0	0	5	0	11	0	0	0	0	269		0	0	2	0
5:30 PM	0	0	108	2	0	15	110	0	0	4	0	10	0	0	0	0	249		0	0	0	0
5:45 PM	0	0	103	2	0	19	103	0	0	2	0	18	0	0	0	0	247		0	0	0	0
Count Total	0	0	867	43	0	142	885	0	0	30	0	103	0	0	0	0	2,070		0	0	8	0
Peak Hour	0	0	465	25	0	74	455	0	0	16	0	47	0	0	0	0	1,082		0	0	4	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
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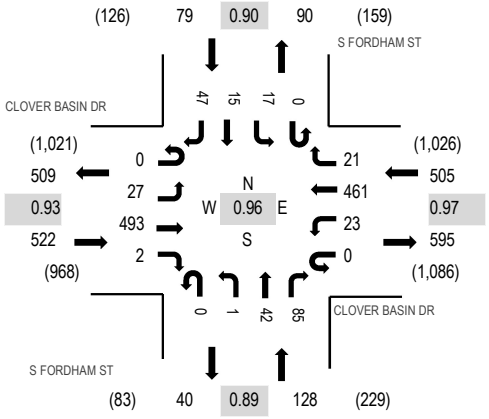
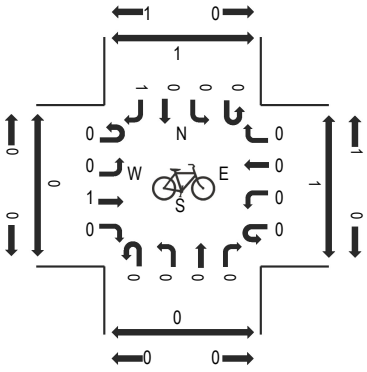
Location: 4 S FORDHAM ST & CLOVER BASIN DR PM
Date: Tuesday, March 12, 2024
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

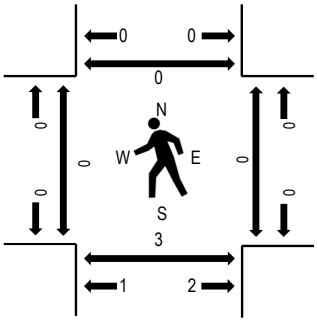
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

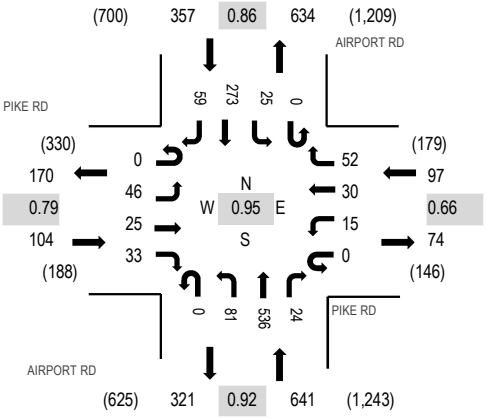
Traffic Counts - Motorized Vehicles

Interval Start Time	CLOVER BASIN DR Eastbound				CLOVER BASIN DR Westbound				S FORDHAM ST Northbound				S FORDHAM ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	4	104	1	0	8	119	3	0	2	11	25	0	3	3	10	293	1,171	0	0	2	0
4:15 PM	0	7	100	0	0	7	119	4	0	2	5	22	0	1	2	7	276	1,200	0	0	1	0
4:30 PM	0	8	124	1	0	7	99	2	0	0	8	24	0	6	6	10	295	1,234	0	0	1	0
4:45 PM	0	6	122	1	0	5	120	7	0	1	9	16	0	6	3	11	307	1,204	0	0	0	0
5:00 PM	0	7	133	0	0	5	119	4	0	0	12	24	0	1	2	15	322	1,178	0	0	2	0
5:15 PM	0	6	114	0	0	6	123	8	0	0	13	21	0	4	4	11	310		0	0	0	0
5:30 PM	0	9	98	0	0	8	121	5	0	0	4	12	0	1	2	5	265		0	0	0	1
5:45 PM	0	7	114	2	0	6	117	4	0	1	6	11	0	0	4	9	281		0	0	0	0
Count Total	0	54	909	5	0	52	937	37	0	6	68	155	0	22	26	78	2,349		0	0	6	1
Peak Hour	0	27	493	2	0	23	461	21	0	1	42	85	0	17	15	47	1,234		0	0	3	0

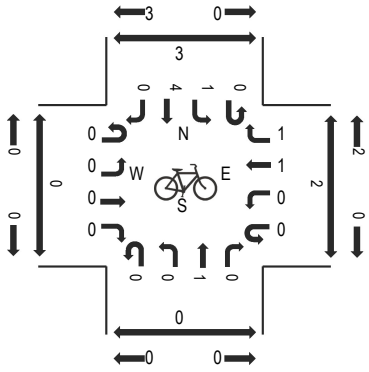
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 5 AIRPORT RD & PIKE RD PM
Date: Tuesday, March 12, 2024
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

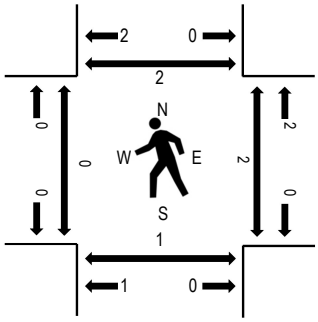
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	PIKE RD Eastbound				PIKE RD Westbound				AIRPORT RD Northbound				AIRPORT RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	17	2	6	0	3	8	8	0	10	114	13	0	5	77	11	274	1,136	0	1	0	0
4:15 PM	0	10	3	5	0	6	5	9	0	16	123	10	0	3	59	20	269	1,154	0	0	0	2
4:30 PM	0	8	2	8	0	2	9	4	0	22	147	6	0	7	73	9	297	1,199	0	0	1	0
4:45 PM	0	15	9	7	0	4	4	9	0	18	142	7	0	4	64	13	296	1,192	0	0	0	1
5:00 PM	0	8	6	7	0	4	10	27	0	15	128	4	0	8	58	17	292	1,174	0	2	0	1
5:15 PM	0	15	8	11	0	5	7	12	0	26	119	7	0	6	78	20	314		0	0	0	0
5:30 PM	0	12	1	9	0	5	6	7	0	18	140	7	0	11	63	11	290		0	0	0	2
5:45 PM	0	9	2	8	0	7	11	7	0	22	119	10	0	5	56	22	278		0	1	0	0
Count Total	0	94	33	61	0	36	60	83	0	147	1,032	64	0	49	528	123	2,310		0	4	1	6
Peak Hour	0	46	25	33	0	15	30	52	0	81	536	24	0	25	273	59	1,199		0	2	1	2

All Traffic Data Services

9660 W 44th Ave
Wheat Ridge, CO 80033

Site Code: 8
Station ID: 8
CLOVER BASIN DR W.O. LARKSPUR DR

Start Time	12-Mar-24 Tue	EB	WB							Total
12:00 AM		6	11							17
01:00		6	5							11
02:00		2	3							5
03:00		5	1							6
04:00		26	7							33
05:00		76	24							100
06:00		110	81							191
07:00		364	216							580
08:00		**387**	**316**							**703**
09:00		267	195							462
10:00		228	199							427
11:00		314	275							589
12:00 PM		312	323							635
01:00		277	300							577
02:00		296	320							616
03:00		**474**	451							**925**
04:00		437	444							881
05:00		453	**464**							917
06:00		267	393							660
07:00		186	270							456
08:00		102	219							321
09:00		69	100							169
10:00		34	66							100
11:00		12	26							38
Total		4710	4709							9419
Percent		50.0%	50.0%							
AM Peak	-	08:00	08:00	-	-	-	-	-	-	08:00
Vol.	-	387	316	-	-	-	-	-	-	703
PM Peak	-	15:00	17:00	-	-	-	-	-	-	15:00
Vol.	-	474	464	-	-	-	-	-	-	925

All Traffic Data Services

9660 W 44th Ave
Wheat Ridge, CO 80033

Site Code: 8
Station ID: 8
CLOVER BASIN DR W.O. LARKSPUR DR

Start Time	13-Mar-24 Wed	EB	WB							Total
12:00 AM		6	16							22
01:00		4	4							8
02:00		1	3							4
03:00		8	3							11
04:00		31	9							40
05:00		72	20							92
06:00		124	84							208
07:00		344	209							553
08:00		**431**	**295**							**726**
09:00		282	244							526
10:00		251	234							485
11:00		309	264							573
12:00 PM		317	335							652
01:00		341	311							652
02:00		267	344							611
03:00		**451**	424							**875**
04:00		375	375							750
05:00		391	**440**							831
06:00		252	318							570
07:00		174	265							439
08:00		83	189							272
09:00		55	103							158
10:00		24	41							65
11:00		7	19							26
Total		4600	4549							9149
Percent		50.3%	49.7%							
AM Peak	-	08:00	08:00	-	-	-	-	-	-	08:00
Vol.	-	431	295	-	-	-	-	-	-	726
PM Peak	-	15:00	17:00	-	-	-	-	-	-	15:00
Vol.	-	451	440	-	-	-	-	-	-	875
Grand Total		9310	9258							18568
Percent		50.1%	49.9%							
ADT		ADT 38		AADT 38						

All Traffic Data Services

9660 W 44th Ave
Wheat Ridge, CO 80033

Site Code: 9
Station ID: 9
CLOVER BASIN DR W.O. S FORDHAM ST

Start Time	12-Mar-24 Tue	EB	WB							Total
12:00 AM		5	12							17
01:00		5	7							12
02:00		3	3							6
03:00		5	2							7
04:00		31	7							38
05:00		86	25							111
06:00		139	93							232
07:00		407	220							627
08:00		**435**	**318**							**753**
09:00		314	218							532
10:00		258	221							479
11:00		341	306							647
12:00 PM		351	366							717
01:00		307	339							646
02:00		304	353							657
03:00		**501**	496							997
04:00		478	500							978
05:00		490	**521**							**1011**
06:00		314	437							751
07:00		206	308							514
08:00		116	265							381
09:00		69	129							198
10:00		42	75							117
11:00		13	26							39
Total		5220	5247							10467
Percent		49.9%	50.1%							
AM Peak	-	08:00	08:00	-	-	-	-	-	-	08:00
Vol.	-	435	318	-	-	-	-	-	-	753
PM Peak	-	15:00	17:00	-	-	-	-	-	-	17:00
Vol.	-	501	521	-	-	-	-	-	-	1011

All Traffic Data Services

9660 W 44th Ave
Wheat Ridge, CO 80033

Site Code: 9
Station ID: 9
CLOVER BASIN DR W.O. S FORDHAM ST

Start Time	13-Mar-24 Wed	EB	WB							Total
12:00 AM		6	16							22
01:00		3	7							10
02:00		1	3							4
03:00		9	3							12
04:00		34	10							44
05:00		84	21							105
06:00		150	107							257
07:00		371	219							590
08:00		**449**	313							**762**
09:00		343	273							616
10:00		287	273							560
11:00		357	**314**							671
12:00 PM		350	386							736
01:00		339	343							682
02:00		313	350							663
03:00		**471**	457							**928**
04:00		418	436							854
05:00		410	**515**							925
06:00		288	391							679
07:00		204	308							512
08:00		103	223							326
09:00		62	123							185
10:00		28	48							76
11:00		8	18							26
Total		5088	5157							10245
Percent		49.7%	50.3%							
AM Peak	-	08:00	11:00	-	-	-	-	-	-	08:00
Vol.	-	449	314	-	-	-	-	-	-	762
PM Peak	-	15:00	17:00	-	-	-	-	-	-	15:00
Vol.	-	471	515	-	-	-	-	-	-	928
Grand Total		10308	10404							20712
Percent		49.8%	50.2%							
ADT		ADT 10,356		AADT 10,356						

All Traffic Data Services

9660 W 44th Ave
Wheat Ridge, CO 80033

Site Code: 10
Station ID: 10
S FORDHAM ST N O. CLOVER BASIN DR

Start Time	12-Mar-24 Tue	NB	SB							Total
12:00 AM		3	2							5
01:00		0	3							3
02:00		0	0							0
03:00		1	0							1
04:00		2	3							5
05:00		4	11							15
06:00		20	33							53
07:00		49	92							**141**
08:00		47	**94**							141
09:00		46	54							100
10:00		45	50							95
11:00		**54**	63							117
12:00 PM		63	58							121
01:00		54	65							119
02:00		50	56							106
03:00		69	66							135
04:00		74	**68**							142
05:00		**85**	58							**143**
06:00		61	64							125
07:00		44	29							73
08:00		28	27							55
09:00		19	12							31
10:00		11	7							18
11:00		1	3							4
Total		830	918							1748
Percent		47.5%	52.5%							
AM Peak	-	11:00	08:00	-	-	-	-	-	-	07:00
Vol.	-	54	94	-	-	-	-	-	-	141
PM Peak	-	17:00	16:00	-	-	-	-	-	-	17:00
Vol.	-	85	68	-	-	-	-	-	-	143

All Traffic Data Services

9660 W 44th Ave
Wheat Ridge, CO 80033

Site Code: 10
Station ID: 10
S FORDHAM ST N O. CLOVER BASIN DR

Start Time	13-Mar-24 Wed	NB	SB							Total
12:00 AM		0	0							0
01:00		0	1							1
02:00		0	2							2
03:00		0	1							1
04:00		4	3							7
05:00		7	11							18
06:00		19	41							60
07:00		39	**95**							134
08:00		50	94							**144**
09:00		45	49							94
10:00		**54**	61							115
11:00		53	63							116
12:00 PM		71	69							140
01:00		46	69							115
02:00		47	66							113
03:00		**77**	58							135
04:00		67	56							123
05:00		71	**76**							**147**
06:00		75	56							131
07:00		33	39							72
08:00		25	19							44
09:00		21	10							31
10:00		6	7							13
11:00		2	2							4
Total		812	948							1760
Percent		46.1%	53.9%							
AM Peak	-	10:00	07:00	-	-	-	-	-	-	08:00
Vol.	-	54	95	-	-	-	-	-	-	144
PM Peak	-	15:00	17:00	-	-	-	-	-	-	17:00
Vol.	-	77	76	-	-	-	-	-	-	147
Grand Total		1642	1866							3508
Percent		46.8%	53.2%							
ADT		ADT 1,754		AADT 1,754						

All Traffic Data Services

9660 W 44th Ave
Wheat Ridge, CO 80033

Site Code: 11
Station ID: 11
CLOVER BASIN DR E.O. S FORDHAM ST

Start Time	12-Mar-24 Tue	EB	WB							Total
12:00 AM		5	13							18
01:00		6	7							13
02:00		5	2							7
03:00		4	2							6
04:00		33	12							45
05:00		86	42							128
06:00		146	136							282
07:00		418	258							676
08:00		**459**	**338**							**797**
09:00		326	231							557
10:00		279	244							523
11:00		405	329							734
12:00 PM		422	414							836
01:00		354	370							724
02:00		372	369							741
03:00		**571**	502							**1073**
04:00		553	500							1053
05:00		533	**526**							1059
06:00		351	445							796
07:00		220	318							538
08:00		119	261							380
09:00		68	131							199
10:00		38	75							113
11:00		16	26							42
Total		5789	5551							11340
Percent		51.0%	49.0%							
AM Peak	-	08:00	08:00	-	-	-	-	-	-	08:00
Vol.	-	459	338	-	-	-	-	-	-	797
PM Peak	-	15:00	17:00	-	-	-	-	-	-	15:00
Vol.	-	571	526	-	-	-	-	-	-	1073

All Traffic Data Services

9660 W 44th Ave
Wheat Ridge, CO 80033

Site Code: 11
Station ID: 11
CLOVER BASIN DR E.O. S FORDHAM ST

Start Time	13-Mar-24 Wed	EB	WB							Total
12:00 AM		6	16							22
01:00		3	6							9
02:00		2	2							4
03:00		10	3							13
04:00		33	17							50
05:00		85	43							128
06:00		156	135							291
07:00		400	254							654
08:00		**480**	342							**822**
09:00		360	293							653
10:00		304	296							600
11:00		434	**351**							785
12:00 PM		414	433							847
01:00		361	363							724
02:00		366	359							725
03:00		**529**	456							985
04:00		482	450							932
05:00		473	**514**							**987**
06:00		319	397							716
07:00		231	318							549
08:00		109	234							343
09:00		61	127							188
10:00		31	50							81
11:00		10	19							29
Total		5659	5478							11137
Percent		50.8%	49.2%							
AM Peak	-	08:00	11:00	-	-	-	-	-	-	08:00
Vol.	-	480	351	-	-	-	-	-	-	822
PM Peak	-	15:00	17:00	-	-	-	-	-	-	17:00
Vol.	-	529	514	-	-	-	-	-	-	987
Grand Total		11448	11029							22477
Percent		50.9%	49.1%							
ADT		ADT 11,238		AADT 11,238						

All Traffic Data Services

9660 W 44th Ave
Wheat Ridge, CO 80033

Site Code: 12
Station ID: 12
S FORDHAM ST S O. CLOVER BASIN DR

Start Time	12-Mar-24 Tue	NB	SB							Total
12:00 AM		2	2							4
01:00		0	2							2
02:00		3	0							3
03:00		0	0							0
04:00		1	5							6
05:00		3	27							30
06:00		19	68							87
07:00		40	**110**							150
08:00		50	93							143
09:00		47	56							103
10:00		51	58							109
11:00		**102**	70							**172**
12:00 PM		108	**80**							**188**
01:00		77	72							149
02:00		107	61							168
03:00		**126**	59							185
04:00		125	44							169
05:00		104	39							143
06:00		78	52							130
07:00		45	26							71
08:00		23	15							38
09:00		13	9							22
10:00		6	6							12
11:00		4	3							7
Total		1134	957							2091
Percent		54.2%	45.8%							
AM Peak	-	11:00	07:00	-	-	-	-	-	-	11:00
Vol.	-	102	110	-	-	-	-	-	-	172
PM Peak	-	15:00	12:00	-	-	-	-	-	-	12:00
Vol.	-	126	80	-	-	-	-	-	-	188

All Traffic Data Services

9660 W 44th Ave
Wheat Ridge, CO 80033

Site Code: 12
Station ID: 12
S FORDHAM ST S O. CLOVER BASIN DR

Start Time	13-Mar-24 Wed	NB	SB							Total
12:00 AM		1	1							2
01:00		1	1							2
02:00		1	1							2
03:00		0	0							0
04:00		1	8							9
05:00		5	30							35
06:00		23	67							90
07:00		45	**107**							152
08:00		65	107							172
09:00		55	62							117
10:00		59	72							131
11:00		**102**	72							**174**
12:00 PM		107	**88**							**195**
01:00		57	78							135
02:00		85	60							145
03:00		**128**	50							178
04:00		105	44							149
05:00		109	50							159
06:00		75	31							106
07:00		43	32							75
08:00		20	19							39
09:00		17	11							28
10:00		4	4							8
11:00		4	3							7
Total		1112	998							2110
Percent		52.7%	47.3%							
AM Peak	-	11:00	07:00	-	-	-	-	-	-	11:00
Vol.	-	102	107	-	-	-	-	-	-	174
PM Peak	-	15:00	12:00	-	-	-	-	-	-	12:00
Vol.	-	128	88	-	-	-	-	-	-	195
Grand Total		2246	1955							4201
Percent		53.5%	46.5%							
ADT		ADT 2,100		AADT 2,100						

All Traffic Data Services

9660 W 44th Ave
Wheat Ridge, CO 80033

Site Code: 8
Station ID: 8
CLOVER BASIN DR W.O. LARKSPUR DR

EB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
03/12/24	0	0	0	0	2	3	1	0	0	0	0	0	0	0	6	31-40	5
01:00	0	0	0	0	2	2	2	0	0	0	0	0	0	0	6	30-39	4
02:00	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2	24-33	1
03:00	0	0	0	2	2	0	1	0	0	0	0	0	0	0	5	26-35	4
04:00	0	0	0	0	6	9	9	1	**1**	0	0	0	0	0	26	36-45	18
05:00	0	0	0	0	17	46	12	1	0	0	0	0	0	0	76	31-40	63
06:00	0	0	0	4	29	62	14	1	0	0	0	0	0	0	110	31-40	91
07:00	0	0	0	7	140	**197**	18	1	1	0	0	0	0	0	364	31-40	337
08:00	0	0	0	5	**167**	188	**25**	**2**	0	0	0	0	0	0	**387**	31-40	355
09:00	0	0	0	9	100	133	24	1	0	0	0	0	0	0	267	31-40	233
10:00	0	**1**	0	7	72	129	18	1	0	0	0	0	0	0	228	31-40	201
11:00	0	0	**1**	**19**	140	132	22	0	0	0	0	0	0	0	314	31-40	272
12 PM	0	**2**	0	5	121	154	28	0	1	0	**1**	0	0	0	312	31-40	275
13:00	0	2	0	12	98	136	28	1	0	0	0	0	0	0	277	31-40	234
14:00	0	1	**3**	6	71	168	**47**	0	0	0	0	0	0	0	296	31-40	239
15:00	0	0	1	5	**235**	208	23	**2**	0	0	0	0	0	0	**474**	31-40	443
16:00	0	0	0	23	198	197	18	0	1	0	0	0	0	0	437	31-40	395
17:00	0	0	0	**26**	200	**209**	17	1	0	0	0	0	0	0	453	31-40	409
18:00	0	0	0	13	113	127	13	1	0	0	0	0	0	0	267	31-40	240
19:00	0	0	0	1	72	100	13	0	0	0	0	0	0	0	186	31-40	172
20:00	0	0	1	5	37	47	10	0	**2**	0	0	0	0	0	102	31-40	84
21:00	0	0	0	0	17	42	9	0	1	0	0	0	0	0	69	31-40	59
22:00	0	0	0	0	13	15	6	0	0	0	0	0	0	0	34	31-40	28
23:00	0	0	0	0	2	7	3	0	0	0	0	0	0	0	12	34-43	10
Total	0	6	6	149	1855	2311	362	13	7	0	1	0	0	0	4710		
Percent	0.0%	0.1%	0.1%	3.2%	39.4%	49.1%	7.7%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak		10:00	11:00	11:00	08:00	07:00	08:00	08:00	04:00						08:00		
Vol.		1	1	19	167	197	25	2	1						387		
PM Peak		12:00	14:00	17:00	15:00	17:00	14:00	15:00	20:00		12:00				15:00		
Vol.		2	3	26	235	209	47	2	2		1				474		

All Traffic Data Services

9660 W 44th Ave
Wheat Ridge, CO 80033

Site Code: 8
Station ID: 8
CLOVER BASIN DR W.O. LARKSPUR DR

EB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
03/13/24	0	0	0	0	2	0	4	0	0	0	0	0	0	0	6	35-44	4
01:00	0	0	0	0	0	3	1	0	0	0	0	0	0	0	4	34-43	4
02:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	29-38	1
03:00	0	0	0	0	1	4	1	2	0	0	0	0	0	0	8	33-42	5
04:00	0	0	0	1	5	13	6	**6**	0	0	0	0	0	0	31	34-43	19
05:00	0	0	0	1	17	39	14	1	0	0	0	0	0	0	72	31-40	56
06:00	0	0	**1**	2	45	56	18	2	0	0	0	0	0	0	124	31-40	101
07:00	0	0	0	8	113	**193**	**28**	2	0	0	0	0	0	0	344	31-40	306
08:00	0	0	0	8	**209**	190	23	1	0	0	0	0	0	0	**431**	31-40	399
09:00	0	0	0	3	85	171	21	2	0	0	0	0	0	0	282	31-40	256
10:00	0	**1**	0	**16**	112	108	12	2	0	0	0	0	0	0	251	31-40	220
11:00	0	0	0	9	103	169	28	0	0	0	0	0	0	0	309	31-40	272
12 PM	0	**2**	0	6	128	152	26	**3**	0	0	0	0	0	0	317	31-40	280
13:00	0	1	3	11	132	164	**30**	0	0	0	0	0	0	0	341	31-40	296
14:00	0	0	0	8	93	140	24	1	**1**	0	0	0	0	0	267	31-40	233
15:00	0	0	1	**26**	188	**216**	17	2	1	0	0	0	0	0	**451**	31-40	404
16:00	0	0	0	7	139	205	23	0	1	0	0	0	0	0	375	31-40	344
17:00	0	0	0	5	**194**	173	17	2	0	0	0	0	0	0	391	31-40	367
18:00	0	0	**4**	10	108	116	12	2	0	0	0	0	0	0	252	31-40	224
19:00	0	0	0	0	62	94	16	2	0	0	0	0	0	0	174	31-40	156
20:00	0	0	0	0	23	45	15	0	0	0	0	0	0	0	83	31-40	68
21:00	0	0	0	1	18	26	10	0	0	0	0	0	0	0	55	31-40	44
22:00	0	0	0	1	5	17	1	0	0	0	0	0	0	0	24	31-40	22
23:00	0	0	0	0	0	5	1	1	0	0	0	0	0	0	7	34-43	6
Total	0	4	9	123	1782	2300	348	31	3	0	0	0	0	0	4600		
Percent	0.0%	0.1%	0.2%	2.7%	38.7%	50.0%	7.6%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak		10:00	06:00	10:00	08:00	07:00	07:00	04:00							08:00		
Vol.		1	1	16	209	193	28	6							431		
PM Peak		12:00	18:00	15:00	17:00	15:00	13:00	12:00	14:00						15:00		
Vol.		2	4	26	194	216	30	3	1						451		
Total	0	10	15	272	3637	4611	710	44	10	0	1	0	0	0	9310		
Percent	0.0%	0.1%	0.2%	2.9%	39.1%	49.5%	7.6%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			

	15th Percentile :	31 MPH
	50th Percentile :	35 MPH
	85th Percentile :	39 MPH
	95th Percentile :	42 MPH

Stats	10 MPH Pace Speed :	31-40 MPH
	Number in Pace :	8248
	Percent in Pace :	88.6%
	Number of Vehicles > 55 MPH :	1
	Percent of Vehicles > 55 MPH :	0.0%
	Mean Speed(Average) :	36 MPH

All Traffic Data Services

9660 W 44th Ave
Wheat Ridge, CO 80033

Site Code: 8
Station ID: 8
CLOVER BASIN DR W.O. LARKSPUR DR

WB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
03/12/24	0	0	0	0	2	6	2	1	0	0	0	0	0	0	11	36-45	8
01:00	0	0	0	0	1	2	0	1	1	0	0	0	0	0	5	31-40	3
02:00	0	0	0	0	1	2	0	0	0	0	0	0	0	0	3	30-39	3
03:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	29-38	1
04:00	0	0	0	0	3	3	0	1	0	0	0	0	0	0	7	31-40	6
05:00	0	0	0	0	6	12	5	1	0	0	0	0	0	0	24	31-40	18
06:00	0	0	0	3	35	28	10	4	0	0	**1**	0	0	0	81	31-40	63
07:00	0	0	1	17	106	66	21	4	0	**1**	0	0	0	0	216	31-40	172
08:00	0	0	**2**	31	116	**128**	**30**	**5**	**4**	0	0	0	0	0	**316**	31-40	244
09:00	0	0	1	11	85	71	24	3	0	0	0	0	0	0	195	31-40	156
10:00	0	0	0	18	96	57	24	4	0	0	0	0	0	0	199	31-40	153
11:00	0	0	1	**32**	**152**	65	20	2	3	0	0	0	0	0	275	31-40	217
12 PM	0	0	1	34	124	130	26	7	1	0	0	0	0	0	323	31-40	254
13:00	0	0	0	20	118	112	36	**11**	**3**	0	0	0	0	0	300	31-40	230
14:00	0	0	1	17	109	142	**42**	8	1	0	0	0	0	0	320	31-40	251
15:00	0	0	3	**74**	170	157	39	7	1	0	0	0	0	0	451	31-40	327
16:00	0	0	2	36	187	**177**	37	4	1	0	0	0	0	0	444	31-40	364
17:00	0	0	**4**	46	**217**	158	34	5	0	0	0	0	0	0	**464**	31-40	375
18:00	0	0	2	52	166	139	29	4	0	**1**	0	0	0	0	393	31-40	305
19:00	0	0	2	29	127	85	22	4	1	0	0	0	0	0	270	31-40	212
20:00	0	0	4	25	98	67	16	7	2	0	0	0	0	0	219	31-40	165
21:00	0	0	0	2	38	44	13	1	2	0	0	0	0	0	100	31-40	82
22:00	0	0	2	5	24	17	14	4	0	0	0	0	0	0	66	31-40	41
23:00	0	0	0	0	8	5	7	4	2	0	0	0	0	0	26	31-40	13
Total	0	0	26	452	1989	1674	451	92	22	2	1	0	0	0	4709		
Percent	0.0%	0.0%	0.6%	9.6%	42.2%	35.5%	9.6%	2.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak			08:00	11:00	11:00	08:00	08:00	08:00	08:00	07:00	06:00				08:00		
Vol.			2	32	152	128	30	5	4	1	1				316		
PM Peak			17:00	15:00	17:00	16:00	14:00	13:00	13:00	18:00					17:00		
Vol.			4	74	217	177	42	11	3	1					464		

All Traffic Data Services

9660 W 44th Ave
Wheat Ridge, CO 80033

Site Code: 8
Station ID: 8
CLOVER BASIN DR W.O. LARKSPUR DR

WB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	Pace Speed	Number in Pace
03/13/24	0	0	0	1	6	6	1	2	0	0	0	0	0	0	16	31-40	12
01:00	0	0	0	1	1	2	0	0	0	0	0	0	0	0	4	29-38	3
02:00	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3	31-40	3
03:00	0	0	0	0	2	1	0	0	0	0	0	0	0	0	3	29-38	3
04:00	0	0	0	1	3	3	1	0	1	0	0	0	0	0	9	31-40	6
05:00	0	0	0	1	3	9	3	3	1	0	0	0	0	0	20	31-40	12
06:00	0	0	1	8	24	38	10	2	1	0	0	0	0	0	84	31-40	62
07:00	0	0	1	18	97	78	11	4	0	0	0	0	0	0	209	31-40	175
08:00	0	0	**7**	**24**	**126**	99	**34**	2	**2**	0	0	**1**	0	0	**295**	31-40	225
09:00	0	0	2	18	83	**110**	23	**8**	0	0	0	0	0	0	244	31-40	193
10:00	0	0	4	15	103	84	26	2	0	0	0	0	0	0	234	31-40	187
11:00	0	0	1	20	122	92	23	6	0	0	0	0	0	0	264	31-40	214
12 PM	0	0	**4**	18	132	134	34	**11**	**2**	0	0	0	0	0	335	31-40	266
13:00	0	0	1	25	142	110	30	1	2	0	0	0	0	0	311	31-40	252
14:00	0	0	4	28	167	118	23	4	0	0	0	0	0	0	344	31-40	285
15:00	0	0	0	41	165	**169**	42	4	2	**1**	0	0	0	0	424	31-40	334
16:00	0	0	0	11	127	168	**60**	7	2	0	0	0	0	0	375	31-40	295
17:00	0	0	3	**44**	**199**	152	37	4	0	1	0	0	0	0	**440**	31-40	351
18:00	0	0	0	23	145	115	30	4	1	0	0	0	0	0	318	31-40	260
19:00	0	0	2	21	120	90	26	3	2	1	0	0	0	0	265	31-40	210
20:00	0	0	0	19	57	77	30	5	1	0	0	0	0	0	189	31-40	134
21:00	0	0	0	7	34	38	18	6	0	0	0	0	0	0	103	31-40	72
22:00	0	0	0	4	16	9	10	2	0	0	0	0	0	0	41	31-40	25
23:00	0	0	0	2	7	3	3	2	1	0	**1**	0	0	0	19	29-38	10
Total	0	0	30	350	1881	1708	475	82	18	3	1	1	0	0	4549		
Percent	0.0%	0.0%	0.7%	7.7%	41.3%	37.5%	10.4%	1.8%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak			08:00	08:00	08:00	09:00	08:00	09:00	08:00			08:00			08:00		
Vol.			7	24	126	110	34	8	2			1			295		
PM Peak			12:00	17:00	17:00	15:00	16:00	12:00	12:00	15:00	23:00				17:00		
Vol.			4	44	199	169	60	11	2	1	1				440		
Total	0	0	56	802	3870	3382	926	174	40	5	2	1	0	0	9258		
Percent	0.0%	0.0%	0.6%	8.7%	41.8%	36.5%	10.0%	1.9%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%			

15th Percentile :	30 MPH
50th Percentile :	34 MPH
85th Percentile :	39 MPH
95th Percentile :	43 MPH

Stats	
10 MPH Pace Speed :	31-40 MPH
Number in Pace :	7252
Percent in Pace :	78.3%
Number of Vehicles > 55 MPH :	8
Percent of Vehicles > 55 MPH :	0.1%
Mean Speed(Average) :	36 MPH

APPENDIX “B”

INTERSECTION CAPACITY ANALYSIS WORKSHEETS

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor						
Frt			0.998			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	0	3532	0	1770	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	0	3532	0	1770	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	244		284			406
Travel Time (s)	5.5		6.5			9.2

Intersection Summary	
Area Type:	Other

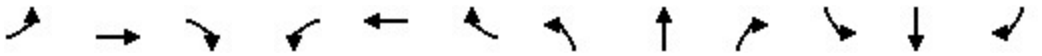
Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	0	322	5	2	848
Future Vol, veh/h	6	0	322	5	2	848
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	0	350	5	2	922

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	818	178	0	0	355	0
Stage 1	353	-	-	-	-	-
Stage 2	465	-	-	-	-	-
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	314	835	-	-	1200	-
Stage 1	682	-	-	-	-	-
Stage 2	598	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	313	835	-	-	1200	-
Mov Cap-2 Maneuver	313	-	-	-	-	-
Stage 1	682	-	-	-	-	-
Stage 2	597	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	16.73	0	0.02
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	313	1200	-
HCM Lane V/C Ratio	-	-	0.021	0.002	-
HCM Control Delay (s/veh)	-	-	16.7	8	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-



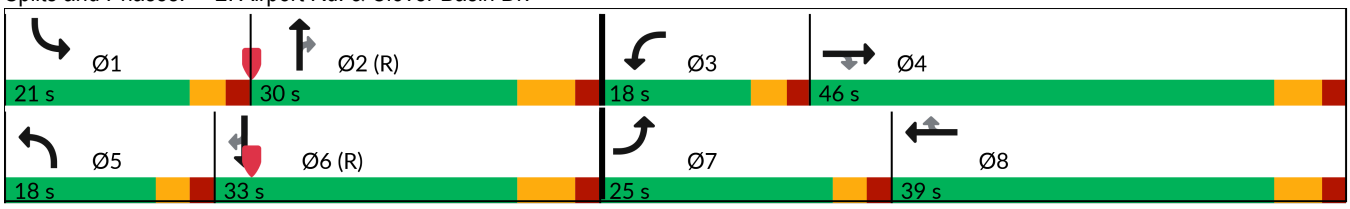
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	75		150	150		100	300		250	250		200
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			133			180			173			201
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		794			1437			2219			401	
Travel Time (s)		18.0			32.7			50.4			9.1	

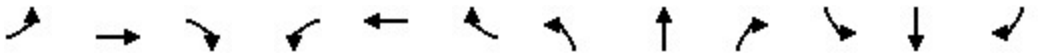
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	277	71	32	204	65	59	198	59	113	556	185
Future Volume (vph)	64	277	71	32	204	65	59	198	59	113	556	185
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	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	5.0	5.0
Minimum Split (s)	10.0	34.2	34.2	10.0	34.2	34.2	10.0	26.0	26.0	10.0	26.0	26.0
Total Split (s)	25.0	46.0	46.0	18.0	39.0	39.0	18.0	30.0	30.0	21.0	33.0	33.0
Total Split (%)	21.7%	40.0%	40.0%	15.7%	33.9%	33.9%	15.7%	26.1%	26.1%	18.3%	28.7%	28.7%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	0.0
Total Lost Time (s)	5.0	6.2	6.2	5.0	6.2	6.2	5.0	7.0	7.0	5.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	9.9	26.0	26.0	7.8	21.7	21.7	9.5	49.2	49.2	13.3	55.1	55.1
Actuated g/C Ratio	0.09	0.23	0.23	0.07	0.19	0.19	0.08	0.43	0.43	0.12	0.48	0.48
v/c Ratio	0.46	0.71	0.17	0.29	0.63	0.16	0.44	0.14	0.08	0.60	0.36	0.23
Control Delay (s/veh)	59.0	50.5	1.3	56.7	50.6	0.8	58.8	24.3	0.2	60.2	23.3	4.5
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 (s/veh)	59.0	50.5	1.3	56.7	50.6	0.8	58.8	24.3	0.2	60.2	23.3	4.5
LOS	E	D	A	E	D	A	E	C	A	E	C	A
Approach Delay (s/veh)		43.4			40.5			26.2			24.1	
Approach LOS		D			D			C			C	

Intersection Summary	
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 9 (8%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay (s/veh): 31.3	Intersection LOS: C
Intersection Capacity Utilization 57.6%	ICU Level of Service B
Analysis Period (min) 15	

