TRAFFIC REPORT

Interstate 49 Interchange at NE J Street
Benton County

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Garver Project No.: 21T21070

Contents

LIST OF FIGURES

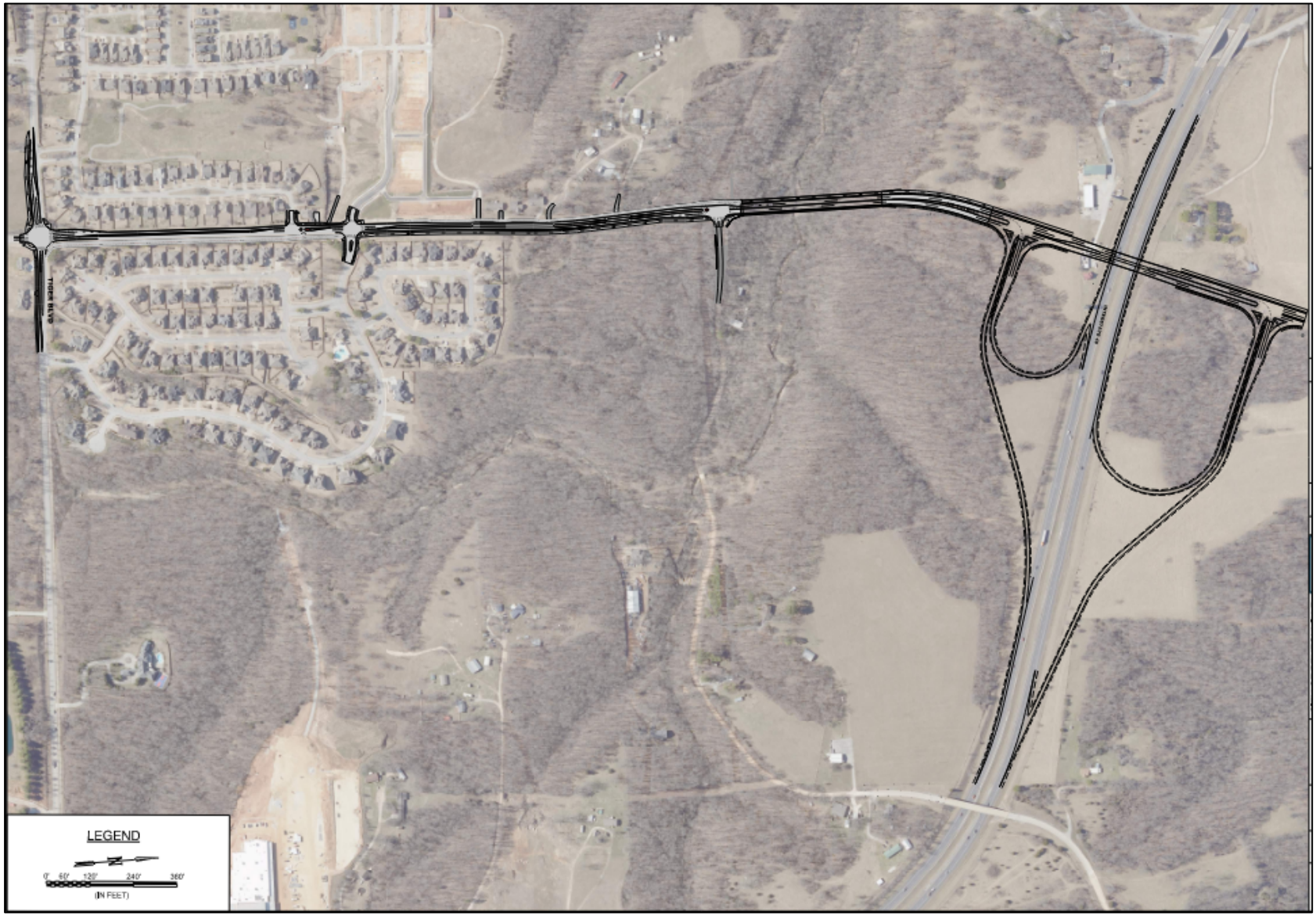
LIST OF TABLES

LIST OF APPENDICES

INTRODUCTION

The purpose of this study is to evaluate the need for a new interchange on I-49 to provide access to NE J Street and the extension of NE J Street northward from Tiger Boulevard across Interstate 49 for approximately 1.1 miles. This study also evaluates the affected intersections along NE J Street to provide recommendations for their lane configurations and intersection controls. The proposed NE J Street will be a two-lane divided section north of Tiger Boulevard and transition to a four-lane boulevard at the intersection of the NE J Street extension with old NE J Street. The only changes to I-49 would be the addition of this new interchange. Plans to widen I-49 from two lanes per direction to three lanes per direction will be carried out separately from this project. Along I-49, the study area extends from north of Highway 71/North Walton Boulevard on the north end to south of Highway 72 on the south end. The proposed new I-49 interchange at NE J Street is shown in **Figure 1**.

Figure 1: Proposed Interchange at NE J Street



This Traffic Report was developed to identify needs for the new interchange along I-49 at NE J Street and the extension of NE J Street further north. To identify these needs, operational analyses were conducted for 2022 No-Action and Action scenarios, 2026 (opening year) Action scenario, and 2045 No-Action and Action scenarios. A safety analysis of existing conditions was also conducted. The results of these analyses are detailed within this report.

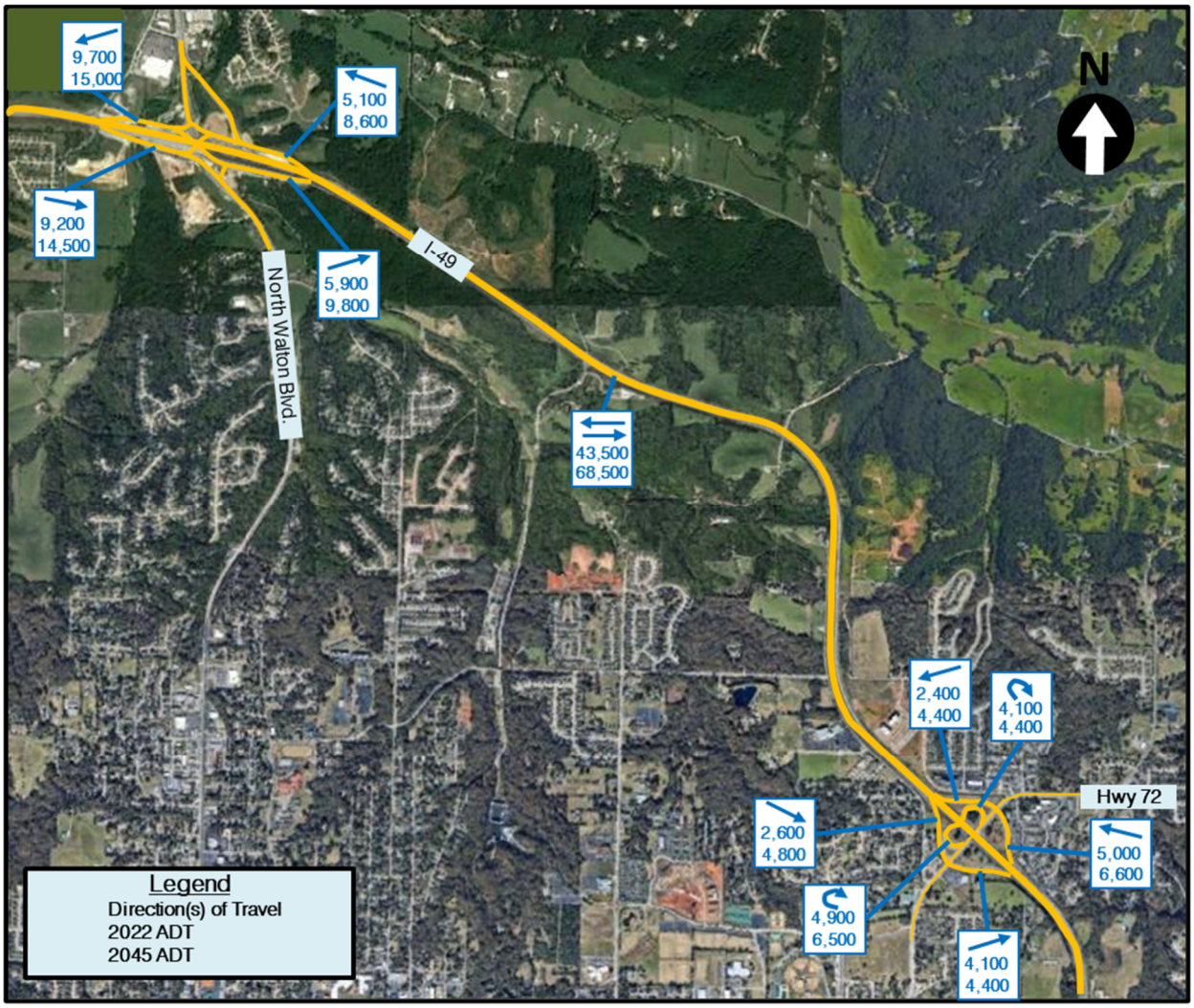
VOLUME DEVELOPMENT

To conduct operational analyses along the I-49 corridor and at the affected intersections along NE J Street, 2022 and 2045 design volumes were developed for No-Action conditions and for Action conditions. It should be noted that Tiger Boulevard is being extended with an overpass across I-49 as a separate project and is anticipated to be complete prior to completion of the NE J Street extension. The 2022 volumes do not include impacts from the Tiger Boulevard overpass since it is not currently open. Therefore, 2026 Action volumes were also developed to account for impacts from the Tiger Boulevard overpass in opening year. The 2045 No Action and 2045 Action volumes also include impacts from the Tiger Boulevard overpass.

I-49 CORRIDOR VOLUMES

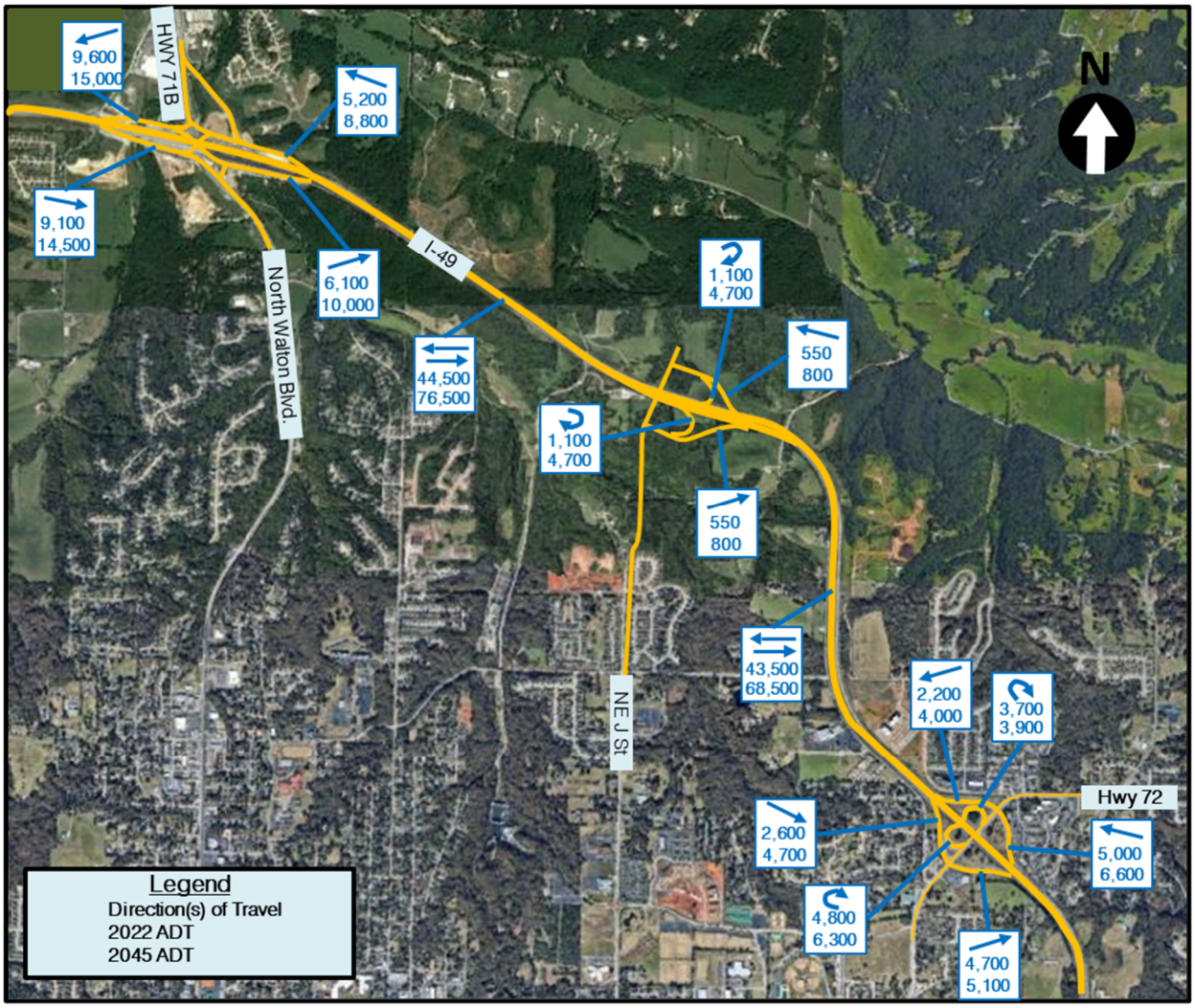
Traffic data along I-49 was obtained from a previous study, the Western North-South Connector Study (ARDOT Job 090573). This data was projected to 2022 using growth rates which were determined for each freeway facility segment based on historical data as well as travel demand models. The ADT volumes along I-49 for the No-Action scenarios are shown in **Figure 2**.

Figure 2: No-Action ADT Volumes



Travel demand models were utilized to determine how traffic would shift once the new interchange was developed at NE J Street. The resulting 2022 and 2045 Action ADT Volumes are shown in **Figure 3**. It should be noted that the extension of Tiger Boulevard with an overpass across I-49 which is being built separately from this project is not anticipated to have a significant effect on the volumes along the I-49 corridor; therefore, the opening year 2026 Action volumes were only analyzed for the intersection analysis along NE J Street and not the corridor analysis along I-49.

Figure 3: Action ADT Volumes



NE J STREET INTERSECTION VOLUMES

Peak Hour turning movement counts were collected at the intersection of NE J Street and Tiger Boulevard on September 14, 2021. These volumes were used to develop the 2022 No-Action volumes shown in **Figure 4**. The 2045 No-Action volumes were developed by utilizing a 2% annual growth rate (AGR) and then applying adjustments to affected movements to account for the future extension of Tiger Boulevard overpass across I-49. Adjustment factors to account for this Tiger

Boulevard overpass were determined based on the relative differences in travel demand models with and without this Tiger Boulevard overpass. The 2045 No-Action volumes are shown in **Figure 5**.

Figure 4: 2022 No-Action Intersection Volumes

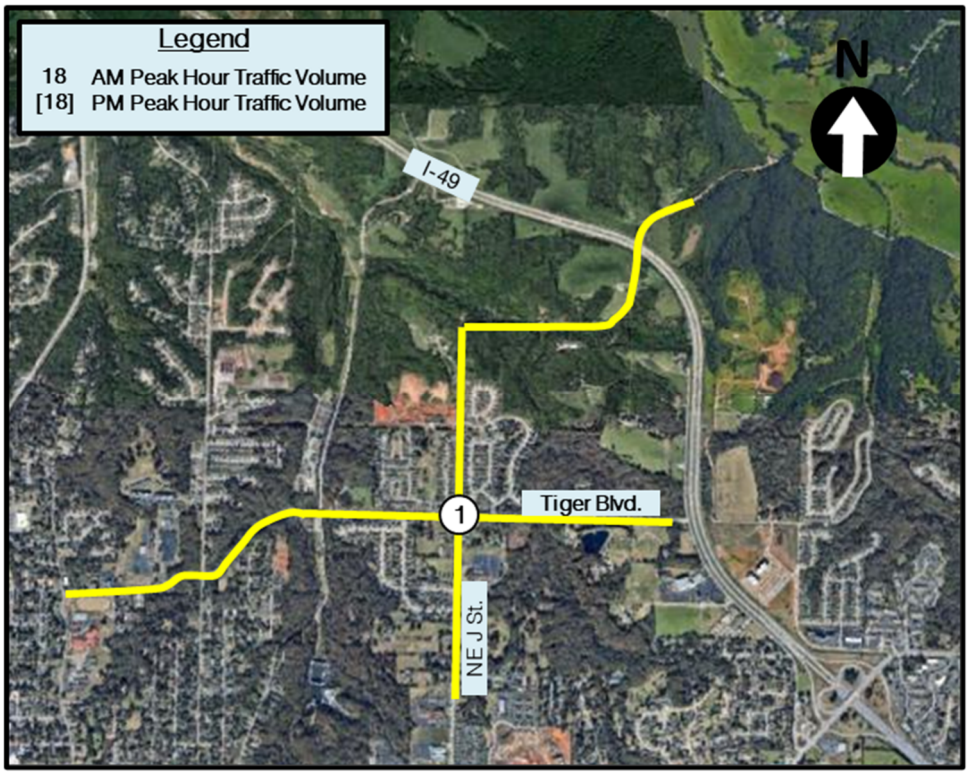
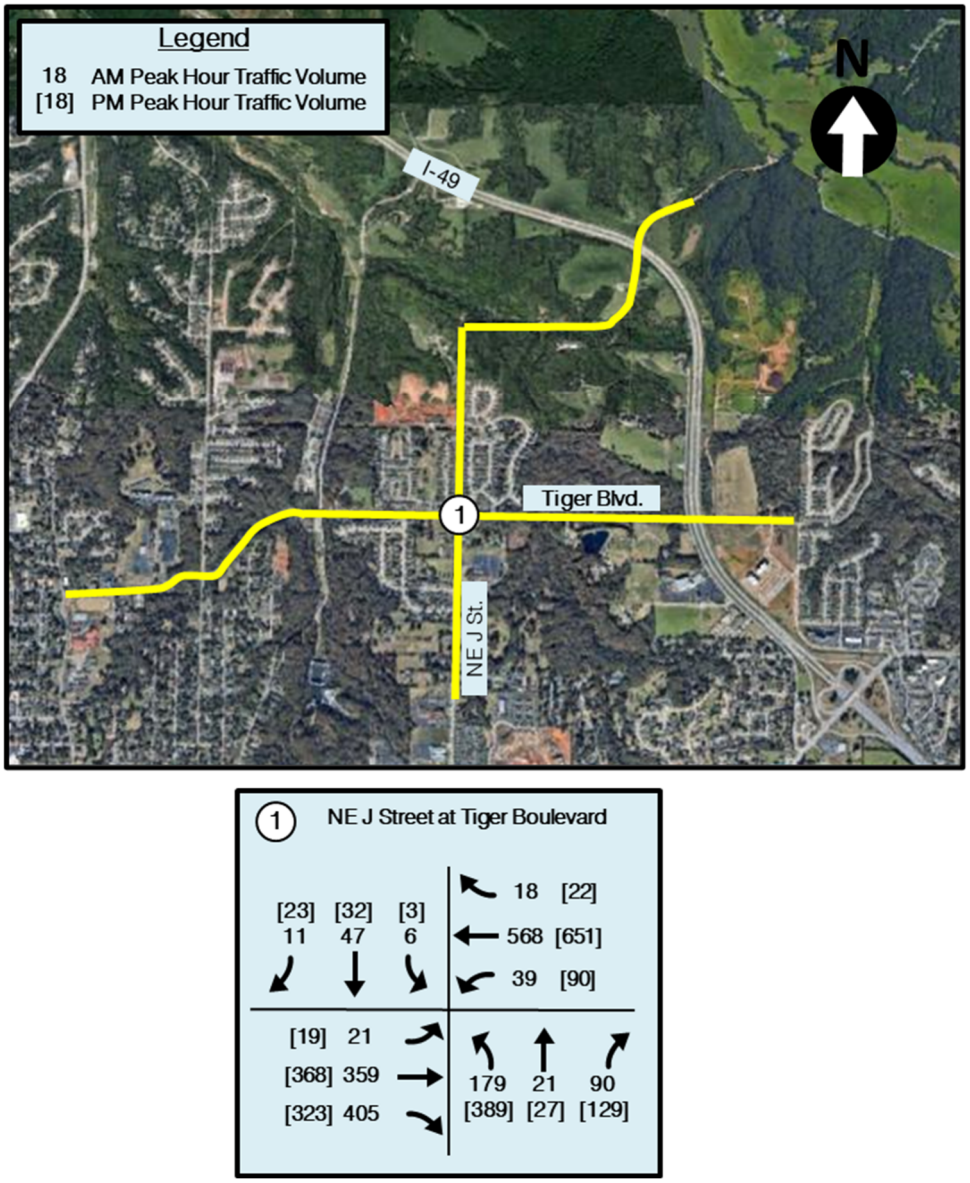


Figure 5: 2045 No-Action Intersection Volumes



Travel demand model data was utilized to determine how the addition of the NE J Street interchange at I-49 would affect traffic patterns. The 2022 Action volumes are shown in **Figure 6**. As mentioned earlier, the 2026 Action and 2045 Action volumes include the effects of the future extension of Tiger Boulevard across I-49. These volumes are shown in **Figures 7 and 8**, respectively.

Figure 6: 2022 Action Intersection Volumes

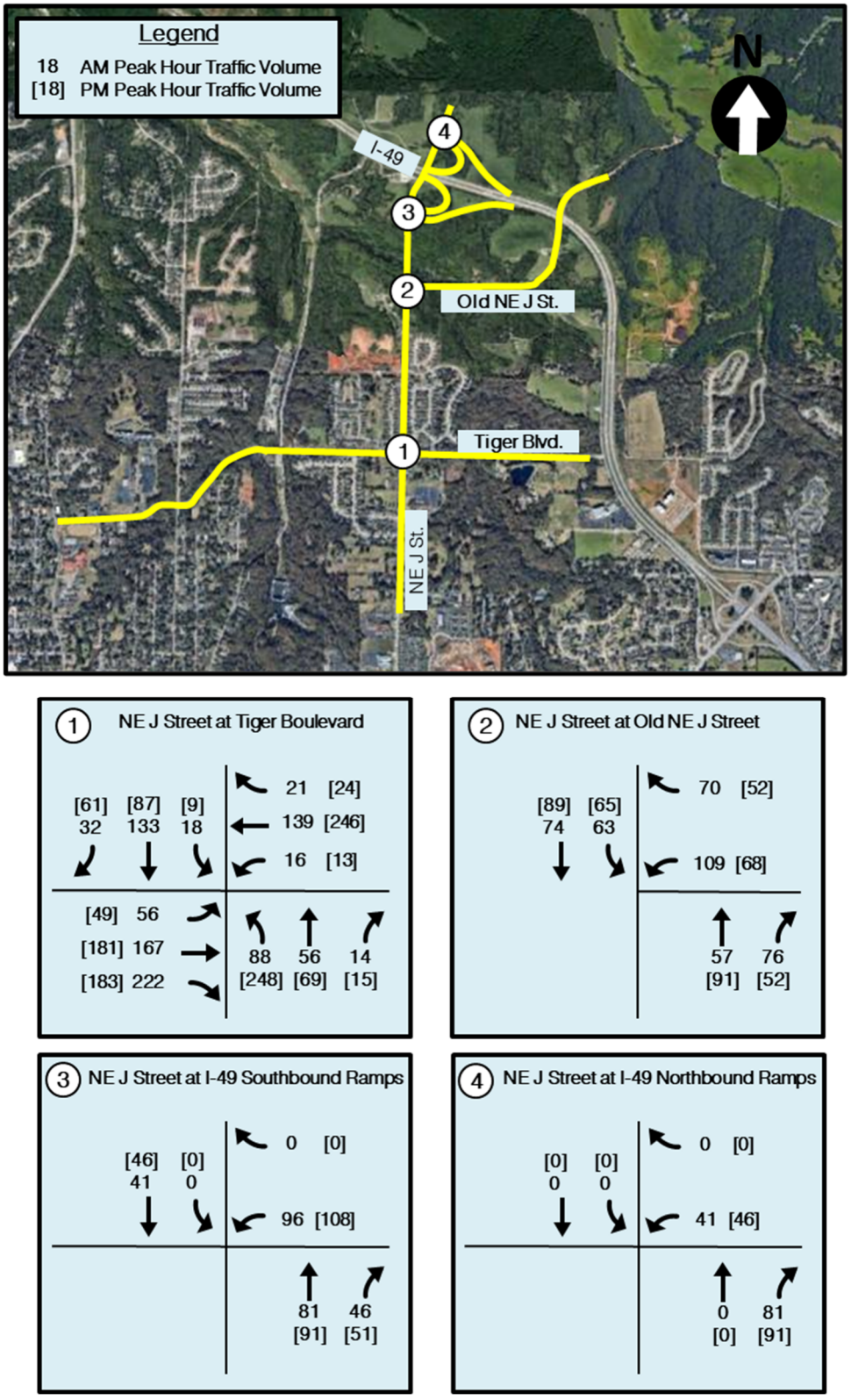


Figure 7: 2026 Action Intersection Volumes

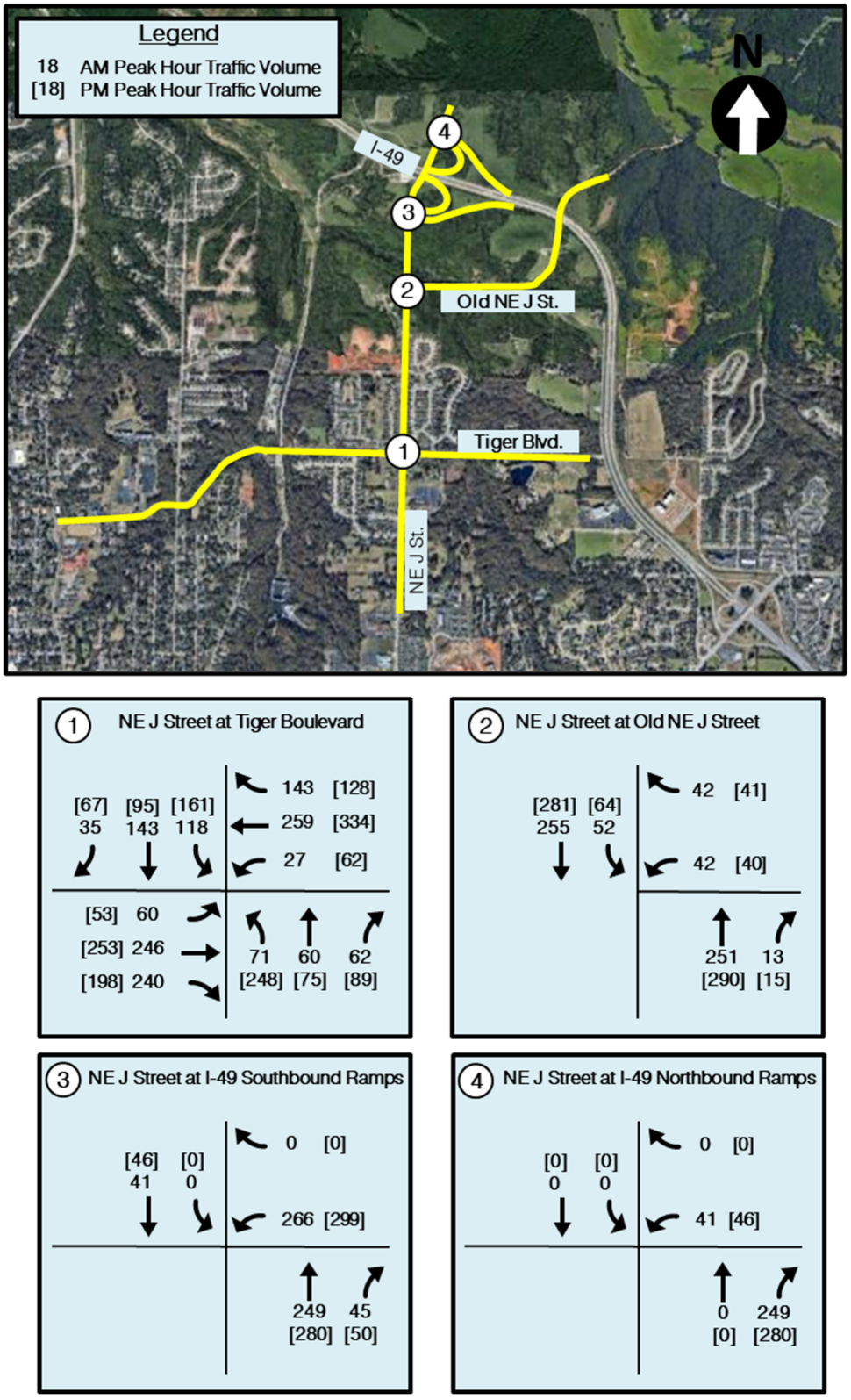
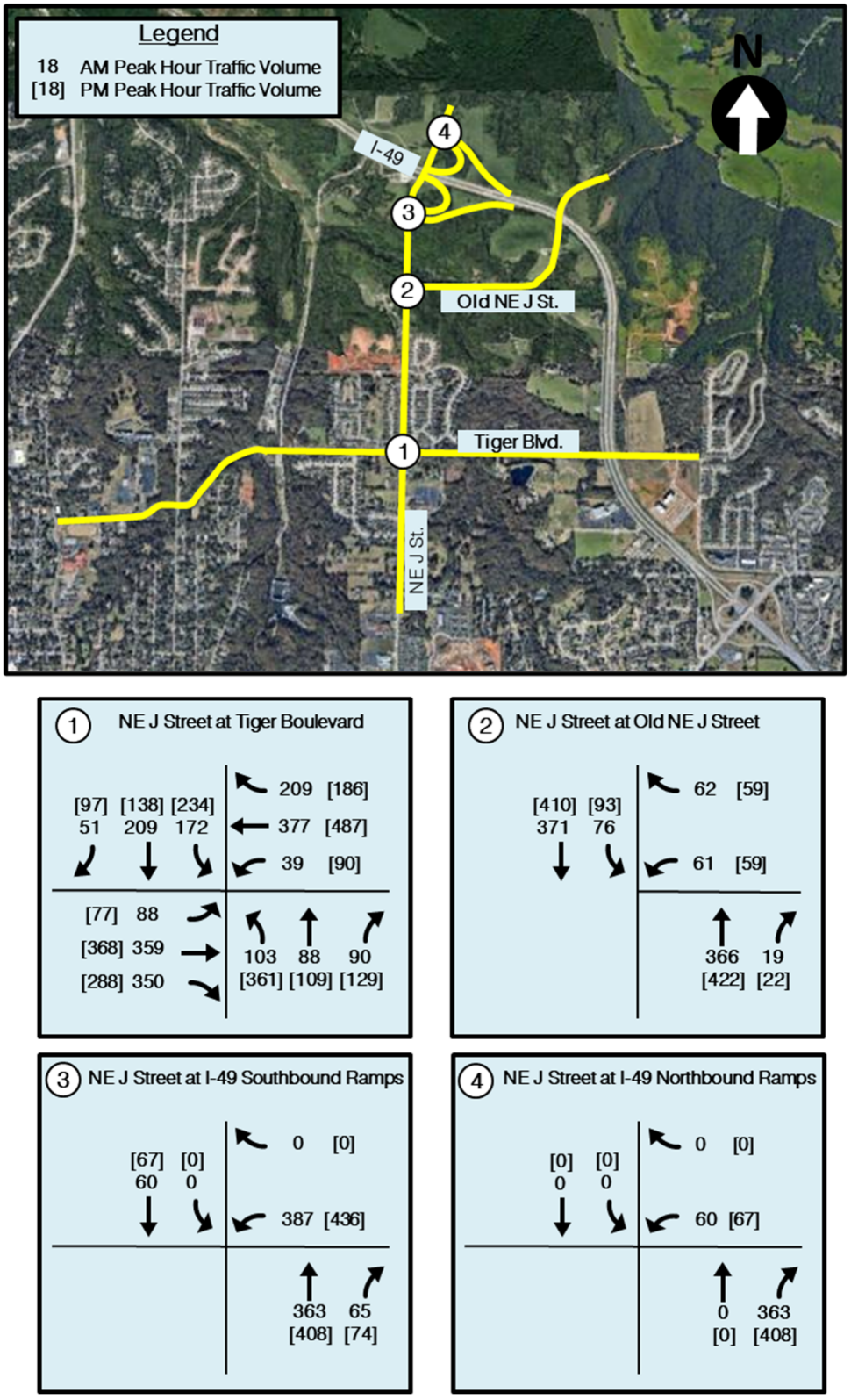


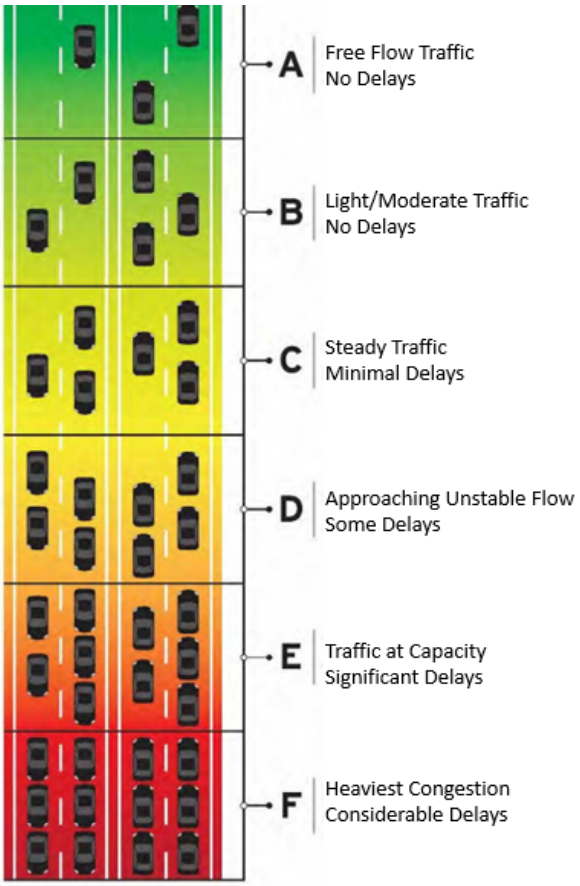
Figure 8: 2045 Action Intersection Volumes



OPERATIONAL ANALYSIS

The I-49 freeway facility from north of Highway 71/North Walton Boulevard through south of Highway 72 was evaluated under 2022 No-Action, 2022 Action, 2045 No-Action, and 2045 Action conditions to identify any current or anticipated operational needs for the I-49 corridor during typical peak hours.

