TRAFFIC IMPACT REPORT

PLATTE PLACE
ADAMS COUNTY, COLORADO

August 19, 2020

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I. INTRODUCTION

A. Project Overview

UDC Miller, LLC is proposing to develop an approximately 13.34-acre parcel of land that is situated east of Brighton Road, west of US Hwy 85 and 2 blocks north of E. 104th Avenue. The property is within the jurisdictional boundaries of Commerce City, Colorado. Currently, the property is mostly undeveloped, with a few private residences. At buildout, the planned development will contain 48 single-family dwelling units and be known as Platte Place. The property is bounded on the south by the north boundary of properties along E 105th Circle, on the east by a housing development under construction, on the north by an undeveloped parcel, and on the west by Brighton Road. Figure 1 provides a vicinity map of the proposed project location and surrounding transportation system.

The proposed development will have two access points. One will connect to the south to Yosemite Way. This will provide access to Brighton Road via 105th Court and 104th Place. The second proposed access point will be to the west via a new roadway that connects to Brighton Rd. creating a "T" intersection. Figure 2 illustrates the site and the proposed access points.

B. Purpose of Study

The purpose of this study is to evaluate the impacts of the vehicular trips projected to be generated by the proposed Platte Place development on the study area intersections and roadway system. The study includes 2019 (existing), 2021 (year of anticipated build-out), and 2040 (long-range horizon year) analysis horizons.

C. Study Area

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

- Brighton Rd./E. 112th Ave
- Brighton Rd./E. 104th Pl
- Brighton Rd./E. 104th Ave
- E. 104th Ave./Belle Creek Blvd
- E. 104th Ave./US 85
- E. 105th Ave./Belle Creek Blvd

See Figures 1 and 2 for a graphical representation of the general area surrounding the Platte Place project and the proposed site plan, respectively.

II. EXISTING CONDITIONS

A. Existing Traffic Volumes

Existing peak hour intersection turning movement traffic volume counts were collected for this study at the following intersections on Tuesday, November 5, 2019:

- Brighton Rd./E. 112th Ave
- Brighton Rd./E. 104th Pl
- Brighton Rd./E. 104th Ave

- E. 104th Ave./Belle Creek Blvd
- E. 104th Ave./US 85
- E. 105th Ave./Belle Creek Blvd

24-hour directional traffic volume counts were collected for this study at the following location on November 5, 2019:

- Brighton Rd. north of Counter Dr. (west boundary of development)

A summary of the existing (2019) peak hour intersection turning movement traffic volume counts and 24-hour directional traffic volume counts collected for this study are illustrated in Figure 3. Detailed traffic volume count data is provided in Appendix "A".

B. Existing Roadway System

The existing transportation network in the vicinity of the subject property is graphically illustrated in Figure 1. The following narrative provides a description of the study-area roadways and associated intersections as they currently exist in 2019:

Study Area Roadways:

- **Brighton Rd** is classified as a minor arterial roadway under the jurisdiction of Commerce City. In the study area, the roadway section consists of one travel lane in each direction with no turn lanes. There are paved/gravel shoulders on each side and no median. Pavement and shoulders are generally in poor condition. The posted speed limit is 35 mph within the study area.
- **E. 104th Ave (SH 44)** is classified as a principal arterial – other, under the jurisdiction of the Colorado Department of Transportation (CDOT). In the study area the roadway section consists of one travel lane in each direction with a continuous center two-way left turn lane. There is a narrow (around 6 feet) paved shoulder on both sides. There is a raised center median that begins on the east side of the Belle Creek Blvd intersection. There are dedicated turn lanes at the Belle Creek Blvd. and US 85 intersections. The posted speed limit is 35 mph within the study area.
- **US Hwy 85** is classified as a principal arterial – expressway under the jurisdiction of CDOT. In the study area, the roadway section consists of two travel lanes in each direction with a raised median, and auxiliary turn lanes at intersections. There is a narrow, paved shoulder on both sides, and only curb and gutter at the 104th Ave intersection. The posted speed limit is 45 mph within the study area.
- **Belle Creek Blvd** is classified as a minor/residential collector road under the jurisdiction of Commerce City. In the vicinity of the project site the roadway section consists of one travel lane in each direction with on-street parking, curb and gutter, and detached sidewalk on both sides. From 104th Ave to 105th Ave, the median varies between paved and raised. The posted speed limit varies between 30 mph and 25 mph within the study area.
- **105th Ave** is classified as a local roadway under the jurisdiction of Commerce City. In the study area, the roadway section consists of one travel lane in both directions with no median, and curb and gutter with detached sidewalk on both sides. The posted speed limit is 25 mph within the study area.

- **112th Ave** is classified as a multimodal arterial roadway under the jurisdiction of Commerce City. In study area, the roadway section consists of one travel lane in each direction, a paved shoulder on the south side, and curb and gutter with attached sidewalk on the north side. The posted speed limit is 45 mph within the study area.

Study Area Intersections:

- The **Brighton Rd./E. 104th Ave** intersection is a four-legged intersection operating under stop sign control with a flashing beacon above the sign on the north/south approaches. The east and west legs of the intersection each have one through lane, one departure lane, and one center left turn lane with no striped storage lengths. The north and south legs of the intersection each have one shared lane for all left-turning, through, and right-turning movements, and one departure lane.
- The **E. 104th Ave./Belle Creek Blvd** intersection is a signalized "T" intersection currently operating as two-phase, actuated and coordinated with the nearby signal at US 85. The west leg of the intersection has one left turn lane with approximately 300 feet of storage and two through lanes on the eastbound approach and one westbound departure lane. There is also a right turn lane striped for future use onto the future south leg. The northern-most through lane turns into an exclusive left turn lane at US 85. The east leg of the intersection has two through lanes and one right turn auxiliary lane on the westbound approach and two eastbound departure lanes. There is also two left turn lanes striped for future use, and are blocked off. The north leg of the intersection has one left turn lane with about 135 feet of storage and one right turn lane on the southbound approach and one northbound departure lane with adjacent parking. There is also a southbound through lane striped for future use, and is currently blocked off. No south leg currently exists.
- The **E. 104th Ave./US 85** intersection is a signalized four-legged intersection operating as actuated and coordinated. The west leg of the intersection has two eastbound through lanes on the eastbound approach, two left turn lanes with 175 feet of storage each, one exclusive free flow right turn lane, and two westbound departure lanes. The northern-most departure lane turns into an exclusive right turn lane at Belle Creek Blvd. The east leg of the intersection has one westbound through lane, two left turn lanes with 350 feet of storage each, and one exclusive free flow right turn lane on the westbound approach and three eastbound departure lanes. The north leg of the intersection has two southbound through lanes, two left turn lanes with 630 feet of storage each, one right turn channelized auxiliary lane, and four northbound departure lanes. The south leg of the intersection has three northbound through lanes, one westbound left turn lane with 630 feet of storage, one right turn channelized auxiliary lane, and three south-bound departure lanes. Left turn lanes on all four approaches have protected-only phasing.
- The **Brighton Rd./E. 104th Pl** intersection is a four-legged intersection operating under stop sign control on the east/west approaches. Each leg of the intersection has one shared lane for all left-turning, through, and right-turning movements, and one departure lane, although the east leg is wide enough to stripe a separate left turn lane westbound.
- The **E. 105th Ave./Belle Creek Blvd** intersection is a four-legged intersection operating under stop sign control on the east/west approaches. Each leg of the intersection has one shared lane for all left-turning, through, and right-turning movements, and one departure lane. Raised/landscaped medians exist on the north and south legs.

- The **Brighton Rd./E. 112th Ave** intersection is a four-legged intersection operating under stop sign control on the east/west approaches. The north, south, and west leg each have one shared lane for all left-turning, through, and right-turning movements and one departure lane. The east leg has one shared lane for through and left turning vehicles, along with one channelized right turn lane and one departure lane.

III. BACKGROUND TRAFFIC

A. Background Traffic Volumes

Background traffic volume forecasts for the 2021 (build-out) and 2040 (long term) analysis horizons were developed for this study utilizing the following strategy:

- For the purposes of this study it is assumed that peak-hour distribution of background intersection approach traffic (left turn, through, right turn) will remain constant through the 2021 and 2040 analysis horizons.
- For the purposes of this study it is assumed that the subject parcel will be fully developed by 2021 as a residential development consisting of 48 single-family units.
- DRCOG traffic volume models for 2015 and 2040 daily traffic in the area of 104th Ave, 112th Ave, Brighton Rd, and US 85 were utilized to determine average annual traffic volume growth rates for the project. Growth factors of 2 and 21 years (2019 to 2021) (2019 to 2040) were determined. Based on this strategy, the following were computed:
  - 104th: 2.81% growth rate, 1.057 2-year growth factor, 1.7895 21-year factor
  - 112th: 2.06% growth rate, 1.042 2-year growth factor, 1.5345 21-year factor
  - Brighton Rd: 1.64% growth rate, 1.0331 2-year factor, 1.407 21-year factor
  - US 85: 1.007% growth rate, 1.014 2-year factor, 1.165 21-year factor

Figures 4 and 5 graphically illustrate the projected background-traffic volumes for the 2021 and 2040 analysis horizons, respectively.

B. Background Traffic Operational Analysis

In order to establish a base condition in which to evaluate the impact of the traffic generated by the proposed development on the study area intersections, peak hour capacity analyses were performed for the existing (2019), and the 2021 and 2040 background traffic conditions. These analyses utilized the methodologies contained in the *Highway Capacity Manual 6th Edition* (HCM 6) employing *Synchro 10* 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 ideal free flow operating conditions, whereas LOS "F" represents excessive congestion and delay. Un-signalized 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 following study area intersections were analyzed for existing (2019) existing traffic and the 2021 and 2040 background traffic analysis horizons:

- Brighton Rd./E. 112th Ave
- Brighton Rd./E. 104th Pl
- Brighton Rd./E. 104th Ave
- E. 104th Ave./Belle Creek Blvd
- E. 104th Ave./US 85
- E. 105th Ave./Belle Creek Blvd

The results of these background traffic operational analyses are summarized graphically for the 2019 existing, 2021 background and 2040 background analysis horizons in Figures 6, 7, and 8, respectively. A summary of the results of the intersection capacity analyses is provided in Table 2 and detailed *Synchro 10* software intersection capacity analysis reports in Appendix "B".

IV. PROJECT DEVELOPMENT

A. Trip Generation

The trip-generation projections for the proposed Platte Place project were forecast using the publication *Trip Generation, 10th Edition*, by the Institute of Transportation Engineers (ITE). Estimates of total daily traffic volumes and AM and PM peak-hour traffic volumes were calculated. Trip generation reductions due to transportation demand management, internal trips, or transit use were not considered.

For the purposes of this study, it is assumed that the subject parcel will be built out by 2021. At buildout, the Platte Place project is projected to generate 529 daily vehicle trips of which 39 are projected to be generated during the AM peak hour and 50 are projected to be generated during the PM peak hour. Trip Generation projections are provided in Table 1.

TABLE 1

Land Use	Intensity	ITE Code	Daily (vpd)	AM Peak Hour (vph)			PM Peak Hour (vph)		
				Total	In	Out	Total	In	Out
Single-Family Detached Housing	48 DU	210	529	39	10	29	50	32	18

B. Trip Distribution

The distribution of the estimated vehicle trips generated by the proposed development were 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, the potential trip origins/destinations for the proposed land use for the subject property. Figure 9 illustrates the projected trip-distribution patterns for the development.

C. Trip Assignment

The vehicular traffic volumes estimated to be generated by the proposed Trip Generation projections shown in Table 1 were assigned to the study area roadways and intersections utilizing the trip distribution methodology described above. Figure 10 illustrates the site generated trip assignment for the development.

V. TOTAL TRAFFIC

Total traffic forecasts for the 2021 and 2040 analysis horizons were computed by combining the associated 2021 and 2040 background traffic volumes with the projected site generated traffic volumes. Figures 11 and 12 graphically illustrate the total traffic projections for the study area intersections for the 2021 and 2040 analysis horizons, respectively.

VI. PROJECT ANALYSIS

A. Operational Analysis

In order to evaluate the impact of the proposed Platte Place project on the study area roadway system, peak hour intersection capacity analyses for total traffic conditions (with proposed development traffic) were performed for the 2021 and 2040 analysis horizons at each of the study area intersections listed below.

- Brighton Rd./E. 112th Ave
- Brighton Rd./E. 104th Pl
- Brighton Rd./E. 104th Ave
- Brighton Rd./West Site Access
- E. 104th Ave./Belle Creek Blvd
- E. 104th Ave./US 85
- E. 105th Ave./Belle Creek Blvd

A narrative of the summary of the analysis and comparison to background traffic conditions for the 2021 and 2040 analysis horizons is provided below. The results of the total-traffic operational analysis are summarized graphically for the 2021 and 2040 analysis horizons in Figure 13 and 14, respectively. A summary of the results of the intersection capacity analysis is provided in Table 2 and detailed *Synchro 10* software intersection capacity analysis reports in Appendix "B".

Study-Area Intersections – Summary of Results:

- **Brighton Rd./E. 104th Ave –** The Brighton Rd./E. 104th Ave intersection currently operates at overall unacceptable traffic conditions (LOS "E" or worse) in the PM peak hour. East/west movements are acceptable as they experience LOS "A" or "B" but the north/south movements experience LOS "F" in all scenarios. This is due to the east/west movement being free-flowing and the north/south movements being stop–controlled with only one shared lane for all movements. Due to this poor performance and expected growth, it is assumed that by 2040, a traffic signal will be installed at this intersection. This improves the overall intersection to a LOS of "B" and north/south movements to a LOS of "C". There is no projected LOS degradation as a result of the proposed development.
- **E. 104th Ave./Belle Creek Blvd –** The E. 104th Ave./Belle Creek Blvd intersection currently operates under acceptable conditions (LOS "D" or better) with its current layout, and will continue to do so in 2040 based off traffic projections. It is assumed that the eastbound left turn movement will change from permitted only, to permitted plus protected by 2040. Currently, all movements operate under acceptable conditions, but by 2040, southbound left turn movements will fall below an acceptable LOS in the AM peak hour due to projected traffic growth in the area. There is no projected LOS

degradation as a result of the proposed development. A traffic study for the development south of E. 104th Ave was requested from the city, but does not exist. Therefore, the intersection had to be analyzed as a 3-legged intersection in 2040, even though it will have a fourth leg. No traffic could be projected for the future south leg. The existing legs are striped to accommodate the south leg, but the south leg cannot be analyzed.

- **E. 104th Ave./US 85 –** The E. 104th Ave./US 85 intersection currently operates with unacceptable conditions on multiple turning movements due to high traffic volumes in this area. All left turning movements are protected only and currently operate with a failing LOS. There are improvement projects being considered from the recommendations of the "US 85 PEL Study" conducted by CDOT. These improvements include changing this intersection to a grade-separated interchange. However in the long term analysis, it was assumed that no changes take place. In that case multiple turning movements will worsen to a LOS of "E" or "F". With expected growth, by 2021 the eastbound and westbound through movements will also operate at unacceptable conditions. All through movements will be failing by 2040. All right turning movements will have acceptable operational conditions in 2040. There is no projected LOS degradation as a result of the proposed development.
- **Brighton Rd./E. 104th Pl –** The Brighton Rd./E. 104th Pl intersection currently operates at acceptable conditions. No changes are expected to be made and this intersection will continue to operate with a LOS of "A" in 2040 with its current layout. There is no projected LOS degradation as a result of the proposed development.
- **E. 105th Ave./Belle Creek Blvd –** The E. 105th Ave./Belle Creek Blvd intersection currently operates with acceptable conditions. No changes are expected to be made and this intersection will continue to operate with a LOS of "A" in 2040 with its current layout. There is no projected LOS degradation as a result of the proposed development.
- **Brighton Rd./E. 112th Ave –** The Brighton Rd./E. 112th Ave intersection operates with a LOS of "A" currently and will continue to do so in 2040. Eastbound traffic conditions will worsen to "D" for 2040 PM, but all north/south movements will remain at a LOS of "A". There is no projected LOS degradation as a result of the proposed development.
- **Brighton Rd./West Site Access –** The Brighton Rd./West Site Access intersection will be constructed concurrently with the development as a right-in, right-out "T" intersection with stop sign control on the westbound approach. The east leg of the intersection will have one right turn lane on the westbound approach, and one eastbound departure lane. The north leg of the intersection will have one through lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one through lane and one right turn lane, which will be constructed concurrently with the development, on the northbound approach, and one southbound departure lane. Based on these parameters it is projected that this intersection and all of the impeded traffic movements at this intersection will have acceptable levels of service (LOS "D" or better) through the 2040 (long term) analysis horizon.

TABLE 2
SUMMARY OF RESULTS - INTERSECTION CAPACITY ANALYSIS

INTERSECTION	INTERSECTION CONTROL	2019 EXISTING TRAFFIC		2021 BACKGROUND TRAFFIC		2021 TOTAL TRAFFIC		2040 BACKGROUND TRAFFIC		2040 TOTAL TRAFFIC	
		AM PEAK LOS	PM PEAK LOS	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. Brighton Road & 104th Avenue	**TWSC**										
a. EB L		A	A	A	B	A	B	-	-	-	-
b. EB TR		-	-	-	-	-	-	-	-	-	-
c. WB L		A	A	A	A	A	A	-	-	-	-
d. WB TR		-	-	-	-	-	-	-	-	-	-
e. NB LTR	Stop	F	F	F	F	F	F	-	-	-	-
f. SB LTR	Stop	F	F	F	F	F	F	-	-	-	-
g. INTERSECTION		**D**	**F**	**E**	**F**	**F**	**F**	-	-	-	-
1a. Brighton Road & 104th Avenue	**Signal**										
a. EB L (Prot+Perm)		-	-	-	-	-	-	A	B	A	B
b. EB TR		-	-	-	-	-	-	B	B	B	B
c. WB L (Prot+Perm)		-	-	-	-	-	-	A	A	A	A
d. WB TR		-	-	-	-	-	-	B	C	B	D
e. NB LTR (Perm)		-	-	-	-	-	-	B	C	B	C
f. SB LTR (Perm)		-	-	-	-	-	-	C	C	B	B
g. INTERSECTION		-	-	-	-	-	-	**B**	**B**	**B**	**C**
2. 104th Avenue & Belle Creek Blvd.	**Signal**										
a. EB L (Perm)		C	C	B	B	C	C	-	-	-	-
(Prot+Perm)		-	-	-	-	-	-	C	D	C	D
b. EB T		B	A	A	A	A	A	A	A	A	A
c. WB T		B	A	A	A	B	A	C	C	C	C
d. WB R (Perm)		A	A	A	A	A	A	B	C	B	C
e. SB L (Prot)		B	C	C	C	C	C	F	D	F	D
f. SB R (Perm)		B	B	B	C	B	C	C	C	C	C
g. INTERSECTION		**B**	**B**	**B**	**B**	**B**	**B**	**C**	**C**	**C**	**C**
3. US 85 & 104th Avenue	**Signal**										
a. EB L (Prot) (Dual)		E	E	E	E	E	E	F	F	F	F
b. EB TR (Perm)		D	D	D	D	D	E	F	F	F	F
c. WB L (Prot) (Dual)		E	E	E	E	E	E	F	F	F	F
d. WB T		F	F	F	F	F	F	E	F	E	F
e. WB R (Perm)		A	A	A	A	A	A	A	A	A	A
f. NB L (Prot)		F	F	F	E	F	F	E	E	E	E
g. NB T		C	C	C	C	C	C	D	F	D	F
h. NB R (Perm)		D	C	E	C	E	C	A	A	A	A
i. SB L (Prot) Dual)		E	E	E	E	E	E	F	F	F	F
j. SB T		C	D	D	D	D	D	F	F	F	F
k. SB R (Perm)		C	D	C	D	C	D	A	A	A	A
l. INTERSECTION		**D**	**D**	**D**	**D**	**D**	**E**	**F**	**F**	**F**	**F**
4. Brighton Road & 104th Pl/104th Way	**TWSC**										
a. EB LTR	Stop	A	A	A	A	A	A	B	A	B	A
b. WB LTR	Stop	A	B	A	B	B	B	A	B	B	B
c. NB LTR		A	A	A	A	A	A	A	A	A	A
d. SB LTR		A	A	A	A	A	A	A	A	A	A
e. INTERSECTION		**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**
5. Brighton Road & 112th Avenue	**TWSC**										
a. EB LTR	Stop	A	C	A	C	A	C	A	D	A	D
b. WB LT	Stop	B	C	B	C	B	C	C	C	C	C
c. WB R	Stop	A	B	A	B	A	B	B	B	B	B
d. NB LTR		A	A	A	A	A	A	A	A	A	A
e. SB LTR		A	A	A	A	A	A	A	A	A	A
f. INTERSECTION		**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**
6. Belle Creek Blvd & 105th Avenue	**TWSC**										
a. EB LTR	Stop	B	A	B	A	B	A	B	B	B	B
b. WB LTR	Stop	B	B	B	B	B	B	B	B	B	B
c. NB LTR		A	A	A	A	A	A	A	A	A	A
d. SB LTR		A	A	A	A	A	A	A	A	A	A
e. INTERSECTION		**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**	**A**
7. Brighton Road & West Site Access	**TWSC**										
a. WB R	Stop	-	-	-	-	A	A	-	-	A	A
b. NB R		-	-	-	-	A	A	-	-	A	A
c. INTERSECTION		**-**	**-**	**-**	**-**	**A**	**A**	**-**	**-**	**A**	**A**

B. Queue Lengths and Storage Required

Queue lengths and associated storage requirements for auxiliary lanes (turn bays) at the study area intersections were calculated for the 2019 (existing) and 2021 and 2040 background and total traffic scenarios using the results of the *Synchro 10* analyses for the HCM 6th Edition 95th percentile queue length. Results of the queue length/turn bay storage length requirement calculations are provided in Table 3. A narrative of the summary of the queue length/storage analysis and comparison to existing turn bay storage is provided below.

- **Brighton Rd./E. 104th Ave –** Based on the results of the queuing analysis it is projected that the eastbound and westbound left turn lanes will have adequate capacity to serve the intersection through the 2040 analysis horizon with no geometric changes. The northbound and southbound lanes, however, don't have dedicated turn lanes and develop substantial queue lengths that will continue to cause delay with the current intersection layout.
- **E. 104th Ave./Belle Creek Blvd -** Based on the results of the queuing analysis it is projected that this intersection has adequate capacity to serve through 2040. In all scenarios, the eastbound and westbound turn lanes at this intersection have the storage necessary to meet the storage capacity required. By 2040, the southbound left turn movement will develop queue lengths in the AM peak hour over 500 feet long that will cause substantial delay.
- **E. 104th Ave./US 85** - Based on the results of the queuing analysis, the eastbound left turn lane is already over capacity in the existing PM peak hour. By 2040, the only turn lane that won't be over capacity is the northbound left-turn lane in the AM peak hour, as all other turn lanes will have queue lengths exceeding storage capacity. Through lanes in each direction will have substantial queue lengths that will continue to cause delay with the current intersection layout.
- **Brighton Rd./E. 104th Pl –** Based on the results of the queuing analysis, it is projected that this intersection has adequate capacity and will experience no storage issues through the 2040 analysis horizon.
- **E. 105th Ave./Belle Creek Blvd –** Based on the results of the queuing analysis it is projected that this intersection has adequate capacity and will experience no storage issues through the 2040 analysis horizon.
- **Brighton Rd./E. 112th Ave –** Based on the results of the queuing analysis, it is projected that this intersection has adequate capacity and will experience no storage issues through the 2040 analysis horizon.
- **Brighton Rd./West Site Access –** Based on the results of the queuing analysis, it is projected that this intersection has adequate capacity and will experience no storage issues through the 2040 analysis horizon.

TABLE 3
SUMMARY OF RESULTS - QUEUE LENGTHS

INTERSECTION	EXISTING STORAGE (FT/LN)	INTERSECTION CONTROL	2019 TRAFFIC		2021 BACKGROUND TRAFFIC		2021 TOTAL TRAFFIC		2040 BACKGROUND TRAFFIC		2040 TOTAL TRAFFIC	
			QUEUE LENGTH (FT/LN) 95TH%		QUEUE LENGTH (FT/LN) 95TH%		QUEUE LENGTH (FT/LN) 95TH%		QUEUE LENGTH (FT/LN) 95TH%		QUEUE LENGTH (FT/LN) 95TH%	
			AM PEAK	PM PEAK	AM PEAK	PM PEAK	AM PEAK	PM PEAK	AM PEAK	PM PEAK	AM PEAK	PM PEAK
1. 104TH Ave / Brighton Rd.	-	**TWSC**	-	-	-	-	-	-	-	-	-	-
a. EB L	85		3	5	3	5	3	5	-	-	-	-
b. EB TR	-		0	0	0	0	0	0	-	-	-	-
c. WB L	85		3	3	3	3	3	3	-	-	-	-
d. WB TR	95		0	0	0	0	0	0	-	-	-	-
e. NB LTR	-	Stop	50	413	95	473	118	493	-	-	-	-
f. SB LTR	70	Stop	263	163	303	153	405	183	-	-	-	-
1a. 104TH Ave / Brighton Rd.	-	**SIGNAL**	-	-	-	-	-	-	-	-	-	-
a. EB L (Prot+Perm)	85		-	-	-	-	-	-	10	18	10	20
b. EB TR	-		-	-	-	-	-	-	230	215	263	208
c. WB L (Prot+Perm)	85		-	-	-	-	-	-	13	8	13	8
d. WB TR	95		-	-	-	-	-	-	215	370	245	520
e. NB LTR (Perm)	-		-	-	-	-	-	-	38	150	35	125
f. SB LTR (Perm)	70		-	-	-	-	-	-	98	73	108	70
2. 104th Ave/Belle Creek Blvd.	-	**SIGNAL**	-	-	-	-	-	-	-	-	-	-
a. EB L (Perm)	300		73	98	50	78	80	118	-	-	-	-
(Prot+Perm)			-	-	-	-	-	-	93	183	93	190
b. EB T	-		118	88	63	48	115	90	125	103	130	103
c. WB T	-		168	150	163	213	233	140	288	378	293	400
d. WB R (Perm)	-		48	53	38	55	65	48	165	250	165	248
e. SB L (Prot)	-		168	153	158	158	200	175	505	350	508	350
f. SB R (Perm)	-		75	73	68	73	88	83	355	320	355	320
3. US 85/104th Ave	-	**SIGNAL**	-	-	-	-	-	-	-	-	-	-
a. EB L (Prot) (Dual)	175		128	203	148	195	143	220	263	410	270	418
b. EB TR (Perm)	-		333	303	393	270	308	343	1218	590	1233	595
c. WB L (Prot) (Dual)	350		230	213	243	205	243	223	520	460	520	460
d. WB T	-		935	900	865	865	878	1048	603	715	608	725
e. WB R (Perm)	-		0	0	0	0	0	0	0	0	0	0
f. NB L (Prot)	625		208	475	223	458	238	523	170	370	175	380
g. NB T	-		210	440	238	473	238	485	435	1593	435	1593
h. NB R (Perm)	-		610	358	765	353	768	390	813	525	813	525
i. SB L (Prot) (Dual)	300		148	90	158	88	158	95	368	183	368	183
j. SB T	-		535	435	628	483	630	483	2503	1625	2503	1625
k. SB R (Perm)	-		198	308	223	253	225	348	300	360	300	360
4. Brighton Rd/104th Way/104th Pl.	-	**TWSC**	-	-	-	-	-	-	-	-	-	-
a. EB LTR	-	Stop	3	0	3	0	3	0	3	0	3	0
b. WB LTR	-	Stop	3	0	3	0	5	3	3	0	8	5
c. NB LTR	-		0	0	0	0	0	0	0	0	0	0
d. SB LTR	-		0	0	0	0	0	0	0	0	0	0
5. Brighton Rd/112th Ave	-	**TWSC**	-	-	-	-	-	-	-	-	-	-
a. EB LTR	-	Stop	0	0	0	0	0	0	0	3	0	3
b. WB LT	150	Stop	8	8	8	8	8	8	18	20	18	20
c. WB R	150	Stop	20	28	20	28	20	28	38	55	38	55
d. NB LTR	-		0	0	0	0	0	0	0	0	0	0
e. SB LTR	-		10	13	10	13	10	13	15	20	15	20
6. Belle Creek Blvd/105th Ave	-	**TWSC**	-	-	-	-	-	-	-	-	-	-
a. EB LTR	-	Stop	3	0	3	0	3	0	5	5	3	0
b. WB LTR	-	Stop	0	3	0	3	0	3	0	0	0	3
c. NB LTR	-		0	0	0	0	0	0	0	0	0	0
d. SB LTR	-		0	0	0	0	0	0	0	0	0	0
7. Brighton Rd/West Site Access	-	**TWSC**	-	-	-	-	-	-	-	-	-	-
a. WB R	-	Stop	-	-	-	-	0	0	-	-	0	0
b. NB R	-		-	-	-	-	0	0	-	-	0	0

VII. SUMMARY

UDC Miller, LLC is proposing to redevelop a parcel of land approximately 13.34 acres that is situated between the east side of Brighton Road, west of US Hwy 85, and 2 blocks north of E. 104th Avenue. The development will have access points via the existing intersection of Brighton Rd/104th Pl., and a new right-in, right-out intersection with Brighton Rd and the west site access road. At buildout the planned development will contain 48 single-family dwelling units and be known as Platte Place. The Platte Place project is projected to generate 529 daily vehicle trips, of which 39 are projected to be generated during the AM peak hour and 50 are projected to be generated during the PM peak hour.

Based on the analyses contained in this traffic study it is concluded that the study area roadway system can accommodate the proposed Platte Place project with no access improvements needed, as shown in Table 4.

TABLE 4
SUMMARY OF RECOMMENDATIONS

Intersection	Recommendations	Responsible	Timing
Brighton Rd./E. 104th Ave	Installation of actuated traffic signal to accommodate background traffic. No geometric or operational modifications are recommended as a result of the development of the proposed project.	Commerce City/CDOT	When warrants are met
E 104th Ave./Belle Creek Blvd	Change eastbound left-turn signal from permitted to protected + permitted	CDOT	By 2021
E. 104th Ave./US 85	No geometric or operational modifications are recommended as a result of the development of the proposed project.	N.A.	N.A.
Brighton Rd./E. 104th Pl	No geometric or operational modifications are recommended as a result of the development of the proposed project.	N.A.	N.A.
E. 105th Ave./Belle Creek Blvd	No geometric or operational modifications are recommended as a result of the development of the proposed project.	N.A.	N.A.
Brighton Rd./E. 112th Ave	No geometric or operational modifications are recommended as a result of the development of the proposed project.	N.A.	N.A.
Brighton Rd./West Site Access	Construct as a right-in, right-out "T" intersection with stop sign control on the westbound approach. The east leg of the intersection will have one right turn lane on the westbound approach, and one eastbound departure lane. The north leg of the intersection will have one through lane on the southbound approach, and one northbound departure lane. The south leg of the intersection will have one through lane and one right turn lane on the northbound approach, and one southbound departure lane.	Developer	Concurrent with development

N

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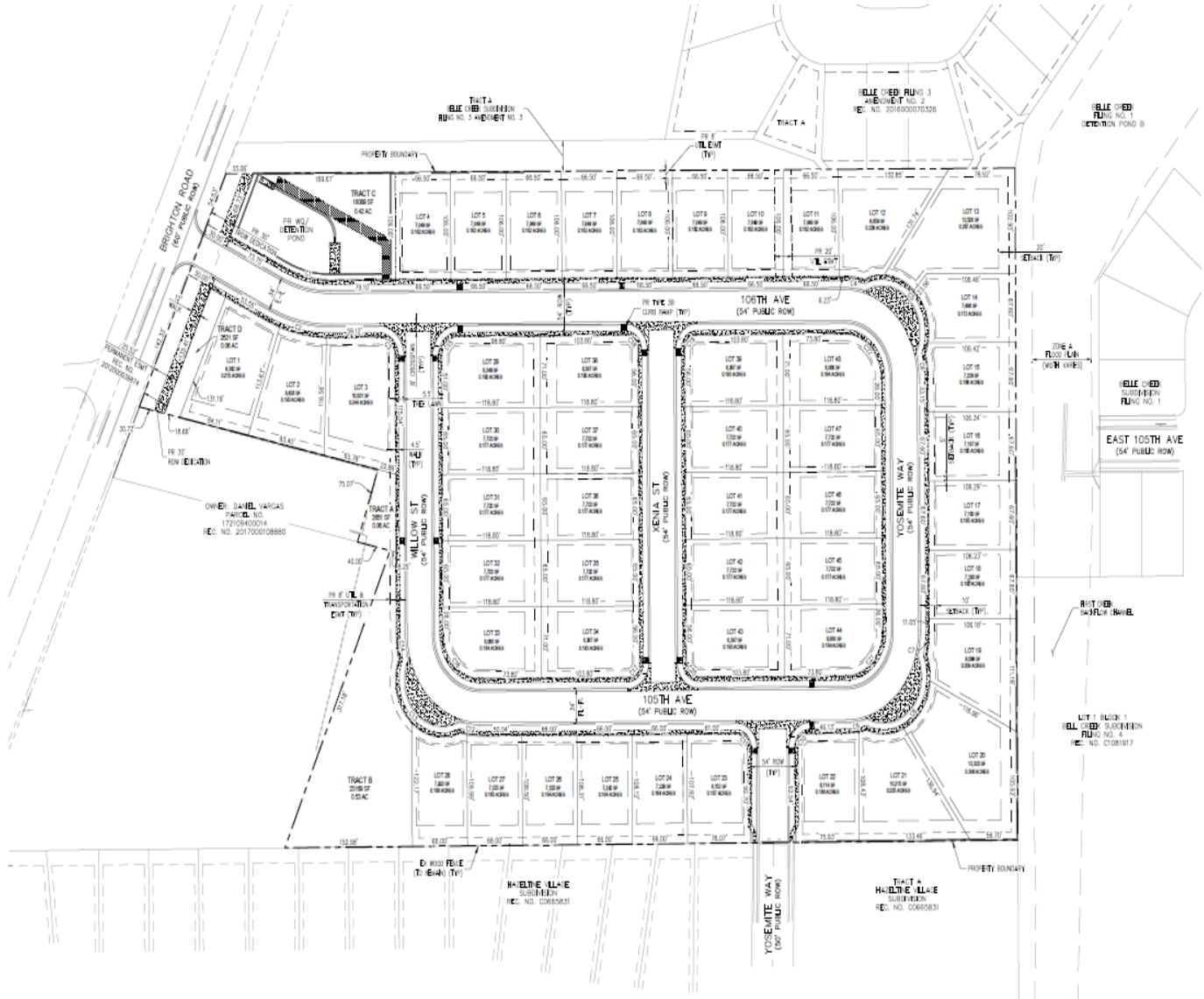
Platte Place
UDC Miller, LLC
HKS #191008