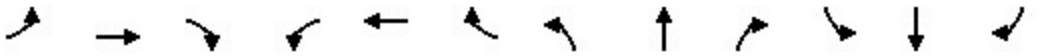
Splits and Phases: 2: Airport Rd. & Clover Basin Dr.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	70	301	77	35	222	71	64	215	64	123	604	201
v/c Ratio	0.46	0.71	0.17	0.29	0.63	0.16	0.44	0.14	0.08	0.60	0.36	0.23
Control Delay (s/veh)	59.0	50.5	1.3	56.7	50.6	0.8	58.8	24.3	0.2	60.2	23.3	4.5
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 (s/veh)	59.0	50.5	1.3	56.7	50.6	0.8	58.8	24.3	0.2	60.2	23.3	4.5
Queue Length 50th (ft)	50	211	0	25	152	0	46	52	0	88	155	0
Queue Length 95th (ft)	94	284	5	57	217	0	89	98	0	144	253	52
Internal Link Dist (ft)		714			1357			2139			321	
Turn Bay Length (ft)	75		150	150		100	300		250	250		200
Base Capacity (vph)	307	644	634	200	531	580	200	1514	776	253	1696	863
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	0.23	0.47	0.12	0.18	0.42	0.12	0.32	0.14	0.08	0.49	0.36	0.23

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	277	71	32	204	65	59	198	59	113	556	185
Future Volume (veh/h)	64	277	71	32	204	65	59	198	59	113	556	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	70	301	77	35	222	71	64	215	64	123	604	201
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	91	355	301	52	314	266	83	1757	784	151	1893	844
Arrive On Green	0.05	0.19	0.19	0.03	0.17	0.17	0.05	0.49	0.49	0.08	0.53	0.53
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	70	301	77	35	222	71	64	215	64	123	604	201
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.5	17.9	4.8	2.2	12.9	4.5	4.1	3.7	2.4	7.8	11.0	7.8
Cycle Q Clear(g_c), s	4.5	17.9	4.8	2.2	12.9	4.5	4.1	3.7	2.4	7.8	11.0	7.8
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	91	355	301	52	314	266	83	1757	784	151	1893	844
V/C Ratio(X)	0.77	0.85	0.26	0.67	0.71	0.27	0.77	0.12	0.08	0.81	0.32	0.24
Avail Cap(c_a), veh/h	310	647	549	201	533	452	201	1757	784	248	1893	844
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	53.9	45.0	39.7	55.3	45.2	41.7	54.2	15.6	15.3	51.7	15.1	14.4
Incr Delay (d2), s/veh	12.8	5.7	0.4	13.9	2.9	0.5	14.0	0.1	0.2	10.1	0.4	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(95%),veh/ln	4.2	13.7	3.4	2.2	10.3	3.2	3.9	2.8	1.7	7.0	8.0	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	66.7	50.6	40.1	69.2	48.1	42.2	68.3	15.8	15.5	61.8	15.6	15.0
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	B	B
Approach Vol, veh/h		448			328			343			928	
Approach Delay, s/veh		51.3			49.1			25.5			21.6	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.7	63.9	8.4	28.0	10.3	68.3	10.9	25.5
Change Period (Y+Rc), s	5.0	7.0	5.0	6.2	5.0	7.0	5.0	6.2
Max Green Setting (Gmax), s	16.0	23.0	13.0	39.8	13.0	26.0	20.0	32.8
Max Q Clear Time (g_c+I1), s	9.8	5.7	4.2	19.9	6.1	13.0	6.5	14.9
Green Ext Time (p_c), s	0.1	1.4	0.0	2.0	0.1	4.0	0.1	1.4

Intersection Summary	
HCM 7th Control Delay, s/veh	33.2
HCM 7th LOS	C

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		200	0		0	0
Storage Lanes		1	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.913	
Flt Protected				0.996	0.982	
Satd. Flow (prot)	1863	1583	0	1855	1670	0
Flt Permitted				0.996	0.982	
Satd. Flow (perm)	1863	1583	0	1855	1670	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1437			260	268	
Travel Time (s)	32.7			5.9	6.5	

Intersection Summary	
Area Type:	Other

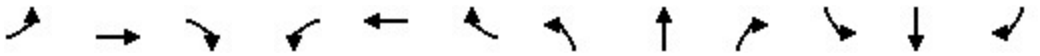
Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	433	16	25	271	30	54
Future Vol, veh/h	433	16	25	271	30	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	471	17	27	295	33	59

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	488	0	820	471
Stage 1	-	-	-	-	471	-
Stage 2	-	-	-	-	349	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1075	-	345	593
Stage 1	-	-	-	-	629	-
Stage 2	-	-	-	-	714	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1075	-	334	593
Mov Cap-2 Maneuver	-	-	-	-	334	-
Stage 1	-	-	-	-	629	-
Stage 2	-	-	-	-	693	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.71	14.63
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	465	-	-	152	-
HCM Lane V/C Ratio	0.196	-	-	0.025	-
HCM Control Delay (s/veh)	14.6	-	-	8.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	150		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.992			0.889			0.940	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1857	0	1770	1848	0	1770	1656	0	1770	1751	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1857	0	1770	1848	0	1770	1656	0	1770	1751	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		483			921			648			640	
Travel Time (s)		11.0			20.9			14.7			14.5	

Intersection Summary	
Area Type:	Other

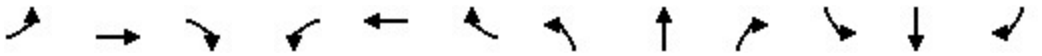
Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	454	9	50	270	15	3	12	34	24	46	30
Future Vol, veh/h	27	454	9	50	270	15	3	12	34	24	46	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	150	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	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	29	493	10	54	293	16	3	13	37	26	50	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	310	0	0	503	0	0	984	976	498	969	972	302
Stage 1	-	-	-	-	-	-	557	557	-	410	410	-
Stage 2	-	-	-	-	-	-	427	418	-	559	562	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1251	-	-	1061	-	-	227	251	572	233	252	738
Stage 1	-	-	-	-	-	-	515	512	-	618	595	-
Stage 2	-	-	-	-	-	-	606	590	-	514	510	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1251	-	-	1061	-	-	161	233	572	191	234	738
Mov Cap-2 Maneuver	-	-	-	-	-	-	161	233	-	191	234	-
Stage 1	-	-	-	-	-	-	503	500	-	587	565	-
Stage 2	-	-	-	-	-	-	501	560	-	457	498	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.44	1.28	15.67	21.71
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	161	414	1251	-	-	1061	-	-	191	320
HCM Lane V/C Ratio	0.02	0.121	0.023	-	-	0.051	-	-	0.136	0.258
HCM Control Delay (s/veh)	27.8	14.9	7.9	-	-	8.6	-	-	26.8	20.1
HCM Lane LOS	D	B	A	-	-	A	-	-	D	C
HCM 95th %tile Q(veh)	0.1	0.4	0.1	-	-	0.2	-	-	0.5	1



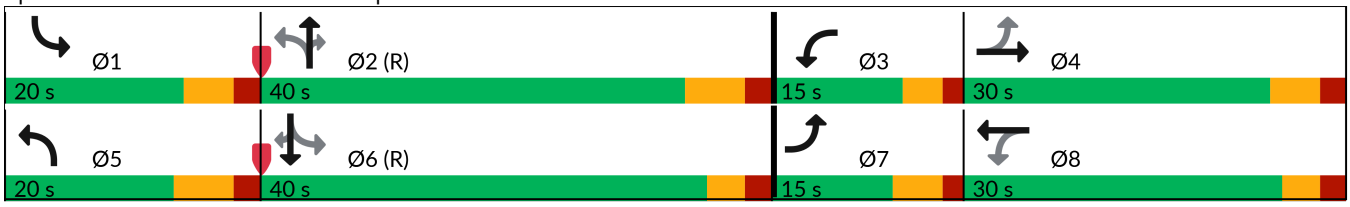
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	100		0	300		150	150		200
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.870			0.889				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1621	0	1770	1656	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.642			0.686			0.394			0.608		
Satd. Flow (perm)	1196	1621	0	1278	1656	0	734	3539	1583	1133	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		95			37				156			156
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		478			955			764			2219	
Travel Time (s)		10.9			21.7			17.4			50.4	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	34	14	30	12	41	204	14	49	575	44
Future Volume (vph)	34	14	30	12	41	204	14	49	575	44
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		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)	10.4	29.9	9.7	30.0	11.7	22.5	22.5	10.9	22.5	22.5
Total Split (s)	15.0	30.0	15.0	30.0	20.0	40.0	40.0	20.0	40.0	40.0
Total Split (%)	14.3%	28.6%	14.3%	28.6%	19.0%	38.1%	38.1%	19.0%	38.1%	38.1%
Yellow Time (s)	3.9	3.9	3.2	3.0	4.7	4.7	4.7	3.9	3.0	3.0
All-Red Time (s)	1.5	2.0	1.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	5.4	5.9	4.7	5.0	6.7	6.7	6.7	5.9	5.0	5.0
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	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	13.1	7.6	13.0	7.9	72.4	67.1	67.1	74.1	70.7	70.7
Actuated g/C Ratio	0.12	0.07	0.12	0.08	0.69	0.64	0.64	0.71	0.67	0.67
v/c Ratio	0.20	0.54	0.17	0.32	0.08	0.10	0.01	0.06	0.26	0.04
Control Delay (s/veh)	36.8	22.5	35.7	25.1	6.2	9.8	0.0	5.8	9.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	36.8	22.5	35.7	25.1	6.2	9.8	0.0	5.8	9.7	0.1
LOS	D	C	D	C	A	A	A	A	A	A
Approach Delay (s/veh)		26.1		29.3		8.7			8.8	
Approach LOS		C		C		A			A	

Intersection Summary	
Cycle Length: 105	
Actuated Cycle Length: 105	
Offset: 59 (56%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay (s/veh): 12.2	Intersection LOS: B
Intersection Capacity Utilization 43.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Pike Rd. & Airport Rd.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	37	110	33	50	45	222	15	53	625	48
v/c Ratio	0.20	0.54	0.17	0.32	0.08	0.10	0.01	0.06	0.26	0.04
Control Delay (s/veh)	36.8	22.5	35.7	25.1	6.2	9.8	0.0	5.8	9.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	36.8	22.5	35.7	25.1	6.2	9.8	0.0	5.8	9.7	0.1
Queue Length 50th (ft)	21	10	19	8	8	32	0	9	100	0
Queue Length 95th (ft)	46	61	42	44	23	61	0	26	163	0
Internal Link Dist (ft)		398		875		684			2139	
Turn Bay Length (ft)	150		100		300		150	150		200
Base Capacity (vph)	226	445	240	422	670	2260	1067	926	2384	1117
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	0.16	0.25	0.14	0.12	0.07	0.10	0.01	0.06	0.26	0.04

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	14	87	30	12	34	41	204	14	49	575	44
Future Volume (veh/h)	34	14	87	30	12	34	41	204	14	49	575	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	37	15	95	33	13	37	45	222	15	53	625	48
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	195	20	125	151	35	99	541	2213	987	818	2195	979
Arrive On Green	0.03	0.09	0.09	0.03	0.08	0.08	0.03	0.62	0.62	0.04	0.62	0.62
Sat Flow, veh/h	1781	221	1398	1781	429	1221	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	37	0	110	33	0	50	45	222	15	53	625	48
Grp Sat Flow(s),veh/h/ln	1781	0	1619	1781	0	1651	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.0	0.0	7.0	1.8	0.0	3.0	0.9	2.6	0.4	1.1	8.6	1.3
Cycle Q Clear(g_c), s	2.0	0.0	7.0	1.8	0.0	3.0	0.9	2.6	0.4	1.1	8.6	1.3
Prop In Lane	1.00		0.86	1.00		0.74	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	195	0	145	151	0	133	541	2213	987	818	2195	979
V/C Ratio(X)	0.19	0.00	0.76	0.22	0.00	0.37	0.08	0.10	0.02	0.06	0.28	0.05
Avail Cap(c_a), veh/h	302	0	372	273	0	393	704	2213	987	991	2195	979
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	0.95	0.95	0.95
Uniform Delay (d), s/veh	42.3	0.0	46.7	42.5	0.0	45.7	6.9	8.0	7.5	6.5	9.3	7.9
Incr Delay (d2), s/veh	0.5	0.0	7.9	0.7	0.0	1.7	0.1	0.1	0.0	0.0	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(95%),veh/ln	1.6	0.0	5.6	1.4	0.0	2.3	0.6	1.8	0.2	0.7	5.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.8	0.0	54.6	43.2	0.0	47.5	6.9	8.1	7.6	6.5	9.6	8.0
LnGrp LOS	D		D	D		D	A	A	A	A	A	A
Approach Vol, veh/h		147			83			282			726	
Approach Delay, s/veh		51.6			45.8			7.9			9.3	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	72.1	7.8	15.3	10.4	71.6	8.7	14.4
Change Period (Y+Rc), s	5.9	6.7	4.7	5.9	6.7	* 6.7	5.4	* 5.9
Max Green Setting (Gmax), s	14.1	33.3	10.3	24.1	13.3	* 35	9.6	* 25
Max Q Clear Time (g_c+I1), s	3.1	4.6	3.8	9.0	2.9	10.6	4.0	5.0
Green Ext Time (p_c), s	0.1	1.5	0.0	0.5	0.0	4.7	0.0	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	16.4
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor						
Frt	0.932		0.998			
Flt Protected	0.976				0.950	
Satd. Flow (prot)	1694	0	3532	0	1770	3539
Flt Permitted	0.976				0.950	
Satd. Flow (perm)	1694	0	3532	0	1770	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	244		284			406
Travel Time (s)	5.5		6.5			9.2

Intersection Summary	
Area Type:	Other

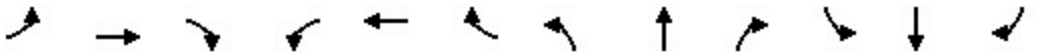
Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	1	688	8	2	507
Future Vol, veh/h	1	1	688	8	2	507
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1	748	9	2	551

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1032	378	0	0	757	0
Stage 1	752	-	-	-	-	-
Stage 2	280	-	-	-	-	-
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	229	619	-	-	850	-
Stage 1	426	-	-	-	-	-
Stage 2	742	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	228	619	-	-	850	-
Mov Cap-2 Maneuver	228	-	-	-	-	-
Stage 1	426	-	-	-	-	-
Stage 2	741	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	15.87	0	0.04
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	333	850	-
HCM Lane V/C Ratio	-	-	0.007	0.003	-
HCM Control Delay (s/veh)	-	-	15.9	9.2	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-



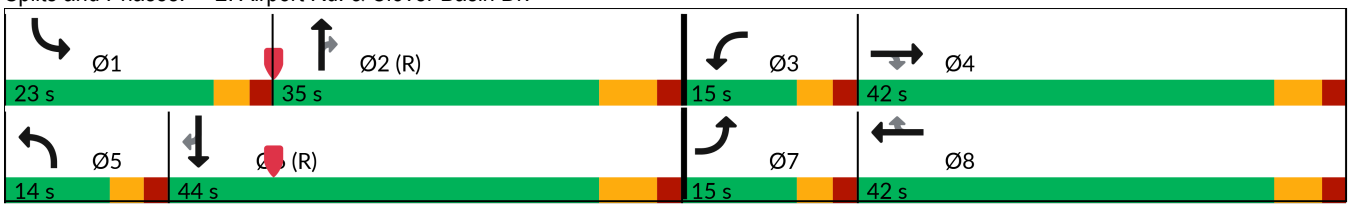
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	75		150	150		100	300		250	250		200
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			180			180			173			125
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		794			1437			2219			401	
Travel Time (s)		18.0			32.7			50.4			9.1	

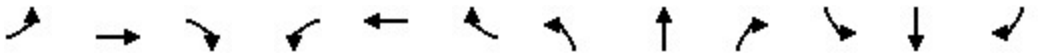
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	277	30	79	264	128	50	501	92	130	292	86
Future Volume (vph)	67	277	30	79	264	128	50	501	92	130	292	86
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	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	5.0	5.0
Minimum Split (s)	10.0	34.2	34.2	10.0	34.2	34.2	10.0	26.0	26.0	10.0	26.0	26.0
Total Split (s)	15.0	42.0	42.0	15.0	42.0	42.0	14.0	35.0	35.0	23.0	44.0	44.0
Total Split (%)	13.0%	36.5%	36.5%	13.0%	36.5%	36.5%	12.2%	30.4%	30.4%	20.0%	38.3%	38.3%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	0.0
Total Lost Time (s)	5.0	6.2	6.2	5.0	6.2	6.2	5.0	7.0	7.0	5.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	8.9	24.1	24.1	9.2	24.2	24.2	8.9	46.5	46.5	14.4	54.1	54.1
Actuated g/C Ratio	0.08	0.21	0.21	0.08	0.21	0.21	0.08	0.40	0.40	0.13	0.47	0.47
v/c Ratio	0.53	0.77	0.07	0.61	0.73	0.29	0.40	0.38	0.13	0.64	0.19	0.11
Control Delay (s/veh)	65.1	55.9	0.3	69.6	53.0	3.5	58.2	28.4	0.4	60.4	21.8	2.4
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 (s/veh)	65.1	55.9	0.3	69.6	53.0	3.5	58.2	28.4	0.4	60.4	21.8	2.4
LOS	E	E	A	E	D	A	E	C	A	E	C	A
Approach Delay (s/veh)		53.0			42.4			26.7			28.4	
Approach LOS		D			D			C			C	

Intersection Summary	
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 9 (8%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay (s/veh): 35.8	Intersection LOS: D
Intersection Capacity Utilization 59.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: Airport Rd. & Clover Basin Dr.

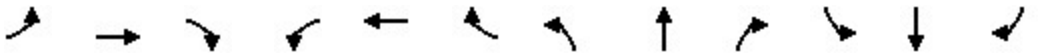




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	73	301	33	86	287	139	54	545	100	141	317	93
v/c Ratio	0.53	0.77	0.07	0.61	0.73	0.29	0.40	0.38	0.13	0.64	0.19	0.11
Control Delay (s/veh)	65.1	55.9	0.3	69.6	53.0	3.5	58.2	28.4	0.4	60.4	21.8	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	65.1	55.9	0.3	69.6	53.0	3.5	58.2	28.4	0.4	60.4	21.8	2.4
Queue Length 50th (ft)	52	212	0	62	200	0	39	154	0	101	76	0
Queue Length 95th (ft)	102	285	0	#116	271	24	79	244	0	160	128	20
Internal Link Dist (ft)		714			1357			2139			321	
Turn Bay Length (ft)	75		150	150		100	300		250	250		200
Base Capacity (vph)	153	579	616	153	579	616	152	1431	743	282	1664	810
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	0.48	0.52	0.05	0.56	0.50	0.23	0.36	0.38	0.13	0.50	0.19	0.11

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	277	30	79	264	128	50	501	92	130	292	86
Future Volume (veh/h)	67	277	30	79	264	128	50	501	92	130	292	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	73	301	33	86	287	139	54	545	100	141	317	93
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	94	351	297	109	367	311	70	1613	719	170	1814	809
Arrive On Green	0.05	0.19	0.19	0.06	0.20	0.20	0.04	0.45	0.45	0.10	0.51	0.51
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	73	301	33	86	287	139	54	545	100	141	317	93
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.7	17.9	2.0	5.5	16.8	8.9	3.5	11.4	4.2	8.9	5.5	3.5
Cycle Q Clear(g_c), s	4.7	17.9	2.0	5.5	16.8	8.9	3.5	11.4	4.2	8.9	5.5	3.5
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	94	351	297	109	367	311	70	1613	719	170	1814	809
V/C Ratio(X)	0.78	0.86	0.11	0.79	0.78	0.45	0.77	0.34	0.14	0.83	0.17	0.11
Avail Cap(c_a), veh/h	155	582	493	155	582	493	139	1613	719	279	1814	809
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	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	45.2	38.8	53.3	43.9	40.7	54.7	20.3	18.3	51.1	15.1	14.6
Incr Delay (d2), s/veh	13.0	6.8	0.2	16.0	3.7	1.0	16.2	0.6	0.4	10.1	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(95%),veh/ln	4.4	13.8	1.4	5.3	12.8	6.4	3.4	8.4	2.9	7.9	4.1	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	66.8	52.0	38.9	69.3	47.6	41.7	70.9	20.8	18.7	61.1	15.3	14.9
LnGrp LOS	E	D	D	E	D	D	E	C	B	E	B	B
Approach Vol, veh/h		407			512			699			551	
Approach Delay, s/veh		53.6			49.6			24.4			27.0	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	59.2	12.0	27.8	9.5	65.7	11.0	28.8
Change Period (Y+Rc), s	5.0	7.0	5.0	6.2	5.0	7.0	5.0	6.2
Max Green Setting (Gmax), s	18.0	28.0	10.0	35.8	9.0	37.0	10.0	35.8
Max Q Clear Time (g_c+I1), s	10.9	13.4	7.5	19.9	5.5	7.5	6.7	18.8
Green Ext Time (p_c), s	0.2	3.5	0.0	1.6	0.0	2.5	0.0	2.0

Intersection Summary	
HCM 7th Control Delay, s/veh	36.5
HCM 7th LOS	D

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		200	0		0	0
Storage Lanes		1	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.899	
Flt Protected				0.993	0.988	
Satd. Flow (prot)	1863	1583	0	1850	1655	0
Flt Permitted				0.993	0.988	
Satd. Flow (perm)	1863	1583	0	1850	1655	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1437			260	268	
Travel Time (s)	32.7			5.9	6.5	

Intersection Summary	
Area Type:	Other

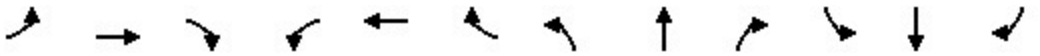
Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	474	25	74	455	16	47
Future Vol, veh/h	474	25	74	455	16	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	515	27	80	495	17	51

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	542	0	1171	515
Stage 1	-	-	-	-	515	-
Stage 2	-	-	-	-	655	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1026	-	213	560
Stage 1	-	-	-	-	600	-
Stage 2	-	-	-	-	517	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1026	-	190	560
Mov Cap-2 Maneuver	-	-	-	-	190	-
Stage 1	-	-	-	-	600	-
Stage 2	-	-	-	-	461	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.23	16.75
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	375	-	-	252	-
HCM Lane V/C Ratio	0.183	-	-	0.078	-
HCM Control Delay (s/veh)	16.8	-	-	8.8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.3	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	150		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.993			0.900			0.886	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1861	0	1770	1850	0	1770	1676	0	1770	1650	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1861	0	1770	1850	0	1770	1676	0	1770	1650	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		483			921			648			640	
Travel Time (s)		11.0			20.9			14.7			14.5	

Intersection Summary	
Area Type:	Other

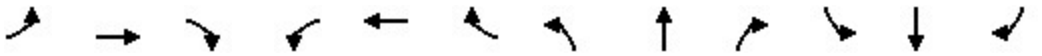
Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	493	2	23	461	21	1	42	85	17	15	47
Future Vol, veh/h	27	493	2	23	461	21	1	42	85	17	15	47
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	150	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	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	29	536	2	25	501	23	1	46	92	18	16	51

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	524	0	0	538	0	0	1155	1170	537	1180	1159	513
Stage 1	-	-	-	-	-	-	596	596	-	563	563	-
Stage 2	-	-	-	-	-	-	559	574	-	617	597	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1043	-	-	1030	-	-	174	193	544	167	196	562
Stage 1	-	-	-	-	-	-	490	492	-	511	509	-
Stage 2	-	-	-	-	-	-	513	503	-	477	492	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1043	-	-	1030	-	-	137	183	544	100	186	562
Mov Cap-2 Maneuver	-	-	-	-	-	-	137	183	-	100	186	-
Stage 1	-	-	-	-	-	-	477	478	-	499	497	-
Stage 2	-	-	-	-	-	-	440	491	-	348	478	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.44	0.39	23.67	23.58
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	137	329	1043	-	-	1030	-	-	100	377
HCM Lane V/C Ratio	0.008	0.419	0.028	-	-	0.024	-	-	0.185	0.179
HCM Control Delay (s/veh)	31.4	23.6	8.6	-	-	8.6	-	-	49	16.6
HCM Lane LOS	D	C	A	-	-	A	-	-	E	C
HCM 95th %tile Q(veh)	0	2	0.1	-	-	0.1	-	-	0.6	0.6



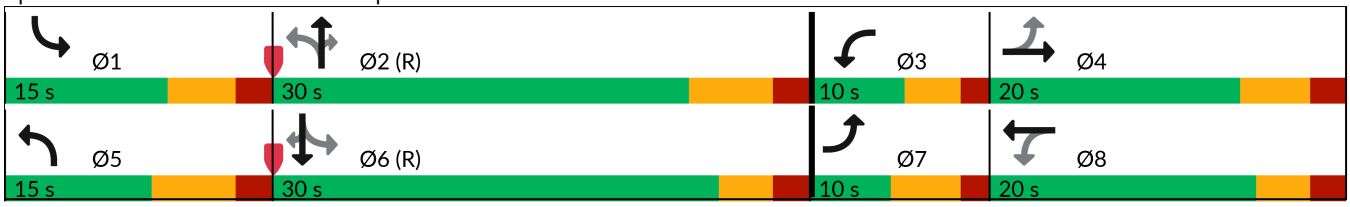
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	100		0	300		150	150		200
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.914			0.905				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1703	0	1770	1686	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.528			0.716			0.509			0.432		
Satd. Flow (perm)	984	1703	0	1334	1686	0	948	3539	1583	805	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			57				218			218
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		478			955			764			2219	
Travel Time (s)		10.9			21.7			17.4			50.4	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	46	25	15	30	81	536	24	25	273	59
Future Volume (vph)	46	25	15	30	81	536	24	25	273	59
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	4.6	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0	9.7	20.0	11.7	22.5	22.5	10.9	22.5	22.5
Total Split (s)	10.0	20.0	10.0	20.0	15.0	30.0	30.0	15.0	30.0	30.0
Total Split (%)	13.3%	26.7%	13.3%	26.7%	20.0%	40.0%	40.0%	20.0%	40.0%	40.0%
Yellow Time (s)	3.9	3.9	3.2	3.0	4.7	4.7	4.7	3.9	3.0	3.0
All-Red Time (s)	1.5	2.0	1.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	5.4	5.9	4.7	5.0	6.7	6.7	6.7	5.9	5.0	5.0
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	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	12.0	10.9	11.0	7.6	50.2	48.2	48.2	46.2	43.2	43.2
Actuated g/C Ratio	0.16	0.15	0.15	0.10	0.67	0.64	0.64	0.62	0.58	0.58
v/c Ratio	0.24	0.23	0.07	0.41	0.12	0.26	0.02	0.05	0.15	0.06
Control Delay (s/veh)	26.0	16.9	21.7	20.1	6.7	10.2	0.0	6.7	11.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	26.0	16.9	21.7	20.1	6.7	10.2	0.0	6.7	11.8	0.1
LOS	C	B	C	C	A	B	A	A	B	A
Approach Delay (s/veh)		20.9		20.4		9.4			9.5	
Approach LOS		C		C		A			A	

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 59 (79%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.41	
Intersection Signal Delay (s/veh): 11.3	Intersection LOS: B
Intersection Capacity Utilization 43.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Pike Rd. & Airport Rd.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	50	63	16	90	88	583	26	27	297	64
v/c Ratio	0.24	0.23	0.07	0.41	0.12	0.26	0.02	0.05	0.15	0.06
Control Delay (s/veh)	26.0	16.9	21.7	20.1	6.7	10.2	0.0	6.7	11.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	26.0	16.9	21.7	20.1	6.7	10.2	0.0	6.7	11.8	0.1
Queue Length 50th (ft)	19	10	6	15	15	57	0	4	41	0
Queue Length 95th (ft)	43	45	19	53	36	141	0	14	74	0
Internal Link Dist (ft)		398		875		684			2139	
Turn Bay Length (ft)	150		100		300		150	150		200
Base Capacity (vph)	205	373	226	382	727	2273	1095	638	2040	1005
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	0.17	0.07	0.24	0.12	0.26	0.02	0.04	0.15	0.06

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	25	33	15	30	52	81	536	24	25	273	59
Future Volume (veh/h)	46	25	33	15	30	52	81	536	24	25	273	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	50	27	36	16	33	57	88	583	26	27	297	64
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	202	80	106	230	49	85	654	1896	846	506	1761	785
Arrive On Green	0.04	0.11	0.11	0.02	0.08	0.08	0.06	0.53	0.53	0.03	0.50	0.50
Sat Flow, veh/h	1781	727	969	1781	616	1063	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	50	0	63	16	0	90	88	583	26	27	297	64
Grp Sat Flow(s),veh/h/ln	1781	0	1696	1781	0	1679	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.9	0.0	2.6	0.6	0.0	3.9	1.7	6.9	0.6	0.5	3.5	1.6
Cycle Q Clear(g_c), s	1.9	0.0	2.6	0.6	0.0	3.9	1.7	6.9	0.6	0.5	3.5	1.6
Prop In Lane	1.00		0.57	1.00		0.63	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	202	0	186	230	0	133	654	1896	846	506	1761	785
V/C Ratio(X)	0.25	0.00	0.34	0.07	0.00	0.67	0.13	0.31	0.03	0.05	0.17	0.08
Avail Cap(c_a), veh/h	241	0	319	323	0	336	752	1896	846	671	1761	785
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	0.97	0.97	0.97
Uniform Delay (d), s/veh	30.0	0.0	30.9	30.8	0.0	33.6	8.0	9.8	8.3	8.7	10.4	9.9
Incr Delay (d2), s/veh	0.6	0.0	1.1	0.1	0.0	5.8	0.1	0.4	0.1	0.0	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(95%),veh/ln	1.5	0.0	1.9	0.5	0.0	3.2	1.1	4.5	0.4	0.4	2.3	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.7	0.0	31.9	30.9	0.0	39.4	8.1	10.2	8.4	8.8	10.6	10.1
LnGrp LOS	C		C	C		D	A	B	A	A	B	B
Approach Vol, veh/h		113			106			697			388	
Approach Delay, s/veh		31.4			38.1			9.9			10.4	
Approach LOS		C			D			A			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	46.7	6.1	14.1	10.9	43.9	8.4	11.9
Change Period (Y+Rc), s	5.9	6.7	4.7	5.9	6.7	* 6.7	5.4	* 5.9
Max Green Setting (Gmax), s	9.1	23.3	5.3	14.1	8.3	* 25	4.6	* 15
Max Q Clear Time (g_c+I1), s	2.5	8.9	2.6	4.6	3.7	5.5	3.9	5.9
Green Ext Time (p_c), s	0.0	3.5	0.0	0.1	0.1	2.0	0.0	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	14.2
HCM 7th LOS	B

Notes

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

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor						
Frt			0.997			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	0	3529	0	1770	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	0	3529	0	1770	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	244		284			406
Travel Time (s)	5.5		6.5			9.2

Intersection Summary	
Area Type:	Other

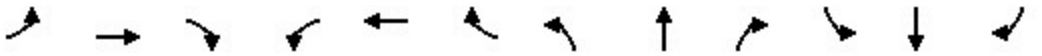
Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	0	359	6	2	881
Future Vol, veh/h	6	0	359	6	2	881
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	0	390	7	2	958

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	877	198	0	0	397	0
Stage 1	393	-	-	-	-	-
Stage 2	483	-	-	-	-	-
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	288	809	-	-	1158	-
Stage 1	651	-	-	-	-	-
Stage 2	586	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	287	809	-	-	1158	-
Mov Cap-2 Maneuver	287	-	-	-	-	-
Stage 1	651	-	-	-	-	-
Stage 2	585	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	17.82	0	0.02
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	287	1158	-
HCM Lane V/C Ratio	-	-	0.023	0.002	-
HCM Control Delay (s/veh)	-	-	17.8	8.1	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-



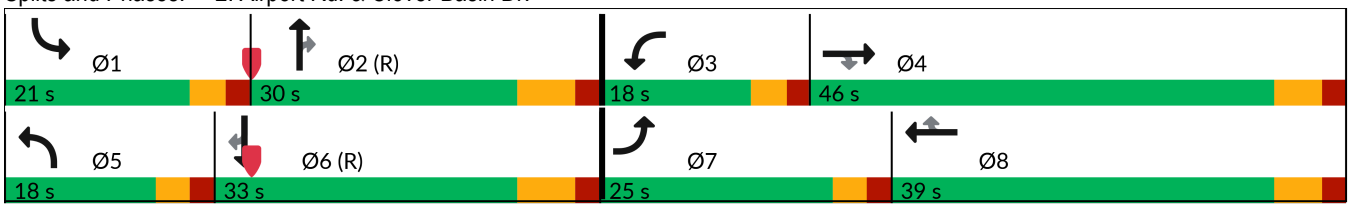
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	75		150	150		100	300		250	250		200
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			133			180			173			207
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		794			1437			2219			401	
Travel Time (s)		18.0			32.7			50.4			9.1	

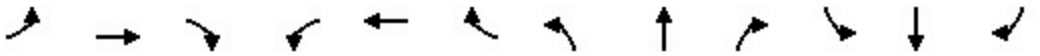
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	284	72	60	209	66	60	232	109	116	583	190
Future Volume (vph)	65	284	72	60	209	66	60	232	109	116	583	190
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	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	5.0	5.0
Minimum Split (s)	10.0	34.2	34.2	10.0	34.2	34.2	10.0	26.0	26.0	10.0	26.0	26.0
Total Split (s)	25.0	46.0	46.0	18.0	39.0	39.0	18.0	30.0	30.0	21.0	33.0	33.0
Total Split (%)	21.7%	40.0%	40.0%	15.7%	33.9%	33.9%	15.7%	26.1%	26.1%	18.3%	28.7%	28.7%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	0.0
Total Lost Time (s)	5.0	6.2	6.2	5.0	6.2	6.2	5.0	7.0	7.0	5.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	10.0	24.8	24.8	9.5	24.3	24.3	9.6	46.3	46.3	13.4	52.3	52.3
Actuated g/C Ratio	0.09	0.22	0.22	0.08	0.21	0.21	0.08	0.40	0.40	0.12	0.45	0.45
v/c Ratio	0.46	0.77	0.18	0.45	0.58	0.15	0.44	0.18	0.16	0.61	0.39	0.25
Control Delay (s/veh)	59.0	55.0	1.5	59.0	45.8	0.7	58.9	26.6	1.8	60.4	25.9	4.9
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 (s/veh)	59.0	55.0	1.5	59.0	45.8	0.7	58.9	26.6	1.8	60.4	25.9	4.9
LOS	E	E	A	E	D	A	E	C	A	E	C	A
Approach Delay (s/veh)		46.5			39.2			24.7			25.9	
Approach LOS		D			D			C			C	

Intersection Summary	
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 9 (8%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay (s/veh): 32.1	Intersection LOS: C
Intersection Capacity Utilization 58.7%	ICU Level of Service B
Analysis Period (min) 15	

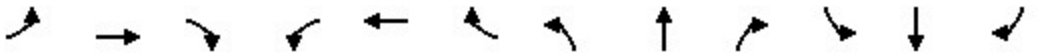
Splits and Phases: 2: Airport Rd. & Clover Basin Dr.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	71	309	78	65	227	72	65	252	118	126	634	207
v/c Ratio	0.46	0.77	0.18	0.45	0.58	0.15	0.44	0.18	0.16	0.61	0.39	0.25
Control Delay (s/veh)	59.0	55.0	1.5	59.0	45.8	0.7	58.9	26.6	1.8	60.4	25.9	4.9
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 (s/veh)	59.0	55.0	1.5	59.0	45.8	0.7	58.9	26.6	1.8	60.4	25.9	4.9
Queue Length 50th (ft)	51	217	0	47	152	0	47	64	0	90	172	0
Queue Length 95th (ft)	96	290	5	90	213	0	89	118	13	147	278	56
Internal Link Dist (ft)		714			1357			2139			321	
Turn Bay Length (ft)	75		150	150		100	300		250	250		200
Base Capacity (vph)	307	644	634	200	531	580	201	1424	740	254	1610	832
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	0.23	0.48	0.12	0.33	0.43	0.12	0.32	0.18	0.16	0.50	0.39	0.25

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	284	72	60	209	66	60	232	109	116	583	190
Future Volume (veh/h)	65	284	72	60	209	66	60	232	109	116	583	190
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	71	309	78	65	227	72	65	252	118	126	634	207
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	92	363	308	84	355	301	84	1671	745	154	1811	808
Arrive On Green	0.05	0.19	0.19	0.05	0.19	0.19	0.05	0.47	0.47	0.09	0.51	0.51
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	71	309	78	65	227	72	65	252	118	126	634	207
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.5	18.3	4.8	4.1	12.9	4.4	4.1	4.6	4.9	8.0	12.2	8.5
Cycle Q Clear(g_c), s	4.5	18.3	4.8	4.1	12.9	4.4	4.1	4.6	4.9	8.0	12.2	8.5
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	92	363	308	84	355	301	84	1671	745	154	1811	808
V/C Ratio(X)	0.77	0.85	0.25	0.77	0.64	0.24	0.77	0.15	0.16	0.82	0.35	0.26
Avail Cap(c_a), veh/h	310	647	549	201	533	452	201	1671	745	248	1811	808
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	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.9	44.7	39.3	54.2	43.0	39.6	54.2	17.4	17.4	51.6	16.8	15.9
Incr Delay (d2), s/veh	12.6	5.6	0.4	13.9	1.9	0.4	13.8	0.2	0.4	10.6	0.5	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(95%),veh/ln	4.2	13.9	3.4	3.9	10.2	3.2	3.9	3.5	3.4	7.2	8.7	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	66.5	50.4	39.7	68.1	44.9	40.0	67.9	17.6	17.9	62.2	17.4	16.7
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	B	B
Approach Vol, veh/h		458			364			435			967	
Approach Delay, s/veh		51.0			48.1			25.2			23.1	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	61.1	10.4	28.5	10.4	65.6	10.9	28.0
Change Period (Y+Rc), s	5.0	7.0	5.0	6.2	5.0	7.0	5.0	6.2
Max Green Setting (Gmax), s	16.0	23.0	13.0	39.8	13.0	26.0	20.0	32.8
Max Q Clear Time (g_c+I1), s	10.0	6.9	6.1	20.3	6.1	14.2	6.5	14.9
Green Ext Time (p_c), s	0.1	1.8	0.1	2.0	0.1	4.0	0.1	1.4