Figure 9: Level -of-Service Categories



To quantify the operational needs for the study area, the *Highway Capacity Manual (HCM)* methodology was utilized via the freeway facilities module of the *Highway Capacity Software (HCS)*. The *HCM* qualitatively describes operating conditions within a traffic stream or at an intersection using a concept known as Level of Service (LOS). LOS is typically designated into six categories. These range from LOS A indicating free-flow, low density, or nearly negligible delay conditions to LOS F where demand exceeds capacity and large queues are experienced. A graphical representation of LOS is presented in **Figure 9**. The minimum acceptable LOS is generally set at LOS C for rural areas and LOS D for urban areas. For this study, LOS D is used as the threshold for acceptable LOS. The corridor analysis is discussed in **Section 3.1 – Freeway Analysis**.

The intersections of NE J Street at Tiger Boulevard, NE J Street at Old NE J Street, and NE J Street with the new I-49 Ramps were evaluated using *Synchro* software

according to *HCM* methodology and *Synchro's* companion *SimTraffic* software according to *SimTraffic's* microsimulation methodology. This analysis is discussed in **Section 3.2- Intersection Analysis**.

FREEWAY ANALYSIS

Under 2022 conditions, I-49 is a four-lane, divided freeway with one-lane ramps. In 2045, I-49 will be widened to three lanes in each direction for both No-Action and Action scenarios. The Action scenario adds an interchange with off-ramp and on-ramp access to and from NE J Street for each direction of travel along I-49. The LOS criteria for various freeway segments are defined in *HCM Exhibits 12-15, 13-6, and 14-3,* as shown in **Table 1**.

Table 1: LOS Criteria for Urban Freeway Facilities

Level of Service	Density (pc/mi/ln)		
	Basic Freeway Segment	Merge/Diverge Segment	Freeway Weaving Segment
A	≤ 11	≤ 10	0 - 10
B	> 11 - 18	> 10 - 20	> 10 - 20
C	> 18 - 26	> 20 - 28	> 20 - 28
D	> 26 - 35	> 28 - 35	> 28 - 35
E	> 35 - 45	> 35	> 35 - 43
F	> 45 or Demand > Capacity	Demand > Capacity	> 43 or Demand > Capacity

The LOS results are provided in **Appendix A- Operational Analysis Results** and are summarized in **Tables 2-9**. These results demonstrate that the I-49 freeway facility will operate acceptably in 2022 with LOS D or better. However, operational issues develop by 2045. The northbound on-ramp (PM peak) and southbound off-ramp (AM peak) at Highway 71/North Walton Boulevard experience LOS F

conditions under both No-Action and Action alternatives. These results demonstrate that the freeway facility will operate similarly under No-Action and Action scenarios even with the Action scenario serving higher volumes in some areas and providing direct access to NE J Street. By increasing access and volume served along I-49, the surrounding roadway network should experience some relief in demand and improved operations.

Table 2: LOS Results for 2022 No-Action along I-49 NB

I-49 NB	2022 No-Action		
Location	ADT	AM Peak - LOS	PM Peak - LOS
SE 8th St (Exit 87) to Hwy 72 (Exit 88)	56,500	B	C
Exit 88 Exit Ramp Hwy 72	5,000	B	C
Exit 88 Loop Exit Ramp Hwy 72	4,100	A	B
Exit 88 Entrance Ramp Hwy 72	2,400	A	C
Hwy 72 (Exit 88) to J Street (Exit 91 or 92)	43,500	A	C
Exit 89 Exit Ramp J Street	Future	Future	Future
Exit 89 Entrance Ramp J Street	Future	Future	Future
J Street (Exit 91 or 92) to Hwy 71 (Exit 93)	43,500	A	C
Exit 93 Exit Ramp Hwy 71	5,100	A	B
Exit 93 Entrance Ramp Hwy 71	9,700	A	C

Table 3: LOS Results for 2022 No-Action along I-49 SB

I-49 SB	2022 No-Action		
Location	ADT	AM Peak - LOS	PM Peak - LOS
Exit 93 Exit Ramp Hwy 71	9,200	D	B
Exit 93 Entrance Ramp Hwy 71	5,900	B	B
Hwy 71 (Exit 93) to J Street (Exit 91 or 92)	43,500	C	B
Exit 89 Exit Ramp J Street	Future	Future	Future
Exit 89 Entrance Ramp J Street	Future	Future	Future
J Street (Exit 91 or 92) to Hwy 72 (Exit 88)	43,500	C	B
Exit 88 Exit Ramp Hwy 72	2,600	C	B
Exit 88 Loop Entrance Ramp Hwy 72	4,900	B	A
Exit 88 Entrance Ramp Hwy 72	4,100	B	B
Hwy 72 (Exit 88) to SE 8th St (Exit 87)	56,500	B	B

Table 4: LOS Results for 2022 Action along I-49 NB

I-49 NB	2022 Action		
Location	ADT	AM Peak - LOS	PM Peak - LOS
SE 8th St (Exit 87) to Hwy 72 (Exit 88)	57,000	A	C
Exit 88 Exit Ramp Hwy 72	5,000	B	C
Exit 88 Loop Exit Ramp Hwy 72	3,700	A	B
Exit 88 Entrance Ramp Hwy 72	2,200	A	C
Hwy 72 (Exit 88) to J Street (Exit 91 or 92)	43,500	A	C
Exit 89 Exit Ramp J Street	550	A	B
Exit 89 Entrance Ramp J Street	1,100	A	B
J Street (Exit 91 or 92) to Hwy 71 (Exit 93)	44,500	A	C
Exit 93 Exit Ramp Hwy 71	5,200	A	B
Exit 93 Entrance Ramp Hwy 71	9,600	A	C

Table 5: LOS Results for 2022 Action along I-49 SB

I-49 SB	2022 Action		
Location	ADT	AM Peak - LOS	PM Peak - LOS
Exit 93 Exit Ramp Hwy 71	9,100	D	B
Exit 93 Entrance Ramp Hwy 71	6,100	B	B
Hwy 71 (Exit 93) to J Street (Exit 91 or 92)	44,500	C	B
Exit 89 Exit Ramp J Street	1,100	C	B
Exit 89 Entrance Ramp J Street	550	C	B
J Street (Exit 91 or 92) to Hwy 72 (Exit 88)	43,500	C	B
Exit 88 Exit Ramp Hwy 72	2,600	C	B
Exit 88 Loop Entrance Ramp Hwy 72	4,800	B	A
Exit 88 Entrance Ramp Hwy 72	4,700	B	B
Hwy 72 (Exit 88) to SE 8th St (Exit 87)	57,000	C	B

Table 6: LOS Results for 2045 No-Action along I-49 NB

I-49 NB	2045 No-Action		
Location	ADT	AM Peak - LOS	PM Peak - LOS
SE 8th St (Exit 87) to Hwy 72 (Exit 88)	81,000	B	D
Exit 88 Exit Ramp Hwy 72	6,600	C	D
Exit 88 Loop Exit Ramp Hwy 72	4,400	A	B
Exit 88 Entrance Ramp Hwy 72	4,400	A	C
Hwy 72 (Exit 88) to J Street (Exit 91 or 92)	68,500	A	C
Exit 89 Exit Ramp J Street	**Future**	**Future**	**Future**
Exit 89 Entrance Ramp J Street	**Future**	**Future**	**Future**
J Street (Exit 91 or 92) to Hwy 71 (Exit 93)	68,500	A	C
Exit 93 Exit Ramp Hwy 71	8,600	A	B
Exit 93 Entrance Ramp Hwy 71	15,000	B	F

Table 7: LOS Results for 2045 No-Action along I-49 SB

I-49 SB	2045 No-Action		
Location	ADT	AM Peak - LOS	PM Peak - LOS
Exit 93 Exit Ramp Hwy 71	14,500	F	C
Exit 93 Entrance Ramp Hwy 71	9,800	C	B
Hwy 71 (Exit 93) to J Street (Exit 91 or 92)	68,500	C	B
Exit 89 Exit Ramp J Street	**Future**	**Future**	**Future**
Exit 89 Entrance Ramp J Street	**Future**	**Future**	**Future**
J Street (Exit 91 or 92) to Hwy 72 (Exit 88)	68,500	C	B
Exit 88 Exit Ramp Hwy 72	4,800	D	C
Exit 88 Loop Entrance Ramp Hwy 72	6,500	C	B
Exit 88 Entrance Ramp Hwy 72	4,400	C	C
Hwy 72 (Exit 88) to SE 8th St (Exit 87)	81,000	D	C

Table 8: LOS Results for 2045 Action along I-49 NB

I-49 NB	2045 Action		
Location	ADT	AM Peak - LOS	PM Peak - LOS
SE 8th St (Exit 87) to Hwy 72 (Exit 88)	81,500	B	D
Exit 88 Exit Ramp Hwy 72	6,600	C	D
Exit 88 Loop Exit Ramp Hwy 72	3,900	A	B
Exit 88 Entrance Ramp Hwy 72	4,000	A	C
Hwy 72 (Exit 88) to J Street (Exit 91 or 92)	68,500	A	C
Exit 89 Exit Ramp J Street	800	A	C
Exit 89 Entrance Ramp J Street	4,700	A	C
J Street (Exit 91 or 92) to Hwy 71 (Exit 93)	76,500	B	C
Exit 93 Exit Ramp Hwy 71	8,800	A	B
Exit 93 Entrance Ramp Hwy 71	15,000	B	F

Table 9: LOS Results for 2045 Action along I-49 SB

I-49 SB	2045 Action		
Location	ADT	AM Peak - LOS	PM Peak - LOS
Exit 93 Exit Ramp Hwy 71	14,500	F	C
Exit 93 Entrance Ramp Hwy 71	10,000	C	B
Hwy 71 (Exit 93) to J Street (Exit 91 or 92)	76,500	C	B
Exit 89 Exit Ramp J Street	4,700	C	B
Exit 89 Entrance Ramp J Street	800	B	B
J Street (Exit 91 or 92) to Hwy 72 (Exit 88)	68,500	C	B
Exit 88 Exit Ramp Hwy 72	4,700	D	B
Exit 88 Loop Entrance Ramp Hwy 72	6,300	C	B
Exit 88 Entrance Ramp Hwy 72	5,100	C	B
Hwy 72 (Exit 88) to SE 8th St (Exit 87)	81,500	D	C

INTERSECTION ANALYSIS

The intersection of NE J Street at Tiger Boulevard is a four-legged intersection with all-way stop control (AWSC). The northbound leg has a dedicated left turn lane and a shared right-through lane, while the other three approaches consist of a shared left-through-right lane. The LOS criteria for this type of intersection are identified in *HCM Exhibit 21-8.* The LOS Criteria for a signalized intersection is identified in *HCM Exhibit 19-8*. These criteria are summarized in **Table 10**. As shown, LOS for both types of intersections are based on delay.

Table 10: LOS Criteria for Intersections

Level of Service	Signalized Intersection	Stop Controlled Intersection
	Control Delay (sec/veh)	
A	0 to 10	0 to 10
B	> 10 to 20	> 10 to 15
C	> 20 to 35	> 15 to 25
D	> 35 to 55	> 25 to 35
E	> 55 to 80	> 35 to 50
F	> 80 or	> 50 or
	v/c > 1	v/c >1

No-Action Conditions

Table 11 shows the delay and LOS results for the NE J Street/Tiger Boulevard intersection under 2022 No-Action conditions based on *HCM* and *SimTraffic* methodologies. Both methodologies demonstrate acceptable performance with LOS C or better for all movements during both peak periods.

Table 11: LOS Results for 2022 No-Action

Intersection	Time Period	Control	MOE	EB Movement			WB Movement			NB Movement			SB Movement			Overall
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
HCM																
NE J St at Tiger Blvd	AM	All-Way Stop	LOS	C			B			B	A		A			B
			Delay	15.7			11.0			11.8	9.1		9.7			13.5
	PM		LOS	C			C			C	A		B			C
			Delay	19.5			15.6			18.2	9.6		10.5			17.4
SimTraffic																
NE J St at Tiger Blvd	AM	All-Way Stop	LOS	B	B	A	A	A	A	A	A	A	A	A	A	A
			Delay	10.4	12.7	8.8	7.2	9.6	5.1	6.2	7.7	2.6	6.3	8.1	3.6	9.3
	PM		LOS	B	B	A	B	B	A	A	A	A	A	A	A	B
			Delay	10.3	12.7	8.9	10.2	11.3	6.3	8.8	9.2	3.9	2.7	9.1	3.6	10.2

Table 12 shows the NE J Street/Tiger Boulevard intersection results under 2045 No-Action conditions. According to both methodologies, the intersection will operate with failing overall LOS F during both peak hours by 2045. As displayed in the table, all the eastbound and westbound movements will experience unacceptable LOS F conditions during both peak hours.

Table 12: LOS Results for 2045 No-Action

Intersection	Time Period	Control	MOE	EB Movement			WB Movement			NB Movement			SB Movement			Overall
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
HCM																
NE J St at Tiger Blvd	AM	All-Way Stop	LOS	F			F			C	B		C			F
			Delay	238.2			141.2			20.0	13.9		15.2			159.5
	PM		LOS	F			F			F	C		C			F
			Delay	275.0			352.2			77.1	16.5		18.7			239.7
SimTraffic																
NE J St at Tiger Blvd	AM	All-Way Stop	LOS	F	F	F	F	F	E	B	B	A	A	B	A	F
			Delay	198.5	205.7	190.7	52.3	50.2	37.1	10.3	10.8	5.3	7.0	10.5	6.3	106.9
	PM		LOS	F	F	F	F	F	F	D	B	A	A	B	A	F
			Delay	364.0	382.6	374.8	760.2	745.6	726.7	29.3	14.3	8.5	5.5	12.3	6.8	410.4

Action Layout

With the proposed new interchange at I-49, two ramp terminals and the intersection formed by the old NE J Street at the new extension of NE J Street were analyzed along with the existing intersection at NE J Street at Tiger Boulevard with the 2022, 2026, and 2045 Action conditions. The intersections were analyzed with the following lane configurations:

- NE J Street at Tiger Boulevard:

- The first alternative (shown in **Figure 10**) was analyzed with all-way stop control. The second alternative (shown in **Figure 11**) was analyzed with a signal. The lane configuration for both alternatives was identical.
- Northbound (NE J Street): one left turn lane with 400 feet of storage (within the TWLTL), one through-right lane
- Southbound (NE J Street): one left turn lane with 100 feet of storage, one through lane, one right turn lane with 100 feet of storage
- Westbound (Tiger Boulevard): one left turn lane with 300 feet of storage, one through-right lane
- Eastbound (Tiger Boulevard): one left turn lane with 125 feet of storage, one through lane, one right turn lane with 225 feet of storage

Figure 10: Action Lane Config. for NE J St at Tiger Blvd-Stop Control

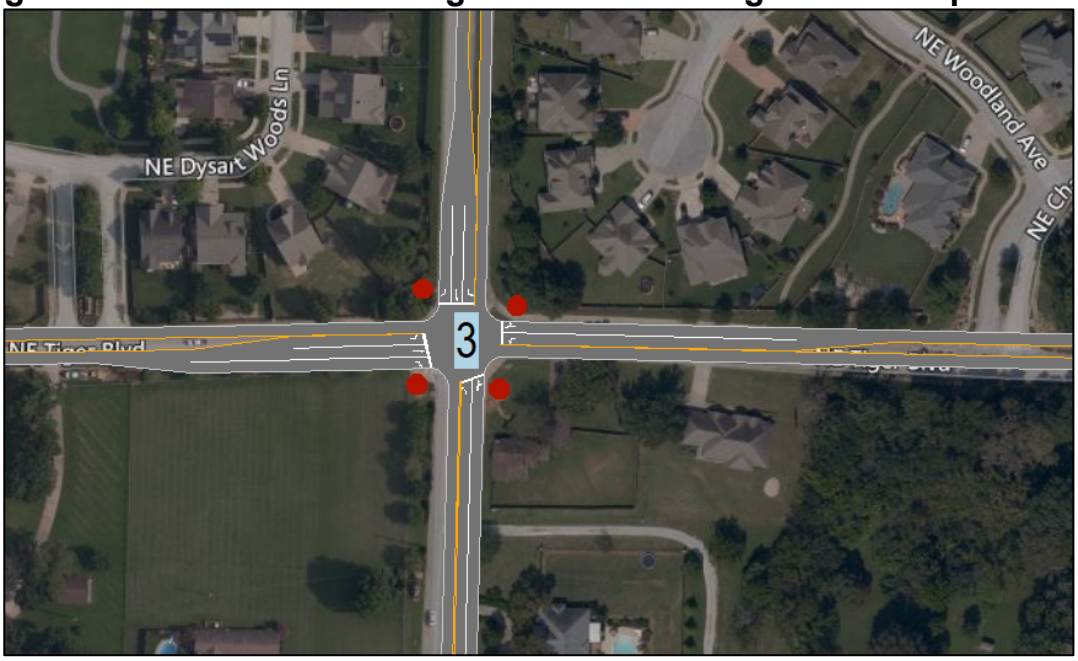
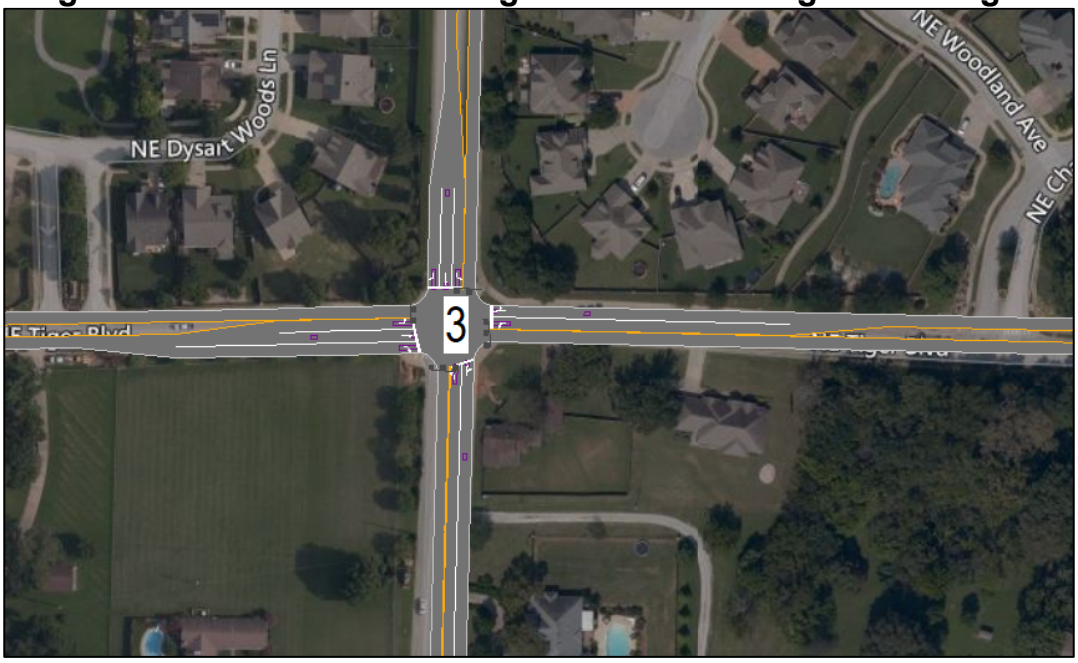


Figure 11: Action Lane Config. for NE J St at Tiger Blvd-Signal



- NE J Street at Old NE J Street (shown in **Figure 12**):
  - stop control on the Old NE J Street (westbound) approach
  - Northbound (NE J Street): one through lane, one shared through-right lane with 85 feet of storage
  - Southbound (NE J Street): one through lane, one left-turn lane
  - Westbound (Old NE J Street): one left-right lane

Figure 12: Action Lane Config. for NE J Street at Old NE J Street

- NE J Street at I-49 Southbound Ramps (shown in **Figure 13**):
  - stop control on the I-49 Southbound off-ramp (westbound) approach
  - Northbound (NE J Street): one through lane, one shared through-right lane with yield-controlled channelized right turn
  - Southbound (NE J Street): two through lanes, one left-turn lane with 100 feet of storage
  - Westbound (I-49 Southbound off-ramp): two left-turn lanes with 300 feet of storage for the outside left turn lane, one right-turn lane with yield-controlled channelized right turn and 300 feet of storage

Figure 13: Action Lane Config. for NE J Street at I-49 SB Ramps

- NE J Street at I-49 Northbound Ramps (show in **Figure 14**):
  - stop control on the I-49 Northbound off-ramp (westbound) approach
  - Northbound (NE J Street): one through lane, one shared through-right lane with yield-controlled channelized right turn
  - Southbound (NE J Street): two through lanes, one left-turn lane with 100 feet of storage
  - Westbound (I-49 Northbound off-ramp): one left-turn lane, one right-turn lane with yield-controlled channelized right turn and 200 feet of storage

Figure 14: Action Lane Config. for NE J Street at I-49 NB Ramps

Action Conditions – with Stop Control at NE J St at Tiger Blvd

The operational analysis results for the Action conditions with stop control are shown in **Tables 13 to 18** for 2022, 2026, and 2045 design years, respectively. Note that the 2022 Action scenario does not include the extension of Tiger Boulevard across I-49 which is being built as a separate project. This 2022 Action scenario is presented for the purpose of comparing Action versus Existing conditions. Since the Tiger Boulevard overpass is anticipated to be in place when the NE J Street extension opens in 2026, the 2026 Action and 2045 Action volumes include impacts from the Tiger Boulevard overpass and were utilized for developing recommendations on lane configurations and intersection controls. Complete results are provided in **Appendix A – Operational Analysis Results**.

Both methodologies show adequate performance with LOS C or better for all movements at the two I-49 ramp intersections and at the NE J Street at Old NE J Street intersection through the 2045 design year with one-way stop control.

The intersection of NE J Street at Tiger Boulevard shows adequate performance in 2022. However, changes in traffic patterns due to the Tiger Boulevard overpass will have a significant impact on operations at this intersection. Both methodologies show failing LOS F conditions for westbound through and right movements during one or both peak periods in 2026. By 2045, both methodologies show failing LOS F conditions for the overall intersection and for multiple movements during both peak periods. This demonstrates that the intersection of NE J Street at Tiger Boulevard will not operate acceptably with all-way stop control.

Table 13: LOS Results for 2022 Action (stop at Tiger Blvd) – *HCM* Results

Intersection	Time Period	Control	MOE	EB Movement			WB Movement			NB Movement			SB Movement			Overall
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
NE J St at Tiger Blvd	AM	All-Way Stop	LOS	B	B	B	B	B		B	B		B	B	A	B
			Delay	10.6	12.3	12.0	10.5	13.0		12.3	11.0		10.7	12.7	9.6	12.1
	PM		LOS	B	C	B	B	C		C	B		B	B	B	C
			Delay	12.2	16.1	14.2	11.5	23.7		24.1	12.3		12.1	13.8	12.0	18.3
NE J St at old NE J Street	AM	One-Way Stop	LOS				B		B		n/a[1]	n/a[1]	A	n/a[1]		A
			Delay				11.4		11.4				7.6			5.6
	PM		LOS				B		B		n/a[1]	n/a[1]	A	n/a[1]		A
			Delay				10.8		10.8				7.7			4.3
NE J St at I-49 SB Ramps	AM	One-Way Stop	LOS	HCM does not support more than one exclusive lane on turning movements (dual westbound left turn lanes) with stop control.												
			Delay													
	PM		LOS													
			Delay													
NE J St at I-49 NB Ramps	AM	One-Way Stop	LOS				A		A		n/a[1]	n/a[1]	A	n/a[1]		A
			Delay				8.9		0.0				0.0			3.0
	PM		LOS				A		A		n/a[1]	n/a[1]	A	n/a[1]		A
			Delay				9.0		0.0				0.0			3.0

n/a[1] – free movement, no delay reported

Table 14: LOS Results for 2022 Action (stop at Tiger Blvd) – *SimTraffic* Results

Intersection	Time Period	Control	MOE	EB Movement			WB Movement			NB Movement			SB Movement			Overall
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
NE J St at Tiger Blvd	AM	All-Way Stop	LOS	A	B	A	A	A	A	A	A	A	A	A	A	A
			Delay	8.5	10.6	6.5	6.3	9.7	6.5	6.8	8.2	3.1	6.2	9.7	4.3	8.3
	PM		LOS	A	B	A	A	C	B	B	A	A	A	B	A	B
			Delay	9.5	11.7	6.6	8.4	15.1	11.0	12.5	10.0	5.8	6.7	11.8	6.6	11.2
NE J St at old NE J Street	AM	One-Way Stop	LOS				A		A		A	A	A	A		A
			Delay				8.6		7.5		0.2	0.3	4.0	0.7		4.0
	PM		LOS				A		A		A	A	A	A		A
			Delay				8.5		6.7		0.2	0.3	3.9	0.7		3.1
NE J St at I-49 SB Ramps	AM	One-Way Stop	LOS				A		n/a[1]		A	A	n/a[1]	A		A
			Delay				4.9				2.6	4.2		0.7		3.4
	PM		LOS				A		n/a[1]		A	A	n/a[1]	A		A
			Delay				4.9				2.4	3.9		0.7		3.4
NE J St at I-49 NB Ramps	AM	One-Way Stop	LOS				A		n/a[1]		n/a[1]	A	n/a[1]	n/a[1]		A
			Delay				4.0					2.7				3.2
	PM		LOS				A		n/a[1]		n/a[1]	A	n/a[1]	n/a[1]		A
			Delay				3.9					2.8				3.2

n/a[1] - no volume modeled making this movement

Table 15: LOS Results for 2026 Action (stop at Tiger Blvd) – *HCM* Results

Intersection	Time Period	Control	MOE	EB Movement			WB Movement			NB Movement			SB Movement			Overall
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
NE J St at Tiger Blvd	AM	All-Way Stop	LOS	B	D	C	B	F		C	C		C	C	B	E
			Delay	13.8	25.6	20.9	12.7	81.3		15.9	17.0		18.1	18.5	12.4	36.6
			Queue (ft)	15	108	88	5	340		20	38		38	48	8	-
	PM		LOS	C	E	C	C	F		E	C		D	C	C	F
			Delay	16.4	40.8	24.6	16.1	222.0		45.7	22.5		27.7	19.1	16.2	80.6
			Queue (ft)	15	148	80	18	633		155	60		73	30	18	-
NE J St at old NE J Street	AM	One-Way Stop	LOS				B		B				A			A
			Delay				11.7		11.7		n/a[1]	n/a[1]	8.0	n/a[1]		2.1
			Queue (ft)				13		13				3			-
	PM		LOS				B		B				A			A
			Delay				12.2		12.2		n/a[1]	n/a[1]	8.1	n/a[1]		2.1
			Queue (ft)				13		13				5			-
NE J St at I-49 SB Ramps	AM	One-Way Stop	LOS	HCM does not support more than one exclusive lane on turning movements (dual westbound left turn lanes) with stop control.												
			Delay													
			Queue (ft)													
	PM		LOS													
			Delay													
			Queue (ft)													
NE J St at I-49 NB Ramps	AM	One-Way Stop	LOS				A		A				A			A
			Delay				9.5		0.0		n/a[1]	n/a[1]	0.0	n/a[1]		1.3
			Queue (ft)				5		0				0			-
	PM		LOS				A		A				A			A
			Delay				9.7		0.0		n/a[1]	n/a[1]	0.0	n/a[1]		1.4
			Queue (ft)				5		0				0			-

n/a[1] – free movement, no delay reported

Table 16: LOS Results for 2026 Action (stop at Tiger Blvd) – *SimTraffic* Results