Site Location Map

Figure 1



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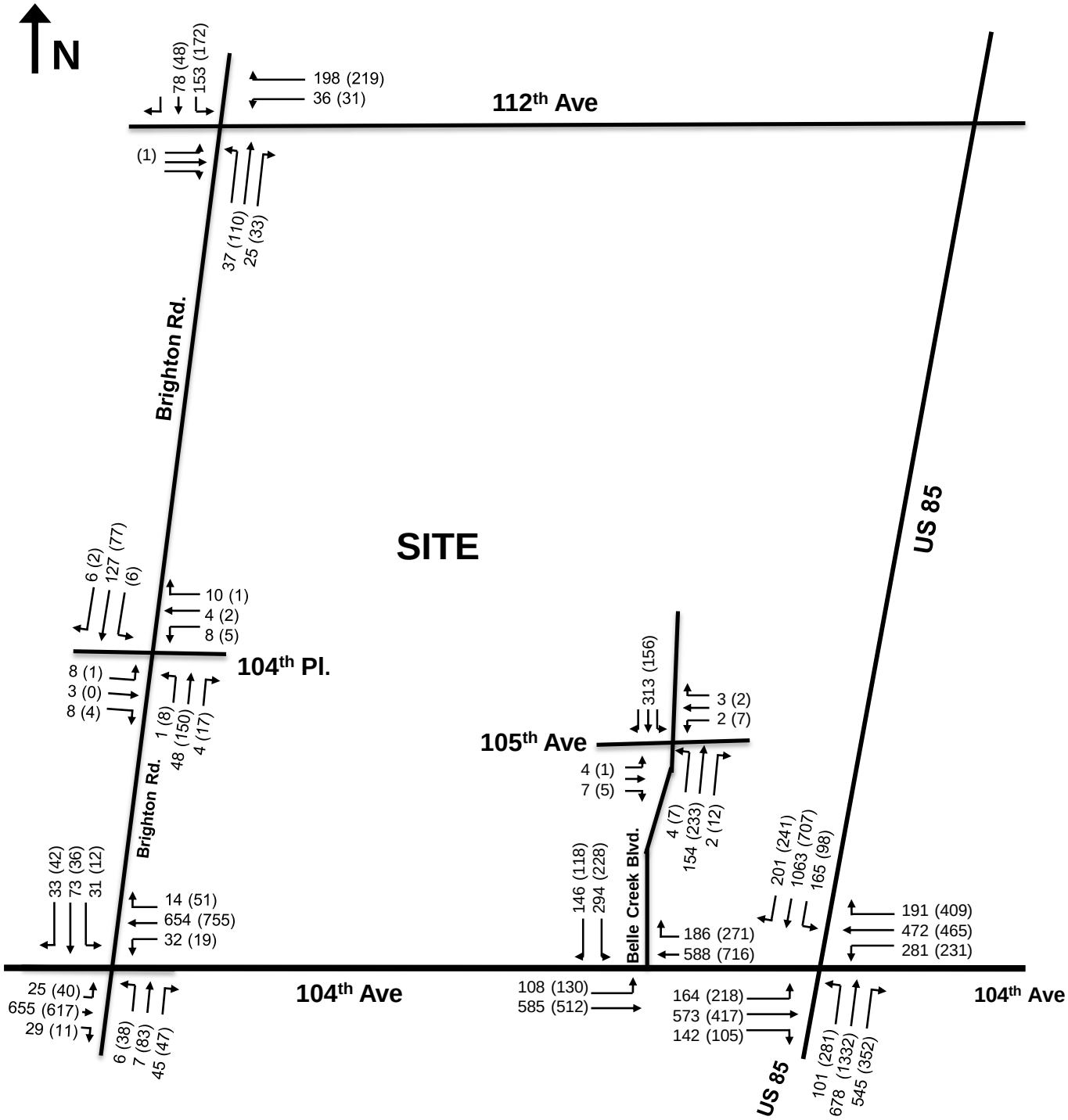
Platte Place
UDC Miller, LLC
HKS #191008

Conceptual Site Plan

Figure 2



Legend: Drawing Not To Scale

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

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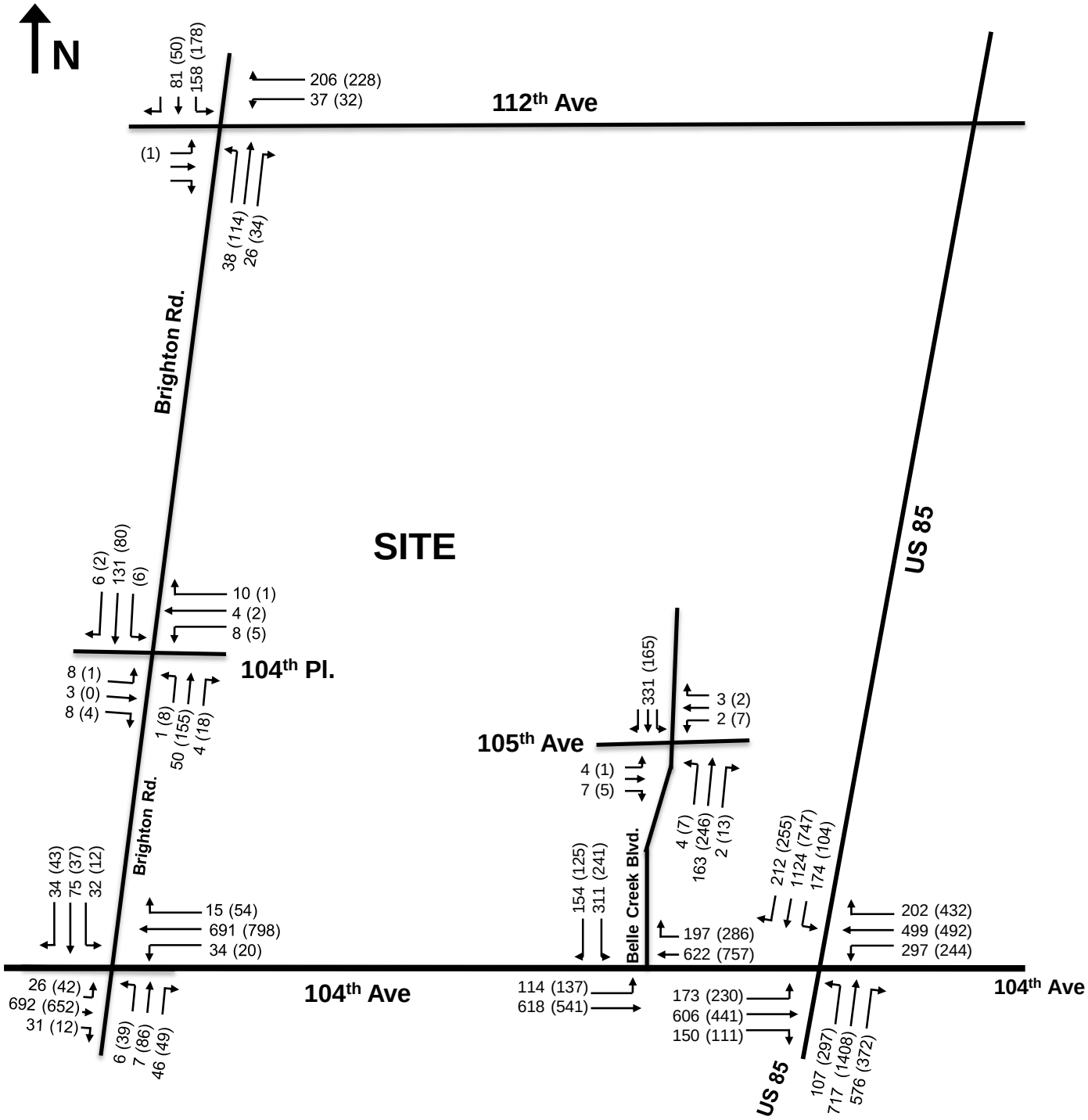
Platte Place
UDC Miller, LLC
HKS #191008

2019 Existing Traffic Volumes

Figure 3



Legend: Drawing Not To Scale

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

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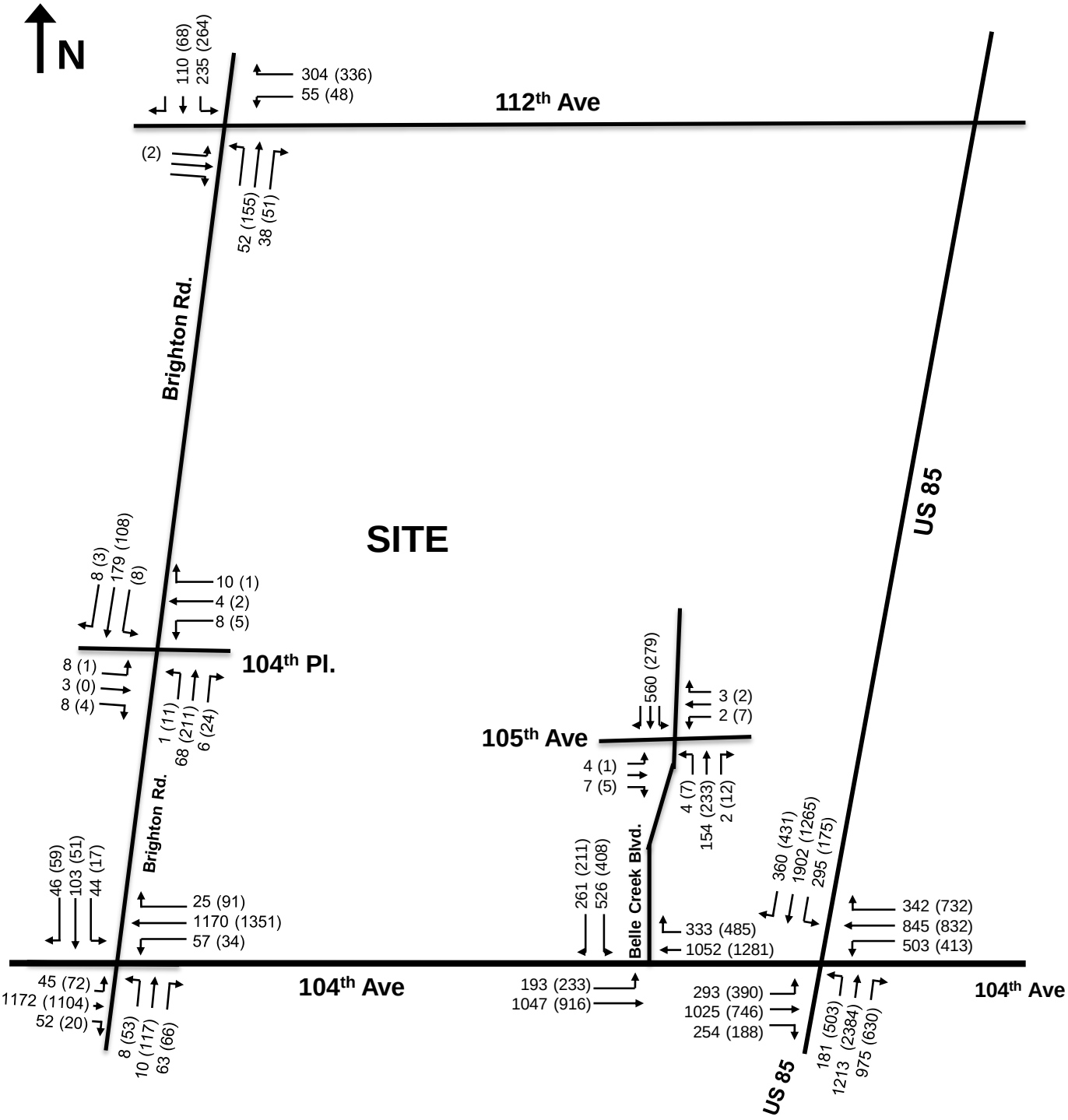
UDC Miller, LLC
HKS #191008

2021 Background Traffic Volumes

Figure 4



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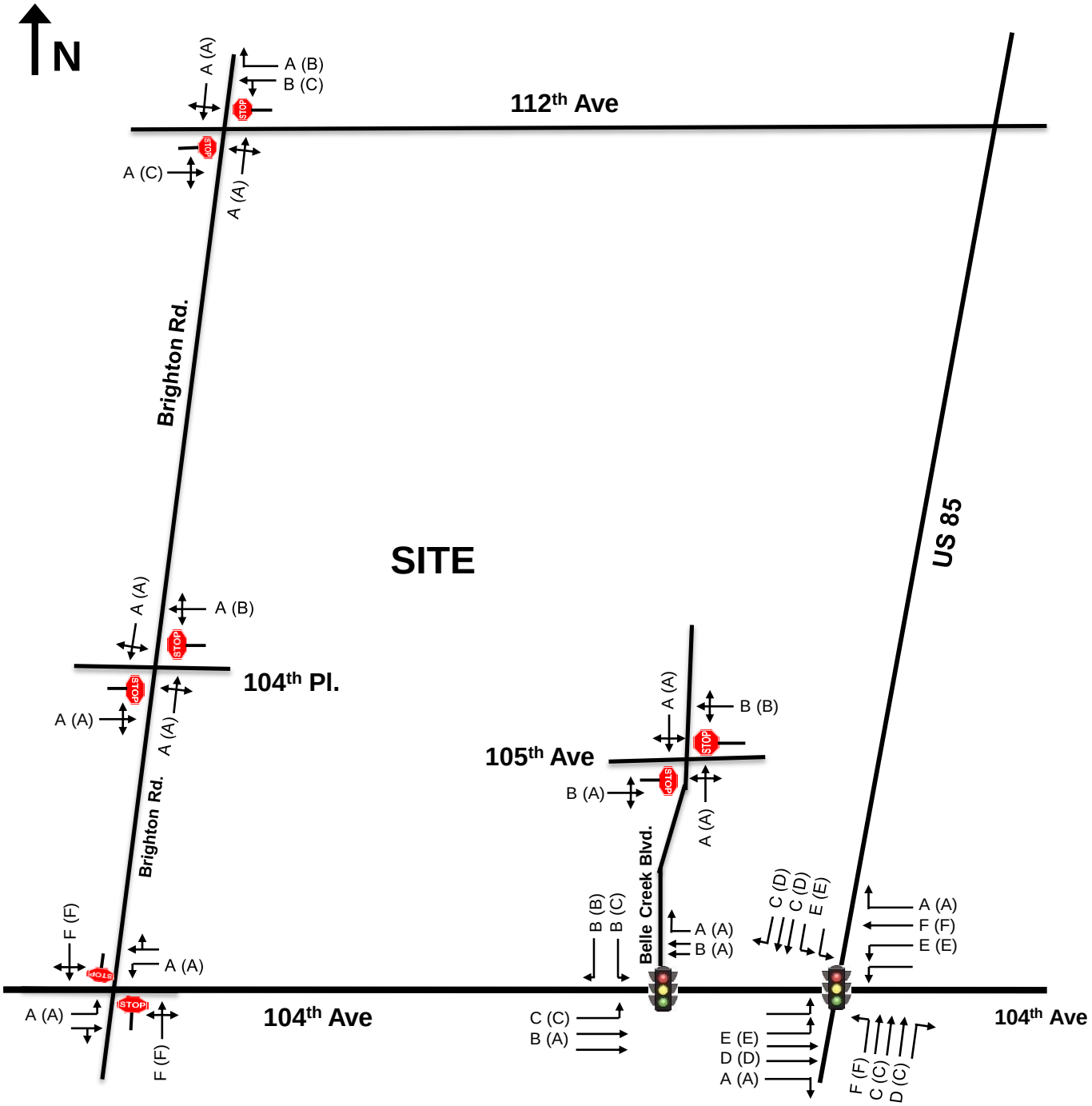
HKS #191008

2040 Background Traffic Volumes

Figure 5



Legend: Drawing Not To Scale

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

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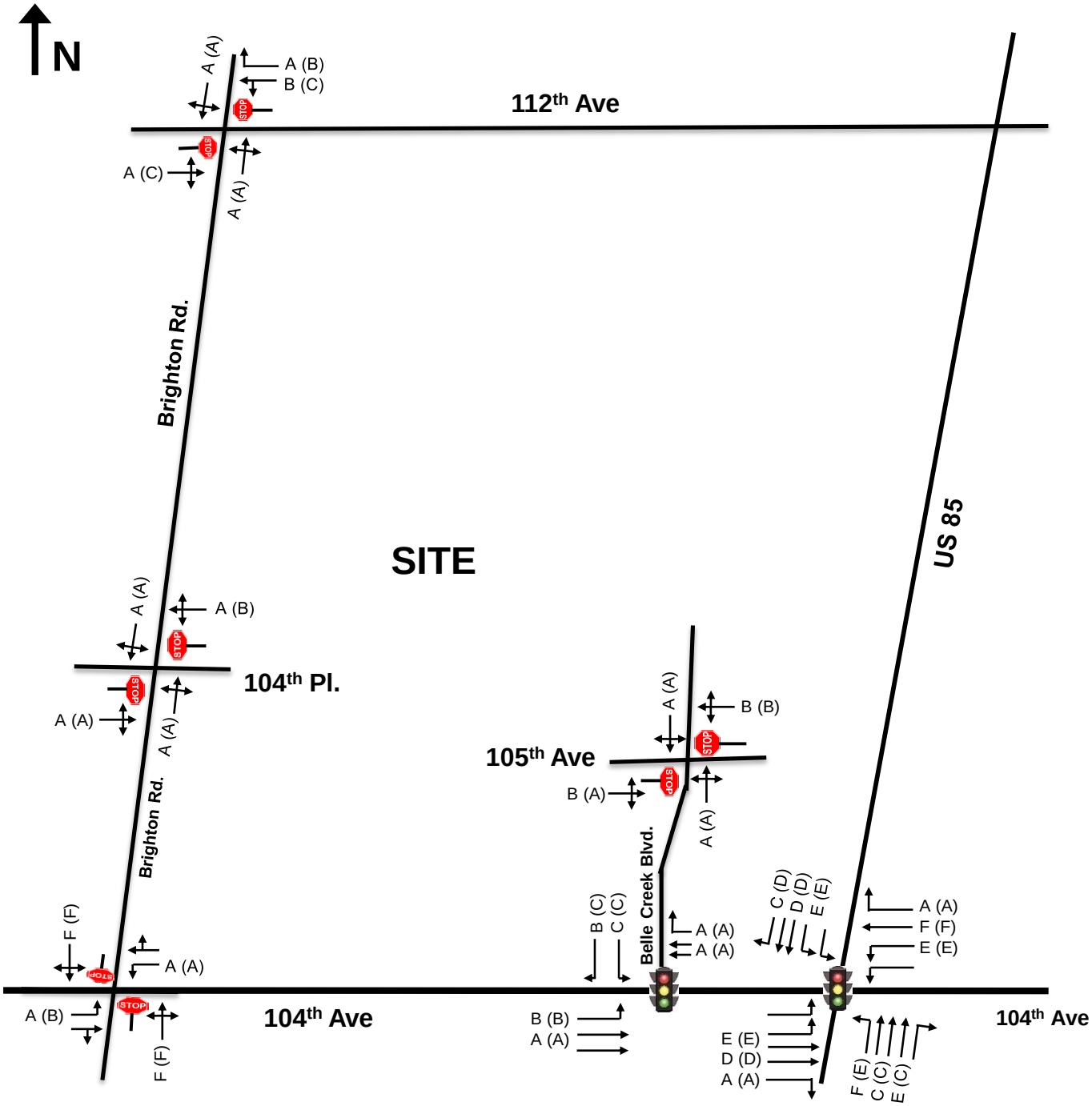
HKS #191008

2019 Existing Traffic Operational Conditions

Figure 6



Legend: Drawing Not To Scale

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

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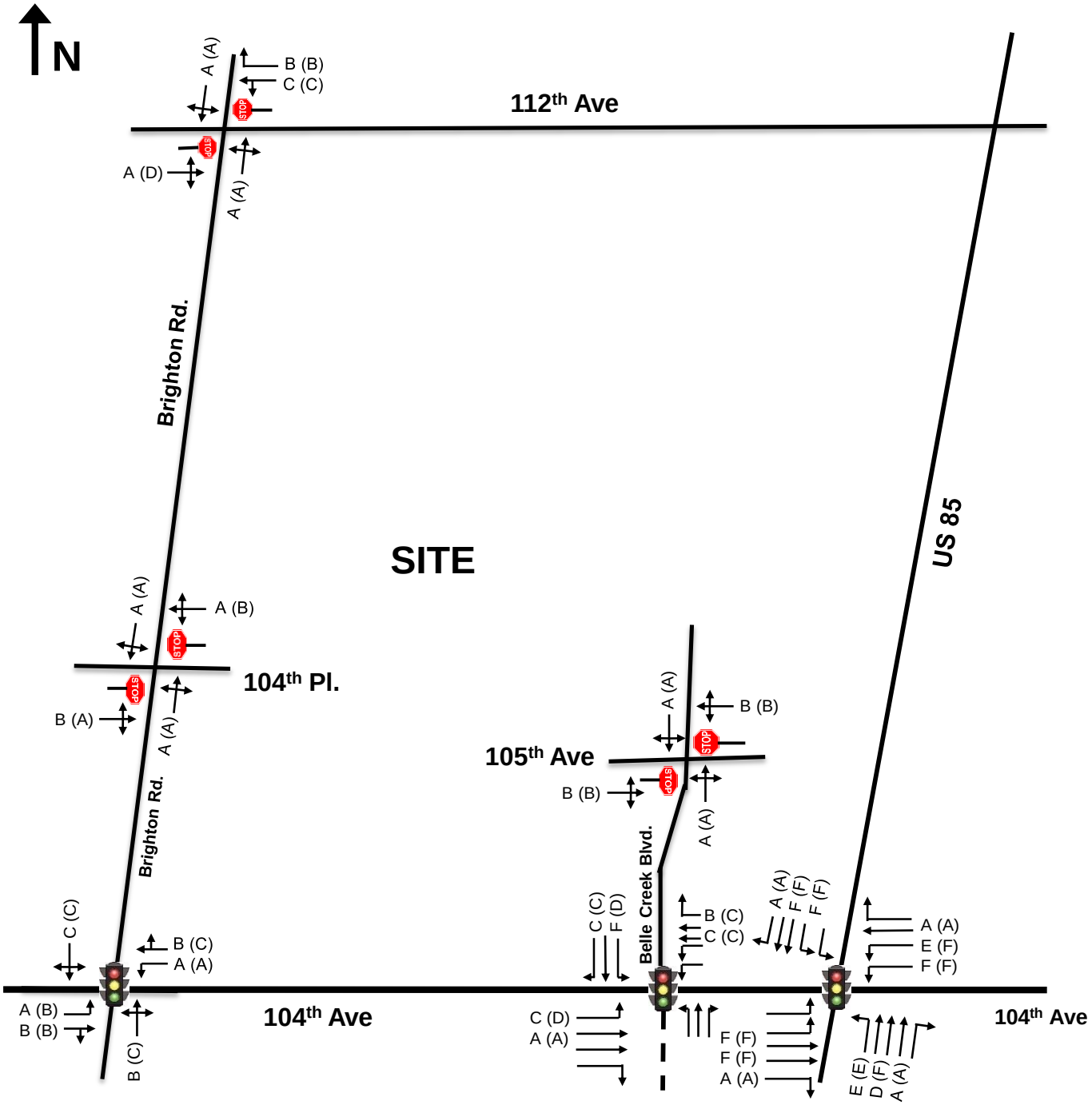
2021 Background Traffic Operational Conditions

Figure 7



Legend: Drawing Not To Scale

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

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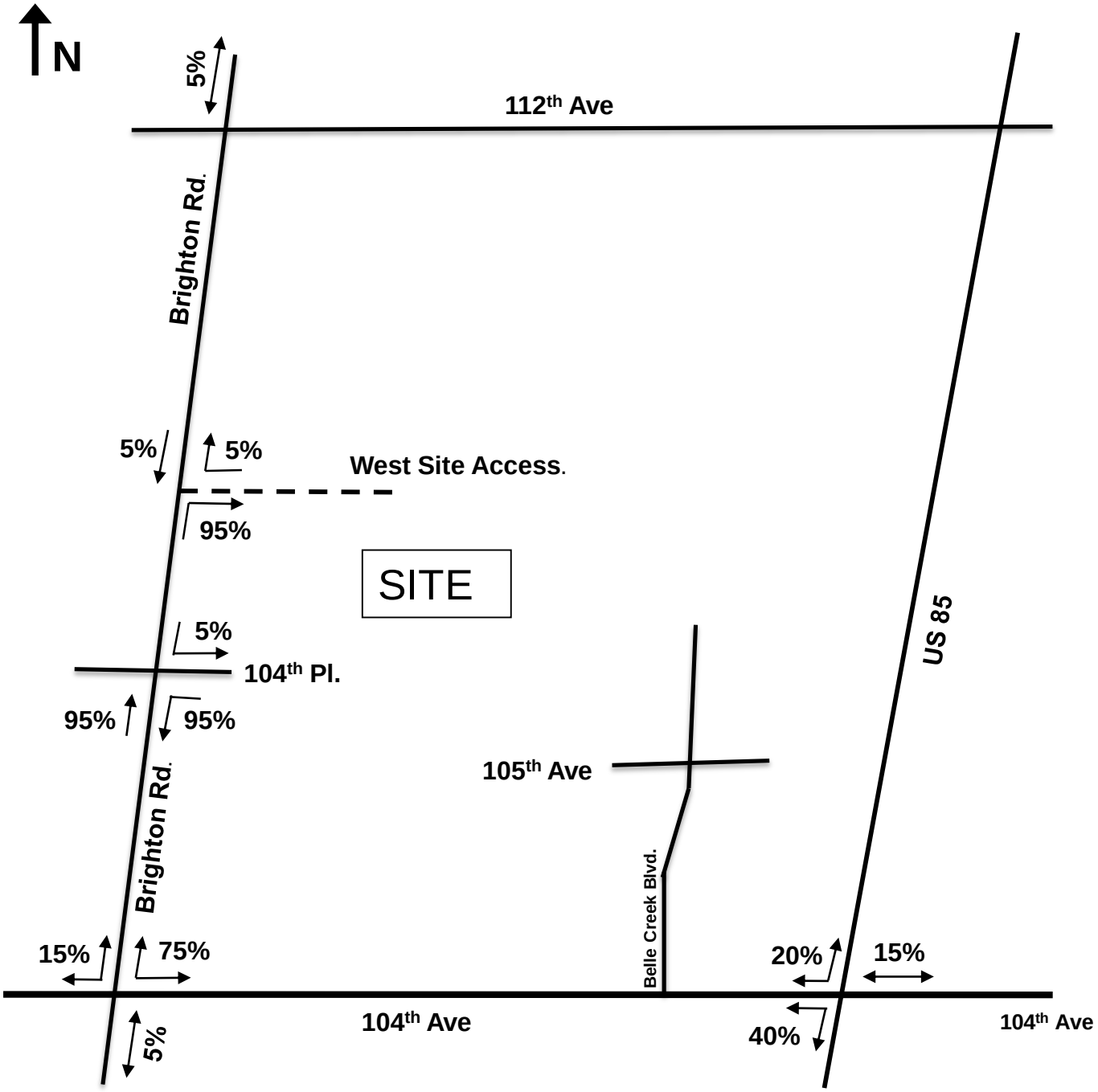
2040 Background Traffic Operational Conditions

Figure 8



Legend: Drawing Not To Scale

XX% Site-Generated Trip Distribution

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Platte Place
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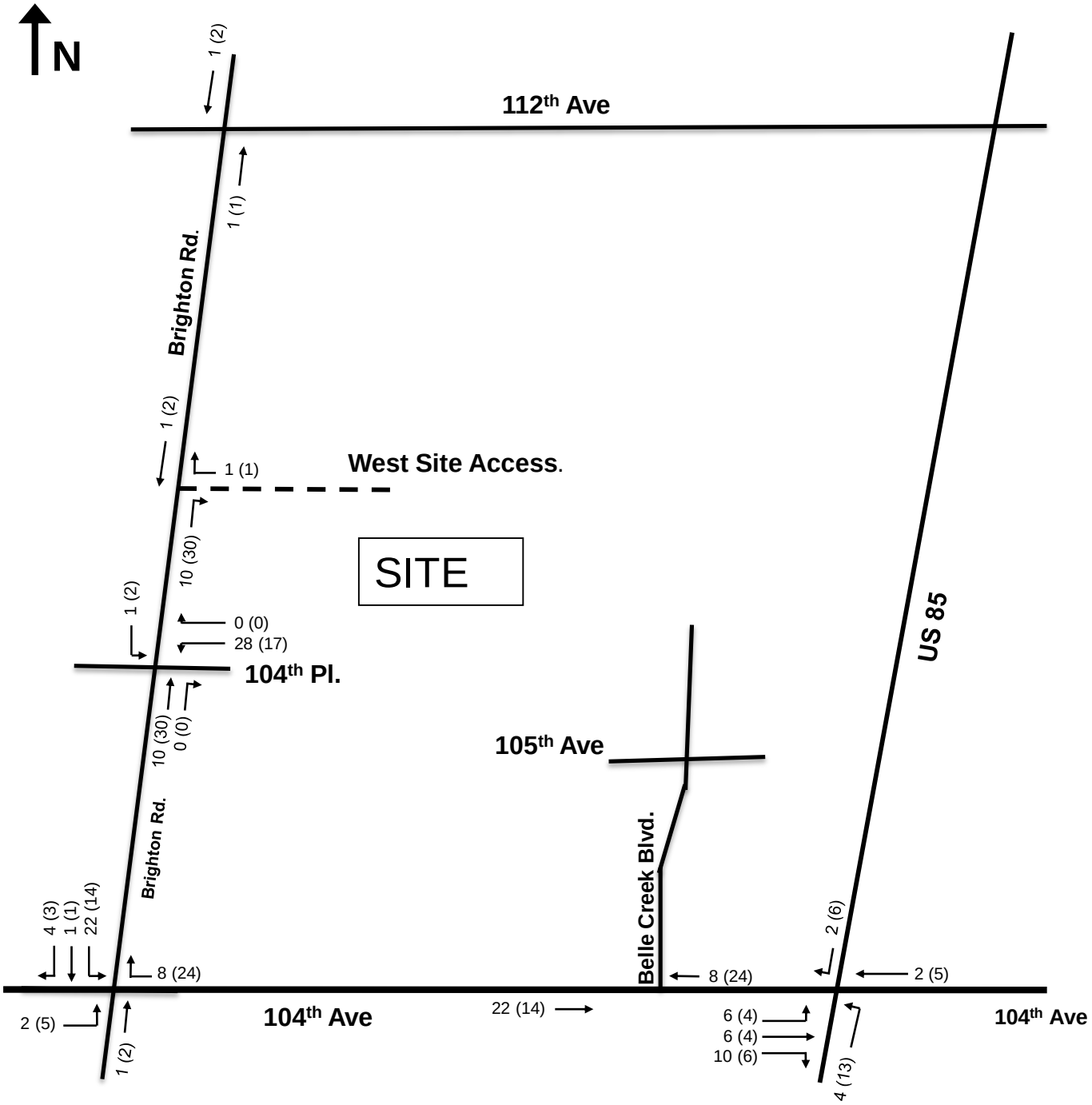
HKS #191008

Site Generated Trip Distribution

Figure 9



Legend: Drawing Not To Scale

5 (8)
64 (50)
8 (7)

Weekday AM (PM)
Peak Hour
Traffic Volumes, vph

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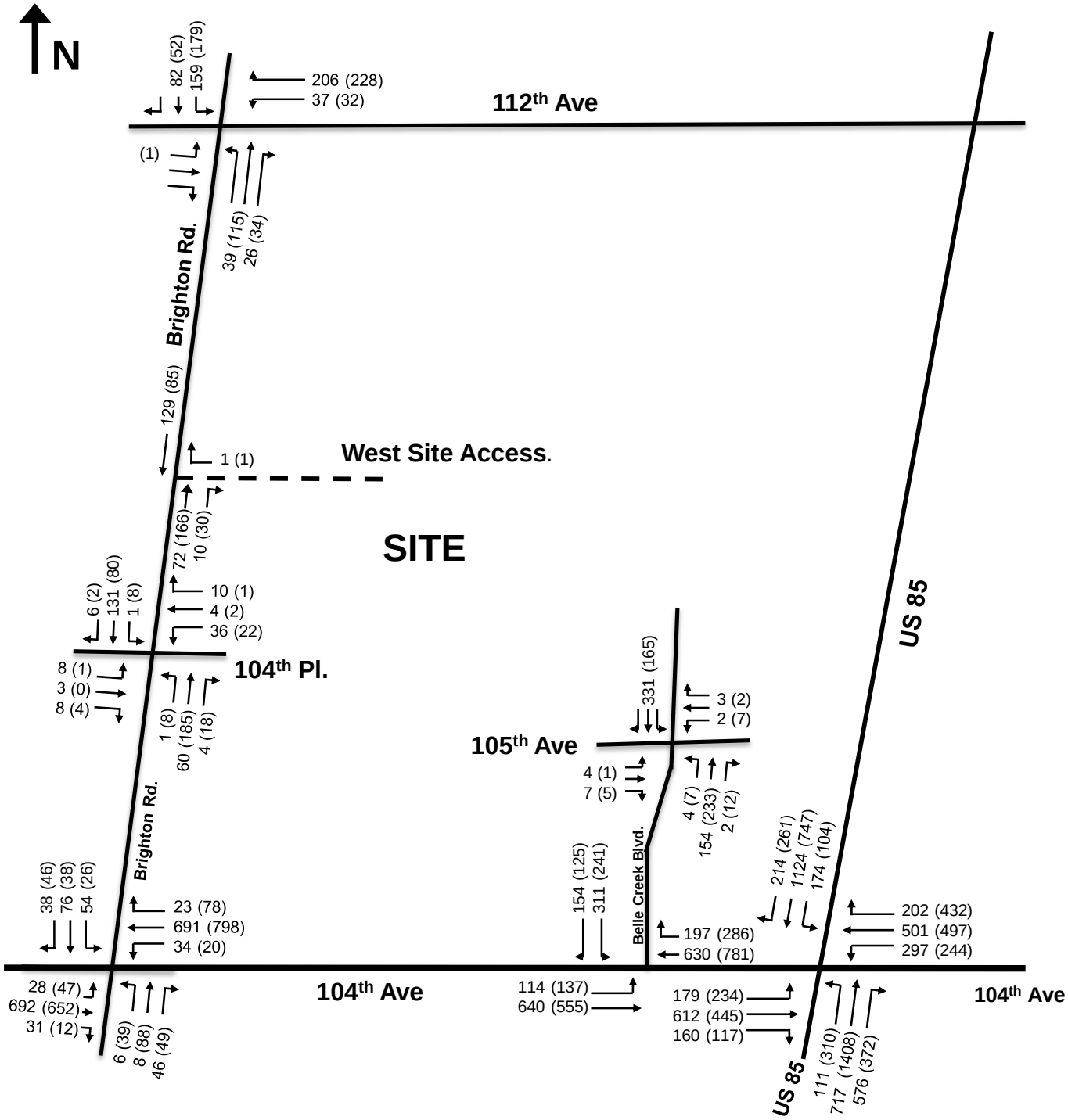
HKS #191008

Site Generated Trip Assignment

Figure 10



Legend: Drawing Not To Scale

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

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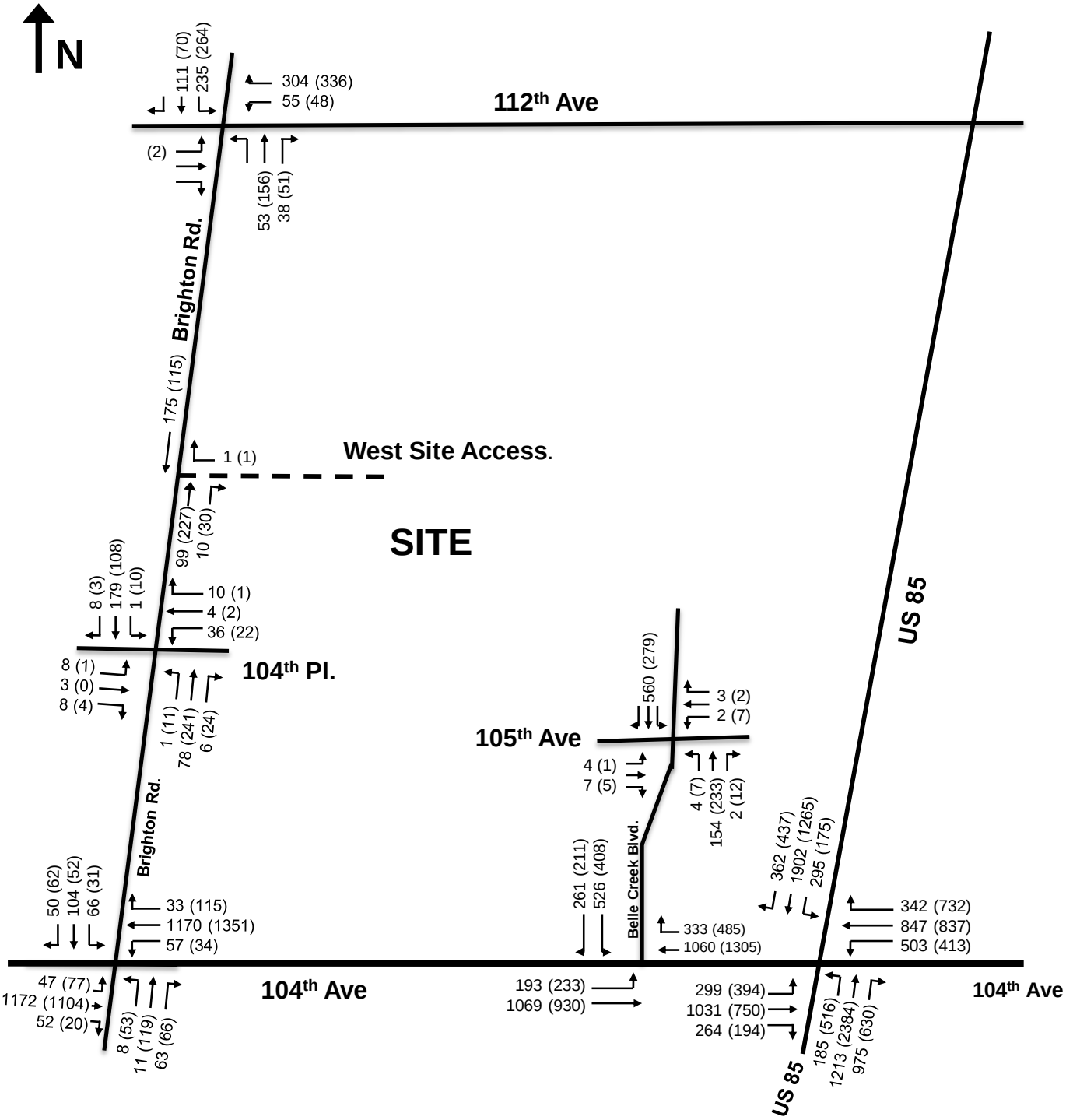
2021 Total Traffic Volumes (Background + Site Generated)