Intersection Summary	
HCM 7th Control Delay, s/veh	33.3
HCM 7th LOS	C

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		200	0		0	0
Storage Lanes		1	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.913	
Flt Protected				0.996	0.982	
Satd. Flow (prot)	1863	1583	0	1855	1670	0
Flt Permitted				0.996	0.982	
Satd. Flow (perm)	1863	1583	0	1855	1670	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1437			260	268	
Travel Time (s)	32.7			5.9	6.5	

Intersection Summary	
Area Type:	Other

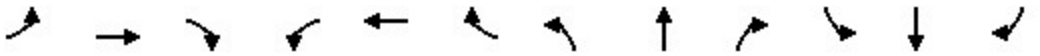
Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	493	16	25	305	30	54
Future Vol, veh/h	493	16	25	305	30	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	536	17	27	332	33	59

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	553	0	922	536
Stage 1	-	-	-	-	536	-
Stage 2	-	-	-	-	386	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1017	-	300	545
Stage 1	-	-	-	-	587	-
Stage 2	-	-	-	-	687	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1017	-	290	545
Mov Cap-2 Maneuver	-	-	-	-	290	-
Stage 1	-	-	-	-	587	-
Stage 2	-	-	-	-	665	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.65	16.11
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	415	-	-	136	-
HCM Lane V/C Ratio	0.22	-	-	0.027	-
HCM Control Delay (s/veh)	16.1	-	-	8.6	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	150		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.993			0.889			0.940	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1857	0	1770	1850	0	1770	1656	0	1770	1751	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1857	0	1770	1850	0	1770	1656	0	1770	1751	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		483			921			648			640	
Travel Time (s)		11.0			20.9			14.7			14.5	

Intersection Summary	
Area Type:	Other

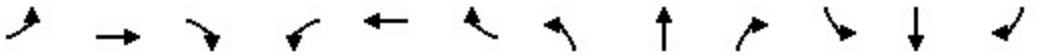
Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	514	9	50	304	15	3	12	34	24	46	30
Future Vol, veh/h	27	514	9	50	304	15	3	12	34	24	46	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	150	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	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	29	559	10	54	330	16	3	13	37	26	50	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	347	0	0	568	0	0	1086	1078	564	1071	1074	339
Stage 1	-	-	-	-	-	-	622	622	-	447	447	-
Stage 2	-	-	-	-	-	-	464	455	-	624	627	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1212	-	-	1004	-	-	194	219	525	198	220	704
Stage 1	-	-	-	-	-	-	474	479	-	591	573	-
Stage 2	-	-	-	-	-	-	578	568	-	473	476	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1212	-	-	1004	-	-	131	202	525	160	203	704
Mov Cap-2 Maneuver	-	-	-	-	-	-	131	202	-	160	203	-
Stage 1	-	-	-	-	-	-	463	467	-	559	542	-
Stage 2	-	-	-	-	-	-	473	538	-	417	465	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.39	1.19	17.27	25.09
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	131	370	1212	-	-	1004	-	-	160	282
HCM Lane V/C Ratio	0.025	0.135	0.024	-	-	0.054	-	-	0.163	0.293
HCM Control Delay (s/veh)	33.2	16.2	8	-	-	8.8	-	-	31.8	23
HCM Lane LOS	D	C	A	-	-	A	-	-	D	C
HCM 95th %tile Q(veh)	0.1	0.5	0.1	-	-	0.2	-	-	0.6	1.2



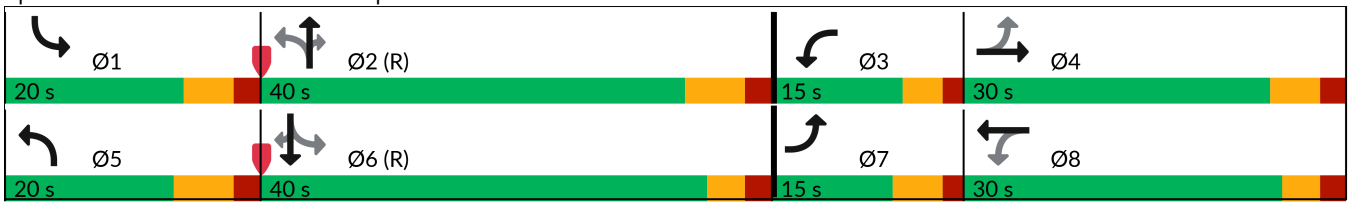
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	100		0	300		150	150		200
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.870			0.888				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1621	0	1770	1654	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.724			0.572			0.349			0.562		
Satd. Flow (perm)	1349	1621	0	1065	1654	0	650	3539	1583	1047	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		99			38				156			156
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		478			955			764			2219	
Travel Time (s)		10.9			21.7			17.4			50.4	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	35	14	50	12	45	287	49	49	630	44
Future Volume (vph)	35	14	50	12	45	287	49	49	630	44
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		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)	10.4	29.9	9.7	30.0	11.7	22.5	22.5	10.9	22.5	22.5
Total Split (s)	15.0	30.0	15.0	30.0	20.0	40.0	40.0	20.0	40.0	40.0
Total Split (%)	14.3%	28.6%	14.3%	28.6%	19.0%	38.1%	38.1%	19.0%	38.1%	38.1%
Yellow Time (s)	3.9	3.9	3.2	3.0	4.7	4.7	4.7	3.9	3.0	3.0
All-Red Time (s)	1.5	2.0	1.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	5.4	5.9	4.7	5.0	6.7	6.7	6.7	5.9	5.0	5.0
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	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.4	7.6	16.8	11.0	69.3	63.9	63.9	69.6	65.0	65.0
Actuated g/C Ratio	0.14	0.07	0.16	0.10	0.66	0.61	0.61	0.66	0.62	0.62
v/c Ratio	0.18	0.55	0.24	0.25	0.10	0.14	0.05	0.07	0.31	0.05
Control Delay (s/veh)	34.5	22.3	35.1	22.0	7.0	11.1	0.1	6.6	12.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	34.5	22.3	35.1	22.0	7.0	11.1	0.1	6.6	12.0	0.1
LOS	C	C	D	C	A	B	A	A	B	A
Approach Delay (s/veh)		25.3		28.7		9.2			10.9	
Approach LOS		C		C		A			B	

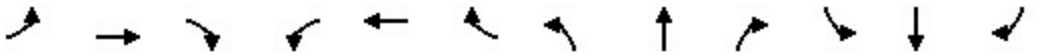
Intersection Summary	
Cycle Length: 105	
Actuated Cycle Length: 105	
Offset: 59 (56%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay (s/veh): 13.2	Intersection LOS: B
Intersection Capacity Utilization 44.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Pike Rd. & Airport Rd.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	38	114	54	51	49	312	53	53	685	48
v/c Ratio	0.18	0.55	0.24	0.25	0.10	0.14	0.05	0.07	0.31	0.05
Control Delay (s/veh)	34.5	22.3	35.1	22.0	7.0	11.1	0.1	6.6	12.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	34.5	22.3	35.1	22.0	7.0	11.1	0.1	6.6	12.0	0.1
Queue Length 50th (ft)	21	10	30	8	9	47	0	10	115	0
Queue Length 95th (ft)	46	62	59	44	26	85	0	27	187	0
Internal Link Dist (ft)		398		875		684			2139	
Turn Bay Length (ft)	150		100		300		150	150		200
Base Capacity (vph)	250	448	253	422	599	2153	1024	842	2191	1039
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	0.15	0.25	0.21	0.12	0.08	0.14	0.05	0.06	0.31	0.05

Intersection Summary



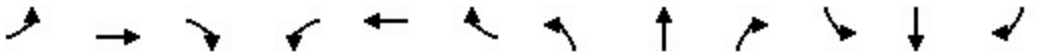
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	14	91	50	12	35	45	287	49	49	630	44
Future Volume (veh/h)	35	14	91	50	12	35	45	287	49	49	630	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	38	15	99	54	13	38	49	312	53	53	685	48
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	210	20	129	166	38	112	503	2174	970	719	2151	959
Arrive On Green	0.03	0.09	0.09	0.04	0.09	0.09	0.04	0.61	0.61	0.04	0.61	0.61
Sat Flow, veh/h	1781	213	1405	1781	420	1229	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	38	0	114	54	0	51	49	312	53	53	685	48
Grp Sat Flow(s),veh/h/ln	1781	0	1618	1781	0	1649	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.0	0.0	7.2	2.9	0.0	3.0	1.1	3.9	1.4	1.2	9.9	1.3
Cycle Q Clear(g_c), s	2.0	0.0	7.2	2.9	0.0	3.0	1.1	3.9	1.4	1.2	9.9	1.3
Prop In Lane	1.00		0.87	1.00		0.75	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	210	0	149	166	0	151	503	2174	970	719	2151	959
V/C Ratio(X)	0.18	0.00	0.76	0.33	0.00	0.34	0.10	0.14	0.05	0.07	0.32	0.05
Avail Cap(c_a), veh/h	316	0	371	273	0	393	664	2174	970	892	2151	959
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	0.93	0.93	0.93
Uniform Delay (d), s/veh	41.3	0.0	46.5	41.3	0.0	44.7	7.4	8.7	8.2	7.0	10.1	8.4
Incr Delay (d2), s/veh	0.4	0.0	7.9	1.1	0.0	1.3	0.1	0.1	0.1	0.0	0.4	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	0.0	5.8	2.3	0.0	2.3	0.7	2.7	0.9	0.8	6.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.7	0.0	54.4	42.4	0.0	46.0	7.5	8.8	8.3	7.0	10.5	8.5
LnGrp LOS	D		D	D		D	A	A	A	A	B	A
Approach Vol, veh/h		152			105			414			786	
Approach Delay, s/veh		51.3			44.2			8.6			10.1	
Approach LOS		D			D			A			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	70.9	8.7	15.6	10.5	70.3	8.7	15.5
Change Period (Y+Rc), s	5.9	6.7	4.7	5.9	6.7	* 6.7	5.4	* 5.9
Max Green Setting (Gmax), s	14.1	33.3	10.3	24.1	13.3	* 35	9.6	* 25
Max Q Clear Time (g_c+I1), s	3.2	5.9	4.9	9.2	3.1	11.9	4.0	5.0
Green Ext Time (p_c), s	0.1	2.3	0.0	0.5	0.1	5.1	0.0	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	16.4
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.993			0.889			0.940	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1857	0	1770	1850	0	1770	1656	0	1770	1751	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1857	0	1770	1850	0	1770	1656	0	1770	1751	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		297			624			503			339	
Travel Time (s)		6.8			7.4			7.1			7.7	

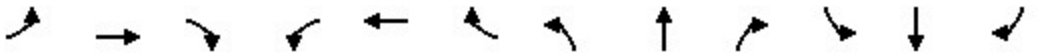
Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	24.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	514	9	50	304	15	3	12	34	24	46	30
Future Vol, veh/h	27	514	9	50	304	15	3	12	34	24	46	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	559	10	54	330	16	3	13	37	26	50	33
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay, s/veh	34.3	14.7	10.3	11
HCM LOS	D	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	26%	0%	98%	0%	95%	0%	61%
Vol Right, %	0%	74%	0%	2%	0%	5%	0%	39%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	3	46	27	523	50	319	24	76
LT Vol	3	0	27	0	50	0	24	0
Through Vol	0	12	0	514	0	304	0	46
RT Vol	0	34	0	9	0	15	0	30
Lane Flow Rate	3	50	29	568	54	347	26	83
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.007	0.095	0.05	0.88	0.095	0.555	0.056	0.159
Departure Headway (Hd)	7.898	6.855	6.092	5.575	6.299	5.759	7.724	6.93
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	452	521	588	648	568	628	463	516
Service Time	5.665	4.621	3.826	3.31	4.039	3.499	5.482	4.687
HCM Lane V/C Ratio	0.007	0.096	0.049	0.877	0.095	0.553	0.056	0.161
HCM Control Delay, s/veh	10.7	10.3	9.1	35.6	9.7	15.5	10.9	11
HCM Lane LOS	B	B	A	E	A	C	B	B
HCM 95th-tile Q	0	0.3	0.2	10.5	0.3	3.4	0.2	0.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.995			0.906			0.959	
Flt Protected		0.998			0.993			0.997			0.988	
Satd. Flow (prot)	0	1855	0	0	1840	0	0	1683	0	0	1765	0
Flt Permitted		0.998			0.993			0.997			0.988	
Satd. Flow (perm)	0	1855	0	0	1840	0	0	1683	0	0	1765	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		366			418			541			378	
Travel Time (s)		8.3			9.5			8.8			8.6	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	7.1
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	598	400	53	109
Demand Flow Rate, veh/h	610	408	54	112
Vehicles Circulating, veh/h	133	46	627	395
Vehicles Exiting, veh/h	374	635	116	59
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.7	5.6	5.8	5.2
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
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	610	408	54	112
Cap Entry Lane, veh/h	1205	1317	728	922
Entry HV Adj Factor	0.980	0.981	0.977	0.973
Flow Entry, veh/h	598	400	53	109
Cap Entry, veh/h	1181	1292	711	898
V/C Ratio	0.506	0.310	0.074	0.121
Control Delay, s/veh	8.7	5.6	5.8	5.2
LOS	A	A	A	A
95th %tile Queue, veh	3	1	0	0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor						
Frt	0.932		0.998			
Flt Protected	0.976				0.950	
Satd. Flow (prot)	1694	0	3532	0	1770	3539
Flt Permitted	0.976				0.950	
Satd. Flow (perm)	1694	0	3532	0	1770	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	244		284			406
Travel Time (s)	5.5		6.5			9.2

Intersection Summary	
Area Type:	Other

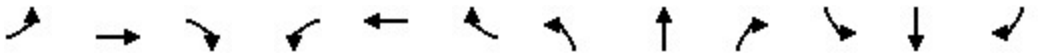
Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	1	726	8	2	549
Future Vol, veh/h	1	1	726	8	2	549
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1	789	9	2	597

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1096	399	0	0	798	0
Stage 1	793	-	-	-	-	-
Stage 2	303	-	-	-	-	-
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	208	601	-	-	820	-
Stage 1	406	-	-	-	-	-
Stage 2	723	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	207	601	-	-	820	-
Mov Cap-2 Maneuver	207	-	-	-	-	-
Stage 1	406	-	-	-	-	-
Stage 2	721	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	16.77	0	0.03
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	308	820	-
HCM Lane V/C Ratio	-	-	0.007	0.003	-
HCM Control Delay (s/veh)	-	-	16.8	9.4	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-



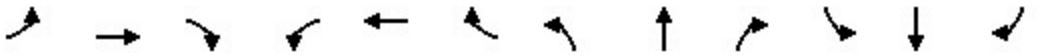
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	75		150	150		100	300		250	250		200
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			180			180			173			125
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		794			1437			2219			401	
Travel Time (s)		18.0			32.7			50.4			9.1	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	284	31	135	270	131	51	535	134	133	330	88
Future Volume (vph)	68	284	31	135	270	131	51	535	134	133	330	88
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	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	5.0	5.0
Minimum Split (s)	10.0	34.2	34.2	10.0	34.2	34.2	10.0	26.0	26.0	10.0	26.0	26.0
Total Split (s)	18.0	42.0	42.0	18.0	42.0	42.0	14.0	32.0	32.0	23.0	41.0	41.0
Total Split (%)	15.7%	36.5%	36.5%	15.7%	36.5%	36.5%	12.2%	27.8%	27.8%	20.0%	35.7%	35.7%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	0.0
Total Lost Time (s)	5.0	6.2	6.2	5.0	6.2	6.2	5.0	7.0	7.0	5.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	9.9	24.6	24.6	12.4	29.3	29.3	8.9	40.2	40.2	14.6	48.1	48.1
Actuated g/C Ratio	0.09	0.21	0.21	0.11	0.25	0.25	0.08	0.35	0.35	0.13	0.42	0.42
v/c Ratio	0.49	0.78	0.07	0.77	0.62	0.26	0.40	0.47	0.22	0.64	0.24	0.13
Control Delay (s/veh)	60.2	55.7	0.3	76.2	44.3	3.2	58.5	33.1	4.0	60.4	25.0	2.9
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 (s/veh)	60.2	55.7	0.3	76.2	44.3	3.2	58.5	33.1	4.0	60.4	25.0	2.9
LOS	E	E	A	E	D	A	E	C	A	E	C	A
Approach Delay (s/veh)		52.0			42.4			29.4			30.0	
Approach LOS		D			D			C			C	

Intersection Summary	
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 9 (8%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay (s/veh): 36.7	Intersection LOS: D
Intersection Capacity Utilization 63.9%	ICU Level of Service B
Analysis Period (min) 15	

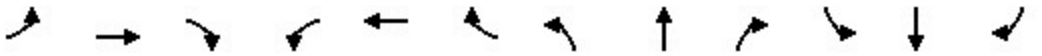
Splits and Phases: 2: Airport Rd. & Clover Basin Dr.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	74	309	34	147	293	142	55	582	146	145	359	96
v/c Ratio	0.49	0.78	0.07	0.77	0.62	0.26	0.40	0.47	0.22	0.64	0.24	0.13
Control Delay (s/veh)	60.2	55.7	0.3	76.2	44.3	3.2	58.5	33.1	4.0	60.4	25.0	2.9
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 (s/veh)	60.2	55.7	0.3	76.2	44.3	3.2	58.5	33.1	4.0	60.4	25.0	2.9
Queue Length 50th (ft)	53	217	0	107	197	0	40	176	0	103	92	0
Queue Length 95th (ft)	100	291	0	#205	275	26	80	275	35	163	152	23
Internal Link Dist (ft)		714			1357			2139			321	
Turn Bay Length (ft)	75		150	150		100	300		250	250		200
Base Capacity (vph)	200	579	616	200	579	616	152	1237	666	283	1480	734
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	0.37	0.53	0.06	0.74	0.51	0.23	0.36	0.47	0.22	0.51	0.24	0.13

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	284	31	135	270	131	51	535	134	133	330	88
Future Volume (veh/h)	68	284	31	135	270	131	51	535	134	133	330	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	74	309	34	147	293	142	55	582	146	145	359	96
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	95	359	304	175	443	375	71	1458	650	175	1664	742
Arrive On Green	0.05	0.19	0.19	0.10	0.24	0.24	0.04	0.41	0.41	0.10	0.47	0.47
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	74	309	34	147	293	142	55	582	146	145	359	96
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.7	18.4	2.0	9.3	16.3	8.6	3.5	13.3	6.9	9.2	6.9	3.9
Cycle Q Clear(g_c), s	4.7	18.4	2.0	9.3	16.3	8.6	3.5	13.3	6.9	9.2	6.9	3.9
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	95	359	304	175	443	375	71	1458	650	175	1664	742
V/C Ratio(X)	0.78	0.86	0.11	0.84	0.66	0.38	0.77	0.40	0.22	0.83	0.22	0.13
Avail Cap(c_a), veh/h	201	582	493	201	582	493	139	1458	650	279	1664	742
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	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	45.0	38.4	51.0	39.7	36.8	54.7	23.9	22.0	50.9	18.1	17.3
Incr Delay (d2), s/veh	12.7	7.3	0.2	23.6	1.7	0.6	15.8	0.8	0.8	10.9	0.3	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(95%),veh/ln	4.4	14.2	1.5	9.1	12.2	6.2	3.4	9.6	4.9	8.1	5.2	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	66.4	52.3	38.5	74.6	41.5	37.4	70.5	24.7	22.8	61.9	18.4	17.7
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	B	B
Approach Vol, veh/h		417			582			783			600	
Approach Delay, s/veh		53.7			48.9			27.6			28.8	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.3	54.2	16.3	28.3	9.6	60.9	11.1	33.4
Change Period (Y+Rc), s	5.0	7.0	5.0	6.2	5.0	7.0	5.0	6.2
Max Green Setting (Gmax), s	18.0	25.0	13.0	35.8	9.0	34.0	13.0	35.8
Max Q Clear Time (g_c+I1), s	11.2	15.3	11.3	20.4	5.5	8.9	6.7	18.3
Green Ext Time (p_c), s	0.2	3.1	0.1	1.7	0.0	2.7	0.1	2.0

Intersection Summary	
HCM 7th Control Delay, s/veh	37.6
HCM 7th LOS	D

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		200	0		0	0
Storage Lanes		1	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.899	
Flt Protected				0.994	0.988	
Satd. Flow (prot)	1863	1583	0	1852	1655	0
Flt Permitted				0.994	0.988	
Satd. Flow (perm)	1863	1583	0	1852	1655	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1437			260	268	
Travel Time (s)	32.7			5.9	6.5	

Intersection Summary	
Area Type:	Other

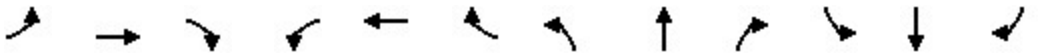
Intersection	
Int Delay, s/veh	1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	526	25	74	520	16	47
Future Vol, veh/h	526	25	74	520	16	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	572	27	80	565	17	51

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	599	0	1298	572
Stage 1	-	-	-	-	572	-
Stage 2	-	-	-	-	726	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	978	-	178	520
Stage 1	-	-	-	-	565	-
Stage 2	-	-	-	-	479	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	978	-	157	520
Mov Cap-2 Maneuver	-	-	-	-	157	-
Stage 1	-	-	-	-	565	-
Stage 2	-	-	-	-	421	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.12	18.87
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	328	-	-	224	-
HCM Lane V/C Ratio	0.209	-	-	0.082	-
HCM Control Delay (s/veh)	18.9	-	-	9	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.3	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	150		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.994			0.900			0.886	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1861	0	1770	1852	0	1770	1676	0	1770	1650	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1861	0	1770	1852	0	1770	1676	0	1770	1650	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		483			921			648			640	
Travel Time (s)		11.0			20.9			14.7			14.5	

Intersection Summary	
Area Type:	Other

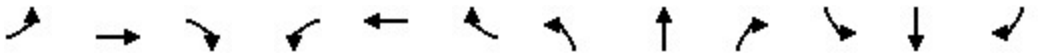
Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	545	2	23	526	21	1	42	85	17	15	47
Future Vol, veh/h	27	545	2	23	526	21	1	42	85	17	15	47
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	150	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	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	29	592	2	25	572	23	1	46	92	18	16	51

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	595	0	0	595	0	0	1282	1297	593	1307	1286	583
Stage 1	-	-	-	-	-	-	652	652	-	633	633	-
Stage 2	-	-	-	-	-	-	630	645	-	674	653	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	982	-	-	982	-	-	142	162	505	137	164	512
Stage 1	-	-	-	-	-	-	457	464	-	468	473	-
Stage 2	-	-	-	-	-	-	470	468	-	444	463	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	982	-	-	982	-	-	109	153	505	75	155	512
Mov Cap-2 Maneuver	-	-	-	-	-	-	109	153	-	75	155	-
Stage 1	-	-	-	-	-	-	443	450	-	456	461	-
Stage 2	-	-	-	-	-	-	397	456	-	316	450	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.41	0.35	28.72	29.27
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	109	287	982	-	-	982	-	-	75	329
HCM Lane V/C Ratio	0.01	0.481	0.03	-	-	0.025	-	-	0.245	0.205
HCM Control Delay (s/veh)	38.4	28.6	8.8	-	-	8.8	-	-	67.7	18.7
HCM Lane LOS	E	D	A	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	0	2.5	0.1	-	-	0.1	-	-	0.9	0.8



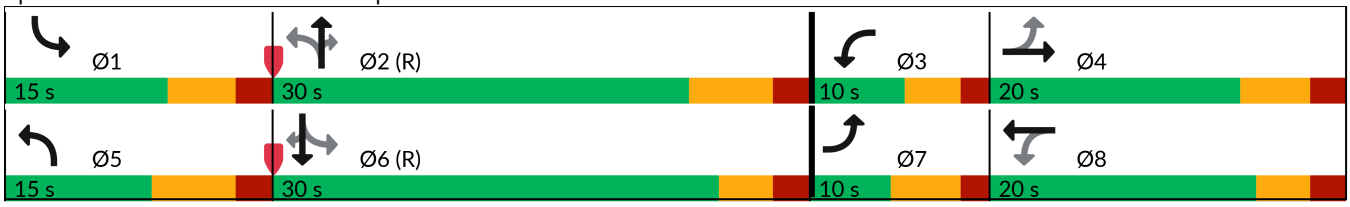
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	100		0	300		150	150		200
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.910			0.904				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1695	0	1770	1684	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.664			0.713			0.463			0.399		
Satd. Flow (perm)	1237	1695	0	1328	1684	0	862	3539	1583	743	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		41			58				218			218
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		478			955			764			2219	
Travel Time (s)		10.9			21.7			17.4			50.4	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	47	25	53	30	84	611	52	25	365	59
Future Volume (vph)	47	25	53	30	84	611	52	25	365	59
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	4.6	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0	9.7	20.0	11.7	22.5	22.5	10.9	22.5	22.5
Total Split (s)	10.0	20.0	10.0	20.0	15.0	30.0	30.0	15.0	30.0	30.0
Total Split (%)	13.3%	26.7%	13.3%	26.7%	20.0%	40.0%	40.0%	20.0%	40.0%	40.0%
Yellow Time (s)	3.9	3.9	3.2	3.0	4.7	4.7	4.7	3.9	3.0	3.0
All-Red Time (s)	1.5	2.0	1.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	5.4	5.9	4.7	5.0	6.7	6.7	6.7	5.9	5.0	5.0
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	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	10.0	7.1	11.2	7.8	50.0	48.0	48.0	46.0	43.0	43.0
Actuated g/C Ratio	0.13	0.09	0.15	0.10	0.67	0.64	0.64	0.61	0.57	0.57
v/c Ratio	0.26	0.35	0.25	0.40	0.14	0.29	0.05	0.05	0.20	0.06
Control Delay (s/veh)	26.3	21.1	25.4	19.8	6.8	10.6	0.1	6.8	12.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	26.3	21.1	25.4	19.8	6.8	10.6	0.1	6.8	12.1	0.1
LOS	C	C	C	B	A	B	A	A	B	A
Approach Delay (s/veh)		23.3		21.9		9.4			10.3	
Approach LOS		C		C		A			B	

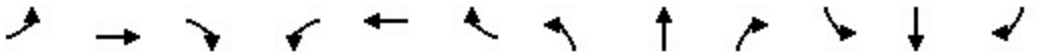
Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 59 (79%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay (s/veh): 11.9	Intersection LOS: B
Intersection Capacity Utilization 45.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Pike Rd. & Airport Rd.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	51	68	58	91	91	664	57	27	397	64
v/c Ratio	0.26	0.35	0.25	0.40	0.14	0.29	0.05	0.05	0.20	0.06
Control Delay (s/veh)	26.3	21.1	25.4	19.8	6.8	10.6	0.1	6.8	12.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	26.3	21.1	25.4	19.8	6.8	10.6	0.1	6.8	12.1	0.1
Queue Length 50th (ft)	19	12	21	14	16	69	0	4	57	0
Queue Length 95th (ft)	43	46	47	53	37	163	0	14	98	0
Internal Link Dist (ft)		398		875		684			2139	
Turn Bay Length (ft)	150		100		300		150	150		200
Base Capacity (vph)	198	351	228	383	678	2264	1091	603	2028	1000
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	0.26	0.19	0.25	0.24	0.13	0.29	0.05	0.04	0.20	0.06

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	25	38	53	30	53	84	611	52	25	365	59
Future Volume (veh/h)	47	25	38	53	30	53	84	611	52	25	365	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	51	27	41	58	33	58	91	664	57	27	397	64
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	205	56	86	240	50	87	596	1887	842	457	1749	780
Arrive On Green	0.04	0.08	0.08	0.05	0.08	0.08	0.06	0.53	0.53	0.03	0.49	0.49
Sat Flow, veh/h	1781	670	1017	1781	608	1069	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	51	0	68	58	0	91	91	664	57	27	397	64
Grp Sat Flow(s),veh/h/ln	1781	0	1687	1781	0	1678	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.9	0.0	2.9	2.2	0.0	3.9	1.8	8.1	1.3	0.6	4.8	1.6
Cycle Q Clear(g_c), s	1.9	0.0	2.9	2.2	0.0	3.9	1.8	8.1	1.3	0.6	4.8	1.6
Prop In Lane	1.00		0.60	1.00		0.64	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	205	0	142	240	0	137	596	1887	842	457	1749	780
V/C Ratio(X)	0.25	0.00	0.48	0.24	0.00	0.66	0.15	0.35	0.07	0.06	0.23	0.08
Avail Cap(c_a), veh/h	243	0	317	283	0	336	692	1887	842	622	1749	780
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	0.93	0.93	0.93
Uniform Delay (d), s/veh	29.9	0.0	32.8	29.5	0.0	33.4	8.2	10.1	8.6	8.9	10.9	10.1
Incr Delay (d2), s/veh	0.6	0.0	2.5	0.5	0.0	5.4	0.1	0.5	0.2	0.0	0.3	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.5	0.0	2.2	1.7	0.0	3.2	1.1	5.3	0.8	0.4	3.2	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.5	0.0	35.2	30.0	0.0	38.9	8.3	10.7	8.7	9.0	11.2	10.3
LnGrp LOS	C		D	C		D	A	B	A	A	B	B
Approach Vol, veh/h		119			149			812			488	
Approach Delay, s/veh		33.2			35.4			10.3			10.9	
Approach LOS		C			D			B			B	

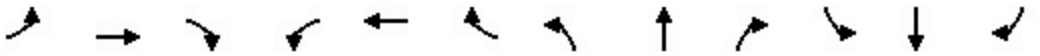
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	46.5	8.2	12.2	10.9	43.6	8.4	12.0
Change Period (Y+Rc), s	5.9	6.7	4.7	5.9	6.7	* 6.7	5.4	* 5.9
Max Green Setting (Gmax), s	9.1	23.3	5.3	14.1	8.3	* 25	4.6	* 15
Max Q Clear Time (g_c+I1), s	2.6	10.1	4.2	4.9	3.8	6.8	3.9	5.9
Green Ext Time (p_c), s	0.0	3.9	0.0	0.2	0.1	2.6	0.0	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	14.6
HCM 7th LOS	B

Notes

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

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.994			0.900			0.886	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1861	0	1770	1852	0	1770	1676	0	1770	1650	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1861	0	1770	1852	0	1770	1676	0	1770	1650	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		345			627			442			339	
Travel Time (s)		7.8			10.2			7.8			7.7	

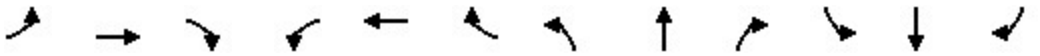
Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	61
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	545	2	23	526	21	1	42	85	17	15	47
Future Vol, veh/h	27	545	2	23	526	21	1	42	85	17	15	47
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	29	592	2	25	572	23	1	46	92	18	16	51
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay, s/veh	69.9	69.5	13.7	12
HCM LOS	F	F	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	33%	0%	100%	0%	96%	0%	24%
Vol Right, %	0%	67%	0%	0%	0%	4%	0%	76%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1	127	27	547	23	547	17	62
LT Vol	1	0	27	0	23	0	17	0
Through Vol	0	42	0	545	0	526	0	15
RT Vol	0	85	0	2	0	21	0	47
Lane Flow Rate	1	138	29	595	25	595	18	67
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.003	0.293	0.055	1.038	0.047	1.035	0.045	0.146
Departure Headway (Hd)	8.806	7.801	6.904	6.392	6.912	6.376	9.057	7.985
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	409	464	522	571	521	571	398	452
Service Time	6.506	5.501	4.604	4.092	4.612	4.076	6.757	5.685
HCM Lane V/C Ratio	0.002	0.297	0.056	1.042	0.048	1.042	0.045	0.148
HCM Control Delay, s/veh	11.5	13.7	10	72.9	10	72	12.2	12
HCM Lane LOS	B	B	A	F	A	F	B	B
HCM 95th-tile Q	0	1.2	0.2	16.2	0.1	16.1	0.1	0.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.995			0.911			0.919	
Flt Protected		0.998			0.998						0.990	
Satd. Flow (prot)	0	1859	0	0	1850	0	0	1697	0	0	1695	0
Flt Permitted		0.998			0.998						0.990	
Satd. Flow (perm)	0	1859	0	0	1850	0	0	1697	0	0	1695	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		352			547			471			295	
Travel Time (s)		8.0			12.4			10.7			6.7	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	7.9
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	623	620	139	85
Demand Flow Rate, veh/h	636	632	142	86
Vehicles Circulating, veh/h	60	78	652	610
Vehicles Exiting, veh/h	636	716	44	100
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.0	8.2	7.5	6.2
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
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	636	632	142	86
Cap Entry Lane, veh/h	1298	1274	710	741
Entry HV Adj Factor	0.980	0.980	0.979	0.985
Flow Entry, veh/h	623	620	139	85
Cap Entry, veh/h	1272	1249	695	729
V/C Ratio	0.490	0.496	0.200	0.116
Control Delay, s/veh	8.0	8.2	7.5	6.2
LOS	A	A	A	A
95th %tile Queue, veh	3	3	1	0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor						
Frt	0.944		0.998			
Flt Protected	0.972				0.950	
Satd. Flow (prot)	1709	0	3532	0	1770	3539
Flt Permitted	0.972				0.950	
Satd. Flow (perm)	1709	0	3532	0	1770	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	244		284			406
Travel Time (s)	5.5		6.5			9.2

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	5	413	6	4	1025
Future Vol, veh/h	6	5	413	6	4	1025
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	5	449	7	4	1114

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1018	228	0	0	455	0
Stage 1	452	-	-	-	-	-
Stage 2	566	-	-	-	-	-
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	233	775	-	-	1102	-
Stage 1	608	-	-	-	-	-
Stage 2	532	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	233	775	-	-	1102	-
Mov Cap-2 Maneuver	233	-	-	-	-	-
Stage 1	608	-	-	-	-	-
Stage 2	530	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	15.94	0	0.03
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	341	1102	-
HCM Lane V/C Ratio	-	-	0.035	0.004	-
HCM Control Delay (s/veh)	-	-	15.9	8.3	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

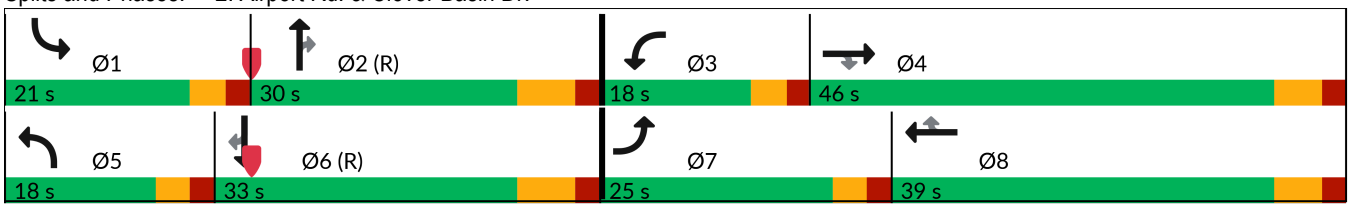
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	75		150	150		100	300		250	250		200
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			133			180			173			233
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		794			1437			2219			401	
Travel Time (s)		18.0			32.7			50.4			9.1	

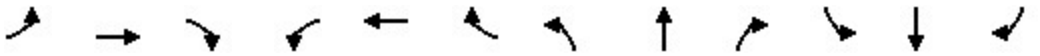
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	344	84	70	259	77	73	266	124	139	677	228
Future Volume (vph)	76	344	84	70	259	77	73	266	124	139	677	228
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	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	5.0	5.0
Minimum Split (s)	10.0	34.2	34.2	10.0	34.2	34.2	10.0	26.0	26.0	10.0	26.0	26.0
Total Split (s)	25.0	46.0	46.0	18.0	39.0	39.0	18.0	30.0	30.0	21.0	33.0	33.0
Total Split (%)	21.7%	40.0%	40.0%	15.7%	33.9%	33.9%	15.7%	26.1%	26.1%	18.3%	28.7%	28.7%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	0.0
Total Lost Time (s)	5.0	6.2	6.2	5.0	6.2	6.2	5.0	7.0	7.0	5.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	10.7	28.9	28.9	10.0	28.3	28.3	10.5	40.7	40.7	14.4	46.9	46.9
Actuated g/C Ratio	0.09	0.25	0.25	0.09	0.25	0.25	0.09	0.35	0.35	0.13	0.41	0.41
v/c Ratio	0.51	0.80	0.18	0.49	0.62	0.16	0.49	0.23	0.20	0.68	0.51	0.32
Control Delay (s/veh)	59.5	52.7	2.3	60.4	43.7	0.6	59.3	31.0	3.2	63.3	31.8	6.7
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 (s/veh)	59.5	52.7	2.3	60.4	43.7	0.6	59.3	31.0	3.2	63.3	31.8	6.7
LOS	E	D	A	E	D	A	E	C	A	E	C	A
Approach Delay (s/veh)		45.4			38.4			28.0			30.5	
Approach LOS		D			D			C			C	

Intersection Summary	
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 9 (8%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay (s/veh): 34.4	Intersection LOS: C
Intersection Capacity Utilization 64.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: Airport Rd. & Clover Basin Dr.