Intersection	Time Period	Control	MOE	EB Movement			WB Movement			NB Movement			SB Movement			Overall
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
NE J St at Tiger Blvd	AM	All-Way Stop	LOS	B	B	A	A	C	B	A	B	A	B	B	A	B
			Delay	10.1	14.0	8.2	9.1	17.1	13.0	8.3	11.1	6.3	10.5	13.3	6.6	12.0
			Queue (ft)	48	95	84	46	166		51	60		73	79	51	-
	PM		LOS	B	C	A	D	F	F	C	C	A	B	C	B	D
			Delay	13.4	20.7	8.2	28.3	82.8	72.7	19.6	15.7	9.2	14.6	15.9	10.2	32.7
			Queue (ft)	55	130	75	377	676		135	75		93	71	57	-
NE J St at old NE J Street	AM	One-Way Stop	LOS				A		A		A	A	A	A		A
			Delay				8.9		6.6		0.3	0.4	4.8	1.2		2.0
			Queue (ft)				57		57		0		38	0		-
	PM		LOS				B		A		A	A	A	A		A
			Delay				10.2		6.9		0.4	0.4	5.5	1.3		2.1
			Queue (ft)				59		59		3		37	0		-
NE J St at I-49 SB Ramps	AM	One-Way Stop	LOS				A		n/a[1]		A	A	n/a[1]	A		A
			Delay				7.6				1.8	3.9		0.8		4.6
			Queue (ft)				91				6			0		-
	PM		LOS				A		n/a[1]		A	A	n/a[1]	A		A
			Delay				8.2				1.8	3.6		0.9		4.7
			Queue (ft)				96				4			0		-
NE J St at I-49 NB Ramps	AM	One-Way Stop	LOS				A		n/a[1]		n/a[1]	A	n/a[1]	n/a[1]		A
			Delay				4.1					3.7				3.8
			Queue (ft)				49					0				-
	PM		LOS				A		n/a[1]		n/a[1]	A	n/a[1]	n/a[1]		A
			Delay				4.0					3.8				3.9
			Queue (ft)				51					0				-

n/a[1] - no volume modeled making this movement

Table 17: LOS Results for 2045 Action (stop at Tiger Blvd) – *HCM* Results

Intersection	Time Period	Control	MOE	EB Movement			WB Movement			NB Movement			SB Movement			Overall
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
NE J St at Tiger Blvd	AM	All-Way Stop	LOS	C	F	F	C	F		C	D		D	E	C	F
			Delay	19.8	109.4	78.3	16.2	440.5		24.1	32.2		33.3	38.9	17.0	164.0
			Queue (ft)	28	315	260	13	1063		40	85		85	113	13	-
	PM		LOS	C	F	F	C	F		F	F		F	D	C	F
			Delay	23.8	193.9	82.3	23.6	691.7		217.5	59.4		77.3	32.6	24.4	266.1
			Queue (ft)	28	403	218	38	1373		433	163		183	65	35	-
NE J St at old NE J Street	AM	One-Way Stop	LOS				B		B		n/a[1]	n/a[1]	A	n/a[1]		A
			Delay				14.6		14.6				8.4			2.5
			Queue (ft)				25		25				5			-
	PM		LOS				C		C		n/a[1]	n/a[1]	A	n/a[1]		A
			Delay				15.9		15.9				8.7			2.5
			Queue (ft)				28		28				8			-
NE J St at I-49 SB Ramps	AM	One-Way Stop	LOS	HCM does not support more than one exclusive lane on turning movements (dual westbound left turn lanes) with stop control.												
			Delay													
			Queue (ft)													
	PM		LOS													
			Delay													
			Queue (ft)													
NE J St at I-49 NB Ramps	AM	One-Way Stop	LOS				B		A		n/a[1]	n/a[1]	A	n/a[1]		A
			Delay				10.1		0.0				0.0			1.4
			Queue (ft)				7.5		7.5				0.0			-
	PM		LOS				B		A		n/a[1]	n/a[1]	A	n/a[1]		A
			Delay				10.4		0.0				0.0			1.5
			Queue (ft)				7.5		7.5				0.0			-

n/a[1] – free movement, no delay reported

Table 18: LOS Results for 2045 Action (stop at Tiger Blvd) – *SimTraffic* Results

Intersection	Time Period	Control	MOE	EB Movement			WB Movement			NB Movement			SB Movement			Overall
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
NE J St at Tiger Blvd	AM	All-Way Stop	LOS	C	E	C	F	F	F	B	C	A	C	C	A	F
			Delay	22.5	38.3	21.7	274.5	336.5	342.8	10.8	15.4	8.3	16.3	19.6	9.5	117.5
			Queue (ft)	152	421	261	551	3040		56	79		99	113	55	-
	PM		LOS	F	F	F	F	F	F	F	F	F	C	C	B	F
			Delay	213.1	277.9	184.1	956.4	1039.5	1038.2	255.4	166.0	152.1	23.7	22.8	14.1	427.9
			Queue (ft)	317	2706	448	577	4098		542	2089		145	91	76	-
NE J St at old NE J Street	AM	One-Way Stop	LOS				B		A		A	A	A	A		A
			Delay				12.2		7.0		0.4	0.4	4.9	1.4		2.4
			Queue (ft)				65		65		0		43	0		-
	PM		LOS				B		A		A	A	A	A		A
			Delay				13.9		7.9		0.4	0.6	5.8	1.5		2.6
			Queue (ft)				72		72		0		47	0		-
NE J St at I-49 SB Ramps	AM	One-Way Stop	LOS				B				A	A		A		A
			Delay				11.4		n/a[1]		2.2	4.0	n/a[1]	1.0		6.4
			Queue (ft)				135				10			3		-
	PM		LOS				B				A	A		A		A
			Delay				11.6		n/a[1]		2.2	3.8	n/a[1]	1.0		6.9
			Queue (ft)				144				6			0		-
NE J St at I-49 NB Ramps	AM	One-Way Stop	LOS				A					A				A
			Delay				4.1		n/a[1]		n/a[1]	4.4	n/a[1]	n/a[1]		4.3
			Queue (ft)				54					0				-
	PM		LOS				A					A				A
			Delay				4.0		n/a[1]		n/a[1]	4.1	n/a[1]	n/a[1]		4.1
			Queue (ft)				45					0				-

n/a[1] - no volume modeled making this movement

Action Conditions – with Signal at NE J St at Tiger Blvd

The operational analysis results for the Action conditions with signal control at the intersection of NE J Street and Tiger Boulevard are shown in **Tables 19 to 22** for 2026 and 2045 design years, respectively. Complete results are provided in **Appendix A – Operational Analysis Results**. These results show acceptable performance for all movements at all intersections through the 2045 design year according to both methodologies.

Table 19: LOS Results for 2026 Action (signal at Tiger Blvd) – *HCM* Results

Intersection	Time Period	Control	MOE	EB Movement			WB Movement			NB Movement			SB Movement			Overall
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
NE J St at Tiger Blvd	AM	Signal	LOS	B	B	A	A	B		B	B		B	C	A	B
			Delay	10.4	11.8	9.7	9.1	19.2		14.6	18.8		15.0	20.1	0.0	16.1
			Queue (ft)	15	73	8	5	163		25	33		43	63	0	-
	PM		LOS	B	B	B	A	C		C	C		B	C	A	B
			Delay	11.5	13.4	11.0	9.8	20.5		21.6	24.4		17.6	23.9	0.0	19.1
			Queue (ft)	15	95	8	18	218		128	70		73	53	0	-
NE J St at old NE J Street	AM	One-Way Stop	LOS				B		B				A			A
			Delay				11.7		11.7		n/a[1]	n/a[1]	8.0	n/a[1]		2.1
			Queue (ft)				13		13				3			-
	PM		LOS				B		B				A			A
			Delay				12.2		12.2		n/a[1]	n/a[1]	8.1	n/a[1]		2.1
			Queue (ft)				13		13				5			-
NE J St at I-49 SB Ramps	AM	One-Way Stop	LOS	HCM does not support more than one exclusive lane on turning movements (dual westbound left turn lanes) with stop control.												
			Delay													
			Queue (ft)													
	PM		LOS													
			Delay													
			Queue (ft)													
NE J St at I-49 NB Ramps	AM	One-Way Stop	LOS				A		A				A			A
			Delay				9.5		0.0		n/a[1]	n/a[1]	0.0	n/a[1]		1.3
			Queue (ft)				5		0				0			-
	PM		LOS				A		A				A			A
			Delay				9.7		0.0		n/a[1]	n/a[1]	0.0	n/a[1]		1.4
			Queue (ft)				5		0				0			-

n/a[1] – free movement, no delay reported

Table 20: LOS Results for 2026 Action (signal at Tiger Blvd) – *SimTraffic* Results

Intersection	Time Period	Control	MOE	EB Movement			WB Movement			NB Movement			SB Movement			Overall
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
NE J St at Tiger Blvd	AM	Signal	LOS	B	B	A	B	B	B	B	B	A	B	B	A	B
			Delay	13.9	12.7	6.6	12.1	17.3	11.8	13.3	15.0	7.0	14.4	15.0	6.7	12.6
			Queue (ft)	52	121	76	46	188		60	77		90	89	46	-
	PM		LOS	B	B	A	B	B	B	B	B	A	B	C	A	B
			Delay	15.5	15.1	6.2	14.2	19.0	12.4	19.9	17.7	8.7	17.6	20.9	9.2	15.5
			Queue (ft)	61	137	66	61	222		146	89		105	90	58	-
NE J St at old NE J Street	AM	One-Way Stop	LOS				A		A		A	A	A	A		A
			Delay				8.8		6.7		0.3	0.4	4.4	1.2		1.9
			Queue (ft)				57		57		0		33	0		-
	PM		LOS				A		A		A	A	A	A		A
			Delay				10.0		6.7		0.4	0.5	5.5	1.2		2.0
			Queue (ft)				58		58		0		37	0		-
NE J St at I-49 SB Ramps	AM	One-Way Stop	LOS				A		n/a[1]		A	A	n/a[1]	A		A
			Delay				7.6				1.7	3.9		0.8		4.5
			Queue (ft)				93				0			0		-
	PM		LOS				A		n/a[1]		A	A	n/a[1]	A		A
			Delay				8.4				1.9	3.8		0.9		4.8
			Queue (ft)				98				8			0		-
NE J St at I-49 NB Ramps	AM	One-Way Stop	LOS				A		n/a[1]		n/a[1]	A	n/a[1]	n/a[1]		A
			Delay				4.1					3.7				3.7
			Queue (ft)				50					0				-
	PM		LOS				A		n/a[1]		n/a[1]	A	n/a[1]	n/a[1]		A
			Delay				4.0					4.0				4.0
			Queue (ft)				50					0				-

n/a[1] - no volume modeled making this movement

Table 21: LOS Results for 2045 Action (signal at Tiger Blvd) – *HCM* Results

Intersection	Time Period	Control	MOE	EB Movement			WB Movement			NB Movement			SB Movement			Overall
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
NE J St at Tiger Blvd	AM	Signal	LOS	B	B	B	B	C		C	C		C	C	C	C
			Delay	14.7	13.8	11.6	10.1	29.3		21.6	26.8		23.9	30.6	22.8	22.7
			Queue (ft)	33	165	53	13	363		60	90		108	158	5	-
	PM		LOS	C	C	B	B	D		D	D		C	D	D	D
			Delay	25.1	20.1	16.5	15.1	47.4		49.6	42.7		34.8	51.3	40.1	38.2
			Queue (ft)	48	265	73	53	675		393	223		230	178	5	-
NE J St at old NE J Street	AM	One-Way Stop	LOS				B		B		n/a[1]	n/a[1]	A	n/a[1]		A
			Delay				14.6		14.6				8.4			2.5
			Queue (ft)				25		25				5			-
	PM		LOS				C		C		n/a[1]	n/a[1]	A	n/a[1]		A
			Delay				15.9		15.9				8.7			2.5
			Queue (ft)				28		28				8			-
NE J St at I-49 SB Ramps	AM	One-Way Stop	LOS	HCM does not support more than one exclusive lane on turning movements (dual westbound left turn lanes) with stop control.												
			Delay													
			Queue (ft)													
	PM		LOS													
			Delay													
			Queue (ft)													
NE J St at I-49 NB Ramps	AM	One-Way Stop	LOS				B		A		n/a[1]	n/a[1]	A	n/a[1]		A
			Delay				10.1		0.0				0.0			1.4
			Queue (ft)				7.5		7.5				0.0			-
	PM		LOS				B		A		n/a[1]	n/a[1]	A	n/a[1]		A
			Delay				10.4		0.0				0.0			1.5
			Queue (ft)				7.5		0.0				0.0			-

n/a[1] – free movement, no delay reported

Table 22: LOS Results for 2045 Action (signal at Tiger Blvd) – *SimTraffic* Results

Intersection	Time Period	Control	MOE	EB Movement			WB Movement			NB Movement			SB Movement			Overall
				Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
NE J St at Tiger Blvd	AM	Signal	LOS	C	B	B	C	C	C	C	C	B	C	C	B	C
			Delay	25.0	15.6	10.3	21.2	30.2	25.8	23.2	23.1	11.1	29.6	26.4	10.9	21.5
			Queue (ft)	82	159	128	169	424		83	115		148	156	56	-
	PM		LOS	D	C	B	D	D	D	D	D	C	D	D	C	D
			Delay	41.7	25.5	10.4	36.9	53.2	47.7	49.2	39.4	24.1	36.7	46.0	20.6	37.5
			Queue (ft)	128	277	150	323	723		363	224		203	189	101	-
NE J St at old NE J Street	AM	One-Way Stop	LOS				B		A		A	A	A	A		A
			Delay				12.5		7.9		0.5	0.5	5.0	1.5		2.5
			Queue (ft)				74		74		3		47	0		-
	PM		LOS				B		A		A	A	A	A		A
			Delay				14.9		8.6		0.5	0.7	6.1	1.5		2.7
			Queue (ft)				73		73		0		48	0		-
NE J St at I-49 SB Ramps	AM	One-Way Stop	LOS				B				A	A		A		A
			Delay				12.3		n/a[1]		2.4	4.1	n/a[1]	1.0		6.9
			Queue (ft)				139				9			0		-
	PM		LOS				B				A	A		A		A
			Delay				13.5		n/a[1]		2.4	4.0	n/a[1]	1.0		7.4
			Queue (ft)				148				13			0		-
NE J St at I-49 NB Ramps	AM	One-Way Stop	LOS				A					A				A
			Delay				4.1		n/a[1]		n/a[1]	4.5	n/a[1]	n/a[1]		4.5
			Queue (ft)				54					0				-
	PM		LOS				A					A				A
			Delay				4.0		n/a[1]		n/a[1]	4.8	n/a[1]	n/a[1]		4.7
			Queue (ft)				48					0				-

n/a[1] - no volume modeled making this movement

SIGNAL WARRANT ANALYSIS

Signal warrant analysis was conducted for the four study intersections, including: NE J Street at Tiger Boulevard, NE J Street at Old NE J Street, NE J Street at I-49 Southbound Ramps, and NE J Street at I-49 Northbound Ramps. Analyses were conducted based on opening year 2026 Action design volumes. The *Manual on Uniform Traffic Control Devices* (MUTCD), 2009 Edition, lists the following as signal warrants.

- Warrant 1 – Eight-Hour Vehicular Volume
- Warrant 2 – Four-Hour Vehicular Volume
- Warrant 3 – Peak Hour

- Warrant 4 – Pedestrian Volume
- Warrant 5 – School Crossing
- Warrant 6 – Coordinated Signal System
- Warrant 7 – Crash Experience
- Warrant 8 – Roadway Network
- Warrant 9 – Intersection Near a Grade Crossing

To estimate the hourly turning movement volumes at each intersection from 7 AM to 7 PM, the hourly ratio of off-peak volume to peak hour volume for each movement was assumed to match the ratios observed at the existing NE J Street at Tiger Boulevard intersection. The *Highway Capacity Software (HCS7)* was used to compare the total intersection volumes against the criteria for signalization established in these warrants. Warrants 1 through 3 were determined to be applicable and are described in the following subsections.

Warrant 1 – Eight-Hour Vehicular Volume

Warrant 1 typically applies where the volume of intersecting traffic throughout the average day is significant or the intersecting traffic causes excessive delay to the minor street traffic. It is made up of two conditions. Condition A considers the volume of traffic crossing the intersection while Condition B considers the delay and number of conflicts for the minor street traffic. Conditions A and B are independent of one another in determining whether the warrant is satisfied. However, if neither condition is satisfied for 8 hours of an average day, a combination of the warrants may be considered at 80% of the required vehicles per hour (vph).

Warrant 2 – Four-Hour Vehicular Volume

Warrant 2 applies where the volume of intersecting traffic, usually during peak times, is the primary reason for considering a traffic signal. If it is found that, for any four hours of an average day, the side street traffic suffers undue delay which would be remedied by a traffic signal, then a signal may be justified.

Warrant 3 – Peak Hour

Warrant 3 typically applies only to facilities that attract or discharge large numbers of vehicles over a short time. It is made up of two conditions. For Condition A, three criteria must occur for this warrant to be met. First, the total stopped time delay for one side street approach must equal or exceed four vehicle-hours (one-lane approach) or five vehicle-hours (two-lane approach) in a single hour of the day. Second, the volume for this side street approach must exceed 100 vph (one lane approach) or 150 vph (two-lane approach). Finally, the total volume entering the intersection must exceed 650 vph (one-lane approach) or 800 vph (two-lane approach) for the same hour as the first two criteria. For Condition B, the warrant is determined graphically.

Additional Considerations and Results

According to the *MUTCD*, signal warrants should also be checked with right turn reductions applied to the minor street approaches to account for the fact that some of the volume is able to turn right on red.

The signal warrants were tested against the warrant thresholds using the full 2026 Action volumes. The signal warrant reports developed for this analysis are provided in **Appendix B – Signal Warrant Analysis Results**. These results, summarized in **Table 23,** show that only the intersection of NE J Street at Tiger

Boulevard meets warrants for signalization. This intersection still meets Warrants 1, 2, and 3 even with right turn reductions applied to the minor approach volumes.

The operational analysis supports the need for signalization at the intersection of NE J Street and Tiger Boulevard to achieve acceptable performance from opening year 2026 through design year 2045.

Table 23: Signal Warrant Analysis Results for 2026 Action

Intersection	Warrant 1		Warrant 2		Warrant 3		Signalize?
	Full Volumes	Reduced Volumes	Full Volumes	Reduced Volumes	Full Volumes	Reduced Volumes	
NE J St. at Tiger Blvd.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NE J St. at Old NE J St.	No	-	No	-	No	-	No
NE J St. at I-49 SB Ramps	No	-	No	-	No	-	No
NE J St. at I-49 NB Ramps	No	-	No	-	No	-	No

SAFETY ANALYSIS OF EXISTING CONDITIONS

In addition to traffic operations, a historical safety analysis of Interstate 49 from 2016 - 2020 was conducted. Crash rates were compared to statewide averages for similar facilities as shown in **Table 24**.

Table 24: Crash Rates (2016-2020)

Route	Section	Log Miles		Weighted ADT	Total Crashes			KA Crashes		
		Begin LM	End LM		Number of Crashes	Crash Rate (per MVM)[1]	Statewide Average (per MVM)[1]	Number of Crashes	Crash Rate (per 100 MVM)[1]	Statewide Average (per 100 MVM)[1]
I-49[2]	29	87.56	91.45	39,000	220	0.80	0.78	8	2.89	2.95

[1]MVM - Million Vehicle Miles
[2]Facility type: Urban 4-lane, divided, full control of access highway

The total and Fatal and Serious Injury (KA) crash rates for Interstate 49 are comparable to the statewide averages for similar facilities. As shown in **Figure 15**, single vehicle crash type collision was the leading crash type (44%) followed by rear end crashes (29%). Most crashes that occurred were No Apparent Injury (O) type crashes. Within the five (5) years, 22 Possible Injury (C), 16 Suspected Minor Injury (B), 7 Suspected Serious Injury (A), and 1 Fatal (K) crashes occurred within the study area. **Figure 16** shows the locations of the eight (8) KA crashes along I-49 and one (1) crash on Highway 71, along with crash ratios (all severity) for the study corridors.

Figure 15: I-49 Crash Manner (2016-2020)

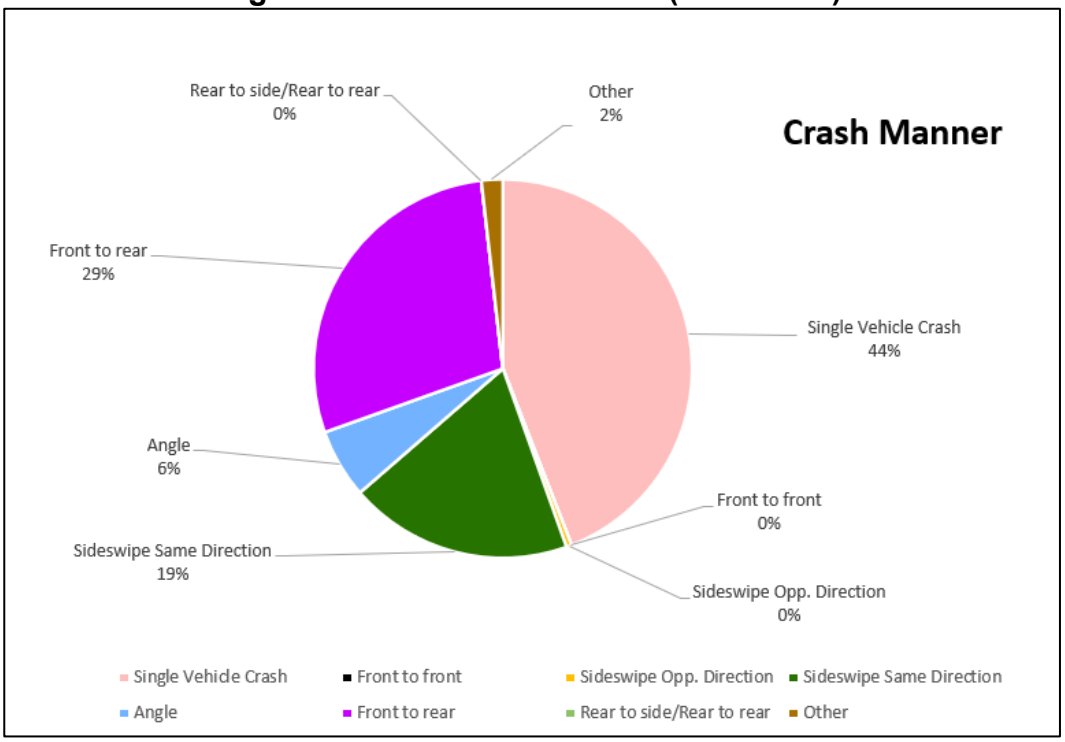
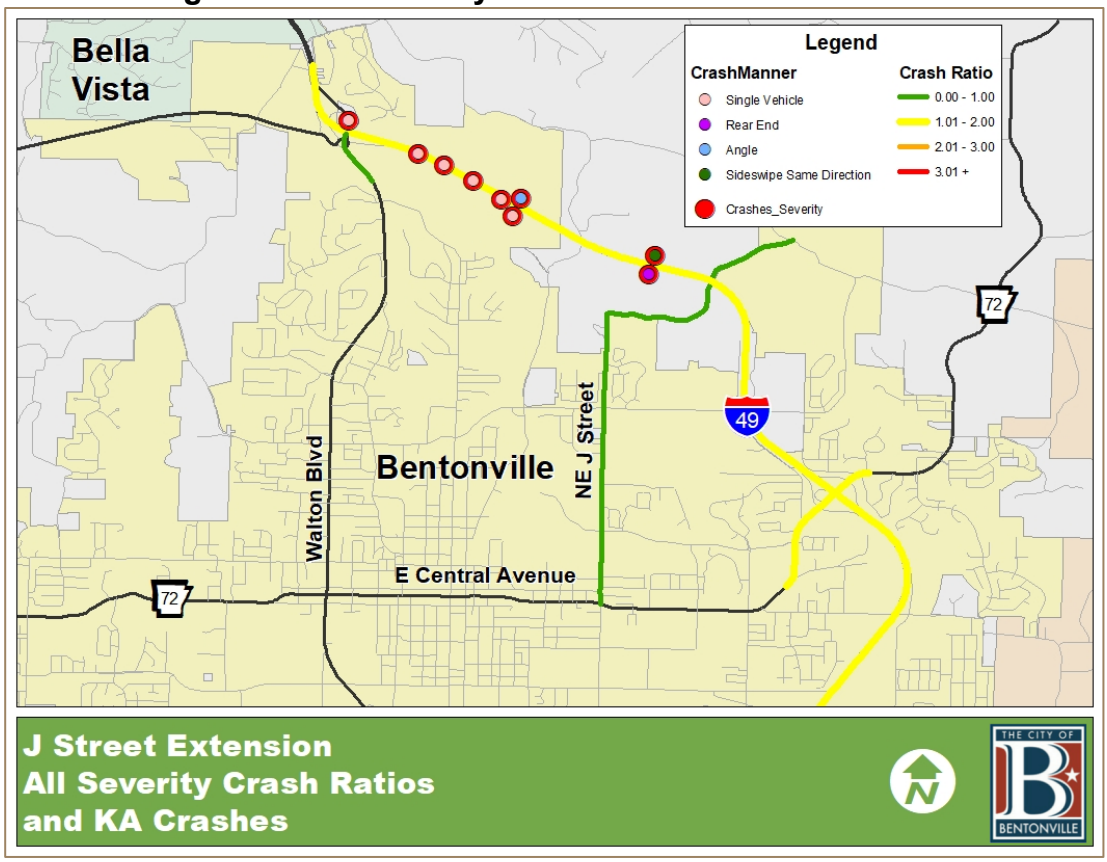


Figure 16: All Severity Crash Ratios and KA Crashes



SUMMARY

The study area included the I-49 freeway facility from north of Highway 71/North Walton Boulevard on the north end to south of Highway 72 on the south end and at key intersections along NE J Street. This study area was evaluated to determine the need for a new interchange along I-49 at NE J Street and the extension of NE J Street. Operational conditions under 2022 No-Action, 2022 Action, 2026 Action, 2045 No-Action, and 2045 Action scenarios were evaluated as well as safety and other considerations.

The operational analysis demonstrated some areas along I-49 that will not operate adequately by 2045, even with the addition of a third lane in each direction. The

added connectivity under the Action scenario would divert additional volume from the surrounding network onto I-49 without notably changing the level of service (LOS) along the freeway facility. Safety and other considerations did not establish any additional needs. The greatest need served by this project would be added connectivity within the study area.

Based on the intersection analysis, the following intersection controls and lane configurations are recommended for the four key intersections created or affected by this project:

- NE J Street at Tiger Boulevard:
    - Intersection control: signalize
    - Lane configuration:
        - Northbound (NE J Street):
            - one left turn lane with 400 feet of storage
            - one through-right lane
        - Southbound (NE J Street):
            - one left turn lane with 100 feet of storage
            - one through lane
            - one right turn lane with 100 feet of storage
        - Westbound (Tiger Boulevard):
            - one left turn lane with 300 feet of storage
            - one through-right lane
        - Eastbound (Tiger Boulevard):
            - one left turn lane with 125 feet of storage
            - one through lane
            - one right turn lane with 225 feet of storage

- NE J Street at Old NE J Street:
  - Intersection Control: stop on Old NE J Street (westbound) approach
  - Lane Configuration:
    - Northbound (NE J Street):
      - one through lane
      - one shared through-right lane with 85 feet of storage
    - Southbound (NE J Street):
      - one through lane
      - one left-turn lane
    - Westbound (Old NE J Street):
      - one left-right lane

- NE J Street at I-49 Southbound Ramps:
  - Intersection control: stop on I-49 Southbound off-ramp (westbound) approach
  - Lane Configuration:
    - Northbound (NE J Street):
      - one through lane
      - one shared through-right lane with yield-controlled channelized right turn
    - Southbound (NE J Street):
      - two through lanes
      - one left-turn lane with 100 feet of storage
    - Westbound (I-49 Southbound off-ramp):
      - two left-turn lanes with 175 feet of storage for the outside left turn lane
      - one right-turn lane with yield-controlled channelized right turn and 175 feet of storage

- NE J Street at I-49 Northbound Ramps:
    - Intersection Control: stop on the I-49 Northbound off-ramp (westbound) approach
    - Lane Configuration:
        - Northbound (NE J Street):
            - one through lane
            - one shared through-right lane with yield-controlled channelized right turn
        - Southbound (NE J Street):
            - two through lanes
            - one left-turn lane with 100 feet of storage
        - Westbound (I-49 Northbound off-ramp):
            - one left-turn lane
            - one right-turn lane with yield-controlled channelized right turn and 175 feet of storage

With the recommended intersection controls and lane configurations, this improvement will provide added connectivity with adequate levels of service for all movements throughout the study area through the 2045 design year.