Figure 11



Legend: Drawing Not To Scale

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

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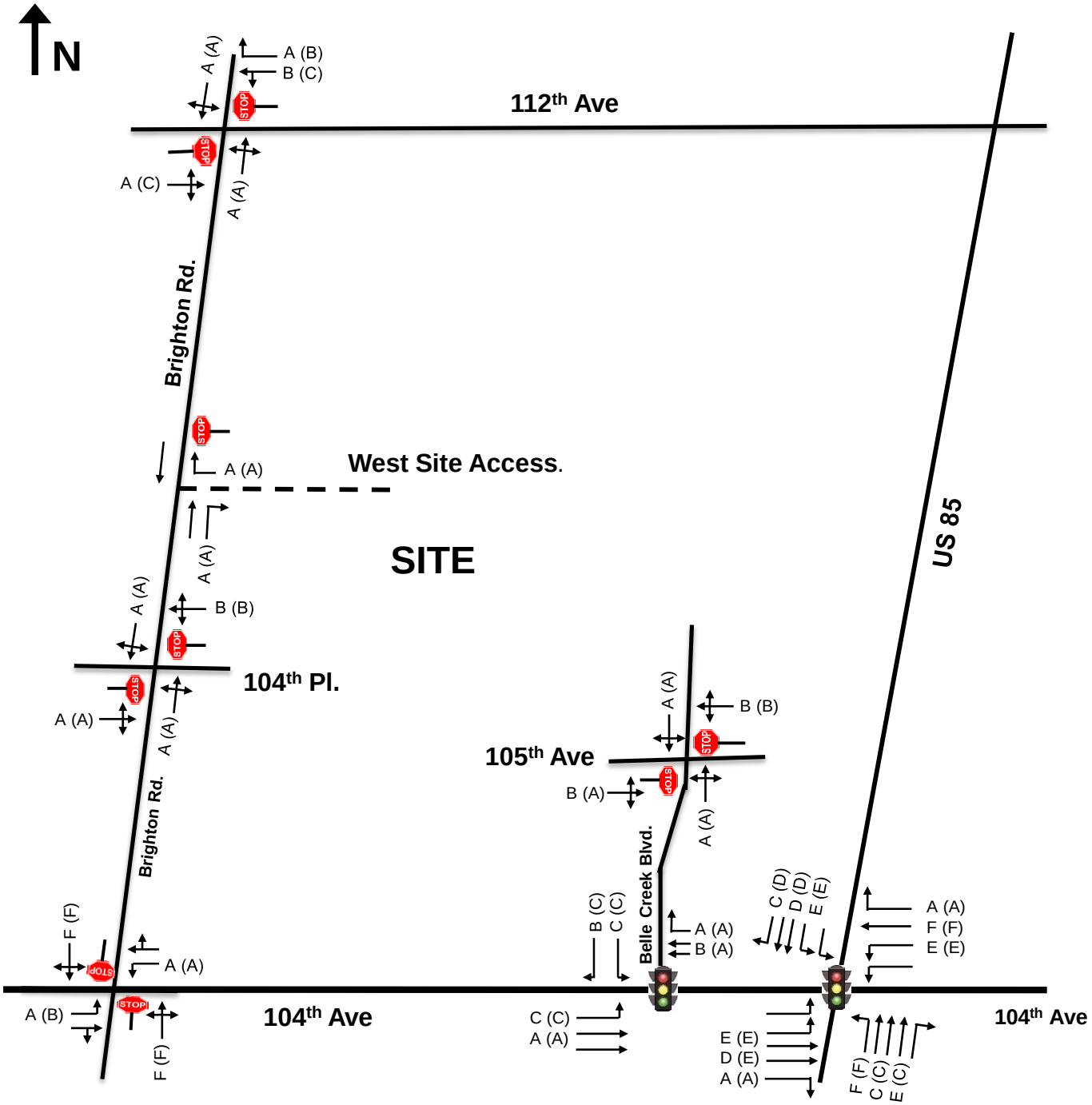
HKS #191008

2040 Total Traffic Volumes (Background + Site Generated)

Figure 12



Legend: Drawing Not To Scale

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

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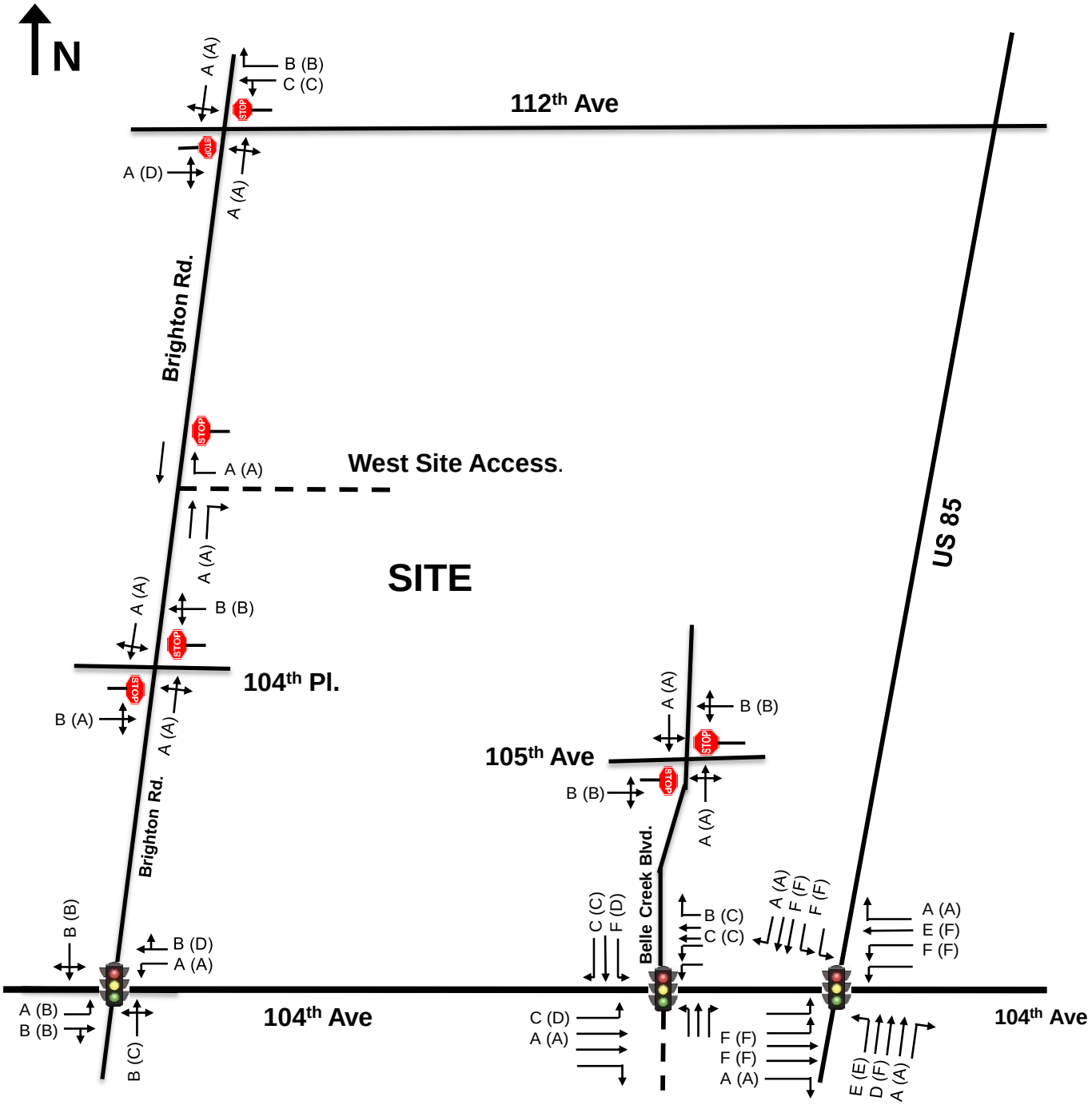
2021 Total Traffic Operational Conditions

Figure 13



Legend: Drawing Not To Scale

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

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Platte Place
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2040 Total Traffic Operational Conditions

Figure 14

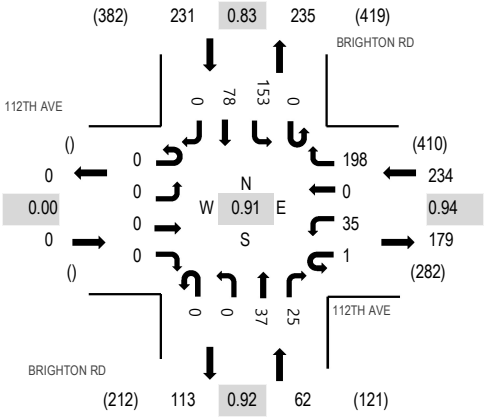
APPENDIX “A”

2019 EXISTING
TRAFFIC VOLUME COUNTS

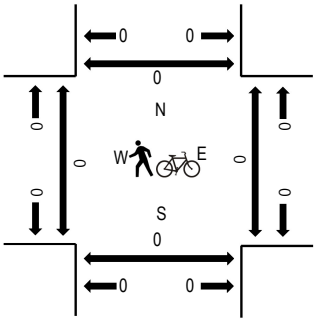
All Traffic Data
Services Inc.
(303) 216-2439
www.alltrafficdata.net

Location: 1 BRIGHTON RD & 112TH AVE AM
Date: Tuesday, November 5, 2019
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles on Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

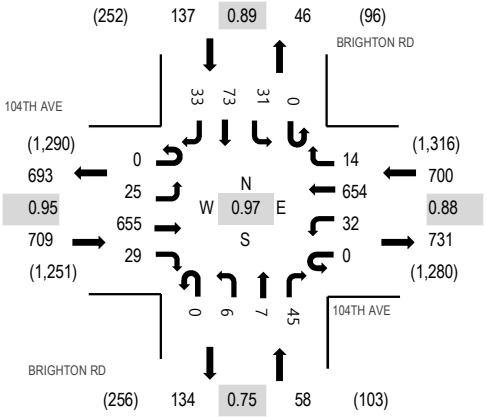
Interval Start Time	112TH AVE Eastbound				112TH AVE Westbound				BRIGHTON RD Northbound				BRIGHTON RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	11	0	39	0	0	9	9	0	24	25	0	117	487	0	0	0	0
7:15 AM	0	0	0	0	0	6	0	55	0	0	8	9	0	16	17	0	111	509	0	0	0	0
7:30 AM	0	0	0	0	0	9	0	49	0	0	10	6	0	19	21	0	114	527	0	0	0	0
7:45 AM	0	0	0	0	1	12	0	43	0	0	9	10	0	41	29	0	145	502	0	0	0	0
8:00 AM	0	0	0	0	0	8	0	50	0	0	8	8	0	52	13	0	139	426	0	0	0	0
8:15 AM	0	0	0	0	0	6	0	56	0	0	10	1	0	41	15	0	129		0	0	0	0
8:30 AM	0	0	0	0	0	6	0	29	0	0	9	3	0	22	20	0	89		0	0	0	0
8:45 AM	0	0	0	0	0	5	0	25	0	0	10	2	0	18	9	0	69		0	0	0	0
Count Total	0	0	0	0	1	63	0	346	0	0	73	48	0	233	149	0	913		0	0	0	0
Peak Hour	0	0	0	0	1	35	0	198	0	0	37	25	0	153	78	0	527		0	0	0	0

All Traffic Data Services Inc.

(303) 216-2439
www.alltrafficdata.net

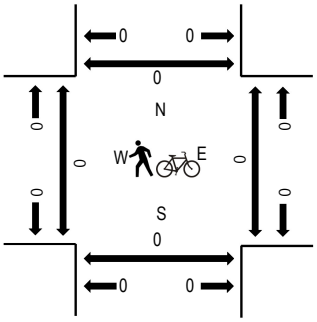
Location: 2 BRIGHTON RD & 104TH AVE AM
Date: Tuesday, November 5, 2019
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



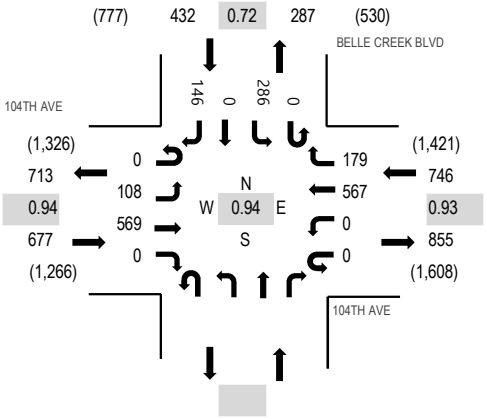
Traffic Counts

Interval Start Time	104TH AVE Eastbound				104TH AVE Westbound				BRIGHTON RD Northbound				BRIGHTON 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	5	144	12	0	10	114	8	0	1	4	9	0	2	22	13	344	1,542	0	0	0	0
7:15 AM	0	7	160	13	0	5	189	3	0	1	1	6	0	9	14	6	414	1,604	0	0	0	0
7:30 AM	0	7	171	8	0	7	149	0	0	2	2	7	0	7	22	7	389	1,565	0	0	0	0
7:45 AM	0	7	166	5	0	6	145	5	0	2	2	17	0	6	22	12	395	1,528	0	0	0	0
8:00 AM	0	4	158	3	0	14	171	6	0	1	2	15	0	9	15	8	406	1,380	0	0	0	0
8:15 AM	0	5	116	5	0	14	187	6	0	2	1	10	0	8	11	10	375		0	0	0	0
8:30 AM	0	5	134	4	0	11	158	7	0	0	2	6	0	4	13	8	352		0	0	0	0
8:45 AM	0	4	103	5	0	6	94	1	0	1	2	7	0	6	9	9	247		0	0	0	0
Count Total	0	44	1,152	55	0	73	1,207	36	0	10	16	77	0	51	128	73	2,922		0	0	0	0
Peak Hour	0	25	655	29	0	32	654	14	0	6	7	45	0	31	73	33	1,604		0	0	0	0

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

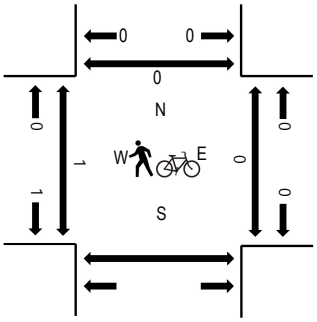
Location: 3 BELLE CREEK BLVD & 104TH AVE AM
Date: Tuesday, November 5, 2019
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



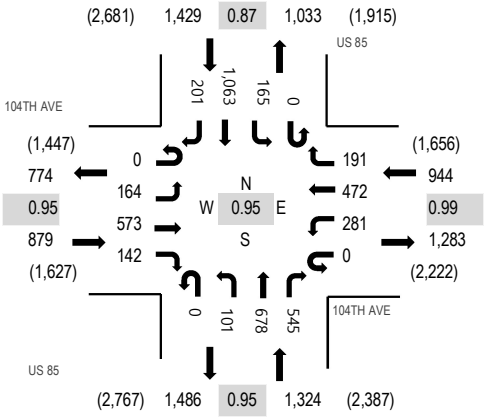
Traffic Counts

Interval Start Time	104TH AVE Eastbound				104TH AVE Westbound				Northbound				BELLE CREEK BLVD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	15	141	0	0	0	117	39					0	49	0	22	383	1,763	0	0		0
7:15 AM	0	13	157	0	0	0	165	39					0	66	0	28	468	1,831	0	0		0
7:30 AM	0	15	166	0	0	0	133	38					0	65	0	19	436	1,855	0	0		0
7:45 AM	0	27	160	0	0	0	138	59					0	66	0	26	476	1,839	0	0		0
8:00 AM	0	31	133	0	0	0	141	47					0	65	0	34	451	1,701	1	0		0
8:15 AM	0	35	110	0	0	0	155	35					0	90	0	67	492		0	0		0
8:30 AM	0	27	107	0	0	0	129	51					0	59	0	47	420		0	0		0
8:45 AM	0	12	117	0	0	0	88	47					0	57	0	17	338		0	0		0
Count Total	0	175	1,091	0	0	0	1,066	355					0	517	0	260	3,464		1	0		0
Peak Hour	0	108	569	0	0	0	567	179					0	286	0	146	1,855		1	0		0

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

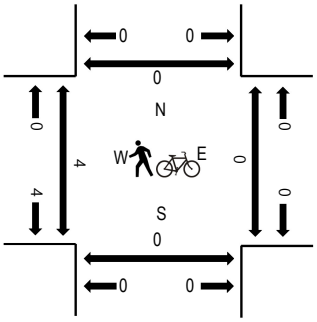
Location: 4 US 85 & 104TH AVE AM
Date: Tuesday, November 5, 2019
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	104TH AVE Eastbound				104TH AVE Westbound				US 85 Northbound				US 85 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	28	144	29	1	50	89	49	0	27	153	110	0	36	267	46	1,029	4,544	0	0	0	0
7:15 AM	0	40	143	28	0	76	116	45	0	28	172	131	0	56	306	60	1,201	4,576	4	0	0	0
7:30 AM	0	44	150	37	0	78	120	33	0	16	182	142	0	35	268	45	1,150	4,429	0	0	0	0
7:45 AM	0	32	159	33	0	67	125	45	0	37	162	148	0	41	269	46	1,164	4,208	0	0	0	0
8:00 AM	0	48	121	44	0	60	111	68	0	20	162	124	0	33	220	50	1,061	3,807	0	0	0	0
8:15 AM	0	34	121	52	0	56	119	45	0	19	180	111	0	36	224	57	1,054		0	0	0	0
8:30 AM	0	30	86	42	0	56	85	17	1	29	161	71	0	30	262	59	929		0	0	0	0
8:45 AM	1	36	120	25	0	51	82	12	0	17	137	47	0	26	166	43	763		0	0	0	0
Count Total	1	292	1,044	290	1	494	847	314	1	193	1,309	884	0	293	1,982	406	8,351		4	0	0	0
Peak Hour	0	164	573	142	0	281	472	191	0	101	678	545	0	165	1,063	201	4,576		4	0	0	0

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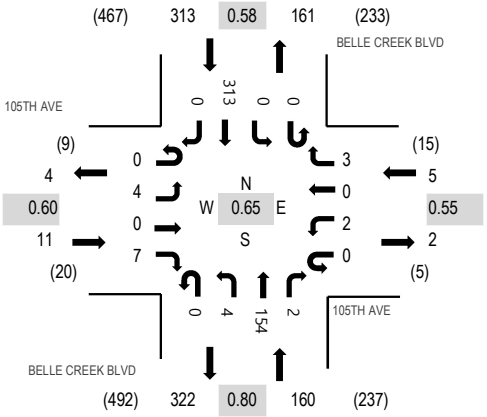
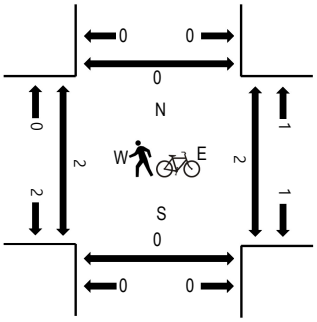
Location: 5 BELLE CREEK BLVD & 105TH AVE AM
Date: Tuesday, November 5, 2019
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	105TH AVE Eastbound				105TH AVE Westbound				BELLE CREEK BLVD Northbound				BELLE CREEK BLVD 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	4	0	0	0	0	0	1	11	1	0	0	39	0	56	294	2	0	0	0
7:15 AM	0	0	0	1	0	4	0	1	2	2	16	1	0	1	49	0	77	362	0	0	0	1
7:30 AM	0	2	0	2	0	3	0	1	0	1	22	0	0	0	39	1	71	472	0	0	0	0
7:45 AM	0	0	0	1	0	0	0	1	0	1	31	1	0	0	55	0	90	489	1	0	0	0
8:00 AM	0	2	0	3	0	0	0	1	0	0	50	0	0	0	68	0	124	445	0	0	0	0
8:15 AM	0	0	0	2	0	0	0	1	0	1	47	1	0	0	135	0	187		0	2	0	0
8:30 AM	0	2	0	1	0	2	0	0	0	2	26	0	0	0	55	0	88		1	0	0	0
8:45 AM	0	0	0	0	0	1	0	0	1	0	19	0	0	0	25	0	46		0	0	0	0
Count Total	0	6	0	14	0	10	0	5	3	8	222	4	0	1	465	1	739		4	2	0	1
Peak Hour	0	4	0	7	0	2	0	3	0	4	154	2	0	0	313	0	489		2	2	0	0

All Traffic Data Services Inc.
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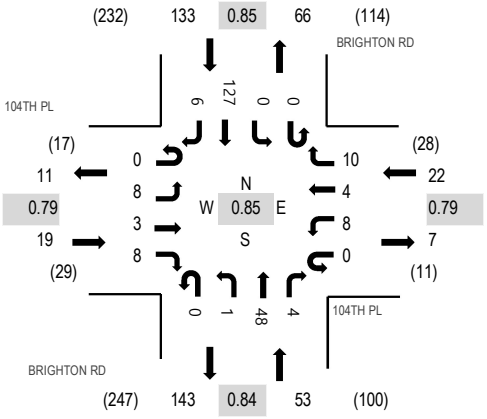
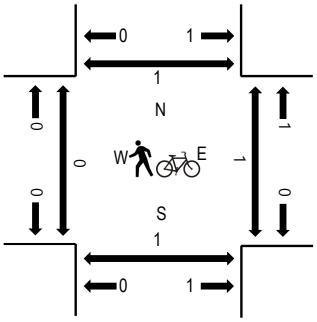
Location: 6 BRIGHTON RD & 104TH PL AM
Date: Tuesday, November 5, 2019
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:00 AM - 07:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	104TH PL Eastbound				104TH PL Westbound				BRIGHTON RD Northbound				BRIGHTON RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	2	2	2	0	1	0	3	0	0	17	1	0	0	36	3	67	227	0	0	0	0
7:15 AM	0	3	0	3	0	3	3	1	0	1	9	1	0	0	21	1	46	203	0	0	0	0
7:30 AM	0	1	1	2	0	3	1	2	0	0	8	0	0	0	33	1	52	199	0	0	0	0
7:45 AM	0	2	0	1	0	1	0	4	0	0	14	2	0	0	37	1	62	193	0	1	1	1
8:00 AM	0	2	0	0	0	2	0	0	0	0	11	0	0	0	27	1	43	162	0	0	0	0
8:15 AM	0	0	0	1	0	1	0	2	1	0	10	2	0	0	23	2	42		0	0	0	0
8:30 AM	0	1	0	4	0	0	0	1	0	2	12	0	0	0	25	1	46		0	0	0	0
8:45 AM	0	0	0	2	0	0	0	0	0	0	9	0	0	2	18	0	31		0	0	0	0
Count Total	0	11	3	15	0	11	4	13	1	3	90	6	0	2	220	10	389		0	1	1	1
Peak Hour	0	8	3	8	0	8	4	10	0	1	48	4	0	0	127	6	227		0	1	1	1

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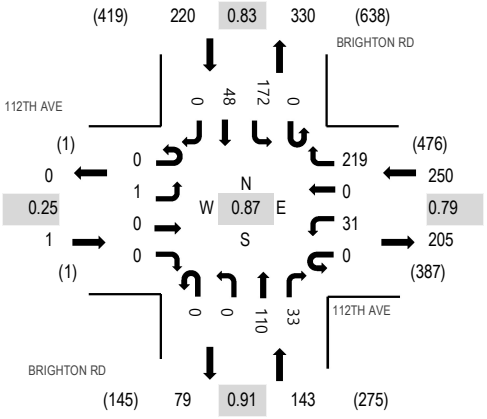
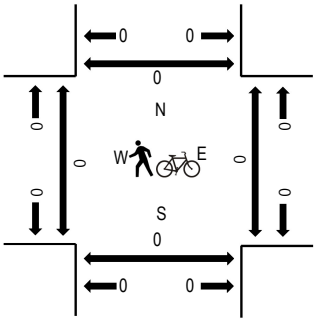
Location: 1 BRIGHTON RD & 112TH AVE PM
Date: Tuesday, November 5, 2019
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	112TH AVE Eastbound				112TH AVE Westbound				BRIGHTON RD Northbound				BRIGHTON 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	6	1	55	0	0	23	7	0	43	10	0	145	557	0	0	0	0
4:15 PM	0	0	0	0	0	4	0	57	0	0	20	12	0	34	14	0	141	574	0	0	0	0
4:30 PM	0	0	0	0	0	4	0	52	0	0	29	5	0	40	15	0	145	609	0	0	0	0
4:45 PM	0	0	0	0	0	7	0	46	0	0	23	7	0	32	11	0	126	614	0	0	0	0
5:00 PM	0	0	0	0	0	7	0	58	0	0	24	7	0	48	18	0	162	614	0	0	0	0
5:15 PM	0	0	0	0	0	12	0	68	0	0	32	9	0	43	12	0	176		0	0	0	0
5:30 PM	0	1	0	0	0	5	0	47	0	0	31	10	0	49	7	0	150		0	0	0	0
5:45 PM	0	0	0	0	0	5	0	42	0	0	30	6	0	35	8	0	126		0	0	0	0
Count Total	0	1	0	0	0	50	1	425	0	0	212	63	0	324	95	0	1,171		0	0	0	0
Peak Hour	0	1	0	0	0	31	0	219	0	0	110	33	0	172	48	0	614		0	0	0	0

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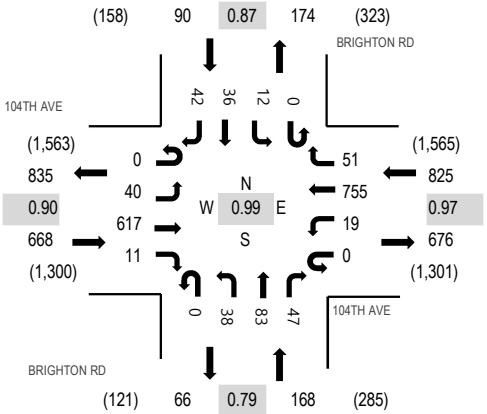
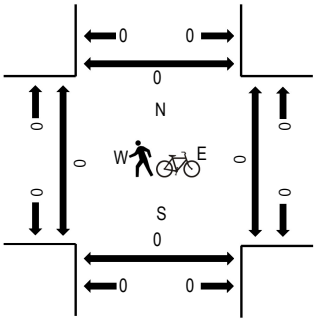
Location: 2 BRIGHTON RD & 104TH AVE PM
Date: Tuesday, November 5, 2019
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:30 PM - 05:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	104TH AVE Eastbound				104TH AVE Westbound				BRIGHTON RD Northbound				BRIGHTON 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	8	151	1	0	6	151	11	0	5	13	8	0	5	5	9	373	1,640	0	0	0	0
4:15 PM	0	12	166	3	0	4	183	11	0	6	14	4	0	1	7	11	422	1,706	0	0	0	0
4:30 PM	0	7	135	4	0	7	191	11	0	4	20	8	0	3	7	6	403	1,711	0	0	0	0
4:45 PM	0	8	157	1	0	5	197	10	0	9	19	11	0	2	14	9	442	1,751	0	0	0	0
5:00 PM	0	7	153	3	0	4	178	18	0	11	22	20	0	4	12	7	439	1,668	0	0	0	0
5:15 PM	0	8	141	5	0	5	191	8	0	8	24	11	0	4	8	14	427		0	0	0	0
5:30 PM	0	17	166	2	0	5	189	15	0	10	18	5	0	2	2	12	443		0	0	0	0
5:45 PM	0	10	134	1	0	4	150	11	0	7	21	7	0	3	6	5	359		0	0	0	0
Count Total	0	77	1,203	20	0	40	1,430	95	0	60	151	74	0	24	61	73	3,308		0	0	0	0
Peak Hour	0	40	617	11	0	19	755	51	0	38	83	47	0	12	36	42	1,751		0	0	0	0

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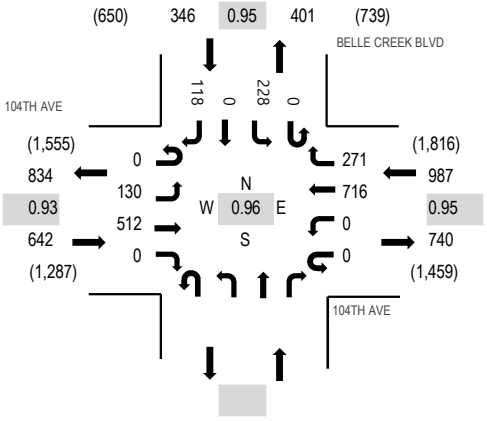
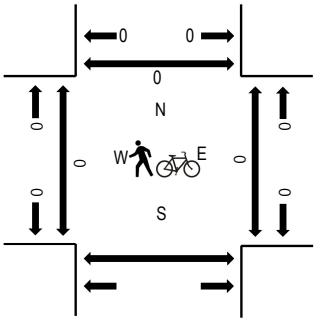
Location: 3 BELLE CREEK BLVD & 104TH AVE PM
Date: Tuesday, November 5, 2019
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	104TH AVE Eastbound				104TH AVE Westbound				Northbound				BELLE CREEK BLVD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	29	126	0	0	0	137	65					0	61	0	28	446	1,904	0	0		0
4:15 PM	0	35	145	0	0	0	165	49					0	54	0	32	480	1,974	0	0		0
4:30 PM	0	26	114	0	0	0	171	71					0	59	0	32	473	1,975	0	0		0
4:45 PM	0	31	135	0	0	0	195	66					0	53	0	25	505	1,960	0	0		0
5:00 PM	0	41	139	0	0	0	176	69					0	57	0	34	516	1,849	0	0		0
5:15 PM	0	32	124	0	0	0	174	65					0	59	0	27	481		0	0		0
5:30 PM	0	25	134	0	0	0	176	44					0	44	0	35	458		0	0		0
5:45 PM	0	31	120	0	0	0	133	60					0	35	0	15	394		0	0		0
Count Total	0	250	1,037	0	0	0	1,327	489					0	422	0	228	3,753		0	0		0
Peak Hour	0	130	512	0	0	0	716	271					0	228	0	118	1,975		0	0		0

All Traffic Data Services Inc.
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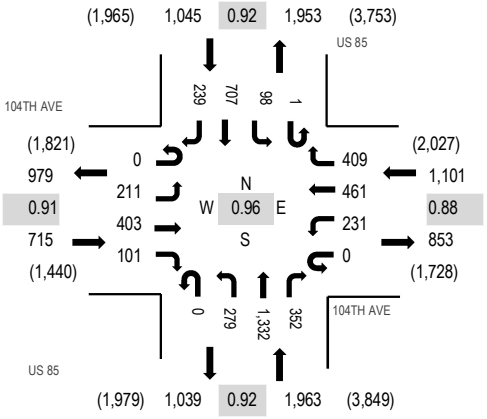
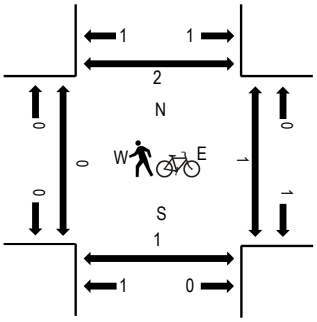
Location: 4 US 85 & 104TH AVE PM
Date: Tuesday, November 5, 2019
Peak Hour: 04:30 PM - 05:30 PM
Peak 15-Minutes: 04:45 PM - 05:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	104TH AVE Eastbound				104TH AVE Westbound				US 85 Northbound				US 85 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	47	108	22	3	42	102	83	0	61	392	89	0	21	188	45	1,203	4,757	0	0	0	0
4:15 PM	0	64	121	22	0	56	117	70	0	48	329	81	0	19	162	50	1,139	4,752	0	0	0	0
4:30 PM	0	47	84	27	0	55	130	94	0	71	315	94	0	24	163	54	1,158	4,824	0	0	1	1
4:45 PM	0	63	89	29	0	59	99	109	0	72	354	98	0	21	195	69	1,257	4,745	0	1	0	1
5:00 PM	0	52	124	31	0	71	124	119	0	71	291	75	1	27	155	57	1,198	4,524	0	0	0	0
5:15 PM	0	49	106	14	0	46	108	87	0	65	372	85	0	26	194	59	1,211		0	0	0	0
5:30 PM	0	46	128	22	0	59	130	66	0	55	287	82	0	24	142	38	1,079		0	0	0	0
5:45 PM	0	42	88	15	0	48	94	56	0	58	318	86	0	25	162	44	1,036		0	0	0	2
Count Total	0	410	848	182	3	436	904	684	0	501	2,658	690	1	187	1,361	416	9,281		0	1	1	4
Peak Hour	0	211	403	101	0	231	461	409	0	279	1,332	352	1	98	707	239	4,824		0	1	1	2

All Traffic Data Services Inc.
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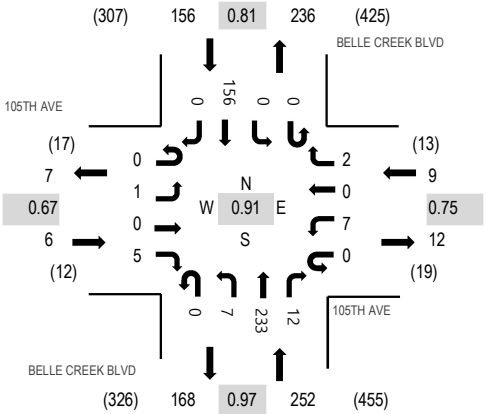
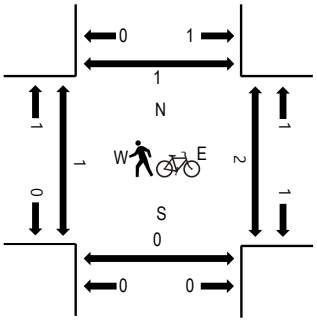
Location: 5 BELLE CREEK BLVD & 105TH AVE PM
Date: Tuesday, November 5, 2019
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	105TH AVE Eastbound				105TH AVE Westbound				BELLE CREEK BLVD Northbound				BELLE CREEK BLVD 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	2	0	0	0	3	44	3	0	0	45	0	97	364	0	2	0	0
4:15 PM	0	0	0	3	0	0	0	0	0	3	54	2	0	1	40	0	103	383	0	0	0	1
4:30 PM	0	0	0	3	0	0	0	2	0	1	44	0	0	0	35	0	85	373	0	1	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	3	45	1	0	0	30	0	79	399	0	4	0	0
5:00 PM	0	0	0	2	0	0	0	1	0	3	59	3	0	0	48	0	116	423	0	1	0	0
5:15 PM	0	0	0	0	0	3	0	0	0	0	59	2	0	0	29	0	93		1	1	0	1
5:30 PM	0	0	0	3	0	2	0	1	0	3	54	5	0	0	43	0	111		0	0	0	0
5:45 PM	0	1	0	0	0	2	0	0	0	1	61	2	0	0	36	0	103		0	0	0	0
Count Total	0	1	0	11	0	9	0	4	0	17	420	18	0	1	306	0	787		1	9	0	2
Peak Hour	0	1	0	5	0	7	0	2	0	7	233	12	0	0	156	0	423		1	2	0	1