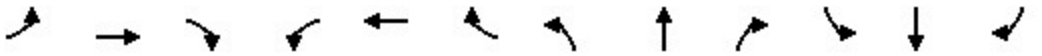




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	83	374	91	76	282	84	79	289	135	151	736	248
v/c Ratio	0.51	0.80	0.18	0.49	0.62	0.16	0.49	0.23	0.20	0.68	0.51	0.32
Control Delay (s/veh)	59.5	52.7	2.3	60.4	43.7	0.6	59.3	31.0	3.2	63.3	31.8	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	59.5	52.7	2.3	60.4	43.7	0.6	59.3	31.0	3.2	63.3	31.8	6.7
Queue Length 50th (ft)	60	261	0	54	186	0	57	82	0	108	226	7
Queue Length 95th (ft)	107	334	14	101	252	0	104	142	28	174	#391	77
Internal Link Dist (ft)		714			1357			2139			321	
Turn Bay Length (ft)	75		150	150		100	300		250	250		200
Base Capacity (vph)	307	644	634	200	542	588	205	1251	671	255	1444	783
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	0.27	0.58	0.14	0.38	0.52	0.14	0.39	0.23	0.20	0.59	0.51	0.32

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	344	84	70	259	77	73	266	124	139	677	228
Future Volume (veh/h)	76	344	84	70	259	77	73	266	124	139	677	228
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	374	91	76	282	84	79	289	135	151	736	248
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	107	430	364	98	420	356	101	1466	654	180	1623	724
Arrive On Green	0.06	0.23	0.23	0.05	0.22	0.22	0.06	0.41	0.41	0.10	0.46	0.46
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	83	374	91	76	282	84	79	289	135	151	736	248
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.3	22.1	5.4	4.8	15.8	5.0	5.0	6.0	6.3	9.6	16.3	11.6
Cycle Q Clear(g_c), s	5.3	22.1	5.4	4.8	15.8	5.0	5.0	6.0	6.3	9.6	16.3	11.6
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	107	430	364	98	420	356	101	1466	654	180	1623	724
V/C Ratio(X)	0.78	0.87	0.25	0.78	0.67	0.24	0.78	0.20	0.21	0.84	0.45	0.34
Avail Cap(c_a), veh/h	310	647	549	201	533	452	201	1466	654	248	1623	724
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	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	42.6	36.2	53.7	40.7	36.5	53.5	21.6	21.7	50.8	21.4	20.1
Incr Delay (d2), s/veh	11.4	8.3	0.4	12.5	2.2	0.3	12.1	0.3	0.7	16.4	0.9	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(95%),veh/ln	4.9	16.6	3.8	4.5	12.0	3.6	4.7	4.6	4.4	8.8	11.2	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	64.7	50.9	36.5	66.1	42.9	36.8	65.6	21.9	22.4	67.2	22.3	21.4
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	C	C
Approach Vol, veh/h		548			442			503			1135	
Approach Delay, s/veh		50.6			45.8			28.9			28.1	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.6	54.4	11.3	32.6	11.5	59.5	11.9	32.0
Change Period (Y+Rc), s	5.0	7.0	5.0	6.2	5.0	7.0	5.0	6.2
Max Green Setting (Gmax), s	16.0	23.0	13.0	39.8	13.0	26.0	20.0	32.8
Max Q Clear Time (g_c+I1), s	11.6	8.3	6.8	24.1	7.0	18.3	7.3	17.8
Green Ext Time (p_c), s	0.1	2.0	0.1	2.3	0.1	3.5	0.1	1.7

Intersection Summary	
HCM 7th Control Delay, s/veh	35.9
HCM 7th LOS	D

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		200	0		0	0
Storage Lanes		1	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.913	
Flt Protected				0.997	0.982	
Satd. Flow (prot)	1863	1583	0	1857	1670	0
Flt Permitted				0.997	0.982	
Satd. Flow (perm)	1863	1583	0	1857	1670	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1437			260	268	
Travel Time (s)	32.7			5.9	6.5	

Intersection Summary	
Area Type:	Other

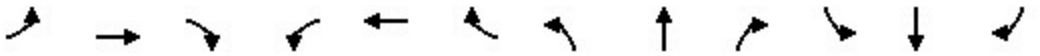
Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	612	16	25	370	30	54
Future Vol, veh/h	612	16	25	370	30	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	665	17	27	402	33	59

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	683	0	1122	665
Stage 1	-	-	-	-	665	-
Stage 2	-	-	-	-	457	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	910	-	228	460
Stage 1	-	-	-	-	511	-
Stage 2	-	-	-	-	638	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	910	-	219	460
Mov Cap-2 Maneuver	-	-	-	-	219	-
Stage 1	-	-	-	-	511	-
Stage 2	-	-	-	-	613	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.57	20.01
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	330	-	-	114	-
HCM Lane V/C Ratio	0.276	-	-	0.03	-
HCM Control Delay (s/veh)	20	-	-	9.1	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.1	-	-	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	150		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.994			0.889			0.938	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1857	0	1770	1852	0	1770	1656	0	1770	1747	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1857	0	1770	1852	0	1770	1656	0	1770	1747	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		483			921			648			640	
Travel Time (s)		11.0			20.9			14.7			14.5	

Intersection Summary	
Area Type:	Other

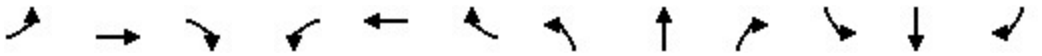
Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	628	14	50	365	15	5	12	34	24	46	32
Future Vol, veh/h	32	628	14	50	365	15	5	12	34	24	46	32
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	150	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	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	35	683	15	54	397	16	5	13	37	26	50	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	413	0	0	698	0	0	1290	1282	690	1272	1281	405
Stage 1	-	-	-	-	-	-	760	760	-	514	514	-
Stage 2	-	-	-	-	-	-	530	522	-	759	767	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1146	-	-	899	-	-	140	165	445	144	166	646
Stage 1	-	-	-	-	-	-	398	415	-	544	536	-
Stage 2	-	-	-	-	-	-	532	531	-	399	411	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1146	-	-	899	-	-	83	151	445	111	151	646
Mov Cap-2 Maneuver	-	-	-	-	-	-	83	151	-	111	151	-
Stage 1	-	-	-	-	-	-	386	402	-	511	503	-
Stage 2	-	-	-	-	-	-	426	499	-	343	399	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.39	1.08	22.78	35
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	83	295	1146	-	-	899	-	-	111	220
HCM Lane V/C Ratio	0.065	0.17	0.03	-	-	0.06	-	-	0.235	0.385
HCM Control Delay (s/veh)	51.2	19.7	8.2	-	-	9.3	-	-	47.1	31.3
HCM Lane LOS	F	C	A	-	-	A	-	-	E	D
HCM 95th %tile Q(veh)	0.2	0.6	0.1	-	-	0.2	-	-	0.9	1.7



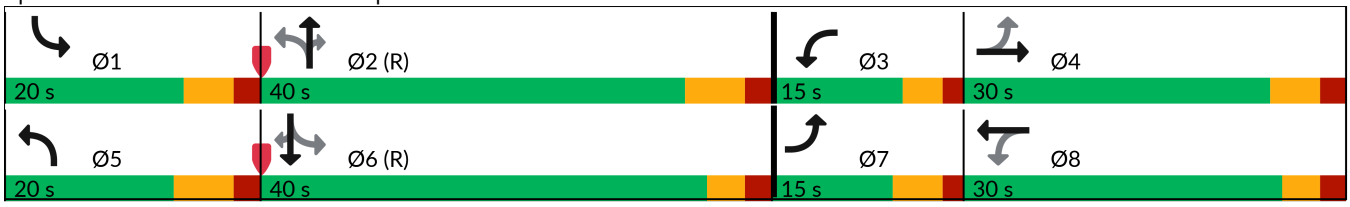
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	100		0	300		150	150		200
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.867			0.885				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1615	0	1770	1649	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.720			0.503			0.299			0.541		
Satd. Flow (perm)	1341	1615	0	937	1649	0	557	3539	1583	1008	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		114			43				156			156
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		478			955			764			2219	
Travel Time (s)		10.9			21.7			17.4			50.4	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	40	14	55	12	45	324	49	49	732	44
Future Volume (vph)	40	14	55	12	45	324	49	49	732	44
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		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)	10.4	29.9	9.7	30.0	11.7	22.5	22.5	10.9	22.5	22.5
Total Split (s)	15.0	30.0	15.0	30.0	20.0	40.0	40.0	20.0	40.0	40.0
Total Split (%)	14.3%	28.6%	14.3%	28.6%	19.0%	38.1%	38.1%	19.0%	38.1%	38.1%
Yellow Time (s)	3.9	3.9	3.2	3.0	4.7	4.7	4.7	3.9	3.0	3.0
All-Red Time (s)	1.5	2.0	1.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	5.4	5.9	4.7	5.0	6.7	6.7	6.7	5.9	5.0	5.0
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	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.7	7.7	17.1	11.1	69.0	63.6	63.6	69.3	64.7	64.7
Actuated g/C Ratio	0.14	0.07	0.16	0.11	0.66	0.61	0.61	0.66	0.62	0.62
v/c Ratio	0.20	0.58	0.28	0.26	0.11	0.16	0.05	0.07	0.36	0.05
Control Delay (s/veh)	34.6	21.8	35.7	21.1	7.3	11.4	0.1	6.7	12.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	34.6	21.8	35.7	21.1	7.3	11.4	0.1	6.7	12.7	0.1
LOS	C	C	D	C	A	B	A	A	B	A
Approach Delay (s/veh)		25.0		28.7		9.7			11.7	
Approach LOS		C		C		A			B	

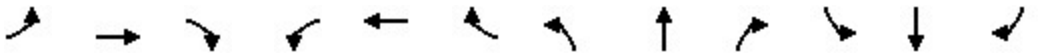
Intersection Summary	
Cycle Length: 105	
Actuated Cycle Length: 105	
Offset: 59 (56%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay (s/veh): 13.7	Intersection LOS: B
Intersection Capacity Utilization 48.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Pike Rd. & Airport Rd.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	43	129	60	56	49	352	53	53	796	48
v/c Ratio	0.20	0.58	0.28	0.26	0.11	0.16	0.05	0.07	0.36	0.05
Control Delay (s/veh)	34.6	21.8	35.7	21.1	7.3	11.4	0.1	6.7	12.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	34.6	21.8	35.7	21.1	7.3	11.4	0.1	6.7	12.7	0.1
Queue Length 50th (ft)	24	10	34	8	9	54	0	10	141	0
Queue Length 95th (ft)	50	64	64	45	26	97	0	27	225	0
Internal Link Dist (ft)		398		875		684			2139	
Turn Bay Length (ft)	150		100		300		150	150		200
Base Capacity (vph)	251	458	245	425	544	2143	1020	817	2181	1035
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	0.17	0.28	0.24	0.13	0.09	0.16	0.05	0.06	0.36	0.05

Intersection Summary



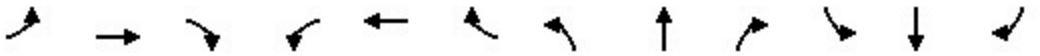
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	14	105	55	12	40	45	324	49	49	732	44
Future Volume (veh/h)	40	14	105	55	12	40	45	324	49	49	732	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	43	15	114	60	13	43	49	352	53	53	796	48
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	224	19	146	171	39	129	443	2128	949	679	2105	939
Arrive On Green	0.03	0.10	0.10	0.04	0.10	0.10	0.04	0.60	0.60	0.04	0.59	0.59
Sat Flow, veh/h	1781	188	1426	1781	381	1262	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	43	0	129	60	0	56	49	352	53	53	796	48
Grp Sat Flow(s),veh/h/ln	1781	0	1614	1781	0	1643	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.2	0.0	8.2	3.1	0.0	3.3	1.1	4.6	1.5	1.2	12.4	1.3
Cycle Q Clear(g_c), s	2.2	0.0	8.2	3.1	0.0	3.3	1.1	4.6	1.5	1.2	12.4	1.3
Prop In Lane	1.00		0.88	1.00		0.77	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	224	0	165	171	0	168	443	2128	949	679	2105	939
V/C Ratio(X)	0.19	0.00	0.78	0.35	0.00	0.33	0.11	0.17	0.06	0.08	0.38	0.05
Avail Cap(c_a), veh/h	326	0	370	274	0	391	604	2128	949	851	2105	939
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	0.88	0.88	0.88
Uniform Delay (d), s/veh	40.2	0.0	46.0	40.3	0.0	43.8	8.2	9.4	8.7	7.5	11.2	9.0
Incr Delay (d2), s/veh	0.4	0.0	7.9	1.2	0.0	1.2	0.1	0.2	0.1	0.0	0.5	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	0.0	6.5	2.6	0.0	2.5	0.7	3.2	0.9	0.8	8.1	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.6	0.0	53.9	41.5	0.0	45.0	8.3	9.5	8.9	7.5	11.7	9.1
LnGrp LOS	D		D	D		D	A	A	A	A	B	A
Approach Vol, veh/h		172			116			454			897	
Approach Delay, s/veh		50.6			43.2			9.3			11.3	
Approach LOS		D			D			A			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	69.6	9.0	16.6	10.5	68.9	9.0	16.6
Change Period (Y+Rc), s	5.9	6.7	4.7	5.9	6.7	* 6.7	5.4	* 5.9
Max Green Setting (Gmax), s	14.1	33.3	10.3	24.1	13.3	* 35	9.6	* 25
Max Q Clear Time (g_c+I1), s	3.2	6.6	5.1	10.2	3.1	14.4	4.2	5.3
Green Ext Time (p_c), s	0.1	2.6	0.0	0.5	0.1	5.8	0.0	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	17.1
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.994			0.889			0.938	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1857	0	1770	1852	0	1770	1656	0	1770	1747	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1857	0	1770	1852	0	1770	1656	0	1770	1747	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		297			624			503			339	
Travel Time (s)		6.8			7.4			7.1			7.7	

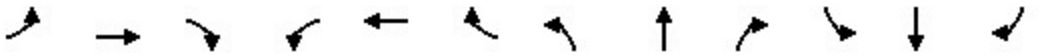
Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	55.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	628	14	50	365	15	5	12	34	24	46	32
Future Vol, veh/h	32	628	14	50	365	15	5	12	34	24	46	32
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	35	683	15	54	397	16	5	13	37	26	50	35
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay, s/veh	89.2	18.8	11	11.7
HCM LOS	F	C	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	26%	0%	98%	0%	96%	0%	59%
Vol Right, %	0%	74%	0%	2%	0%	4%	0%	41%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	5	46	32	642	50	380	24	78
LT Vol	5	0	32	0	50	0	24	0
Through Vol	0	12	0	628	0	365	0	46
RT Vol	0	34	0	14	0	15	0	32
Lane Flow Rate	5	50	35	698	54	413	26	85
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.012	0.099	0.06	1.113	0.096	0.667	0.058	0.169
Departure Headway (Hd)	8.516	7.466	6.261	5.74	6.58	6.045	8.299	7.489
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	423	483	576	635	548	603	434	482
Service Time	6.216	5.166	3.961	3.44	4.28	3.745	5.999	5.189
HCM Lane V/C Ratio	0.012	0.104	0.061	1.099	0.099	0.685	0.06	0.176
HCM Control Delay, s/veh	11.3	11	9.4	93.2	10	20	11.5	11.7
HCM Lane LOS	B	B	A	F	A	C	B	B
HCM 95th-tile Q	0	0.3	0.2	21.2	0.3	5	0.2	0.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.995			0.909			0.957	
Flt Protected		0.998			0.994			0.995			0.988	
Satd. Flow (prot)	0	1853	0	0	1842	0	0	1685	0	0	1761	0
Flt Permitted		0.998			0.994			0.995			0.988	
Satd. Flow (perm)	0	1853	0	0	1842	0	0	1685	0	0	1761	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		366			418			541			378	
Travel Time (s)		8.3			9.5			8.8			8.6	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	8.8
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	733	467	55	111
Demand Flow Rate, veh/h	748	476	56	114
Vehicles Circulating, veh/h	133	54	760	465
Vehicles Exiting, veh/h	446	762	121	65
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	11.0	6.2	6.8	5.6
Approach LOS	B	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
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	748	476	56	114
Cap Entry Lane, veh/h	1205	1306	636	859
Entry HV Adj Factor	0.980	0.981	0.978	0.974
Flow Entry, veh/h	733	467	55	111
Cap Entry, veh/h	1181	1281	621	836
V/C Ratio	0.621	0.364	0.088	0.133
Control Delay, s/veh	11.0	6.2	6.8	5.6
LOS	B	A	A	A
95th %tile Queue, veh	5	2	0	0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor						
Frt	0.892		0.999			
Flt Protected	0.990				0.950	
Satd. Flow (prot)	1645	0	3536	0	1770	3539
Flt Permitted	0.990				0.950	
Satd. Flow (perm)	1645	0	3536	0	1770	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	244		284			406
Travel Time (s)	5.5		6.5			9.2

Intersection Summary	
Area Type:	Other

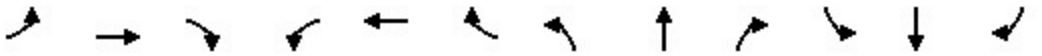
Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	4	842	8	7	635
Future Vol, veh/h	1	4	842	8	7	635
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	4	915	9	8	690

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1280	462	0	0	924	0
Stage 1	920	-	-	-	-	-
Stage 2	360	-	-	-	-	-
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	158	547	-	-	735	-
Stage 1	349	-	-	-	-	-
Stage 2	676	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	156	547	-	-	735	-
Mov Cap-2 Maneuver	156	-	-	-	-	-
Stage 1	349	-	-	-	-	-
Stage 2	669	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	15.04	0	0.11
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	364	735	-
HCM Lane V/C Ratio	-	-	0.015	0.01	-
HCM Control Delay (s/veh)	-	-	15	9.9	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-



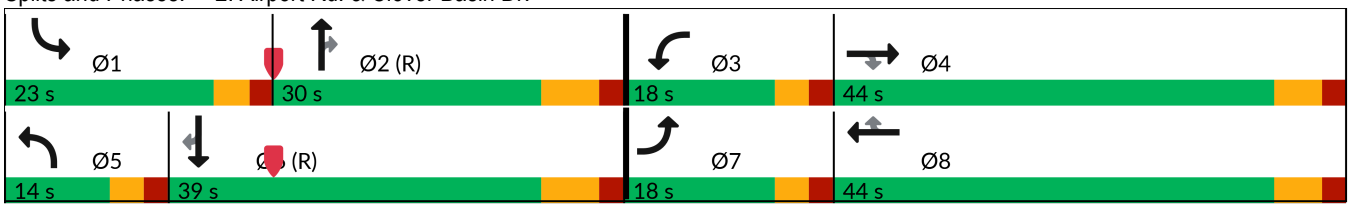
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	75		150	150		100	300		250	250		200
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			180			180			173			125
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		794			1437			2219			401	
Travel Time (s)		18.0			32.7			50.4			9.1	

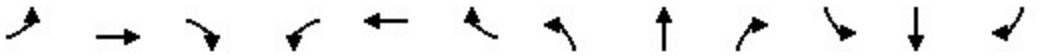
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	349	36	151	331	152	62	620	158	160	379	106
Future Volume (vph)	80	349	36	151	331	152	62	620	158	160	379	106
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	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	5.0	5.0
Minimum Split (s)	10.0	34.2	34.2	10.0	34.2	34.2	10.0	26.0	26.0	10.0	26.0	26.0
Total Split (s)	18.0	44.0	44.0	18.0	44.0	44.0	14.0	30.0	30.0	23.0	39.0	39.0
Total Split (%)	15.7%	38.3%	38.3%	15.7%	38.3%	38.3%	12.2%	26.1%	26.1%	20.0%	33.9%	33.9%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	0.0
Total Lost Time (s)	5.0	6.2	6.2	5.0	6.2	6.2	5.0	7.0	7.0	5.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	10.5	29.0	29.0	12.7	33.4	33.4	8.9	34.5	34.5	15.6	43.5	43.5
Actuated g/C Ratio	0.09	0.25	0.25	0.11	0.29	0.29	0.08	0.30	0.30	0.14	0.38	0.38
v/c Ratio	0.54	0.81	0.07	0.84	0.67	0.28	0.49	0.63	0.29	0.73	0.31	0.17
Control Delay (s/veh)	61.7	53.5	0.3	84.4	42.7	4.6	63.0	40.3	7.0	64.6	28.7	5.2
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 (s/veh)	61.7	53.5	0.3	84.4	42.7	4.6	63.0	40.3	7.0	64.6	28.7	5.2
LOS	E	D	A	F	D	A	E	D	A	E	C	A
Approach Delay (s/veh)		50.8			43.5			35.7			33.7	
Approach LOS		D			D			D			C	

Intersection Summary	
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 9 (8%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay (s/veh): 39.8	Intersection LOS: D
Intersection Capacity Utilization 72.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: Airport Rd. & Clover Basin Dr.

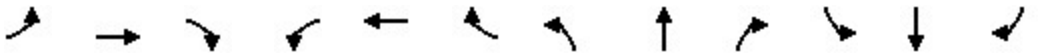




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	87	379	39	164	360	165	67	674	172	174	412	115
v/c Ratio	0.54	0.81	0.07	0.84	0.67	0.28	0.49	0.63	0.29	0.73	0.31	0.17
Control Delay (s/veh)	61.7	53.5	0.3	84.4	42.7	4.6	63.0	40.3	7.0	64.6	28.7	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	61.7	53.5	0.3	84.4	42.7	4.6	63.0	40.3	7.0	64.6	28.7	5.2
Queue Length 50th (ft)	62	265	0	121	242	0	48	230	0	124	117	0
Queue Length 95th (ft)	114	341	0	#238	323	39	96	#380	58	197	178	38
Internal Link Dist (ft)		714			1357			2139			321	
Turn Bay Length (ft)	75		150	150		100	300		250	250		200
Base Capacity (vph)	200	612	641	200	612	641	148	1062	596	280	1337	676
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	0.44	0.62	0.06	0.82	0.59	0.26	0.45	0.63	0.29	0.62	0.31	0.17

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	349	36	151	331	152	62	620	158	160	379	106
Future Volume (veh/h)	80	349	36	151	331	152	62	620	158	160	379	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	379	39	164	360	165	67	674	172	174	412	115
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	111	431	365	192	516	437	86	1229	548	204	1464	653
Arrive On Green	0.06	0.23	0.23	0.11	0.28	0.28	0.05	0.35	0.35	0.11	0.41	0.41
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	87	379	39	164	360	165	67	674	172	174	412	115
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.5	22.5	2.2	10.4	19.8	9.7	4.3	17.6	9.2	11.0	8.9	5.3
Cycle Q Clear(g_c), s	5.5	22.5	2.2	10.4	19.8	9.7	4.3	17.6	9.2	11.0	8.9	5.3
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	431	365	192	516	437	86	1229	548	204	1464	653
V/C Ratio(X)	0.79	0.88	0.11	0.86	0.70	0.38	0.78	0.55	0.31	0.85	0.28	0.18
Avail Cap(c_a), veh/h	201	615	521	201	615	521	139	1229	548	279	1464	653
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	0.95	0.95	0.95	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.2	42.7	34.9	50.4	37.3	33.7	54.1	30.4	27.6	50.0	22.5	21.4
Incr Delay (d2), s/veh	11.6	10.2	0.1	27.8	2.8	0.5	13.2	1.7	1.4	16.8	0.5	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(95%),veh/ln	5.1	17.1	1.6	10.2	14.4	6.8	4.0	12.2	6.6	9.8	6.9	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	64.8	52.9	35.0	78.2	40.1	34.2	67.4	32.0	29.0	66.8	23.0	22.0
LnGrp LOS	E	D	D	E	D	C	E	C	C	E	C	C
Approach Vol, veh/h		505			689			913			701	
Approach Delay, s/veh		53.6			47.8			34.1			33.7	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.2	46.8	17.4	32.7	10.6	54.4	12.1	37.9
Change Period (Y+Rc), s	5.0	7.0	5.0	6.2	5.0	7.0	5.0	6.2
Max Green Setting (Gmax), s	18.0	23.0	13.0	37.8	9.0	32.0	13.0	37.8
Max Q Clear Time (g_c+I1), s	13.0	19.6	12.4	24.5	6.3	10.9	7.5	21.8
Green Ext Time (p_c), s	0.2	1.6	0.0	2.0	0.0	3.1	0.1	2.5

Intersection Summary	
HCM 7th Control Delay, s/veh	40.8
HCM 7th LOS	D

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		200	0		0	0
Storage Lanes		1	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850			0.899	
Flt Protected				0.995	0.988	
Satd. Flow (prot)	1863	1583	0	1853	1655	0
Flt Permitted				0.995	0.988	
Satd. Flow (perm)	1863	1583	0	1853	1655	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1437			260	268	
Travel Time (s)	32.7			5.9	6.5	

Intersection Summary	
Area Type:	Other

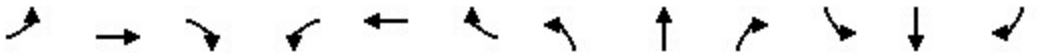
Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	640	25	74	644	16	47
Future Vol, veh/h	640	25	74	644	16	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	696	27	80	700	17	51

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	723	0	1557	696
Stage 1	-	-	-	-	696	-
Stage 2	-	-	-	-	861	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	879	-	124	442
Stage 1	-	-	-	-	495	-
Stage 2	-	-	-	-	414	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	879	-	106	442
Mov Cap-2 Maneuver	-	-	-	-	106	-
Stage 1	-	-	-	-	495	-
Stage 2	-	-	-	-	352	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.98	25.39
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	244	-	-	186	-
HCM Lane V/C Ratio	0.28	-	-	0.091	-
HCM Control Delay (s/veh)	25.4	-	-	9.5	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	1.1	-	-	0.3	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	150		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.995			0.900			0.881	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1861	0	1770	1853	0	1770	1676	0	1770	1641	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1861	0	1770	1853	0	1770	1676	0	1770	1641	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		483			921			648			640	
Travel Time (s)		11.0			20.9			14.7			14.5	

Intersection Summary	
Area Type:	Other

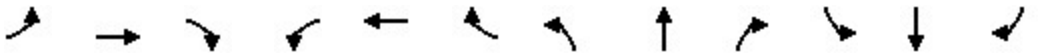
Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	657	5	23	632	21	11	42	85	17	15	57
Future Vol, veh/h	30	657	5	23	632	21	11	42	85	17	15	57
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	150	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	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	33	714	5	25	687	23	12	46	92	18	16	62

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	710	0	0	720	0	0	1527	1542	717	1551	1533	698
Stage 1	-	-	-	-	-	-	782	782	-	748	748	-
Stage 2	-	-	-	-	-	-	745	760	-	802	785	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	889	-	-	882	-	-	96	115	430	93	116	440
Stage 1	-	-	-	-	-	-	387	405	-	404	420	-
Stage 2	-	-	-	-	-	-	406	415	-	378	404	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	889	-	-	882	-	-	66	108	430	40	109	440
Mov Cap-2 Maneuver	-	-	-	-	-	-	66	108	-	40	109	-
Stage 1	-	-	-	-	-	-	373	390	-	393	408	-
Stage 2	-	-	-	-	-	-	325	403	-	252	389	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.4	0.31	49.04	48.81
HCM LOS			E	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	66	216	889	-	-	882	-	-	40	270
HCM Lane V/C Ratio	0.18	0.639	0.037	-	-	0.028	-	-	0.459	0.29
HCM Control Delay (s/veh)	70.8	47.2	9.2	-	-	9.2	-	-	155.1	23.7
HCM Lane LOS	F	E	A	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	0.6	3.8	0.1	-	-	0.1	-	-	1.6	1.2



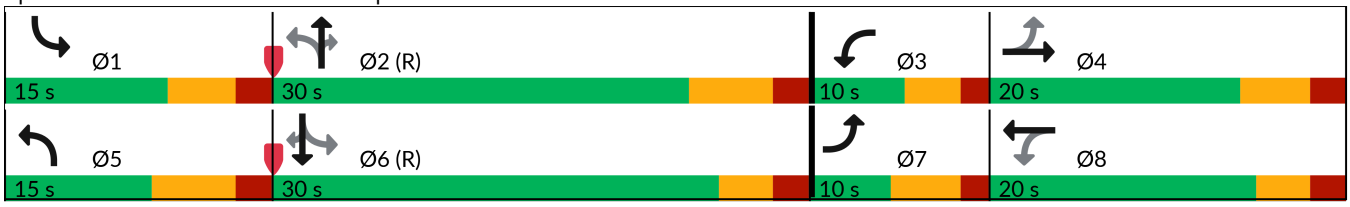
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	100		0	300		150	150		200
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.905			0.899				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1686	0	1770	1675	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.658			0.709			0.432			0.361		
Satd. Flow (perm)	1226	1686	0	1321	1675	0	805	3539	1583	672	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		47			67				218			218
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		478			955			764			2219	
Travel Time (s)		10.9			21.7			17.4			50.4	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	55	25	56	30	84	707	52	25	414	59
Future Volume (vph)	55	25	56	30	84	707	52	25	414	59
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	4.6	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0	9.7	20.0	11.7	22.5	22.5	10.9	22.5	22.5
Total Split (s)	10.0	20.0	10.0	20.0	15.0	30.0	30.0	15.0	30.0	30.0
Total Split (%)	13.3%	26.7%	13.3%	26.7%	20.0%	40.0%	40.0%	20.0%	40.0%	40.0%
Yellow Time (s)	3.9	3.9	3.2	3.0	4.7	4.7	4.7	3.9	3.0	3.0
All-Red Time (s)	1.5	2.0	1.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	5.4	5.9	4.7	5.0	6.7	6.7	6.7	5.9	5.0	5.0
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	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	10.1	7.1	11.2	7.8	50.0	47.9	47.9	45.9	42.9	42.9
Actuated g/C Ratio	0.13	0.09	0.15	0.10	0.67	0.64	0.64	0.61	0.57	0.57
v/c Ratio	0.30	0.37	0.27	0.43	0.15	0.34	0.05	0.05	0.22	0.06
Control Delay (s/veh)	27.2	20.5	25.6	19.1	6.9	11.0	0.1	6.9	12.3	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.2	20.5	25.6	19.1	6.9	11.0	0.1	6.9	12.3	0.1
LOS	C	C	C	B	A	B	A	A	B	A
Approach Delay (s/veh)		23.5		21.5		9.9			10.6	
Approach LOS		C		C		A			B	

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 59 (79%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay (s/veh): 12.3	Intersection LOS: B
Intersection Capacity Utilization 48.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Pike Rd. & Airport Rd.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	60	74	61	100	91	768	57	27	450	64
v/c Ratio	0.30	0.37	0.27	0.43	0.15	0.34	0.05	0.05	0.22	0.06
Control Delay (s/veh)	27.2	20.5	25.6	19.1	6.9	11.0	0.1	6.9	12.3	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.2	20.5	25.6	19.1	6.9	11.0	0.1	6.9	12.3	0.1
Queue Length 50th (ft)	22	12	23	14	16	83	0	4	66	0
Queue Length 95th (ft)	48	47	49	55	37	193	0	14	112	0
Internal Link Dist (ft)		398		875		684			2139	
Turn Bay Length (ft)	150		100		300		150	150		200
Base Capacity (vph)	198	355	229	388	645	2262	1090	566	2026	999
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	0.30	0.21	0.27	0.26	0.14	0.34	0.05	0.05	0.22	0.06

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	25	43	56	30	62	84	707	52	25	414	59
Future Volume (veh/h)	55	25	43	56	30	62	84	707	52	25	414	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	60	27	47	61	33	67	91	768	57	27	450	64
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	212	57	99	249	48	98	558	1852	826	406	1715	765
Arrive On Green	0.04	0.09	0.09	0.05	0.09	0.09	0.06	0.52	0.52	0.03	0.48	0.48
Sat Flow, veh/h	1781	612	1066	1781	551	1118	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	60	0	74	61	0	100	91	768	57	27	450	64
Grp Sat Flow(s),veh/h/ln	1781	0	1678	1781	0	1669	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.3	0.0	3.1	2.3	0.0	4.4	1.9	9.9	1.3	0.6	5.6	1.6
Cycle Q Clear(g_c), s	2.3	0.0	3.1	2.3	0.0	4.4	1.9	9.9	1.3	0.6	5.6	1.6
Prop In Lane	1.00		0.64	1.00		0.67	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	212	0	156	249	0	146	558	1852	826	406	1715	765
V/C Ratio(X)	0.28	0.00	0.48	0.24	0.00	0.68	0.16	0.41	0.07	0.07	0.26	0.08
Avail Cap(c_a), veh/h	243	0	316	289	0	334	654	1852	826	571	1715	765
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	0.90	0.90	0.90
Uniform Delay (d), s/veh	29.4	0.0	32.3	29.1	0.0	33.2	8.6	11.0	8.9	9.4	11.5	10.5
Incr Delay (d2), s/veh	0.7	0.0	2.2	0.5	0.0	5.5	0.1	0.7	0.2	0.1	0.3	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	0.0	2.4	1.8	0.0	3.5	1.2	6.6	0.8	0.4	3.8	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.1	0.0	34.5	29.6	0.0	38.7	8.8	11.7	9.1	9.5	11.8	10.7
LnGrp LOS	C		C	C		D	A	B	A	A	B	B
Approach Vol, veh/h		134			161			916			541	
Approach Delay, s/veh		32.6			35.3			11.2			11.6	
Approach LOS		C			D			B			B	

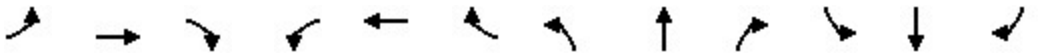
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	45.8	8.3	12.9	10.9	42.9	8.7	12.5
Change Period (Y+Rc), s	5.9	6.7	4.7	5.9	6.7	* 6.7	5.4	* 5.9
Max Green Setting (Gmax), s	9.1	23.3	5.3	14.1	8.3	* 25	4.6	* 15
Max Q Clear Time (g_c+I1), s	2.6	11.9	4.3	5.1	3.9	7.6	4.3	6.4
Green Ext Time (p_c), s	0.0	4.2	0.0	0.2	0.1	3.0	0.0	0.3

Intersection Summary	
HCM 7th Control Delay, s/veh	15.2
HCM 7th LOS	B

Notes

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

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.995			0.900			0.881	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1861	0	1770	1853	0	1770	1676	0	1770	1641	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1861	0	1770	1853	0	1770	1676	0	1770	1641	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		345			627			442			339	
Travel Time (s)		7.8			10.2			7.8			7.7	

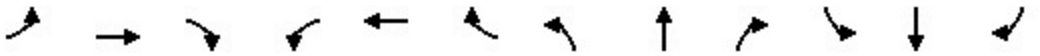
Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	128.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	657	5	23	632	21	11	42	85	17	15	57
Future Vol, veh/h	30	657	5	23	632	21	11	42	85	17	15	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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	714	5	25	687	23	12	46	92	18	16	62
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay, s/veh	150.5	144.9	14.3	13
HCM LOS	F	F	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	33%	0%	99%	0%	97%	0%	21%
Vol Right, %	0%	67%	0%	1%	0%	3%	0%	79%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	11	127	30	662	23	653	17	72
LT Vol	11	0	30	0	23	0	17	0
Through Vol	0	42	0	657	0	632	0	15
RT Vol	0	85	0	5	0	21	0	57
Lane Flow Rate	12	138	33	720	25	710	18	78
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.028	0.289	0.062	1.27	0.048	1.252	0.045	0.166
Departure Headway (Hd)	9.438	8.424	7.19	6.674	7.216	6.682	9.721	8.614
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	382	429	501	547	499	547	371	419
Service Time	7.138	6.124	4.89	4.374	4.916	4.382	7.421	6.314
HCM Lane V/C Ratio	0.031	0.322	0.066	1.316	0.05	1.298	0.049	0.186
HCM Control Delay, s/veh	12.4	14.5	10.4	156.8	10.3	149.6	12.9	13
HCM Lane LOS	B	B	B	F	B	F	B	B
HCM 95th-tile Q	0.1	1.2	0.2	27.5	0.2	26.5	0.1	0.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.999			0.996			0.917			0.913	
Flt Protected		0.998			0.998			0.996			0.991	
Satd. Flow (prot)	0	1857	0	0	1852	0	0	1701	0	0	1685	0
Flt Permitted		0.998			0.998			0.996			0.991	
Satd. Flow (perm)	0	1857	0	0	1852	0	0	1701	0	0	1685	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		352			547			471			295	
Travel Time (s)		8.0			12.4			10.7			6.7	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	9.7
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	752	735	150	96
Demand Flow Rate, veh/h	767	750	153	97
Vehicles Circulating, veh/h	60	93	780	739
Vehicles Exiting, veh/h	776	840	47	104
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.8	10.2	9.0	7.4
Approach LOS	A	B	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
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	767	750	153	97
Cap Entry Lane, veh/h	1298	1255	623	649
Entry HV Adj Factor	0.980	0.980	0.981	0.986
Flow Entry, veh/h	752	735	150	96
Cap Entry, veh/h	1272	1230	611	641
V/C Ratio	0.591	0.598	0.246	0.149
Control Delay, s/veh	9.8	10.2	9.0	7.4
LOS	A	B	A	A
95th %tile Queue, veh	4	4	1	1

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor						
Frt			0.998			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	0	3532	0	1770	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	0	3532	0	1770	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	244		284			406
Travel Time (s)	5.5		6.5			9.2

Intersection Summary	
Area Type:	Other

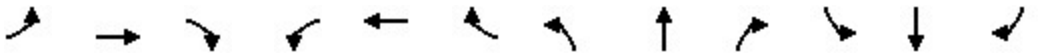
Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	0	368	5	2	884
Future Vol, veh/h	6	0	368	5	2	884
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	0	400	5	2	961

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	888	203	0	0	405	0
Stage 1	403	-	-	-	-	-
Stage 2	485	-	-	-	-	-
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	283	804	-	-	1150	-
Stage 1	644	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	283	804	-	-	1150	-
Mov Cap-2 Maneuver	283	-	-	-	-	-
Stage 1	644	-	-	-	-	-
Stage 2	584	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	18.03	0	0.02
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	283	1150	-
HCM Lane V/C Ratio	-	-	0.023	0.002	-
HCM Control Delay (s/veh)	-	-	18	8.1	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-



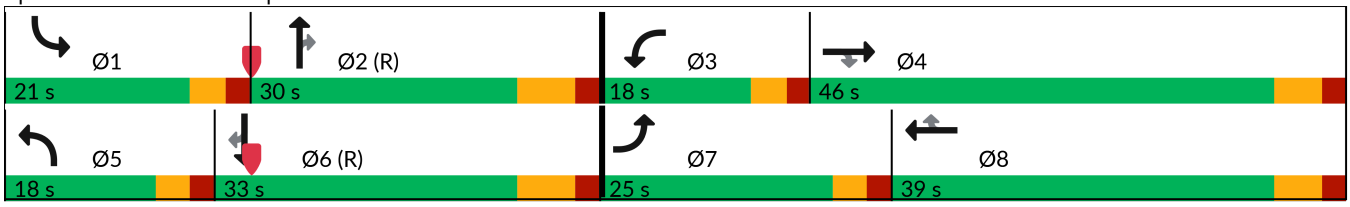
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	75		150	150		100	300		250	250		200
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			133			180			173			207
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		794			727			2219			401	
Travel Time (s)		18.0			16.5			50.4			9.1	

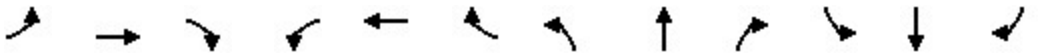
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	288	72	69	223	75	60	232	112	119	583	190
Future Volume (vph)	65	288	72	69	223	75	60	232	112	119	583	190
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	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	5.0	5.0
Minimum Split (s)	10.0	34.2	34.2	10.0	34.2	34.2	10.0	26.0	26.0	10.0	26.0	26.0
Total Split (s)	25.0	46.0	46.0	18.0	39.0	39.0	18.0	30.0	30.0	21.0	33.0	33.0
Total Split (%)	21.7%	40.0%	40.0%	15.7%	33.9%	33.9%	15.7%	26.1%	26.1%	18.3%	28.7%	28.7%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	0.0
Total Lost Time (s)	5.0	6.2	6.2	5.0	6.2	6.2	5.0	7.0	7.0	5.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	10.0	25.1	25.1	10.0	25.1	25.1	9.6	45.3	45.3	13.6	51.6	51.6
Actuated g/C Ratio	0.09	0.22	0.22	0.09	0.22	0.22	0.08	0.39	0.39	0.12	0.45	0.45
v/c Ratio	0.46	0.76	0.17	0.49	0.59	0.16	0.44	0.18	0.16	0.61	0.39	0.25
Control Delay (s/veh)	58.9	54.4	1.4	60.2	45.7	0.7	58.8	27.3	2.0	60.4	26.4	4.9
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 (s/veh)	58.9	54.4	1.4	60.2	45.7	0.7	58.8	27.3	2.0	60.4	26.4	4.9
LOS	E	D	A	E	D	A	E	C	A	E	C	A
Approach Delay (s/veh)		46.2			39.2			25.0			26.4	
Approach LOS		D			D			C			C	

Intersection Summary	
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 9 (8%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay (s/veh): 32.4	Intersection LOS: C
Intersection Capacity Utilization 58.9%	ICU Level of Service B
Analysis Period (min) 15	

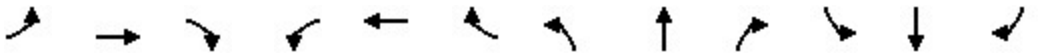
Splits and Phases: 2: Airport Rd. & Clover Basin Dr.