NE J STREET TRAFFIC REPORT

APPENDIX A

OPERATIONAL ANALYSIS RESULTS

HCS Freeway Facilities Report

Project Information

Analyst	APS	Date	8/20/2022
Agency	Garver	Analysis Year	2022
Jurisdiction	ARDOT	Time Analyzed	AM Peak hour
Project Description	I-49 NB Action with Bella Vista Bypass	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	15
Total Analysis Periods	4	Analysis Period Duration, min	15
Facility Length, mi	5.16		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	between SE 8th St and Hwy 72	1316	3
2	Diverge	Diverge	off-ramp to Hwy 72	1500	3
3	Basic	Basic	between Hwy 72 off ramps	60	3
4	Diverge	Basic	loop off-ramp to Hwy 72	1500	3
5	Basic	Basic	between loop off-ramp and on-ramp Hwy 72	710	2
6	Merge	Merge	on-ramp from Hwy 72	1500	2
7	Basic	Basic	between Hwy 72 and NE J St	5150	2
8	Diverge	Diverge	off-ramp to NE J St	1500	2
9	Basic	Basic	between NE J St ramps	1030	2
10	Merge	Merge	on-ramp from NE J St	1500	2
11	Basic	Basic	between NE J St and Hwy 71B	6490	2
12	Diverge	Diverge	off-ramp to Hwy 71B	1500	2
13	Basic	Basic	between Hwy 71B ramps	1500	2
14	Merge	Merge	on-ramp from Hwy 71B	1500	2
15	Basic	Basic	north of Hwy 71B	500	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.877	1784	6929	0.26	68.6	8.7	A
2	1.00	0.877	2260	6929	0.33	68.6	11.0	A
3	1.00	0.877	1784	6929	0.26	68.6	8.7	A
4	1.00	0.877	1784	6929	0.26	68.6	8.7	A

Segment 2: Diverge

AP	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS

					(pc/h)		(pc/h)		Ratio		(mi/h)		(pc/mi/ln)		
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.877	0.962	1784	394	6824	1936	0.26	0.20	61.1	57.7	9.7	14.2	B
2	1.00	1.00	0.877	0.962	2260	688	6824	1936	0.33	0.36	60.3	56.9	12.5	17.5	B
3	1.00	1.00	0.877	0.962	1784	394	6824	1936	0.26	0.20	61.1	57.7	9.7	14.2	B
4	1.00	1.00	0.877	0.962	1784	394	6824	1936	0.26	0.20	61.1	57.7	9.7	14.2	B

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.847	1400	6929	0.20	66.5	6.8	A
2	1.00	0.847	1558	6929	0.22	66.3	7.6	A
3	1.00	0.847	1400	6929	0.20	66.5	6.8	A
4	1.00	0.847	1400	6929	0.20	66.5	6.8	A

Segment 4: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.847	0.962	1400	336	6929	1839	0.20	0.18	68.0	68.6	6.8	6.8	A
2	1.00	1.00	0.847	0.962	1558	376	6929	1839	0.22	0.20	67.9	68.6	7.6	7.6	A
3	1.00	1.00	0.847	0.962	1400	336	6929	1839	0.20	0.18	68.0	68.6	6.8	6.8	A
4	1.00	1.00	0.847	0.962	1400	336	6929	1839	0.20	0.18	68.0	68.6	6.8	6.8	A

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.820	1052	4619	0.23	68.5	7.7	A
2	1.00	0.806	1189	4619	0.26	68.5	8.7	A
3	1.00	0.820	1052	4619	0.23	68.5	7.7	A
4	1.00	0.820	1052	4619	0.23	68.5	7.7	A

Segment 6: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.820	0.893	1146	94	4550	1936	0.25	0.05	61.6	61.6	9.3	8.7	A
2	1.00	1.00	0.806	0.893	1301	112	4550	1936	0.29	0.06	61.6	61.6	10.6	9.9	A
3	1.00	1.00	0.820	0.893	1146	94	4550	1936	0.25	0.05	61.6	61.6	9.3	8.7	A
4	1.00	1.00	0.820	0.893	1146	94	4550	1936	0.25	0.05	61.6	61.6	9.3	8.7	A

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.820	1155	4619	0.25	68.6	8.4	A
2	1.00	0.820	1290	4619	0.28	68.6	9.4	A
3	1.00	0.820	1155	4619	0.25	68.6	8.4	A
4	1.00	0.820	1155	4619	0.25	68.6	8.4	A

Segment 8: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.820	0.820	1155	52	4550	1936	0.25	0.03	58.5	58.5	9.9	5.2	A
2	1.00	1.00	0.820	0.820	1290	59	4550	1936	0.28	0.03	58.5	58.5	11.0	6.3	A
3	1.00	1.00	0.820	0.820	1155	52	4550	1936	0.25	0.03	58.5	58.5	9.9	5.2	A
4	1.00	1.00	0.820	0.820	1155	52	4550	1936	0.25	0.03	58.5	58.5	9.9	5.2	A

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.820	1102	4619	0.24	67.3	8.0	A
2	1.00	0.820	1232	4619	0.27	67.3	9.0	A
3	1.00	0.820	1102	4619	0.24	67.3	8.0	A
4	1.00	0.820	1102	4619	0.24	67.3	8.0	A

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.820	0.820	1206	104	4550	1936	0.27	0.05	62.6	62.6	9.6	6.3	A
2	1.00	1.00	0.820	0.820	1349	117	4550	1936	0.30	0.06	62.5	62.5	10.8	7.4	A
3	1.00	1.00	0.820	0.820	1206	104	4550	1936	0.27	0.05	62.6	62.6	9.6	6.3	A
4	1.00	1.00	0.820	0.820	1206	104	4550	1936	0.27	0.05	62.6	62.6	9.6	6.3	A

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.820	1206	4619	0.26	68.6	8.8	A
2	1.00	0.820	1349	4619	0.29	68.6	9.8	A
3	1.00	0.820	1206	4619	0.26	68.6	8.8	A
4	1.00	0.820	1206	4619	0.26	68.6	8.8	A

Segment 12: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.820	0.610	1206	469	4550	3678	0.27	0.13	52.4	52.4	11.5	1.1	A
2	1.00	1.00	0.820	0.641	1349	608	4550	3678	0.30	0.17	52.1	52.1	12.9	2.4	A
3	1.00	1.00	0.820	0.610	1206	469	4550	3678	0.27	0.13	52.4	52.4	11.5	1.1	A
4	1.00	1.00	0.820	0.610	1206	469	4550	3678	0.27	0.13	52.4	52.4	11.5	1.1	A

Segment 13: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.962	731	4619	0.16	67.2	5.3	A
2	1.00	0.980	731	4619	0.16	67.1	5.3	A

3	1.00	0.962	731	4619	0.16	67.2	5.3	A
4	1.00	0.962	731	4619	0.16	67.2	5.3	A

Segment 14: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.962	0.685	1251	520	4550	1936	0.27	0.27	62.1	62.1	10.1	7.7	A
2	1.00	1.00	0.980	0.685	1414	683	4550	1936	0.31	0.35	62.1	62.1	11.4	8.9	A
3	1.00	1.00	0.962	0.685	1251	520	4550	1936	0.27	0.27	62.1	62.1	10.1	7.7	A
4	1.00	1.00	0.962	0.685	1251	520	4550	1936	0.27	0.27	62.1	62.1	10.1	7.7	A

Segment 15: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.847	1250	4619	0.27	67.3	9.1	A
2	1.00	0.833	1421	4619	0.31	67.3	10.3	A
3	1.00	0.847	1250	4619	0.27	67.3	9.1	A
4	1.00	0.847	1250	4619	0.27	67.3	9.1	A

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	1339	1292	1.07	65.0	8.7	7.4	4.80	A
2	1525	1464	1.28	64.9	10.0	8.4	4.80	A
3	1339	1292	1.07	65.0	8.7	7.4	4.80	A
4	1339	1292	1.07	65.0	8.7	7.4	4.80	A

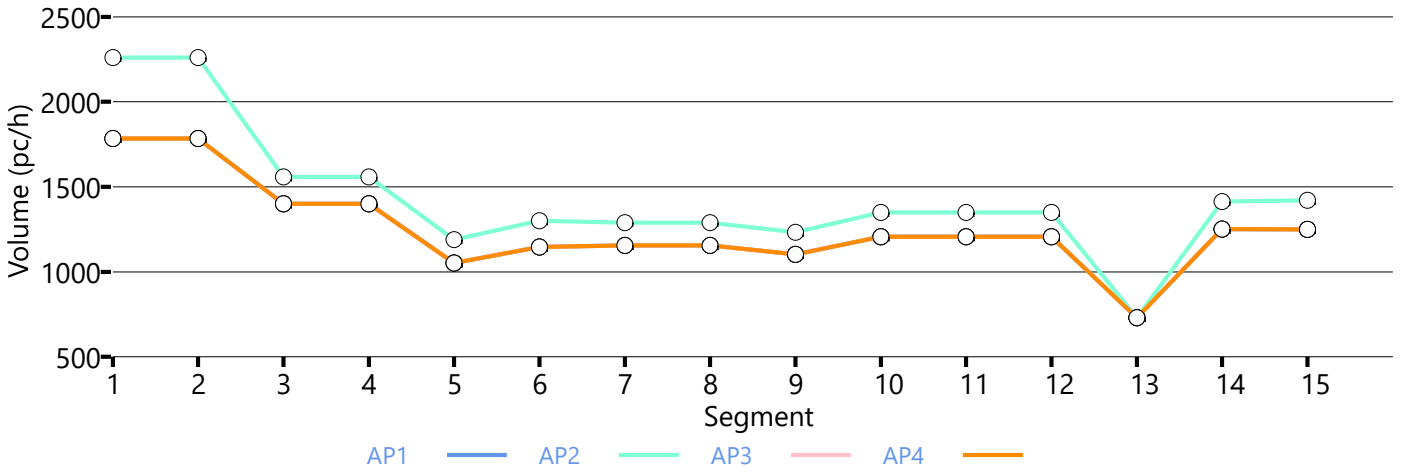
Facility Overall Results

Space Mean Speed, mi/h	65.0	Density, veh/mi/ln	7.6
Average Travel Time, min	4.80	Density, pc/mi/ln	9.0

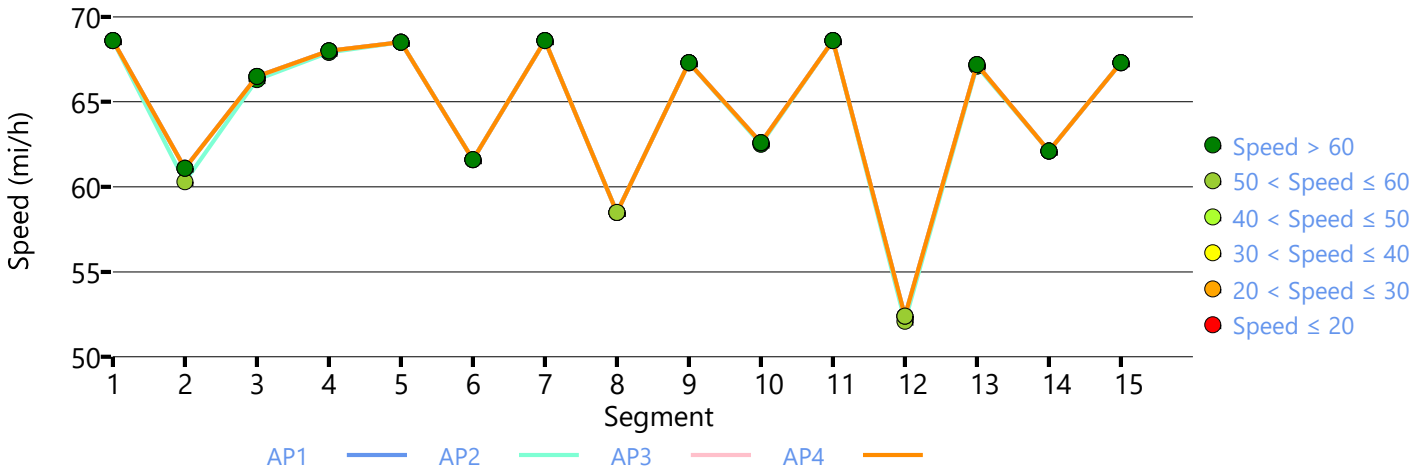
Messages

Comments

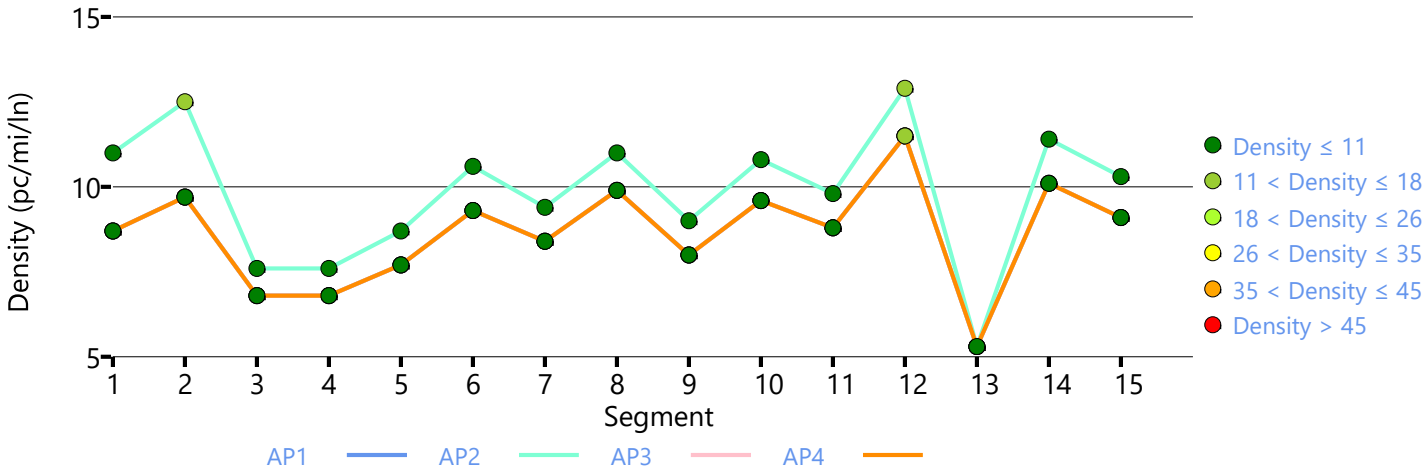
Volume Distribution



Speed Distribution



Density Distribution



HCS7 Freeway Facilities Report

Project Information

Analyst	APS	Date	3/18/2022
Agency	Garver	Analysis Year	2022
Jurisdiction	ARDOT	Time Analyzed	AM Peak hour
Project Description	I-49 NB No Action with Bella Vista Bypass	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	11
Total Analysis Periods	4	Analysis Period Duration, min	15
Facility Length, mi	5.16		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	between SE 8th St and Hwy 72	1316	3
2	Diverge	Diverge	off-ramp to Hwy 72	1500	3
3	Basic	Basic	between Hwy 72 off ramps	60	3
4	Diverge	Basic	loop off-ramp to Hwy 72	1500	3
5	Basic	Basic	between loop off-ramp and on-ramp Hwy 72	710	2
6	Merge	Merge	on-ramp from Hwy 72	1500	2
7	Basic	Basic	between Hwy 72 and Hwy 71B	15670	2
8	Diverge	Diverge	off-ramp to Hwy 71B	1500	2
9	Basic	Basic	between Hwy 71B ramps	1500	2
10	Merge	Merge	on-ramp from Hwy 71B	1500	2
11	Basic	Basic	north of Hwy 71B	500	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.877	1855	6943	0.27	69.1	8.9	A
2	1.00	0.877	2349	6943	0.34	69.1	11.3	B
3	1.00	0.877	1855	6943	0.27	69.1	8.9	A
4	1.00	0.877	1855	6943	0.27	69.1	8.9	A

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	1.00	1.00	0.877	0.962	1855	411	6824	1936	0.27	0.21	61.3	57.9	10.1	14.6	B
2	1.00	1.00	0.877	0.962	2349	715	6824	1936	0.34	0.37	60.6	57.2	12.9	18.0	B

3	1.00	1.00	0.877	0.962	1855	411	6824	1936	0.27	0.21	61.3	57.9	10.1	14.6	B
4	1.00	1.00	0.877	0.962	1855	411	6824	1936	0.27	0.21	61.3	57.9	10.1	14.6	B

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.847	1455	6943	0.21	66.9	7.0	A
2	1.00	0.847	1620	6943	0.23	66.7	7.8	A
3	1.00	0.847	1455	6943	0.21	66.9	7.0	A
4	1.00	0.847	1455	6943	0.21	66.9	7.0	A

Segment 4: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	1.00	1.00	0.847	0.962	1455	364	6943	1839	0.21	0.20	68.5	69.1	7.0	7.0	A
2	1.00	1.00	0.847	0.962	1620	406	6943	1839	0.23	0.22	68.4	69.1	7.8	7.8	A
3	1.00	1.00	0.847	0.962	1455	364	6943	1839	0.21	0.20	68.5	69.1	7.0	7.0	A
4	1.00	1.00	0.847	0.962	1455	364	6943	1839	0.21	0.20	68.5	69.1	7.0	7.0	A

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.806	1094	4629	0.24	69.0	7.9	A
2	1.00	0.806	1217	4629	0.26	69.0	8.8	A
3	1.00	0.806	1094	4629	0.24	69.0	7.9	A
4	1.00	0.806	1094	4629	0.24	69.0	7.9	A

Segment 6: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	1.00	1.00	0.806	0.893	1214	120	4550	1936	0.27	0.06	62.0	62.0	9.8	9.2	A
2	1.00	1.00	0.806	0.893	1359	142	4550	1936	0.30	0.07	61.9	61.9	11.0	10.3	B
3	1.00	1.00	0.806	0.893	1214	120	4550	1936	0.27	0.06	62.0	62.0	9.8	9.2	A
4	1.00	1.00	0.806	0.893	1214	120	4550	1936	0.27	0.06	62.0	62.0	9.8	9.2	A

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.820	1206	4629	0.26	69.1	8.7	A
2	1.00	0.820	1351	4629	0.29	69.1	9.8	A
3	1.00	0.820	1206	4629	0.26	69.1	8.7	A
4	1.00	0.820	1206	4629	0.26	69.1	8.7	A

Segment 8: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	

1	1.00	1.00	0.820	0.610	1206	469	4550	3678	0.27	0.13	52.6	52.6	11.5	1.1	A
2	1.00	1.00	0.820	0.625	1351	624	4550	3678	0.30	0.17	52.2	52.2	12.9	2.4	A
3	1.00	1.00	0.820	0.610	1206	469	4550	3678	0.27	0.13	52.6	52.6	11.5	1.1	A
4	1.00	1.00	0.820	0.610	1206	469	4550	3678	0.27	0.13	52.6	52.6	11.5	1.1	A

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.962	731	4629	0.16	67.6	5.3	A
2	1.00	0.980	733	4629	0.16	67.6	5.3	A
3	1.00	0.962	731	4629	0.16	67.6	5.3	A
4	1.00	0.962	731	4629	0.16	67.6	5.3	A

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	1.00	1.00	0.962	0.685	1251	520	4550	1936	0.27	0.27	62.5	62.5	10.0	7.7	A
2	1.00	1.00	0.980	0.685	1416	683	4550	1936	0.31	0.35	62.4	62.4	11.3	8.9	A
3	1.00	1.00	0.962	0.685	1251	520	4550	1936	0.27	0.27	62.5	62.5	10.0	7.7	A
4	1.00	1.00	0.962	0.685	1251	520	4550	1936	0.27	0.27	62.5	62.5	10.0	7.7	A

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.847	1250	4629	0.27	67.8	9.0	A
2	1.00	0.847	1400	4629	0.30	67.8	10.1	A
3	1.00	0.847	1250	4629	0.27	67.8	9.0	A
4	1.00	0.847	1250	4629	0.27	67.8	9.0	A

Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.4	8.8	7.4	4.70	A
2	66.2	10.0	8.5	4.70	A
3	66.4	8.8	7.4	4.70	A
4	66.4	8.8	7.4	4.70	A

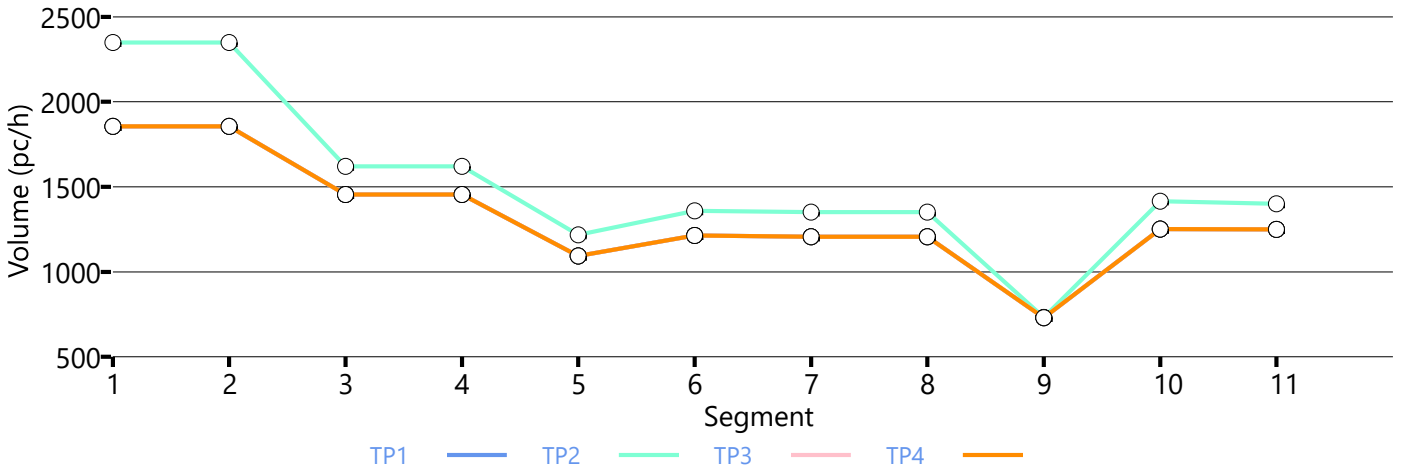
Facility Overall Results

Space Mean Speed, mi/h	66.3	Density, veh/mi/ln	7.6
Average Travel Time, min	4.70	Density, pc/mi/ln	9.1

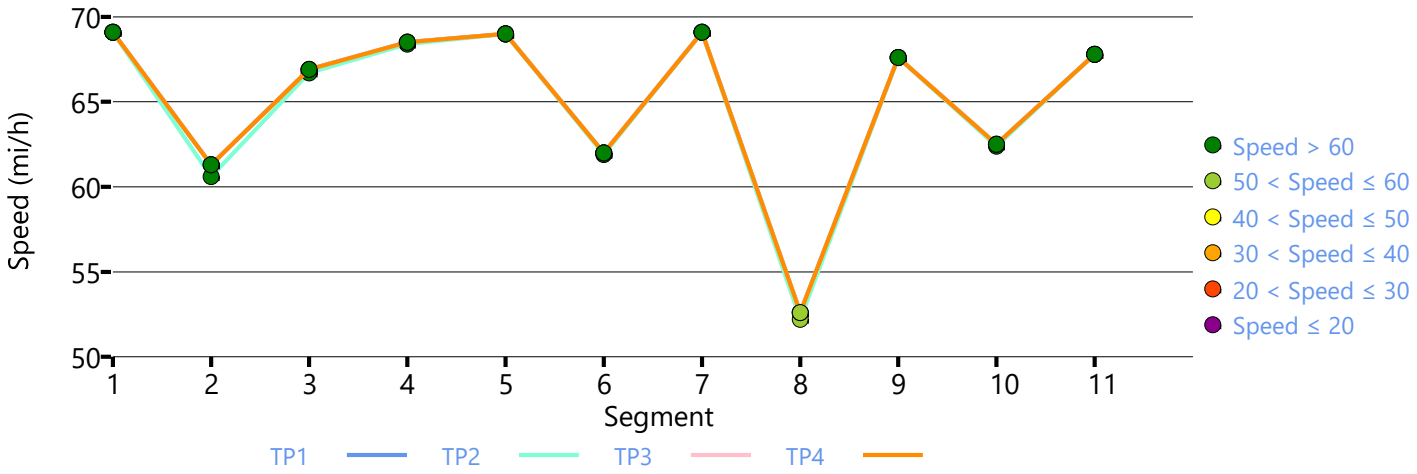
Messages

Comments

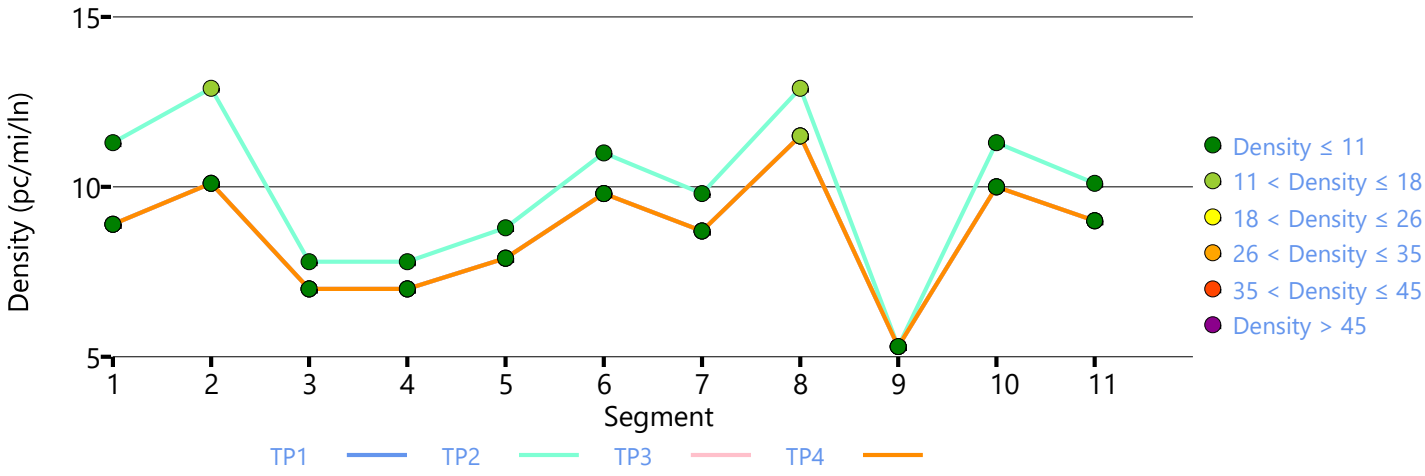
Volume Distribution



Speed Distribution



Density Distribution



HCS Freeway Facilities Report

Project Information

Analyst	APS	Date	10/20/2022
Agency	Garver	Analysis Year	2022
Jurisdiction	ARDOT	Time Analyzed	PM Peak hour
Project Description	I-49 NB Action with Bella Vista Bypass	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	15
Total Analysis Periods	4	Analysis Period Duration, min	15
Facility Length, mi	5.16		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	between SE 8th St and Hwy 72	1316	3
2	Diverge	Diverge	off-ramp to Hwy 72	1500	3
3	Basic	Basic	between Hwy 72 off ramps	60	3
4	Diverge	Basic	loop off-ramp to Hwy 72	1500	3
5	Basic	Basic	between loop off-ramp and on-ramp Hwy 72	710	2
6	Merge	Merge	on-ramp from Hwy 72	1500	2
7	Basic	Basic	between Hwy 72 and NE J St	5150	2
8	Diverge	Diverge	off-ramp to NE J St	1500	2
9	Basic	Basic	between NE J St ramps	1030	2
10	Merge	Merge	on-ramp from NE J St	1500	2
11	Basic	Basic	between NE J St and Hwy 71B	6490	2
12	Diverge	Diverge	off-ramp to Hwy 71B	1500	2
13	Basic	Basic	between Hwy 71B ramps	1500	2
14	Merge	Merge	on-ramp from Hwy 71B	1500	2
15	Basic	Basic	north of Hwy 71B	500	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.943	3198	6929	0.46	68.6	15.5	B
2	1.00	0.943	3730	6929	0.54	68.5	18.1	C
3	1.00	0.943	3198	6929	0.46	68.6	15.5	B
4	1.00	0.943	3198	6929	0.46	68.6	15.5	B

Segment 2: Diverge

AP	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS

					(pc/h)		(pc/h)		Ratio		(mi/h)		(pc/mi/ln)		
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.943	0.962	3198	587	6824	1936	0.47	0.30	61.4	57.2	17.4	22.2	C
2	1.00	1.00	0.943	0.962	3730	734	6824	1936	0.55	0.38	61.2	56.8	20.3	25.1	C
3	1.00	1.00	0.943	0.962	3198	587	6824	1936	0.47	0.30	61.4	57.2	17.4	22.2	C
4	1.00	1.00	0.943	0.962	3198	587	6824	1936	0.47	0.30	61.4	57.2	17.4	22.2	C

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	2647	6929	0.38	66.6	12.9	B
2	1.00	0.926	3036	6929	0.44	66.5	14.8	B
3	1.00	0.926	2647	6929	0.38	66.6	12.9	B
4	1.00	0.926	2647	6929	0.38	66.6	12.9	B

Segment 4: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.926	1.000	2647	409	6929	1839	0.38	0.22	68.0	68.6	12.9	12.9	B
2	1.00	1.00	0.926	1.000	3036	548	6929	1839	0.44	0.30	68.0	68.6	14.8	14.8	B
3	1.00	1.00	0.926	1.000	2647	409	6929	1839	0.38	0.22	68.0	68.6	12.9	12.9	B
4	1.00	1.00	0.926	1.000	2647	409	6929	1839	0.38	0.22	68.0	68.6	12.9	12.9	B

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	2205	4619	0.48	68.5	16.1	B
2	1.00	0.926	2444	4619	0.53	68.5	17.8	B
3	1.00	0.926	2205	4619	0.48	68.5	16.1	B
4	1.00	0.926	2205	4619	0.48	68.5	16.1	B

Segment 6: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.926	0.980	2526	321	4550	1936	0.56	0.17	60.7	60.7	20.8	19.4	B
2	1.00	1.00	0.926	0.980	2827	383	4550	1936	0.62	0.20	60.2	60.2	23.5	21.7	C
3	1.00	1.00	0.926	0.980	2526	321	4550	1936	0.56	0.17	60.7	60.7	20.8	19.4	B
4	1.00	1.00	0.926	0.980	2526	321	4550	1936	0.56	0.17	60.7	60.7	20.8	19.4	B

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	2545	4619	0.55	68.5	18.6	C
2	1.00	0.926	2849	4619	0.62	67.8	21.0	C
3	1.00	0.926	2545	4619	0.55	68.5	18.6	C
4	1.00	0.926	2545	4619	0.55	68.5	18.6	C

Segment 8: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.926	0.926	2545	53	4550	1936	0.56	0.03	58.5	58.5	21.8	17.1	B
2	1.00	1.00	0.926	0.926	2849	58	4550	1936	0.63	0.03	58.5	58.5	24.4	19.8	B
3	1.00	1.00	0.926	0.926	2545	53	4550	1936	0.56	0.03	58.5	58.5	21.8	17.1	B
4	1.00	1.00	0.926	0.926	2545	53	4550	1936	0.56	0.03	58.5	58.5	21.8	17.1	B

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	2492	4619	0.54	67.3	18.2	C
2	1.00	0.926	2790	4619	0.60	67.3	20.5	C
3	1.00	0.926	2492	4619	0.54	67.3	18.2	C
4	1.00	0.926	2492	4619	0.54	67.3	18.2	C

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.926	0.926	2596	104	4550	1936	0.57	0.05	61.5	61.5	21.1	17.1	B
2	1.00	1.00	0.926	0.926	2907	117	4550	1936	0.64	0.06	61.0	61.0	23.8	19.5	B
3	1.00	1.00	0.926	0.926	2596	104	4550	1936	0.57	0.05	61.5	61.5	21.1	17.1	B
4	1.00	1.00	0.926	0.926	2596	104	4550	1936	0.57	0.05	61.5	61.5	21.1	17.1	B

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	2596	4619	0.56	68.4	19.0	C
2	1.00	0.926	2907	4619	0.63	67.6	21.5	C
3	1.00	0.926	2596	4619	0.56	68.4	19.0	C
4	1.00	0.926	2596	4619	0.56	68.4	19.0	C

Segment 12: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.926	0.794	2596	785	4550	3678	0.57	0.21	51.7	51.7	25.1	13.1	B
2	1.00	1.00	0.926	0.820	2907	1018	4550	3678	0.64	0.28	51.1	51.1	28.4	15.8	B
3	1.00	1.00	0.926	0.794	2596	785	4550	3678	0.57	0.21	51.7	51.7	25.1	13.1	B
4	1.00	1.00	0.926	0.794	2596	785	4550	3678	0.57	0.21	51.7	51.7	25.1	13.1	B

Segment 13: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.980	1817	4619	0.39	67.1	13.2	B
2	1.00	0.980	1895	4619	0.41	67.1	13.8	B

3	1.00	0.980	1817	4619	0.39	67.1	13.2	B
4	1.00	0.980	1817	4619	0.39	67.1	13.2	B

Segment 14: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.980	0.685	3178	1361	4550	1936	0.70	0.70	60.0	60.0	26.5	22.4	C
2	1.00	1.00	0.980	0.685	3418	1523	4550	1936	0.75	0.79	59.3	59.3	28.8	24.2	C
3	1.00	1.00	0.980	0.685	3178	1361	4550	1936	0.70	0.70	60.0	60.0	26.5	22.4	C
4	1.00	1.00	0.980	0.685	3178	1361	4550	1936	0.70	0.70	60.0	60.0	26.5	22.4	C

Segment 15: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.862	3147	4619	0.68	66.5	23.7	C
2	1.00	0.847	3424	4619	0.74	64.7	26.5	D
3	1.00	0.862	3147	4619	0.68	66.5	23.7	C
4	1.00	0.862	3147	4619	0.68	66.5	23.7	C

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	3165	3042	2.84	64.6	18.8	17.5	4.80	C
2	3543	3404	3.60	64.1	21.2	19.8	4.80	C
3	3165	3042	2.84	64.6	18.8	17.5	4.80	C
4	3165	3042	2.84	64.6	18.8	17.5	4.80	C

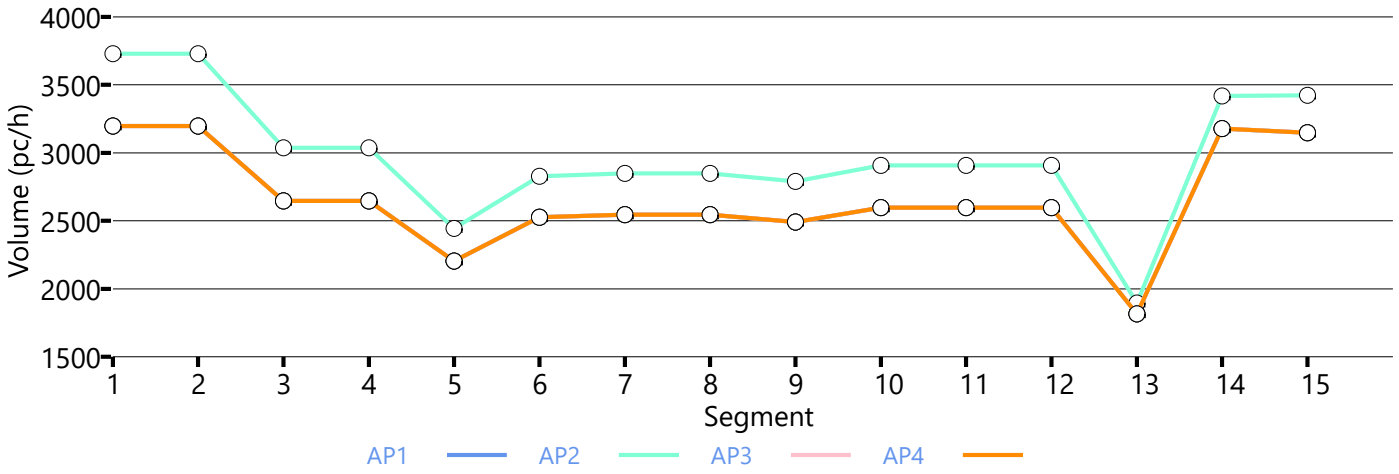
Facility Overall Results

Space Mean Speed, mi/h	64.5	Density, veh/mi/ln	18.1
Average Travel Time, min	4.80	Density, pc/mi/ln	19.4