All Traffic Data Services Inc.
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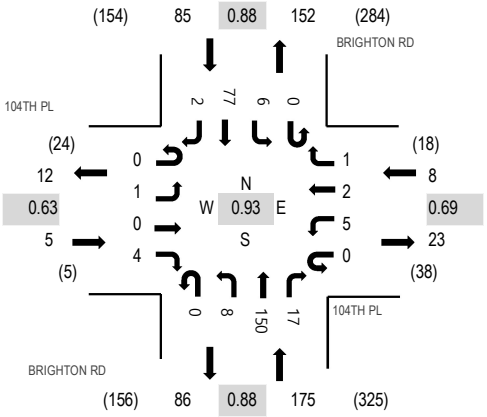
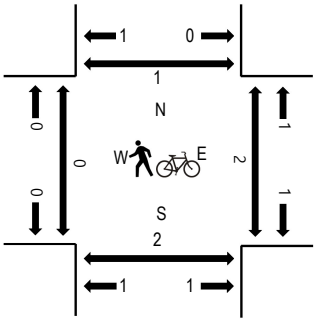
Location: 6 BRIGHTON RD & 104TH PL PM
Date: Tuesday, November 5, 2019
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	104TH PL Eastbound				104TH PL Westbound				BRIGHTON RD Northbound				BRIGHTON 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	3	0	1	0	1	29	4	0	0	15	1	54	232	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	1	0	1	33	3	0	0	18	1	57	251	0	0	1	0
4:30 PM	0	0	0	0	0	4	0	0	0	1	34	3	0	1	16	1	60	263	0	0	0	0
4:45 PM	0	1	0	0	0	1	1	0	0	2	31	4	0	1	19	1	61	273	0	1	0	0
5:00 PM	0	0	0	1	0	0	1	0	0	1	39	6	0	2	23	0	73	270	0	1	2	1
5:15 PM	0	0	0	1	0	3	0	0	0	4	32	5	0	2	21	1	69		0	0	0	0
5:30 PM	0	0	0	2	0	1	0	1	0	1	48	2	0	1	14	0	70		0	0	0	0
5:45 PM	0	0	0	0	0	1	0	0	0	5	34	2	0	2	13	1	58		0	0	0	0
Count Total	0	1	0	4	0	13	2	3	0	16	280	29	0	9	139	6	502		0	2	3	1
Peak Hour	0	1	0	4	0	5	2	1	0	8	150	17	0	6	77	2	273		0	2	2	1

All Traffic Data Services

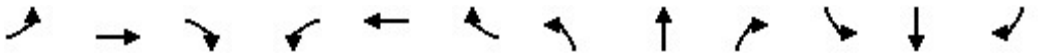
Wheat Ridge, CO 80033

Site Code: 7
Station ID: 7
BRIGHTON RD N.O COUNTER DR

Start Time	05-Nov-19 Tue	NB	SB							Total
12:00 AM		2	2							4
01:00		1	2							3
02:00		1	1							2
03:00		2	7							9
04:00		3	13							16
05:00		18	47							65
06:00		31	138							169
07:00		**70**	**205**							**275**
08:00		42	56							98
09:00		20	47							67
10:00		42	41							83
11:00		38	35							73
12:00 PM		46	60							106
01:00		54	48							102
02:00		77	75							152
03:00		106	71							177
04:00		100	71							171
05:00		**161**	**80**							**241**
06:00		84	36							120
07:00		47	27							74
08:00		28	17							45
09:00		14	11							25
10:00		9	5							14
11:00		2	7							9
Total		998	1102							2100
Percent		47.5%	52.5%							
AM Peak	-	07:00	07:00	-	-	-	-	-	-	07:00
Vol.	-	70	205	-	-	-	-	-	-	275
PM Peak	-	17:00	17:00	-	-	-	-	-	-	17:00
Vol.	-	161	80	-	-	-	-	-	-	241
Grand Total		998	1102							2100
Percent		47.5%	52.5%							
ADT		ADT 2,100		AADT 2,100						

APPENDIX “B”

INTERSECTION CAPACITY ANALYSIS WORKSHEETS



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)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		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			0.997			0.897			0.967	
Flt Protected	0.950			0.950				0.995			0.989	
Satd. Flow (prot)	1770	1852	0	1770	1857	0	0	1663	0	0	1781	0
Flt Permitted	0.950			0.950				0.995			0.989	
Satd. Flow (perm)	1770	1852	0	1770	1857	0	0	1663	0	0	1781	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		876			1296			375			389	
Travel Time (s)		19.9			29.5			8.5			8.8	

Intersection Summary	
Area Type:	Other

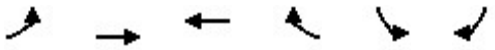
Intersection	
Int Delay, s/veh	27

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	655	29	32	654	14	6	7	45	31	73	33
Future Vol, veh/h	25	655	29	32	654	14	6	7	45	31	73	33
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	200	-	-	200	-	-	-	-	-	-	-	-
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	27	712	32	35	711	15	7	8	49	34	79	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	726	0	0	744	0	0	1628	1578	728	1600	1587	719
Stage 1	-	-	-	-	-	-	782	782	-	789	789	-
Stage 2	-	-	-	-	-	-	846	796	-	811	798	-
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	877	-	-	864	-	-	82	109	423	85	108	428
Stage 1	-	-	-	-	-	-	387	405	-	384	402	-
Stage 2	-	-	-	-	-	-	357	399	-	373	398	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	877	-	-	864	-	-	25	101	423	67	100	428
Mov Cap-2 Maneuver	-	-	-	-	-	-	25	101	-	67	100	-
Stage 1	-	-	-	-	-	-	375	392	-	372	386	-
Stage 2	-	-	-	-	-	-	249	383	-	314	386	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.4	50.2	290.7
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	140	877	-	-	864	-	-	108
HCM Lane V/C Ratio	0.45	0.031	-	-	0.04	-	-	1.379
HCM Control Delay (s)	50.2	9.2	-	-	9.3	-	-	290.7
HCM Lane LOS	F	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	2	0.1	-	-	0.1	-	-	10.5



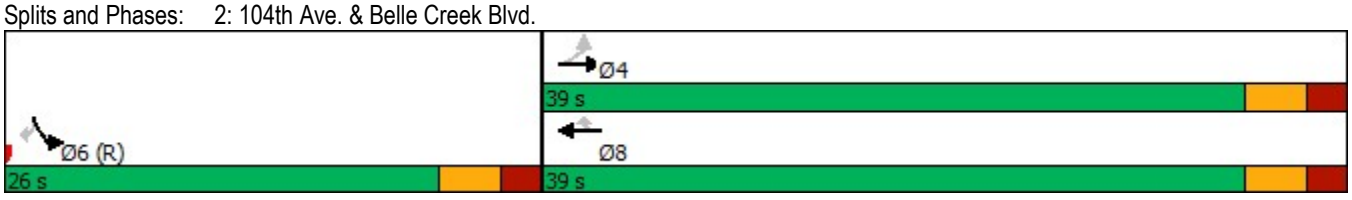
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	300			0	0	0
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	1863	1583	1770	1583
Flt Permitted	0.202				0.950	
Satd. Flow (perm)	376	3539	1863	1583	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				202		159
Link Speed (mph)		30	30		30	
Link Distance (ft)		495	419		448	
Travel Time (s)		11.3	9.5		10.2	

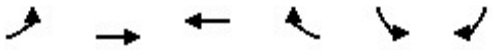
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	108	585	588	186	294	146
Future Volume (vph)	108	585	588	186	294	146
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	23.0	23.0	23.0	26.0	26.0
Total Split (s)	39.0	39.0	39.0	39.0	26.0	26.0
Total Split (%)	60.0%	60.0%	60.0%	60.0%	40.0%	40.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	28.7	28.7	28.7	28.7	26.3	26.3
Actuated g/C Ratio	0.44	0.44	0.44	0.44	0.40	0.40
v/c Ratio	0.71	0.41	0.78	0.25	0.45	0.22
Control Delay	38.7	12.5	20.8	2.4	18.4	4.0
Queue Delay	0.0	0.0	0.7	0.0	0.1	0.0
Total Delay	38.7	12.5	21.5	2.4	18.4	4.0
LOS	D	B	C	A	B	A
Approach Delay		16.6	16.9		13.6	
Approach LOS		B	B		B	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2: and 6:SBL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 16.0	Intersection LOS: B
Intersection Capacity Utilization 68.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: 104th Ave. & Belle Creek Blvd.

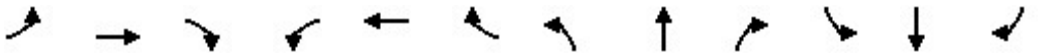




Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	108	585	588	186	294	146
Future Volume (veh/h)	108	585	588	186	294	146
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	117	636	639	202	320	159
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	266	1674	881	747	668	595
Arrive On Green	0.47	0.47	0.63	0.63	0.38	0.38
Sat Flow, veh/h	654	3647	1870	1585	1781	1585
Grp Volume(v), veh/h	117	636	639	202	320	159
Grp Sat Flow(s),veh/h/ln	654	1777	1870	1585	1781	1585
Q Serve(g_s), s	10.8	7.5	15.2	3.7	8.9	4.5
Cycle Q Clear(g_c), s	26.0	7.5	15.2	3.7	8.9	4.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	266	1674	881	747	668	595
V/C Ratio(X)	0.44	0.38	0.73	0.27	0.48	0.27
Avail Cap(c_a), veh/h	300	1859	978	829	668	595
HCM Platoon Ratio	1.00	1.00	1.33	1.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.53	0.53	1.00	1.00
Uniform Delay (d), s/veh	23.0	11.1	9.3	7.1	15.5	14.1
Incr Delay (d2), s/veh	1.1	0.1	1.3	0.1	2.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	4.7	6.7	1.9	6.7	3.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.2	11.2	10.6	7.2	17.9	15.2
LnGrp LOS	C	B	B	A	B	B
Approach Vol, veh/h		753	841		479	
Approach Delay, s/veh		13.2	9.8		17.0	
Approach LOS		B	A		B	

Timer - Assigned Phs		4		6	8
Phs Duration (G+Y+Rc), s		35.6		29.4	35.6
Change Period (Y+Rc), s		5.0		5.0	5.0
Max Green Setting (Gmax), s		34.0		21.0	34.0
Max Q Clear Time (g_c+I1), s		28.0		10.9	17.2
Green Ext Time (p_c), s		2.6		1.2	4.8

Intersection Summary	
HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B



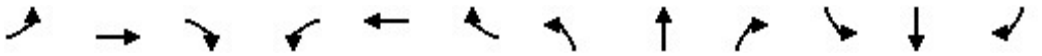
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	175		0	350		0	625		0	600		0
Storage Lanes	1		0	2		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	1.00	1.00	1.00	0.91	1.00	0.97	0.95	1.00
Ped Bike Factor												
Frt		0.970				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3433	0	3433	1863	1583	1770	5085	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3433	0	3433	1863	1583	1770	5085	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22				169			293			177
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		419			1451			830			1328	
Travel Time (s)		9.5			33.0			18.9			30.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	164	573	281	472	191	101	678	545	165	1063	201
Future Volume (vph)	164	573	281	472	191	101	678	545	165	1063	201
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	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
Minimum Split (s)	10.5	32.0	10.5	32.0	32.0	10.5	45.0	45.0	10.5	38.0	38.0
Total Split (s)	18.0	35.0	23.0	35.0	35.0	15.0	57.0	57.0	15.0	57.0	57.0
Total Split (%)	13.8%	26.9%	17.7%	26.9%	26.9%	11.5%	43.8%	43.8%	11.5%	43.8%	43.8%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	2.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	7.0	7.0	5.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	11.5	32.0	16.0	36.5	36.5	9.9	50.2	50.2	9.8	50.1	50.1
Actuated g/C Ratio	0.09	0.25	0.12	0.28	0.28	0.08	0.39	0.39	0.08	0.39	0.39
v/c Ratio	0.59	0.90	0.72	0.98	0.37	0.82	0.38	0.75	0.69	0.85	0.30
Control Delay	65.0	53.5	64.8	81.7	11.0	99.9	29.4	23.4	73.3	43.6	7.5
Queue Delay	0.0	3.1	0.0	27.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.0	56.6	64.8	109.3	11.0	99.9	29.4	23.4	73.3	43.6	7.6
LOS	E	E	E	F	B	F	C	C	E	D	A
Approach Delay		58.2		76.1			32.3			41.9	
Approach LOS		E		E			C			D	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 49.3	Intersection LOS: D
Intersection Capacity Utilization 82.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 3: US 85 & 104th Ave.



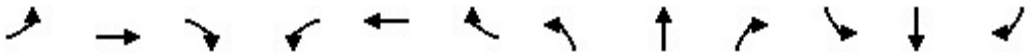
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	573	142	281	472	191	101	678	545	165	1063	201
Future Volume (veh/h)	164	573	142	281	472	191	101	678	545	165	1063	201
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	178	623	0	305	513	0	110	737	592	179	1155	218
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	230	699		365	441		133	2357	732	231	1612	719
Arrive On Green	0.13	0.39	0.00	0.11	0.24	0.00	0.07	0.46	0.46	0.07	0.45	0.45
Sat Flow, veh/h	3456	3647	0	3456	1870	1585	1781	5106	1585	3456	3554	1585
Grp Volume(v), veh/h	178	623	0	305	513	0	110	737	592	179	1155	218
Grp Sat Flow(s),veh/h/ln	1728	1777	0	1728	1870	1585	1781	1702	1585	1728	1777	1585
Q Serve(g_s), s	6.5	21.3	0.0	11.3	30.6	0.0	7.9	11.8	41.7	6.6	34.2	11.3
Cycle Q Clear(g_c), s	6.5	21.3	0.0	11.3	30.6	0.0	7.9	11.8	41.7	6.6	34.2	11.3
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	230	699		365	441		133	2357	732	231	1612	719
V/C Ratio(X)	0.77	0.89		0.84	1.16		0.82	0.31	0.81	0.78	0.72	0.30
Avail Cap(c_a), veh/h	346	820		478	441		137	2357	732	266	1612	719
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.4	38.1	0.0	57.0	49.7	0.0	59.3	22.0	30.1	59.7	28.7	22.5
Incr Delay (d2), s/veh	5.5	9.9	0.0	9.6	96.2	0.0	31.4	0.3	9.4	11.7	2.8	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.1	13.3	0.0	9.2	37.4	0.0	8.3	8.4	24.4	5.9	21.4	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.9	48.1	0.0	66.7	145.9	0.0	90.7	22.4	39.5	71.4	31.5	23.6
LnGrp LOS	E	D		E	F		F	C	D	E	C	C
Approach Vol, veh/h		801	A		818	A		1439			1552	
Approach Delay, s/veh		50.9			116.3			34.6			35.0	
Approach LOS		D			F			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	67.0	18.7	30.6	14.7	66.0	13.7	35.6
Change Period (Y+Rc), s	5.0	7.0	5.0	5.0	5.0	7.0	5.0	5.0
Max Green Setting (Gmax), s	10.0	50.0	18.0	30.0	10.0	50.0	13.0	30.0
Max Q Clear Time (g_c+I1), s	8.6	43.7	13.3	23.3	9.9	36.2	8.5	32.6
Green Ext Time (p_c), s	0.1	3.7	0.5	2.3	0.0	7.6	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	52.1
HCM 6th LOS	D

Notes

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



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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		0.942			0.938			0.991			0.993	
Flt Protected		0.979			0.982			0.999				
Satd. Flow (prot)	0	1718	0	0	1716	0	0	1844	0	0	1850	0
Flt Permitted		0.979			0.982			0.999				
Satd. Flow (perm)	0	1718	0	0	1716	0	0	1844	0	0	1850	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		202			191			389			149	
Travel Time (s)		4.6			4.3			8.8			3.4	

Intersection Summary	
Area Type:	Other

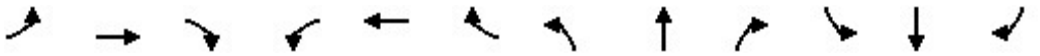
Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	3	8	8	4	10	1	48	4	0	127	6
Future Vol, veh/h	8	3	8	8	4	10	1	48	4	0	127	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	9	3	9	9	4	11	1	52	4	0	138	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	206	200	142	204	201	54	145	0	0	56	0	0
Stage 1	142	142	-	56	56	-	-	-	-	-	-	-
Stage 2	64	58	-	148	145	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	752	696	906	754	695	1013	1437	-	-	1549	-	-
Stage 1	861	779	-	956	848	-	-	-	-	-	-	-
Stage 2	947	847	-	855	777	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	740	695	906	743	694	1013	1437	-	-	1549	-	-
Mov Cap-2 Maneuver	740	695	-	743	694	-	-	-	-	-	-	-
Stage 1	860	779	-	955	847	-	-	-	-	-	-	-
Stage 2	931	846	-	843	777	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	9.4	0.1	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1437	-	-	793	833	1549	-	-
HCM Lane V/C Ratio	0.001	-	-	0.026	0.029	-	-	-
HCM Control Delay (s)	7.5	0	-	9.7	9.4	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	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)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	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						0.850		0.946				
Flt Protected					0.950						0.968	
Satd. Flow (prot)	0	1863	0	0	1770	1583	0	1762	0	0	1803	0
Flt Permitted					0.950						0.968	
Satd. Flow (perm)	0	1863	0	0	1770	1583	0	1762	0	0	1803	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		295			368			216			212	
Travel Time (s)		6.7			8.4			4.9			4.8	

Intersection Summary	
Area Type:	Other

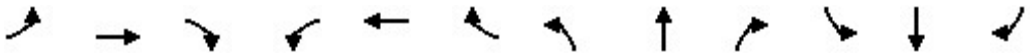
Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↰	↗		↕			↕	
Traffic Vol, veh/h	0	0	0	36	0	198	0	37	25	153	78	0
Future Vol, veh/h	0	0	0	36	0	198	0	37	25	153	78	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	-	-	-	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	0	0	0	39	0	215	0	40	27	166	85	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	471	484	85	471	471	54	85	0	0	67	0	0
Stage 1	417	417	-	54	54	-	-	-	-	-	-	-
Stage 2	54	67	-	417	417	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	503	483	974	503	491	1013	1512	-	-	1535	-	-
Stage 1	613	591	-	958	850	-	-	-	-	-	-	-
Stage 2	958	839	-	613	591	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	362	428	974	459	436	1013	1512	-	-	1535	-	-
Mov Cap-2 Maneuver	362	428	-	459	436	-	-	-	-	-	-	-
Stage 1	613	524	-	958	850	-	-	-	-	-	-	-
Stage 2	754	839	-	544	524	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	10.1	0	5.1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1512	-	-	-	459	1013	1535	-	-
HCM Lane V/C Ratio	-	-	-	-	0.085	0.212	0.108	-	-
HCM Control Delay (s)	0	-	-	0	13.6	9.5	7.6	0	-
HCM Lane LOS	A	-	-	A	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.3	0.8	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)	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		0.910			0.919			0.998				
Flt Protected		0.984			0.980			0.999				
Satd. Flow (prot)	0	1668	0	0	1678	0	0	1857	0	0	1863	0
Flt Permitted		0.984			0.980			0.999				
Satd. Flow (perm)	0	1668	0	0	1678	0	0	1857	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		263			127			122			148	
Travel Time (s)		6.0			2.9			2.8			3.4	

Intersection Summary	
Area Type:	Other

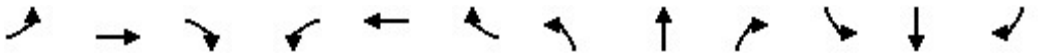
Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	4	0	7	2	0	3	4	154	2	0	313	0
Future Vol, veh/h	4	0	7	2	0	3	4	154	2	0	313	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	4	0	8	2	0	3	4	167	2	0	340	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	518	517	340	520	516	168	340	0	0	169	0	0
Stage 1	340	340	-	176	176	-	-	-	-	-	-	-
Stage 2	178	177	-	344	340	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	468	462	702	467	463	876	1219	-	-	1409	-	-
Stage 1	675	639	-	826	753	-	-	-	-	-	-	-
Stage 2	824	753	-	671	639	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	465	460	702	460	461	876	1219	-	-	1409	-	-
Mov Cap-2 Maneuver	465	460	-	460	461	-	-	-	-	-	-	-
Stage 1	672	639	-	823	750	-	-	-	-	-	-	-
Stage 2	818	750	-	664	639	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.2	10.6	0.2	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1219	-	-	592	643	1409	-	-
HCM Lane V/C Ratio	0.004	-	-	0.02	0.008	-	-	-
HCM Control Delay (s)	8	0	-	11.2	10.6	0	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	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)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		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			0.991			0.962			0.937	
Flt Protected	0.950			0.950				0.989			0.993	
Satd. Flow (prot)	1770	1857	0	1770	1846	0	0	1772	0	0	1733	0
Flt Permitted	0.950			0.950				0.989			0.993	
Satd. Flow (perm)	1770	1857	0	1770	1846	0	0	1772	0	0	1733	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		876			1296			375			389	
Travel Time (s)		19.9			29.5			8.5			8.8	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	62.3

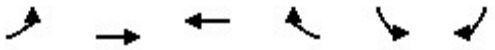
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	40	617	11	19	755	51	38	83	47	12	36	42
Future Vol, veh/h	40	617	11	19	755	51	38	83	47	12	36	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	-	-	-
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	43	671	12	21	821	55	41	90	51	13	39	46

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	876	0	0	683	0	0	1696	1681	677	1725	1660	849
Stage 1	-	-	-	-	-	-	763	763	-	891	891	-
Stage 2	-	-	-	-	-	-	933	918	-	834	769	-
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	771	-	-	910	-	-	73	95	453	70	97	361
Stage 1	-	-	-	-	-	-	397	413	-	337	361	-
Stage 2	-	-	-	-	-	-	319	350	-	362	411	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	771	-	-	910	-	-	~ 40	~ 88	453	-	89	361
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 40	~ 88	-	-	89	-
Stage 1	-	-	-	-	-	-	375	390	-	318	353	-
Stage 2	-	-	-	-	-	-	242	342	-	233	388	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.2	$ 646.2	
HCM LOS			F	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	84	771	-	-	910	-	-	-
HCM Lane V/C Ratio	2.174	0.056	-	-	0.023	-	-	-
HCM Control Delay (s)	$ 646.2	9.9	-	-	9	-	-	-
HCM Lane LOS	F	A	-	-	A	-	-	-
HCM 95th %tile Q(veh)	16.5	0.2	-	-	0.1	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



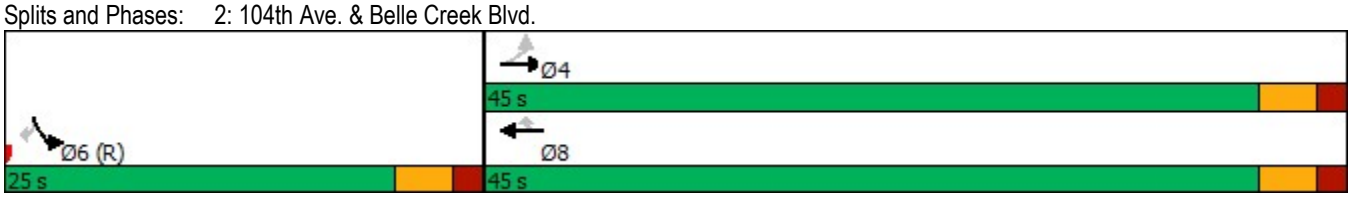
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	300			0	0	0
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	1863	1583	1770	1583
Flt Permitted	0.157				0.950	
Satd. Flow (perm)	292	3539	1863	1583	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				295		128
Link Speed (mph)		30	30		30	
Link Distance (ft)		495	419		448	
Travel Time (s)		11.3	9.5		10.2	

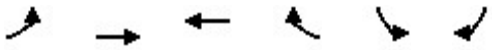
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	130	512	716	271	228	118
Future Volume (vph)	130	512	716	271	228	118
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.9	22.9	22.9	22.9	24.7	24.7
Total Split (s)	45.0	45.0	45.0	45.0	25.0	25.0
Total Split (%)	64.3%	64.3%	64.3%	64.3%	35.7%	35.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.7	1.7	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.7	4.7	4.7	4.7	4.7	4.7
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	36.3	36.3	36.3	36.3	24.3	24.3
Actuated g/C Ratio	0.52	0.52	0.52	0.52	0.35	0.35
v/c Ratio	0.93	0.30	0.80	0.31	0.40	0.20
Control Delay	77.6	9.6	29.9	3.6	21.5	5.0
Queue Delay	0.0	0.0	4.4	0.0	0.0	0.0
Total Delay	77.6	9.6	34.2	3.6	21.5	5.0
LOS	E	A	C	A	C	A
Approach Delay		23.3	25.8		15.9	
Approach LOS		C	C		B	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2: and 6:SBL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 23.3	Intersection LOS: C
Intersection Capacity Utilization 69.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: 104th Ave. & Belle Creek Blvd.





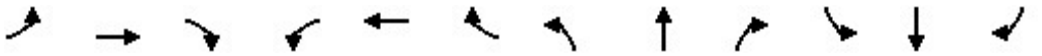
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	130	512	716	271	228	118
Future Volume (veh/h)	130	512	716	271	228	118
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	141	557	778	295	248	128
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	263	1962	1033	875	558	497
Arrive On Green	0.55	0.55	0.73	0.73	0.31	0.31
Sat Flow, veh/h	526	3647	1870	1585	1781	1585
Grp Volume(v), veh/h	141	557	778	295	248	128
Grp Sat Flow(s),veh/h/ln	526	1777	1870	1585	1781	1585
Q Serve(g_s), s	17.8	5.8	17.3	4.6	7.8	4.2
Cycle Q Clear(g_c), s	35.1	5.8	17.3	4.6	7.8	4.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	263	1962	1033	875	558	497
V/C Ratio(X)	0.54	0.28	0.75	0.34	0.44	0.26
Avail Cap(c_a), veh/h	276	2046	1077	913	558	497
HCM Platoon Ratio	1.00	1.00	1.33	1.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.40	0.40	1.00	1.00
Uniform Delay (d), s/veh	23.1	8.3	6.5	4.8	19.2	17.9
Incr Delay (d2), s/veh	1.8	0.1	1.2	0.1	2.5	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.9	3.5	6.0	2.1	6.1	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.9	8.4	7.7	4.9	21.7	19.2
LnGrp LOS	C	A	A	A	C	B
Approach Vol, veh/h		698	1073		376	
Approach Delay, s/veh		11.7	6.9		20.9	
Approach LOS		B	A		C	

Timer - Assigned Phs		4		6	8
Phs Duration (G+Y+Rc), s		43.4		26.6	43.4
Change Period (Y+Rc), s		* 4.7		4.7	* 4.7
Max Green Setting (Gmax), s		* 40		20.3	* 40
Max Q Clear Time (g_c+I1), s		37.1		9.8	19.3
Green Ext Time (p_c), s		1.5		0.9	7.0

Intersection Summary	
HCM 6th Ctrl Delay	10.9
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



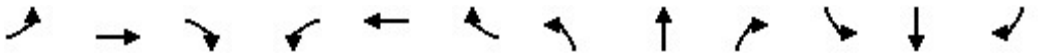
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	175		0	350		0	625		0	600		0
Storage Lanes	1		0	2		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	1.00	1.00	1.00	0.91	1.00	0.97	0.95	1.00
Ped Bike Factor												
Frt		0.970				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3433	0	3433	1863	1583	1770	5085	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3433	0	3433	1863	1583	1770	5085	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21				158			353			254
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		419			1451			830			1328	
Travel Time (s)		9.5			33.0			18.9			30.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	218	417	231	465	409	281	1332	352	98	707	241
Future Volume (vph)	218	417	231	465	409	281	1332	352	98	707	241
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	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
Minimum Split (s)	10.0	32.0	10.0	32.0	32.0	11.0	44.0	44.0	10.0	44.0	44.0
Total Split (s)	21.0	39.0	21.0	39.0	39.0	35.0	65.0	65.0	15.0	45.0	45.0
Total Split (%)	15.0%	27.9%	15.0%	27.9%	27.9%	25.0%	46.4%	46.4%	10.7%	32.1%	32.1%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0	3.0	4.0	4.0
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
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	6.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.2	35.5	14.5	35.8	35.8	27.0	59.9	59.9	9.1	41.0	41.0
Actuated g/C Ratio	0.10	0.25	0.10	0.26	0.26	0.19	0.43	0.43	0.06	0.29	0.29
v/c Ratio	0.68	0.64	0.71	1.06	0.85	0.89	0.67	0.44	0.48	0.74	0.41
Control Delay	67.6	56.0	71.7	107.7	48.4	83.0	34.0	5.2	70.5	50.4	7.0
Queue Delay	0.0	0.9	0.0	15.7	0.0	7.0	0.0	0.0	0.0	0.0	0.3
Total Delay	67.6	57.0	71.7	123.4	48.4	90.0	34.0	5.2	70.5	50.4	7.3
LOS	E	E	E	F	D	F	C	A	E	D	A
Approach Delay		60.1		84.8			36.8			42.3	
Approach LOS		E		F			D			D	

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 52.5	Intersection LOS: D
Intersection Capacity Utilization 84.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 3: US 85 & 104th Ave.



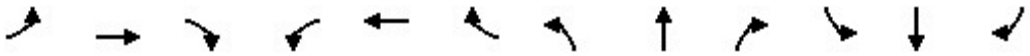
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	218	417	105	231	465	409	281	1332	352	98	707	241
Future Volume (veh/h)	218	417	105	231	465	409	281	1332	352	98	707	241
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	237	453	0	251	505	0	305	1448	383	107	768	262
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	292	850		304	454		329	2441	758	155	1175	524
Arrive On Green	0.06	0.16	0.00	0.09	0.24	0.00	0.18	0.48	0.48	0.04	0.33	0.33
Sat Flow, veh/h	3456	3647	0	3456	1870	1585	1781	5106	1585	3456	3554	1585
Grp Volume(v), veh/h	237	453	0	251	505	0	305	1448	383	107	768	262
Grp Sat Flow(s),veh/h/ln	1728	1777	0	1728	1870	1585	1781	1702	1585	1728	1777	1585
Q Serve(g_s), s	9.5	16.4	0.0	10.0	34.0	0.0	23.6	28.9	23.3	4.3	25.8	18.6
Cycle Q Clear(g_c), s	9.5	16.4	0.0	10.0	34.0	0.0	23.6	28.9	23.3	4.3	25.8	18.6
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	292	850		304	454		329	2441	758	155	1175	524
V/C Ratio(X)	0.81	0.53		0.83	1.11		0.93	0.59	0.51	0.69	0.65	0.50
Avail Cap(c_a), veh/h	395	863		395	454		369	2441	758	247	1175	524
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.9	51.6	0.0	62.8	53.0	0.0	56.1	26.6	25.1	65.9	40.0	37.6
Incr Delay (d2), s/veh	8.6	0.6	0.0	10.6	76.3	0.0	27.3	1.1	2.4	5.5	2.8	3.4
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	8.1	12.1	0.0	8.5	36.0	0.0	19.0	17.6	14.3	3.6	17.4	12.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.6	52.2	0.0	73.4	129.3	0.0	83.4	27.7	27.5	71.4	42.8	41.0
LnGrp LOS	E	D		E	F		F	C	C	E	D	D
Approach Vol, veh/h		690	A		756	A		2136			1137	
Approach Delay, s/veh		59.5			110.7			35.6			45.1	
Approach LOS		E			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	72.9	17.3	38.5	31.9	52.3	16.8	39.0
Change Period (Y+Rc), s	5.0	6.0	5.0	5.0	6.0	6.0	5.0	5.0
Max Green Setting (Gmax), s	10.0	59.0	16.0	34.0	29.0	39.0	16.0	34.0
Max Q Clear Time (g_c+I1), s	6.3	30.9	12.0	18.4	25.6	27.8	11.5	36.0
Green Ext Time (p_c), s	0.1	15.0	0.3	2.7	0.3	4.7	0.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	53.4
HCM 6th LOS	D

Notes

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



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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		0.892			0.983			0.987			0.997	
Flt Protected		0.990			0.970			0.998			0.996	
Satd. Flow (prot)	0	1645	0	0	1776	0	0	1835	0	0	1850	0
Flt Permitted		0.990			0.970			0.998			0.996	
Satd. Flow (perm)	0	1645	0	0	1776	0	0	1835	0	0	1850	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		202			191			389			149	
Travel Time (s)		4.6			4.3			8.8			3.4	

Intersection Summary	
Area Type:	Other

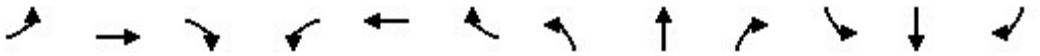
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	4	5	2	1	8	150	17	6	77	2
Future Vol, veh/h	1	0	4	5	2	1	8	150	17	6	77	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	1	0	4	5	2	1	9	163	18	7	84	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	291	298	85	291	290	172	86	0	0	181	0	0
Stage 1	99	99	-	190	190	-	-	-	-	-	-	-
Stage 2	192	199	-	101	100	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	661	614	974	661	620	872	1510	-	-	1394	-	-
Stage 1	907	813	-	812	743	-	-	-	-	-	-	-
Stage 2	810	736	-	905	812	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	652	607	974	652	613	872	1510	-	-	1394	-	-
Mov Cap-2 Maneuver	652	607	-	652	613	-	-	-	-	-	-	-
Stage 1	901	809	-	806	738	-	-	-	-	-	-	-
Stage 2	801	731	-	896	808	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.1	10.5	0.3	0.5
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1510	-	-	886	662	1394	-	-
HCM Lane V/C Ratio	0.006	-	-	0.006	0.013	0.005	-	-
HCM Control Delay (s)	7.4	0	-	9.1	10.5	7.6	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	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		1	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						0.850		0.969				
Flt Protected		0.950			0.950						0.962	
Satd. Flow (prot)	0	1770	0	0	1770	1583	0	1805	0	0	1792	0
Flt Permitted		0.950			0.950						0.962	
Satd. Flow (perm)	0	1770	0	0	1770	1583	0	1805	0	0	1792	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		295			368			216			212	
Travel Time (s)		6.7			8.4			4.9			4.8	

Intersection Summary	
Area Type:	Other

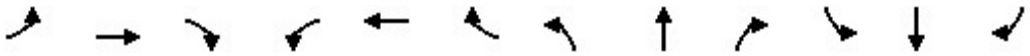
Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↰	↗		↕			↕	
Traffic Vol, veh/h	1	0	0	31	0	219	0	110	33	172	48	0
Future Vol, veh/h	1	0	0	31	0	219	0	110	33	172	48	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	-	-	-	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	1	0	0	34	0	238	0	120	36	187	52	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	564	582	52	564	564	138	52	0	0	156	0	0
Stage 1	426	426	-	138	138	-	-	-	-	-	-	-
Stage 2	138	156	-	426	426	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	436	425	1016	436	435	910	1554	-	-	1424	-	-
Stage 1	606	586	-	865	782	-	-	-	-	-	-	-
Stage 2	865	769	-	606	586	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	289	368	1016	391	376	910	1554	-	-	1424	-	-
Mov Cap-2 Maneuver	289	368	-	391	376	-	-	-	-	-	-	-
Stage 1	606	507	-	865	782	-	-	-	-	-	-	-
Stage 2	639	769	-	524	507	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.5	11	0	6.2
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1554	-	-	289	391	910	1424	-	-
HCM Lane V/C Ratio	-	-	-	0.004	0.086	0.262	0.131	-	-
HCM Control Delay (s)	0	-	-	17.5	15.1	10.4	7.9	0	-
HCM Lane LOS	A	-	-	C	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.3	1.1	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		0.887			0.973			0.994				
Flt Protected		0.992			0.962			0.999				
Satd. Flow (prot)	0	1639	0	0	1744	0	0	1850	0	0	1863	0
Flt Permitted		0.992			0.962			0.999				
Satd. Flow (perm)	0	1639	0	0	1744	0	0	1850	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		263			127			122			148	
Travel Time (s)		6.0			2.9			2.8			3.4	

Intersection Summary	
Area Type:	Other

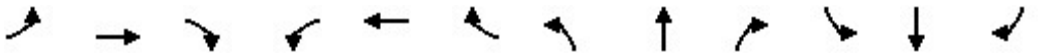
Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	0	5	7	0	2	7	233	12	0	156	0
Future Vol, veh/h	1	0	5	7	0	2	7	233	12	0	156	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	1	0	5	8	0	2	8	253	13	0	170	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	447	452	170	449	446	260	170	0	0	266	0	0
Stage 1	170	170	-	276	276	-	-	-	-	-	-	-
Stage 2	277	282	-	173	170	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	522	503	874	520	507	779	1407	-	-	1298	-	-
Stage 1	832	758	-	730	682	-	-	-	-	-	-	-
Stage 2	729	678	-	829	758	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	518	499	874	514	503	779	1407	-	-	1298	-	-
Mov Cap-2 Maneuver	518	499	-	514	503	-	-	-	-	-	-	-
Stage 1	826	758	-	725	677	-	-	-	-	-	-	-
Stage 2	722	673	-	824	758	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	11.6	0.2	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1407	-	-	784	556	1298	-	-
HCM Lane V/C Ratio	0.005	-	-	0.008	0.018	-	-	-
HCM Control Delay (s)	7.6	0	-	9.6	11.6	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	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)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		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			0.997			0.896			0.968	
Flt Protected	0.950			0.950				0.995			0.989	
Satd. Flow (prot)	1770	1852	0	1770	1857	0	0	1661	0	0	1783	0
Flt Permitted	0.950			0.950				0.995			0.989	
Satd. Flow (perm)	1770	1852	0	1770	1857	0	0	1661	0	0	1783	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		876			1296			375			389	
Travel Time (s)		19.9			29.5			8.5			8.8	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	38.4

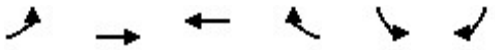
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	692	31	34	691	15	6	7	46	32	75	34
Future Vol, veh/h	26	692	31	34	691	15	6	7	46	32	75	34
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	-	-	-
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	28	752	34	37	751	16	7	8	50	35	82	37

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	767	0	0	786	0	0	1718	1666	769	1687	1675	759
Stage 1	-	-	-	-	-	-	825	825	-	833	833	-
Stage 2	-	-	-	-	-	-	893	841	-	854	842	-
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	847	-	-	833	-	-	71	97	401	74	95	406
Stage 1	-	-	-	-	-	-	367	387	-	363	384	-
Stage 2	-	-	-	-	-	-	336	380	-	353	380	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	847	-	-	833	-	-	12	90	401	57	88	406
Mov Cap-2 Maneuver	-	-	-	-	-	-	12	90	-	57	88	-
Stage 1	-	-	-	-	-	-	355	374	-	351	367	-
Stage 2	-	-	-	-	-	-	227	363	-	293	367	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.4	124.1	$ 404.7
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	85	847	-	-	833	-	-	94
HCM Lane V/C Ratio	0.754	0.033	-	-	0.044	-	-	1.63
HCM Control Delay (s)	124.1	9.4	-	-	9.5	-	-	$ 404.7
HCM Lane LOS	F	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	3.8	0.1	-	-	0.1	-	-	12.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



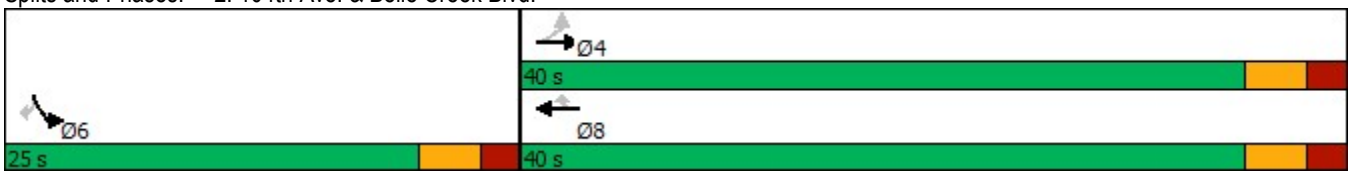
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	300			0	0	0
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	1863	1583	1770	1583
Flt Permitted	0.246				0.950	
Satd. Flow (perm)	458	3539	1863	1583	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				214		167
Link Speed (mph)		30	30		30	
Link Distance (ft)		495	419		448	
Travel Time (s)		11.3	9.5		10.2	

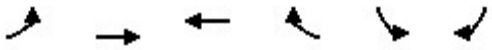
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	114	618	622	197	311	154
Future Volume (vph)	114	618	622	197	311	154
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	23.0	23.0	23.0	24.0	24.0
Total Split (s)	40.0	40.0	40.0	40.0	25.0	25.0
Total Split (%)	61.5%	61.5%	61.5%	61.5%	38.5%	38.5%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	24.7	24.7	24.7	24.7	14.6	14.6
Actuated g/C Ratio	0.49	0.49	0.49	0.49	0.29	0.29
v/c Ratio	0.55	0.39	0.74	0.24	0.66	0.29
Control Delay	20.4	8.7	15.9	2.1	23.9	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.4	8.7	16.0	2.1	23.9	4.9
LOS	C	A	B	A	C	A
Approach Delay		10.5	12.6		17.6	
Approach LOS		B	B		B	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 50.1	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 13.0	Intersection LOS: B
Intersection Capacity Utilization 68.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: 104th Ave. & Belle Creek Blvd.