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	71	313	78	75	242	82	65	252	122	129	634	207
v/c Ratio	0.46	0.76	0.17	0.49	0.59	0.16	0.44	0.18	0.16	0.61	0.39	0.25
Control Delay (s/veh)	58.9	54.4	1.4	60.2	45.7	0.7	58.8	27.3	2.0	60.4	26.4	4.9
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 (s/veh)	58.9	54.4	1.4	60.2	45.7	0.7	58.8	27.3	2.0	60.4	26.4	4.9
Queue Length 50th (ft)	51	220	0	54	162	0	47	65	0	92	174	0
Queue Length 95th (ft)	96	292	5	101	226	0	89	120	17	150	280	56
Internal Link Dist (ft)		714			647			2139			321	
Turn Bay Length (ft)	75		150	150		100	300		250	250		200
Base Capacity (vph)	307	644	634	200	531	580	201	1395	729	254	1586	823
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	0.23	0.49	0.12	0.38	0.46	0.14	0.32	0.18	0.17	0.51	0.40	0.25

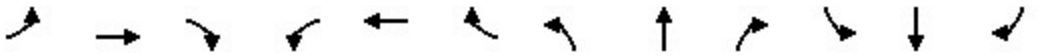
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	288	72	69	223	75	60	232	112	119	583	190
Future Volume (veh/h)	65	288	72	69	223	75	60	232	112	119	583	190
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	71	313	78	75	242	82	65	252	122	129	634	207
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	92	367	311	96	372	315	84	1633	728	157	1779	793
Arrive On Green	0.05	0.20	0.20	0.05	0.20	0.20	0.05	0.46	0.46	0.09	0.50	0.50
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	71	313	78	75	242	82	65	252	122	129	634	207
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.5	18.6	4.8	4.8	13.7	5.0	4.1	4.7	5.2	8.2	12.5	8.6
Cycle Q Clear(g_c), s	4.5	18.6	4.8	4.8	13.7	5.0	4.1	4.7	5.2	8.2	12.5	8.6
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	92	367	311	96	372	315	84	1633	728	157	1779	793
V/C Ratio(X)	0.77	0.85	0.25	0.78	0.65	0.26	0.77	0.15	0.17	0.82	0.36	0.26
Avail Cap(c_a), veh/h	310	647	549	201	533	452	201	1633	728	248	1779	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)	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.9	44.6	39.1	53.7	42.4	38.9	54.2	18.1	18.2	51.5	17.5	16.5
Incr Delay (d2), s/veh	12.6	5.6	0.4	12.6	1.9	0.4	13.8	0.2	0.5	11.3	0.6	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(95%),veh/ln	4.2	14.1	3.4	4.5	10.7	3.6	3.9	3.6	3.6	7.5	8.9	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	66.5	50.2	39.5	66.3	44.3	39.4	67.9	18.3	18.7	62.9	18.0	17.3
LnGrp LOS	E	D	D	E	D	D	E	B	B	E	B	B
Approach Vol, veh/h		462			399			439			970	
Approach Delay, s/veh		50.9			47.4			25.7			23.8	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.2	59.8	11.2	28.8	10.4	64.6	10.9	29.1
Change Period (Y+Rc), s	5.0	7.0	5.0	6.2	5.0	7.0	5.0	6.2
Max Green Setting (Gmax), s	16.0	23.0	13.0	39.8	13.0	26.0	20.0	32.8
Max Q Clear Time (g_c+I1), s	10.2	7.2	6.8	20.6	6.1	14.5	6.5	15.7
Green Ext Time (p_c), s	0.1	1.8	0.1	2.0	0.1	3.9	0.1	1.5

Intersection Summary	
HCM 7th Control Delay, s/veh	33.9
HCM 7th LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		200	100		100	0		0	0		0
Storage Lanes	1		1	1		1	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850		0.913			0.970	
Flt Protected	0.950			0.950				0.982			0.963	
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	0	1670	0	0	1740	0
Flt Permitted	0.950			0.950				0.982			0.963	
Satd. Flow (perm)	1770	1863	1583	1770	1863	1583	0	1670	0	0	1740	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		710			392			268			265	
Travel Time (s)		32.7			5.9			6.5			0.0	

Intersection Summary	
Area Type:	Other

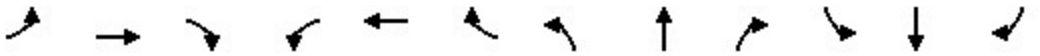
Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	520	16	25	314	10	30	0	54	32	0	9
Future Vol, veh/h	3	520	16	25	314	10	30	0	54	32	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	200	100	-	100	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	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	3	565	17	27	341	11	33	0	59	35	0	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	352	0	0	583	0	0	967	978	565	967	985	341
Stage 1	-	-	-	-	-	-	572	572	-	396	396	-
Stage 2	-	-	-	-	-	-	396	407	-	572	589	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1207	-	-	992	-	-	234	250	524	234	248	701
Stage 1	-	-	-	-	-	-	505	504	-	630	604	-
Stage 2	-	-	-	-	-	-	630	598	-	505	495	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1207	-	-	992	-	-	223	243	524	201	241	701
Mov Cap-2 Maneuver	-	-	-	-	-	-	223	243	-	201	241	-
Stage 1	-	-	-	-	-	-	504	503	-	612	588	-
Stage 2	-	-	-	-	-	-	604	581	-	448	494	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.04	0.63	18.67	23.53
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	354	1207	-	-	992	-	-	238
HCM Lane V/C Ratio	0.258	0.003	-	-	0.027	-	-	0.187
HCM Control Delay (s/veh)	18.7	8	-	-	8.7	-	-	23.5
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1	0	-	-	0.1	-	-	0.7



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	150		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.995			0.993			0.889			0.936	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1853	0	1770	1850	0	1770	1656	0	1770	1744	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1853	0	1770	1850	0	1770	1656	0	1770	1744	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		483			921			648			640	
Travel Time (s)		11.0			20.9			14.7			14.5	

Intersection Summary	
Area Type:	Other

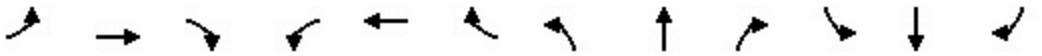
Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	41	550	18	50	316	15	6	12	34	24	46	34
Future Vol, veh/h	41	550	18	50	316	15	6	12	34	24	46	34
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	150	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	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	45	598	20	54	343	16	7	13	37	26	50	37

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	360	0	0	617	0	0	1174	1165	608	1154	1167	352
Stage 1	-	-	-	-	-	-	697	697	-	460	460	-
Stage 2	-	-	-	-	-	-	477	468	-	693	707	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1199	-	-	963	-	-	169	194	496	174	194	692
Stage 1	-	-	-	-	-	-	432	443	-	581	566	-
Stage 2	-	-	-	-	-	-	569	561	-	433	438	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1199	-	-	963	-	-	107	176	496	137	176	692
Mov Cap-2 Maneuver	-	-	-	-	-	-	107	176	-	137	176	-
Stage 1	-	-	-	-	-	-	416	426	-	548	534	-
Stage 2	-	-	-	-	-	-	461	529	-	374	422	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.55	1.18	20.25	28.6
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	107	337	1199	-	-	963	-	-	137	258
HCM Lane V/C Ratio	0.061	0.148	0.037	-	-	0.056	-	-	0.191	0.338
HCM Control Delay (s/veh)	40.9	17.5	8.1	-	-	9	-	-	37.5	25.9
HCM Lane LOS	E	C	A	-	-	A	-	-	E	D
HCM 95th %tile Q(veh)	0.2	0.5	0.1	-	-	0.2	-	-	0.7	1.4



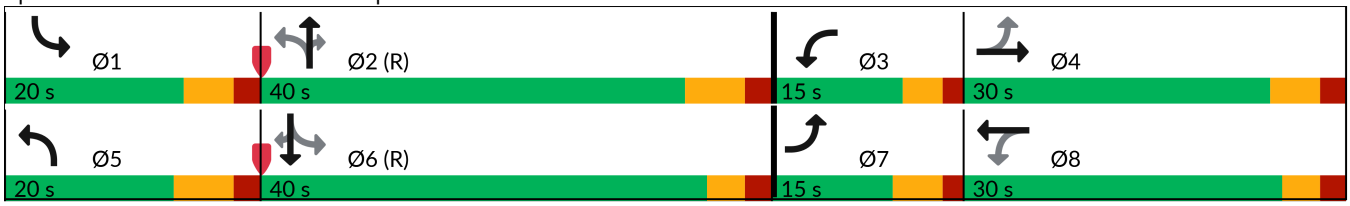
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	100		0	300		150	150		200
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.870			0.888				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1621	0	1770	1654	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.724			0.572			0.344			0.561		
Satd. Flow (perm)	1349	1621	0	1065	1654	0	641	3539	1583	1045	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		99			38				156			156
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		478			955			764			2219	
Travel Time (s)		10.9			21.7			17.4			50.4	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	35	14	50	12	45	290	49	49	639	44
Future Volume (vph)	35	14	50	12	45	290	49	49	639	44
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		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)	10.4	29.9	9.7	30.0	11.7	22.5	22.5	10.9	22.5	22.5
Total Split (s)	15.0	30.0	15.0	30.0	20.0	40.0	40.0	20.0	40.0	40.0
Total Split (%)	14.3%	28.6%	14.3%	28.6%	19.0%	38.1%	38.1%	19.0%	38.1%	38.1%
Yellow Time (s)	3.9	3.9	3.2	3.0	4.7	4.7	4.7	3.9	3.0	3.0
All-Red Time (s)	1.5	2.0	1.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	5.4	5.9	4.7	5.0	6.7	6.7	6.7	5.9	5.0	5.0
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	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.4	7.6	16.8	11.0	69.3	63.9	63.9	69.6	65.0	65.0
Actuated g/C Ratio	0.14	0.07	0.16	0.10	0.66	0.61	0.61	0.66	0.62	0.62
v/c Ratio	0.17	0.54	0.24	0.24	0.09	0.14	0.05	0.07	0.31	0.04
Control Delay (s/veh)	34.5	22.2	35.1	21.9	7.0	11.1	0.1	6.5	12.0	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 (s/veh)	34.5	22.2	35.1	21.9	7.0	11.1	0.1	6.5	12.0	0.0
LOS	C	C	D	C	A	B	A	A	B	A
Approach Delay (s/veh)		25.3		28.7		9.3			10.9	
Approach LOS		C		C		A			B	

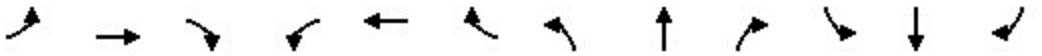
Intersection Summary	
Cycle Length: 105	
Actuated Cycle Length: 105	
Offset: 59 (56%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay (s/veh): 13.2	Intersection LOS: B
Intersection Capacity Utilization 45.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Pike Rd. & Airport Rd.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	38	114	54	51	49	315	53	53	695	48
v/c Ratio	0.17	0.54	0.24	0.24	0.09	0.14	0.05	0.07	0.31	0.04
Control Delay (s/veh)	34.5	22.2	35.1	21.9	7.0	11.1	0.1	6.5	12.0	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 (s/veh)	34.5	22.2	35.1	21.9	7.0	11.1	0.1	6.5	12.0	0.0
Queue Length 50th (ft)	21	10	30	8	9	48	0	10	117	0
Queue Length 95th (ft)	46	62	59	44	26	86	0	27	191	0
Internal Link Dist (ft)		398		875		684			2139	
Turn Bay Length (ft)	150		100		300		150	150		200
Base Capacity (vph)	250	448	253	422	594	2153	1024	841	2191	1039
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	0.15	0.25	0.21	0.12	0.08	0.15	0.05	0.06	0.32	0.05

Intersection Summary



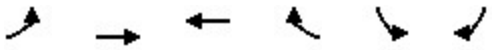
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	14	91	50	12	35	45	290	49	49	639	44
Future Volume (veh/h)	35	14	91	50	12	35	45	290	49	49	639	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	38	15	99	54	13	38	49	315	53	53	695	48
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	210	20	129	166	38	112	498	2174	970	717	2151	959
Arrive On Green	0.03	0.09	0.09	0.04	0.09	0.09	0.04	0.61	0.61	0.04	0.61	0.61
Sat Flow, veh/h	1781	213	1405	1781	420	1229	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	38	0	114	54	0	51	49	315	53	53	695	48
Grp Sat Flow(s),veh/h/ln	1781	0	1618	1781	0	1649	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.0	0.0	7.2	2.9	0.0	3.0	1.1	4.0	1.4	1.2	10.1	1.3
Cycle Q Clear(g_c), s	2.0	0.0	7.2	2.9	0.0	3.0	1.1	4.0	1.4	1.2	10.1	1.3
Prop In Lane	1.00		0.87	1.00		0.75	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	210	0	149	166	0	151	498	2174	970	717	2151	959
V/C Ratio(X)	0.18	0.00	0.76	0.33	0.00	0.34	0.10	0.14	0.05	0.07	0.32	0.05
Avail Cap(c_a), veh/h	316	0	371	273	0	393	659	2174	970	890	2151	959
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	0.93	0.93	0.93
Uniform Delay (d), s/veh	41.3	0.0	46.5	41.3	0.0	44.7	7.5	8.7	8.2	7.0	10.2	8.4
Incr Delay (d2), s/veh	0.4	0.0	7.9	1.1	0.0	1.3	0.1	0.1	0.1	0.0	0.4	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	0.0	5.8	2.3	0.0	2.3	0.7	2.7	0.9	0.8	6.9	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.7	0.0	54.4	42.4	0.0	46.0	7.5	8.8	8.3	7.0	10.5	8.5
LnGrp LOS	D		D	D		D	A	A	A	A	B	A
Approach Vol, veh/h		152			105			417			796	
Approach Delay, s/veh		51.3			44.2			8.6			10.2	
Approach LOS		D			D			A			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	70.9	8.7	15.6	10.5	70.3	8.7	15.5
Change Period (Y+Rc), s	5.9	6.7	4.7	5.9	6.7	* 6.7	5.4	* 5.9
Max Green Setting (Gmax), s	14.1	33.3	10.3	24.1	13.3	* 35	9.6	* 25
Max Q Clear Time (g_c+I1), s	3.2	6.0	4.9	9.2	3.1	12.1	4.0	5.0
Green Ext Time (p_c), s	0.1	2.3	0.0	0.5	0.1	5.2	0.0	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	16.4
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	100			150	0	0
Storage Lanes	1			1	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850	0.937	
Flt Protected	0.950				0.974	
Satd. Flow (prot)	1770	1863	1863	1583	1700	0
Flt Permitted	0.950				0.974	
Satd. Flow (perm)	1770	1863	1863	1583	1700	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		727	710		280	
Travel Time (s)		16.5	16.1		4.8	

Intersection Summary	
Area Type:	Other

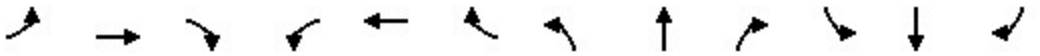
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	512	344	9	27	23
Future Vol, veh/h	7	512	344	9	27	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	557	374	10	29	25

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	384	0	-	0	946	374
Stage 1	-	-	-	-	374	-
Stage 2	-	-	-	-	572	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1175	-	-	-	290	672
Stage 1	-	-	-	-	696	-
Stage 2	-	-	-	-	565	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1175	-	-	-	288	672
Mov Cap-2 Maneuver	-	-	-	-	288	-
Stage 1	-	-	-	-	691	-
Stage 2	-	-	-	-	565	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.11	0	15.68
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1175	-	-	-	391
HCM Lane V/C Ratio	0.006	-	-	-	0.139
HCM Control Delay (s/veh)	8.1	-	-	-	15.7
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.995			0.993			0.889			0.936	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1853	0	1770	1850	0	1770	1656	0	1770	1744	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1853	0	1770	1850	0	1770	1656	0	1770	1744	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		297			624			503			339	
Travel Time (s)		6.8			7.4			7.1			7.7	

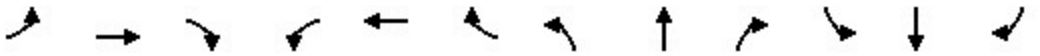
Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	32.7
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	41	550	18	50	316	15	6	12	34	24	46	34
Future Vol, veh/h	41	550	18	50	316	15	6	12	34	24	46	34
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	45	598	20	54	343	16	7	13	37	26	50	37
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay, s/veh	48.7	16	10.6	11.4
HCM LOS	E	C	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	26%	0%	97%	0%	95%	0%	57%
Vol Right, %	0%	74%	0%	3%	0%	5%	0%	43%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	46	41	568	50	331	24	80
LT Vol	6	0	41	0	50	0	24	0
Through Vol	0	12	0	550	0	316	0	46
RT Vol	0	34	0	18	0	15	0	34
Lane Flow Rate	7	50	45	617	54	360	26	87
Geometry Grp	5	5	5	5	5	5	5	5
Degree of Util (X)	0.015	0.098	0.076	0.968	0.097	0.59	0.057	0.172
Departure Headway (Hd)	8.115	7.07	6.17	5.643	6.442	5.903	7.926	7.108
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	439	504	580	642	555	612	451	503
Service Time	5.894	4.847	3.91	3.382	4.19	3.651	5.696	4.878
HCM Lane V/C Ratio	0.016	0.099	0.078	0.961	0.097	0.588	0.058	0.173
HCM Control Delay, s/veh	11	10.6	9.4	51.5	9.9	16.9	11.2	11.4
HCM Lane LOS	B	B	A	F	A	C	B	B
HCM 95th-tile Q	0	0.3	0.2	14	0.3	3.8	0.2	0.6



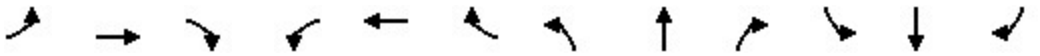
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.996			0.995			0.912			0.956	
Flt Protected		0.997			0.994			0.994			0.989	
Satd. Flow (prot)	0	1850	0	0	1842	0	0	1689	0	0	1761	0
Flt Permitted		0.997			0.994			0.994			0.989	
Satd. Flow (perm)	0	1850	0	0	1842	0	0	1689	0	0	1761	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		366			418			541			378	
Travel Time (s)		8.3			9.5			8.8			8.6	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	7.9
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	663	413	57	113
Demand Flow Rate, veh/h	676	421	58	116
Vehicles Circulating, veh/h	133	66	683	412
Vehicles Exiting, veh/h	395	675	126	75
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.7	5.8	6.3	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
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	676	421	58	116
Cap Entry Lane, veh/h	1205	1290	688	906
Entry HV Adj Factor	0.981	0.981	0.978	0.974
Flow Entry, veh/h	663	413	57	113
Cap Entry, veh/h	1182	1266	673	883
V/C Ratio	0.561	0.326	0.084	0.128
Control Delay, s/veh	9.7	5.8	6.3	5.3
LOS	A	A	A	A
95th %tile Queue, veh	4	1	0	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.996			0.996			0.913			0.970	
Flt Protected					0.996			0.982			0.963	
Satd. Flow (prot)	0	1855	0	0	1848	0	0	1670	0	0	1740	0
Flt Permitted					0.996			0.982			0.963	
Satd. Flow (perm)	0	1855	0	0	1848	0	0	1670	0	0	1740	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		657			532			461			323	
Travel Time (s)		10.4			12.1			8.0			7.3	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	6.6
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	585	379	92	45
Demand Flow Rate, veh/h	596	387	94	46
Vehicles Circulating, veh/h	64	37	615	410
Vehicles Exiting, veh/h	392	672	45	14
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.5	5.4	6.4	4.5
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
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	596	387	94	46
Cap Entry Lane, veh/h	1293	1329	737	908
Entry HV Adj Factor	0.981	0.980	0.979	0.978
Flow Entry, veh/h	585	379	92	45
Cap Entry, veh/h	1268	1302	721	889
V/C Ratio	0.461	0.291	0.128	0.051
Control Delay, s/veh	7.5	5.4	6.4	4.5
LOS	A	A	A	A
95th %tile Queue, veh	2	1	0	0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor						
Frt	0.932		0.998			
Flt Protected	0.976				0.950	
Satd. Flow (prot)	1694	0	3532	0	1770	3539
Flt Permitted	0.976				0.950	
Satd. Flow (perm)	1694	0	3532	0	1770	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	244		284			406
Travel Time (s)	5.5		6.5			9.2

Intersection Summary	
Area Type:	Other

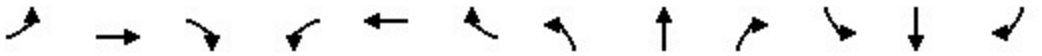
Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	1	732	8	2	559
Future Vol, veh/h	1	1	732	8	2	559
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1	796	9	2	608

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1108	402	0	0	804	0
Stage 1	800	-	-	-	-	-
Stage 2	308	-	-	-	-	-
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	204	598	-	-	816	-
Stage 1	403	-	-	-	-	-
Stage 2	719	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	203	598	-	-	816	-
Mov Cap-2 Maneuver	203	-	-	-	-	-
Stage 1	403	-	-	-	-	-
Stage 2	717	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	16.94	0	0.03
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	304	816	-
HCM Lane V/C Ratio	-	-	0.007	0.003	-
HCM Control Delay (s/veh)	-	-	16.9	9.4	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-



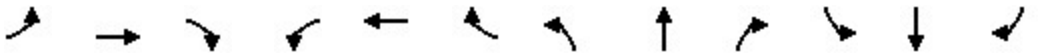
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	75		150	150		100	300		250	250		200
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			180			180			173			125
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		794			667			2219			401	
Travel Time (s)		18.0			15.2			50.4			9.1	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	299	31	141	279	137	51	535	144	143	330	88
Future Volume (vph)	68	299	31	141	279	137	51	535	144	143	330	88
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	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	5.0	5.0
Minimum Split (s)	10.0	34.2	34.2	10.0	34.2	34.2	10.0	26.0	26.0	10.0	26.0	26.0
Total Split (s)	18.0	42.0	42.0	18.0	42.0	42.0	14.0	32.0	32.0	23.0	41.0	41.0
Total Split (%)	15.7%	36.5%	36.5%	15.7%	36.5%	36.5%	12.2%	27.8%	27.8%	20.0%	35.7%	35.7%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	0.0
Total Lost Time (s)	5.0	6.2	6.2	5.0	6.2	6.2	5.0	7.0	7.0	5.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	9.9	25.5	25.5	12.4	30.3	30.3	8.7	38.7	38.7	15.1	47.3	47.3
Actuated g/C Ratio	0.09	0.22	0.22	0.11	0.26	0.26	0.08	0.34	0.34	0.13	0.41	0.41
v/c Ratio	0.48	0.78	0.06	0.80	0.61	0.27	0.41	0.48	0.24	0.66	0.24	0.13
Control Delay (s/veh)	60.1	55.4	0.2	79.1	43.4	3.7	59.4	34.4	5.1	61.1	25.4	2.8
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 (s/veh)	60.1	55.4	0.2	79.1	43.4	3.7	59.4	34.4	5.1	61.1	25.4	2.8
LOS	E	E	A	E	D	A	E	C	A	E	C	A
Approach Delay (s/veh)		51.9			42.7			30.4			31.0	
Approach LOS		D			D			C			C	

Intersection Summary	
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 9 (8%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay (s/veh): 37.4	Intersection LOS: D
Intersection Capacity Utilization 65.6%	ICU Level of Service C
Analysis Period (min) 15	

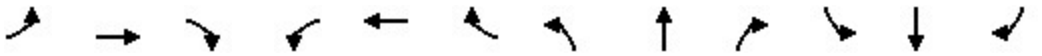
Splits and Phases: 2: Airport Rd. & Clover Basin Dr.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	74	325	34	153	303	149	55	582	157	155	359	96
v/c Ratio	0.48	0.78	0.06	0.80	0.61	0.27	0.41	0.48	0.24	0.66	0.24	0.13
Control Delay (s/veh)	60.1	55.4	0.2	79.1	43.4	3.7	59.4	34.4	5.1	61.1	25.4	2.8
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 (s/veh)	60.1	55.4	0.2	79.1	43.4	3.7	59.4	34.4	5.1	61.1	25.4	2.8
Queue Length 50th (ft)	53	228	0	112	203	0	40	180	0	111	94	0
Queue Length 95th (ft)	100	303	0	#216	281	30	81	279	44	174	152	23
Internal Link Dist (ft)		714			587			2139			321	
Turn Bay Length (ft)	75		150	150		100	300		250	250		200
Base Capacity (vph)	200	579	616	200	579	616	148	1192	647	283	1454	724
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	0.37	0.56	0.06	0.77	0.52	0.24	0.37	0.49	0.24	0.55	0.25	0.13

Intersection Summary

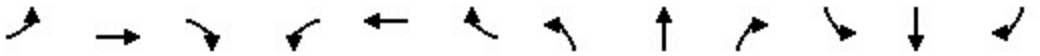
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	299	31	141	279	137	51	535	144	143	330	88
Future Volume (veh/h)	68	299	31	141	279	137	51	535	144	143	330	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	74	325	34	153	303	149	55	582	157	155	359	96
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	95	375	318	181	465	394	71	1395	622	185	1622	723
Arrive On Green	0.05	0.20	0.20	0.10	0.25	0.25	0.04	0.39	0.39	0.10	0.46	0.46
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	74	325	34	153	303	149	55	582	157	155	359	96
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	4.7	19.3	2.0	9.7	16.7	9.0	3.5	13.7	7.7	9.8	7.0	4.0
Cycle Q Clear(g_c), s	4.7	19.3	2.0	9.7	16.7	9.0	3.5	13.7	7.7	9.8	7.0	4.0
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	95	375	318	181	465	394	71	1395	622	185	1622	723
V/C Ratio(X)	0.78	0.87	0.11	0.85	0.65	0.38	0.77	0.42	0.25	0.84	0.22	0.13
Avail Cap(c_a), veh/h	201	582	493	201	582	493	139	1395	622	279	1622	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	1.00	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	44.5	37.6	50.8	38.7	35.8	54.7	25.4	23.6	50.6	18.9	18.1
Incr Delay (d2), s/veh	12.7	8.4	0.1	25.1	1.8	0.6	15.8	0.9	0.9	13.0	0.3	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(95%),veh/ln	4.4	14.9	1.4	9.5	12.5	6.4	3.4	9.9	5.5	8.7	5.3	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	66.4	52.9	37.7	75.9	40.5	36.4	70.5	26.3	24.5	63.6	19.2	18.5
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	B	B
Approach Vol, veh/h		433			605			794			610	
Approach Delay, s/veh		54.0			48.5			29.0			30.4	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.9	52.1	16.7	29.3	9.6	59.5	11.1	34.8
Change Period (Y+Rc), s	5.0	7.0	5.0	6.2	5.0	7.0	5.0	6.2
Max Green Setting (Gmax), s	18.0	25.0	13.0	35.8	9.0	34.0	13.0	35.8
Max Q Clear Time (g_c+I1), s	11.8	15.7	11.7	21.3	5.5	9.0	6.7	18.7
Green Ext Time (p_c), s	0.2	3.1	0.0	1.7	0.0	2.7	0.1	2.1

Intersection Summary	
HCM 7th Control Delay, s/veh	38.6
HCM 7th LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		200	100		150	0		0	0		0
Storage Lanes	1		1	1		1	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850		0.899			0.967	
Flt Protected	0.950			0.950				0.988			0.963	
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	0	1655	0	0	1735	0
Flt Permitted	0.950			0.950				0.988			0.963	
Satd. Flow (perm)	1770	1863	1583	1770	1863	1583	0	1655	0	0	1735	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		770			371			268			195	
Travel Time (s)		32.7			5.9			6.5			0.0	

Intersection Summary	
Area Type:	Other

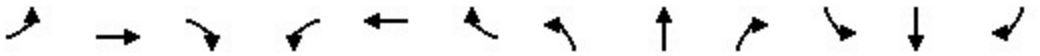
Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	543	25	74	549	34	16	0	47	20	0	6
Future Vol, veh/h	10	543	25	74	549	34	16	0	47	20	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	200	100	-	150	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	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	11	590	27	80	597	37	17	0	51	22	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	634	0	0	617	0	0	1370	1407	590	1370	1397	597
Stage 1	-	-	-	-	-	-	612	612	-	758	758	-
Stage 2	-	-	-	-	-	-	758	795	-	612	639	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	949	-	-	963	-	-	124	139	507	124	141	503
Stage 1	-	-	-	-	-	-	480	484	-	400	415	-
Stage 2	-	-	-	-	-	-	400	400	-	480	470	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	949	-	-	963	-	-	111	126	507	101	128	503
Mov Cap-2 Maneuver	-	-	-	-	-	-	111	126	-	101	128	-
Stage 1	-	-	-	-	-	-	475	478	-	366	381	-
Stage 2	-	-	-	-	-	-	361	366	-	427	465	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.15	1.02	23.21	42.57
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	265	949	-	-	963	-	-	124
HCM Lane V/C Ratio	0.258	0.011	-	-	0.084	-	-	0.229
HCM Control Delay (s/veh)	23.2	8.8	-	-	9.1	-	-	42.6
HCM Lane LOS	C	A	-	-	A	-	-	E
HCM 95th %tile Q(veh)	1	0	-	-	0.3	-	-	0.8



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	150		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.995			0.900			0.879	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1859	0	1770	1853	0	1770	1676	0	1770	1637	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1859	0	1770	1853	0	1770	1676	0	1770	1637	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		483			921			648			640	
Travel Time (s)		11.0			20.9			14.7			14.5	

Intersection Summary	
Area Type:	Other

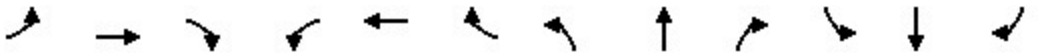
Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	568	8	23	565	21	11	42	85	17	15	62
Future Vol, veh/h	36	568	8	23	565	21	11	42	85	17	15	62
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	150	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	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	39	617	9	25	614	23	12	46	92	18	16	67

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	637	0	0	626	0	0	1372	1387	622	1394	1380	626
Stage 1	-	-	-	-	-	-	700	700	-	676	676	-
Stage 2	-	-	-	-	-	-	672	687	-	718	704	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	947	-	-	956	-	-	123	143	487	119	144	484
Stage 1	-	-	-	-	-	-	430	441	-	443	453	-
Stage 2	-	-	-	-	-	-	445	447	-	420	439	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	947	-	-	956	-	-	88	133	487	61	135	484
Mov Cap-2 Maneuver	-	-	-	-	-	-	88	133	-	61	135	-
Stage 1	-	-	-	-	-	-	412	423	-	432	441	-
Stage 2	-	-	-	-	-	-	359	436	-	291	421	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.53	0.33	35.11	32.48
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	88	259	947	-	-	956	-	-	61	322
HCM Lane V/C Ratio	0.136	0.532	0.041	-	-	0.026	-	-	0.305	0.26
HCM Control Delay (s/veh)	52.4	33.6	9	-	-	8.9	-	-	88.7	20.1
HCM Lane LOS	F	D	A	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	0.5	2.9	0.1	-	-	0.1	-	-	1.1	1



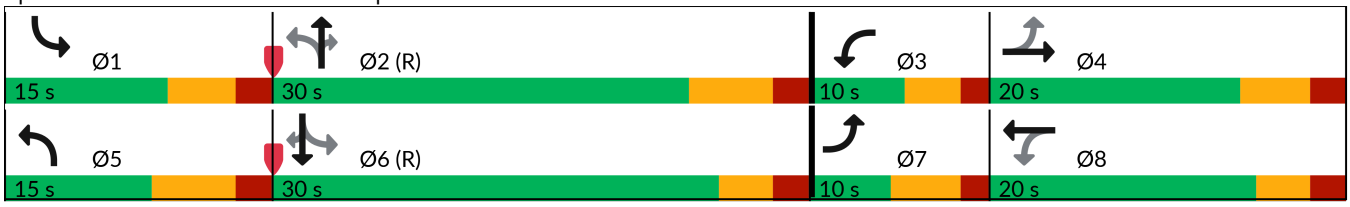
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	100		0	300		150	150		200
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.910			0.904				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1695	0	1770	1684	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.664			0.713			0.460			0.395		
Satd. Flow (perm)	1237	1695	0	1328	1684	0	857	3539	1583	736	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		41			58				218			218
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		478			955			764			2219	
Travel Time (s)		10.9			21.7			17.4			50.4	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	47	25	53	30	84	621	52	25	371	59
Future Volume (vph)	47	25	53	30	84	621	52	25	371	59
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	4.6	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0	9.7	20.0	11.7	22.5	22.5	10.9	22.5	22.5
Total Split (s)	10.0	20.0	10.0	20.0	15.0	30.0	30.0	15.0	30.0	30.0
Total Split (%)	13.3%	26.7%	13.3%	26.7%	20.0%	40.0%	40.0%	20.0%	40.0%	40.0%
Yellow Time (s)	3.9	3.9	3.2	3.0	4.7	4.7	4.7	3.9	3.0	3.0
All-Red Time (s)	1.5	2.0	1.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	5.4	5.9	4.7	5.0	6.7	6.7	6.7	5.9	5.0	5.0
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	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	10.0	7.1	11.2	7.8	50.0	48.0	48.0	46.0	43.0	43.0
Actuated g/C Ratio	0.13	0.09	0.15	0.10	0.67	0.64	0.64	0.61	0.57	0.57
v/c Ratio	0.25	0.34	0.25	0.40	0.13	0.29	0.05	0.05	0.19	0.06
Control Delay (s/veh)	26.2	21.1	25.3	19.7	6.8	10.5	0.0	6.8	12.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	26.2	21.1	25.3	19.7	6.8	10.5	0.0	6.8	12.1	0.1
LOS	C	C	C	B	A	B	A	A	B	A
Approach Delay (s/veh)		23.3		21.9		9.5			10.3	
Approach LOS		C		C		A			B	