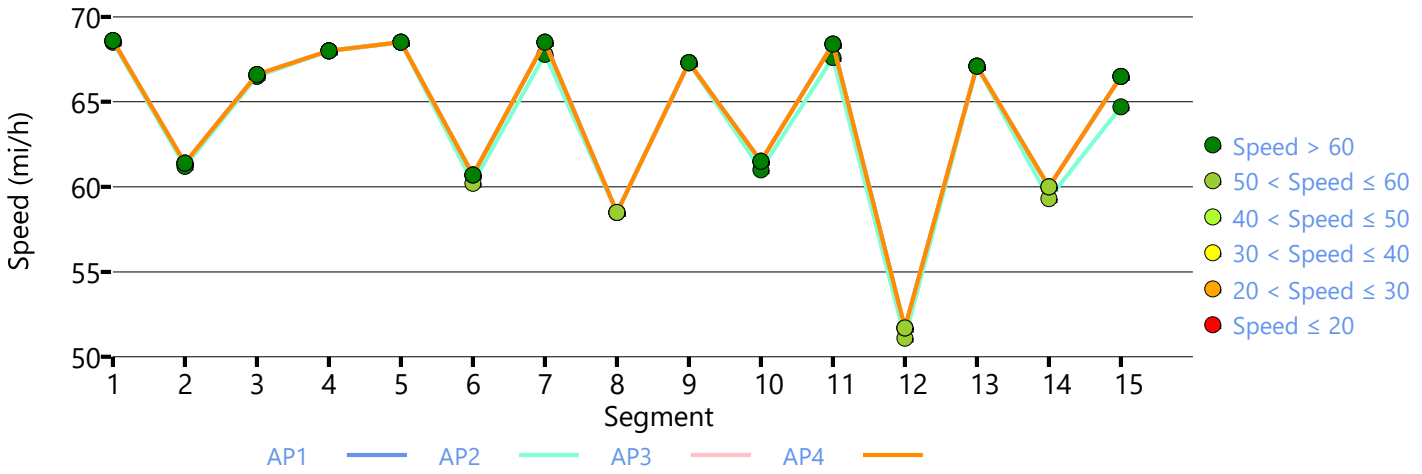
Messages

Comments

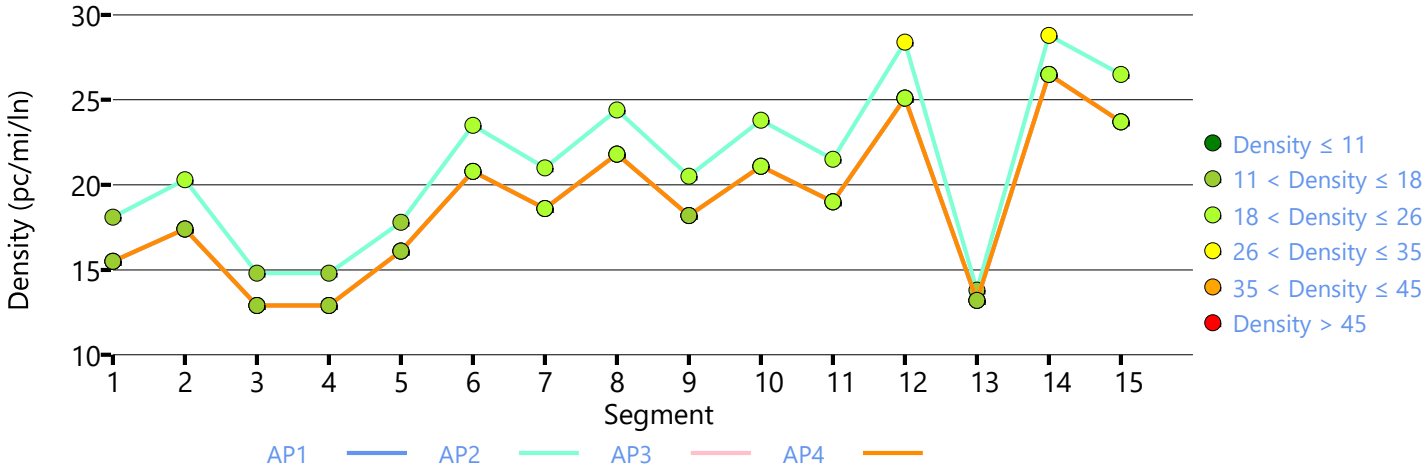
Volume Distribution



Speed Distribution



Density Distribution



HCS7 Freeway Facilities Report

Project Information

Analyst	APS	Date	3/18/2022
Agency	Garver	Analysis Year	2022
Jurisdiction	ARDOT	Time Analyzed	PM Peak hour
Project Description	I-49 NB No Action with Bella Vista Bypass	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	11
Total Analysis Periods	4	Analysis Period Duration, min	15
Facility Length, mi	5.16		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	between SE 8th St and Hwy 72	1316	3
2	Diverge	Diverge	off-ramp to Hwy 72	1500	3
3	Basic	Basic	between Hwy 72 off ramps	60	3
4	Diverge	Basic	loop off-ramp to Hwy 72	1500	3
5	Basic	Basic	between loop off-ramp and on-ramp Hwy 72	710	2
6	Merge	Merge	on-ramp from Hwy 72	1500	2
7	Basic	Basic	between Hwy 72 and Hwy 71B	15670	2
8	Diverge	Diverge	off-ramp to Hwy 71B	1500	2
9	Basic	Basic	between Hwy 71B ramps	1500	2
10	Merge	Merge	on-ramp from Hwy 71B	1500	2
11	Basic	Basic	north of Hwy 71B	500	2

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.943	3281	6943	0.47	69.1	15.8	B
2	1.00	0.943	3827	6943	0.55	68.9	18.5	C
3	1.00	0.943	3281	6943	0.47	69.1	15.8	B
4	1.00	0.943	3281	6943	0.47	69.1	15.8	B

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	1.00	1.00	0.943	0.962	3281	610	6824	1936	0.48	0.32	61.7	57.4	17.7	22.6	C
2	1.00	1.00	0.943	0.962	3827	763	6824	1936	0.56	0.39	61.4	57.0	20.8	25.6	C

3	1.00	1.00	0.943	0.962	3281	610	6824	1936	0.48	0.32	61.7	57.4	17.7	22.6	C
4	1.00	1.00	0.943	0.962	3281	610	6824	1936	0.48	0.32	61.7	57.4	17.7	22.6	C

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	2707	6943	0.39	67.0	13.1	B
2	1.00	0.926	3105	6943	0.45	66.9	15.0	B
3	1.00	0.926	2707	6943	0.39	67.0	13.1	B
4	1.00	0.926	2707	6943	0.39	67.0	13.1	B

Segment 4: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	1.00	1.00	0.926	1.000	2707	442	6943	1839	0.39	0.24	68.5	69.1	13.1	13.1	B
2	1.00	1.00	0.926	1.000	3105	593	6943	1839	0.45	0.32	68.5	69.1	15.0	15.0	B
3	1.00	1.00	0.926	1.000	2707	442	6943	1839	0.39	0.24	68.5	69.1	13.1	13.1	B
4	1.00	1.00	0.926	1.000	2707	442	6943	1839	0.39	0.24	68.5	69.1	13.1	13.1	B

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	2272	4629	0.49	69.0	16.4	B
2	1.00	0.909	2510	4629	0.54	69.0	18.2	C
3	1.00	0.909	2272	4629	0.49	69.0	16.4	B
4	1.00	0.909	2272	4629	0.49	69.0	16.4	B

Segment 6: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	1.00	1.00	0.909	0.980	2681	409	4550	1936	0.59	0.21	60.8	60.8	22.0	20.5	C
2	1.00	1.00	0.909	0.980	2997	487	4550	1936	0.66	0.25	60.2	60.2	24.9	23.0	C
3	1.00	1.00	0.909	0.980	2681	409	4550	1936	0.59	0.21	60.8	60.8	22.0	20.5	C
4	1.00	1.00	0.909	0.980	2681	409	4550	1936	0.59	0.21	60.8	60.8	22.0	20.5	C

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	2663	4629	0.58	68.7	19.4	C
2	1.00	0.926	2979	4629	0.64	67.6	22.0	C
3	1.00	0.926	2663	4629	0.58	68.7	19.4	C
4	1.00	0.926	2663	4629	0.58	68.7	19.4	C

Segment 8: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	

1	1.00	1.00	0.926	0.781	2663	798	4550	3678	0.59	0.22	51.8	51.8	25.7	13.7	B
2	1.00	1.00	0.926	0.806	2979	1036	4550	3678	0.65	0.28	51.2	51.2	29.1	16.4	B
3	1.00	1.00	0.926	0.781	2663	798	4550	3678	0.59	0.22	51.8	51.8	25.7	13.7	B
4	1.00	1.00	0.926	0.781	2663	798	4550	3678	0.59	0.22	51.8	51.8	25.7	13.7	B

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.980	1881	4629	0.41	67.6	13.6	B
2	1.00	0.980	1963	4629	0.42	67.5	14.2	B
3	1.00	0.980	1881	4629	0.41	67.6	13.6	B
4	1.00	0.980	1881	4629	0.41	67.6	13.6	B

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	1.00	1.00	0.980	0.685	3242	1361	4550	1936	0.71	0.70	60.2	60.2	26.9	22.9	C
2	1.00	1.00	0.980	0.685	3486	1523	4550	1936	0.77	0.79	59.4	59.4	29.3	24.7	C
3	1.00	1.00	0.980	0.685	3242	1361	4550	1936	0.71	0.70	60.2	60.2	26.9	22.9	C
4	1.00	1.00	0.980	0.685	3242	1361	4550	1936	0.71	0.70	60.2	60.2	26.9	22.9	C

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.862	3219	4629	0.70	66.4	24.2	C
2	1.00	0.862	3442	4629	0.74	64.9	26.5	D
3	1.00	0.862	3219	4629	0.70	66.4	24.2	C
4	1.00	0.862	3219	4629	0.70	66.4	24.2	C

Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.9	19.1	17.8	4.70	C
2	65.1	21.6	20.1	4.80	C
3	65.9	19.1	17.8	4.70	C
4	65.9	19.1	17.8	4.70	C

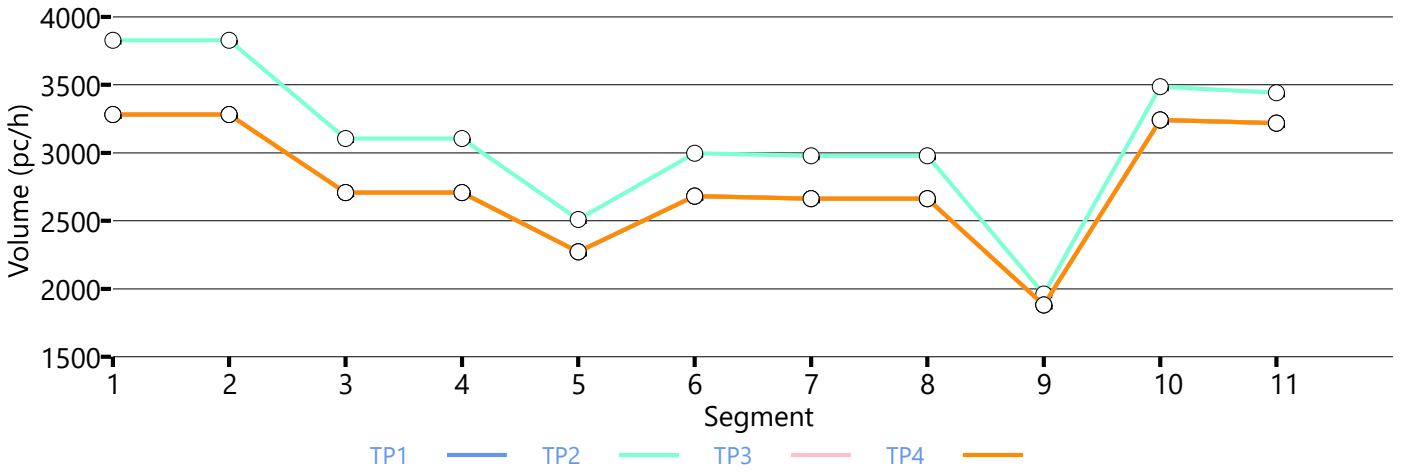
Facility Overall Results

Space Mean Speed, mi/h	65.7	Density, veh/mi/ln	18.4
Average Travel Time, min	4.70	Density, pc/mi/ln	19.7

Messages

Comments

Volume Distribution



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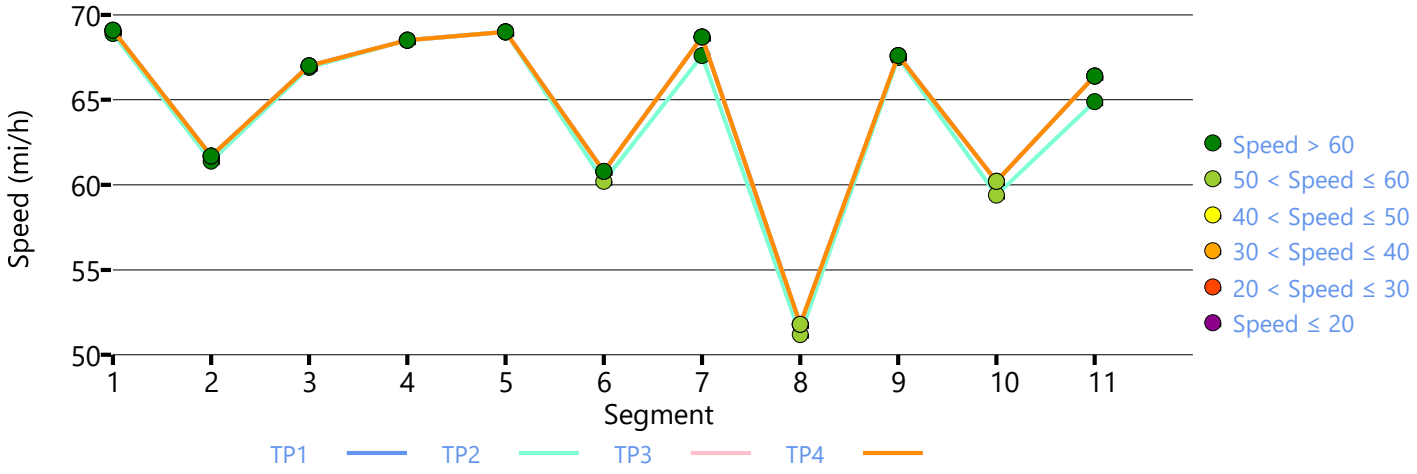

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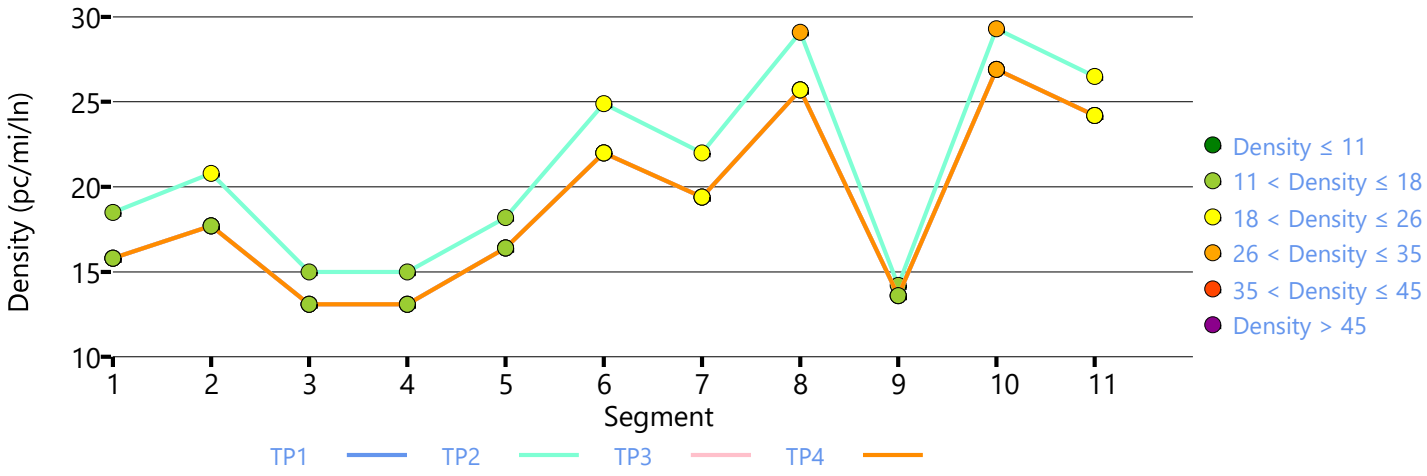


HCS Freeway Facilities Report

Project Information

Analyst	APS	Date	10/19/2022
Agency	Garver	Analysis Year	2045
Jurisdiction	ARDOT	Time Analyzed	AM Peak hour
Project Description	I-49 NB Action with Bella Vista Bypass	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	15
Total Analysis Periods	4	Analysis Period Duration, min	15
Facility Length, mi	5.16		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	between SE 8th St and Hwy 72	1316	3
2	Diverge	Diverge	off-ramp to Hwy 72	1500	3
3	Basic	Basic	between Hwy 72 off ramps	60	3
4	Diverge	Diverge	loop off-ramp to Hwy 72	1500	3
5	Basic	Basic	between loop off-ramp and on-ramp Hwy 72	710	3
6	Merge	Merge	on-ramp from Hwy 72	1500	3
7	Basic	Basic	between Hwy 72 and NE J St	5150	3
8	Diverge	Diverge	off-ramp to NE J St	1500	3
9	Basic	Basic	between NE J St ramps	1030	3
10	Merge	Merge	on-ramp from NE J St	1500	3
11	Basic	Basic	between NE J St and Hwy 71B	6490	3
12	Diverge	Diverge	off-ramp to Hwy 71B	1500	3
13	Basic	Basic	between Hwy 71B ramps	1500	3
14	Merge	Merge	on-ramp from Hwy 71B	1500	3
15	Basic	Basic	north of Hwy 71B	500	3

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.862	2527	6929	0.36	68.6	12.3	B
2	1.00	0.877	3125	6929	0.45	68.6	15.2	B
3	1.00	0.862	2527	6929	0.36	68.6	12.3	B
4	1.00	0.862	2527	6929	0.36	68.6	12.3	B

Segment 2: Diverge

AP	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS

					(pc/h)		(pc/h)		Ratio		(mi/h)		(pc/mi/ln)		
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.862	0.962	2527	521	6824	1936	0.37	0.27	61.1	57.3	13.8	18.5	B
2	1.00	1.00	0.877	0.962	3125	909	6824	1936	0.46	0.47	60.3	56.4	17.3	22.5	C
3	1.00	1.00	0.862	0.962	2527	521	6824	1936	0.37	0.27	61.1	57.3	13.8	18.5	B
4	1.00	1.00	0.862	0.962	2527	521	6824	1936	0.37	0.27	61.1	57.3	13.8	18.5	B

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.833	2013	6929	0.29	66.5	9.8	A
2	1.00	0.833	2241	6929	0.32	66.3	10.9	A
3	1.00	0.833	2013	6929	0.29	66.5	9.8	A
4	1.00	0.833	2013	6929	0.29	66.5	9.8	A

Segment 4: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.833	0.962	2013	354	6824	1839	0.30	0.19	57.0	52.7	11.8	3.7	A
2	1.00	1.00	0.833	0.962	2241	397	6824	1839	0.33	0.22	57.0	52.6	13.1	5.0	A
3	1.00	1.00	0.833	0.962	2013	354	6824	1839	0.30	0.19	57.0	52.7	11.8	3.7	A
4	1.00	1.00	0.833	0.962	2013	354	6824	1839	0.30	0.19	57.0	52.7	11.8	3.7	A

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.806	1658	6929	0.24	66.7	8.1	A
2	1.00	0.806	1842	6929	0.27	66.7	9.0	A
3	1.00	0.806	1658	6929	0.24	66.7	8.1	A
4	1.00	0.806	1658	6929	0.24	66.7	8.1	A

Segment 6: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.806	0.893	1829	171	6824	1936	0.27	0.09	63.8	61.6	9.6	8.9	A
2	1.00	1.00	0.806	0.893	2046	204	6824	1936	0.30	0.11	63.7	61.6	10.7	10.0	A
3	1.00	1.00	0.806	0.893	1829	171	6824	1936	0.27	0.09	63.8	61.6	9.6	8.9	A
4	1.00	1.00	0.806	0.893	1829	171	6824	1936	0.27	0.09	63.8	61.6	9.6	8.9	A

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.820	1816	6929	0.26	68.6	8.8	A
2	1.00	0.820	2033	6929	0.29	68.6	9.9	A
3	1.00	0.820	1816	6929	0.26	68.6	8.8	A
4	1.00	0.820	1816	6929	0.26	68.6	8.8	A

Segment 8: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.820	0.820	1816	76	6824	1936	0.27	0.04	62.3	58.4	9.7	6.5	A
2	1.00	1.00	0.820	0.820	2033	85	6824	1936	0.30	0.04	62.4	58.4	10.9	7.8	A
3	1.00	1.00	0.820	0.820	1816	76	6824	1936	0.27	0.04	62.3	58.4	9.7	6.5	A
4	1.00	1.00	0.820	0.820	1816	76	6824	1936	0.27	0.04	62.3	58.4	9.7	6.5	A

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.820	1740	6929	0.25	67.8	8.5	A
2	1.00	0.820	1948	6929	0.28	67.8	9.5	A
3	1.00	0.820	1740	6929	0.25	67.8	8.5	A
4	1.00	0.820	1740	6929	0.25	67.8	8.5	A

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.820	0.820	2185	445	6824	1936	0.32	0.23	64.0	62.4	11.4	8.6	A
2	1.00	1.00	0.820	0.820	2447	499	6824	1936	0.36	0.26	63.9	62.3	12.8	9.9	A
3	1.00	1.00	0.820	0.820	2185	445	6824	1936	0.32	0.23	64.0	62.4	11.4	8.6	A
4	1.00	1.00	0.820	0.820	2185	445	6824	1936	0.32	0.23	64.0	62.4	11.4	8.6	A

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.820	2185	6929	0.32	68.6	10.6	A
2	1.00	0.820	2446	6929	0.35	68.6	11.9	B
3	1.00	0.820	2185	6929	0.32	68.6	10.6	A
4	1.00	0.820	2185	6929	0.32	68.6	10.6	A

Segment 12: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.820	0.610	2185	793	6824	3678	0.32	0.22	58.1	51.7	12.5	3.0	A
2	1.00	1.00	0.820	0.658	2446	1003	6824	3678	0.36	0.27	57.1	51.2	14.3	5.0	A
3	1.00	1.00	0.820	0.610	2185	793	6824	3678	0.32	0.22	58.1	51.7	12.5	3.0	A
4	1.00	1.00	0.820	0.610	2185	793	6824	3678	0.32	0.22	58.1	51.7	12.5	3.0	A

Segment 13: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.980	1335	6929	0.19	67.7	6.5	A
2	1.00	0.980	1373	6929	0.20	67.6	6.7	A

3	1.00	0.980	1335	6929	0.19	67.7	6.5	A
4	1.00	0.980	1335	6929	0.19	67.7	6.5	A

Segment 14: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.980	0.685	2147	812	6824	1936	0.31	0.42	63.5	62.0	11.3	10.5	B
2	1.00	1.00	0.980	0.685	2442	1069	6824	1936	0.36	0.55	63.2	61.8	12.9	12.6	B
3	1.00	1.00	0.980	0.685	2147	812	6824	1936	0.31	0.42	63.5	62.0	11.3	10.5	B
4	1.00	1.00	0.980	0.685	2147	812	6824	1936	0.31	0.42	63.5	62.0	11.3	10.5	B

Segment 15: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.877	2125	6929	0.31	67.6	10.3	A
2	1.00	0.847	2453	6929	0.35	67.5	11.9	B
3	1.00	0.877	2125	6929	0.31	67.6	10.3	A
4	1.00	0.877	2125	6929	0.31	67.6	10.3	A

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	2194	2102	1.61	65.3	10.3	8.7	4.70	A
2	2489	2374	1.94	65.1	11.7	9.9	4.80	B
3	2194	2102	1.61	65.3	10.3	8.7	4.70	A
4	2194	2102	1.61	65.3	10.3	8.7	4.70	A

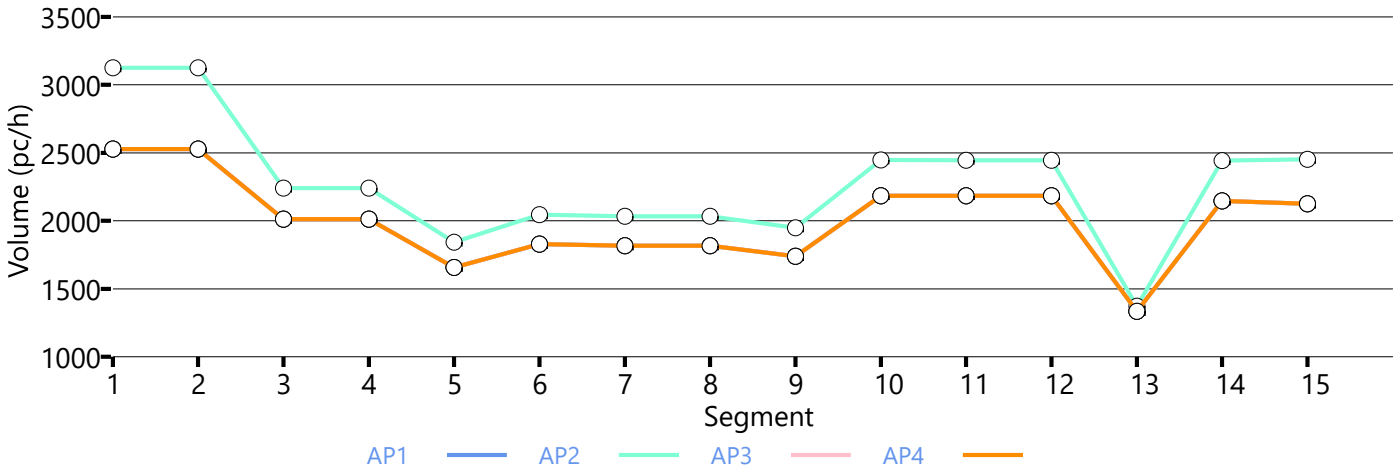
Facility Overall Results

Space Mean Speed, mi/h	65.3	Density, veh/mi/ln	9.0
Average Travel Time, min	4.70	Density, pc/mi/ln	10.6

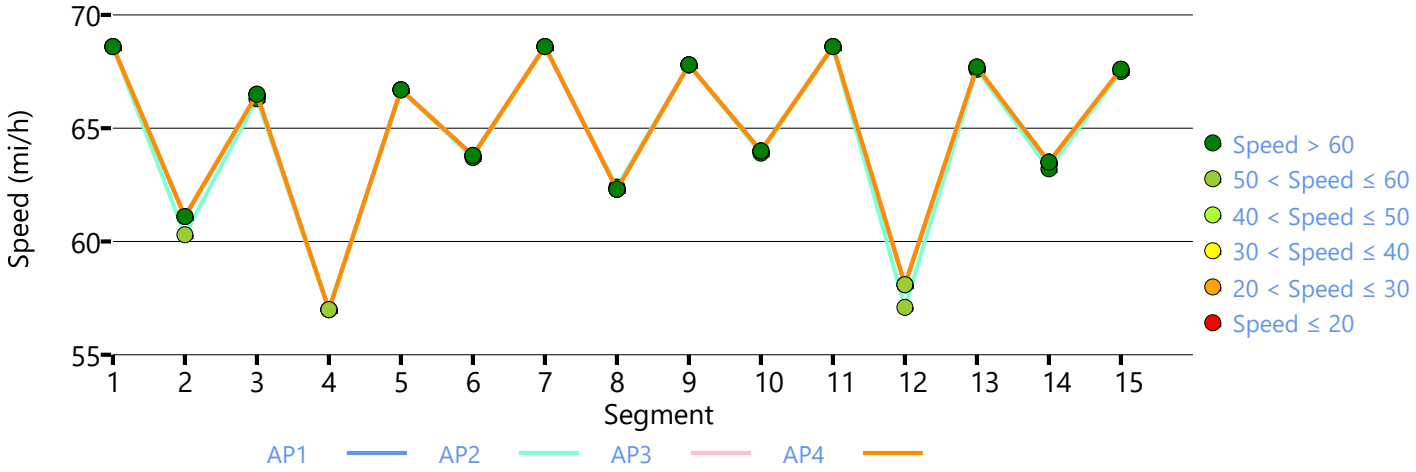
Messages

Comments

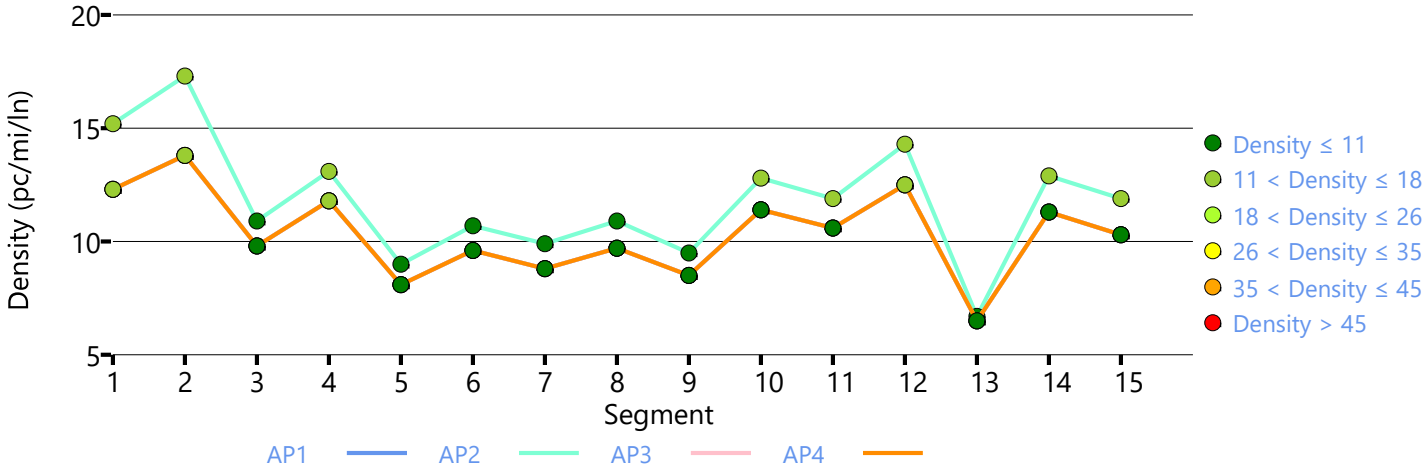
Volume Distribution



Speed Distribution



Density Distribution



HCS7 Freeway Facilities Report

Project Information

Analyst	APS	Date	3/18/2022
Agency	Garver	Analysis Year	2045 No Action
Jurisdiction	ARDOT	Time Analyzed	AM Peak hour
Project Description	I-49 NB with Bella Vista Bypass-No Action	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	11
Total Analysis Periods	4	Analysis Period Duration, min	15
Facility Length, mi	5.16		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	between SE 8th St and Hwy 72	1316	3
2	Diverge	Diverge	off-ramp to Hwy 72	1500	3
3	Basic	Basic	between Hwy 72 off ramps	60	3
4	Diverge	Diverge	loop off-ramp to Hwy 72	1500	3
5	Basic	Basic	between loop off-ramp and on-ramp Hwy 72	710	3
6	Merge	Merge	on-ramp from Hwy 72	1500	3
7	Basic	Basic	between Hwy 72 and Hwy 71B	15670	3
8	Diverge	Diverge	off-ramp to Hwy 71B	1500	3
9	Basic	Basic	between Hwy 71B ramps	1500	3
10	Merge	Merge	on-ramp from Hwy 71B	1500	3
11	Basic	Basic	north of Hwy 71B	500	3