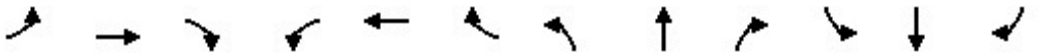




Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	114	618	622	197	311	154
Future Volume (veh/h)	114	618	622	197	311	154
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	124	672	676	214	338	167
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	336	1975	1039	881	431	383
Arrive On Green	0.56	0.56	0.56	0.56	0.24	0.24
Sat Flow, veh/h	625	3647	1870	1585	1781	1585
Grp Volume(v), veh/h	124	672	676	214	338	167
Grp Sat Flow(s),veh/h/ln	625	1777	1870	1585	1781	1585
Q Serve(g_s), s	8.5	5.1	12.4	3.4	8.8	4.4
Cycle Q Clear(g_c), s	20.9	5.1	12.4	3.4	8.8	4.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	336	1975	1039	881	431	383
V/C Ratio(X)	0.37	0.34	0.65	0.24	0.78	0.44
Avail Cap(c_a), veh/h	431	2517	1325	1123	721	641
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.9	6.0	7.6	5.6	17.5	15.9
Incr Delay (d2), s/veh	0.7	0.1	0.7	0.1	3.2	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	2.5	6.5	1.5	6.3	2.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.6	6.1	8.4	5.8	20.7	16.7
LnGrp LOS	B	A	A	A	C	B
Approach Vol, veh/h		796	890		505	
Approach Delay, s/veh		7.6	7.8		19.4	
Approach LOS		A	A		B	

Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			32.5		17.0	32.5
Change Period (Y+Rc), s			5.0		5.0	5.0
Max Green Setting (Gmax), s			35.0		20.0	35.0
Max Q Clear Time (g_c+I1), s			22.9		10.8	14.4
Green Ext Time (p_c), s			4.5		1.2	5.5

Intersection Summary		
HCM 6th Ctrl Delay	10.4	
HCM 6th LOS	B	



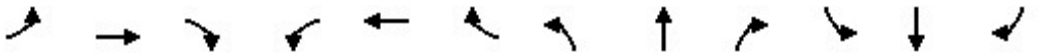
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	175		0	350		0	625		0	600		0
Storage Lanes	1		0	2		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	1.00	1.00	1.00	0.91	1.00	0.97	0.95	1.00
Ped Bike Factor												
Frt		0.970				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3433	0	3433	1863	1583	1770	5085	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3433	0	3433	1863	1583	1770	5085	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22				169			288			177
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		419			1451			830			1328	
Travel Time (s)		9.5			33.0			18.9			30.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	173	606	297	499	202	107	717	576	174	1124	212
Future Volume (vph)	173	606	297	499	202	107	717	576	174	1124	212
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	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
Minimum Split (s)	10.0	32.0	10.0	32.0	32.0	10.0	45.0	45.0	10.0	45.0	45.0
Total Split (s)	18.0	35.0	23.0	40.0	40.0	15.0	57.0	57.0	15.0	57.0	57.0
Total Split (%)	13.8%	26.9%	17.7%	30.8%	30.8%	11.5%	43.8%	43.8%	11.5%	43.8%	43.8%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	2.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	7.0	7.0	5.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	11.7	31.6	16.4	36.3	36.3	10.0	50.2	50.2	9.8	50.0	50.0
Actuated g/C Ratio	0.09	0.24	0.13	0.28	0.28	0.08	0.39	0.39	0.08	0.38	0.38
v/c Ratio	0.61	0.97	0.75	1.04	0.39	0.85	0.40	0.79	0.73	0.90	0.32
Control Delay	65.6	71.1	66.0	96.4	12.4	104.8	29.7	27.1	75.3	47.6	8.5
Queue Delay	0.0	18.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.6	89.2	66.0	96.4	12.4	104.8	29.7	27.1	75.3	47.6	8.5
LOS	E	F	E	F	B	F	C	C	E	D	A
Approach Delay		84.8		70.3			34.4			45.3	
Approach LOS		F		E			C			D	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay: 54.9	Intersection LOS: D
Intersection Capacity Utilization 86.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 3: US 85 & 104th Ave.



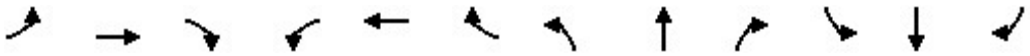
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	606	150	297	499	202	107	717	576	174	1124	212
Future Volume (veh/h)	173	606	150	297	499	202	107	717	576	174	1124	212
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	188	659	0	323	542	0	116	779	626	189	1222	230
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	243	814		382	504		137	2152	668	241	1472	657
Arrive On Green	0.07	0.23	0.00	0.11	0.27	0.00	0.08	0.42	0.42	0.07	0.41	0.41
Sat Flow, veh/h	3456	3647	0	3456	1870	1585	1781	5106	1585	3456	3554	1585
Grp Volume(v), veh/h	188	659	0	323	542	0	116	779	626	189	1222	230
Grp Sat Flow(s),veh/h/ln	1728	1777	0	1728	1870	1585	1781	1702	1585	1728	1777	1585
Q Serve(g_s), s	7.0	22.8	0.0	11.9	35.0	0.0	8.4	13.5	49.1	7.0	39.9	12.9
Cycle Q Clear(g_c), s	7.0	22.8	0.0	11.9	35.0	0.0	8.4	13.5	49.1	7.0	39.9	12.9
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	243	814		382	504		137	2152	668	241	1472	657
V/C Ratio(X)	0.77	0.81		0.85	1.08		0.85	0.36	0.94	0.79	0.83	0.35
Avail Cap(c_a), veh/h	346	820		478	504		137	2152	668	266	1472	657
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.4	47.4	0.0	56.7	47.5	0.0	59.2	25.7	35.9	59.5	34.0	26.1
Incr Delay (d2), s/veh	6.0	5.4	0.0	10.9	62.2	0.0	36.1	0.5	22.4	13.2	5.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.9	15.7	0.0	9.7	34.6	0.0	8.9	9.5	30.6	6.3	25.1	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.4	52.8	0.0	67.7	109.7	0.0	95.4	26.1	58.3	72.7	39.6	27.6
LnGrp LOS	E	D		E	F		F	C	E	E	D	C
Approach Vol, veh/h		847	A		865	A		1521			1641	
Approach Delay, s/veh		55.6			94.0			44.7			41.7	
Approach LOS		E			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	61.8	19.4	34.8	15.0	60.8	14.2	40.0
Change Period (Y+Rc), s	5.0	7.0	5.0	5.0	5.0	7.0	5.0	5.0
Max Green Setting (Gmax), s	10.0	50.0	18.0	30.0	10.0	50.0	13.0	35.0
Max Q Clear Time (g_c+I1), s	9.0	51.1	13.9	24.8	10.4	41.9	9.0	37.0
Green Ext Time (p_c), s	0.1	0.0	0.4	2.0	0.0	5.4	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	54.3
HCM 6th LOS	D

Notes

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



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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		0.942			0.938			0.991			0.994	
Flt Protected		0.979			0.982			0.999				
Satd. Flow (prot)	0	1718	0	0	1716	0	0	1844	0	0	1852	0
Flt Permitted		0.979			0.982			0.999				
Satd. Flow (perm)	0	1718	0	0	1716	0	0	1844	0	0	1852	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		202			191			389			149	
Travel Time (s)		4.6			4.3			8.8			3.4	

Intersection Summary	
Area Type:	Other

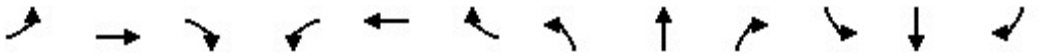
Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	3	8	8	4	10	1	50	4	0	131	6
Future Vol, veh/h	8	3	8	8	4	10	1	50	4	0	131	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	9	3	9	9	4	11	1	54	4	0	142	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	212	206	146	210	207	56	149	0	0	58	0	0
Stage 1	146	146	-	58	58	-	-	-	-	-	-	-
Stage 2	66	60	-	152	149	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	745	691	901	747	690	1011	1432	-	-	1546	-	-
Stage 1	857	776	-	954	847	-	-	-	-	-	-	-
Stage 2	945	845	-	850	774	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	733	690	901	737	689	1011	1432	-	-	1546	-	-
Mov Cap-2 Maneuver	733	690	-	737	689	-	-	-	-	-	-	-
Stage 1	856	776	-	953	846	-	-	-	-	-	-	-
Stage 2	929	844	-	838	774	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	9.5	0.1	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1432	-	-	787	829	1546	-	-
HCM Lane V/C Ratio	0.001	-	-	0.026	0.029	-	-	-
HCM Control Delay (s)	7.5	0	-	9.7	9.5	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	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)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	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						0.850		0.945				
Flt Protected					0.950						0.968	
Satd. Flow (prot)	0	1863	0	0	1770	1583	0	1760	0	0	1803	0
Flt Permitted					0.950						0.968	
Satd. Flow (perm)	0	1863	0	0	1770	1583	0	1760	0	0	1803	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		295			368			216			212	
Travel Time (s)		6.7			8.4			4.9			4.8	

Intersection Summary	
Area Type:	Other

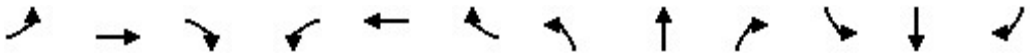
Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	37	0	206	0	38	26	159	81	0
Future Vol, veh/h	0	0	0	37	0	206	0	38	26	159	81	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	-	-	-	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	0	0	0	40	0	224	0	41	28	173	88	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	489	503	88	489	489	55	88	0	0	69	0	0
Stage 1	434	434	-	55	55	-	-	-	-	-	-	-
Stage 2	55	69	-	434	434	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	489	471	970	489	480	1012	1508	-	-	1532	-	-
Stage 1	600	581	-	957	849	-	-	-	-	-	-	-
Stage 2	957	837	-	600	581	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	346	415	970	445	423	1012	1508	-	-	1532	-	-
Mov Cap-2 Maneuver	346	415	-	445	423	-	-	-	-	-	-	-
Stage 1	600	512	-	957	849	-	-	-	-	-	-	-
Stage 2	745	837	-	529	512	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	10.3	0	5.1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1508	-	-	-	445	1012	1532	-	-
HCM Lane V/C Ratio	-	-	-	-	0.09	0.221	0.113	-	-
HCM Control Delay (s)	0	-	-	0	13.9	9.6	7.6	0	-
HCM Lane LOS	A	-	-	A	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.3	0.8	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)	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		0.910			0.919			0.998				
Flt Protected		0.984			0.980			0.999				
Satd. Flow (prot)	0	1668	0	0	1678	0	0	1857	0	0	1863	0
Flt Permitted		0.984			0.980			0.999				
Satd. Flow (perm)	0	1668	0	0	1678	0	0	1857	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		263			127			122			148	
Travel Time (s)		6.0			2.9			2.8			3.4	

Intersection Summary	
Area Type:	Other

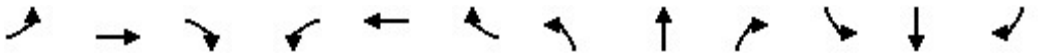
Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	4	0	7	2	0	3	4	154	2	0	331	0
Future Vol, veh/h	4	0	7	2	0	3	4	154	2	0	331	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	4	0	8	2	0	3	4	167	2	0	360	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	538	537	360	540	536	168	360	0	0	169	0	0
Stage 1	360	360	-	176	176	-	-	-	-	-	-	-
Stage 2	178	177	-	364	360	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	454	450	684	453	451	876	1199	-	-	1409	-	-
Stage 1	658	626	-	826	753	-	-	-	-	-	-	-
Stage 2	824	753	-	655	626	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	451	448	684	447	449	876	1199	-	-	1409	-	-
Mov Cap-2 Maneuver	451	448	-	447	449	-	-	-	-	-	-	-
Stage 1	655	626	-	823	750	-	-	-	-	-	-	-
Stage 2	818	750	-	648	626	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	10.7	0.2	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1199	-	-	576	633	1409	-	-
HCM Lane V/C Ratio	0.004	-	-	0.021	0.009	-	-	-
HCM Control Delay (s)	8	0	-	11.4	10.7	0	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	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)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		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			0.990			0.962			0.937	
Flt Protected	0.950			0.950				0.989			0.994	
Satd. Flow (prot)	1770	1857	0	1770	1844	0	0	1772	0	0	1735	0
Flt Permitted	0.950			0.950				0.989			0.994	
Satd. Flow (perm)	1770	1857	0	1770	1844	0	0	1772	0	0	1735	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		876			1296			375			389	
Travel Time (s)		19.9			29.5			8.5			8.8	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	88.6

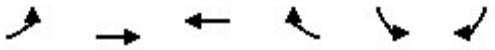
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	42	652	12	20	798	54	39	86	49	12	37	43
Future Vol, veh/h	42	652	12	20	798	54	39	86	49	12	37	43
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	-	-	-
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	46	709	13	22	867	59	42	93	53	13	40	47

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	926	0	0	722	0	0	1792	1778	716	1822	1755	897
Stage 1	-	-	-	-	-	-	808	808	-	941	941	-
Stage 2	-	-	-	-	-	-	984	970	-	881	814	-
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	738	-	-	880	-	-	63	~ 82	430	60	85	339
Stage 1	-	-	-	-	-	-	375	394	-	316	342	-
Stage 2	-	-	-	-	-	-	299	331	-	341	391	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	738	-	-	880	-	-	~ 30	~ 75	430	-	78	339
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 30	~ 75	-	-	78	-
Stage 1	-	-	-	-	-	-	352	370	-	296	333	-
Stage 2	-	-	-	-	-	-	221	323	-	209	367	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.2	$ 935.1	
HCM LOS			F	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	68	738	-	-	880	-	-	-
HCM Lane V/C Ratio	2.781	0.062	-	-	0.025	-	-	-
HCM Control Delay (s)	$ 935.1	10.2	-	-	9.2	-	-	-
HCM Lane LOS	F	B	-	-	A	-	-	-
HCM 95th %tile Q(veh)	18.9	0.2	-	-	0.1	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



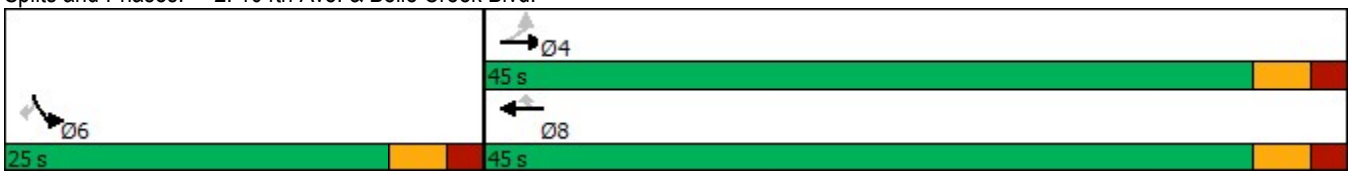
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	300			0	0	0
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	1863	1583	1770	1583
Flt Permitted	0.189				0.950	
Satd. Flow (perm)	352	3539	1863	1583	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				311		136
Link Speed (mph)		30	30		30	
Link Distance (ft)		495	419		448	
Travel Time (s)		11.3	9.5		10.2	

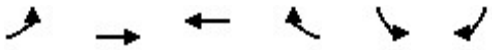
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	137	541	757	286	241	125
Future Volume (vph)	137	541	757	286	241	125
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	45.0	45.0	45.0	45.0	25.0	25.0
Total Split (%)	64.3%	64.3%	64.3%	64.3%	35.7%	35.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	32.2	32.2	32.2	32.2	13.9	13.9
Actuated g/C Ratio	0.57	0.57	0.57	0.57	0.24	0.24
v/c Ratio	0.75	0.29	0.78	0.30	0.61	0.28
Control Delay	38.0	6.9	16.3	1.8	27.4	6.0
Queue Delay	0.0	0.0	0.6	0.0	0.0	0.0
Total Delay	38.0	6.9	16.9	1.8	27.4	6.0
LOS	D	A	B	A	C	A
Approach Delay		13.2	12.8		20.1	
Approach LOS		B	B		C	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 56.8	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 14.2	Intersection LOS: B
Intersection Capacity Utilization 73.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: 104th Ave. & Belle Creek Blvd.

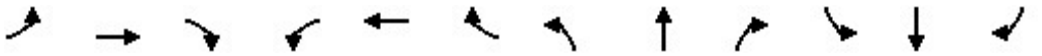




Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	137	541	757	286	241	125
Future Volume (veh/h)	137	541	757	286	241	125
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	149	588	823	311	262	136
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	300	2269	1194	1012	338	301
Arrive On Green	0.64	0.64	0.64	0.64	0.19	0.19
Sat Flow, veh/h	496	3647	1870	1585	1781	1585
Grp Volume(v), veh/h	149	588	823	311	262	136
Grp Sat Flow(s),veh/h/ln	496	1777	1870	1585	1781	1585
Q Serve(g_s), s	16.1	4.2	16.5	5.1	8.1	4.4
Cycle Q Clear(g_c), s	32.7	4.2	16.5	5.1	8.1	4.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	300	2269	1194	1012	338	301
V/C Ratio(X)	0.50	0.26	0.69	0.31	0.78	0.45
Avail Cap(c_a), veh/h	324	2441	1285	1089	612	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.3	4.6	6.8	4.7	22.4	20.9
Incr Delay (d2), s/veh	1.3	0.1	1.4	0.2	3.8	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.1	1.9	8.5	2.2	6.3	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.6	4.6	8.2	4.9	26.2	22.0
LnGrp LOS	B	A	A	A	C	C
Approach Vol, veh/h		737	1134		398	
Approach Delay, s/veh		7.4	7.3		24.8	
Approach LOS		A	A		C	

Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			42.2		16.0	42.2
Change Period (Y+Rc), s			5.0		5.0	5.0
Max Green Setting (Gmax), s			40.0		20.0	40.0
Max Q Clear Time (g_c+I1), s			34.7		10.1	18.5
Green Ext Time (p_c), s			2.5		0.9	7.7

Intersection Summary		
HCM 6th Ctrl Delay		10.4
HCM 6th LOS		B



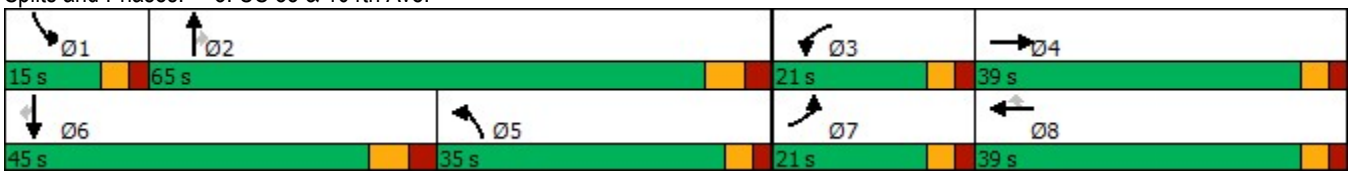
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	175		0	350		0	625		0	600		0
Storage Lanes	1		0	2		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	1.00	1.00	1.00	0.91	1.00	0.97	0.95	1.00
Ped Bike Factor												
Frt		0.970				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3433	0	3433	1863	1583	1770	5085	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3433	0	3433	1863	1583	1770	5085	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21				164			334			252
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		419			1451			830			1328	
Travel Time (s)		9.5			33.0			18.9			30.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	230	441	244	492	432	297	1408	356	104	747	255
Future Volume (vph)	230	441	244	492	432	297	1408	356	104	747	255
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	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
Minimum Split (s)	10.0	32.0	10.0	32.0	32.0	10.0	45.0	45.0	15.0	45.0	45.0
Total Split (s)	21.0	39.0	21.0	39.0	39.0	35.0	65.0	65.0	15.0	45.0	45.0
Total Split (%)	15.0%	27.9%	15.0%	27.9%	27.9%	25.0%	46.4%	46.4%	10.7%	32.1%	32.1%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	2.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	7.0	7.0	5.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	14.2	33.9	14.5	34.2	34.2	28.1	54.7	54.7	9.1	35.7	35.7
Actuated g/C Ratio	0.11	0.25	0.11	0.25	0.25	0.21	0.41	0.41	0.07	0.27	0.27
v/c Ratio	0.69	0.68	0.71	1.13	0.90	0.87	0.74	0.46	0.49	0.86	0.46
Control Delay	69.1	49.2	70.1	127.6	52.9	75.9	36.3	6.6	69.1	57.8	9.1
Queue Delay	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.1	50.5	70.1	127.6	52.9	75.9	36.3	6.6	69.1	57.8	9.1
LOS	E	D	E	F	D	E	D	A	E	E	A
Approach Delay		56.0		88.0			36.9			47.6	
Approach LOS		E		F			D			D	

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 134.3	
Natural Cycle: 125	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.13	
Intersection Signal Delay: 53.8	Intersection LOS: D
Intersection Capacity Utilization 87.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 3: US 85 & 104th Ave.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	230	441	111	244	492	432	297	1408	356	104	747	255
Future Volume (veh/h)	230	441	111	244	492	432	297	1408	356	104	747	255
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	250	479	0	265	535	0	323	1530	387	113	812	277
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	309	922		323	493		351	2191	680	164	939	419
Arrive On Green	0.09	0.26	0.00	0.09	0.26	0.00	0.20	0.43	0.43	0.05	0.26	0.26
Sat Flow, veh/h	3456	3647	0	3456	1870	1585	1781	5106	1585	3456	3554	1585
Grp Volume(v), veh/h	250	479	0	265	535	0	323	1530	387	113	812	277
Grp Sat Flow(s),veh/h/ln	1728	1777	0	1728	1870	1585	1781	1702	1585	1728	1777	1585
Q Serve(g_s), s	9.2	14.9	0.0	9.7	34.0	0.0	22.9	31.5	23.8	4.2	28.1	15.1
Cycle Q Clear(g_c), s	9.2	14.9	0.0	9.7	34.0	0.0	22.9	31.5	23.8	4.2	28.1	15.1
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	309	922		323	493		351	2191	680	164	939	419
V/C Ratio(X)	0.81	0.52		0.82	1.09		0.92	0.70	0.57	0.69	0.87	0.66
Avail Cap(c_a), veh/h	429	937		429	493		414	2296	713	268	1047	467
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.7	40.9	0.0	57.4	47.5	0.0	50.8	30.0	27.8	60.5	45.3	24.0
Incr Delay (d2), s/veh	7.9	0.5	0.0	9.1	65.6	0.0	23.5	0.9	1.0	5.0	7.1	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.8	10.8	0.0	8.2	34.6	0.0	18.3	18.9	14.1	3.5	19.3	10.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.6	41.4	0.0	66.5	113.1	0.0	74.3	30.9	28.8	65.5	52.4	26.9
LnGrp LOS	E	D		E	F		E	C	C	E	D	C
Approach Vol, veh/h		729	A		800	A		2240			1202	
Approach Delay, s/veh		49.7			97.7			36.8			47.8	
Approach LOS		D			F			D			D	

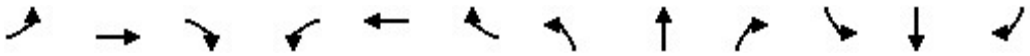
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	62.3	17.1	38.5	32.4	41.1	16.5	39.0
Change Period (Y+Rc), s	5.0	7.0	5.0	5.0	7.0	* 7	5.0	5.0
Max Green Setting (Gmax), s	10.0	58.0	16.0	34.0	30.0	* 38	16.0	34.0
Max Q Clear Time (g_c+I1), s	6.2	33.5	11.7	16.9	24.9	30.1	11.2	36.0
Green Ext Time (p_c), s	0.1	14.7	0.4	2.9	0.5	4.0	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	51.1
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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		0.892			0.983			0.986			0.997	
Flt Protected		0.990			0.970			0.998			0.996	
Satd. Flow (prot)	0	1645	0	0	1776	0	0	1833	0	0	1850	0
Flt Permitted		0.990			0.970			0.998			0.996	
Satd. Flow (perm)	0	1645	0	0	1776	0	0	1833	0	0	1850	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		202			191			389			149	
Travel Time (s)		4.6			4.3			8.8			3.4	

Intersection Summary	
Area Type:	Other

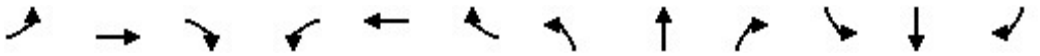
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	4	5	2	1	8	155	18	6	80	2
Future Vol, veh/h	1	0	4	5	2	1	8	155	18	6	80	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	1	0	4	5	2	1	9	168	20	7	87	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	300	308	88	300	299	178	89	0	0	188	0	0
Stage 1	102	102	-	196	196	-	-	-	-	-	-	-
Stage 2	198	206	-	104	103	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	652	606	970	652	613	865	1506	-	-	1386	-	-
Stage 1	904	811	-	806	739	-	-	-	-	-	-	-
Stage 2	804	731	-	902	810	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	644	599	970	643	606	865	1506	-	-	1386	-	-
Mov Cap-2 Maneuver	644	599	-	643	606	-	-	-	-	-	-	-
Stage 1	898	807	-	800	734	-	-	-	-	-	-	-
Stage 2	795	726	-	893	806	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.1	10.6	0.3	0.5
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1506	-	-	881	654	1386	-	-
HCM Lane V/C Ratio	0.006	-	-	0.006	0.013	0.005	-	-
HCM Control Delay (s)	7.4	0	-	9.1	10.6	7.6	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	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		1	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						0.850		0.969				
Flt Protected		0.950			0.950						0.962	
Satd. Flow (prot)	0	1770	0	0	1770	1583	0	1805	0	0	1792	0
Flt Permitted		0.950			0.950						0.962	
Satd. Flow (perm)	0	1770	0	0	1770	1583	0	1805	0	0	1792	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		295			368			216			212	
Travel Time (s)		6.7			8.4			4.9			4.8	

Intersection Summary	
Area Type:	Other

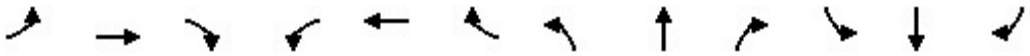
Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↰	↗		↕			↕	
Traffic Vol, veh/h	1	0	0	32	0	228	0	114	34	179	50	0
Future Vol, veh/h	1	0	0	32	0	228	0	114	34	179	50	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	-	-	-	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	1	0	0	35	0	248	0	124	37	195	54	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	587	605	54	587	587	143	54	0	0	161	0	0
Stage 1	444	444	-	143	143	-	-	-	-	-	-	-
Stage 2	143	161	-	444	444	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	421	412	1013	421	422	905	1551	-	-	1418	-	-
Stage 1	593	575	-	860	779	-	-	-	-	-	-	-
Stage 2	860	765	-	593	575	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	272	353	1013	375	362	905	1551	-	-	1418	-	-
Mov Cap-2 Maneuver	272	353	-	375	362	-	-	-	-	-	-	-
Stage 1	593	493	-	860	779	-	-	-	-	-	-	-
Stage 2	624	765	-	509	493	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.3	11.1	0	6.2
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1551	-	-	272	375	905	1418	-	-
HCM Lane V/C Ratio	-	-	-	0.004	0.093	0.274	0.137	-	-
HCM Control Delay (s)	0	-	-	18.3	15.6	10.5	7.9	0	-
HCM Lane LOS	A	-	-	C	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.3	1.1	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		0.887			0.973			0.993				
Flt Protected		0.992			0.962			0.999				
Satd. Flow (prot)	0	1639	0	0	1744	0	0	1848	0	0	1863	0
Flt Permitted		0.992			0.962			0.999				
Satd. Flow (perm)	0	1639	0	0	1744	0	0	1848	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		263			127			122			148	
Travel Time (s)		6.0			2.9			2.8			3.4	

Intersection Summary	
Area Type:	Other

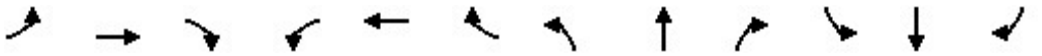
Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	5	7	0	2	7	246	13	0	165	0
Future Vol, veh/h	1	0	5	7	0	2	7	246	13	0	165	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	1	0	5	8	0	2	8	267	14	0	179	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	470	476	179	472	469	274	179	0	0	281	0	0
Stage 1	179	179	-	290	290	-	-	-	-	-	-	-
Stage 2	291	297	-	182	179	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	504	488	864	502	492	765	1397	-	-	1282	-	-
Stage 1	823	751	-	718	672	-	-	-	-	-	-	-
Stage 2	717	668	-	820	751	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	500	485	864	496	489	765	1397	-	-	1282	-	-
Mov Cap-2 Maneuver	500	485	-	496	489	-	-	-	-	-	-	-
Stage 1	817	751	-	713	667	-	-	-	-	-	-	-
Stage 2	710	663	-	815	751	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	11.8	0.2	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1397	-	-	771	538	1282	-	-
HCM Lane V/C Ratio	0.005	-	-	0.008	0.018	-	-	-
HCM Control Delay (s)	7.6	0	-	9.7	11.8	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	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)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		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			0.995			0.898			0.970	
Flt Protected	0.950			0.950				0.995			0.984	
Satd. Flow (prot)	1770	1852	0	1770	1853	0	0	1664	0	0	1778	0
Flt Permitted	0.950			0.950				0.995			0.984	
Satd. Flow (perm)	1770	1852	0	1770	1853	0	0	1664	0	0	1778	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		876			1296			375			389	
Travel Time (s)		19.9			29.5			8.5			8.8	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	66.5

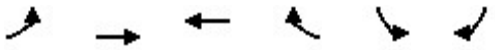
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	692	31	34	691	23	6	8	46	54	76	38
Future Vol, veh/h	28	692	31	34	691	23	6	8	46	54	76	38
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	-	-	-
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	30	752	34	37	751	25	7	9	50	59	83	41

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	776	0	0	786	0	0	1729	1679	769	1697	1684	764
Stage 1	-	-	-	-	-	-	829	829	-	838	838	-
Stage 2	-	-	-	-	-	-	900	850	-	859	846	-
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	840	-	-	833	-	-	69	95	401	73	94	404
Stage 1	-	-	-	-	-	-	365	385	-	361	382	-
Stage 2	-	-	-	-	-	-	333	377	-	351	378	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	840	-	-	833	-	-	9	88	401	~ 56	87	404
Mov Cap-2 Maneuver	-	-	-	-	-	-	9	88	-	~ 56	87	-
Stage 1	-	-	-	-	-	-	352	371	-	348	365	-
Stage 2	-	-	-	-	-	-	221	360	-	289	364	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.4	194.3	$ 610.2
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	69	840	-	-	833	-	-	87
HCM Lane V/C Ratio	0.945	0.036	-	-	0.044	-	-	2.099
HCM Control Delay (s)	194.3	9.4	-	-	9.5	-	-	$ 610.2
HCM Lane LOS	F	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	4.7	0.1	-	-	0.1	-	-	16.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



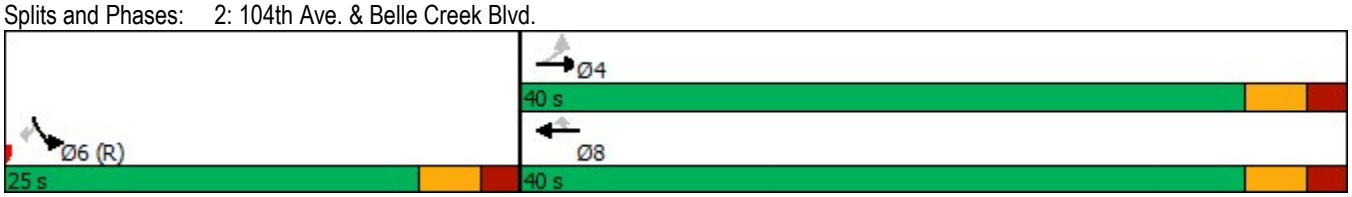
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	300			0	0	0
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	1863	1583	1770	1583
Flt Permitted	0.188				0.950	
Satd. Flow (perm)	350	3539	1863	1583	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				214		167
Link Speed (mph)		30	30		30	
Link Distance (ft)		495	419		448	
Travel Time (s)		11.3	9.5		10.2	

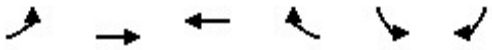
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	114	640	630	197	311	154
Future Volume (vph)	114	640	630	197	311	154
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	40.0	40.0	40.0	40.0	25.0	25.0
Total Split (%)	61.5%	61.5%	61.5%	61.5%	38.5%	38.5%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	30.4	30.4	30.4	30.4	24.6	24.6
Actuated g/C Ratio	0.47	0.47	0.47	0.47	0.38	0.38
v/c Ratio	0.76	0.42	0.79	0.25	0.51	0.24
Control Delay	44.8	11.7	19.3	4.3	20.5	4.3
Queue Delay	0.0	0.1	0.6	0.0	0.0	0.0
Total Delay	44.8	11.8	19.9	4.3	20.5	4.3
LOS	D	B	B	A	C	A
Approach Delay		16.8	16.2		15.1	
Approach LOS		B	B		B	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2: and 6:SBL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 16.2	Intersection LOS: B
Intersection Capacity Utilization 69.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: 104th Ave. & Belle Creek Blvd.