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 59 (79%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay (s/veh): 11.9	Intersection LOS: B
Intersection Capacity Utilization 46.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Pike Rd. & Airport Rd.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	51	68	58	91	91	675	57	27	403	64
v/c Ratio	0.25	0.34	0.25	0.40	0.13	0.29	0.05	0.05	0.19	0.06
Control Delay (s/veh)	26.2	21.1	25.3	19.7	6.8	10.5	0.0	6.8	12.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	26.2	21.1	25.3	19.7	6.8	10.5	0.0	6.8	12.1	0.1
Queue Length 50th (ft)	19	12	21	14	16	70	0	4	58	0
Queue Length 95th (ft)	43	46	47	53	37	165	0	14	100	0
Internal Link Dist (ft)		398		875		684			2139	
Turn Bay Length (ft)	150		100		300		150	150		200
Base Capacity (vph)	198	351	228	383	675	2264	1091	600	2028	1000
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	0.26	0.19	0.25	0.24	0.13	0.30	0.05	0.05	0.20	0.06

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	25	38	53	30	53	84	621	52	25	371	59
Future Volume (veh/h)	47	25	38	53	30	53	84	621	52	25	371	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	51	27	41	58	33	58	91	675	57	27	403	64
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	205	56	86	240	50	87	593	1887	842	452	1749	780
Arrive On Green	0.04	0.08	0.08	0.05	0.08	0.08	0.06	0.53	0.53	0.03	0.49	0.49
Sat Flow, veh/h	1781	670	1017	1781	608	1069	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	51	0	68	58	0	91	91	675	57	27	403	64
Grp Sat Flow(s),veh/h/ln	1781	0	1687	1781	0	1678	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	1.9	0.0	2.9	2.2	0.0	3.9	1.8	8.2	1.3	0.6	4.9	1.6
Cycle Q Clear(g_c), s	1.9	0.0	2.9	2.2	0.0	3.9	1.8	8.2	1.3	0.6	4.9	1.6
Prop In Lane	1.00		0.60	1.00		0.64	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	205	0	142	240	0	137	593	1887	842	452	1749	780
V/C Ratio(X)	0.25	0.00	0.48	0.24	0.00	0.66	0.15	0.36	0.07	0.06	0.23	0.08
Avail Cap(c_a), veh/h	243	0	317	283	0	336	689	1887	842	617	1749	780
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	0.93	0.93	0.93
Uniform Delay (d), s/veh	29.9	0.0	32.8	29.5	0.0	33.4	8.2	10.2	8.6	8.9	10.9	10.1
Incr Delay (d2), s/veh	0.6	0.0	2.5	0.5	0.0	5.4	0.1	0.5	0.2	0.1	0.3	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.5	0.0	2.2	1.7	0.0	3.2	1.2	5.4	0.8	0.4	3.3	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.5	0.0	35.2	30.0	0.0	38.9	8.3	10.7	8.7	9.0	11.2	10.3
LnGrp LOS	C		D	C		D	A	B	A	A	B	B
Approach Vol, veh/h		119			149			823			494	
Approach Delay, s/veh		33.2			35.4			10.3			10.9	
Approach LOS		C			D			B			B	

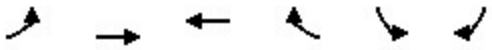
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	46.5	8.2	12.2	10.9	43.6	8.4	12.0
Change Period (Y+Rc), s	5.9	6.7	4.7	5.9	6.7	* 6.7	5.4	* 5.9
Max Green Setting (Gmax), s	9.1	23.3	5.3	14.1	8.3	* 25	4.6	* 15
Max Q Clear Time (g_c+I1), s	2.6	10.2	4.2	4.9	3.8	6.9	3.9	5.9
Green Ext Time (p_c), s	0.0	4.0	0.0	0.2	0.1	2.7	0.0	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	14.6
HCM 7th LOS	B

Notes

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

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	100			150	0	0
Storage Lanes	1			1	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850	0.939	
Flt Protected	0.950				0.973	
Satd. Flow (prot)	1770	1863	1863	1583	1702	0
Flt Permitted	0.950				0.973	
Satd. Flow (perm)	1770	1863	1863	1583	1702	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		667	770		242	
Travel Time (s)		15.2	17.5		5.5	

Intersection Summary	
Area Type:	Other

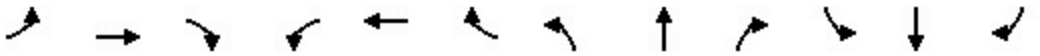
Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	24	561	543	29	17	14
Future Vol, veh/h	24	561	543	29	17	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	610	590	32	18	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	622	0	-	0	1252	590
Stage 1	-	-	-	-	590	-
Stage 2	-	-	-	-	662	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	959	-	-	-	190	507
Stage 1	-	-	-	-	554	-
Stage 2	-	-	-	-	513	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	959	-	-	-	185	507
Mov Cap-2 Maneuver	-	-	-	-	185	-
Stage 1	-	-	-	-	539	-
Stage 2	-	-	-	-	513	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.36	0	20.94
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	959	-	-	-	259
HCM Lane V/C Ratio	0.027	-	-	-	0.13
HCM Control Delay (s/veh)	8.9	-	-	-	20.9
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.995			0.900			0.879	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1859	0	1770	1853	0	1770	1676	0	1770	1637	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1859	0	1770	1853	0	1770	1676	0	1770	1637	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		345			627			442			339	
Travel Time (s)		7.8			10.2			7.8			7.7	

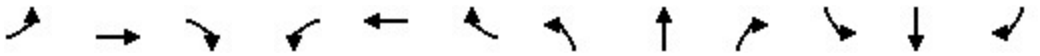
Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	82
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	568	8	23	565	21	11	42	85	17	15	62
Future Vol, veh/h	36	568	8	23	565	21	11	42	85	17	15	62
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	39	617	9	25	614	23	12	46	92	18	16	67
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay, s/veh	90.9	99.2	13.9	12.7
HCM LOS	F	F	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	33%	0%	99%	0%	96%	0%	19%
Vol Right, %	0%	67%	0%	1%	0%	4%	0%	81%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	11	127	36	576	23	586	17	77
LT Vol	11	0	36	0	23	0	17	0
Through Vol	0	42	0	568	0	565	0	15
RT Vol	0	85	0	8	0	21	0	62
Lane Flow Rate	12	138	39	626	25	637	18	84
Geometry Grp	5	5	5	5	5	5	5	5
Degree of Util (X)	0.028	0.292	0.075	1.108	0.048	1.128	0.045	0.179
Departure Headway (Hd)	9.101	8.092	7.116	6.596	7.117	6.581	9.332	8.222
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	396	447	506	557	506	554	386	439
Service Time	6.801	5.792	4.816	4.296	4.817	4.281	7.032	5.922
HCM Lane V/C Ratio	0.03	0.309	0.077	1.124	0.049	1.15	0.047	0.191
HCM Control Delay, s/veh	12.1	14.1	10.4	95.9	10.2	102.7	12.5	12.7
HCM Lane LOS	B	B	B	F	B	F	B	B
HCM 95th-tile Q	0.1	1.2	0.2	19.2	0.2	20.2	0.1	0.6



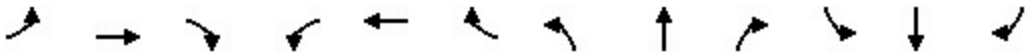
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.995			0.917			0.910	
Flt Protected		0.997			0.998			0.996			0.991	
Satd. Flow (prot)	0	1853	0	0	1850	0	0	1701	0	0	1680	0
Flt Permitted		0.997			0.998			0.996			0.991	
Satd. Flow (perm)	0	1853	0	0	1850	0	0	1701	0	0	1680	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		352			547			471			295	
Travel Time (s)		8.0			12.4			10.7			6.7	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	8.6
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	665	662	150	101
Demand Flow Rate, veh/h	678	675	153	102
Vehicles Circulating, veh/h	60	99	687	664
Vehicles Exiting, veh/h	706	741	51	110
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.5	9.1	8.0	6.8
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
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	678	675	153	102
Cap Entry Lane, veh/h	1298	1247	685	701
Entry HV Adj Factor	0.980	0.980	0.981	0.987
Flow Entry, veh/h	665	662	150	101
Cap Entry, veh/h	1272	1223	672	692
V/C Ratio	0.522	0.541	0.223	0.146
Control Delay, s/veh	8.5	9.1	8.0	6.8
LOS	A	A	A	A
95th %tile Queue, veh	3	3	1	1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994			0.993			0.899			0.967	
Flt Protected		0.999			0.994			0.988			0.963	
Satd. Flow (prot)	0	1850	0	0	1839	0	0	1655	0	0	1735	0
Flt Permitted		0.999			0.994			0.988			0.963	
Satd. Flow (perm)	0	1850	0	0	1839	0	0	1655	0	0	1735	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		322			407			341			294	
Travel Time (s)		7.3			9.3			7.8			6.7	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	8.5
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	628	714	68	29
Demand Flow Rate, veh/h	641	729	69	29
Vehicles Circulating, veh/h	104	28	635	708
Vehicles Exiting, veh/h	633	676	110	49
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.7	8.7	6.1	5.8
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
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	641	729	69	29
Cap Entry Lane, veh/h	1241	1341	722	670
Entry HV Adj Factor	0.980	0.980	0.986	1.000
Flow Entry, veh/h	628	714	68	29
Cap Entry, veh/h	1216	1314	712	670
V/C Ratio	0.517	0.544	0.096	0.043
Control Delay, s/veh	8.7	8.7	6.1	5.8
LOS	A	A	A	A
95th %tile Queue, veh	3	3	0	0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor						
Frt	0.944		0.998			
Flt Protected	0.972				0.950	
Satd. Flow (prot)	1709	0	3532	0	1770	3539
Flt Permitted	0.972				0.950	
Satd. Flow (perm)	1709	0	3532	0	1770	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	244		284			406
Travel Time (s)	5.5		6.5			9.2

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	5	422	5	4	1028
Future Vol, veh/h	6	5	422	5	4	1028
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	5	459	5	4	1117

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1029	232	0	0	464	0
Stage 1	461	-	-	-	-	-
Stage 2	567	-	-	-	-	-
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	230	770	-	-	1093	-
Stage 1	601	-	-	-	-	-
Stage 2	531	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	229	770	-	-	1093	-
Mov Cap-2 Maneuver	229	-	-	-	-	-
Stage 1	601	-	-	-	-	-
Stage 2	529	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	16.1	0	0.03
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	336	1093	-
HCM Lane V/C Ratio	-	-	0.036	0.004	-
HCM Control Delay (s/veh)	-	-	16.1	8.3	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

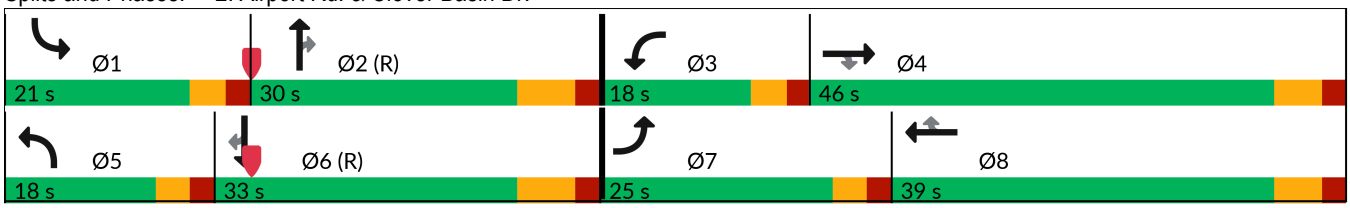
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	75		150	150		100	300		250	250		200
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			133			180			173			233
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		794			727			2219			401	
Travel Time (s)		18.0			16.5			50.4			9.1	

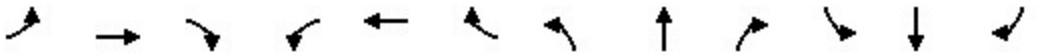
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	348	84	79	273	86	73	266	127	142	677	228
Future Volume (vph)	76	348	84	79	273	86	73	266	127	142	677	228
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	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	5.0	5.0
Minimum Split (s)	10.0	34.2	34.2	10.0	34.2	34.2	10.0	26.0	26.0	10.0	26.0	26.0
Total Split (s)	25.0	46.0	46.0	18.0	39.0	39.0	18.0	30.0	30.0	21.0	33.0	33.0
Total Split (%)	21.7%	40.0%	40.0%	15.7%	33.9%	33.9%	15.7%	26.1%	26.1%	18.3%	28.7%	28.7%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	0.0
Total Lost Time (s)	5.0	6.2	6.2	5.0	6.2	6.2	5.0	7.0	7.0	5.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	10.7	29.4	29.4	10.5	29.1	29.1	10.5	39.8	39.8	14.5	46.1	46.1
Actuated g/C Ratio	0.09	0.26	0.26	0.09	0.25	0.25	0.09	0.35	0.35	0.13	0.40	0.40
v/c Ratio	0.50	0.79	0.18	0.53	0.63	0.17	0.49	0.23	0.20	0.69	0.51	0.32
Control Delay (s/veh)	59.4	52.1	2.2	61.6	43.6	0.7	59.3	31.6	3.4	63.7	32.4	6.7
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 (s/veh)	59.4	52.1	2.2	61.6	43.6	0.7	59.3	31.6	3.4	63.7	32.4	6.7
LOS	E	D	A	E	D	A	E	C	A	E	C	A
Approach Delay (s/veh)		45.0			38.5			28.3			31.1	
Approach LOS		D			D			C			C	

Intersection Summary	
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 9 (8%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay (s/veh): 34.8	Intersection LOS: C
Intersection Capacity Utilization 64.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: Airport Rd. & Clover Basin Dr.

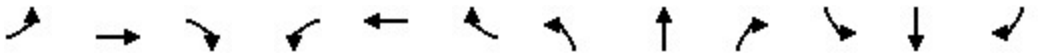




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	83	378	91	86	297	93	79	289	138	154	736	248
v/c Ratio	0.50	0.79	0.18	0.53	0.63	0.17	0.49	0.23	0.20	0.69	0.51	0.32
Control Delay (s/veh)	59.4	52.1	2.2	61.6	43.6	0.7	59.3	31.6	3.4	63.7	32.4	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	59.4	52.1	2.2	61.6	43.6	0.7	59.3	31.6	3.4	63.7	32.4	6.7
Queue Length 50th (ft)	60	261	0	62	194	0	57	84	0	110	232	7
Queue Length 95th (ft)	107	337	14	113	265	0	104	142	30	177	#395	77
Internal Link Dist (ft)		714			647			2139			321	
Turn Bay Length (ft)	75		150	150		100	300		250	250		200
Base Capacity (vph)	307	644	634	200	544	590	205	1223	660	255	1419	774
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	0.27	0.59	0.14	0.43	0.55	0.16	0.39	0.24	0.21	0.60	0.52	0.32

Intersection Summary

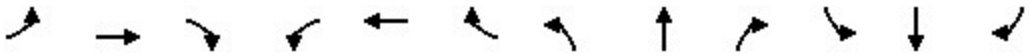
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	348	84	79	273	86	73	266	127	142	677	228
Future Volume (veh/h)	76	348	84	79	273	86	73	266	127	142	677	228
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	378	91	86	297	93	79	289	138	154	736	248
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	107	434	368	109	437	370	101	1429	637	183	1592	710
Arrive On Green	0.06	0.23	0.23	0.06	0.23	0.23	0.06	0.40	0.40	0.10	0.45	0.45
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	83	378	91	86	297	93	79	289	138	154	736	248
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.3	22.4	5.4	5.5	16.6	5.5	5.0	6.1	6.6	9.8	16.6	11.8
Cycle Q Clear(g_c), s	5.3	22.4	5.4	5.5	16.6	5.5	5.0	6.1	6.6	9.8	16.6	11.8
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	107	434	368	109	437	370	101	1429	637	183	1592	710
V/C Ratio(X)	0.78	0.87	0.25	0.79	0.68	0.25	0.78	0.20	0.22	0.84	0.46	0.35
Avail Cap(c_a), veh/h	310	647	549	201	533	452	201	1429	637	248	1592	710
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	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	42.5	36.0	53.2	40.2	35.9	53.5	22.4	22.5	50.7	22.1	20.8
Incr Delay (d2), s/veh	11.4	8.5	0.3	11.6	2.6	0.4	12.1	0.3	0.8	17.1	1.0	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	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.9	16.8	3.8	5.0	12.6	3.9	4.7	4.7	4.7	9.0	11.4	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	64.7	51.0	36.3	64.9	42.8	36.2	65.6	22.7	23.3	67.7	23.1	22.1
LnGrp LOS	E	D	D	E	D	D	E	C	C	E	C	C
Approach Vol, veh/h		552			476			506			1138	
Approach Delay, s/veh		50.6			45.5			29.6			28.9	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.8	53.2	12.1	32.9	11.5	58.5	11.9	33.1
Change Period (Y+Rc), s	5.0	7.0	5.0	6.2	5.0	7.0	5.0	6.2
Max Green Setting (Gmax), s	16.0	23.0	13.0	39.8	13.0	26.0	20.0	32.8
Max Q Clear Time (g_c+I1), s	11.8	8.6	7.5	24.4	7.0	18.6	7.3	18.6
Green Ext Time (p_c), s	0.1	2.0	0.1	2.3	0.1	3.4	0.1	1.7

Intersection Summary	
HCM 7th Control Delay, s/veh	36.5
HCM 7th LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		200	100		150	0		0	0		0
Storage Lanes	1		1	1		1	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850		0.913			0.970	
Flt Protected	0.950			0.950				0.982			0.963	
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	0	1670	0	0	1740	0
Flt Permitted	0.950			0.950				0.982			0.963	
Satd. Flow (perm)	1770	1863	1583	1770	1863	1583	0	1670	0	0	1740	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		710			392			268			265	
Travel Time (s)		32.7			5.9			6.5			0.0	

Intersection Summary	
Area Type:	Other

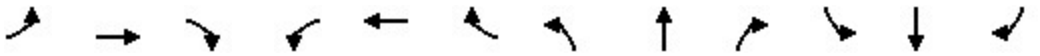
Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	639	16	25	379	10	30	0	54	32	0	9
Future Vol, veh/h	3	639	16	25	379	10	30	0	54	32	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	200	100	-	150	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	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	3	695	17	27	412	11	33	0	59	35	0	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	423	0	0	712	0	0	1167	1178	695	1167	1185	412
Stage 1	-	-	-	-	-	-	701	701	-	466	466	-
Stage 2	-	-	-	-	-	-	466	477	-	701	718	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1136	-	-	888	-	-	170	191	442	170	189	640
Stage 1	-	-	-	-	-	-	429	441	-	577	562	-
Stage 2	-	-	-	-	-	-	577	556	-	429	433	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1136	-	-	888	-	-	162	184	442	143	183	640
Mov Cap-2 Maneuver	-	-	-	-	-	-	162	184	-	143	183	-
Stage 1	-	-	-	-	-	-	428	440	-	559	545	-
Stage 2	-	-	-	-	-	-	550	539	-	371	432	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.04	0.55	24.6	33.03
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	274	1136	-	-	888	-	-	172
HCM Lane V/C Ratio	0.334	0.003	-	-	0.031	-	-	0.259
HCM Control Delay (s/veh)	24.6	8.2	-	-	9.2	-	-	33
HCM Lane LOS	C	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	1.4	0	-	-	0.1	-	-	1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	150		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.995			0.994			0.889			0.934	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1853	0	1770	1852	0	1770	1656	0	1770	1740	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1853	0	1770	1852	0	1770	1656	0	1770	1740	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		483			921			648			640	
Travel Time (s)		11.0			20.9			14.7			14.5	

Intersection Summary	
Area Type:	Other

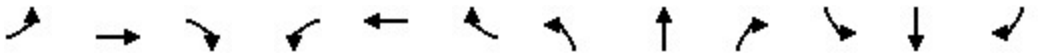
Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	46	664	23	50	377	15	8	12	34	24	46	36
Future Vol, veh/h	46	664	23	50	377	15	8	12	34	24	46	36
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	150	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	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	50	722	25	54	410	16	9	13	37	26	50	39

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	426	0	0	747	0	0	1378	1369	734	1355	1373	418
Stage 1	-	-	-	-	-	-	834	834	-	527	527	-
Stage 2	-	-	-	-	-	-	543	535	-	828	847	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1133	-	-	862	-	-	122	146	420	127	146	635
Stage 1	-	-	-	-	-	-	362	383	-	535	528	-
Stage 2	-	-	-	-	-	-	524	524	-	365	378	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1133	-	-	862	-	-	66	131	420	94	130	635
Mov Cap-2 Maneuver	-	-	-	-	-	-	66	131	-	94	130	-
Stage 1	-	-	-	-	-	-	346	366	-	501	495	-
Stage 2	-	-	-	-	-	-	414	491	-	307	361	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.52	1.07	28.42	41.32
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	66	267	1133	-	-	862	-	-	94	200
HCM Lane V/C Ratio	0.132	0.187	0.044	-	-	0.063	-	-	0.277	0.445
HCM Control Delay (s/veh)	67.8	21.6	8.3	-	-	9.5	-	-	57.3	36.6
HCM Lane LOS	F	C	A	-	-	A	-	-	F	E
HCM 95th %tile Q(veh)	0.4	0.7	0.1	-	-	0.2	-	-	1	2.1



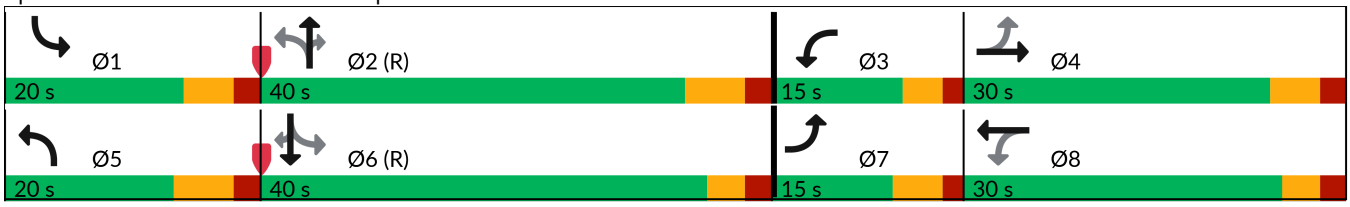
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	100		0	300		150	150		200
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.867			0.885				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1615	0	1770	1649	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.720			0.503			0.295			0.539		
Satd. Flow (perm)	1341	1615	0	937	1649	0	550	3539	1583	1004	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		114			43				156			156
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		478			955			764			2219	
Travel Time (s)		10.9			21.7			17.4			50.4	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	40	14	55	12	45	327	49	49	741	44
Future Volume (vph)	40	14	55	12	45	327	49	49	741	44
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		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)	10.4	29.9	9.7	30.0	11.7	22.5	22.5	10.9	22.5	22.5
Total Split (s)	15.0	30.0	15.0	30.0	20.0	40.0	40.0	20.0	40.0	40.0
Total Split (%)	14.3%	28.6%	14.3%	28.6%	19.0%	38.1%	38.1%	19.0%	38.1%	38.1%
Yellow Time (s)	3.9	3.9	3.2	3.0	4.7	4.7	4.7	3.9	3.0	3.0
All-Red Time (s)	1.5	2.0	1.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	5.4	5.9	4.7	5.0	6.7	6.7	6.7	5.9	5.0	5.0
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	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.7	7.7	17.1	11.1	69.0	63.6	63.6	69.3	64.7	64.7
Actuated g/C Ratio	0.14	0.07	0.16	0.11	0.66	0.61	0.61	0.66	0.62	0.62
v/c Ratio	0.19	0.57	0.27	0.26	0.11	0.16	0.05	0.07	0.36	0.04
Control Delay (s/veh)	34.6	21.7	35.7	21.0	7.2	11.4	0.1	6.6	12.7	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 (s/veh)	34.6	21.7	35.7	21.0	7.2	11.4	0.1	6.6	12.7	0.0
LOS	C	C	D	C	A	B	A	A	B	A
Approach Delay (s/veh)		25.0		28.7		9.7			11.7	
Approach LOS		C		C		A			B	

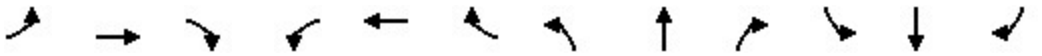
Intersection Summary	
Cycle Length: 105	
Actuated Cycle Length: 105	
Offset: 59 (56%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay (s/veh): 13.7	Intersection LOS: B
Intersection Capacity Utilization 48.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Pike Rd. & Airport Rd.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	43	129	60	56	49	355	53	53	805	48
v/c Ratio	0.19	0.57	0.27	0.26	0.11	0.16	0.05	0.07	0.36	0.04
Control Delay (s/veh)	34.6	21.7	35.7	21.0	7.2	11.4	0.1	6.6	12.7	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 (s/veh)	34.6	21.7	35.7	21.0	7.2	11.4	0.1	6.6	12.7	0.0
Queue Length 50th (ft)	24	10	34	8	9	55	0	10	143	0
Queue Length 95th (ft)	50	64	64	45	26	97	0	27	228	0
Internal Link Dist (ft)		398		875		684			2139	
Turn Bay Length (ft)	150		100		300		150	150		200
Base Capacity (vph)	251	458	245	425	540	2143	1020	815	2181	1035
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	0.17	0.28	0.24	0.13	0.09	0.17	0.05	0.07	0.37	0.05

Intersection Summary



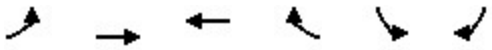
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	14	105	55	12	40	45	327	49	49	741	44
Future Volume (veh/h)	40	14	105	55	12	40	45	327	49	49	741	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	43	15	114	60	13	43	49	355	53	53	805	48
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	224	19	146	171	39	129	439	2128	949	677	2105	939
Arrive On Green	0.03	0.10	0.10	0.04	0.10	0.10	0.04	0.60	0.60	0.04	0.59	0.59
Sat Flow, veh/h	1781	188	1426	1781	381	1262	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	43	0	129	60	0	56	49	355	53	53	805	48
Grp Sat Flow(s),veh/h/ln	1781	0	1614	1781	0	1643	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.2	0.0	8.2	3.1	0.0	3.3	1.1	4.7	1.5	1.2	12.5	1.3
Cycle Q Clear(g_c), s	2.2	0.0	8.2	3.1	0.0	3.3	1.1	4.7	1.5	1.2	12.5	1.3
Prop In Lane	1.00		0.88	1.00		0.77	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	224	0	165	171	0	168	439	2128	949	677	2105	939
V/C Ratio(X)	0.19	0.00	0.78	0.35	0.00	0.33	0.11	0.17	0.06	0.08	0.38	0.05
Avail Cap(c_a), veh/h	326	0	370	274	0	391	600	2128	949	850	2105	939
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	0.87	0.87	0.87
Uniform Delay (d), s/veh	40.2	0.0	46.0	40.3	0.0	43.8	8.3	9.4	8.7	7.5	11.3	9.0
Incr Delay (d2), s/veh	0.4	0.0	7.9	1.2	0.0	1.2	0.1	0.2	0.1	0.0	0.5	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	0.0	6.5	2.6	0.0	2.5	0.7	3.2	0.9	0.8	8.2	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.6	0.0	53.9	41.5	0.0	45.0	8.4	9.6	8.9	7.5	11.7	9.1
LnGrp LOS	D		D	D		D	A	A	A	A	B	A
Approach Vol, veh/h		172			116			457			906	
Approach Delay, s/veh		50.6			43.2			9.3			11.3	
Approach LOS		D			D			A			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	69.6	9.0	16.6	10.5	68.9	9.0	16.6
Change Period (Y+Rc), s	5.9	6.7	4.7	5.9	6.7	* 6.7	5.4	* 5.9
Max Green Setting (Gmax), s	14.1	33.3	10.3	24.1	13.3	* 35	9.6	* 25
Max Q Clear Time (g_c+I1), s	3.2	6.7	5.1	10.2	3.1	14.5	4.2	5.3
Green Ext Time (p_c), s	0.1	2.6	0.0	0.5	0.1	5.9	0.0	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	17.1
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	100			150	0	0
Storage Lanes	1			1	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850	0.948	
Flt Protected	0.950				0.970	
Satd. Flow (prot)	1770	1863	1863	1583	1713	0
Flt Permitted	0.950				0.970	
Satd. Flow (perm)	1770	1863	1863	1583	1713	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		727	710		280	
Travel Time (s)		16.5	16.1		4.8	

Intersection Summary	
Area Type:	Other

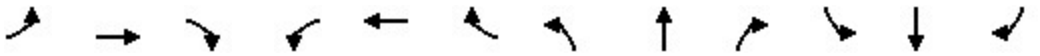
Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	606	407	18	56	35
Future Vol, veh/h	11	606	407	18	56	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	659	442	20	61	38

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	462	0	-	0	1125	442
Stage 1	-	-	-	-	442	-
Stage 2	-	-	-	-	683	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1099	-	-	-	227	615
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	502	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1099	-	-	-	224	615
Mov Cap-2 Maneuver	-	-	-	-	224	-
Stage 1	-	-	-	-	640	-
Stage 2	-	-	-	-	502	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.15	0	23.06
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1099	-	-	-	297
HCM Lane V/C Ratio	0.011	-	-	-	0.333
HCM Control Delay (s/veh)	8.3	-	-	-	23.1
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1.4



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.995			0.994			0.889			0.934	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1853	0	1770	1852	0	1770	1656	0	1770	1740	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1853	0	1770	1852	0	1770	1656	0	1770	1740	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		297			624			503			339	
Travel Time (s)		6.8			7.4			7.1			7.7	

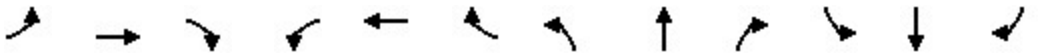
Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	72.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	46	664	23	50	377	15	8	12	34	24	46	36
Future Vol, veh/h	46	664	23	50	377	15	8	12	34	24	46	36
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	50	722	25	54	410	16	9	13	37	26	50	39
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay, s/veh	117.7	20.8	11.3	11.9
HCM LOS	F	C	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	26%	0%	97%	0%	96%	0%	56%
Vol Right, %	0%	74%	0%	3%	0%	4%	0%	44%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	46	46	687	50	392	24	82
LT Vol	8	0	46	0	50	0	24	0
Through Vol	0	12	0	664	0	377	0	46
RT Vol	0	34	0	23	0	15	0	36
Lane Flow Rate	9	50	50	747	54	426	26	89
Geometry Grp	5	5	5	5	5	5	5	5
Degree of Util (X)	0.02	0.1	0.088	1.199	0.098	0.703	0.058	0.179
Departure Headway (Hd)	8.72	7.667	6.308	5.778	6.721	6.186	8.491	7.658
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	413	470	569	635	536	588	424	471
Service Time	6.42	5.367	4.033	3.503	4.421	3.886	6.191	5.358
HCM Lane V/C Ratio	0.022	0.106	0.088	1.176	0.101	0.724	0.061	0.189
HCM Control Delay, s/veh	11.6	11.2	9.6	124.9	10.1	22.2	11.7	12
HCM Lane LOS	B	B	A	F	B	C	B	B
HCM 95th-tile Q	0.1	0.3	0.3	26.1	0.3	5.6	0.2	0.6



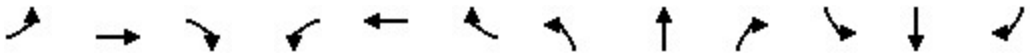
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.996			0.995			0.915			0.954	
Flt Protected		0.997			0.994			0.992			0.989	
Satd. Flow (prot)	0	1850	0	0	1842	0	0	1691	0	0	1758	0
Flt Permitted		0.997			0.994			0.992			0.989	
Satd. Flow (perm)	0	1850	0	0	1842	0	0	1691	0	0	1758	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		366			418			541			378	
Travel Time (s)		8.3			9.5			8.8			8.6	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	9.8
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	797	480	59	115
Demand Flow Rate, veh/h	813	489	60	118
Vehicles Circulating, veh/h	133	73	814	482
Vehicles Exiting, veh/h	467	801	132	80
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	12.5	6.5	7.3	5.8
Approach LOS	B	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
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	813	489	60	118
Cap Entry Lane, veh/h	1205	1281	602	844
Entry HV Adj Factor	0.980	0.981	0.979	0.975
Flow Entry, veh/h	797	480	59	115
Cap Entry, veh/h	1180	1257	589	823
V/C Ratio	0.675	0.382	0.100	0.140
Control Delay, s/veh	12.5	6.5	7.3	5.8
LOS	B	A	A	A
95th %tile Queue, veh	6	2	0	0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.997			0.913			0.970	
Flt Protected					0.997			0.982			0.963	
Satd. Flow (prot)	0	1857	0	0	1852	0	0	1670	0	0	1740	0
Flt Permitted					0.997			0.982			0.963	
Satd. Flow (perm)	0	1857	0	0	1852	0	0	1670	0	0	1740	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		342			442			289			261	
Travel Time (s)		7.8			10.0			6.6			5.9	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	7.8
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	715	450	92	45
Demand Flow Rate, veh/h	729	459	94	46
Vehicles Circulating, veh/h	64	37	748	482
Vehicles Exiting, veh/h	464	805	45	14
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	9.3	5.9	7.4	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
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	729	459	94	46
Cap Entry Lane, veh/h	1293	1329	643	844
Entry HV Adj Factor	0.981	0.980	0.979	0.978
Flow Entry, veh/h	715	450	92	45
Cap Entry, veh/h	1268	1302	630	826
V/C Ratio	0.564	0.345	0.146	0.055
Control Delay, s/veh	9.3	5.9	7.4	4.9
LOS	A	A	A	A
95th %tile Queue, veh	4	2	1	0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor						
Frt	0.892		0.999			
Flt Protected	0.990				0.950	
Satd. Flow (prot)	1645	0	3536	0	1770	3539
Flt Permitted	0.990				0.950	
Satd. Flow (perm)	1645	0	3536	0	1770	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	244		284			406
Travel Time (s)	5.5		6.5			9.2

Intersection Summary	
Area Type:	Other

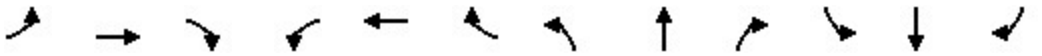
Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	4	848	8	7	645
Future Vol, veh/h	1	4	848	8	7	645
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	-	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	4	922	9	8	701

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1292	465	0	0	930	0
Stage 1	926	-	-	-	-	-
Stage 2	366	-	-	-	-	-
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	155	544	-	-	731	-
Stage 1	346	-	-	-	-	-
Stage 2	672	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	153	544	-	-	731	-
Mov Cap-2 Maneuver	153	-	-	-	-	-
Stage 1	346	-	-	-	-	-
Stage 2	665	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	15.15	0	0.11
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	360	731	-
HCM Lane V/C Ratio	-	-	0.015	0.01	-
HCM Control Delay (s/veh)	-	-	15.2	10	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-



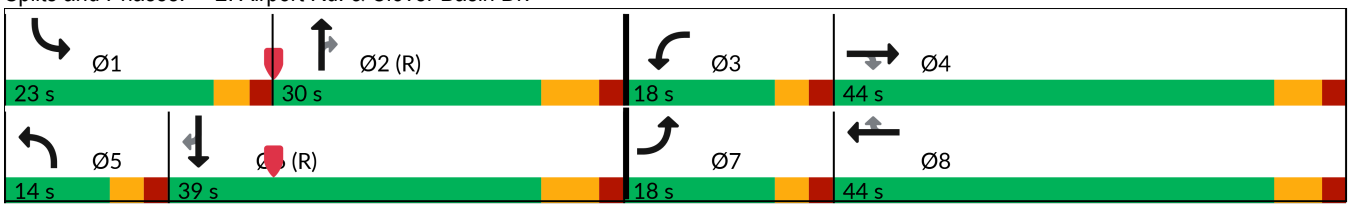
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	75		150	150		100	300		250	250		200
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			180			180			183			125
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		794			667			2219			401	
Travel Time (s)		18.0			15.2			50.4			9.1	

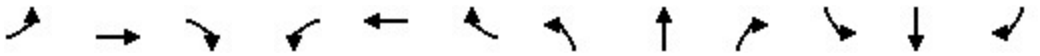
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	364	36	157	340	158	62	620	168	170	379	106
Future Volume (vph)	80	364	36	157	340	158	62	620	168	170	379	106
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	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	5.0	5.0
Minimum Split (s)	10.0	34.2	34.2	10.0	34.2	34.2	10.0	26.0	26.0	10.0	26.0	26.0
Total Split (s)	18.0	44.0	44.0	18.0	44.0	44.0	14.0	30.0	30.0	23.0	39.0	39.0
Total Split (%)	15.7%	38.3%	38.3%	15.7%	38.3%	38.3%	12.2%	26.1%	26.1%	20.0%	33.9%	33.9%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.0	5.0	5.0	3.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	0.0
Total Lost Time (s)	5.0	6.2	6.2	5.0	6.2	6.2	5.0	7.0	7.0	5.0	7.0	7.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	10.5	29.8	29.8	12.8	34.4	34.4	8.8	33.0	33.0	16.2	42.6	42.6
Actuated g/C Ratio	0.09	0.26	0.26	0.11	0.30	0.30	0.08	0.29	0.29	0.14	0.37	0.37
v/c Ratio	0.53	0.81	0.07	0.86	0.66	0.28	0.49	0.66	0.31	0.74	0.31	0.17
Control Delay (s/veh)	61.6	53.7	0.2	88.3	41.9	5.0	63.3	42.0	7.1	65.4	29.2	5.2
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 (s/veh)	61.6	53.7	0.2	88.3	41.9	5.0	63.3	42.0	7.1	65.4	29.2	5.2
LOS	E	D	A	F	D	A	E	D	A	E	C	A
Approach Delay (s/veh)		51.1			44.2			36.7			34.8	
Approach LOS		D			D			D			C	

Intersection Summary	
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 9 (8%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay (s/veh): 40.7	Intersection LOS: D
Intersection Capacity Utilization 73.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: Airport Rd. & Clover Basin Dr.