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.862	2811	6943	0.40	69.1	13.6	B
2	1.00	0.877	3558	6943	0.51	69.1	17.2	B
3	1.00	0.862	2811	6943	0.40	69.1	13.6	B
4	1.00	0.862	2811	6943	0.40	69.1	13.6	B

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	1.00	1.00	0.862	0.962	2811	702	6824	1936	0.41	0.36	61.1	57.2	15.3	20.4	C
2	1.00	1.00	0.877	0.962	3558	1225	6824	1936	0.52	0.63	59.9	55.9	19.8	25.3	C

3	1.00	1.00	0.862	0.962	2811	702	6824	1936	0.41	0.36	61.1	57.2	15.3	20.4	C
4	1.00	1.00	0.862	0.962	2811	702	6824	1936	0.41	0.36	61.1	57.2	15.3	20.4	C

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.833	2098	6943	0.30	66.8	10.1	A
2	1.00	0.833	2331	6943	0.34	66.5	11.2	B
3	1.00	0.833	2098	6943	0.30	66.8	10.1	A
4	1.00	0.833	2098	6943	0.30	66.8	10.1	A

Segment 4: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	1.00	1.00	0.833	0.962	2098	372	6824	1839	0.31	0.20	57.3	52.9	12.2	4.2	A
2	1.00	1.00	0.833	0.962	2331	417	6824	1839	0.34	0.23	57.3	52.8	13.6	5.6	A
3	1.00	1.00	0.833	0.962	2098	372	6824	1839	0.31	0.20	57.3	52.9	12.2	4.2	A
4	1.00	1.00	0.833	0.962	2098	372	6824	1839	0.31	0.20	57.3	52.9	12.2	4.2	A

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.806	1725	6943	0.25	67.1	8.3	A
2	1.00	0.806	1912	6943	0.28	67.1	9.2	A
3	1.00	0.806	1725	6943	0.25	67.1	8.3	A
4	1.00	0.806	1725	6943	0.25	67.1	8.3	A

Segment 6: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	1.00	1.00	0.806	0.893	1948	223	6824	1936	0.29	0.12	64.1	62.0	10.1	9.6	A
2	1.00	1.00	0.806	0.893	2176	264	6824	1936	0.32	0.14	64.0	61.9	11.3	10.7	B
3	1.00	1.00	0.806	0.893	1948	223	6824	1936	0.29	0.12	64.1	62.0	10.1	9.6	A
4	1.00	1.00	0.806	0.893	1948	223	6824	1936	0.29	0.12	64.1	62.0	10.1	9.6	A

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.820	1938	6943	0.28	69.1	9.3	A
2	1.00	0.820	2167	6943	0.31	69.1	10.4	A
3	1.00	0.820	1938	6943	0.28	69.1	9.3	A
4	1.00	0.820	1938	6943	0.28	69.1	9.3	A

Segment 8: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	

1	1.00	1.00	0.820	0.610	1938	821	6824	3678	0.28	0.22	57.6	51.8	11.2	2.1	A
2	1.00	1.00	0.820	0.649	2167	1052	6824	3678	0.32	0.29	56.4	51.2	12.8	4.1	A
3	1.00	1.00	0.820	0.610	1938	821	6824	3678	0.28	0.22	57.6	51.8	11.2	2.1	A
4	1.00	1.00	0.820	0.610	1938	821	6824	3678	0.28	0.22	57.6	51.8	11.2	2.1	A

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.980	1110	6943	0.16	68.1	5.4	A
2	1.00	0.980	1116	6943	0.16	68.0	5.4	A
3	1.00	0.980	1110	6943	0.16	68.1	5.4	A
4	1.00	0.980	1110	6943	0.16	68.1	5.4	A

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	1.00	1.00	0.980	0.685	1840	730	6824	1936	0.27	0.38	63.9	62.4	9.6	8.9	A
2	1.00	1.00	0.980	0.685	2078	962	6824	1936	0.30	0.50	63.6	62.3	10.9	10.6	B
3	1.00	1.00	0.980	0.685	1840	730	6824	1936	0.27	0.38	63.9	62.4	9.6	8.9	A
4	1.00	1.00	0.980	0.685	1840	730	6824	1936	0.27	0.38	63.9	62.4	9.6	8.9	A

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.862	1842	6943	0.27	68.1	8.9	A
2	1.00	0.847	2070	6943	0.30	68.0	10.0	A
3	1.00	0.862	1842	6943	0.27	68.1	8.9	A
4	1.00	0.862	1842	6943	0.27	68.1	8.9	A

Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.2	9.9	8.3	4.70	A
2	65.9	11.3	9.5	4.70	B
3	66.2	9.9	8.3	4.70	A
4	66.2	9.9	8.3	4.70	A

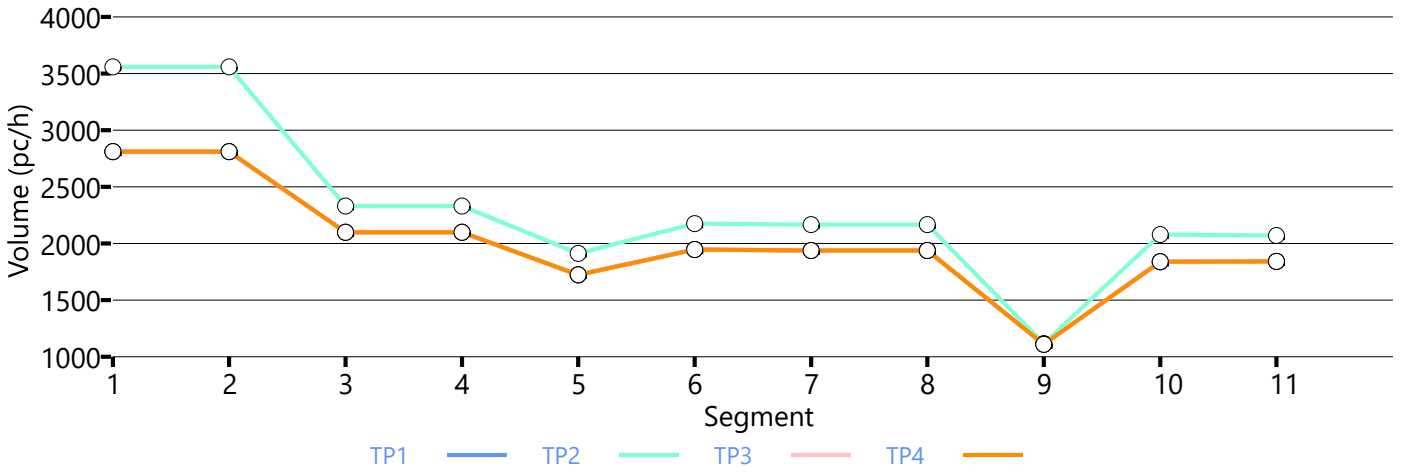
Facility Overall Results

Space Mean Speed, mi/h	66.2	Density, veh/mi/ln	8.6
Average Travel Time, min	4.70	Density, pc/mi/ln	10.3

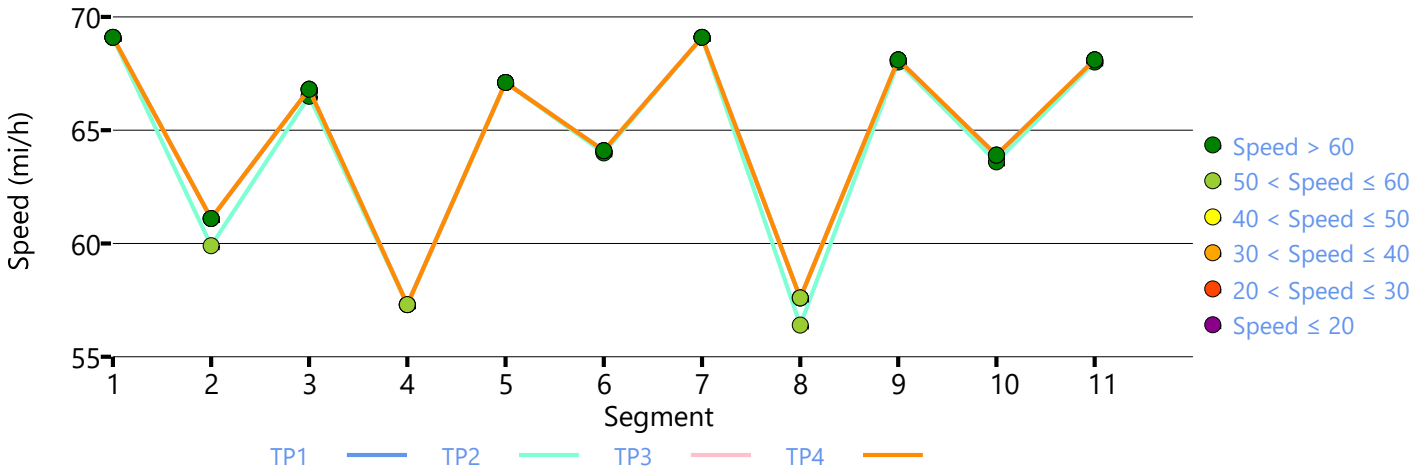
Messages

Comments

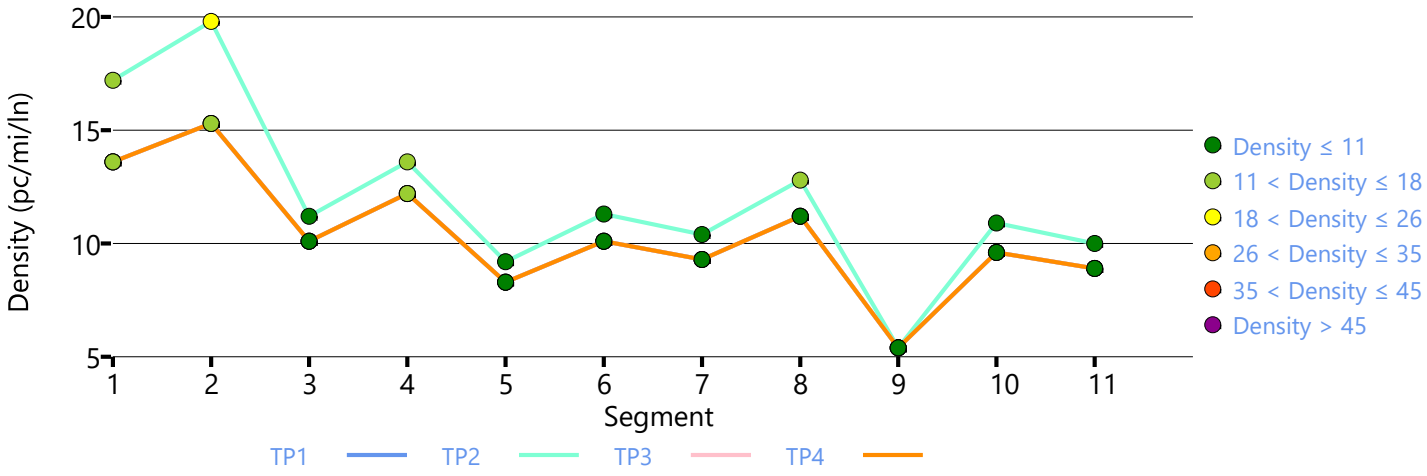
Volume Distribution



Speed Distribution



Density Distribution



HCS Freeway Facilities Report

Project Information

Analyst	APS	Date	10/19/2022
Agency	Garver	Analysis Year	2045
Jurisdiction	ARDOT	Time Analyzed	PM Peak hour
Project Description	I-49 NB Action with Bella Vista Bypass	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	15
Total Analysis Periods	4	Analysis Period Duration, min	15
Facility Length, mi	5.16		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	between SE 8th St and Hwy 72	1316	3
2	Diverge	Diverge	off-ramp to Hwy 72	1500	3
3	Basic	Basic	between Hwy 72 off ramps	60	3
4	Diverge	Diverge	loop off-ramp to Hwy 72	1500	3
5	Basic	Basic	between loop off-ramp and on-ramp Hwy 72	710	3
6	Merge	Merge	on-ramp from Hwy 72	1500	3
7	Basic	Basic	between Hwy 72 and NE J St	5150	3
8	Diverge	Diverge	off-ramp to NE J St	1500	3
9	Basic	Basic	between NE J St ramps	1030	3
10	Merge	Merge	on-ramp from NE J St	1500	3
11	Basic	Basic	between NE J St and Hwy 71B	6490	3
12	Diverge	Diverge	off-ramp to Hwy 71B	1500	3
13	Basic	Basic	between Hwy 71B ramps	1500	3
14	Merge	Merge	on-ramp from Hwy 71B	1500	3
15	Basic	Basic	north of Hwy 71B	500	3

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	4660	6929	0.67	66.7	23.3	C
2	1.00	0.926	5380	6929	0.78	63.5	28.2	D
3	1.00	0.926	4660	6929	0.67	66.7	23.3	C
4	1.00	0.926	4660	6929	0.67	66.7	23.3	C

Segment 2: Diverge

AP	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS

					(pc/h)		(pc/h)		Ratio		(mi/h)		(pc/mi/ln)		
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.926	0.962	4660	774	6824	1936	0.68	0.40	61.2	56.7	25.4	29.4	D
2	1.00	1.00	0.926	0.962	5380	969	6824	1936	0.79	0.50	60.8	56.3	29.5	32.8	D
3	1.00	1.00	0.926	0.962	4660	774	6824	1936	0.68	0.40	61.2	56.7	25.4	29.4	D
4	1.00	1.00	0.926	0.962	4660	774	6824	1936	0.68	0.40	61.2	56.7	25.4	29.4	D

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	3855	6929	0.56	66.5	18.8	C
2	1.00	0.926	4374	6929	0.63	66.4	21.6	C
3	1.00	0.926	3855	6929	0.56	66.5	18.8	C
4	1.00	0.926	3855	6929	0.56	66.5	18.8	C

Segment 4: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.926	1.000	3855	431	6824	1839	0.56	0.23	57.9	52.5	22.2	13.4	B
2	1.00	1.00	0.926	1.000	4374	578	6824	1839	0.64	0.31	57.7	52.2	25.3	16.1	B
3	1.00	1.00	0.926	1.000	3855	431	6824	1839	0.56	0.23	57.9	52.5	22.2	13.4	B
4	1.00	1.00	0.926	1.000	3855	431	6824	1839	0.56	0.23	57.9	52.5	22.2	13.4	B

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	3453	6929	0.50	66.8	16.8	B
2	1.00	0.909	3820	6929	0.55	66.8	18.6	C
3	1.00	0.909	3453	6929	0.50	66.8	16.8	B
4	1.00	0.909	3453	6929	0.50	66.8	16.8	B

Segment 6: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.980	4038	585	6824	1936	0.59	0.30	62.1	60.5	21.7	20.3	C
2	1.00	1.00	0.909	0.980	4516	696	6824	1936	0.66	0.36	61.5	59.9	24.5	22.9	C
3	1.00	1.00	0.909	0.980	4038	585	6824	1936	0.59	0.30	62.1	60.5	21.7	20.3	C
4	1.00	1.00	0.909	0.980	4038	585	6824	1936	0.59	0.30	62.1	60.5	21.7	20.3	C

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	4009	6929	0.58	68.3	19.6	C
2	1.00	0.926	4486	6929	0.65	67.2	22.2	C
3	1.00	0.926	4009	6929	0.58	68.3	19.6	C
4	1.00	0.926	4009	6929	0.58	68.3	19.6	C

Segment 8: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.926	0.926	4009	76	6824	1936	0.59	0.04	62.8	58.4	21.3	18.1	B
2	1.00	1.00	0.926	0.926	4486	84	6824	1936	0.66	0.04	62.8	58.4	23.8	20.4	C
3	1.00	1.00	0.926	0.926	4009	76	6824	1936	0.59	0.04	62.8	58.4	21.3	18.1	B
4	1.00	1.00	0.926	0.926	4009	76	6824	1936	0.59	0.04	62.8	58.4	21.3	18.1	B

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	3933	6929	0.57	67.9	19.2	C
2	1.00	0.926	4402	6929	0.64	67.5	21.7	C
3	1.00	0.926	3933	6929	0.57	67.9	19.2	C
4	1.00	0.926	3933	6929	0.57	67.9	19.2	C

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.926	0.926	4377	444	6824	1936	0.64	0.23	62.4	61.2	23.4	18.7	B
2	1.00	1.00	0.926	0.926	4899	497	6824	1936	0.72	0.26	61.8	60.6	26.4	21.0	C
3	1.00	1.00	0.926	0.926	4377	444	6824	1936	0.64	0.23	62.4	61.2	23.4	18.7	B
4	1.00	1.00	0.926	0.926	4377	444	6824	1936	0.64	0.23	62.4	61.2	23.4	18.7	B

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	4377	6929	0.63	67.5	21.6	C
2	1.00	0.926	4898	6929	0.71	65.8	24.8	C
3	1.00	0.926	4377	6929	0.63	67.5	21.6	C
4	1.00	0.926	4377	6929	0.63	67.5	21.6	C

Segment 12: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.926	0.806	4377	1309	6824	3678	0.64	0.36	57.1	50.4	25.6	13.9	B
2	1.00	1.00	0.926	0.833	4898	1695	6824	3678	0.72	0.46	55.8	49.5	29.3	17.7	B
3	1.00	1.00	0.926	0.806	4377	1309	6824	3678	0.64	0.36	57.1	50.4	25.6	13.9	B
4	1.00	1.00	0.926	0.806	4377	1309	6824	3678	0.64	0.36	57.1	50.4	25.6	13.9	B

Segment 13: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.980	3059	6929	0.44	67.6	14.9	B
2	1.00	0.980	3188	6929	0.46	67.5	15.5	B

3	1.00	0.980	3059	6929	0.44	67.6	14.9	B
4	1.00	0.980	3059	6929	0.44	67.6	14.9	B

Segment 14: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.980	0.685	5186	2127	6824	1936	0.76	1.10	58.8	56.9	29.4	28.4	D
2	1.00	1.00	0.980	0.685	5568	2380	6824	1936	0.82	1.23	56.9	54.7	32.6	30.9	D
3	1.00	1.00	0.980	0.685	5186	2127	6824	1936	0.76	1.10	58.8	56.9	29.4	28.4	D
4	1.00	1.00	0.980	0.685	5186	2127	6824	1936	0.76	1.10	58.8	56.9	29.4	28.4	D

Segment 15: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.862	5016	6929	0.72	65.3	25.6	C
2	1.00	0.862	5162	6929	0.74	64.6	26.6	D
3	1.00	0.862	5016	6929	0.72	65.3	25.6	C
4	1.00	0.862	5016	6929	0.72	65.3	25.6	C

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	5049	4834	4.78	64.4	21.8	20.2	4.80	C
2	5631	5388	6.88	63.3	24.7	23.0	4.90	C
3	5049	4834	4.78	64.4	21.8	20.2	4.80	C
4	5049	4834	4.78	64.4	21.8	20.2	4.80	C

Facility Overall Results

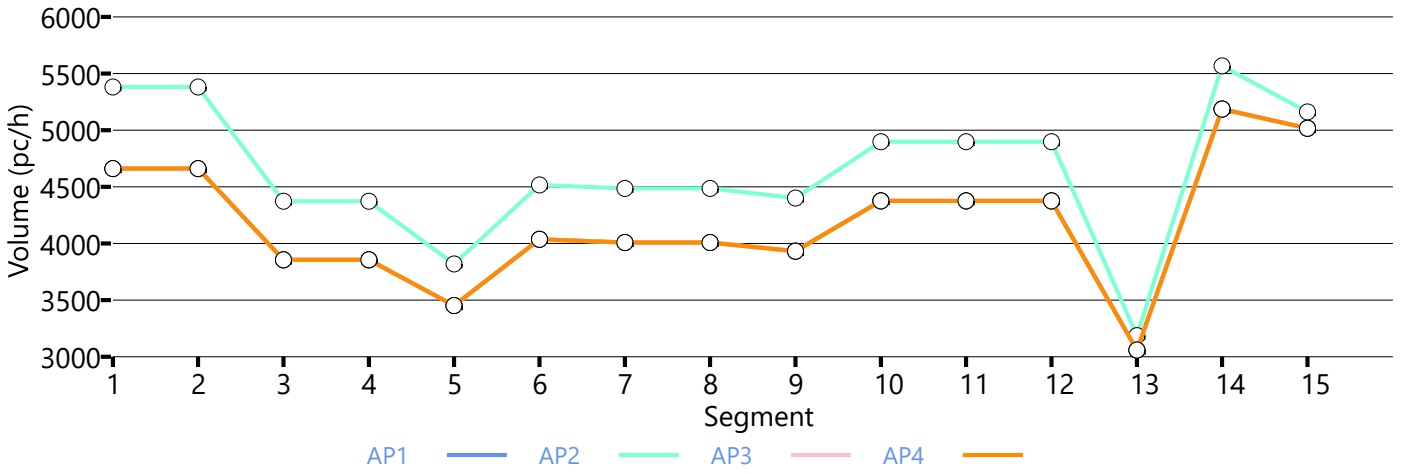
Space Mean Speed, mi/h	64.1	Density, veh/mi/ln	20.9
Average Travel Time, min	4.80	Density, pc/mi/ln	22.5

Messages

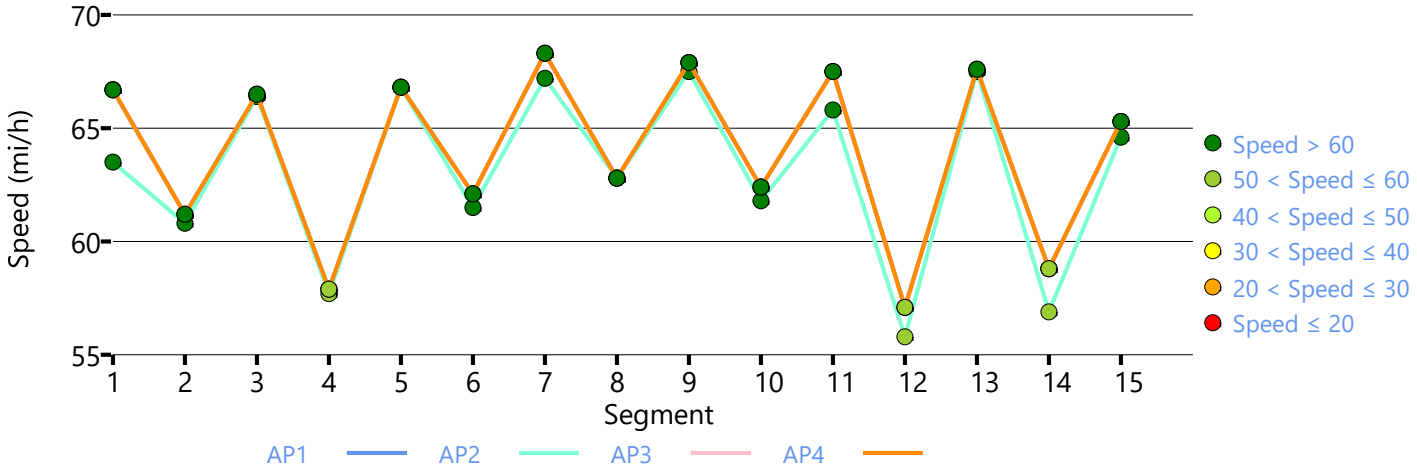
WARNING 1	Merge Capacity is less than merge demand. Queuing on the on-ramp may affect upstream access roads and reduce entering flow on the freeway; both effects are not accounted for in the procedure reproduced by this module. Use caution when reviewing results.
WARNING 2	Merge Capacity is less than merge demand. Queuing on the on-ramp may affect upstream access roads and reduce entering flow on the freeway; both effects are not accounted for in the procedure reproduced by this module. Use caution when reviewing results.
WARNING 3	Merge Capacity is less than merge demand. Queuing on the on-ramp may affect upstream access roads and reduce entering flow on the freeway; both effects are not accounted for in the procedure reproduced by this module. Use caution when reviewing results.
WARNING 4	Merge Capacity is less than merge demand. Queuing on the on-ramp may affect upstream access roads and reduce entering flow on the freeway; both effects are not accounted for in the procedure reproduced by this module. Use caution when reviewing results.

Comments

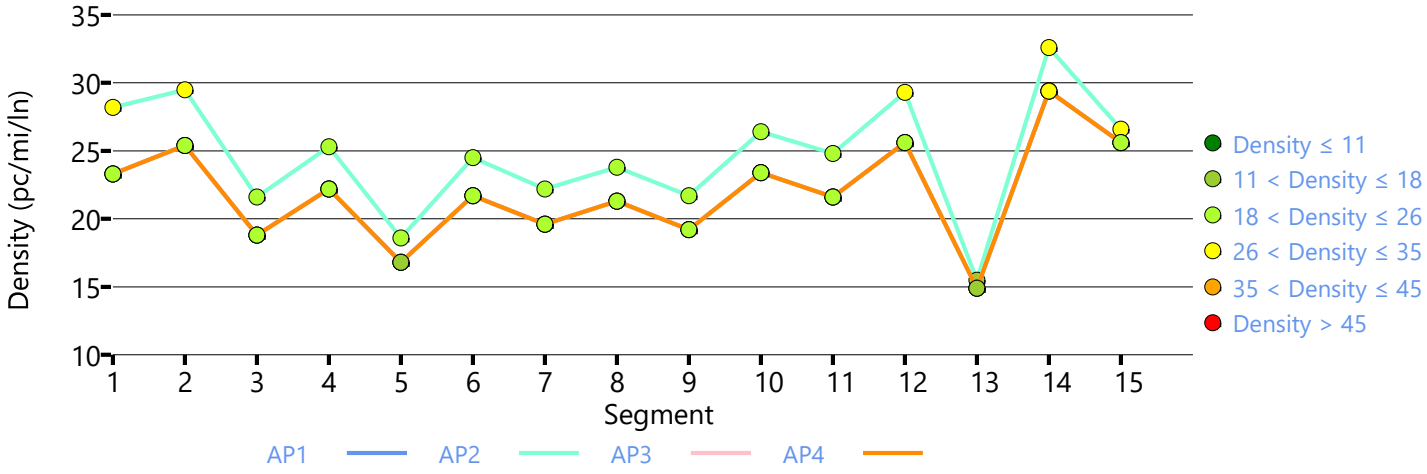
Volume Distribution



Speed Distribution



Density Distribution



HCS7 Freeway Facilities Report

Project Information

Analyst	APS	Date	3/18/2022
Agency	Garver	Analysis Year	2045 No Action
Jurisdiction	ARDOT	Time Analyzed	PM Peak hour
Project Description	I-49 NB with Bella Vista Bypass-No Action	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	11
Total Analysis Periods	4	Analysis Period Duration, min	15
Facility Length, mi	5.16		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	between SE 8th St and Hwy 72	1316	3
2	Diverge	Diverge	off-ramp to Hwy 72	1500	3
3	Basic	Basic	between Hwy 72 off ramps	60	3
4	Diverge	Diverge	loop off-ramp to Hwy 72	1500	3
5	Basic	Basic	between loop off-ramp and on-ramp Hwy 72	710	3
6	Merge	Merge	on-ramp from Hwy 72	1500	3
7	Basic	Basic	between Hwy 72 and Hwy 71B	15670	3
8	Diverge	Diverge	off-ramp to Hwy 71B	1500	3
9	Basic	Basic	between Hwy 71B ramps	1500	3
10	Merge	Merge	on-ramp from Hwy 71B	1500	3
11	Basic	Basic	north of Hwy 71B	500	3

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	5042	6943	0.73	65.5	25.7	C
2	1.00	0.926	5837	6943	0.84	60.9	32.0	D
3	1.00	0.926	5042	6943	0.73	65.5	25.7	C
4	1.00	0.926	5042	6943	0.73	65.5	25.7	C

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	1.00	1.00	0.926	0.962	5042	1045	6824	1936	0.74	0.54	61.0	56.4	27.6	31.6	D
2	1.00	1.00	0.926	0.962	5837	1306	6824	1936	0.86	0.67	60.4	55.7	32.2	35.3	E

3	1.00	1.00	0.926	0.962	5042	1045	6824	1936	0.74	0.54	61.0	56.4	27.6	31.6	D
4	1.00	1.00	0.926	0.962	5042	1045	6824	1936	0.74	0.54	61.0	56.4	27.6	31.6	D

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	3957	6943	0.57	66.8	19.2	C
2	1.00	0.926	4481	6943	0.65	66.6	22.1	C
3	1.00	0.926	3957	6943	0.57	66.8	19.2	C
4	1.00	0.926	3957	6943	0.57	66.8	19.2	C

Segment 4: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	1.00	1.00	0.926	1.000	3957	454	6824	1839	0.58	0.25	58.2	52.7	22.7	13.9	B
2	1.00	1.00	0.926	1.000	4481	607	6824	1839	0.66	0.33	57.9	52.3	25.8	16.6	B
3	1.00	1.00	0.926	1.000	3957	454	6824	1839	0.58	0.25	58.2	52.7	22.7	13.9	B
4	1.00	1.00	0.926	1.000	3957	454	6824	1839	0.58	0.25	58.2	52.7	22.7	13.9	B

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	3531	6943	0.51	67.3	17.0	B
2	1.00	0.909	3897	6943	0.56	67.2	18.9	C
3	1.00	0.909	3531	6943	0.51	67.3	17.0	B
4	1.00	0.909	3531	6943	0.51	67.3	17.0	B

Segment 6: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	1.00	1.00	0.909	0.980	4291	760	6824	1936	0.63	0.39	62.2	60.6	23.0	21.5	C
2	1.00	1.00	0.909	0.980	4801	904	6824	1936	0.70	0.47	61.6	59.9	26.0	24.0	C
3	1.00	1.00	0.909	0.980	4291	760	6824	1936	0.63	0.39	62.2	60.6	23.0	21.5	C
4	1.00	1.00	0.909	0.980	4291	760	6824	1936	0.63	0.39	62.2	60.6	23.0	21.5	C

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	4271	6943	0.62	68.2	20.9	C
2	1.00	0.926	4782	6943	0.69	66.6	23.9	C
3	1.00	0.926	4271	6943	0.62	68.2	20.9	C
4	1.00	0.926	4271	6943	0.62	68.2	20.9	C

Segment 8: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	

1	1.00	1.00	0.926	0.806	4271	1354	6824	3678	0.63	0.37	57.2	50.5	24.9	13.7	B
2	1.00	1.00	0.926	0.833	4782	1753	6824	3678	0.70	0.48	55.8	49.5	28.6	17.5	B
3	1.00	1.00	0.926	0.806	4271	1354	6824	3678	0.63	0.37	57.2	50.5	24.9	13.7	B
4	1.00	1.00	0.926	0.806	4271	1354	6824	3678	0.63	0.37	57.2	50.5	24.9	13.7	B