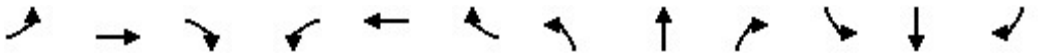




Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	114	640	630	197	311	154
Future Volume (veh/h)	114	640	630	197	311	154
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	124	696	685	214	338	167
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	261	1847	972	824	581	517
Arrive On Green	0.52	0.52	0.52	0.52	0.33	0.33
Sat Flow, veh/h	619	3647	1870	1585	1781	1585
Grp Volume(v), veh/h	124	696	685	214	338	167
Grp Sat Flow(s),veh/h/ln	619	1777	1870	1585	1781	1585
Q Serve(g_s), s	12.3	7.6	18.0	4.9	10.3	5.2
Cycle Q Clear(g_c), s	30.4	7.6	18.0	4.9	10.3	5.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	261	1847	972	824	581	517
V/C Ratio(X)	0.48	0.38	0.70	0.26	0.58	0.32
Avail Cap(c_a), veh/h	272	1914	1007	853	581	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.43	0.43	1.00	1.00
Uniform Delay (d), s/veh	23.3	9.3	11.8	8.7	18.2	16.5
Incr Delay (d2), s/veh	1.3	0.1	0.9	0.1	4.2	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.2	4.6	9.3	2.6	8.0	3.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.7	9.4	12.8	8.7	22.4	18.1
LnGrp LOS	C	A	B	A	C	B
Approach Vol, veh/h		820	899		505	
Approach Delay, s/veh		11.8	11.8		21.0	
Approach LOS		B	B		C	

Timer - Assigned Phs		4		6	8
Phs Duration (G+Y+Rc), s		38.8		26.2	38.8
Change Period (Y+Rc), s		5.0		5.0	5.0
Max Green Setting (Gmax), s		35.0		20.0	35.0
Max Q Clear Time (g_c+I1), s		32.4		12.3	20.0
Green Ext Time (p_c), s		1.4		1.1	4.9

Intersection Summary	
HCM 6th Ctrl Delay	13.9
HCM 6th LOS	B



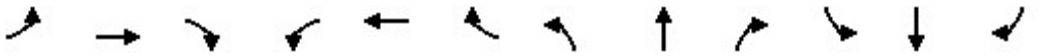
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	175		0	350		0	625		0	600		0
Storage Lanes	1		0	2		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	1.00	1.00	1.00	0.91	1.00	0.97	0.95	1.00
Ped Bike Factor												
Frt		0.969				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3429	0	3433	1863	1583	1770	5085	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3429	0	3433	1863	1583	1770	5085	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23				168			287			179
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		419			1451			830			1328	
Travel Time (s)		9.5			33.0			18.9			30.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	179	612	297	501	202	111	717	576	174	1124	214
Future Volume (vph)	179	612	297	501	202	111	717	576	174	1124	214
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	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
Minimum Split (s)	10.4	32.0	10.4	32.0	32.0	10.4	45.0	45.0	10.4	45.0	45.0
Total Split (s)	18.0	35.0	23.0	40.0	40.0	15.0	57.0	57.0	15.0	57.0	57.0
Total Split (%)	13.8%	26.9%	17.7%	30.8%	30.8%	11.5%	43.8%	43.8%	11.5%	43.8%	43.8%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	2.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	7.0	7.0	5.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	11.8	31.6	16.4	36.2	36.2	10.0	50.2	50.2	9.8	50.0	50.0
Actuated g/C Ratio	0.09	0.24	0.13	0.28	0.28	0.08	0.39	0.39	0.08	0.38	0.38
v/c Ratio	0.62	0.99	0.75	1.05	0.39	0.89	0.40	0.80	0.73	0.90	0.32
Control Delay	67.3	72.2	66.0	99.2	12.6	111.5	29.7	27.2	75.3	47.6	8.5
Queue Delay	0.0	9.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	67.3	81.6	66.0	99.2	12.6	111.5	29.7	27.2	75.3	47.6	8.6
LOS	E	F	E	F	B	F	C	C	E	D	A
Approach Delay		78.9		71.8			35.2			45.3	
Approach LOS		E		E			D			D	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 16 (12%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 54.4	Intersection LOS: D
Intersection Capacity Utilization 87.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 3: US 85 & 104th Ave.



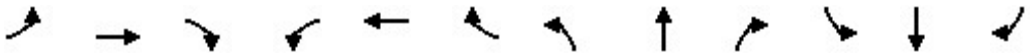
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	179	612	160	297	501	202	111	717	576	174	1124	214
Future Volume (veh/h)	179	612	160	297	501	202	111	717	576	174	1124	214
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	195	665	0	323	545	0	121	779	626	189	1222	233
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	247	818		382	504		137	2147	666	241	1468	655
Arrive On Green	0.14	0.46	0.00	0.11	0.27	0.00	0.08	0.42	0.42	0.07	0.41	0.41
Sat Flow, veh/h	3456	3647	0	3456	1870	1585	1781	5106	1585	3456	3554	1585
Grp Volume(v), veh/h	195	665	0	323	545	0	121	779	626	189	1222	233
Grp Sat Flow(s),veh/h/ln	1728	1777	0	1728	1870	1585	1781	1702	1585	1728	1777	1585
Q Serve(g_s), s	7.1	21.0	0.0	11.9	35.0	0.0	8.7	13.6	49.2	7.0	40.0	13.1
Cycle Q Clear(g_c), s	7.1	21.0	0.0	11.9	35.0	0.0	8.7	13.6	49.2	7.0	40.0	13.1
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	247	818		382	504		137	2147	666	241	1468	655
V/C Ratio(X)	0.79	0.81		0.85	1.08		0.88	0.36	0.94	0.79	0.83	0.36
Avail Cap(c_a), veh/h	346	820		478	504		137	2147	666	266	1468	655
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	32.7	0.0	56.7	47.5	0.0	59.4	25.8	36.1	59.5	34.1	26.2
Incr Delay (d2), s/veh	7.2	5.6	0.0	10.9	64.2	0.0	44.1	0.5	22.8	13.2	5.7	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.7	12.3	0.0	9.7	35.1	0.0	9.5	9.5	30.7	6.3	25.2	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.9	38.3	0.0	67.7	111.7	0.0	103.5	26.2	58.9	72.7	39.8	27.8
LnGrp LOS	E	D		E	F		F	C	E	E	D	C
Approach Vol, veh/h		860	A		868	A		1526			1644	
Approach Delay, s/veh		43.6			95.3			45.8			41.9	
Approach LOS		D			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	61.7	19.4	34.9	15.0	60.7	14.3	40.0
Change Period (Y+Rc), s	5.0	7.0	5.0	5.0	5.0	7.0	5.0	5.0
Max Green Setting (Gmax), s	10.0	50.0	18.0	30.0	10.0	50.0	13.0	35.0
Max Q Clear Time (g_c+I1), s	9.0	51.2	13.9	23.0	10.7	42.0	9.1	37.0
Green Ext Time (p_c), s	0.1	0.0	0.4	2.5	0.0	5.4	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	52.9
HCM 6th LOS	D

Notes

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



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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		0.942			0.972			0.992			0.994	
Flt Protected		0.979			0.965			0.999				
Satd. Flow (prot)	0	1718	0	0	1747	0	0	1846	0	0	1852	0
Flt Permitted		0.979			0.965			0.999				
Satd. Flow (perm)	0	1718	0	0	1747	0	0	1846	0	0	1852	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		202			191			389			149	
Travel Time (s)		4.6			4.3			8.8			3.4	

Intersection Summary	
Area Type:	Other

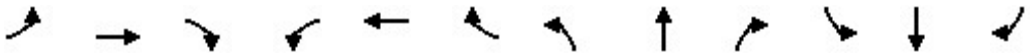
Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	3	8	36	4	10	1	60	4	1	131	6
Future Vol, veh/h	8	3	8	36	4	10	1	60	4	1	131	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	9	3	9	39	4	11	1	65	4	1	142	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	225	219	146	223	220	67	149	0	0	69	0	0
Stage 1	148	148	-	69	69	-	-	-	-	-	-	-
Stage 2	77	71	-	154	151	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	730	679	901	733	678	997	1432	-	-	1532	-	-
Stage 1	855	775	-	941	837	-	-	-	-	-	-	-
Stage 2	932	836	-	848	772	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	718	678	901	722	677	997	1432	-	-	1532	-	-
Mov Cap-2 Maneuver	718	678	-	722	677	-	-	-	-	-	-	-
Stage 1	854	774	-	940	836	-	-	-	-	-	-	-
Stage 2	916	835	-	835	771	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	10.1	0.1	0.1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1432	-	-	777	760	1532	-	-
HCM Lane V/C Ratio	0.001	-	-	0.027	0.072	0.001	-	-
HCM Control Delay (s)	7.5	0	-	9.8	10.1	7.4	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	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		1	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						0.850		0.946				
Flt Protected					0.950						0.968	
Satd. Flow (prot)	0	1863	0	0	1770	1583	0	1762	0	0	1803	0
Flt Permitted					0.950						0.968	
Satd. Flow (perm)	0	1863	0	0	1770	1583	0	1762	0	0	1803	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		295			368			216			212	
Travel Time (s)		6.7			8.4			4.9			4.8	

Intersection Summary	
Area Type:	Other

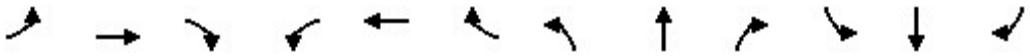
Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↰	↗		↕			↕	
Traffic Vol, veh/h	0	0	0	37	0	206	0	39	26	159	82	0
Future Vol, veh/h	0	0	0	37	0	206	0	39	26	159	82	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	-	-	-	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	0	0	0	40	0	224	0	42	28	173	89	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	491	505	89	491	491	56	89	0	0	70	0	0
Stage 1	435	435	-	56	56	-	-	-	-	-	-	-
Stage 2	56	70	-	435	435	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	488	470	969	488	478	1011	1506	-	-	1531	-	-
Stage 1	600	580	-	956	848	-	-	-	-	-	-	-
Stage 2	956	837	-	600	580	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	346	414	969	444	421	1011	1506	-	-	1531	-	-
Mov Cap-2 Maneuver	346	414	-	444	421	-	-	-	-	-	-	-
Stage 1	600	511	-	956	848	-	-	-	-	-	-	-
Stage 2	744	837	-	529	511	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	10.3	0	5
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1506	-	-	-	444	1011	1531	-	-
HCM Lane V/C Ratio	-	-	-	-	0.091	0.221	0.113	-	-
HCM Control Delay (s)	0	-	-	0	13.9	9.6	7.7	0	-
HCM Lane LOS	A	-	-	A	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.3	0.8	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)	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		0.910			0.919			0.998				
Flt Protected		0.984			0.980			0.999				
Satd. Flow (prot)	0	1668	0	0	1678	0	0	1857	0	0	1863	0
Flt Permitted		0.984			0.980			0.999				
Satd. Flow (perm)	0	1668	0	0	1678	0	0	1857	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		263			127			122			148	
Travel Time (s)		6.0			2.9			2.8			3.4	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	0	7	2	0	3	4	154	2	0	331	0
Future Vol, veh/h	4	0	7	2	0	3	4	154	2	0	331	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	4	0	8	2	0	3	4	167	2	0	360	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	538	537	360	540	536	168	360	0	0	169	0	0
Stage 1	360	360	-	176	176	-	-	-	-	-	-	-
Stage 2	178	177	-	364	360	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	454	450	684	453	451	876	1199	-	-	1409	-	-
Stage 1	658	626	-	826	753	-	-	-	-	-	-	-
Stage 2	824	753	-	655	626	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	451	448	684	447	449	876	1199	-	-	1409	-	-
Mov Cap-2 Maneuver	451	448	-	447	449	-	-	-	-	-	-	-
Stage 1	655	626	-	823	750	-	-	-	-	-	-	-
Stage 2	818	750	-	648	626	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	10.7	0.2	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1199	-	-	576	633	1409	-	-
HCM Lane V/C Ratio	0.004	-	-	0.021	0.009	-	-	-
HCM Control Delay (s)	8	0	-	11.4	10.7	0	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	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		100	0	
Storage Lanes	0	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		0.865		0.850		
Flt Protected						
Satd. Flow (prot)	0	1611	1863	1583	0	1863
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	1583	0	1863
Link Speed (mph)	30		30			30
Link Distance (ft)	538		449			415
Travel Time (s)	12.2		10.2			9.4

Intersection Summary	
Area Type:	Other

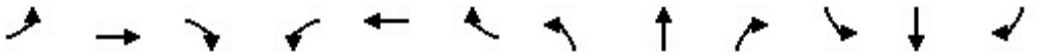
Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	1	72	10	0	129
Future Vol, veh/h	0	1	72	10	0	129
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	-	100	-	-
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	0	1	78	11	0	140

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	78	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	983	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	983	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	983	-
HCM Lane V/C Ratio	-	-	0.001	-
HCM Control Delay (s)	-	-	8.7	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	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)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		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			0.987			0.963			0.943	
Flt Protected	0.950			0.950				0.989			0.988	
Satd. Flow (prot)	1770	1857	0	1770	1839	0	0	1774	0	0	1735	0
Flt Permitted	0.950			0.950				0.989			0.988	
Satd. Flow (perm)	1770	1857	0	1770	1839	0	0	1774	0	0	1735	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		876			1296			375			389	
Travel Time (s)		19.9			29.5			8.5			8.8	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	98.6

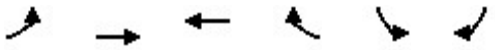
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	652	12	20	798	78	39	88	49	26	38	46
Future Vol, veh/h	47	652	12	20	798	78	39	88	49	26	38	46
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	200	-	-	-	-	-	-	-	-
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	51	709	13	22	867	85	42	96	53	28	41	50

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	952	0	0	722	0	0	1817	1814	716	1846	1778	910
Stage 1	-	-	-	-	-	-	818	818	-	954	954	-
Stage 2	-	-	-	-	-	-	999	996	-	892	824	-
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	722	-	-	880	-	-	60	~ 78	430	57	82	333
Stage 1	-	-	-	-	-	-	370	390	-	311	337	-
Stage 2	-	-	-	-	-	-	293	322	-	337	387	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	722	-	-	880	-	-	~ 27	~ 71	430	-	74	333
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 27	~ 71	-	-	74	-
Stage 1	-	-	-	-	-	-	344	362	-	289	329	-
Stage 2	-	-	-	-	-	-	212	314	-	202	360	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.2	$ 1057.1	
HCM LOS			F	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	63	722	-	-	880	-	-	-
HCM Lane V/C Ratio	3.037	0.071	-	-	0.025	-	-	-
HCM Control Delay (s)	$ 1057.1	10.4	-	-	9.2	-	-	-
HCM Lane LOS	F	B	-	-	A	-	-	-
HCM 95th %tile Q(veh)	19.7	0.2	-	-	0.1	-	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



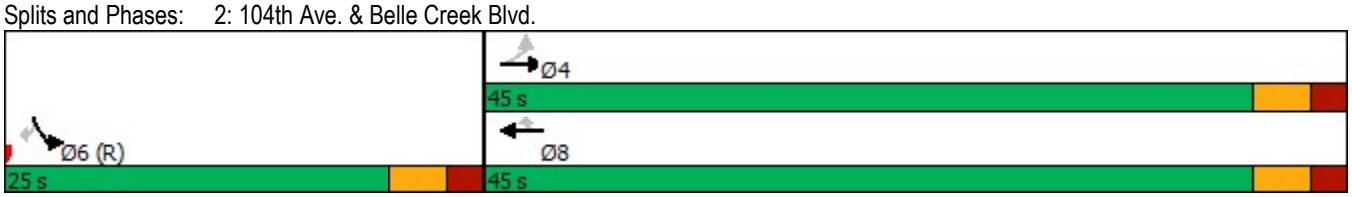
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	300			0	0	0
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	3539	1863	1583	1770	1583
Flt Permitted	0.132				0.950	
Satd. Flow (perm)	246	3539	1863	1583	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				311		136
Link Speed (mph)		30	30		30	
Link Distance (ft)		495	419		448	
Travel Time (s)		11.3	9.5		10.2	

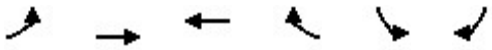
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	137	555	781	286	241	125
Future Volume (vph)	137	555	781	286	241	125
Turn Type	Perm	NA	NA	Perm	Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Detector Phase	4	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	45.0	45.0	45.0	45.0	25.0	25.0
Total Split (%)	64.3%	64.3%	64.3%	64.3%	35.7%	35.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	38.0	38.0	38.0	38.0	22.0	22.0
Actuated g/C Ratio	0.54	0.54	0.54	0.54	0.31	0.31
v/c Ratio	1.12	0.31	0.84	0.31	0.47	0.23
Control Delay	136.2	9.0	31.3	3.4	23.9	5.1
Queue Delay	0.0	0.0	18.7	0.0	0.1	0.0
Total Delay	136.2	9.0	50.0	3.4	24.0	5.1
LOS	F	A	D	A	C	A
Approach Delay		34.2	37.5		17.6	
Approach LOS		C	D		B	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2: and 6:SBL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.12	
Intersection Signal Delay: 33.0	Intersection LOS: C
Intersection Capacity Utilization 74.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: 104th Ave. & Belle Creek Blvd.

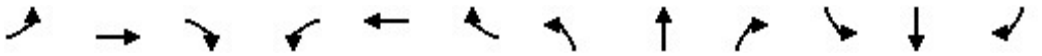




Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	137	555	781	286	241	125
Future Volume (veh/h)	137	555	781	286	241	125
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	149	603	849	311	262	136
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	246	2031	1069	906	509	453
Arrive On Green	0.57	0.57	0.76	0.76	0.29	0.29
Sat Flow, veh/h	484	3647	1870	1585	1781	1585
Grp Volume(v), veh/h	149	603	849	311	262	136
Grp Sat Flow(s),veh/h/ln	484	1777	1870	1585	1781	1585
Q Serve(g_s), s	20.8	6.1	19.2	4.5	8.6	4.7
Cycle Q Clear(g_c), s	40.0	6.1	19.2	4.5	8.6	4.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	246	2031	1069	906	509	453
V/C Ratio(X)	0.60	0.30	0.79	0.34	0.51	0.30
Avail Cap(c_a), veh/h	246	2031	1069	906	509	453
HCM Platoon Ratio	1.00	1.00	1.33	1.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.29	0.29	1.00	1.00
Uniform Delay (d), s/veh	25.0	7.7	5.9	4.1	20.9	19.5
Incr Delay (d2), s/veh	4.1	0.1	1.3	0.1	3.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.7	3.6	5.6	1.9	7.0	3.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	29.1	7.8	7.2	4.2	24.6	21.2
LnGrp LOS	C	A	A	A	C	C
Approach Vol, veh/h		752	1160		398	
Approach Delay, s/veh		12.0	6.4		23.5	
Approach LOS		B	A		C	

Timer - Assigned Phs	4	6	8
Phs Duration (G+Y+Rc), s	45.0	25.0	45.0
Change Period (Y+Rc), s	5.0	5.0	5.0
Max Green Setting (Gmax), s	40.0	20.0	40.0
Max Q Clear Time (g_c+I1), s	42.0	10.6	21.2
Green Ext Time (p_c), s	0.0	0.9	7.5

Intersection Summary	
HCM 6th Ctrl Delay	11.2
HCM 6th LOS	B



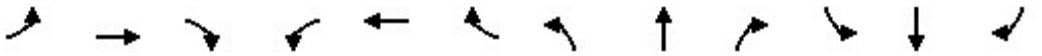
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	175		0	350		0	625		0	600		0
Storage Lanes	1		0	2		1	1		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	1.00	1.00	1.00	0.91	1.00	0.97	0.95	1.00
Ped Bike Factor												
Frt		0.969				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	3429	0	3433	1863	1583	1770	5085	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3429	0	3433	1863	1583	1770	5085	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22				154			348			258
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		419			1451			830			1328	
Travel Time (s)		9.5			33.0			18.9			30.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	234	445	244	497	432	310	1408	372	104	747	261
Future Volume (vph)	234	445	244	497	432	310	1408	372	104	747	261
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	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
Minimum Split (s)	10.0	32.0	10.0	32.0	32.0	10.0	45.0	45.0	10.0	45.0	45.0
Total Split (s)	21.0	39.0	21.0	39.0	39.0	35.0	65.0	65.0	15.0	45.0	45.0
Total Split (%)	15.0%	27.9%	15.0%	27.9%	27.9%	25.0%	46.4%	46.4%	10.7%	32.1%	32.1%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	2.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	7.0	7.0	5.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	14.6	35.2	14.8	35.4	35.4	28.9	58.8	58.8	9.2	39.1	39.1
Actuated g/C Ratio	0.10	0.25	0.11	0.25	0.25	0.21	0.42	0.42	0.07	0.28	0.28
v/c Ratio	0.71	0.70	0.73	1.15	0.91	0.92	0.72	0.47	0.50	0.82	0.45
Control Delay	68.7	57.3	72.8	134.7	57.3	85.2	36.2	6.6	70.9	55.5	9.0
Queue Delay	0.0	1.3	0.0	1.5	0.0	12.5	0.0	0.0	0.0	0.0	0.4
Total Delay	68.7	58.6	72.8	136.2	57.3	97.7	36.2	6.6	70.9	55.5	9.4
LOS	E	E	E	F	E	F	D	A	E	E	A
Approach Delay		61.6		93.9			40.0			46.1	
Approach LOS		E		F			D			D	

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.15	
Intersection Signal Delay: 56.9	Intersection LOS: E
Intersection Capacity Utilization 89.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 3: US 85 & 104th Ave.



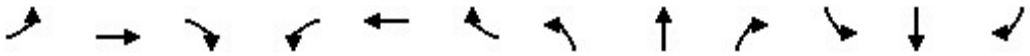
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	445	117	244	497	432	310	1408	372	104	747	261
Future Volume (veh/h)	234	445	117	244	497	432	310	1408	372	104	747	261
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	254	484	0	265	540	0	337	1530	404	113	812	284
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	309	855		317	454		360	2369	735	161	1096	489
Arrive On Green	0.03	0.08	0.00	0.09	0.24	0.00	0.20	0.46	0.46	0.05	0.31	0.31
Sat Flow, veh/h	3456	3647	0	3456	1870	1585	1781	5106	1585	3456	3554	1585
Grp Volume(v), veh/h	254	484	0	265	540	0	337	1530	404	113	812	284
Grp Sat Flow(s),veh/h/ln	1728	1777	0	1728	1870	1585	1781	1702	1585	1728	1777	1585
Q Serve(g_s), s	10.2	18.4	0.0	10.6	34.0	0.0	26.1	32.1	25.7	4.5	28.7	21.1
Cycle Q Clear(g_c), s	10.2	18.4	0.0	10.6	34.0	0.0	26.1	32.1	25.7	4.5	28.7	21.1
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	309	855		317	454		360	2369	735	161	1096	489
V/C Ratio(X)	0.82	0.57		0.83	1.19		0.94	0.65	0.55	0.70	0.74	0.58
Avail Cap(c_a), veh/h	395	863		395	454		382	2369	735	247	1096	489
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.8	57.4	0.0	62.5	53.0	0.0	55.0	28.7	27.0	65.8	43.4	40.8
Incr Delay (d2), s/veh	9.8	0.8	0.0	12.0	105.1	0.0	29.5	1.4	2.9	5.5	4.5	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.8	13.7	0.0	8.9	41.9	0.0	20.9	19.4	15.6	3.8	19.3	13.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.6	58.2	0.0	74.5	158.1	0.0	84.5	30.1	29.9	71.3	47.9	45.8
LnGrp LOS	E	E		E	F		F	C	C	E	D	D
Approach Vol, veh/h		738	A		805	A		2271			1209	
Approach Delay, s/veh		64.5			130.6			38.1			49.6	
Approach LOS		E			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	71.9	17.9	38.7	33.3	50.2	17.5	39.0
Change Period (Y+Rc), s	5.0	7.0	5.0	5.0	5.0	7.0	5.0	5.0
Max Green Setting (Gmax), s	10.0	58.0	16.0	34.0	30.0	38.0	16.0	34.0
Max Q Clear Time (g_c+I1), s	6.5	34.1	12.6	20.4	28.1	30.7	12.2	36.0
Green Ext Time (p_c), s	0.1	14.5	0.3	2.7	0.2	3.8	0.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	59.6
HCM 6th LOS	E

Notes

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



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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		0.892			0.995			0.988			0.997	
Flt Protected		0.990			0.957			0.998			0.995	
Satd. Flow (prot)	0	1645	0	0	1774	0	0	1837	0	0	1848	0
Flt Permitted		0.990			0.957			0.998			0.995	
Satd. Flow (perm)	0	1645	0	0	1774	0	0	1837	0	0	1848	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		202			191			389			149	
Travel Time (s)		4.6			4.3			8.8			3.4	

Intersection Summary	
Area Type:	Other

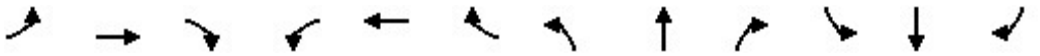
Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	4	22	2	1	8	185	18	8	80	2
Future Vol, veh/h	1	0	4	22	2	1	8	185	18	8	80	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	1	0	4	24	2	1	9	201	20	9	87	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	337	345	88	337	336	211	89	0	0	221	0	0
Stage 1	106	106	-	229	229	-	-	-	-	-	-	-
Stage 2	231	239	-	108	107	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	617	578	970	617	585	829	1506	-	-	1348	-	-
Stage 1	900	807	-	774	715	-	-	-	-	-	-	-
Stage 2	772	708	-	897	807	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	608	570	970	608	577	829	1506	-	-	1348	-	-
Mov Cap-2 Maneuver	608	570	-	608	577	-	-	-	-	-	-	-
Stage 1	894	801	-	769	710	-	-	-	-	-	-	-
Stage 2	763	703	-	887	801	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.2	11.2	0.3	0.7
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1506	-	-	867	612	1348	-	-
HCM Lane V/C Ratio	0.006	-	-	0.006	0.044	0.006	-	-
HCM Control Delay (s)	7.4	0	-	9.2	11.2	7.7	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	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)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	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						0.850		0.969				
Flt Protected		0.950			0.950						0.963	
Satd. Flow (prot)	0	1770	0	0	1770	1583	0	1805	0	0	1794	0
Flt Permitted		0.950			0.950						0.963	
Satd. Flow (perm)	0	1770	0	0	1770	1583	0	1805	0	0	1794	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		295			368			216			212	
Travel Time (s)		6.7			8.4			4.9			4.8	

Intersection Summary	
Area Type:	Other

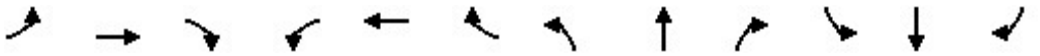
Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	0	32	0	228	0	115	34	179	52	0
Future Vol, veh/h	1	0	0	32	0	228	0	115	34	179	52	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	-	-	-	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	1	0	0	35	0	248	0	125	37	195	57	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	591	609	57	591	591	144	57	0	0	162	0	0
Stage 1	447	447	-	144	144	-	-	-	-	-	-	-
Stage 2	144	162	-	447	447	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	419	410	1009	419	420	903	1547	-	-	1417	-	-
Stage 1	591	573	-	859	778	-	-	-	-	-	-	-
Stage 2	859	764	-	591	573	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	271	352	1009	373	360	903	1547	-	-	1417	-	-
Mov Cap-2 Maneuver	271	352	-	373	360	-	-	-	-	-	-	-
Stage 1	591	492	-	859	778	-	-	-	-	-	-	-
Stage 2	623	764	-	507	492	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.3	11.1	0	6.2
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1547	-	-	271	373	903	1417	-	-
HCM Lane V/C Ratio	-	-	-	0.004	0.093	0.274	0.137	-	-
HCM Control Delay (s)	0	-	-	18.3	15.6	10.5	7.9	0	-
HCM Lane LOS	A	-	-	C	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.3	1.1	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		0.887			0.973			0.994				
Flt Protected		0.992			0.962			0.999				
Satd. Flow (prot)	0	1639	0	0	1744	0	0	1850	0	0	1863	0
Flt Permitted		0.992			0.962			0.999				
Satd. Flow (perm)	0	1639	0	0	1744	0	0	1850	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		263			127			122			148	
Travel Time (s)		6.0			2.9			2.8			3.4	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	5	7	0	2	7	233	12	0	165	0
Future Vol, veh/h	1	0	5	7	0	2	7	233	12	0	165	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	1	0	5	8	0	2	8	253	13	0	179	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	456	461	179	458	455	260	179	0	0	266	0	0
Stage 1	179	179	-	276	276	-	-	-	-	-	-	-
Stage 2	277	282	-	182	179	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	515	497	864	513	501	779	1397	-	-	1298	-	-
Stage 1	823	751	-	730	682	-	-	-	-	-	-	-
Stage 2	729	678	-	820	751	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	511	494	864	507	497	779	1397	-	-	1298	-	-
Mov Cap-2 Maneuver	511	494	-	507	497	-	-	-	-	-	-	-
Stage 1	817	751	-	725	677	-	-	-	-	-	-	-
Stage 2	722	673	-	815	751	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	11.7	0.2	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1397	-	-	775	550	1298	-	-
HCM Lane V/C Ratio	0.005	-	-	0.008	0.018	-	-	-
HCM Control Delay (s)	7.6	0	-	9.7	11.7	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	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		100	0	
Storage Lanes	0	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		0.865		0.850		
Flt Protected						
Satd. Flow (prot)	0	1611	1863	1583	0	1863
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	1583	0	1863
Link Speed (mph)	30		30			30
Link Distance (ft)	512		644			220
Travel Time (s)	11.6		14.6			5.0

Intersection Summary	
Area Type:	Other

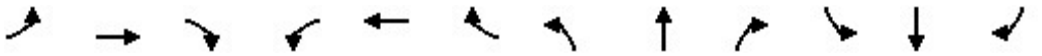
Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	1	166	30	0	85
Future Vol, veh/h	0	1	166	30	0	85
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	-	100	-	-
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	0	1	180	33	0	92

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	180	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	863	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	863	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	863	-
HCM Lane V/C Ratio	-	-	0.001	-
HCM Control Delay (s)	-	-	9.2	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	0	-



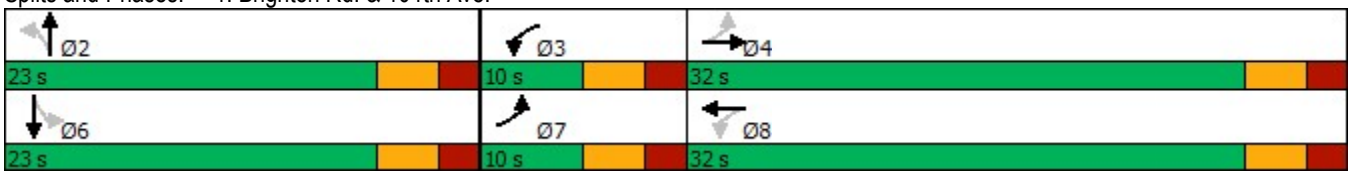
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994			0.997			0.896			0.968	
Flt Protected	0.950			0.950				0.995			0.989	
Satd. Flow (prot)	1770	3518	0	1770	3529	0	0	1661	0	0	1783	0
Flt Permitted	0.156			0.156				0.959			0.902	
Satd. Flow (perm)	291	3518	0	291	3529	0	0	1601	0	0	1626	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			4			68			24	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		876			1296			375			389	
Travel Time (s)		19.9			29.5			8.5			8.8	

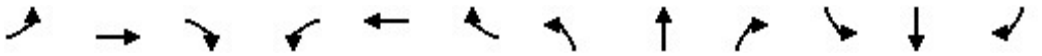
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	45	1172	57	1170	8	10	44	103
Future Volume (vph)	45	1172	57	1170	8	10	44	103
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	23.0	10.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	10.0	32.0	10.0	32.0	23.0	23.0	23.0	23.0
Total Split (%)	15.4%	49.2%	15.4%	49.2%	35.4%	35.4%	35.4%	35.4%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0		5.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	None	None	None
Act Effct Green (s)	28.3	25.7	28.3	25.7		11.6		11.6
Actuated g/C Ratio	0.53	0.48	0.53	0.48		0.22		0.22
v/c Ratio	0.16	0.78	0.21	0.76		0.22		0.56
Control Delay	6.8	18.0	7.2	17.3		9.2		23.9
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	6.8	18.0	7.2	17.3		9.2		23.9
LOS	A	B	A	B		A		C
Approach Delay		17.6		16.9		9.2		23.9
Approach LOS		B		B		A		C

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 53	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 17.5	Intersection LOS: B
Intersection Capacity Utilization 68.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Brighton Rd. & 104th Ave.

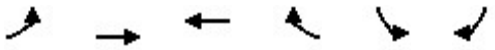




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	1172	52	57	1170	25	8	10	63	44	103	46
Future Volume (veh/h)	45	1172	52	57	1170	25	8	10	63	44	103	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	1274	57	62	1272	27	9	11	68	48	112	50
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	313	1626	73	314	1700	36	93	51	217	135	172	68
Arrive On Green	0.05	0.47	0.47	0.06	0.48	0.48	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1781	3464	155	1781	3558	75	75	299	1272	271	1013	401
Grp Volume(v), veh/h	49	653	678	62	635	664	88	0	0	210	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1842	1781	1777	1857	1647	0	0	1685	0	0
Q Serve(g_s), s	0.7	15.3	15.3	0.8	14.4	14.4	0.0	0.0	0.0	3.4	0.0	0.0
Cycle Q Clear(g_c), s	0.7	15.3	15.3	0.8	14.4	14.4	2.3	0.0	0.0	5.8	0.0	0.0
Prop In Lane	1.00		0.08	1.00		0.04	0.10		0.77	0.23		0.24
Lane Grp Cap(c), veh/h	313	834	865	314	849	887	360	0	0	376	0	0
V/C Ratio(X)	0.16	0.78	0.78	0.20	0.75	0.75	0.24	0.00	0.00	0.56	0.00	0.00
Avail Cap(c_a), veh/h	404	968	1004	391	968	1011	663	0	0	693	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.1	11.0	11.0	8.5	10.5	10.5	18.0	0.0	0.0	19.4	0.0	0.0
Incr Delay (d2), s/veh	0.2	3.7	3.6	0.3	2.8	2.7	0.3	0.0	0.0	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.4	9.2	9.5	0.5	8.6	8.8	1.5	0.0	0.0	3.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.4	14.7	14.6	8.8	13.4	13.3	18.4	0.0	0.0	20.7	0.0	0.0
LnGrp LOS	A	B	B	A	B	B	B	A	A	C	A	A
Approach Vol, veh/h		1380			1361			88			210	
Approach Delay, s/veh		14.5			13.1			18.4			20.7	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	13.4	7.9	28.3	13.4	7.5	28.7
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	18.0	5.0	27.0	18.0	5.0	27.0
Max Q Clear Time (g_c+I1), s	4.3	2.8	17.3	7.8	2.7	16.4
Green Ext Time (p_c), s	0.3	0.0	5.9	0.8	0.0	6.2

Intersection Summary	
HCM 6th Ctrl Delay	14.4
HCM 6th LOS	B



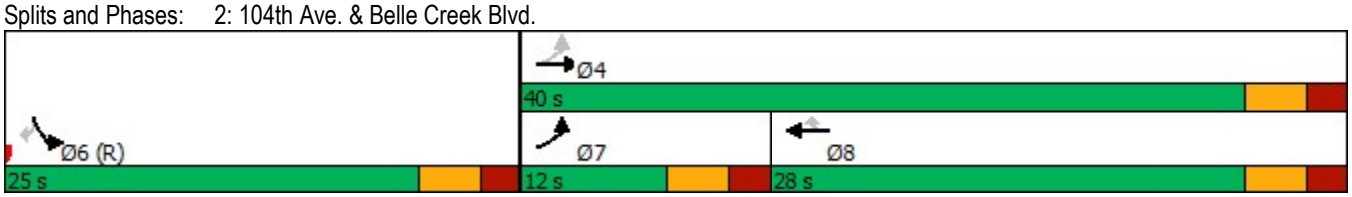
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	300			0	0	0
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	5085	3539	1583	1770	1583
Flt Permitted	0.143				0.950	
Satd. Flow (perm)	266	5085	3539	1583	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				362		265
Link Speed (mph)		30	30		30	
Link Distance (ft)		495	419		448	
Travel Time (s)		11.3	9.5		10.2	

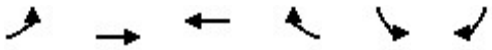
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	193	1047	1052	333	526	261
Future Volume (vph)	193	1047	1052	333	526	261
Turn Type	pm+pt	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases	4			8		6
Detector Phase	7	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	12.0	40.0	28.0	28.0	25.0	25.0
Total Split (%)	18.5%	61.5%	43.1%	43.1%	38.5%	38.5%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	35.0	35.0	23.0	23.0	20.0	20.0
Actuated g/C Ratio	0.54	0.54	0.35	0.35	0.31	0.31
v/c Ratio	0.69	0.42	0.91	0.46	1.05	0.42
Control Delay	23.0	9.5	34.2	6.0	78.7	5.5
Queue Delay	0.0	0.0	0.0	0.0	20.2	0.0
Total Delay	23.0	9.5	34.2	6.0	98.8	5.5
LOS	C	A	C	A	F	A
Approach Delay		11.6	27.4		67.9	
Approach LOS		B	C		E	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2: and 6:SBL, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 31.0	Intersection LOS: C
Intersection Capacity Utilization 81.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: 104th Ave. & Belle Creek Blvd.