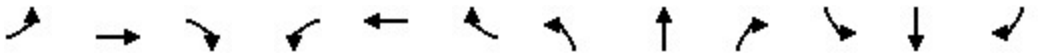




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	87	396	39	171	370	172	67	674	183	185	412	115
v/c Ratio	0.53	0.81	0.07	0.86	0.66	0.28	0.49	0.66	0.31	0.74	0.31	0.17
Control Delay (s/veh)	61.6	53.7	0.2	88.3	41.9	5.0	63.3	42.0	7.1	65.4	29.2	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	61.6	53.7	0.2	88.3	41.9	5.0	63.3	42.0	7.1	65.4	29.2	5.2
Queue Length 50th (ft)	62	276	0	126	247	0	48	235	0	132	118	0
Queue Length 95th (ft)	114	358	0	#250	331	44	96	#380	60	#211	178	38
Internal Link Dist (ft)		714			587			2139			321	
Turn Bay Length (ft)	75		150	150		100	300		250	250		200
Base Capacity (vph)	200	612	641	200	613	641	147	1015	584	282	1309	664
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	0.44	0.65	0.06	0.86	0.60	0.27	0.46	0.66	0.31	0.66	0.31	0.17

Intersection Summary

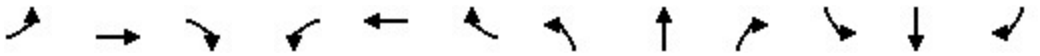
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	364	36	157	340	158	62	620	168	170	379	106
Future Volume (veh/h)	80	364	36	157	340	158	62	620	168	170	379	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	396	39	171	370	172	67	674	183	185	412	115
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	111	448	379	198	540	458	86	1162	518	215	1419	633
Arrive On Green	0.06	0.24	0.24	0.11	0.29	0.29	0.05	0.33	0.33	0.12	0.40	0.40
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	87	396	39	171	370	172	67	674	183	185	412	115
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	5.5	23.5	2.2	10.9	20.2	10.0	4.3	18.1	10.1	11.7	9.1	5.4
Cycle Q Clear(g_c), s	5.5	23.5	2.2	10.9	20.2	10.0	4.3	18.1	10.1	11.7	9.1	5.4
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	111	448	379	198	540	458	86	1162	518	215	1419	633
V/C Ratio(X)	0.79	0.88	0.10	0.86	0.69	0.38	0.78	0.58	0.35	0.86	0.29	0.18
Avail Cap(c_a), veh/h	201	615	521	201	615	521	139	1162	518	279	1419	633
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	0.95	0.95	0.95	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.2	42.2	34.1	50.2	36.3	32.6	54.1	32.1	29.4	49.6	23.5	22.4
Incr Delay (d2), s/veh	11.6	11.2	0.1	29.4	2.7	0.5	13.2	2.0	1.8	18.9	0.5	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(95%),veh/ln	5.1	17.9	1.6	10.6	14.6	7.0	4.0	12.6	7.3	10.5	7.0	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	64.8	53.4	34.2	79.6	39.0	33.1	67.4	34.2	31.2	68.5	24.0	23.0
LnGrp LOS	E	D	C	E	D	C	E	C	C	E	C	C
Approach Vol, veh/h		522			713			924			712	
Approach Delay, s/veh		53.9			47.3			36.0			35.4	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.9	44.6	17.8	33.7	10.6	52.9	12.1	39.4
Change Period (Y+Rc), s	5.0	7.0	5.0	6.2	5.0	7.0	5.0	6.2
Max Green Setting (Gmax), s	18.0	23.0	13.0	37.8	9.0	32.0	13.0	37.8
Max Q Clear Time (g_c+I1), s	13.7	20.1	12.9	25.5	6.3	11.1	7.5	22.2
Green Ext Time (p_c), s	0.2	1.4	0.0	2.0	0.0	3.1	0.1	2.6

Intersection Summary	
HCM 7th Control Delay, s/veh	41.9
HCM 7th LOS	D



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		200	100		150	0		0	0		0
Storage Lanes	1		1	1		1	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850		0.899			0.967	
Flt Protected	0.950			0.950				0.988			0.963	
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	0	1655	0	0	1735	0
Flt Permitted	0.950			0.950				0.988			0.963	
Satd. Flow (perm)	1770	1863	1583	1770	1863	1583	0	1655	0	0	1735	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		770			371			268			195	
Travel Time (s)		32.7			5.9			6.5			0.0	

Intersection Summary	
Area Type:	Other

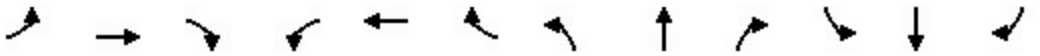
Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	657	25	74	673	34	16	0	47	20	0	6
Future Vol, veh/h	10	657	25	74	673	34	16	0	47	20	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	200	100	-	150	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	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	11	714	27	80	732	37	17	0	51	22	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	768	0	0	741	0	0	1628	1665	714	1628	1655	732
Stage 1	-	-	-	-	-	-	736	736	-	892	892	-
Stage 2	-	-	-	-	-	-	892	929	-	736	763	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	846	-	-	866	-	-	82	97	431	82	98	421
Stage 1	-	-	-	-	-	-	411	425	-	336	360	-
Stage 2	-	-	-	-	-	-	336	346	-	411	413	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	846	-	-	866	-	-	72	87	431	64	88	421
Mov Cap-2 Maneuver	-	-	-	-	-	-	72	87	-	64	88	-
Stage 1	-	-	-	-	-	-	405	420	-	305	327	-
Stage 2	-	-	-	-	-	-	300	314	-	357	408	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.13	0.91	34.21	72.64
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	190	846	-	-	866	-	-	80
HCM Lane V/C Ratio	0.36	0.013	-	-	0.093	-	-	0.353
HCM Control Delay (s/veh)	34.2	9.3	-	-	9.6	-	-	72.6
HCM Lane LOS	D	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	1.5	0	-	-	0.3	-	-	1.4



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	150		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.995			0.900			0.876	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1859	0	1770	1853	0	1770	1676	0	1770	1632	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1859	0	1770	1853	0	1770	1676	0	1770	1632	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		483			921			648			640	
Travel Time (s)		11.0			20.9			14.7			14.5	

Intersection Summary	
Area Type:	Other

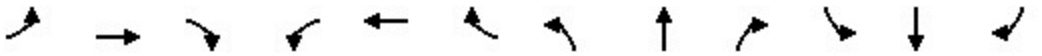
Intersection	
Int Delay, s/veh	9.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	39	680	11	23	671	21	21	42	85	17	15	72
Future Vol, veh/h	39	680	11	23	671	21	21	42	85	17	15	72
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	150	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	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	42	739	12	25	729	23	23	46	92	18	16	78

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	752	0	0	751	0	0	1617	1632	745	1638	1627	741
Stage 1	-	-	-	-	-	-	830	830	-	791	791	-
Stage 2	-	-	-	-	-	-	788	802	-	847	836	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	858	-	-	858	-	-	83	101	414	80	102	416
Stage 1	-	-	-	-	-	-	364	385	-	383	401	-
Stage 2	-	-	-	-	-	-	385	396	-	357	382	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	858	-	-	858	-	-	52	93	414	31	94	416
Mov Cap-2 Maneuver	-	-	-	-	-	-	52	93	-	31	94	-
Stage 1	-	-	-	-	-	-	346	366	-	372	390	-
Stage 2	-	-	-	-	-	-	291	385	-	230	364	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.5	0.3	67.91	60.01
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	52	194	858	-	-	858	-	-	31	262
HCM Lane V/C Ratio	0.437	0.711	0.049	-	-	0.029	-	-	0.602	0.361
HCM Control Delay (s/veh)	119.4	59.4	9.4	-	-	9.3	-	-	232.5	26.3
HCM Lane LOS	F	F	A	-	-	A	-	-	F	D
HCM 95th %tile Q(veh)	1.6	4.5	0.2	-	-	0.1	-	-	2	1.6



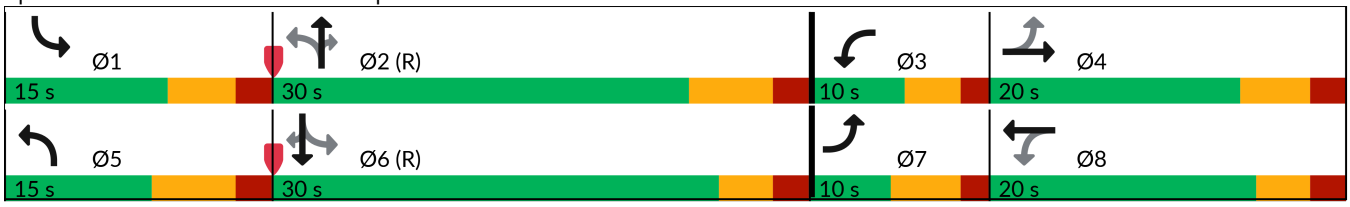
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		0	100		0	300		150	150		200
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt		0.905			0.899				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1686	0	1770	1675	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.658			0.709			0.427			0.357		
Satd. Flow (perm)	1226	1686	0	1321	1675	0	795	3539	1583	665	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		47			67				218			218
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		478			955			764			2219	
Travel Time (s)		10.9			21.7			17.4			50.4	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	55	25	56	30	84	717	52	25	420	59
Future Volume (vph)	55	25	56	30	84	717	52	25	420	59
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	7	4	3	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	4.6	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0	9.7	20.0	11.7	22.5	22.5	10.9	22.5	22.5
Total Split (s)	10.0	20.0	10.0	20.0	15.0	30.0	30.0	15.0	30.0	30.0
Total Split (%)	13.3%	26.7%	13.3%	26.7%	20.0%	40.0%	40.0%	20.0%	40.0%	40.0%
Yellow Time (s)	3.9	3.9	3.2	3.0	4.7	4.7	4.7	3.9	3.0	3.0
All-Red Time (s)	1.5	2.0	1.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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)	5.4	5.9	4.7	5.0	6.7	6.7	6.7	5.9	5.0	5.0
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	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	10.1	7.1	11.2	7.8	50.0	47.9	47.9	45.9	42.9	42.9
Actuated g/C Ratio	0.13	0.09	0.15	0.10	0.67	0.64	0.64	0.61	0.57	0.57
v/c Ratio	0.30	0.36	0.26	0.42	0.14	0.34	0.05	0.05	0.22	0.06
Control Delay (s/veh)	27.2	20.5	25.5	19.0	6.9	11.0	0.0	6.9	12.3	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.2	20.5	25.5	19.0	6.9	11.0	0.0	6.9	12.3	0.1
LOS	C	C	C	B	A	B	A	A	B	A
Approach Delay (s/veh)		23.5		21.5		10.0			10.7	
Approach LOS		C		C		A			B	

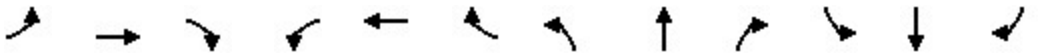
Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 59 (79%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay (s/veh): 12.3	Intersection LOS: B
Intersection Capacity Utilization 49.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Pike Rd. & Airport Rd.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	60	74	61	100	91	779	57	27	457	64
v/c Ratio	0.30	0.36	0.26	0.42	0.14	0.34	0.05	0.05	0.22	0.06
Control Delay (s/veh)	27.2	20.5	25.5	19.0	6.9	11.0	0.0	6.9	12.3	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.2	20.5	25.5	19.0	6.9	11.0	0.0	6.9	12.3	0.1
Queue Length 50th (ft)	22	12	23	14	16	84	0	4	67	0
Queue Length 95th (ft)	48	47	49	55	37	196	0	14	114	0
Internal Link Dist (ft)		398		875		684			2139	
Turn Bay Length (ft)	150		100		300		150	150		200
Base Capacity (vph)	198	355	229	388	640	2262	1090	562	2026	999
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	0.30	0.21	0.27	0.26	0.14	0.34	0.05	0.05	0.23	0.06

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	25	43	56	30	62	84	717	52	25	420	59
Future Volume (veh/h)	55	25	43	56	30	62	84	717	52	25	420	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	60	27	47	61	33	67	91	779	57	27	457	64
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	212	57	99	249	48	98	555	1852	826	401	1715	765
Arrive On Green	0.04	0.09	0.09	0.05	0.09	0.09	0.06	0.52	0.52	0.03	0.48	0.48
Sat Flow, veh/h	1781	612	1066	1781	551	1118	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	60	0	74	61	0	100	91	779	57	27	457	64
Grp Sat Flow(s),veh/h/ln	1781	0	1678	1781	0	1669	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.3	0.0	3.1	2.3	0.0	4.4	1.9	10.1	1.3	0.6	5.7	1.6
Cycle Q Clear(g_c), s	2.3	0.0	3.1	2.3	0.0	4.4	1.9	10.1	1.3	0.6	5.7	1.6
Prop In Lane	1.00		0.64	1.00		0.67	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	212	0	156	249	0	146	555	1852	826	401	1715	765
V/C Ratio(X)	0.28	0.00	0.48	0.24	0.00	0.68	0.16	0.42	0.07	0.07	0.27	0.08
Avail Cap(c_a), veh/h	243	0	316	289	0	334	651	1852	826	566	1715	765
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	0.89	0.89	0.89
Uniform Delay (d), s/veh	29.4	0.0	32.3	29.1	0.0	33.2	8.6	11.0	8.9	9.5	11.5	10.5
Incr Delay (d2), s/veh	0.7	0.0	2.2	0.5	0.0	5.5	0.1	0.7	0.2	0.1	0.3	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	0.0	2.4	1.8	0.0	3.5	1.2	6.7	0.8	0.4	3.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.1	0.0	34.5	29.6	0.0	38.7	8.8	11.7	9.1	9.5	11.9	10.7
LnGrp LOS	C		C	C		D	A	B	A	A	B	B
Approach Vol, veh/h		134			161			927			548	
Approach Delay, s/veh		32.6			35.3			11.3			11.6	
Approach LOS		C			D			B			B	

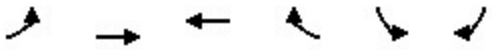
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	45.8	8.3	12.9	10.9	42.9	8.7	12.5
Change Period (Y+Rc), s	5.9	6.7	4.7	5.9	6.7	* 6.7	5.4	* 5.9
Max Green Setting (Gmax), s	9.1	23.3	5.3	14.1	8.3	* 25	4.6	* 15
Max Q Clear Time (g_c+I1), s	2.6	12.1	4.3	5.1	3.9	7.7	4.3	6.4
Green Ext Time (p_c), s	0.0	4.2	0.0	0.2	0.1	3.0	0.0	0.3

Intersection Summary	
HCM 7th Control Delay, s/veh	15.2
HCM 7th LOS	B

Notes

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

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	100			150	0	0
Storage Lanes	1			1	1	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850	0.945	
Flt Protected	0.950				0.971	
Satd. Flow (prot)	1770	1863	1863	1583	1709	0
Flt Permitted	0.950				0.971	
Satd. Flow (perm)	1770	1863	1863	1583	1709	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		667	770		242	
Travel Time (s)		15.2	17.5		5.5	

Intersection Summary	
Area Type:	Other

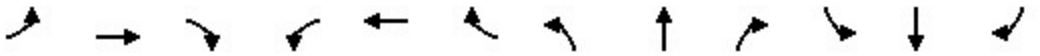
Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	36	665	641	58	32	22
Future Vol, veh/h	36	665	641	58	32	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	723	697	63	35	24

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	760	0	-	0	1498	697
Stage 1	-	-	-	-	697	-
Stage 2	-	-	-	-	801	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	852	-	-	-	135	441
Stage 1	-	-	-	-	494	-
Stage 2	-	-	-	-	442	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	852	-	-	-	129	441
Mov Cap-2 Maneuver	-	-	-	-	129	-
Stage 1	-	-	-	-	472	-
Stage 2	-	-	-	-	442	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.48	0	34.2
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	852	-	-	-	181
HCM Lane V/C Ratio	0.046	-	-	-	0.325
HCM Control Delay (s/veh)	9.4	-	-	-	34.2
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	1.3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.995			0.900			0.876	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1859	0	1770	1853	0	1770	1676	0	1770	1632	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1859	0	1770	1853	0	1770	1676	0	1770	1632	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		345			627			442			339	
Travel Time (s)		7.8			10.2			7.8			7.7	

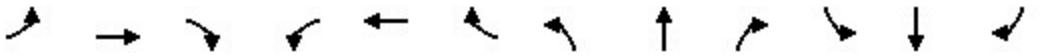
Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	159.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	39	680	11	23	671	21	21	42	85	17	15	72
Future Vol, veh/h	39	680	11	23	671	21	21	42	85	17	15	72
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	42	739	12	25	729	23	23	46	92	18	16	78
Number of Lanes	1	1	0	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay, s/veh	181.9	187.4	14.7	13.7
HCM LOS	F	F	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	33%	0%	98%	0%	97%	0%	17%
Vol Right, %	0%	67%	0%	2%	0%	3%	0%	83%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	127	39	691	23	692	17	87
LT Vol	21	0	39	0	23	0	17	0
Through Vol	0	42	0	680	0	671	0	15
RT Vol	0	85	0	11	0	21	0	72
Lane Flow Rate	23	138	42	751	25	752	18	95
Geometry Grp	5	5	5	5	5	5	5	5
Degree of Util (X)	0.054	0.291	0.082	1.353	0.049	1.357	0.045	0.201
Departure Headway (Hd)	9.754	8.735	7.438	6.915	7.455	6.921	10.017	8.879
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	369	414	485	533	483	534	360	407
Service Time	7.454	6.435	5.138	4.615	5.155	4.621	7.717	6.579
HCM Lane V/C Ratio	0.062	0.333	0.087	1.409	0.052	1.408	0.05	0.233
HCM Control Delay, s/veh	13	15	10.8	191.6	10.5	193.3	13.2	13.8
HCM Lane LOS	B	B	B	F	B	F	B	B
HCM 95th-tile Q	0.2	1.2	0.3	31.4	0.2	31.6	0.1	0.7



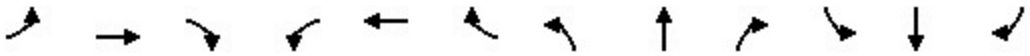
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.996			0.923			0.906	
Flt Protected		0.997			0.998			0.993			0.992	
Satd. Flow (prot)	0	1853	0	0	1852	0	0	1707	0	0	1674	0
Flt Permitted		0.997			0.998			0.993			0.992	
Satd. Flow (perm)	0	1853	0	0	1852	0	0	1707	0	0	1674	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		352			547			471			295	
Travel Time (s)		8.0			12.4			10.7			6.7	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	793	777	161	112
Demand Flow Rate, veh/h	809	793	164	114
Vehicles Circulating, veh/h	60	113	815	793
Vehicles Exiting, veh/h	847	866	54	113
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.5	11.5	9.7	8.3
Approach LOS	B	B	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
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	809	793	164	114
Cap Entry Lane, veh/h	1298	1230	601	615
Entry HV Adj Factor	0.980	0.980	0.982	0.980
Flow Entry, veh/h	793	777	161	112
Cap Entry, veh/h	1273	1205	590	602
V/C Ratio	0.623	0.645	0.273	0.185
Control Delay, s/veh	10.5	11.5	9.7	8.3
LOS	B	B	A	A
95th %tile Queue, veh	5	5	1	1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.995			0.994			0.899			0.967	
Flt Protected		0.999			0.995			0.988			0.963	
Satd. Flow (prot)	0	1852	0	0	1842	0	0	1655	0	0	1735	0
Flt Permitted		0.999			0.995			0.988			0.963	
Satd. Flow (perm)	0	1852	0	0	1842	0	0	1655	0	0	1735	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		341			474			336			279	
Travel Time (s)		7.8			10.8			7.6			6.3	

Intersection Summary	
Area Type:	Other

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	752	849	68	29
Demand Flow Rate, veh/h	767	867	69	29
Vehicles Circulating, veh/h	104	28	761	846
Vehicles Exiting, veh/h	771	802	110	49
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.7	10.8	7.0	6.8
Approach LOS	B	B	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
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	767	867	69	29
Cap Entry Lane, veh/h	1241	1341	635	582
Entry HV Adj Factor	0.980	0.980	0.986	1.000
Flow Entry, veh/h	752	849	68	29
Cap Entry, veh/h	1216	1314	626	582
V/C Ratio	0.618	0.647	0.109	0.050
Control Delay, s/veh	10.7	10.8	7.0	6.8
LOS	B	B	A	A
95th %tile Queue, veh	5	5	0	0

APPENDIX “C”

TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

2024 Existing - Clover Basin Dr./Fordham St. Traffic Signal Warrant Summary Worksheet

100%

The Worksheet(s) attached are provided as an attachment to the Engineering Investigation Study for:

Intersection: Clover Basin Dr./Fordham St.
County: Boulder
City: Longmont

Major Street: Clover Basin Dr.
Critical Approach Speed: 35 mph
Lanes: 2 or more lanes

Minor Street: S Fordham St.
Critical Approach Speed: 35 mph
Lanes: 2 or more lanes

% Right Turns Included
From North (SB) 100%
From East (WB) 100%
From South (NB) 100%
From West (EB) 100%

In built-up area of isolated community of < 10,000 population? No
Total number of approaches at intersection? 4 or more
If it is a "T" intersection, inflate minor threshold to 150%? No
Manually set volume level? No

Analysis based on EXISTING volume data.

Date	Day of the Week	Time (HH:MM)			
		From	AM / PM	To	AM / PM
2024					

Warrant Evaluation Summary	Warrant Met:
Warrant 1: Eight - Hour Vehicular Volume	**No**
Condition A: Minimum Vehicular Volume	No
Condition B: Interruption of Continuous Traffic	No
Condition C: Combination: 80% of A and B	No
Warrant 2: Four-Hour Volume	**No**
Warrant 3: Peak Hour Volume	**No**
Warrant 4: Pedestrian Volume	**N/A**
Criterion A: Four-Hour	N/A
Criterion B: Peak-Hour	N/A
Warrant 5: School Crossing	**N/A**
Warrant 6: Coordinated Signal System	**N/A**
Warrant 7: Crash Experience	**N/A**
Warrant 8: Roadway Network	**N/A**
Warrant 9: Intersection Near a Grade Crossing	**N/A**

Warrant Analysis Conducted By:

Name: BSL
Agency: HKS
Date: 4/1/2024

Warrant 1: Eight - Hour Vehicular Volume 100%

Warrant Evaluated? Yes **Warrant Satisfied? No** **Manually Set To:**

Condition A : Min. Veh. Volume		
Volume Level	100%	80%
Major Rd. Req	600	480
Minor Rd. Req	200	160
Number of Hours	0	0

Satisfied? No

Condition B: Interruption of Continuous Traffic		
Volume Level	100%	80%
Major Rd. Req	900	720
Minor Rd. Req	100	80
Number of Hours	3	4

Satisfied? No

Condition C: Combination of A & B at 80%

Satisfied? No

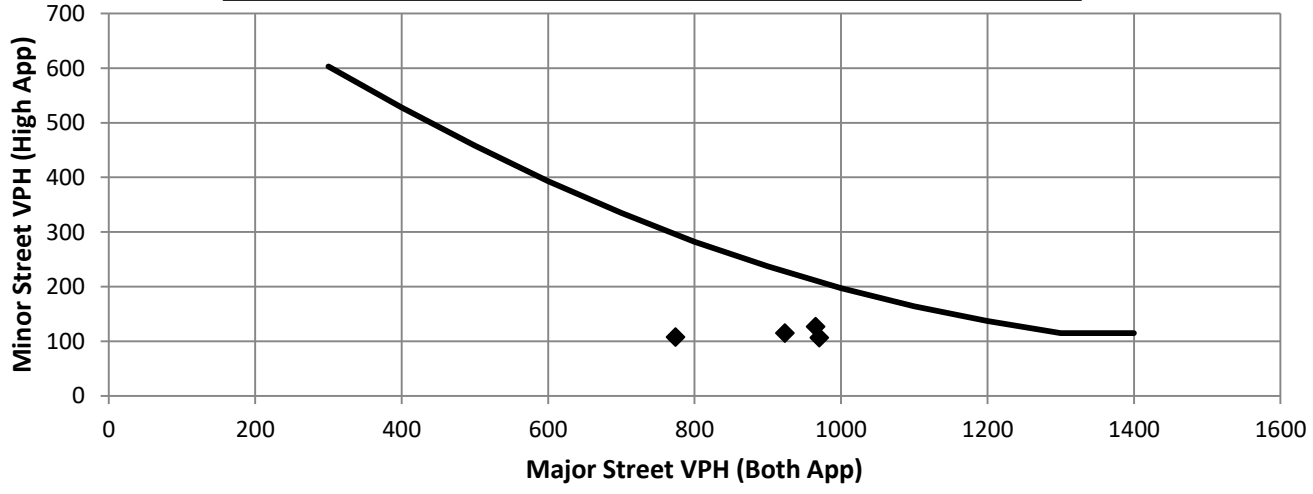
6:00 AM	Enter Start Time (Military Time) (HH:MM)				
Time Period	**From**	**To**	**Major Road: Both App. (VPH)**	**Minor Road: High App. (VPH)**	**Total**
1	6:00	7:00	280	21	301
2	7:00	8:00	645	43	688
3	8:00	9:00	782	58	840
4	9:00	10:00	591	51	642
5	10:00	11:00	543	55	598
6	11:00	12:00	689	102	791
7	12:00	13:00	774	108	882
8	13:00	14:00	690	67	757
9	14:00	15:00	673	96	769
10	15:00	16:00	965	127	1092
11	16:00	17:00	923	115	1038
12	17:00	18:00	970	107	1077
13	18:00	19:00	722	77	799
14	19:00	20:00	523	44	567
15	20:00	21:00	357	22	379
16	21:00	22:00	195	15	210

Warrant 2: Four-Hour Volume 100%

Warrant Evaluated? Yes
Warrant Satisfied? No
Manually Set To:

Hour Start	15:00	17:00	16:00	12:00
Major Road Vol.	965	970	923	774
Minor Road Vol.	127	107	115	108

Figure 4C-1 Warrant 2, Four-Hour Vehicular Volume



Warrant 3: Peak Hour Volume 100%

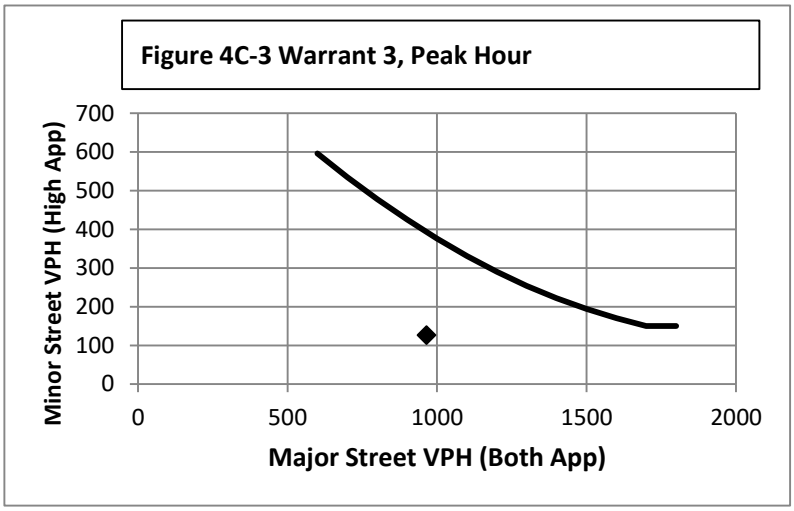
Warrant Evaluated? Yes **Warrant Satisfied? No** **Manually Set To:**

Condition justifying use of warrant:

Criteria		Met?
Delay on Minor Approach	5	
Volume on Minor Approach	150	No
Total Entering Volume (veh/h)	800	

Manually Set Peak Hour? No

Peak Hour	Major Road Vol. (Both App.)	Minor Road Vol. (High App.)
15:00	965	127



2027 Background - Clover Basin Dr./Fordham St. Traffic Signal Warrant Summary Worksheet

100%

The Worksheet(s) attached are provided as an attachment to the Engineering Investigation Study for:

Intersection: Clover Basin Dr./Fordham St.
County: Boulder
City: Longmont

Major Street: Clover Basin Dr.
Critical Approach Speed: 35 mph
Lanes: 2 or more lanes

Minor Street: S Fordham St.
Critical Approach Speed: 35 mph
Lanes: 2 or more lanes

% Right Turns Included
From North (SB) 100%
From East (WB) 100%
From South (NB) 100%
From West (EB) 100%

In built-up area of isolated community of < 10,000 population? No
Total number of approaches at intersection? 4 or more
If it is a "T" intersection, inflate minor threshold to 150%? No
Manually set volume level? No

Analysis based on PROJECTED volume data.

Forecast Year	Within 5 Years of Construction?	Time (HH:MM)			
		From	AM / PM	To	AM / PM
2027	Yes				

Warrant Evaluation Summary	Warrant Met:
Warrant 1: Eight - Hour Vehicular Volume	**No**
Condition A: Minimum Vehicular Volume	No
Condition B: Interruption of Continuous Traffic	No
Condition C: Combination: 80% of A and B	No
Warrant 2: Four-Hour Volume	**No**
Warrant 3: Peak Hour Volume	**No**
Warrant 4: Pedestrian Volume	**N/A**
Criterion A: Four-Hour	N/A
Criterion B: Peak-Hour	N/A
Warrant 5: School Crossing	**N/A**
Warrant 6: Coordinated Signal System	**N/A**
Warrant 7: Crash Experience	**N/A**
Warrant 8: Roadway Network	**N/A**
Warrant 9: Intersection Near a Grade Crossing	**N/A**

Warrant Analysis Conducted By:

Name: BSL
Agency: HKS
Date: 4/1/2024

Warrant 1: Eight - Hour Vehicular Volume 100%

Warrant Evaluated? Yes **Warrant Satisfied? No** **Manually Set To:**

Condition A : Min. Veh. Volume		
Volume Level	100%	80%
Major Rd. Req	600	480
Minor Rd. Req	200	160
Number of Hours	0	0

Satisfied? No

Condition B: Interruption of Continuous Traffic		
Volume Level	100%	80%
Major Rd. Req	900	720
Minor Rd. Req	100	80
Number of Hours	3	6

Satisfied? No

Condition C: Combination of A & B at 80%

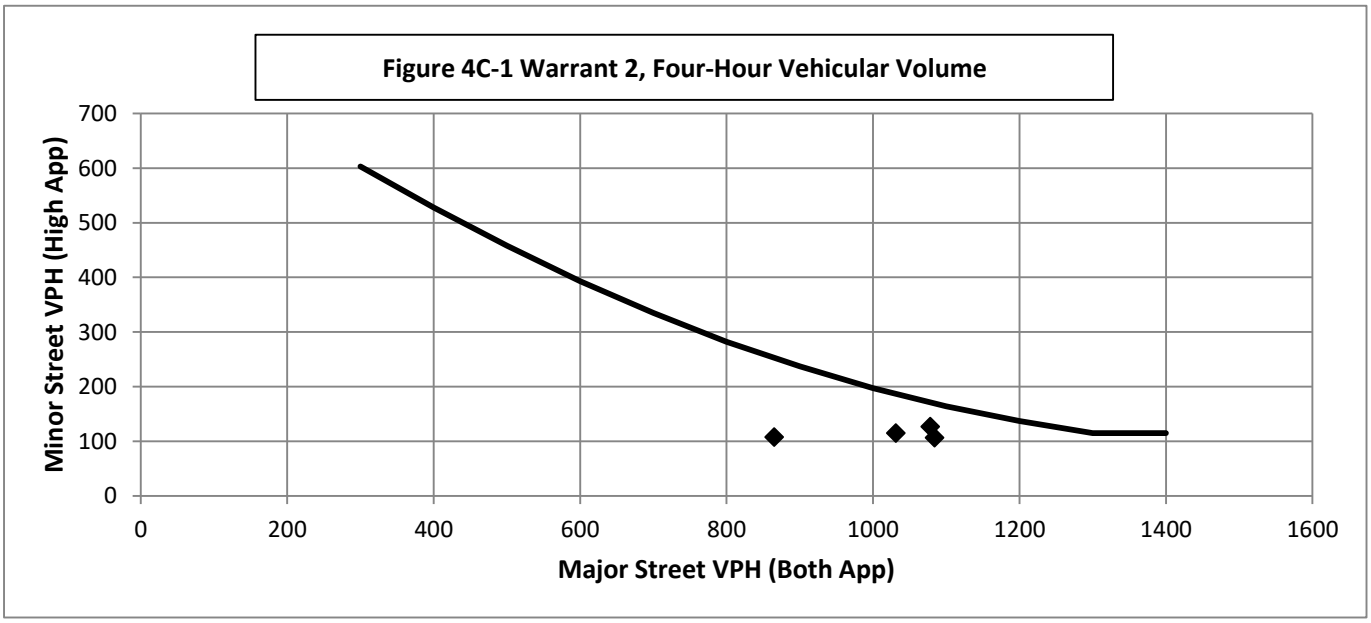
Satisfied? No

6:00 AM	Enter Start Time (Military Time) (HH:MM)				
Time Period	**From**	**To**	**Major Road: Both App. (VPH)**	**Minor Road: High App. (VPH)**	**Total**
1	6:00	7:00	313	21	334
2	7:00	8:00	721	43	764
3	8:00	9:00	874	58	932
4	9:00	10:00	660	51	711
5	10:00	11:00	606	55	661
6	11:00	12:00	770	102	872
7	12:00	13:00	865	108	973
8	13:00	14:00	770	67	837
9	14:00	15:00	751	96	847
10	15:00	16:00	1078	127	1205
11	16:00	17:00	1031	115	1146
12	17:00	18:00	1084	107	1191
13	18:00	19:00	804	77	881
14	19:00	20:00	584	44	628
15	20:00	21:00	399	22	421
16	21:00	22:00	217	15	232

Warrant 2: Four-Hour Volume 100%

Warrant Evaluated? Yes
Warrant Satisfied? No
Manually Set To:

Hour Start	15:00	17:00	16:00	12:00
Major Road Vol.	1078	1084	1031	865
Minor Road Vol.	127	107	115	108



Warrant 3: Peak Hour Volume 100%

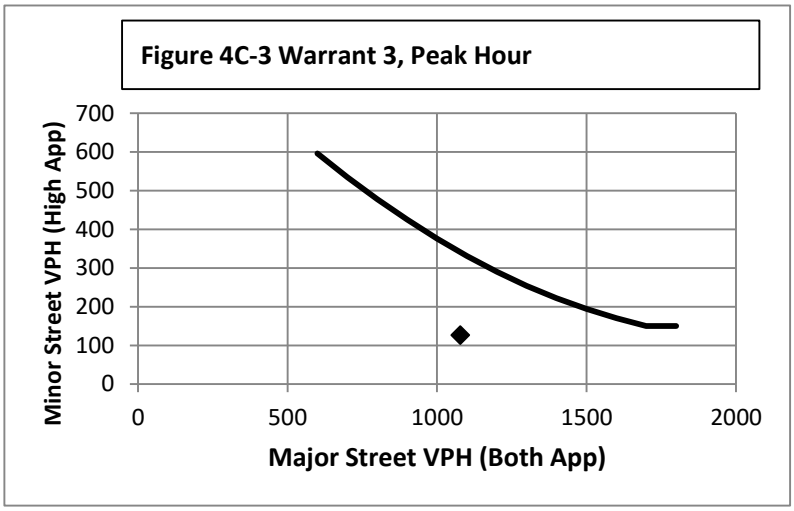
Warrant Evaluated? Yes **Warrant Satisfied? No** **Manually Set To:**

Condition justifying use of warrant:

Criteria		Met?
Delay on Minor Approach	5	
Volume on Minor Approach	150	No
Total Entering Volume (veh/h)	800	

Manually Set Peak Hour? No

Peak Hour	Major Road Vol. (Both App.)	Minor Road Vol. (High App.)
15:00	1078	127



2027 Total - Clover Basin Dr./Fordham St. Traffic Signal Warrant Summary Worksheet

100%

The Worksheet(s) attached are provided as an attachment to the Engineering Investigation Study for:

Intersection: Clover Basin Dr./Fordham St.
County: Boulder
City: Longmont

Major Street: Clover Basin Dr.
Critical Approach Speed: 35 mph
Lanes: 2 or more lanes

Minor Street: S Fordham St.
Critical Approach Speed: 35 mph
Lanes: 2 or more lanes

% Right Turns Included
From North (SB) 100%
From East (WB) 100%
From South (NB) 100%
From West (EB) 100%

In built-up area of isolated community of < 10,000 population? No
Total number of approaches at intersection? 4 or more
If it is a "T" intersection, inflate minor threshold to 150%? No
Manually set volume level? No

Analysis based on PROJECTED volume data.