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.980	2922	6943	0.42	68.1	14.1	B
2	1.00	0.980	3029	6943	0.44	67.9	14.6	B
3	1.00	0.980	2922	6943	0.42	68.1	14.1	B
4	1.00	0.980	2922	6943	0.42	68.1	14.1	B

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	1.00	1.00	0.980	0.685	4836	1914	6824	1936	0.71	0.99	60.3	58.6	26.7	26.2	C
2	1.00	1.00	0.980	0.685	4965	1936	6824	1936	0.73	1.11	60.0	58.2	27.6	26.8	C
3	1.00	1.00	0.980	0.685	4836	1914	6824	1936	0.71	0.99	60.3	58.6	26.7	26.2	C
4	1.00	1.00	0.980	0.685	4836	1914	6824	1936	0.71	0.99	60.3	58.6	26.7	26.2	C

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.862	4843	6943	0.70	66.4	24.3	C
2	1.00	0.862	4981	6943	0.72	65.8	25.2	C
3	1.00	0.862	4843	6943	0.70	66.4	24.3	C
4	1.00	0.862	4843	6943	0.70	66.4	24.3	C

Facility Analysis Results

AP	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.3	21.8	20.3	4.70	C
2	64.0	24.8	23.0	4.80	C
3	65.3	21.8	20.3	4.70	C
4	65.3	21.8	20.3	4.70	C

Facility Overall Results

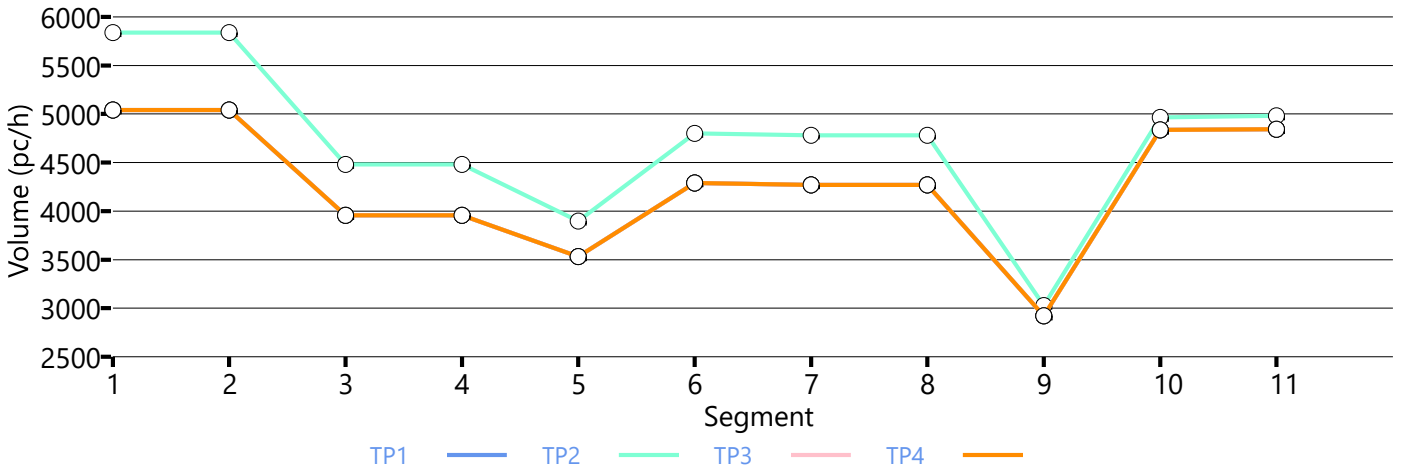
Space Mean Speed, mi/h	65.0	Density, veh/mi/ln	21.0
Average Travel Time, min	4.80	Density, pc/mi/ln	22.6

Messages

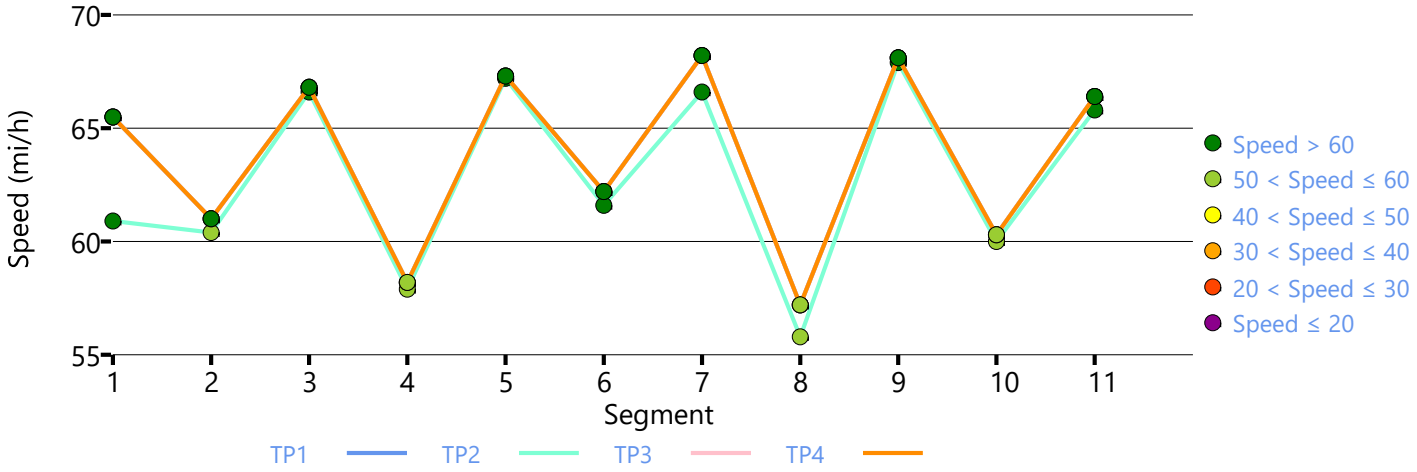
WARNING 1	Merge capacity is less than merge demand for analysis period 2 on segment 10.

Comments

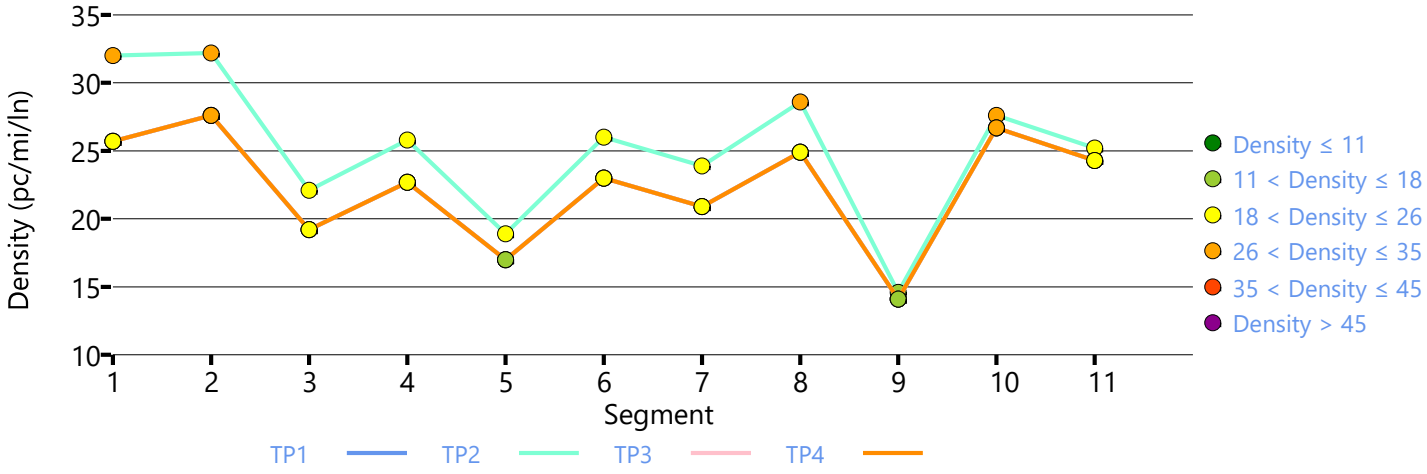
Volume Distribution



Speed Distribution



Density Distribution



HCS Freeway Facilities Report

Project Information

Analyst	APS	Date	10/20/2022
Agency	Garver	Analysis Year	2022
Jurisdiction	ARDOT	Time Analyzed	AM Peak hour
Project Description	I-49 SB Action with Bella Vista Bypass	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	15
Total Analysis Periods	4	Analysis Period Duration, min	15
Facility Length, mi	4.96		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	north of Hwy 71B	50	2
2	Diverge	Diverge	off-ramp to Hwy 71B	1500	2
3	Basic	Basic	between Hwy 71B ramps	2080	2
4	Merge	Merge	on-ramp from Hwy 71B	1500	2
5	Basic	Basic	between Hwy 71B and NE J St	4650	2
6	Diverge	Diverge	off-ramp to NE J St	1500	2
7	Basic	Basic	between NE J St ramps	850	2
8	Merge	Merge	on-ramp from NE J St	1500	2
9	Basic	Basic	between NE J St and Hwy 72	5165	2
10	Diverge	Diverge	off-ramp to Hwy 72	1500	2
11	Basic	Basic	between Hwy 72 off-ramp and loop on-ramp	1015	2
12	Merge	Basic	loop on-ramp from Hwy 72	1225	3
13	Overlap	Basic	between on-ramps from Hwy 72	275	3
14	Merge	Merge	on-ramp from Hwy 72	1225	3
15	Basic	Basic	between Hwy 72 and SE 8th St	2165	3

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.820	2966	4619	0.64	67.3	22.0	C
2	1.00	0.820	3383	4619	0.73	65.0	26.0	C
3	1.00	0.820	2966	4619	0.64	67.3	22.0	C
4	1.00	0.820	2966	4619	0.64	67.3	22.0	C

Segment 2: Diverge

AP	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS

					(pc/h)		(pc/h)		Ratio		(mi/h)		(pc/mi/ln)		
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.820	0.667	2966	1426	4550	1839	0.65	0.78	51.8	51.8	28.6	27.6	C
2	1.00	1.00	0.820	0.667	3383	1726	4550	1839	0.74	0.94	51.1	51.1	33.1	31.2	D
3	1.00	1.00	0.820	0.667	2966	1426	4550	1839	0.65	0.78	51.8	51.8	28.6	27.6	C
4	1.00	1.00	0.820	0.667	2966	1426	4550	1839	0.65	0.78	51.8	51.8	28.6	27.6	C

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.980	1511	4619	0.33	67.7	11.0	A
2	1.00	0.980	1656	4619	0.36	67.6	12.1	B
3	1.00	0.980	1511	4619	0.33	67.7	11.0	A
4	1.00	0.980	1511	4619	0.33	67.7	11.0	A

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.980	0.862	2670	1159	4550	3678	0.59	0.32	60.9	60.9	21.9	16.4	B
2	1.00	1.00	0.980	0.862	2992	1336	4550	3678	0.66	0.36	60.3	60.3	24.8	18.9	B
3	1.00	1.00	0.980	0.862	2670	1159	4550	3678	0.59	0.32	60.9	60.9	21.9	16.4	B
4	1.00	1.00	0.980	0.862	2670	1159	4550	3678	0.59	0.32	60.9	60.9	21.9	16.4	B

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	2678	4619	0.58	68.2	19.6	C
2	1.00	0.926	2997	4619	0.65	67.2	22.3	C
3	1.00	0.926	2678	4619	0.58	68.2	19.6	C
4	1.00	0.926	2678	4619	0.58	68.2	19.6	C

Segment 6: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.926	0.926	2678	92	4550	1936	0.59	0.05	58.4	58.4	22.9	18.6	B
2	1.00	1.00	0.926	0.926	2997	104	4550	1936	0.66	0.05	58.4	58.4	25.7	21.4	C
3	1.00	1.00	0.926	0.926	2678	93	4550	1936	0.59	0.05	58.4	58.4	22.9	18.6	B
4	1.00	1.00	0.926	0.926	2678	92	4550	1936	0.59	0.05	58.4	58.4	22.9	18.6	B

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	2586	4619	0.56	67.1	18.9	C
2	1.00	0.926	2893	4619	0.63	67.1	21.4	C
3	1.00	0.926	2585	4619	0.56	67.1	18.9	C
4	1.00	0.926	2586	4619	0.56	67.1	18.9	C

Segment 8: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.926	0.926	2632	46	4550	1936	0.58	0.02	61.0	61.0	21.6	19.0	B
2	1.00	1.00	0.926	0.926	2945	52	4550	1936	0.65	0.03	60.4	60.4	24.4	21.4	C
3	1.00	1.00	0.926	0.926	2631	46	4550	1936	0.58	0.02	61.0	61.0	21.6	19.0	B
4	1.00	1.00	0.926	0.926	2632	46	4550	1936	0.58	0.02	61.0	61.0	21.6	19.0	B

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	2633	4619	0.57	68.3	19.3	C
2	1.00	0.926	2945	4619	0.64	67.4	21.8	C
3	1.00	0.926	2632	4619	0.57	68.3	19.3	C
4	1.00	0.926	2633	4619	0.57	68.3	19.3	C

Segment 10: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.926	0.980	2633	367	4550	1936	0.58	0.19	57.7	57.7	22.8	25.1	C
2	1.00	1.00	0.926	0.980	2945	491	4550	1936	0.65	0.25	57.4	57.4	25.7	27.8	C
3	1.00	1.00	0.926	0.980	2632	367	4550	1936	0.58	0.19	57.7	57.7	22.8	25.1	C
4	1.00	1.00	0.926	0.980	2633	367	4550	1936	0.58	0.19	57.7	57.7	22.8	25.1	C

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	2286	4619	0.49	67.2	16.7	B
2	1.00	0.909	2471	4619	0.53	67.1	18.0	B
3	1.00	0.909	2285	4619	0.49	67.2	16.6	B
4	1.00	0.909	2286	4619	0.49	67.2	16.7	B

Segment 12: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.962	2860	574	6929	1839	0.41	0.31	68.4	68.6	13.9	13.9	B
2	1.00	1.00	0.909	0.962	3144	673	6929	1839	0.45	0.37	68.4	68.6	15.3	15.3	B
3	1.00	1.00	0.909	0.962	2859	574	6929	1839	0.41	0.31	68.4	68.6	13.9	13.9	B
4	1.00	1.00	0.909	0.962	2860	574	6929	1839	0.41	0.31	68.4	68.6	13.9	13.9	B

Segment 13: Overlap

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	2840	6929	0.41	68.5	13.8	B
2	1.00	0.926	3124	6929	0.45	68.5	15.2	B

3	1.00	0.926	2839	6929	0.41	68.5	13.8	B
4	1.00	0.926	2840	6929	0.41	68.5	13.8	B

Segment 14: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.926	0.980	3282	442	6824	1936	0.48	0.23	62.7	61.0	17.4	16.6	B
2	1.00	1.00	0.926	0.980	3716	592	6824	1936	0.54	0.31	62.3	60.7	19.9	19.0	B
3	1.00	1.00	0.926	0.980	3281	442	6824	1936	0.48	0.23	62.7	61.0	17.4	16.6	B
4	1.00	1.00	0.926	0.980	3282	442	6824	1936	0.48	0.23	62.7	61.0	17.4	16.6	B

Segment 15: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	3308	6929	0.48	68.2	16.1	B
2	1.00	0.926	3751	6929	0.54	68.2	18.2	C
3	1.00	0.926	3307	6929	0.48	68.2	16.1	B
4	1.00	0.926	3308	6929	0.48	68.2	16.1	B

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	3046	2909	2.85	64.5	18.9	17.4	4.60	C
2	3409	3245	3.64	63.9	21.3	19.6	4.70	C
3	3046	2908	2.85	64.5	18.9	17.4	4.60	C
4	3046	2909	2.85	64.5	18.9	17.4	4.60	C

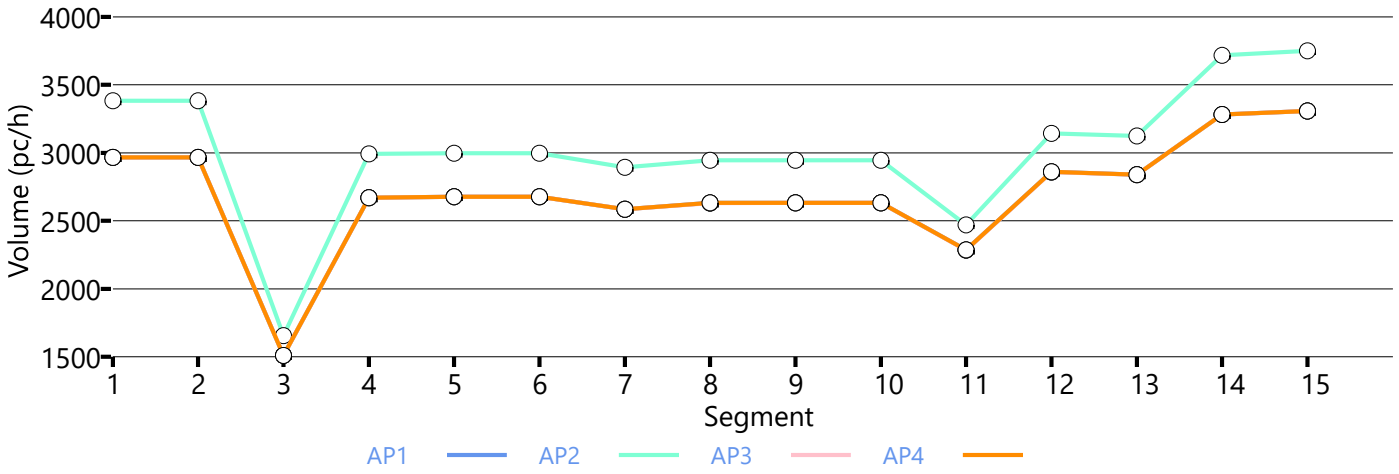
Facility Overall Results

Space Mean Speed, mi/h	64.3	Density, veh/mi/ln	17.9
Average Travel Time, min	4.60	Density, pc/mi/ln	19.5

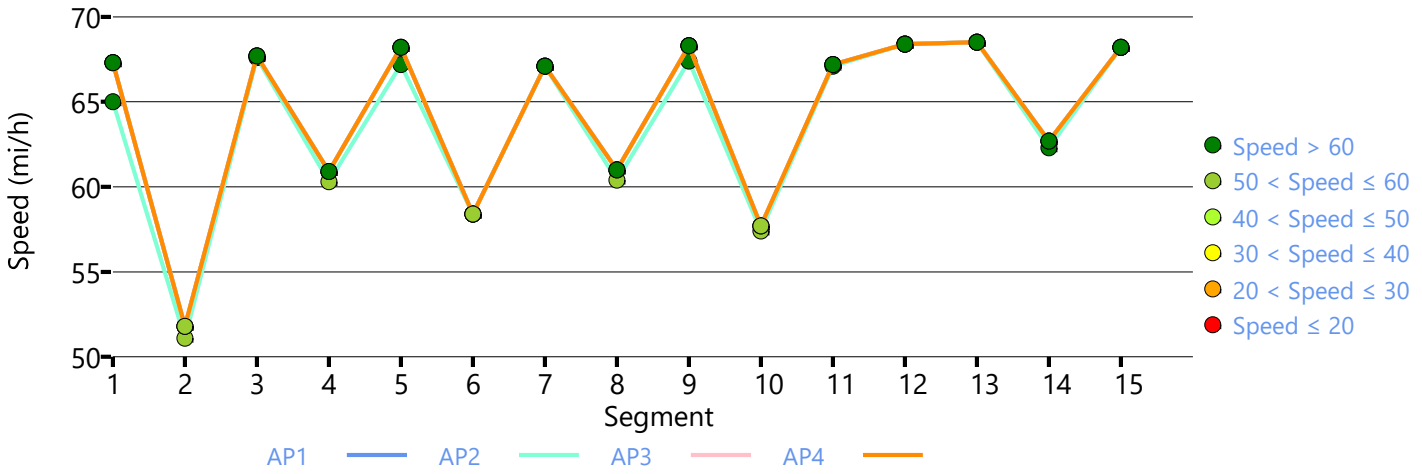
Messages

Comments

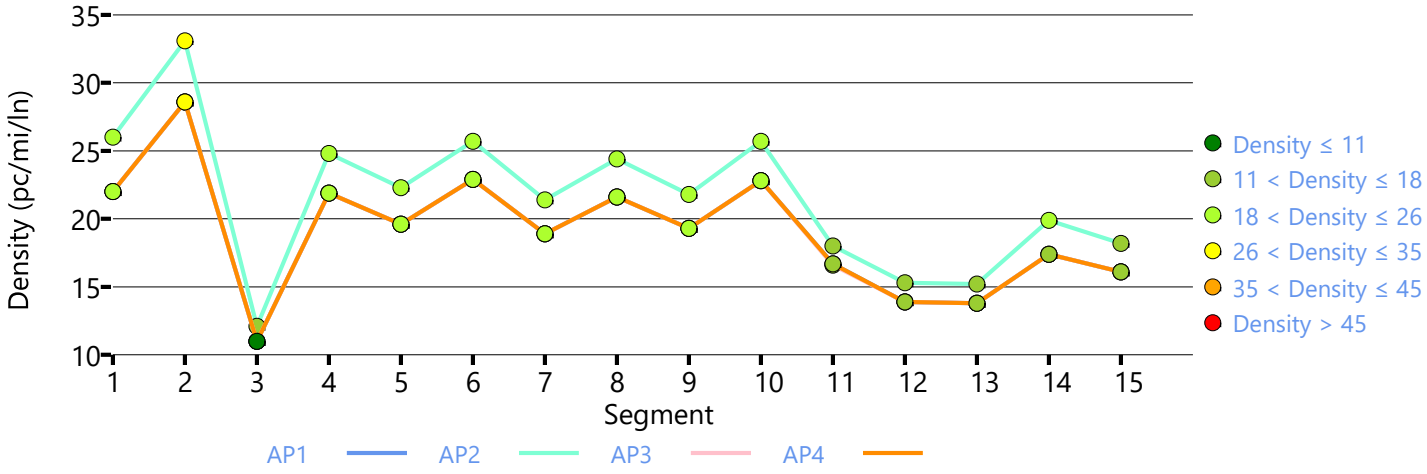
Volume Distribution



Speed Distribution



Density Distribution



HCS Freeway Facilities Report

Project Information

Analyst	APS	Date	7/5/2022
Agency	Garver	Analysis Year	2022
Jurisdiction	ARDOT	Time Analyzed	AM Peak hour
Project Description	I-49 SB No Action with Bella Vista Bypass	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	11
Total Analysis Periods	4	Analysis Period Duration, min	15
Facility Length, mi	4.96		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	north of Hwy 71B	50	2
2	Diverge	Diverge	off-ramp to Hwy 71B	1500	2
3	Basic	Basic	between Hwy 71B ramps	2080	2
4	Merge	Merge	on-ramp from Hwy 71B	1500	2
5	Basic	Basic	between Hwy 71B and Hwy 72	13665	2
6	Diverge	Diverge	off-ramp to Hwy 72	1500	2
7	Basic	Basic	between Hwy 72 off-ramp and loop on-ramp	1015	2
8	Merge	Basic	loop on-ramp from Hwy 72	1225	3
9	Overlap	Basic	between on-ramps from Hwy 72	275	3
10	Merge	Merge	on-ramp from Hwy 72	1225	3
11	Basic	Basic	between Hwy 72 and SE 8th St	2165	3

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.833	3095	4629	0.67	67.1	23.1	C
2	1.00	0.820	3588	4629	0.78	63.8	28.1	D
3	1.00	0.833	3095	4629	0.67	67.1	23.1	C
4	1.00	0.833	3095	4629	0.67	67.1	23.1	C

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.833	0.667	3095	1472	4550	1839	0.68	0.80	51.9	51.9	29.8	28.7	D
2	1.00	1.00	0.820	0.667	3588	1783	4550	1839	0.79	0.97	51.1	51.1	35.1	32.9	D

3	1.00	1.00	0.833	0.667	3095	1472	4550	1839	0.68	0.80	51.9	51.9	29.8	28.7	D
4	1.00	1.00	0.833	0.667	3095	1472	4550	1839	0.68	0.80	51.9	51.9	29.8	28.7	D

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.980	1629	4629	0.35	68.2	11.8	B
2	1.00	0.980	1789	4629	0.39	68.1	12.9	B
3	1.00	0.980	1629	4629	0.35	68.2	11.8	B
4	1.00	0.980	1629	4629	0.35	68.2	11.8	B

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.980	0.847	2749	1120	4550	3678	0.60	0.30	61.1	61.1	22.5	17.1	B
2	1.00	1.00	0.980	0.847	3083	1294	4550	3678	0.68	0.35	60.5	60.5	25.5	19.6	B
3	1.00	1.00	0.980	0.847	2749	1120	4550	3678	0.60	0.30	61.1	61.1	22.5	17.1	B
4	1.00	1.00	0.980	0.847	2749	1120	4550	3678	0.60	0.30	61.1	61.1	22.5	17.1	B

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	2748	4629	0.59	68.5	20.1	C
2	1.00	0.926	3077	4629	0.66	67.2	22.9	C
3	1.00	0.926	2748	4629	0.59	68.5	20.1	C
4	1.00	0.926	2748	4629	0.59	68.5	20.1	C

Segment 6: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.926	0.980	2748	409	4550	1936	0.60	0.21	57.9	57.9	23.7	26.1	C
2	1.00	1.00	0.926	0.980	3077	548	4550	1936	0.68	0.28	57.6	57.6	26.7	28.9	D
3	1.00	1.00	0.926	0.980	2748	409	4550	1936	0.60	0.21	57.9	57.9	23.7	26.1	C
4	1.00	1.00	0.926	0.980	2748	409	4550	1936	0.60	0.21	57.9	57.9	23.7	26.1	C

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	2359	4629	0.51	67.6	17.1	B
2	1.00	0.909	2543	4629	0.55	67.6	18.5	C
3	1.00	0.909	2359	4629	0.51	67.6	17.1	B
4	1.00	0.909	2359	4629	0.51	67.6	17.1	B

Segment 8: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	

1	1.00	1.00	0.909	0.962	2909	550	6943	1839	0.42	0.30	68.9	69.1	14.0	14.0	B
2	1.00	1.00	0.909	0.962	3187	644	6943	1839	0.46	0.35	68.9	69.1	15.4	15.4	B
3	1.00	1.00	0.909	0.962	2909	550	6943	1839	0.42	0.30	68.9	69.1	14.0	14.0	B
4	1.00	1.00	0.909	0.962	2909	550	6943	1839	0.42	0.30	68.9	69.1	14.0	14.0	B

Segment 9: Overlap

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	2887	6943	0.42	69.0	13.9	B
2	1.00	0.926	3166	6943	0.46	69.0	15.3	B
3	1.00	0.926	2887	6943	0.42	69.0	13.9	B
4	1.00	0.926	2887	6943	0.42	69.0	13.9	B

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.926	0.980	3348	461	6824	1936	0.49	0.24	63.1	61.3	17.7	16.9	B
2	1.00	1.00	0.926	0.980	3783	617	6824	1936	0.55	0.32	62.6	60.9	20.1	19.4	B
3	1.00	1.00	0.926	0.980	3348	461	6824	1936	0.49	0.24	63.1	61.3	17.7	16.9	B
4	1.00	1.00	0.926	0.980	3348	461	6824	1936	0.49	0.24	63.1	61.3	17.7	16.9	B

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	3375	6943	0.49	68.7	16.3	B
2	1.00	0.926	3820	6943	0.55	68.7	18.5	C
3	1.00	0.926	3375	6943	0.49	68.7	16.3	B
4	1.00	0.926	3375	6943	0.49	68.7	16.3	B

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	3156	3025	2.30	65.8	19.2	17.7	4.50	C
2	3532	3375	3.27	64.9	21.7	20.0	4.60	C
3	3156	3025	2.30	65.8	19.2	17.7	4.50	C
4	3156	3025	2.30	65.8	19.2	17.7	4.50	C

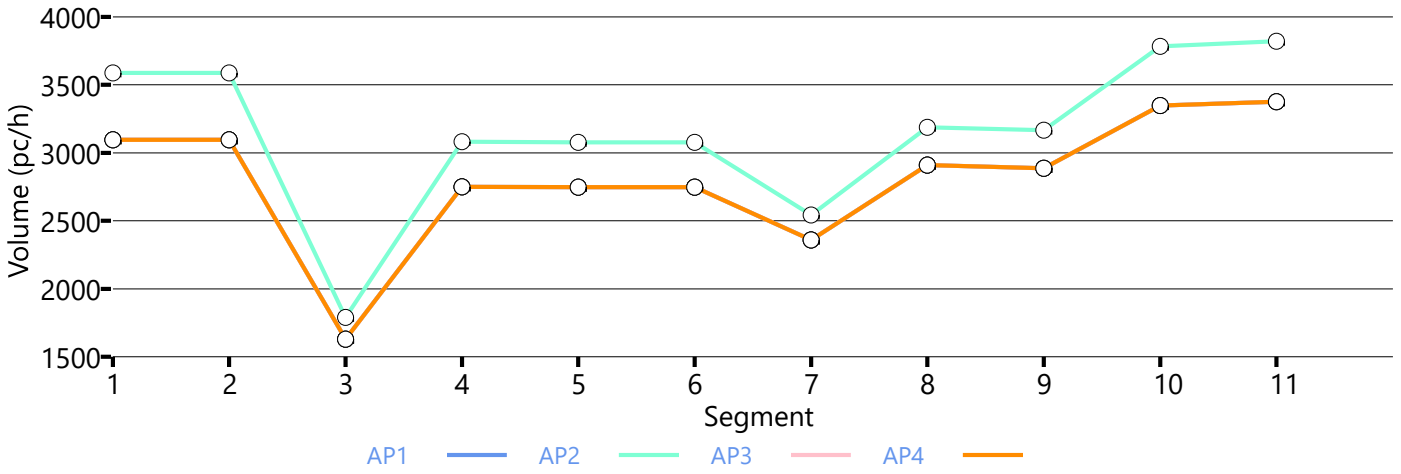
Facility Overall Results

Space Mean Speed, mi/h	65.6	Density, veh/mi/ln	18.3
Average Travel Time, min	4.50	Density, pc/mi/ln	19.8