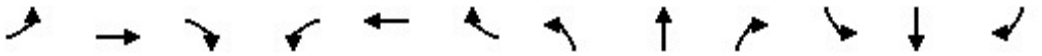




Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	193	1047	1052	333	526	261
Future Volume (veh/h)	193	1047	1052	333	526	261
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	210	1138	1143	362	572	284
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	301	2687	1247	556	570	507
Arrive On Green	0.10	0.53	0.35	0.35	0.32	0.32
Sat Flow, veh/h	1781	5274	3647	1585	1781	1585
Grp Volume(v), veh/h	210	1138	1143	362	572	284
Grp Sat Flow(s),veh/h/ln	1781	1702	1777	1585	1781	1585
Q Serve(g_s), s	4.5	8.8	20.0	12.5	20.8	9.6
Cycle Q Clear(g_c), s	4.5	8.8	20.0	12.5	20.8	9.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	301	2687	1247	556	570	507
V/C Ratio(X)	0.70	0.42	0.92	0.65	1.00	0.56
Avail Cap(c_a), veh/h	318	2749	1257	561	570	507
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.45	0.45	1.00	1.00
Uniform Delay (d), s/veh	14.6	9.4	20.2	17.8	22.1	18.3
Incr Delay (d2), s/veh	6.2	0.1	5.4	1.2	38.6	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.7	5.0	11.5	6.6	20.2	14.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.8	9.5	25.6	19.0	60.7	22.7
LnGrp LOS	C	A	C	B	F	C
Approach Vol, veh/h		1348	1505		856	
Approach Delay, s/veh		11.3	24.0		48.1	
Approach LOS		B	C		D	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	39.2	25.8	11.4	27.8
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	35.0	20.0	7.0	23.0
Max Q Clear Time (g_c+I1), s	10.8	22.8	6.5	22.0
Green Ext Time (p_c), s	9.0	0.0	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	24.9
HCM 6th LOS	C



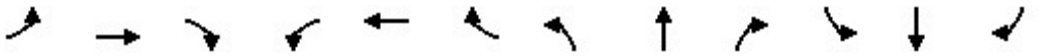
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	175		0	350		0	625		0	600		0
Storage Lanes	1		1	2		1	2		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	1.00	0.97	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)	3433	3539	1583	3433	3539	1583	3433	5085	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	5085	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			151			159			269			178
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		419			1451			830			1328	
Travel Time (s)		9.5			33.0			18.9			30.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	293	1025	254	503	845	342	181	1213	975	295	1902	360
Future Volume (vph)	293	1025	254	503	845	342	181	1213	975	295	1902	360
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)	11.0	32.0	32.0	10.0	32.0	32.0	10.0	45.0	45.0	10.0	45.0	45.0
Total Split (s)	18.0	35.0	35.0	23.0	40.0	40.0	15.0	57.0	57.0	15.0	57.0	57.0
Total Split (%)	13.8%	26.9%	26.9%	17.7%	30.8%	30.8%	11.5%	43.8%	43.8%	11.5%	43.8%	43.8%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	2.0	3.0	3.0
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	5.0	5.0	5.0	5.0	5.0	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	Max	Max	Max	Max	Max	Max	Max	C-Max	C-Max	Max	C-Max	C-Max
Act Effct Green (s)	13.0	30.0	30.0	18.0	35.0	35.0	10.0	50.0	50.0	10.0	50.0	50.0
Actuated g/C Ratio	0.10	0.23	0.23	0.14	0.27	0.27	0.08	0.38	0.38	0.08	0.38	0.38
v/c Ratio	0.93	1.37	0.57	1.15	0.96	0.69	0.75	0.67	1.37	1.22	1.52	0.54
Control Delay	86.5	205.1	18.7	139.0	68.7	31.1	76.4	35.3	200.2	175.8	268.1	19.4
Queue Delay	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.5	205.3	19.0	139.0	68.7	31.1	76.4	35.3	200.2	175.8	268.1	19.4
LOS	F	F	B	F	E	C	E	D	F	F	F	B
Approach Delay		153.0			82.0			106.4			222.4	
Approach LOS		F			F			F			F	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.52	
Intersection Signal Delay: 146.5	Intersection LOS: F
Intersection Capacity Utilization 118.8%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 3: US 85 & 104th Ave.



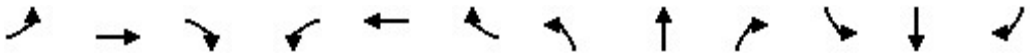
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	293	1025	254	503	845	342	181	1213	975	295	1902	360
Future Volume (veh/h)	293	1025	254	503	845	342	181	1213	975	295	1902	360
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	318	1114	0	547	918	0	197	1318	0	321	2067	0
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	346	820		478	957		266	1964		266	1367	
Arrive On Green	0.03	0.08	0.00	0.14	0.27	0.00	0.08	0.38	0.00	0.08	0.38	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	5106	1585	3456	3554	1585
Grp Volume(v), veh/h	318	1114	0	547	918	0	197	1318	0	321	2067	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1702	1585	1728	1777	1585
Q Serve(g_s), s	11.9	30.0	0.0	18.0	33.1	0.0	7.3	27.8	0.0	10.0	50.0	0.0
Cycle Q Clear(g_c), s	11.9	30.0	0.0	18.0	33.1	0.0	7.3	27.8	0.0	10.0	50.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	346	820		478	957		266	1964		266	1367	
V/C Ratio(X)	0.92	1.36		1.14	0.96		0.74	0.67		1.21	1.51	
Avail Cap(c_a), veh/h	346	820		478	957		266	1964		266	1367	
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	62.3	60.0	0.0	56.0	46.8	0.0	58.7	33.2	0.0	60.0	40.0	0.0
Incr Delay (d2), s/veh	25.8	167.2	0.0	86.7	20.8	0.0	16.9	1.8	0.0	123.3	234.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	10.5	48.7	0.0	20.8	24.1	0.0	6.8	17.4	0.0	14.7	100.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.2	227.3	0.0	142.7	67.6	0.0	75.7	35.0	0.0	183.3	274.4	0.0
LnGrp LOS	F	F		F	E		E	D		F	F	
Approach Vol, veh/h		1432	A		1465	A		1515	A		2388	A
Approach Delay, s/veh		196.4			95.7			40.3			262.1	
Approach LOS		F			F			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	57.0	23.0	35.0	15.0	57.0	18.0	40.0
Change Period (Y+Rc), s	5.0	7.0	5.0	5.0	5.0	7.0	5.0	5.0
Max Green Setting (Gmax), s	10.0	50.0	18.0	30.0	10.0	50.0	13.0	35.0
Max Q Clear Time (g_c+I1), s	12.0	29.8	20.0	32.0	9.3	52.0	13.9	35.1
Green Ext Time (p_c), s	0.0	9.8	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	163.0
HCM 6th LOS	F

Notes

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



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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		0.942			0.938			0.988			0.994	
Flt Protected		0.979			0.982			0.999				
Satd. Flow (prot)	0	1718	0	0	1716	0	0	1839	0	0	1852	0
Flt Permitted		0.979			0.982			0.999				
Satd. Flow (perm)	0	1718	0	0	1716	0	0	1839	0	0	1852	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		202			191			389			149	
Travel Time (s)		4.6			4.3			8.8			3.4	

Intersection Summary	
Area Type:	Other

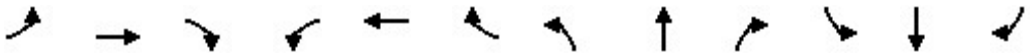
Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	3	8	8	4	10	1	68	6	0	179	8
Future Vol, veh/h	8	3	8	8	4	10	1	68	6	0	179	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	9	3	9	9	4	11	1	74	7	0	195	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	287	283	200	286	284	78	204	0	0	81	0	0
Stage 1	200	200	-	80	80	-	-	-	-	-	-	-
Stage 2	87	83	-	206	204	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	665	626	841	666	625	983	1368	-	-	1517	-	-
Stage 1	802	736	-	929	828	-	-	-	-	-	-	-
Stage 2	921	826	-	796	733	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	654	625	841	656	624	983	1368	-	-	1517	-	-
Mov Cap-2 Maneuver	654	625	-	656	624	-	-	-	-	-	-	-
Stage 1	801	736	-	928	827	-	-	-	-	-	-	-
Stage 2	905	825	-	784	733	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	9.9	0.1	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1368	-	-	716	764	1517	-	-
HCM Lane V/C Ratio	0.001	-	-	0.029	0.031	-	-	-
HCM Control Delay (s)	7.6	0	-	10.2	9.9	0	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	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)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		1	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						0.850		0.944				
Flt Protected					0.950						0.967	
Satd. Flow (prot)	0	1863	0	0	1770	1583	0	1758	0	0	1801	0
Flt Permitted					0.950						0.967	
Satd. Flow (perm)	0	1863	0	0	1770	1583	0	1758	0	0	1801	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		295			368			216			212	
Travel Time (s)		6.7			8.4			4.9			4.8	

Intersection Summary	
Area Type:	Other

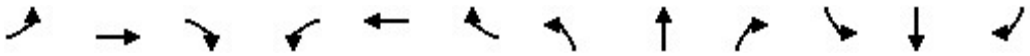
Intersection	
Int Delay, s/veh	7.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↰	↗		↕			↕	
Traffic Vol, veh/h	0	0	0	55	0	304	0	52	38	235	111	0
Future Vol, veh/h	0	0	0	55	0	304	0	52	38	235	111	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	-	-	-	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	0	0	0	60	0	330	0	57	41	255	121	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	709	729	121	709	709	78	121	0	0	98	0	0
Stage 1	631	631	-	78	78	-	-	-	-	-	-	-
Stage 2	78	98	-	631	631	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	349	350	930	349	359	983	1467	-	-	1495	-	-
Stage 1	469	474	-	931	830	-	-	-	-	-	-	-
Stage 2	931	814	-	469	474	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	199	286	930	300	293	983	1467	-	-	1495	-	-
Mov Cap-2 Maneuver	199	286	-	300	293	-	-	-	-	-	-	-
Stage 1	469	387	-	931	830	-	-	-	-	-	-	-
Stage 2	618	814	-	383	387	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	12	0	5.4
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1467	-	-	-	300	983	1495	-	-
HCM Lane V/C Ratio	-	-	-	-	0.199	0.336	0.171	-	-
HCM Control Delay (s)	0	-	-	0	20	10.5	7.9	0	-
HCM Lane LOS	A	-	-	A	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.7	1.5	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		0.910			0.919			0.998				
Flt Protected		0.984			0.980			0.999				
Satd. Flow (prot)	0	1668	0	0	1678	0	0	1857	0	0	1863	0
Flt Permitted		0.984			0.980			0.999				
Satd. Flow (perm)	0	1668	0	0	1678	0	0	1857	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		263			127			122			148	
Travel Time (s)		6.0			2.9			2.8			3.4	

Intersection Summary	
Area Type:	Other

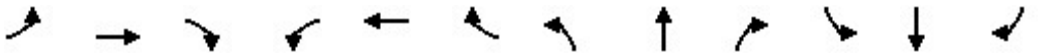
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	0	7	2	0	3	4	154	2	0	560	0
Future Vol, veh/h	4	0	7	2	0	3	4	154	2	0	560	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	4	0	8	2	0	3	4	167	2	0	609	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	787	786	609	789	785	168	609	0	0	169	0	0
Stage 1	609	609	-	176	176	-	-	-	-	-	-	-
Stage 2	178	177	-	613	609	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	309	324	495	308	325	876	970	-	-	1409	-	-
Stage 1	482	485	-	826	753	-	-	-	-	-	-	-
Stage 2	824	753	-	480	485	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	307	322	495	302	323	876	970	-	-	1409	-	-
Mov Cap-2 Maneuver	307	322	-	302	323	-	-	-	-	-	-	-
Stage 1	480	485	-	822	749	-	-	-	-	-	-	-
Stage 2	817	749	-	473	485	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.2	12.3	0.2	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	970	-	-	405	498	1409	-	-
HCM Lane V/C Ratio	0.004	-	-	0.03	0.011	-	-	-
HCM Control Delay (s)	8.7	0	-	14.2	12.3	0	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-



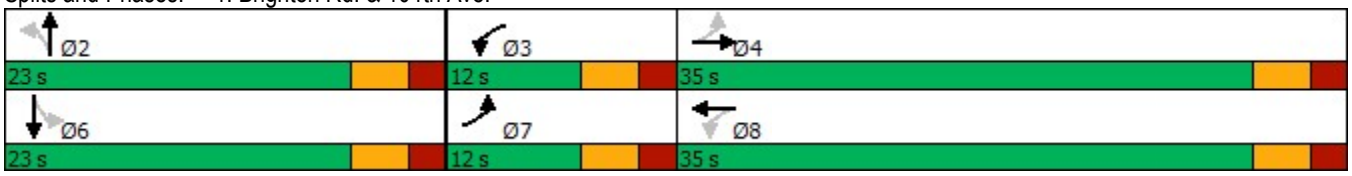
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.991			0.962			0.937	
Flt Protected	0.950			0.950				0.989			0.993	
Satd. Flow (prot)	1770	3529	0	1770	3507	0	0	1772	0	0	1733	0
Flt Permitted	0.113			0.163				0.903			0.935	
Satd. Flow (perm)	210	3529	0	304	3507	0	0	1618	0	0	1632	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			12			27			61	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		876			1296			375			389	
Travel Time (s)		19.9			29.5			8.5			8.8	

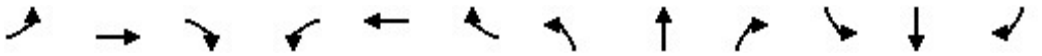
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	72	1104	34	1351	53	117	17	51
Future Volume (vph)	72	1104	34	1351	53	117	17	51
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	23.0	10.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	12.0	35.0	12.0	35.0	23.0	23.0	23.0	23.0
Total Split (%)	17.1%	50.0%	17.1%	50.0%	32.9%	32.9%	32.9%	32.9%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0		5.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	None	None	None
Act Effct Green (s)	37.9	35.3	35.3	30.6		13.7		13.7
Actuated g/C Ratio	0.60	0.56	0.56	0.48		0.22		0.22
v/c Ratio	0.27	0.62	0.12	0.92		0.69		0.34
Control Delay	8.2	13.7	6.5	29.4		31.6		15.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	8.2	13.7	6.5	29.4		31.6		15.7
LOS	A	B	A	C		C		B
Approach Delay		13.4		28.9		31.6		15.7
Approach LOS		B		C		C		B

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 63.5	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 22.4	Intersection LOS: C
Intersection Capacity Utilization 76.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Brighton Rd. & 104th Ave.

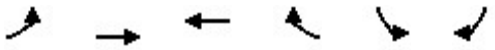




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	1104	20	34	1351	91	53	117	66	17	51	59
Future Volume (veh/h)	72	1104	20	34	1351	91	53	117	66	17	51	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	1200	22	37	1468	99	58	127	72	18	55	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	264	1838	34	314	1663	112	128	179	90	91	155	155
Arrive On Green	0.06	0.51	0.51	0.04	0.49	0.49	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1781	3570	65	1781	3379	227	276	936	472	115	807	808
Grp Volume(v), veh/h	78	597	625	37	769	798	257	0	0	137	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1859	1781	1777	1830	1684	0	0	1730	0	0
Q Serve(g_s), s	1.2	14.4	14.5	0.6	22.8	23.1	4.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.2	14.4	14.5	0.6	22.8	23.1	8.4	0.0	0.0	4.1	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.12	0.23		0.28	0.13		0.47
Lane Grp Cap(c), veh/h	264	915	957	314	874	900	398	0	0	401	0	0
V/C Ratio(X)	0.30	0.65	0.65	0.12	0.88	0.89	0.65	0.00	0.00	0.34	0.00	0.00
Avail Cap(c_a), veh/h	367	915	957	457	906	933	583	0	0	585	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.0	10.4	10.4	8.2	13.4	13.5	22.5	0.0	0.0	20.9	0.0	0.0
Incr Delay (d2), s/veh	0.6	1.7	1.6	0.2	9.7	10.1	1.8	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.7	8.6	8.9	0.3	14.8	15.4	6.0	0.0	0.0	2.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.7	12.1	12.0	8.4	23.1	23.5	24.3	0.0	0.0	21.4	0.0	0.0
LnGrp LOS	B	B	B	A	C	C	C	A	A	C	A	A
Approach Vol, veh/h		1300			1604			257			137	
Approach Delay, s/veh		12.1			23.0			24.3			21.4	
Approach LOS		B			C			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		16.3	7.3	35.3		16.3	8.6	33.9				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		18.0	7.0	30.0		18.0	7.0	30.0				
Max Q Clear Time (g_c+I1), s		10.4	2.6	16.5		6.1	3.2	25.1				
Green Ext Time (p_c), s		0.9	0.0	6.9		0.5	0.0	3.8				

Intersection Summary												
HCM 6th Ctrl Delay			18.7									
HCM 6th LOS			B									



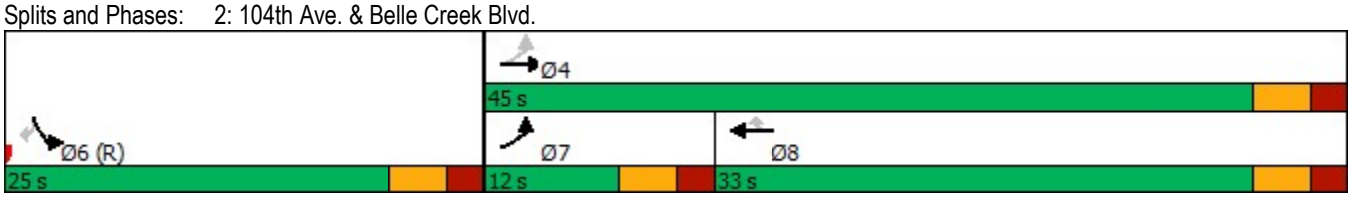
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	300			0	0	0
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	5085	3539	1583	1770	1583
Flt Permitted	0.121				0.950	
Satd. Flow (perm)	225	5085	3539	1583	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				527		225
Link Speed (mph)		30	30		30	
Link Distance (ft)		495	419		448	
Travel Time (s)		11.3	9.5		10.2	

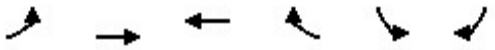
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	233	916	1281	485	408	211
Future Volume (vph)	233	916	1281	485	408	211
Turn Type	pm+pt	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases	4			8		6
Detector Phase	7	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	12.0	45.0	33.0	33.0	25.0	25.0
Total Split (%)	17.1%	64.3%	47.1%	47.1%	35.7%	35.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	40.0	40.0	28.0	28.0	20.0	20.0
Actuated g/C Ratio	0.57	0.57	0.40	0.40	0.29	0.29
v/c Ratio	0.89	0.34	0.98	0.56	0.88	0.37
Control Delay	48.4	8.4	51.1	8.8	45.2	5.3
Queue Delay	0.0	0.0	8.6	0.2	29.7	0.0
Total Delay	48.4	8.4	59.7	9.0	74.9	5.3
LOS	D	A	E	A	E	A
Approach Delay		16.5	45.8		51.2	
Approach LOS		B	D		D	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2: and 6:SBL, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 37.2	Intersection LOS: D
Intersection Capacity Utilization 83.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 2: 104th Ave. & Belle Creek Blvd.

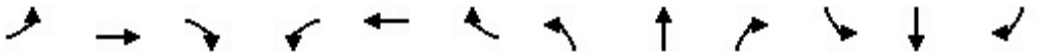




Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	233	916	1281	485	408	211
Future Volume (veh/h)	233	916	1281	485	408	211
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	253	996	1392	527	443	229
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	284	2918	1421	634	509	453
Arrive On Green	0.10	0.57	0.40	0.40	0.29	0.29
Sat Flow, veh/h	1781	5274	3647	1585	1781	1585
Grp Volume(v), veh/h	253	996	1392	527	443	229
Grp Sat Flow(s),veh/h/ln	1781	1702	1777	1585	1781	1585
Q Serve(g_s), s	5.6	7.3	27.0	20.9	16.6	8.4
Cycle Q Clear(g_c), s	5.6	7.3	27.0	20.9	16.6	8.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	284	2918	1421	634	509	453
V/C Ratio(X)	0.89	0.34	0.98	0.83	0.87	0.51
Avail Cap(c_a), veh/h	284	2918	1421	634	509	453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.32	0.32	1.00	1.00
Uniform Delay (d), s/veh	15.9	8.0	20.7	18.9	23.8	20.9
Incr Delay (d2), s/veh	27.4	0.1	9.3	3.2	18.1	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.3	4.1	15.1	10.0	14.0	12.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.2	8.1	30.0	22.0	41.9	24.9
LnGrp LOS	D	A	C	C	D	C
Approach Vol, veh/h		1249	1919		672	
Approach Delay, s/veh		15.2	27.8		36.1	
Approach LOS		B	C		D	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	45.0	25.0	12.0	33.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	40.0	20.0	7.0	28.0
Max Q Clear Time (g_c+I1), s	9.3	18.6	7.6	29.0
Green Ext Time (p_c), s	8.3	0.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	25.2
HCM 6th LOS	C



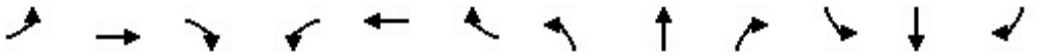
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	175		0	350		0	625		0	600		0
Storage Lanes	1		1	2		1	2		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	1.00	0.97	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)	3433	3539	1583	3433	3539	1583	3433	5085	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	5085	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			178			148			302			247
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		419			1451			830			1328	
Travel Time (s)		9.5			33.0			18.9			30.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	390	746	188	413	832	732	503	2384	630	175	1265	431
Future Volume (vph)	390	746	188	413	832	732	503	2384	630	175	1265	431
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	32.0	32.0	10.0	32.0	32.0	10.0	45.0	45.0	10.0	45.0	45.0
Total Split (s)	21.0	39.0	39.0	21.0	39.0	39.0	35.0	65.0	65.0	15.0	45.0	45.0
Total Split (%)	15.0%	27.9%	27.9%	15.0%	27.9%	27.9%	25.0%	46.4%	46.4%	10.7%	32.1%	32.1%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	2.0	3.0	3.0
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	5.0	5.0	5.0	5.0	5.0	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	Max	Max	Max	Max	Max	Max	Max	C-Max	C-Max	Max	C-Max	C-Max
Act Effct Green (s)	16.0	34.0	34.0	16.0	34.0	34.0	30.0	58.0	58.0	10.0	38.0	38.0
Actuated g/C Ratio	0.11	0.24	0.24	0.11	0.24	0.24	0.21	0.41	0.41	0.07	0.27	0.27
v/c Ratio	1.08	0.94	0.39	1.15	1.05	1.60	0.74	1.23	0.82	0.78	1.43	0.77
Control Delay	120.5	74.8	17.2	145.0	95.8	310.0	58.5	144.2	29.2	84.9	238.0	31.0
Queue Delay	0.0	44.1	0.0	0.0	18.8	0.0	54.1	0.0	0.0	0.0	0.0	14.4
Total Delay	120.5	118.9	17.2	145.0	114.6	310.0	112.6	144.2	29.2	84.9	238.0	45.4
LOS	F	F	B	F	F	F	F	F	C	F	F	D
Approach Delay		105.0			193.3			119.1			179.4	
Approach LOS		F			F			F			F	

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.60	
Intersection Signal Delay: 146.8	Intersection LOS: F
Intersection Capacity Utilization 116.7%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 3: US 85 & 104th Ave.



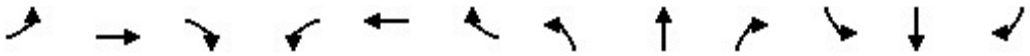
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	390	746	188	413	832	732	503	2384	630	175	1265	431
Future Volume (veh/h)	390	746	188	413	832	732	503	2384	630	175	1265	431
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	424	811	0	449	904	0	547	2591	0	190	1375	0
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	395	863		395	863		741	2115		247	965	
Arrive On Green	0.04	0.08	0.00	0.11	0.24	0.00	0.21	0.41	0.00	0.07	0.27	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	5106	1585	3456	3554	1585
Grp Volume(v), veh/h	424	811	0	449	904	0	547	2591	0	190	1375	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1702	1585	1728	1777	1585
Q Serve(g_s), s	16.0	31.8	0.0	16.0	34.0	0.0	20.7	58.0	0.0	7.6	38.0	0.0
Cycle Q Clear(g_c), s	16.0	31.8	0.0	16.0	34.0	0.0	20.7	58.0	0.0	7.6	38.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	395	863		395	863		741	2115		247	965	
V/C Ratio(X)	1.07	0.94		1.14	1.05		0.74	1.22		0.77	1.43	
Avail Cap(c_a), veh/h	395	863		395	863		741	2115		247	965	
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	67.4	63.4	0.0	62.0	53.0	0.0	51.3	41.0	0.0	63.9	51.0	0.0
Incr Delay (d2), s/veh	62.9	17.0	0.0	88.1	43.8	0.0	6.5	105.6	0.0	20.4	197.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	16.4	23.6	0.0	18.4	28.6	0.0	14.8	63.7	0.0	7.3	65.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	130.2	80.4	0.0	150.1	96.8	0.0	57.9	146.6	0.0	84.2	248.5	0.0
LnGrp LOS	F	F		F	F		E	F		F	F	
Approach Vol, veh/h		1235	A		1353	A		3138	A		1565	A
Approach Delay, s/veh		97.5			114.5			131.1			228.6	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	65.0	21.0	39.0	35.0	45.0	21.0	39.0
Change Period (Y+Rc), s	5.0	7.0	5.0	5.0	5.0	7.0	5.0	5.0
Max Green Setting (Gmax), s	10.0	58.0	16.0	34.0	30.0	38.0	16.0	34.0
Max Q Clear Time (g_c+I1), s	9.6	60.0	18.0	33.8	22.7	40.0	18.0	36.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.1	1.3	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	143.3
HCM 6th LOS	F

Notes

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



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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		0.892			0.983			0.987			0.997	
Flt Protected		0.990			0.970			0.998			0.997	
Satd. Flow (prot)	0	1645	0	0	1776	0	0	1835	0	0	1852	0
Flt Permitted		0.990			0.970			0.998			0.997	
Satd. Flow (perm)	0	1645	0	0	1776	0	0	1835	0	0	1852	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		202			191			389			149	
Travel Time (s)		4.6			4.3			8.8			3.4	

Intersection Summary	
Area Type:	Other

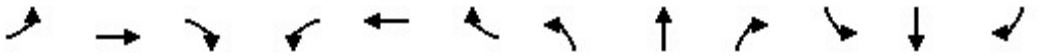
Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	0	4	5	2	1	11	211	24	8	108	3
Future Vol, veh/h	1	0	4	5	2	1	11	211	24	8	108	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	1	0	4	5	2	1	12	229	26	9	117	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	405	416	119	405	404	242	120	0	0	255	0	0
Stage 1	137	137	-	266	266	-	-	-	-	-	-	-
Stage 2	268	279	-	139	138	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	556	527	933	556	536	797	1468	-	-	1310	-	-
Stage 1	866	783	-	739	689	-	-	-	-	-	-	-
Stage 2	738	680	-	864	782	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	547	518	933	546	527	797	1468	-	-	1310	-	-
Mov Cap-2 Maneuver	547	518	-	546	527	-	-	-	-	-	-	-
Stage 1	857	778	-	732	682	-	-	-	-	-	-	-
Stage 2	727	673	-	854	777	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	11.5	0.3	0.5
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1468	-	-	818	563	1310	-	-
HCM Lane V/C Ratio	0.008	-	-	0.007	0.015	0.007	-	-
HCM Control Delay (s)	7.5	0	-	9.4	11.5	7.8	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	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		1	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						0.850		0.967				
Flt Protected		0.950			0.950						0.962	
Satd. Flow (prot)	0	1770	0	0	1770	1583	0	1801	0	0	1792	0
Flt Permitted		0.950			0.950						0.962	
Satd. Flow (perm)	0	1770	0	0	1770	1583	0	1801	0	0	1792	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		295			368			216			212	
Travel Time (s)		6.7			8.4			4.9			4.8	

Intersection Summary	
Area Type:	Other

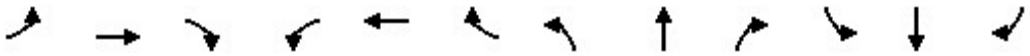
Intersection	
Int Delay, s/veh	8.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇃	↗		⇕			⇕	
Traffic Vol, veh/h	2	0	0	48	0	336	0	155	51	264	68	0
Future Vol, veh/h	2	0	0	48	0	336	0	155	51	264	68	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	-	-	-	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	2	0	0	52	0	365	0	168	55	287	74	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	844	871	74	844	844	196	74	0	0	223	0	0
Stage 1	648	648	-	196	196	-	-	-	-	-	-	-
Stage 2	196	223	-	648	648	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	283	289	988	283	300	845	1526	-	-	1346	-	-
Stage 1	459	466	-	806	739	-	-	-	-	-	-	-
Stage 2	806	719	-	459	466	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	133	225	988	235	233	845	1526	-	-	1346	-	-
Mov Cap-2 Maneuver	133	225	-	235	233	-	-	-	-	-	-	-
Stage 1	459	363	-	806	739	-	-	-	-	-	-	-
Stage 2	458	719	-	357	363	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	32.5	14	0	6.7
HCM LOS	D	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1526	-	-	133	235	845	1346	-	-
HCM Lane V/C Ratio	-	-	-	0.016	0.222	0.432	0.213	-	-
HCM Control Delay (s)	0	-	-	32.5	24.6	12.5	8.4	0	-
HCM Lane LOS	A	-	-	D	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.8	2.2	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)	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		0.887			0.973			0.994				
Flt Protected		0.992			0.962			0.999				
Satd. Flow (prot)	0	1639	0	0	1744	0	0	1850	0	0	1863	0
Flt Permitted		0.992			0.962			0.999				
Satd. Flow (perm)	0	1639	0	0	1744	0	0	1850	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		263			127			122			148	
Travel Time (s)		6.0			2.9			2.8			3.4	

Intersection Summary	
Area Type:	Other

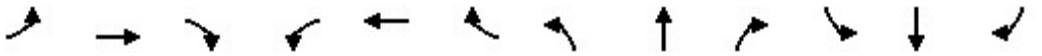
Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	0	5	7	0	2	7	233	12	0	279	0
Future Vol, veh/h	1	0	5	7	0	2	7	233	12	0	279	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	1	0	5	8	0	2	8	253	13	0	303	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	580	585	303	582	579	260	303	0	0	266	0	0
Stage 1	303	303	-	276	276	-	-	-	-	-	-	-
Stage 2	277	282	-	306	303	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	426	423	737	424	426	779	1258	-	-	1298	-	-
Stage 1	706	664	-	730	682	-	-	-	-	-	-	-
Stage 2	729	678	-	704	664	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	423	420	737	418	423	779	1258	-	-	1298	-	-
Mov Cap-2 Maneuver	423	420	-	418	423	-	-	-	-	-	-	-
Stage 1	701	664	-	725	677	-	-	-	-	-	-	-
Stage 2	722	673	-	699	664	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	12.9	0.2	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1258	-	-	656	466	1298	-	-
HCM Lane V/C Ratio	0.006	-	-	0.01	0.021	-	-	-
HCM Control Delay (s)	7.9	0	-	10.5	12.9	0	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-



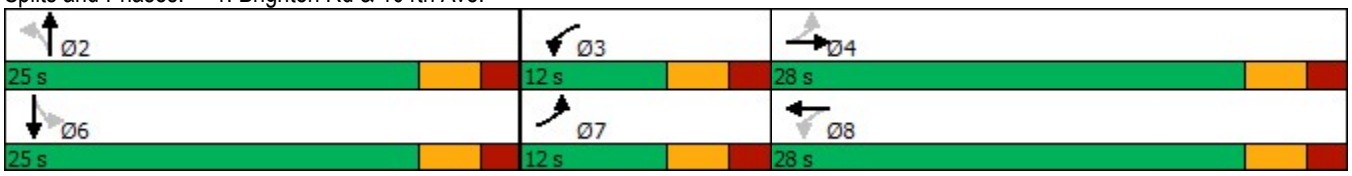
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.994			0.996			0.897			0.969	
Flt Protected	0.950			0.950				0.995			0.985	
Satd. Flow (prot)	1770	3518	0	1770	3525	0	0	1663	0	0	1778	0
Flt Permitted	0.167			0.167				0.959			0.867	
Satd. Flow (perm)	311	3518	0	311	3525	0	0	1602	0	0	1565	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			5			68			23	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		876			1296			375			389	
Travel Time (s)		19.9			29.5			8.5			8.8	

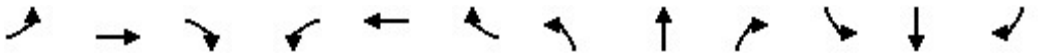
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	47	1172	57	1170	8	11	66	104
Future Volume (vph)	47	1172	57	1170	8	11	66	104
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	23.0	10.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	12.0	28.0	12.0	28.0	25.0	25.0	25.0	25.0
Total Split (%)	18.5%	43.1%	18.5%	43.1%	38.5%	38.5%	38.5%	38.5%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0		5.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	None	None	None
Act Effct Green (s)	27.3	23.9	27.5	24.0		12.6		12.6
Actuated g/C Ratio	0.52	0.45	0.52	0.45		0.24		0.24
v/c Ratio	0.15	0.84	0.18	0.82		0.21		0.61
Control Delay	7.4	23.5	7.6	22.5		8.5		24.4
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	7.4	23.5	7.6	22.5		8.5		24.4
LOS	A	C	A	C		A		C
Approach Delay		22.9		21.8		8.5		24.4
Approach LOS		C		C		A		C

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 53	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 22.1	Intersection LOS: C
Intersection Capacity Utilization 69.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Brighton Rd & 104th Ave.