Forecast Year	Within 5 Years of Construction?	Time (HH:MM)			
		From	AM / PM	To	AM / PM
2027	Yes				

Warrant Evaluation Summary	Warrant Met:
Warrant 1: Eight - Hour Vehicular Volume	**No**
Condition A: Minimum Vehicular Volume	No
Condition B: Interruption of Continuous Traffic	No
Condition C: Combination: 80% of A and B	No
Warrant 2: Four-Hour Volume	**No**
Warrant 3: Peak Hour Volume	**No**
Warrant 4: Pedestrian Volume	**N/A**
Criterion A: Four-Hour	N/A
Criterion B: Peak-Hour	N/A
Warrant 5: School Crossing	**N/A**
Warrant 6: Coordinated Signal System	**N/A**
Warrant 7: Crash Experience	**N/A**
Warrant 8: Roadway Network	**N/A**
Warrant 9: Intersection Near a Grade Crossing	**N/A**

Warrant Analysis Conducted By:

Name: BSL
Agency: HKS
Date: 4/1/2024

Warrant 1: Eight - Hour Vehicular Volume 100%

Warrant Evaluated? Yes **Warrant Satisfied? No** **Manually Set To:**

Condition A : Min. Veh. Volume		
Volume Level	100%	80%
Major Rd. Req	600	480
Minor Rd. Req	200	160
Number of Hours	0	0

Satisfied? No

Condition B: Interruption of Continuous Traffic		
Volume Level	100%	80%
Major Rd. Req	900	720
Minor Rd. Req	100	80
Number of Hours	4	8

Satisfied? No

Condition C: Combination of A & B at 80%

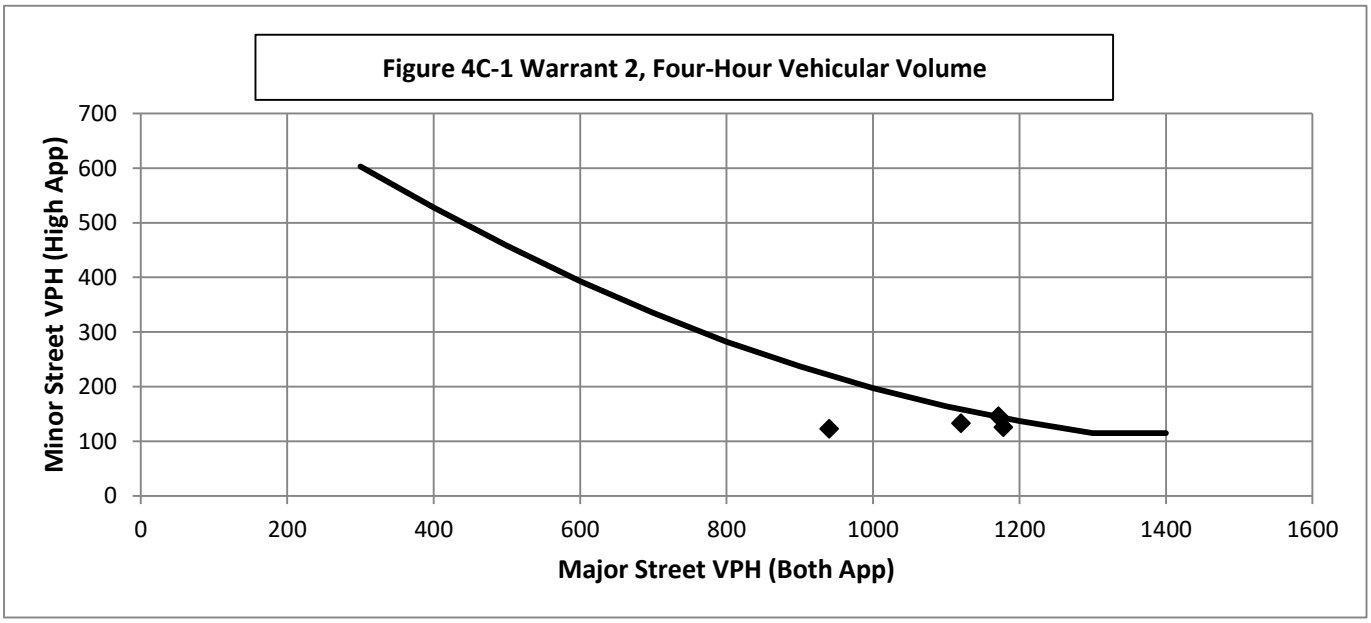
Satisfied? No

6:00 AM	Enter Start Time (Military Time) (HH:MM)				
Time Period	**From**	**To**	**Major Road: Both App. (VPH)**	**Minor Road: High App. (VPH)**	**Total**
1	6:00	7:00	340	27	367
2	7:00	8:00	783	55	838
3	8:00	9:00	949	73	1022
4	9:00	10:00	717	63	780
5	10:00	11:00	659	66	725
6	11:00	12:00	836	116	952
7	12:00	13:00	940	123	1063
8	13:00	14:00	837	81	918
9	14:00	15:00	816	109	925
10	15:00	16:00	1171	146	1317
11	16:00	17:00	1120	133	1253
12	17:00	18:00	1178	126	1304
13	18:00	19:00	876	91	967
14	19:00	20:00	635	54	689
15	20:00	21:00	433	29	462
16	21:00	22:00	236	19	255

Warrant 2: Four-Hour Volume 100%

Warrant Evaluated? Yes
Warrant Satisfied? No
Manually Set To:

Hour Start	15:00	17:00	16:00	12:00
Major Road Vol.	1171	1178	1120	940
Minor Road Vol.	146	126	133	123



Warrant 3: Peak Hour Volume 100%

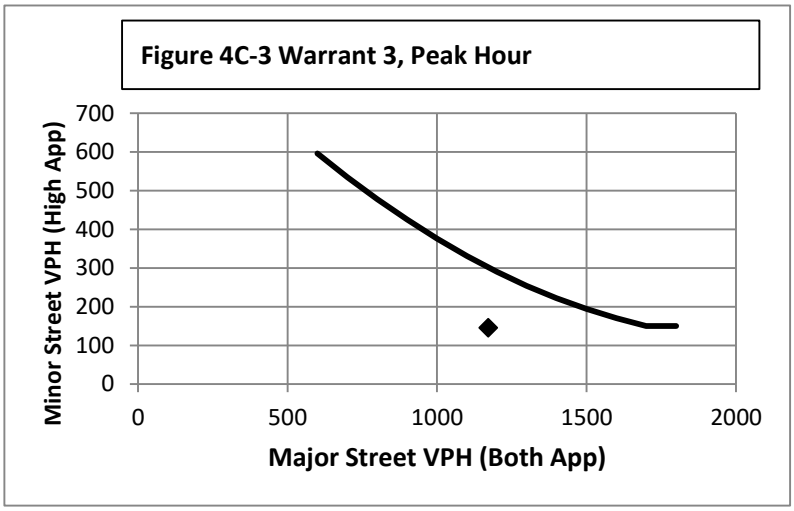
Warrant Evaluated? Yes **Warrant Satisfied? No** **Manually Set To:**

Condition justifying use of warrant:

Criteria		Met?
Delay on Minor Approach	5	
Volume on Minor Approach	150	No
Total Entering Volume (veh/h)	800	

Manually Set Peak Hour? No

Peak Hour	Major Road Vol. (Both App.)	Minor Road Vol. (High App.)
15:00	1171	146



2050 Background - Clover Basin Dr./Fordham St. Traffic Signal Warrant Summary Worksheet

100%

The Worksheet(s) attached are provided as an attachment to the Engineering Investigation Study for:

Intersection: Clover Basin Dr./Fordham St.
County: Boulder
City: Longmont

Major Street: Clover Basin Dr.
Critical Approach Speed: 35 mph
Lanes: 2 or more lanes

Minor Street: S Fordham St.
Critical Approach Speed: 35 mph
Lanes: 2 or more lanes

% Right Turns Included
From North (SB) 100%
From East (WB) 100%
From South (NB) 100%
From West (EB) 100%

In built-up area of isolated community of < 10,000 population? No
Total number of approaches at intersection? 4 or more
If it is a "T" intersection, inflate minor threshold to 150%? No
Manually set volume level? No

Analysis based on PROJECTED volume data.

Forecast Year	Within 5 Years of Construction?	Time (HH:MM)			
		From	AM / PM	To	AM / PM
2050	No				

Warrant Evaluation Summary	Warrant Met:
Warrant 1: Eight - Hour Vehicular Volume	**No**
Condition A: Minimum Vehicular Volume	No
Condition B: Interruption of Continuous Traffic	No
Condition C: Combination: 80% of A and B	No
Warrant 2: Four-Hour Volume	**No**
Warrant 3: Peak Hour Volume	**No**
Warrant 4: Pedestrian Volume	**N/A**
Criterion A: Four-Hour	N/A
Criterion B: Peak-Hour	N/A
Warrant 5: School Crossing	**N/A**
Warrant 6: Coordinated Signal System	**N/A**
Warrant 7: Crash Experience	**N/A**
Warrant 8: Roadway Network	**N/A**
Warrant 9: Intersection Near a Grade Crossing	**N/A**

Warrant Analysis Conducted By:

Name: BSL
Agency: HKS
Date: 4/1/2024

Warrant 1: Eight - Hour Vehicular Volume 100%

Warrant Evaluated? Yes **Warrant Satisfied? No** **Manually Set To:**

Condition A : Min. Veh. Volume		
Volume Level	100%	80%
Major Rd. Req	600	480
Minor Rd. Req	200	160
Number of Hours	0	0

Satisfied? No

Condition B: Interruption of Continuous Traffic		
Volume Level	100%	80%
Major Rd. Req	900	720
Minor Rd. Req	100	80
Number of Hours	5	7

Satisfied? No

Condition C: Combination of A & B at 80%

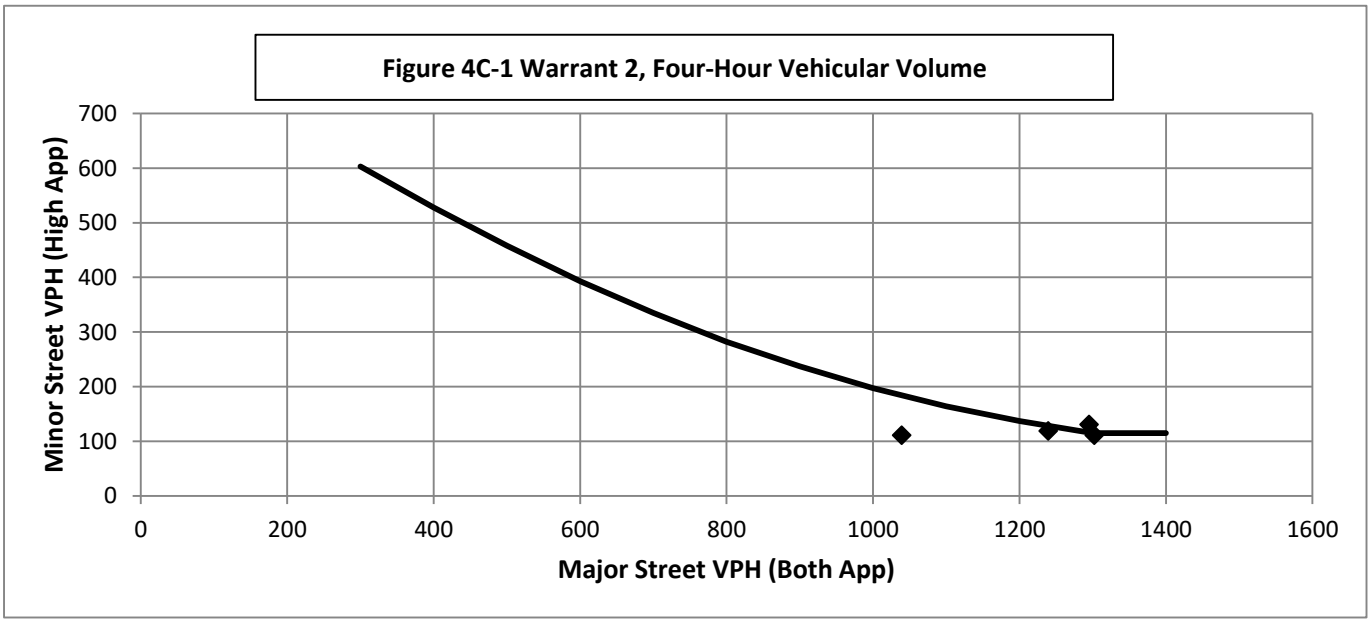
Satisfied? No

6:00 AM	Enter Start Time (Military Time) (HH:MM)				
Time Period	**From**	**To**	**Major Road: Both App. (VPH)**	**Minor Road: High App. (VPH)**	**Total**
1	6:00	7:00	376	22	398
2	7:00	8:00	866	45	911
3	8:00	9:00	1050	61	1111
4	9:00	10:00	793	53	846
5	10:00	11:00	728	57	785
6	11:00	12:00	925	105	1030
7	12:00	13:00	1039	111	1150
8	13:00	14:00	925	70	995
9	14:00	15:00	903	99	1002
10	15:00	16:00	1295	131	1426
11	16:00	17:00	1239	119	1358
12	17:00	18:00	1302	111	1413
13	18:00	19:00	969	80	1049
14	19:00	20:00	702	46	748
15	20:00	21:00	479	23	502
16	21:00	22:00	261	16	277

Warrant 2: Four-Hour Volume 100%

Warrant Evaluated? Yes
Warrant Satisfied? No
Manually Set To:

Hour Start	15:00	17:00	16:00	12:00
Major Road Vol.	1295	1302	1239	1039
Minor Road Vol.	131	111	119	111



Warrant 3: Peak Hour Volume 100%

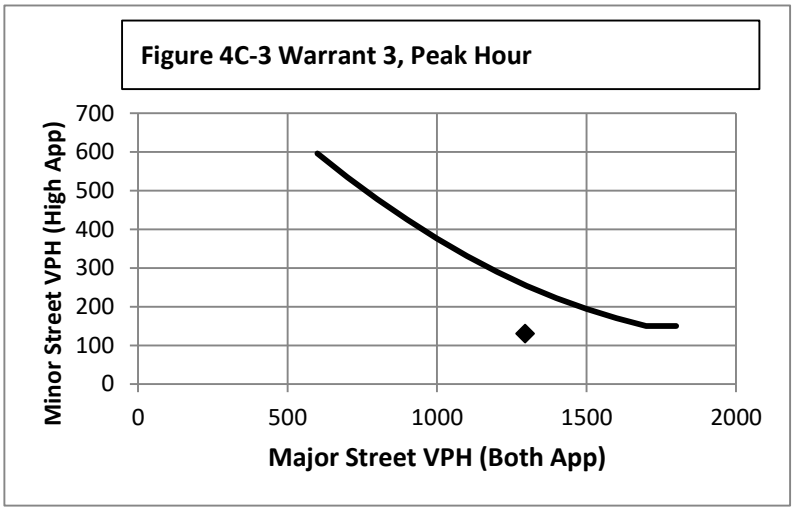
Warrant Evaluated? Yes **Warrant Satisfied? No** **Manually Set To:**

Condition justifying use of warrant:

Criteria		Met?
Delay on Minor Approach	5	
Volume on Minor Approach	150	No
Total Entering Volume (veh/h)	800	

Manually Set Peak Hour? No

Peak Hour	Major Road Vol. (Both App.)	Minor Road Vol. (High App.)
15:00	1295	131



2050 Total - Clover Basin Dr./Fordham St. Traffic Signal Warrant Summary Worksheet

100%

The Worksheet(s) attached are provided as an attachment to the Engineering Investigation Study for:

Intersection: Clover Basin Dr./Fordham St.
County: Boulder
City: Longmont

Major Street: Clover Basin Dr.
Critical Approach Speed: 35 mph
Lanes: 2 or more lanes

Minor Street: S Fordham St.
Critical Approach Speed: 35 mph
Lanes: 2 or more lanes

% Right Turns Included
From North (SB) 100%
From East (WB) 100%
From South (NB) 100%
From West (EB) 100%

In built-up area of isolated community of < 10,000 population? No
Total number of approaches at intersection? 4 or more
If it is a "T" intersection, inflate minor threshold to 150%? No
Manually set volume level? No

Analysis based on PROJECTED volume data.

Forecast Year	Within 5 Years of Construction?	Time (HH:MM)			
		From	AM / PM	To	AM / PM
2050	No				

Warrant Evaluation Summary	Warrant Met:
Warrant 1: Eight - Hour Vehicular Volume	**No**
Condition A: Minimum Vehicular Volume	No
Condition B: Interruption of Continuous Traffic	No
Condition C: Combination: 80% of A and B	No
Warrant 2: Four-Hour Volume	**No**
Warrant 3: Peak Hour Volume	**No**
Warrant 4: Pedestrian Volume	**N/A**
Criterion A: Four-Hour	N/A
Criterion B: Peak-Hour	N/A
Warrant 5: School Crossing	**N/A**
Warrant 6: Coordinated Signal System	**N/A**
Warrant 7: Crash Experience	**N/A**
Warrant 8: Roadway Network	**N/A**
Warrant 9: Intersection Near a Grade Crossing	**N/A**

Warrant Analysis Conducted By:

Name: BSL
Agency: HKS
Date: 4/1/2024

Warrant 1: Eight - Hour Vehicular Volume 100%

Warrant Evaluated? Yes **Warrant Satisfied? No** **Manually Set To:**

Condition A : Min. Veh. Volume		
Volume Level	100%	80%
Major Rd. Req	600	480
Minor Rd. Req	200	160
Number of Hours	0	0

Satisfied? No

Condition B: Interruption of Continuous Traffic		
Volume Level	100%	80%
Major Rd. Req	900	720
Minor Rd. Req	100	80
Number of Hours	6	8

Satisfied? No

Condition C: Combination of A & B at 80%

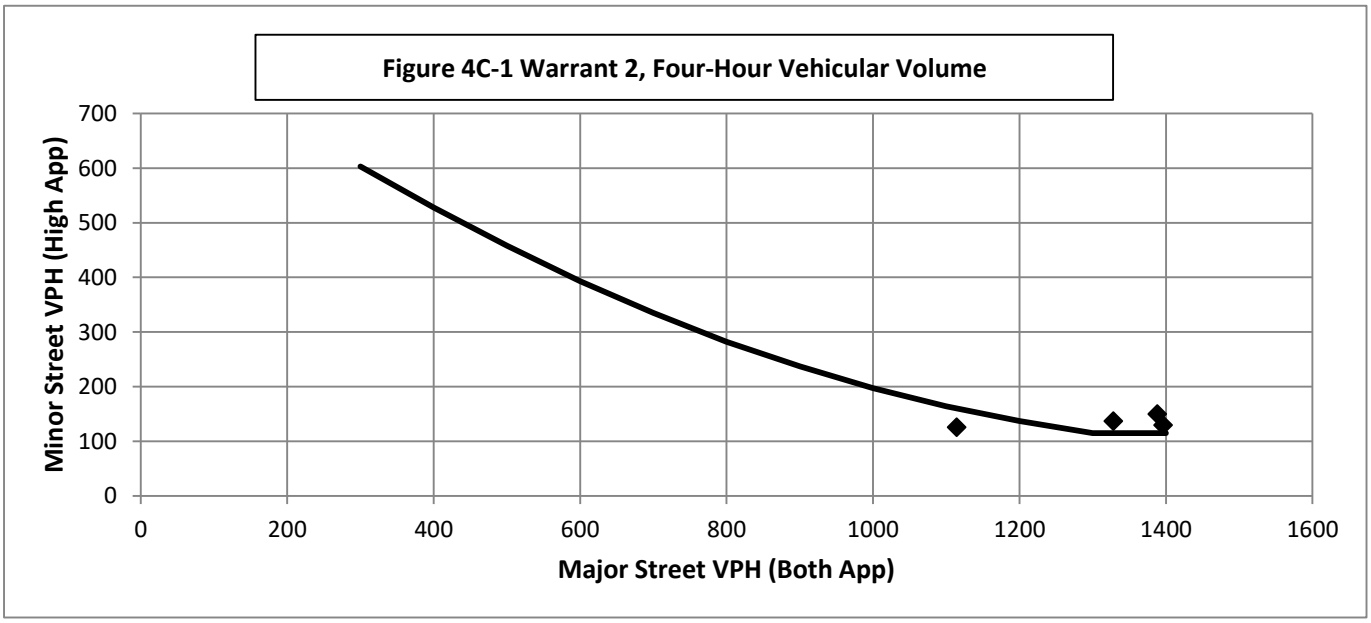
Satisfied? No

6:00 AM	Enter Start Time (Military Time) (HH:MM)				
Time Period	**From**	**To**	**Major Road: Both App. (VPH)**	**Minor Road: High App. (VPH)**	**Total**
1	6:00	7:00	403	28	431
2	7:00	8:00	928	58	986
3	8:00	9:00	1125	76	1201
4	9:00	10:00	850	65	915
5	10:00	11:00	781	68	849
6	11:00	12:00	991	118	1109
7	12:00	13:00	1114	126	1240
8	13:00	14:00	992	83	1075
9	14:00	15:00	968	112	1080
10	15:00	16:00	1388	150	1538
11	16:00	17:00	1328	137	1465
12	17:00	18:00	1396	130	1526
13	18:00	19:00	1039	94	1133
14	19:00	20:00	752	57	809
15	20:00	21:00	514	30	544
16	21:00	22:00	280	20	300

Warrant 2: Four-Hour Volume 100%

Warrant Evaluated? Yes
Warrant Satisfied? No
Manually Set To:

Hour Start	15:00	17:00	16:00	12:00
Major Road Vol.	1388	1396	1328	1114
Minor Road Vol.	150	130	137	126



Warrant 3: Peak Hour Volume 100%

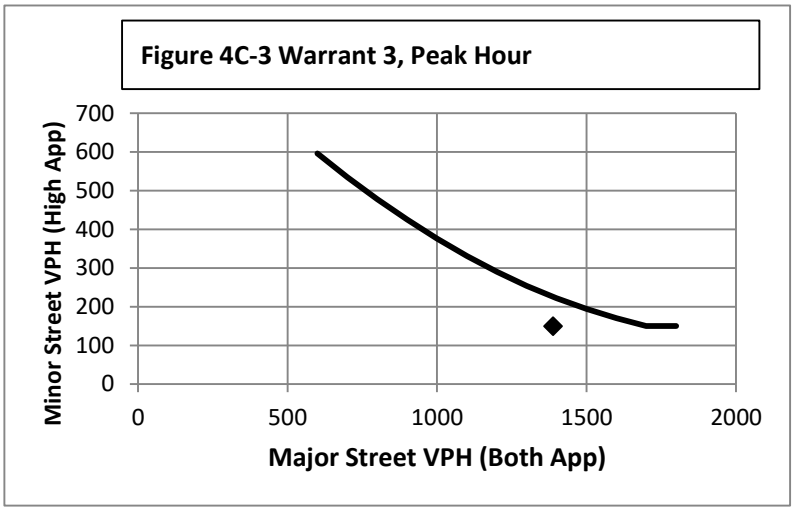
Warrant Evaluated? Yes **Warrant Satisfied? No** **Manually Set To:**

Condition justifying use of warrant:

Criteria		Met?
Delay on Minor Approach	5	
Volume on Minor Approach	150	Yes
Total Entering Volume (veh/h)	800	

Manually Set Peak Hour? No

Peak Hour	Major Road Vol. (Both App.)	Minor Road Vol. (High App.)
15:00	1388	150



Clover Basin Dr. & Fordham St. Traffic Volume Counts

2024 Existing Traffic Volumes

	NB (2 Days)		NB Average	SB (2 Days)		SB Average	EB (2 Days)		EB Average	WB (2 Days)		WB Average
0:00	2	1	2	2	0	1	5	6	6	13	16	15
1:00	0	1	1	3	1	2	5	3	4	7	6	7
2:00	3	1	2	0	2	1	3	1	2	2	2	2
3:00	0	0	0	0	1	1	5	9	7	2	3	3
4:00	1	1	1	3	3	3	31	34	33	12	17	15
5:00	3	5	4	11	11	11	86	84	85	42	43	43
6:00	19	23	21	33	41	37	139	150	145	136	135	136
7:00	40	45	43	92	95	94	407	371	389	258	254	256
8:00	50	65	58	94	94	94	435	449	442	338	342	340
9:00	47	55	51	54	49	52	314	343	329	231	293	262
10:00	51	59	55	50	61	56	258	287	273	244	296	270
11:00	102	102	102	63	63	63	341	357	349	329	351	340
12:00	108	107	108	58	69	64	351	350	351	414	433	424
13:00	77	57	67	65	69	67	307	339	323	370	363	367
14:00	107	85	96	56	66	61	304	313	309	369	359	364
15:00	126	128	127	66	58	62	501	471	486	502	456	479
16:00	125	105	115	68	56	62	478	418	448	500	450	475
17:00	104	109	107	58	76	67	490	410	450	526	514	520
18:00	78	75	77	64	56	60	314	288	301	445	397	421
19:00	45	43	44	29	39	34	206	204	205	318	318	318
20:00	23	20	22	27	19	23	116	103	110	261	234	248
21:00	13	17	15	12	10	11	69	62	66	131	127	129
22:00	6	4	5	7	7	7	42	28	35	75	50	63
23:00	4	4	4	3	2	3	13	8	11	26	19	23
			1123			933			5154			5515

EB + WB	NB
20	2
11	1
4	2
10	0
47	1
128	4
280	21
645	43
782	58
591	51
543	55
689	102
774	108
690	67
673	96
965	127
923	115
970	107
722	77
523	44
357	22
195	15
98	5
33	4
10669	1123

2027 Background Traffic Volumes

	2024 Volumes		2027 Regional Background			2027 Local Background		2027 Total Background	
	2024 EB + WB	2024 NB	2027 EB + WB	2027 NB	Hourly Distribution	EB/WB Traffic	NB Traffic	EB/WB Total	NB Total
0:00	20	2	20	2	0.19%	2	0	22	2
1:00	11	1	11	1	0.10%	1	0	12	1
2:00	4	2	4	2	0.04%	0	0	4	2
3:00	10	0	10	0	0.09%	1	0	11	0
4:00	47	1	48	1	0.44%	4	0	53	1
5:00	128	4	131	4	1.20%	12	0	142	4
6:00	280	21	287	21	2.62%	26	0	313	21
7:00	645	43	661	43	6.05%	60	0	721	43
8:00	782	58	801	58	7.33%	73	0	874	58
9:00	591	51	605	51	5.53%	55	0	660	51
10:00	543	55	556	55	5.09%	50	0	606	55
11:00	689	102	706	102	6.46%	64	0	770	102
12:00	774	108	793	108	7.26%	72	0	865	108
13:00	690	67	706	67	6.46%	64	0	770	67
14:00	673	96	689	96	6.30%	62	0	751	96
15:00	965	127	989	127	9.05%	90	0	1078	127
16:00	923	115	946	115	8.65%	86	0	1031	115
17:00	970	107	994	107	9.09%	90	0	1084	107
18:00	722	77	740	77	6.77%	67	0	807	77
19:00	523	44	536	44	4.90%	49	0	584	44
20:00	357	22	366	22	3.35%	33	0	399	22
21:00	195	15	199	15	1.82%	18	0	217	15
22:00	98	5	100	5	0.91%	9	0	109	5
23:00	33	4	34	4	0.31%	3	0	37	4
	10669	1123			100.00%	990	0	11920	1123

3-Year GF: 1.0245

Local Background
EB/WB Site Traffic: 990
NB Site Traffic: 0

*ADT's determined from Local Background Higher Peak Hour Approach Volumes (PM) & assuming peak hour volume to be 9.5% of daily traffic on each approach leg

2027 Total Traffic Volumes

	2024 EB + WB	2024 NB	EB/WB BG Total	NB BG Total	Hourly Distribution	EB/WB Site Traffic	NB Site Traffic	EB/WB Total	NB Total
0:00	20	2	22	2	0.19%	2	0	24	2
1:00	11	1	12	1	0.10%	1	0	13	1
2:00	4	2	4	2	0.04%	0	0	5	2
3:00	10	0	11	0	0.09%	1	0	12	0
4:00	47	1	53	1	0.44%	5	1	57	2
5:00	128	4	142	4	1.20%	12	3	155	7
6:00	280	21	313	21	2.62%	27	6	340	27
7:00	645	43	721	43	6.05%	62	13	783	55
8:00	782	58	874	58	7.33%	76	15	949	73
9:00	591	51	660	51	5.53%	57	12	717	63
10:00	543	55	606	55	5.09%	52	11	659	66
11:00	689	102	770	102	6.46%	67	14	836	116
12:00	774	108	865	108	7.26%	75	15	940	123
13:00	690	67	770	67	6.46%	67	14	837	81
14:00	673	96	751	96	6.30%	65	13	816	109
15:00	965	127	1078	127	9.05%	93	19	1171	146
16:00	923	115	1031	115	8.65%	89	18	1120	133
17:00	970	107	1084	107	9.09%	94	19	1178	126
18:00	722	77	807	77	6.77%	70	14	876	91
19:00	523	44	584	44	4.90%	51	10	635	54
20:00	357	22	399	22	3.35%	35	7	433	29
21:00	195	15	217	15	1.82%	19	4	236	19
22:00	98	5	109	5	0.91%	9	2	118	7
23:00	33	4	37	4	0.31%	3	1	40	5
	10669	1123	11920	1123	100.00%	1031	210	12951	1333

EB/WB Site Traffic: 1031
NB Site Traffic: 210

*Site Traffic ADT's determined from Site Generated Trip Distribution & Assignment for 2027 Analysis Horizon

2050 Background Traffic Volumes

	2024 Volumes		2050 Regional Background			2050 Local Background		2050 Total Background	
	2024 EB + WB	2024 NB	2050 EB + WB	2050 NB	Hourly Distribution	EB/WB Traffic	NB Traffic	EB/WB Total	NB Total
0:00	20	2	25	2	0.19%	2	0	27	2
1:00	11	1	13	1	0.10%	1	0	14	1
2:00	4	2	5	2	0.04%	0	0	5	2
3:00	10	0	12	0	0.09%	1	0	13	0
4:00	47	1	58	1	0.44%	5	0	63	1
5:00	128	4	157	4	1.20%	14	1	171	5
6:00	280	21	345	21	2.62%	30	1	376	22
7:00	645	43	796	43	6.05%	70	3	866	45
8:00	782	58	965	58	7.33%	85	3	1050	61
9:00	591	51	728	51	5.53%	64	2	793	53
10:00	543	55	669	55	5.09%	59	2	728	57
11:00	689	102	850	102	6.46%	75	3	925	105
12:00	774	108	955	108	7.26%	84	3	1039	111
13:00	690	67	850	67	6.46%	75	3	925	70
14:00	673	96	829	96	6.30%	73	3	903	99
15:00	965	127	1190	127	9.05%	105	4	1295	131
16:00	923	115	1138	115	8.65%	100	4	1239	119
17:00	970	107	1196	107	9.09%	105	4	1302	111
18:00	722	77	891	77	6.77%	79	3	969	80
19:00	523	44	645	44	4.90%	57	2	702	46
20:00	357	22	440	22	3.35%	39	2	479	23
21:00	195	15	240	15	1.82%	21	1	261	16
22:00	98	5	120	5	0.91%	11	0	131	5
23:00	33	4	41	4	0.31%	4	0	44	4
	10669	1123			100.00%	1160	45	14319	1168

26-Year GF: 1.2334

Local Background
EB/WB Site Traffic: 1160
NB Site Traffic: 45

*ADT's determined from Local Background Higher Peak Hour Approach Volumes (PM) & assuming peak hour volume to be 9.5% of daily traffic on each approach leg

2050 Total Traffic Volumes

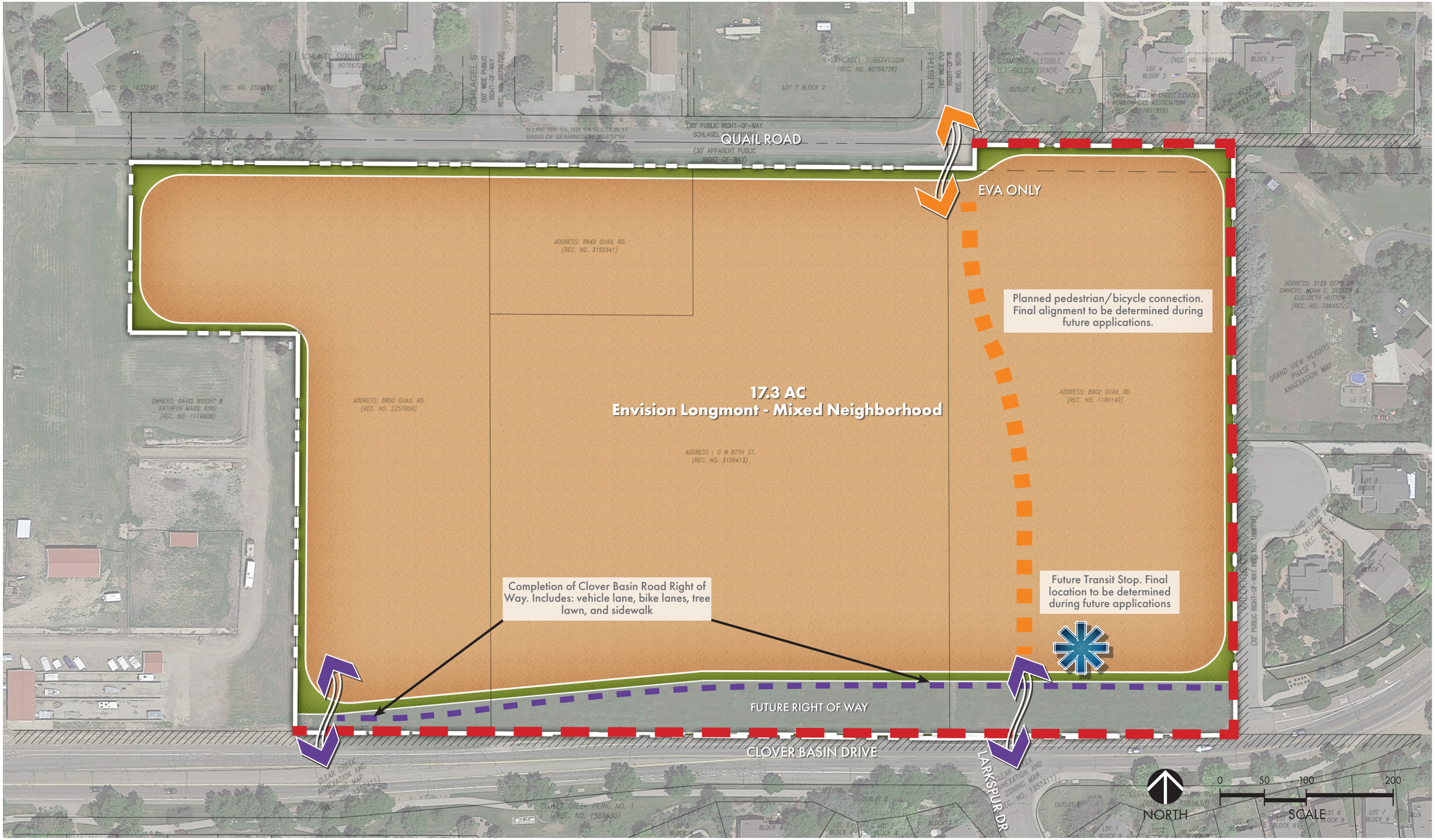
	2024 EB + WB	2024 NB	EB/WB BG Total	NB BG Total	Hourly Distribution	EB/WB Site Traffic	NB Site Traffic	EB/WB Total	NB Total
0:00	20	2	27	2	0.19%	2	0	29	2
1:00	11	1	14	1	0.10%	1	0	15	1
2:00	4	2	5	2	0.04%	0	0	6	2
3:00	10	0	13	0	0.09%	1	0	14	0
4:00	47	1	63	1	0.44%	5	1	68	2
5:00	128	4	171	5	1.20%	12	3	183	7
6:00	280	21	376	22	2.62%	27	6	403	28
7:00	645	43	866	45	6.05%	62	13	928	58
8:00	782	58	1050	61	7.33%	76	15	1125	76
9:00	591	51	793	53	5.53%	57	12	850	65
10:00	543	55	728	57	5.09%	52	11	781	68
11:00	689	102	925	105	6.46%	67	14	991	118
12:00	774	108	1039	111	7.26%	75	15	1114	126
13:00	690	67	925	70	6.46%	67	14	992	83
14:00	673	96	903	99	6.30%	65	13	968	112
15:00	965	127	1295	131	9.05%	93	19	1388	150
16:00	923	115	1239	119	8.65%	89	18	1328	137
17:00	970	107	1302	111	9.09%	94	19	1396	130
18:00	722	77	969	80	6.77%	70	14	1039	94
19:00	523	44	702	46	4.90%	51	10	752	57
20:00	357	22	479	23	3.35%	35	7	514	30
21:00	195	15	261	16	1.82%	19	4	280	20
22:00	98	5	131	5	0.91%	9	2	140	7
23:00	33	4	44	4	0.31%	3	1	47	5
	10669	1123	14319	1168	100.00%	1031	210	15350	1378

EB/WB Site Traffic: 1031
NB Site Traffic: 210

*Site Traffic ADT's determined from Site Generated Trip Distribution & Assignment for 2025 Analysis Horizon

APPENDIX “D”

PRELIMINARY
MULTI-MODAL PLAN



8902 QUAIL ROAD ANNEXATION MULTI-MODAL PLAN

Planning:
NORRIS DESIGN
PLANNING | LANDSCAPE ARCHITECTURE | BRANDING

Civil Engineering & Surveying:
HARRIS KOCHER SMITH

Development:
VISTA RESIDENTIAL PARTNERS

MAY 2, 2024