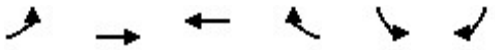




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	1172	52	57	1170	33	8	11	63	66	104	50
Future Volume (veh/h)	47	1172	52	57	1170	33	8	11	63	66	104	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	1274	57	62	1272	36	9	12	68	72	113	54
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	296	1524	68	298	1577	45	95	62	244	170	174	72
Arrive On Green	0.05	0.44	0.44	0.06	0.45	0.45	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1781	3464	155	1781	3529	100	69	319	1257	379	898	373
Grp Volume(v), veh/h	51	653	678	62	640	668	89	0	0	239	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1842	1781	1777	1852	1645	0	0	1650	0	0
Q Serve(g_s), s	0.7	15.9	15.9	0.9	15.2	15.2	0.0	0.0	0.0	4.3	0.0	0.0
Cycle Q Clear(g_c), s	0.7	15.9	15.9	0.9	15.2	15.2	2.2	0.0	0.0	6.6	0.0	0.0
Prop In Lane	1.00		0.08	1.00		0.05	0.10		0.76	0.30		0.23
Lane Grp Cap(c), veh/h	296	781	810	298	794	828	401	0	0	416	0	0
V/C Ratio(X)	0.17	0.84	0.84	0.21	0.81	0.81	0.22	0.00	0.00	0.57	0.00	0.00
Avail Cap(c_a), veh/h	460	839	870	450	839	874	740	0	0	763	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.1	12.1	12.1	9.4	11.7	11.7	16.7	0.0	0.0	18.4	0.0	0.0
Incr Delay (d2), s/veh	0.3	7.0	6.8	0.3	5.6	5.4	0.3	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.4	10.5	10.8	0.5	9.8	10.1	1.4	0.0	0.0	4.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.4	19.1	18.9	9.8	17.2	17.0	17.0	0.0	0.0	19.6	0.0	0.0
LnGrp LOS	A	B	B	A	B	B	B	A	A	B	A	A
Approach Vol, veh/h		1382			1370			89			239	
Approach Delay, s/veh		18.6			16.8			17.0			19.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		14.5	7.8	26.4		14.5	7.5	26.8				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		20.0	7.0	23.0		20.0	7.0	23.0				
Max Q Clear Time (g_c+I1), s		4.2	2.9	17.9		8.6	2.7	17.2				
Green Ext Time (p_c), s		0.4	0.0	3.5		1.0	0.0	3.9				

Intersection Summary												
HCM 6th Ctrl Delay			17.9									
HCM 6th LOS			B									



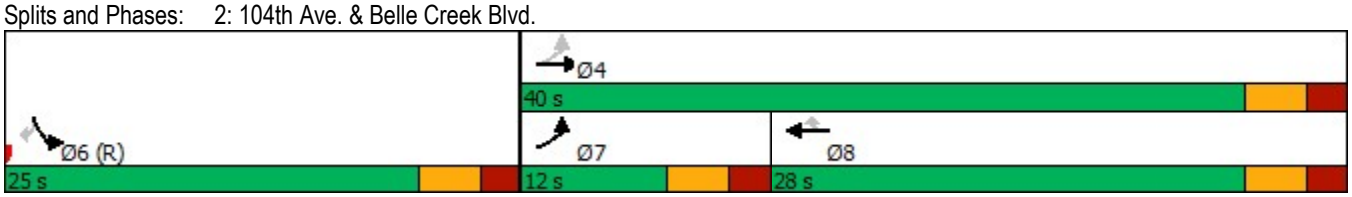
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	300			0	0	0
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	5085	3539	1583	1770	1583
Flt Permitted	0.143				0.950	
Satd. Flow (perm)	266	5085	3539	1583	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				362		264
Link Speed (mph)		30	30		30	
Link Distance (ft)		495	419		448	
Travel Time (s)		11.3	9.5		10.2	

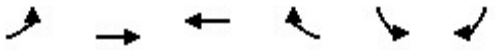
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	193	1069	1060	333	526	261
Future Volume (vph)	193	1069	1060	333	526	261
Turn Type	pm+pt	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases	4			8		6
Detector Phase	7	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	12.0	40.0	28.0	28.0	25.0	25.0
Total Split (%)	18.5%	61.5%	43.1%	43.1%	38.5%	38.5%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	35.0	35.0	23.0	23.0	20.0	20.0
Actuated g/C Ratio	0.54	0.54	0.35	0.35	0.31	0.31
v/c Ratio	0.69	0.42	0.92	0.46	1.05	0.42
Control Delay	23.0	9.6	34.9	6.0	78.7	5.5
Queue Delay	0.0	0.1	0.0	0.0	20.2	0.0
Total Delay	23.0	9.6	34.9	6.0	98.9	5.5
LOS	C	A	C	A	F	A
Approach Delay		11.7	28.0		67.9	
Approach LOS		B	C		E	

Intersection Summary	
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2: and 6:SBL, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 31.1	Intersection LOS: C
Intersection Capacity Utilization 81.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: 104th Ave. & Belle Creek Blvd.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	193	1069	1060	333	526	261
Future Volume (veh/h)	193	1069	1060	333	526	261
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	210	1162	1152	362	572	284
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	300	2690	1249	557	569	506
Arrive On Green	0.10	0.53	0.35	0.35	0.32	0.32
Sat Flow, veh/h	1781	5274	3647	1585	1781	1585
Grp Volume(v), veh/h	210	1162	1152	362	572	284
Grp Sat Flow(s),veh/h/ln	1781	1702	1777	1585	1781	1585
Q Serve(g_s), s	4.5	9.1	20.2	12.5	20.8	9.7
Cycle Q Clear(g_c), s	4.5	9.1	20.2	12.5	20.8	9.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	300	2690	1249	557	569	506
V/C Ratio(X)	0.70	0.43	0.92	0.65	1.01	0.56
Avail Cap(c_a), veh/h	317	2749	1257	561	569	506
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.45	0.45	1.00	1.00
Uniform Delay (d), s/veh	14.6	9.4	20.2	17.7	22.1	18.3
Incr Delay (d2), s/veh	6.3	0.1	5.7	1.2	39.1	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.7	5.2	11.7	6.6	20.3	14.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.9	9.5	26.0	18.9	61.2	22.8
LnGrp LOS	C	A	C	B	F	C
Approach Vol, veh/h		1372	1514		856	
Approach Delay, s/veh		11.3	24.3		48.5	
Approach LOS		B	C		D	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	39.2	25.8	11.4	27.8
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	35.0	20.0	7.0	23.0
Max Q Clear Time (g_c+I1), s	11.1	22.8	6.5	22.2
Green Ext Time (p_c), s	9.2	0.0	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	25.0
HCM 6th 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)	175		0	350		0	625		0	600		0
Storage Lanes	1		1	2		1	2		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	1.00	0.97	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)	3433	3539	1583	3433	3539	1583	3433	5085	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	5085	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			151			158			269			179
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		419			1451			830			1328	
Travel Time (s)		9.5			33.0			18.9			30.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	299	1031	264	503	847	342	185	1213	975	295	1902	362
Future Volume (vph)	299	1031	264	503	847	342	185	1213	975	295	1902	362
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	32.0	32.0	10.0	32.0	32.0	10.0	45.0	45.0	10.0	45.0	45.0
Total Split (s)	18.0	35.0	35.0	23.0	40.0	40.0	15.0	57.0	57.0	15.0	57.0	57.0
Total Split (%)	13.8%	26.9%	26.9%	17.7%	30.8%	30.8%	11.5%	43.8%	43.8%	11.5%	43.8%	43.8%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	2.0	3.0	3.0
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	5.0	5.0	5.0	5.0	5.0	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	Max	Max	Max	Max	Max	Max	Max	C-Max	C-Max	Max	C-Max	C-Max
Act Effct Green (s)	13.0	30.0	30.0	18.0	35.0	35.0	10.0	50.0	50.0	10.0	50.0	50.0
Actuated g/C Ratio	0.10	0.23	0.23	0.14	0.27	0.27	0.08	0.38	0.38	0.08	0.38	0.38
v/c Ratio	0.95	1.37	0.60	1.15	0.97	0.69	0.76	0.67	1.37	1.22	1.52	0.55
Control Delay	89.9	208.7	19.9	139.0	69.3	31.3	77.6	35.3	200.2	175.8	268.1	19.4
Queue Delay	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.9	208.9	20.2	139.0	69.3	31.3	77.6	35.3	200.2	175.8	268.1	19.4
LOS	F	F	C	F	E	C	E	D	F	F	F	B
Approach Delay		155.3			82.3			106.4			222.3	
Approach LOS		F			F			F			F	

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 130	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.52	
Intersection Signal Delay: 147.0	Intersection LOS: F
Intersection Capacity Utilization 119.0%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 3: US 85 & 104th Ave.

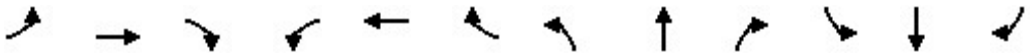
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	299	1031	264	503	847	342	185	1213	975	295	1902	362
Future Volume (veh/h)	299	1031	264	503	847	342	185	1213	975	295	1902	362
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	325	1121	0	547	921	0	201	1318	0	321	2067	0
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	346	820		478	957		266	1964		266	1367	
Arrive On Green	0.03	0.08	0.00	0.14	0.27	0.00	0.08	0.38	0.00	0.08	0.38	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	5106	1585	3456	3554	1585
Grp Volume(v), veh/h	325	1121	0	547	921	0	201	1318	0	321	2067	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1702	1585	1728	1777	1585
Q Serve(g_s), s	12.2	30.0	0.0	18.0	33.2	0.0	7.4	27.8	0.0	10.0	50.0	0.0
Cycle Q Clear(g_c), s	12.2	30.0	0.0	18.0	33.2	0.0	7.4	27.8	0.0	10.0	50.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	346	820		478	957		266	1964		266	1367	
V/C Ratio(X)	0.94	1.37		1.14	0.96		0.76	0.67		1.21	1.51	
Avail Cap(c_a), veh/h	346	820		478	957		266	1964		266	1367	
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	62.5	60.0	0.0	56.0	46.9	0.0	58.8	33.2	0.0	60.0	40.0	0.0
Incr Delay (d2), s/veh	28.9	170.9	0.0	86.7	21.4	0.0	18.0	1.8	0.0	123.3	234.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	10.8	49.3	0.0	20.8	24.3	0.0	7.0	17.4	0.0	14.7	100.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.4	230.9	0.0	142.7	68.2	0.0	76.8	35.0	0.0	183.3	274.4	0.0
LnGrp LOS	F	F		F	E		E	D		F	F	
Approach Vol, veh/h		1446	A		1468	A		1519	A		2388	A
Approach Delay, s/veh		199.6			96.0			40.6			262.1	
Approach LOS		F			F			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	57.0	23.0	35.0	15.0	57.0	18.0	40.0
Change Period (Y+Rc), s	5.0	7.0	5.0	5.0	5.0	7.0	5.0	5.0
Max Green Setting (Gmax), s	10.0	50.0	18.0	30.0	10.0	50.0	13.0	35.0
Max Q Clear Time (g_c+I1), s	12.0	29.8	20.0	32.0	9.4	52.0	14.2	35.2
Green Ext Time (p_c), s	0.0	9.8	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	163.8
HCM 6th LOS	F

Notes

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



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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		0.942			0.972			0.990			0.994	
Flt Protected		0.979			0.965			0.999				
Satd. Flow (prot)	0	1718	0	0	1747	0	0	1842	0	0	1852	0
Flt Permitted		0.979			0.965			0.999				
Satd. Flow (perm)	0	1718	0	0	1747	0	0	1842	0	0	1852	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		202			191			389			149	
Travel Time (s)		4.6			4.3			8.8			3.4	

Intersection Summary	
Area Type:	Other

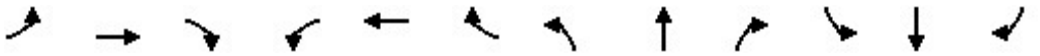
Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	8	3	8	36	4	10	1	78	6	1	179	8
Future Vol, veh/h	8	3	8	36	4	10	1	78	6	1	179	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	9	3	9	39	4	11	1	85	7	1	195	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	300	296	200	299	297	89	204	0	0	92	0	0
Stage 1	202	202	-	91	91	-	-	-	-	-	-	-
Stage 2	98	94	-	208	206	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	652	616	841	653	615	969	1368	-	-	1503	-	-
Stage 1	800	734	-	916	820	-	-	-	-	-	-	-
Stage 2	908	817	-	794	731	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	640	615	841	643	614	969	1368	-	-	1503	-	-
Mov Cap-2 Maneuver	640	615	-	643	614	-	-	-	-	-	-	-
Stage 1	799	733	-	915	819	-	-	-	-	-	-	-
Stage 2	892	816	-	782	730	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	10.7	0.1	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1368	-	-	707	687	1503	-	-
HCM Lane V/C Ratio	0.001	-	-	0.029	0.079	0.001	-	-
HCM Control Delay (s)	7.6	0	-	10.2	10.7	7.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	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		1	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						0.850		0.944				
Flt Protected					0.950						0.967	
Satd. Flow (prot)	0	1863	0	0	1770	1583	0	1758	0	0	1801	0
Flt Permitted					0.950						0.967	
Satd. Flow (perm)	0	1863	0	0	1770	1583	0	1758	0	0	1801	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		295			368			216			212	
Travel Time (s)		6.7			8.4			4.9			4.8	

Intersection Summary	
Area Type:	Other

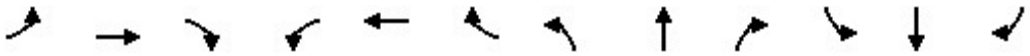
Intersection	
Int Delay, s/veh	7.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↰	↗		↕			↕	
Traffic Vol, veh/h	0	0	0	55	0	304	0	53	38	235	111	0
Future Vol, veh/h	0	0	0	55	0	304	0	53	38	235	111	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	-	-	-	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	0	0	0	60	0	330	0	58	41	255	121	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	710	730	121	710	710	79	121	0	0	99	0	0
Stage 1	631	631	-	79	79	-	-	-	-	-	-	-
Stage 2	79	99	-	631	631	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	348	349	930	348	359	981	1467	-	-	1494	-	-
Stage 1	469	474	-	930	829	-	-	-	-	-	-	-
Stage 2	930	813	-	469	474	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	198	285	930	299	293	981	1467	-	-	1494	-	-
Mov Cap-2 Maneuver	198	285	-	299	293	-	-	-	-	-	-	-
Stage 1	469	387	-	930	829	-	-	-	-	-	-	-
Stage 2	617	813	-	383	387	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	12	0	5.4
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1467	-	-	-	299	981	1494	-	-
HCM Lane V/C Ratio	-	-	-	-	0.2	0.337	0.171	-	-
HCM Control Delay (s)	0	-	-	0	20	10.5	7.9	0	-
HCM Lane LOS	A	-	-	A	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	-	0.7	1.5	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		0.910			0.919			0.998				
Flt Protected		0.984			0.980			0.999				
Satd. Flow (prot)	0	1668	0	0	1678	0	0	1857	0	0	1863	0
Flt Permitted		0.984			0.980			0.999				
Satd. Flow (perm)	0	1668	0	0	1678	0	0	1857	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		263			127			122			148	
Travel Time (s)		6.0			2.9			2.8			3.4	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	0	7	2	0	3	4	154	2	0	560	0
Future Vol, veh/h	4	0	7	2	0	3	4	154	2	0	560	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	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	4	0	8	2	0	3	4	167	2	0	609	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	787	786	609	789	785	168	609	0	0	169	0	0
Stage 1	609	609	-	176	176	-	-	-	-	-	-	-
Stage 2	178	177	-	613	609	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	309	324	495	308	325	876	970	-	-	1409	-	-
Stage 1	482	485	-	826	753	-	-	-	-	-	-	-
Stage 2	824	753	-	480	485	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	307	322	495	302	323	876	970	-	-	1409	-	-
Mov Cap-2 Maneuver	307	322	-	302	323	-	-	-	-	-	-	-
Stage 1	480	485	-	822	749	-	-	-	-	-	-	-
Stage 2	817	749	-	472	485	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.2	12.3	0.2	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	970	-	-	405	498	1409	-	-
HCM Lane V/C Ratio	0.004	-	-	0.03	0.011	-	-	-
HCM Control Delay (s)	8.7	0	-	14.2	12.3	0	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	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		100	0	
Storage Lanes	0	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		0.865		0.850		
Flt Protected						
Satd. Flow (prot)	0	1611	1863	1583	0	1863
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	1583	0	1863
Link Speed (mph)	30		30			30
Link Distance (ft)	501		644			220
Travel Time (s)	11.4		14.6			5.0

Intersection Summary	
Area Type:	Other

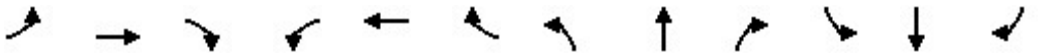
Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	1	99	10	0	175
Future Vol, veh/h	0	1	99	10	0	175
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	-	100	-	-
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	0	1	108	11	0	190

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	108	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	946	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	946	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	946	-
HCM Lane V/C Ratio	-	-	0.001	-
HCM Control Delay (s)	-	-	8.8	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	0	-



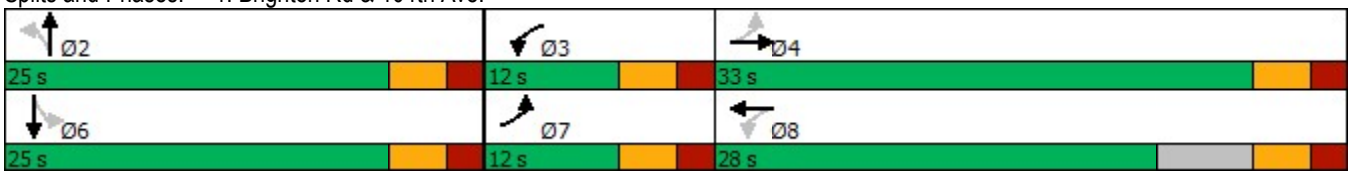
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.989			0.962			0.943	
Flt Protected	0.950			0.950				0.989			0.989	
Satd. Flow (prot)	1770	3529	0	1770	3500	0	0	1772	0	0	1737	0
Flt Permitted	0.142			0.150				0.904			0.885	
Satd. Flow (perm)	265	3529	0	279	3500	0	0	1620	0	0	1555	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			14			28			53	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		876			1296			375			389	
Travel Time (s)		19.9			29.5			8.5			8.8	

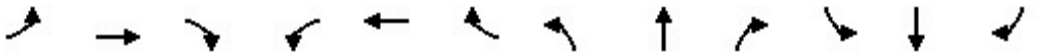
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	77	1104	34	1351	53	119	31	52
Future Volume (vph)	77	1104	34	1351	53	119	31	52
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases	7	4	3	8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	7	4	3	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	23.0	10.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	12.0	33.0	12.0	28.0	25.0	25.0	25.0	25.0
Total Split (%)	17.1%	47.1%	17.1%	40.0%	35.7%	35.7%	35.7%	35.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	5.0	5.0	5.0	5.0		5.0		5.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	None	None	None
Act Effct Green (s)	30.4	28.1	29.0	25.7		13.6		13.6
Actuated g/C Ratio	0.54	0.50	0.52	0.46		0.24		0.24
v/c Ratio	0.26	0.69	0.12	0.98		0.63		0.38
Control Delay	8.3	16.0	7.1	39.3		25.4		16.5
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	8.3	16.0	7.1	39.3		25.4		16.5
LOS	A	B	A	D		C		B
Approach Delay		15.5		38.6		25.4		16.5
Approach LOS		B		D		C		B

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 56	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 27.5	Intersection LOS: C
Intersection Capacity Utilization 75.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Brighton Rd & 104th Ave.

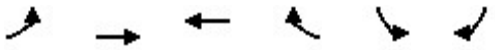




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	1104	20	34	1351	115	53	119	66	31	52	62
Future Volume (veh/h)	77	1104	20	34	1351	115	53	119	66	31	52	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	84	1200	22	37	1468	117	58	129	72	34	57	67
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.98	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	259	1680	31	302	1477	117	139	191	94	130	153	146
Arrive On Green	0.07	0.47	0.47	0.04	0.44	0.44	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1781	3570	65	1781	3335	264	270	951	470	226	765	730
Grp Volume(v), veh/h	84	597	625	37	778	807	259	0	0	158	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1859	1781	1777	1823	1691	0	0	1720	0	0
Q Serve(g_s), s	1.3	13.9	13.9	0.6	22.6	23.0	3.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.3	13.9	13.9	0.6	22.6	23.0	7.3	0.0	0.0	4.1	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.15	0.22		0.28	0.22		0.42
Lane Grp Cap(c), veh/h	259	836	875	302	787	807	424	0	0	429	0	0
V/C Ratio(X)	0.32	0.71	0.71	0.12	0.99	1.00	0.61	0.00	0.00	0.37	0.00	0.00
Avail Cap(c_a), veh/h	379	958	1002	471	787	807	722	0	0	717	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	11.6	11.0	11.0	8.7	14.3	14.5	19.4	0.0	0.0	18.3	0.0	0.0
Incr Delay (d2), s/veh	0.7	2.2	2.1	0.2	29.3	31.4	1.4	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.8	8.3	8.6	0.3	19.6	20.8	5.0	0.0	0.0	2.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.3	13.1	13.0	8.9	43.6	45.9	20.9	0.0	0.0	18.8	0.0	0.0
LnGrp LOS	B	B	B	A	D	D	C	A	A	B	A	A
Approach Vol, veh/h		1306			1622			259			158	
Approach Delay, s/veh		13.0			43.9			20.9			18.8	
Approach LOS		B			D			C			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.4	7.1	29.4		15.4	8.5	28.0				
Change Period (Y+Rc), s		5.0	5.0	5.0		5.0	5.0	5.0				
Max Green Setting (Gmax), s		20.0	7.0	28.0		20.0	7.0	23.0				
Max Q Clear Time (g_c+I1), s		9.3	2.6	15.9		6.1	3.3	25.0				
Green Ext Time (p_c), s		1.1	0.0	6.4		0.7	0.1	0.0				

Intersection Summary	
HCM 6th Ctrl Delay	28.9
HCM 6th LOS	C



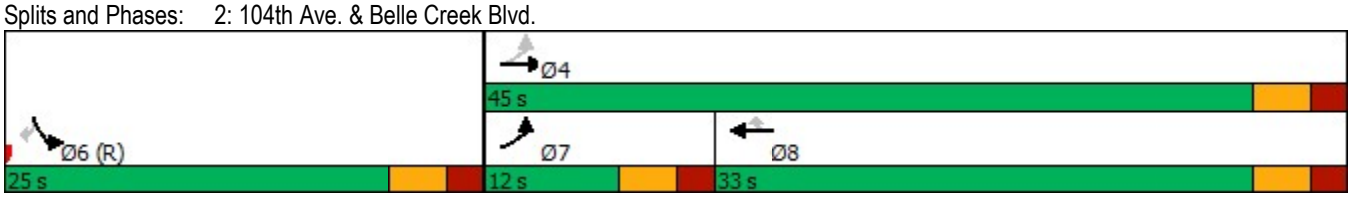
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	300			0	0	0
Storage Lanes	1			1	1	1
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.91	0.95	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	5085	3539	1583	1770	1583
Flt Permitted	0.121				0.950	
Satd. Flow (perm)	225	5085	3539	1583	1770	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				527		225
Link Speed (mph)		30	30		30	
Link Distance (ft)		495	419		448	
Travel Time (s)		11.3	9.5		10.2	

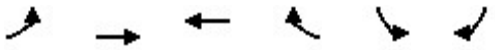
Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	233	930	1305	485	408	211
Future Volume (vph)	233	930	1305	485	408	211
Turn Type	pm+pt	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases	4			8		6
Detector Phase	7	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	12.0	45.0	33.0	33.0	25.0	25.0
Total Split (%)	17.1%	64.3%	47.1%	47.1%	35.7%	35.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	40.0	40.0	28.0	28.0	20.0	20.0
Actuated g/C Ratio	0.57	0.57	0.40	0.40	0.29	0.29
v/c Ratio	0.89	0.35	1.00	0.56	0.88	0.37
Control Delay	48.4	8.4	54.9	8.6	45.2	5.3
Queue Delay	0.0	0.0	10.8	0.2	29.7	0.0
Total Delay	48.4	8.5	65.7	8.8	74.9	5.3
LOS	D	A	E	A	E	A
Approach Delay		16.5	50.2		51.2	
Approach LOS		B	D		D	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2: and 6:SBL, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 39.4	Intersection LOS: D
Intersection Capacity Utilization 84.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 2: 104th Ave. & Belle Creek Blvd.

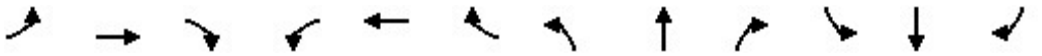




Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	233	930	1305	485	408	211
Future Volume (veh/h)	233	930	1305	485	408	211
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	253	1011	1418	527	443	229
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	281	2918	1421	634	509	453
Arrive On Green	0.10	0.57	0.40	0.40	0.29	0.29
Sat Flow, veh/h	1781	5274	3647	1585	1781	1585
Grp Volume(v), veh/h	253	1011	1418	527	443	229
Grp Sat Flow(s),veh/h/ln	1781	1702	1777	1585	1781	1585
Q Serve(g_s), s	5.7	7.4	27.9	20.9	16.6	8.4
Cycle Q Clear(g_c), s	5.7	7.4	27.9	20.9	16.6	8.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	281	2918	1421	634	509	453
V/C Ratio(X)	0.90	0.35	1.00	0.83	0.87	0.51
Avail Cap(c_a), veh/h	281	2918	1421	634	509	453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.30	0.30	1.00	1.00
Uniform Delay (d), s/veh	16.3	8.0	21.0	18.9	23.8	20.9
Incr Delay (d2), s/veh	29.2	0.1	12.5	3.0	18.1	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.6	4.1	16.0	9.9	14.0	12.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	45.5	8.1	33.5	21.8	41.9	24.9
LnGrp LOS	D	A	C	C	D	C
Approach Vol, veh/h		1264	1945		672	
Approach Delay, s/veh		15.6	30.3		36.1	
Approach LOS		B	C		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			45.0		25.0	12.0	33.0
Change Period (Y+Rc), s			5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s			40.0		20.0	7.0	28.0
Max Q Clear Time (g_c+I1), s			9.4		18.6	7.7	29.9
Green Ext Time (p_c), s			8.5		0.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	26.5
HCM 6th 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)	175		0	350		0	625		0	600		0
Storage Lanes	1		1	2		1	2		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	1.00	0.97	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)	3433	3539	1583	3433	3539	1583	3433	5085	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	5085	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			184			148			302			246
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		419			1451			830			1328	
Travel Time (s)		9.5			33.0			18.9			30.2	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	394	750	194	413	837	732	516	2384	630	175	1265	437
Future Volume (vph)	394	750	194	413	837	732	516	2384	630	175	1265	437
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	32.0	32.0	10.0	32.0	32.0	10.0	45.0	45.0	10.0	45.0	45.0
Total Split (s)	21.0	39.0	39.0	21.0	39.0	39.0	35.0	65.0	65.0	15.0	45.0	45.0
Total Split (%)	15.0%	27.9%	27.9%	15.0%	27.9%	27.9%	25.0%	46.4%	46.4%	10.7%	32.1%	32.1%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	2.0	3.0	3.0
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	5.0	5.0	5.0	5.0	5.0	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	Max	Max	Max	Max	Max	Max	Max	C-Max	C-Max	Max	C-Max	C-Max
Act Effct Green (s)	16.0	34.0	34.0	16.0	34.0	34.0	30.0	58.0	58.0	10.0	38.0	38.0
Actuated g/C Ratio	0.11	0.24	0.24	0.11	0.24	0.24	0.21	0.41	0.41	0.07	0.27	0.27
v/c Ratio	1.09	0.95	0.40	1.15	1.06	1.60	0.76	1.23	0.82	0.78	1.43	0.78
Control Delay	123.4	75.6	17.2	145.0	97.8	310.0	59.4	144.2	29.2	84.9	238.0	32.2
Queue Delay	0.0	43.7	0.0	0.0	16.3	0.0	53.9	0.0	0.0	0.0	0.0	53.1
Total Delay	123.4	119.2	17.2	145.0	114.1	310.0	113.3	144.2	29.2	84.9	238.0	85.2
LOS	F	F	B	F	F	F	F	F	C	F	F	F
Approach Delay		105.7			192.9			119.2			188.2	
Approach LOS		F			F			F			F	

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.60	
Intersection Signal Delay: 148.7	Intersection LOS: F
Intersection Capacity Utilization 116.8%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 3: US 85 & 104th Ave.

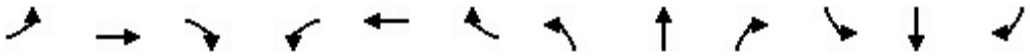
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	394	750	194	413	837	732	516	2384	630	175	1265	437
Future Volume (veh/h)	394	750	194	413	837	732	516	2384	630	175	1265	437
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	428	815	0	449	910	0	561	2591	0	190	1375	0
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	395	863		395	863		741	2115		247	965	
Arrive On Green	0.04	0.08	0.00	0.11	0.24	0.00	0.21	0.41	0.00	0.07	0.27	0.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	5106	1585	3456	3554	1585
Grp Volume(v), veh/h	428	815	0	449	910	0	561	2591	0	190	1375	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1702	1585	1728	1777	1585
Q Serve(g_s), s	16.0	32.0	0.0	16.0	34.0	0.0	21.3	58.0	0.0	7.6	38.0	0.0
Cycle Q Clear(g_c), s	16.0	32.0	0.0	16.0	34.0	0.0	21.3	58.0	0.0	7.6	38.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	395	863		395	863		741	2115		247	965	
V/C Ratio(X)	1.08	0.94		1.14	1.05		0.76	1.22		0.77	1.43	
Avail Cap(c_a), veh/h	395	863		395	863		741	2115		247	965	
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	67.4	63.4	0.0	62.0	53.0	0.0	51.6	41.0	0.0	63.9	51.0	0.0
Incr Delay (d2), s/veh	66.2	17.6	0.0	88.1	46.0	0.0	7.1	105.6	0.0	20.4	197.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	16.7	23.8	0.0	18.4	29.0	0.0	15.2	63.7	0.0	7.3	65.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	133.6	81.1	0.0	150.1	99.0	0.0	58.7	146.6	0.0	84.2	248.5	0.0
LnGrp LOS	F	F		F	F		E	F		F	F	
Approach Vol, veh/h		1243	A		1359	A		3152	A		1565	A
Approach Delay, s/veh		99.2			115.9			131.0			228.6	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	65.0	21.0	39.0	35.0	45.0	21.0	39.0
Change Period (Y+Rc), s	5.0	7.0	5.0	5.0	5.0	7.0	5.0	5.0
Max Green Setting (Gmax), s	10.0	58.0	16.0	34.0	30.0	38.0	16.0	34.0
Max Q Clear Time (g_c+I1), s	9.6	60.0	18.0	34.0	23.3	40.0	18.0	36.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	143.6
HCM 6th LOS	F

Notes

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



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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		0.892			0.995			0.988			0.997	
Flt Protected		0.990			0.957			0.998			0.996	
Satd. Flow (prot)	0	1645	0	0	1774	0	0	1837	0	0	1850	0
Flt Permitted		0.990			0.957			0.998			0.996	
Satd. Flow (perm)	0	1645	0	0	1774	0	0	1837	0	0	1850	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		202			191			389			149	
Travel Time (s)		4.6			4.3			8.8			3.4	

Intersection Summary	
Area Type:	Other

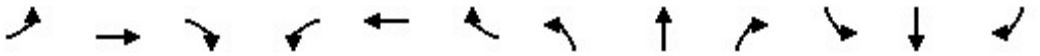
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	4	22	2	1	11	241	24	10	108	3
Future Vol, veh/h	1	0	4	22	2	1	11	241	24	10	108	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	1	0	4	24	2	1	12	262	26	11	117	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	442	453	119	442	441	275	120	0	0	288	0	0
Stage 1	141	141	-	299	299	-	-	-	-	-	-	-
Stage 2	301	312	-	143	142	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	526	503	933	526	510	764	1468	-	-	1274	-	-
Stage 1	862	780	-	710	666	-	-	-	-	-	-	-
Stage 2	708	658	-	860	779	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	516	493	933	516	500	764	1468	-	-	1274	-	-
Mov Cap-2 Maneuver	516	493	-	516	500	-	-	-	-	-	-	-
Stage 1	853	773	-	703	659	-	-	-	-	-	-	-
Stage 2	698	651	-	848	772	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	12.3	0.3	0.6
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1468	-	-	803	521	1274	-	-
HCM Lane V/C Ratio	0.008	-	-	0.007	0.052	0.009	-	-
HCM Control Delay (s)	7.5	0	-	9.5	12.3	7.8	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	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		1	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						0.850		0.967				
Flt Protected		0.950			0.950						0.962	
Satd. Flow (prot)	0	1770	0	0	1770	1583	0	1801	0	0	1792	0
Flt Permitted		0.950			0.950						0.962	
Satd. Flow (perm)	0	1770	0	0	1770	1583	0	1801	0	0	1792	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		295			368			216			212	
Travel Time (s)		6.7			8.4			4.9			4.8	

Intersection Summary	
Area Type:	Other

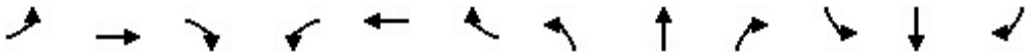
Intersection	
Int Delay, s/veh	8.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↰	↗		↕			↕	
Traffic Vol, veh/h	2	0	0	48	0	336	0	156	51	264	70	0
Future Vol, veh/h	2	0	0	48	0	336	0	156	51	264	70	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Stop	-	-	None	-	-	None
Storage Length	-	-	-	-	-	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	2	0	0	52	0	365	0	170	55	287	76	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	848	875	76	848	848	198	76	0	0	225	0	0
Stage 1	650	650	-	198	198	-	-	-	-	-	-	-
Stage 2	198	225	-	650	650	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	281	288	985	281	298	843	1523	-	-	1344	-	-
Stage 1	458	465	-	804	737	-	-	-	-	-	-	-
Stage 2	804	718	-	458	465	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	132	224	985	233	232	843	1523	-	-	1344	-	-
Mov Cap-2 Maneuver	132	224	-	233	232	-	-	-	-	-	-	-
Stage 1	458	361	-	804	737	-	-	-	-	-	-	-
Stage 2	456	718	-	356	361	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	32.7	14.1	0	6.6
HCM LOS	D	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1523	-	-	132	233	843	1344	-	-
HCM Lane V/C Ratio	-	-	-	0.016	0.224	0.433	0.214	-	-
HCM Control Delay (s)	0	-	-	32.7	24.9	12.5	8.4	0	-
HCM Lane LOS	A	-	-	D	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.8	2.2	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)	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		0.887			0.973			0.994				
Flt Protected		0.992			0.962			0.999				
Satd. Flow (prot)	0	1639	0	0	1744	0	0	1850	0	0	1863	0
Flt Permitted		0.992			0.962			0.999				
Satd. Flow (perm)	0	1639	0	0	1744	0	0	1850	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		263			127			122			148	
Travel Time (s)		6.0			2.9			2.8			3.4	

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	5	7	0	2	7	233	12	0	279	0
Future Vol, veh/h	1	0	5	7	0	2	7	233	12	0	279	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	1	0	5	8	0	2	8	253	13	0	303	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	580	585	303	582	579	260	303	0	0	266	0	0
Stage 1	303	303	-	276	276	-	-	-	-	-	-	-
Stage 2	277	282	-	306	303	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	426	423	737	424	426	779	1258	-	-	1298	-	-
Stage 1	706	664	-	730	682	-	-	-	-	-	-	-
Stage 2	729	678	-	704	664	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	423	420	737	418	423	779	1258	-	-	1298	-	-
Mov Cap-2 Maneuver	423	420	-	418	423	-	-	-	-	-	-	-
Stage 1	701	664	-	725	677	-	-	-	-	-	-	-
Stage 2	722	673	-	699	664	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	12.9	0.2	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1258	-	-	656	466	1298	-	-
HCM Lane V/C Ratio	0.006	-	-	0.01	0.021	-	-	-
HCM Control Delay (s)	7.9	0	-	10.5	12.9	0	-	-
HCM Lane LOS	A	A	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	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		100	0	
Storage Lanes	0	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		0.865		0.850		
Flt Protected						
Satd. Flow (prot)	0	1611	1863	1583	0	1863
Flt Permitted						
Satd. Flow (perm)	0	1611	1863	1583	0	1863
Link Speed (mph)	30		30			30
Link Distance (ft)	481		658			207
Travel Time (s)	10.9		15.0			4.7

Intersection Summary	
Area Type:	Other

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	1	227	30	0	115
Future Vol, veh/h	0	1	227	30	0	115
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	-	100	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	100	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	247	30	0	125

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	247	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	792	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	792	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	792	-
HCM Lane V/C Ratio	-	-	0.001	-
HCM Control Delay (s)	-	-	9.6	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	0	-