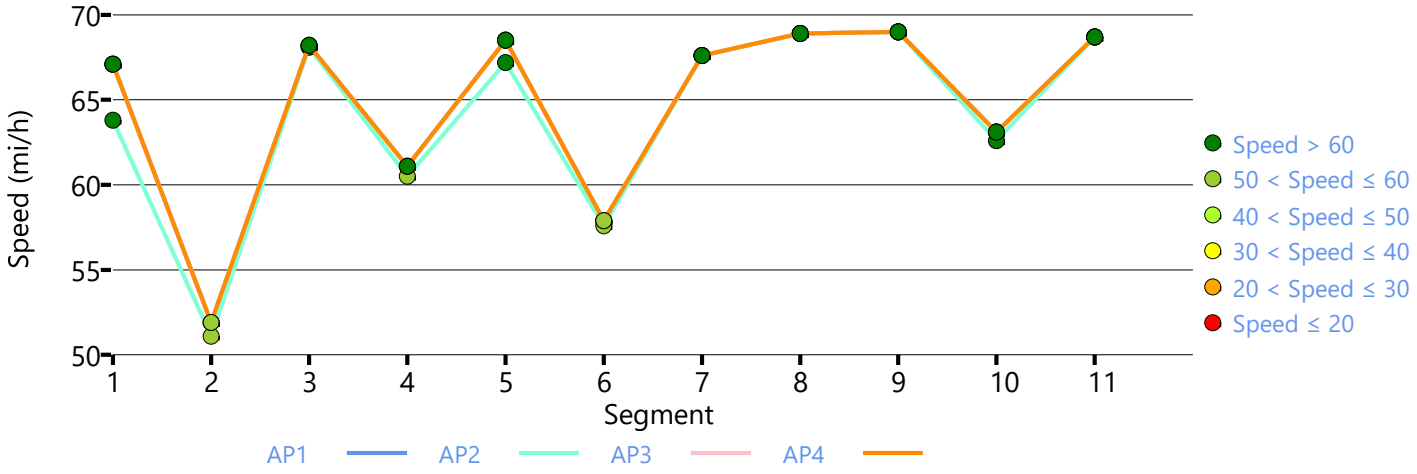
Messages

Comments

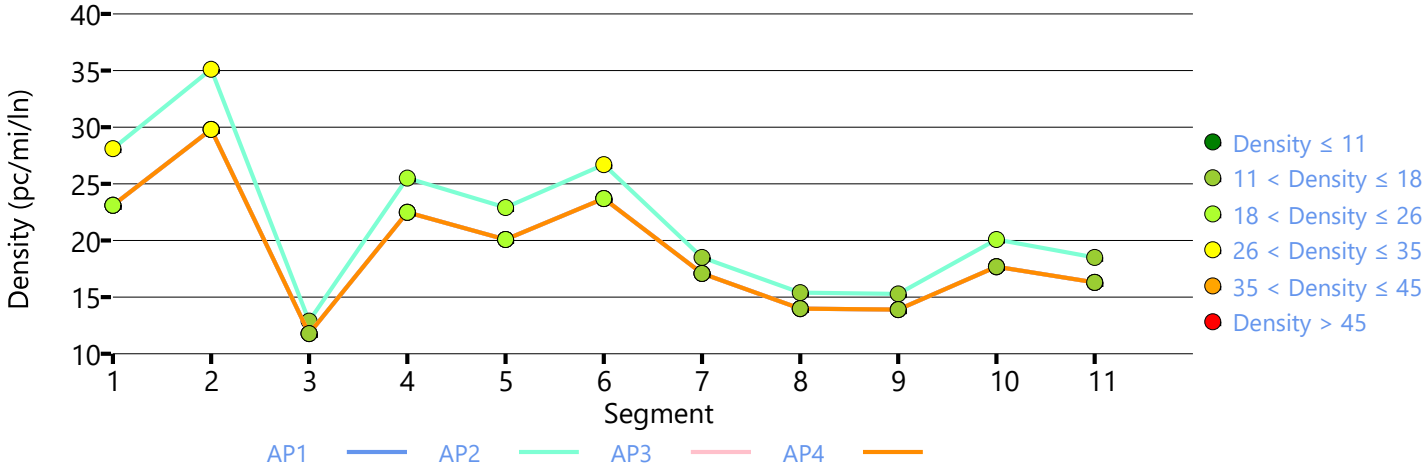
Volume Distribution



Speed Distribution



Density Distribution



HCS Freeway Facilities Report

Project Information

Analyst	APS	Date	10/20/2022
Agency	Garver	Analysis Year	2022
Jurisdiction	ARDOT	Time Analyzed	PM Peak hour
Project Description	I-49 SB Action with Bella Vista Bypass	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	15
Total Analysis Periods	4	Analysis Period Duration, min	15
Facility Length, mi	4.96		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	north of Hwy 71B	50	2
2	Diverge	Diverge	off-ramp to Hwy 71B	1500	2
3	Basic	Basic	between Hwy 71B ramps	2080	2
4	Merge	Merge	on-ramp from Hwy 71B	1500	2
5	Basic	Basic	between Hwy 71B and NE J St	4650	2
6	Diverge	Diverge	off-ramp to NE J St	1500	2
7	Basic	Basic	between NE J St ramps	850	2
8	Merge	Merge	on-ramp from NE J St	1500	2
9	Basic	Basic	between NE J St and Hwy 72	5165	2
10	Diverge	Diverge	off-ramp to Hwy 72	1500	2
11	Basic	Basic	between Hwy 72 off-ramp and loop on-ramp	1015	2
12	Merge	Basic	loop on-ramp from Hwy 72	1225	3
13	Overlap	Basic	between on-ramps from Hwy 72	275	3
14	Merge	Merge	on-ramp from Hwy 72	1225	3
15	Basic	Basic	between Hwy 72 and SE 8th St	2165	3

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.820	1904	4619	0.41	68.6	13.9	B
2	1.00	0.833	2060	4619	0.45	68.6	15.0	B
3	1.00	0.820	1904	4619	0.41	68.6	13.9	B
4	1.00	0.820	1904	4619	0.41	68.6	13.9	B

Segment 2: Diverge

AP	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS

					(pc/h)		(pc/h)		Ratio		(mi/h)		(pc/mi/ln)		
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.820	0.658	1904	784	4550	1839	0.42	0.43	53.3	53.3	17.9	18.5	B
2	1.00	1.00	0.833	0.658	2060	965	4550	1839	0.45	0.52	52.9	52.9	19.5	19.8	B
3	1.00	1.00	0.820	0.658	1904	784	4550	1839	0.42	0.43	53.3	53.3	17.9	18.5	B
4	1.00	1.00	0.820	0.658	1904	784	4550	1839	0.42	0.43	53.3	53.3	17.9	18.5	B

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.943	1108	4619	0.24	67.8	8.1	A
2	1.00	0.980	1103	4619	0.24	67.7	8.0	A
3	1.00	0.943	1108	4619	0.24	67.8	8.1	A
4	1.00	0.943	1108	4619	0.24	67.8	8.1	A

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.943	0.685	1768	660	4550	3678	0.39	0.18	61.8	61.8	14.3	9.6	A
2	1.00	1.00	0.980	0.685	1972	869	4550	3678	0.43	0.24	61.7	61.7	16.0	11.1	B
3	1.00	1.00	0.943	0.685	1768	660	4550	3678	0.39	0.18	61.8	61.8	14.3	9.6	A
4	1.00	1.00	0.943	0.685	1768	660	4550	3678	0.39	0.18	61.8	61.8	14.3	9.6	A

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.847	1767	4619	0.38	68.6	12.9	B
2	1.00	0.847	1979	4619	0.43	68.6	14.4	B
3	1.00	0.847	1767	4619	0.38	68.6	12.9	B
4	1.00	0.847	1767	4619	0.38	68.6	12.9	B

Segment 6: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.847	0.847	1767	113	4550	1936	0.39	0.06	58.3	58.3	15.2	10.8	B
2	1.00	1.00	0.847	0.847	1979	128	4550	1936	0.43	0.07	58.3	58.3	17.0	12.6	B
3	1.00	1.00	0.847	0.847	1767	113	4550	1936	0.39	0.06	58.3	58.3	15.2	10.8	B
4	1.00	1.00	0.847	0.847	1767	113	4550	1936	0.39	0.06	58.3	58.3	15.2	10.8	B

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.847	1654	4619	0.36	67.1	12.1	B
2	1.00	0.847	1851	4619	0.40	67.1	13.5	B
3	1.00	0.847	1654	4619	0.36	67.1	12.1	B
4	1.00	0.847	1654	4619	0.36	67.1	12.1	B

Segment 8: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.847	0.847	1711	57	4550	1936	0.38	0.03	61.8	61.8	13.8	11.8	B
2	1.00	1.00	0.847	0.847	1915	64	4550	1936	0.42	0.03	61.7	61.7	15.5	13.4	B
3	1.00	1.00	0.847	0.847	1711	57	4550	1936	0.38	0.03	61.8	61.8	13.8	11.8	B
4	1.00	1.00	0.847	0.847	1711	57	4550	1936	0.38	0.03	61.8	61.8	13.8	11.8	B

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.847	1711	4619	0.37	68.6	12.5	B
2	1.00	0.847	1915	4619	0.41	68.6	14.0	B
3	1.00	0.847	1711	4619	0.37	68.6	12.5	B
4	1.00	0.847	1711	4619	0.37	68.6	12.5	B

Segment 10: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.847	0.980	1711	135	4550	1936	0.38	0.07	58.3	58.3	14.7	17.2	B
2	1.00	1.00	0.847	0.980	1915	234	4550	1936	0.42	0.12	58.0	58.0	16.5	18.9	B
3	1.00	1.00	0.847	0.980	1711	135	4550	1936	0.38	0.07	58.3	58.3	14.7	17.2	B
4	1.00	1.00	0.847	0.980	1711	135	4550	1936	0.38	0.07	58.3	58.3	14.7	17.2	B

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.833	1581	4619	0.34	67.3	11.5	B
2	1.00	0.833	1672	4619	0.36	67.2	12.2	B
3	1.00	0.833	1581	4619	0.34	67.3	11.5	B
4	1.00	0.833	1581	4619	0.34	67.3	11.5	B

Segment 12: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.833	0.980	1944	363	6929	1839	0.28	0.20	68.4	68.6	9.4	9.4	A
2	1.00	1.00	0.833	0.980	2150	478	6929	1839	0.31	0.26	68.4	68.6	10.4	10.4	A
3	1.00	1.00	0.833	0.980	1944	363	6929	1839	0.28	0.20	68.4	68.6	9.4	9.4	A
4	1.00	1.00	0.833	0.980	1944	363	6929	1839	0.28	0.20	68.4	68.6	9.4	9.4	A

Segment 13: Overlap

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.862	1941	6929	0.28	68.5	9.4	A
2	1.00	0.862	2159	6929	0.31	68.5	10.5	A

3	1.00	0.862	1941	6929	0.28	68.5	9.4	A
4	1.00	0.862	1941	6929	0.28	68.5	9.4	A

Segment 14: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.862	0.980	2512	571	6824	1936	0.37	0.30	63.1	61.3	13.3	13.3	B
2	1.00	1.00	0.862	0.980	2939	780	6824	1936	0.43	0.40	62.8	61.1	15.6	15.9	B
3	1.00	1.00	0.862	0.980	2512	571	6824	1936	0.37	0.30	63.1	61.3	13.3	13.3	B
4	1.00	1.00	0.862	0.980	2512	571	6824	1936	0.37	0.30	63.1	61.3	13.3	13.3	B

Segment 15: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.893	2501	6929	0.36	68.2	12.2	B
2	1.00	0.893	2940	6929	0.42	68.2	14.3	B
3	1.00	0.893	2501	6929	0.36	68.2	12.2	B
4	1.00	0.893	2501	6929	0.36	68.2	12.2	B

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	1922	1828	1.60	64.9	12.7	10.9	4.60	B
2	2159	2033	1.84	64.8	14.2	12.3	4.60	B
3	1922	1828	1.60	64.9	12.7	10.9	4.60	B
4	1922	1828	1.60	64.9	12.7	10.9	4.60	B

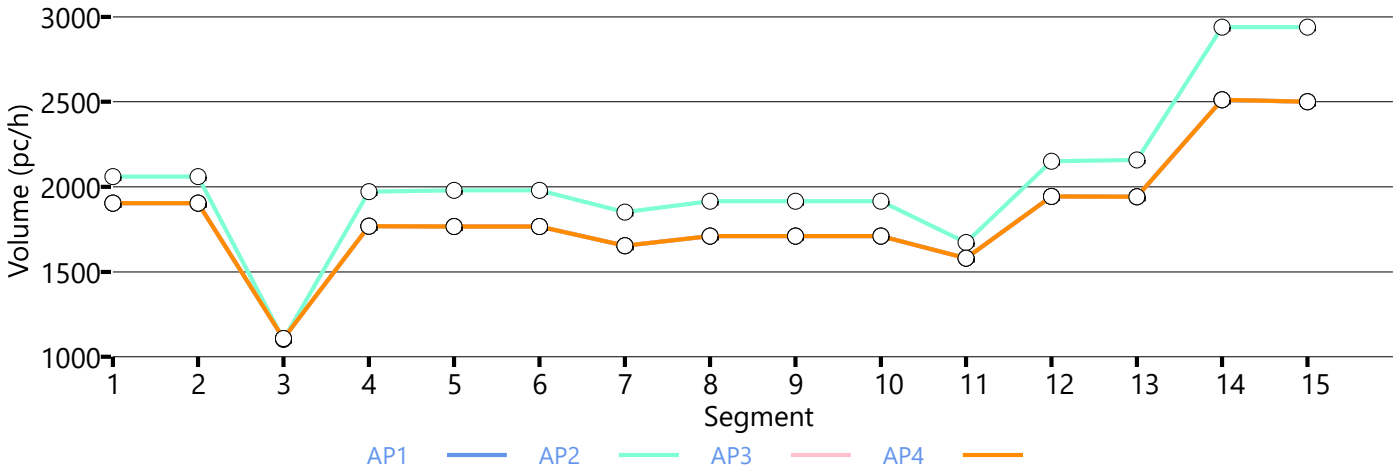
Facility Overall Results

Space Mean Speed, mi/h	64.9	Density, veh/mi/ln	11.2
Average Travel Time, min	4.60	Density, pc/mi/ln	13.1

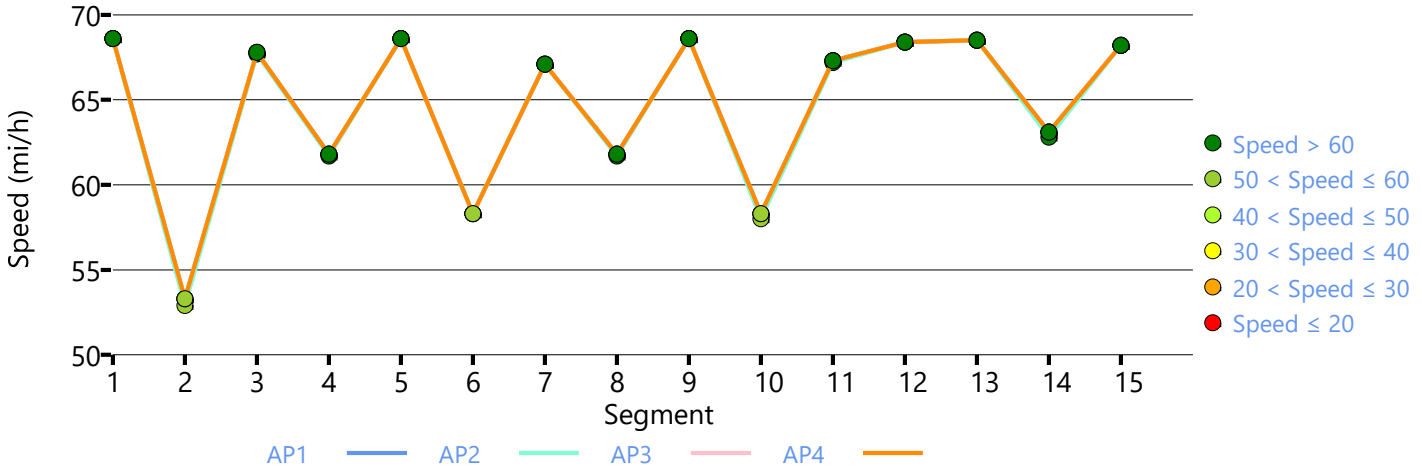
Messages

Comments

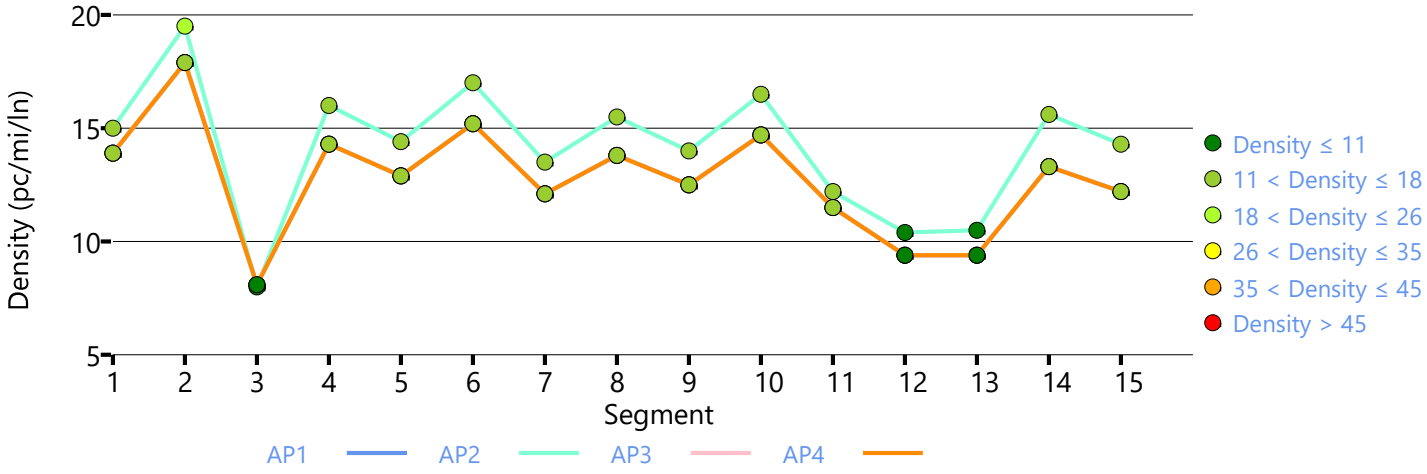
Volume Distribution



Speed Distribution



Density Distribution



HCS Freeway Facilities Report

Project Information

Analyst	APS	Date	7/5/2022
Agency	Garver	Analysis Year	2022
Jurisdiction	ARDOT	Time Analyzed	PM Peak hour
Project Description	I-49 SB No Action with Bella Vista Bypass	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	11
Total Analysis Periods	4	Analysis Period Duration, min	15
Facility Length, mi	4.96		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	north of Hwy 71B	50	2
2	Diverge	Diverge	off-ramp to Hwy 71B	1500	2
3	Basic	Basic	between Hwy 71B ramps	2080	2
4	Merge	Merge	on-ramp from Hwy 71B	1500	2
5	Basic	Basic	between Hwy 71B and Hwy 72	13665	2
6	Diverge	Diverge	off-ramp to Hwy 72	1500	2
7	Basic	Basic	between Hwy 72 off-ramp and loop on-ramp	1015	2
8	Merge	Basic	loop on-ramp from Hwy 72	1225	3
9	Overlap	Basic	between on-ramps from Hwy 72	275	3
10	Merge	Merge	on-ramp from Hwy 72	1225	3
11	Basic	Basic	between Hwy 72 and SE 8th St	2165	3

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.820	1968	4629	0.43	69.1	14.2	B
2	1.00	0.820	2172	4629	0.47	69.1	15.7	B
3	1.00	0.820	1968	4629	0.43	69.1	14.2	B
4	1.00	0.820	1968	4629	0.43	69.1	14.2	B

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.820	0.658	1968	810	4550	1839	0.43	0.44	53.5	53.5	18.4	19.0	B
2	1.00	1.00	0.820	0.658	2172	997	4550	1839	0.48	0.54	53.0	53.0	20.5	20.8	C

3	1.00	1.00	0.820	0.658	1968	810	4550	1839	0.43	0.44	53.5	53.5	18.4	19.0	B
4	1.00	1.00	0.820	0.658	1968	810	4550	1839	0.43	0.44	53.5	53.5	18.4	19.0	B

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.943	1146	4629	0.25	68.2	8.3	A
2	1.00	0.962	1169	4629	0.25	68.2	8.5	A
3	1.00	0.943	1146	4629	0.25	68.2	8.3	A
4	1.00	0.943	1146	4629	0.25	68.2	8.3	A

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.943	0.685	1774	628	4550	3678	0.39	0.17	62.2	62.2	14.3	9.7	A
2	1.00	1.00	0.962	0.685	1995	826	4550	3678	0.44	0.22	62.0	62.0	16.1	11.3	B
3	1.00	1.00	0.943	0.685	1774	628	4550	3678	0.39	0.17	62.2	62.2	14.3	9.7	A
4	1.00	1.00	0.943	0.685	1774	628	4550	3678	0.39	0.17	62.2	62.2	14.3	9.7	A

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.847	1784	4629	0.39	69.1	12.9	B
2	1.00	0.847	1996	4629	0.43	69.1	14.4	B
3	1.00	0.847	1784	4629	0.39	69.1	12.9	B
4	1.00	0.847	1784	4629	0.39	69.1	12.9	B

Segment 6: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.847	0.980	1784	150	4550	1936	0.39	0.08	58.6	58.6	15.2	17.8	B
2	1.00	1.00	0.847	0.980	1996	261	4550	1936	0.44	0.13	58.3	58.3	17.1	19.6	B
3	1.00	1.00	0.847	0.980	1784	150	4550	1936	0.39	0.08	58.6	58.6	15.2	17.8	B
4	1.00	1.00	0.847	0.980	1784	150	4550	1936	0.39	0.08	58.6	58.6	15.2	17.8	B

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.833	1637	4629	0.35	67.7	11.8	B
2	1.00	0.833	1723	4629	0.37	67.7	12.5	B
3	1.00	0.833	1637	4629	0.35	67.7	11.8	B
4	1.00	0.833	1637	4629	0.35	67.7	11.8	B

Segment 8: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	

1	1.00	1.00	0.833	0.980	1985	348	6943	1839	0.29	0.19	68.9	69.1	9.6	9.6	A
2	1.00	1.00	0.833	0.980	2181	458	6943	1839	0.31	0.25	68.9	69.1	10.5	10.5	A
3	1.00	1.00	0.833	0.980	1985	348	6943	1839	0.29	0.19	68.9	69.1	9.6	9.6	A
4	1.00	1.00	0.833	0.980	1985	348	6943	1839	0.29	0.19	68.9	69.1	9.6	9.6	A

Segment 9: Overlap

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.862	1978	6943	0.28	69.0	9.5	A
2	1.00	0.862	2186	6943	0.31	69.0	10.5	A
3	1.00	0.862	1978	6943	0.28	69.0	9.5	A
4	1.00	0.862	1978	6943	0.28	69.0	9.5	A

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.862	0.980	2574	596	6824	1936	0.38	0.31	63.5	61.6	13.5	13.7	B
2	1.00	1.00	0.862	0.980	2998	812	6824	1936	0.44	0.42	63.1	61.4	15.8	16.2	B
3	1.00	1.00	0.862	0.980	2574	596	6824	1936	0.38	0.31	63.5	61.6	13.5	13.7	B
4	1.00	1.00	0.862	0.980	2574	596	6824	1936	0.38	0.31	63.5	61.6	13.5	13.7	B

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.893	2563	6943	0.37	68.7	12.4	B
2	1.00	0.893	3001	6943	0.43	68.7	14.5	B
3	1.00	0.893	2563	6943	0.37	68.7	12.4	B
4	1.00	0.893	2563	6943	0.37	68.7	12.4	B

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	1976	1887	1.18	66.4	12.7	10.9	4.50	B
2	2215	2096	1.38	66.3	14.3	12.3	4.50	B
3	1976	1887	1.18	66.4	12.7	10.9	4.50	B
4	1976	1887	1.18	66.4	12.7	10.9	4.50	B

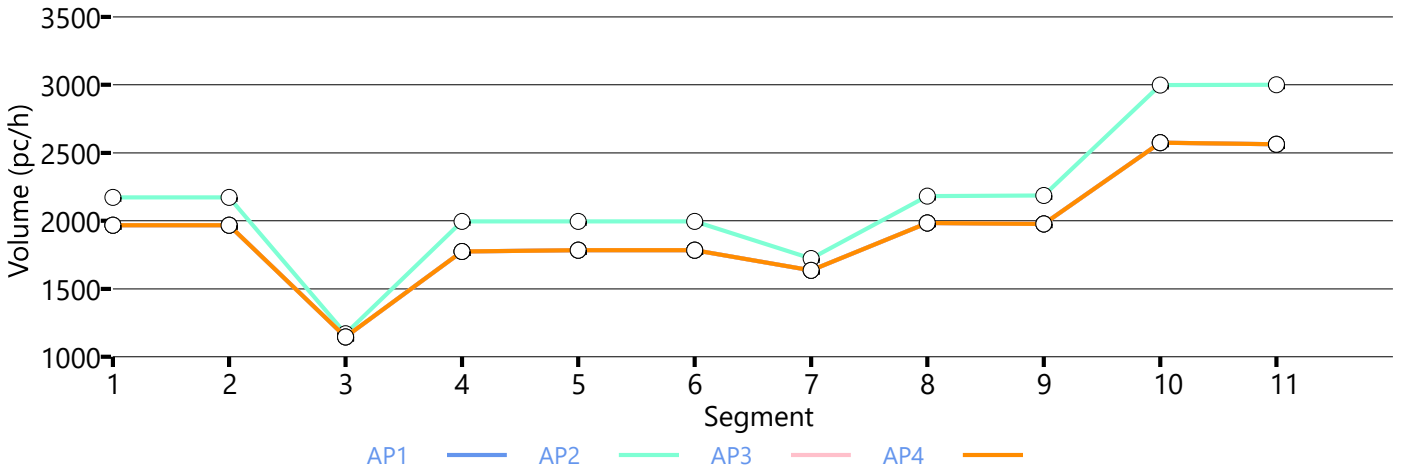
Facility Overall Results

Space Mean Speed, mi/h	66.3	Density, veh/mi/ln	11.3
Average Travel Time, min	4.50	Density, pc/mi/ln	13.1

Messages

Comments

Volume Distribution



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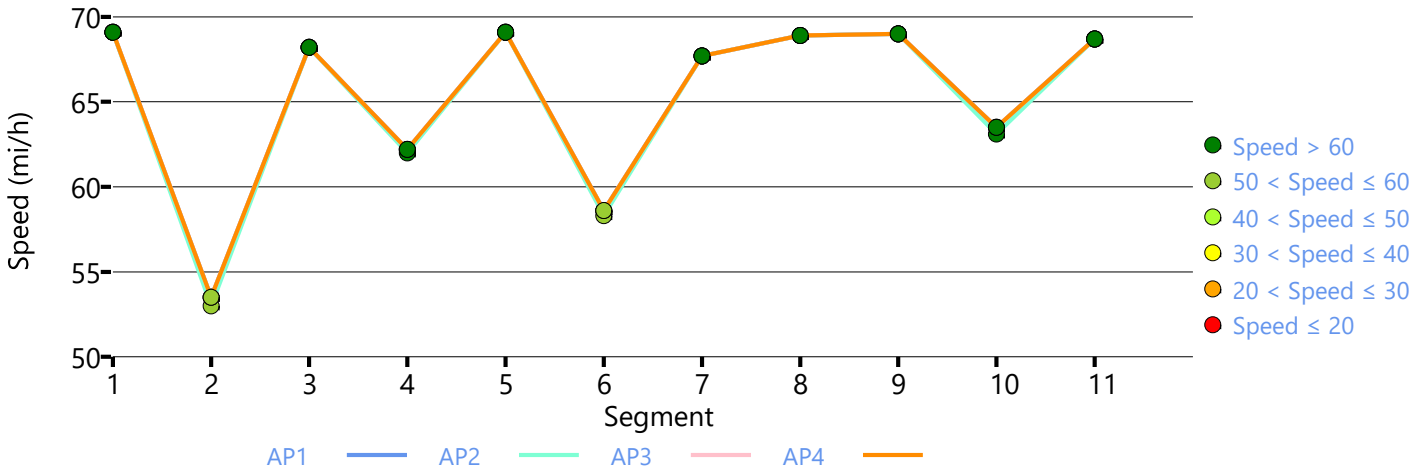
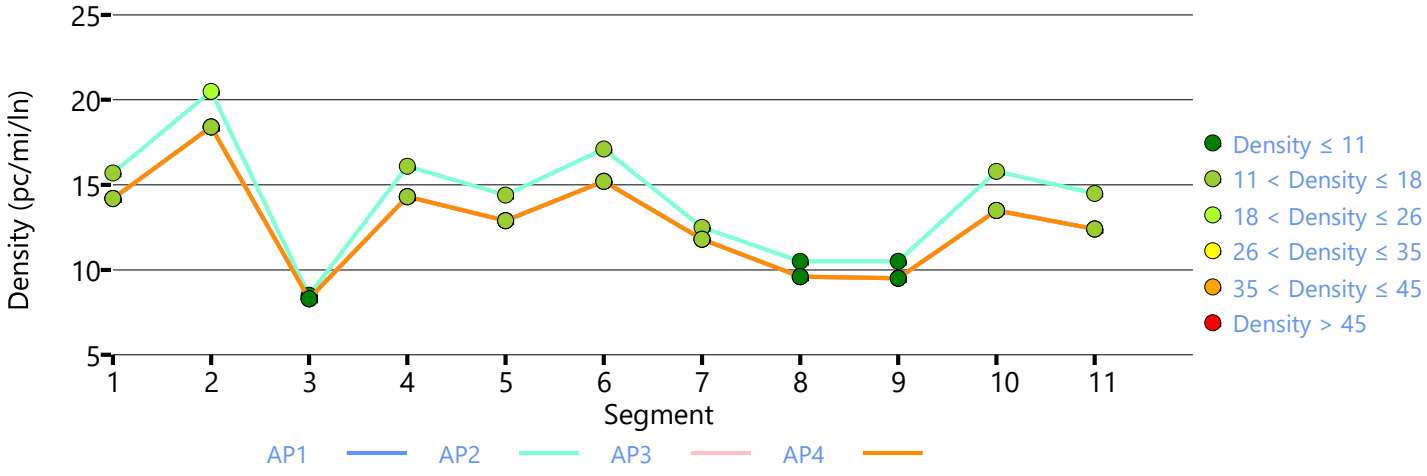


Density Distribution



HCS Freeway Facilities Report

Project Information

Analyst	APS	Date	10/20/2022
Agency	Garver	Analysis Year	2045
Jurisdiction	ARDOT	Time Analyzed	AM Peak hour
Project Description	I-49 SB Action with Bella Vista Bypass	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	15
Total Analysis Periods	4	Analysis Period Duration, min	15
Facility Length, mi	4.96		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	north of Hwy 71B	50	3
2	Diverge	Diverge	off-ramp to Hwy 71B	1500	3
3	Basic	Basic	between Hwy 71B ramps	2080	3
4	Merge	Merge	on-ramp from Hwy 71B	1500	3
5	Basic	Basic	between Hwy 71B and NE J St	4650	3
6	Diverge	Diverge	off-ramp to NE J St	1500	3
7	Basic	Basic	between NE J St ramps	850	3
8	Merge	Merge	on-ramp from NE J St	1500	3
9	Basic	Basic	between NE J St and Hwy 72	5165	3
10	Diverge	Diverge	off-ramp to Hwy 72	1500	3
11	Basic	Basic	between Hwy 72 off-ramp and loop on-ramp	1015	3
12	Merge	Merge	loop on-ramp from Hwy 72	1225	3
13	Overlap	Basic	between on-ramps from Hwy 72	275	3
14	Merge	Merge	on-ramp from Hwy 72	1225	3
15	Basic	Basic	between Hwy 72 and SE 8th St	2165	3

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.820	4618	6929	0.67	66.8	23.0	C
2	1.00	0.820	5268	6929	0.76	64.1	27.4	D
3	1.00	0.820	4618	6929	0.67	66.8	23.0	C
4	1.00	0.820	4618	6929	0.67	66.8	23.0	C

Segment 2: Diverge

AP	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS

					(pc/h)		(pc/h)		Ratio		(mi/h)		(pc/mi/ln)		
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.820	0.667	4618	2346	6824	1839	0.68	1.28	53.8	49.6	28.6	32.8	F
2	1.00	1.00	0.820	0.667	5268	2748	6824	1839	0.77	1.49	53.0	48.6	33.1	36.6	F
3	1.00	1.00	0.820	0.667	4618	2273	6824	1839	0.68	1.24	54.0	49.8	28.5	32.5	F
4	1.00	1.00	0.820	0.667	4618	2273	6824	1839	0.68	1.24	54.0	49.8	28.5	32.5	F

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.980	2272	6929	0.33	67.8	11.0	B
2	1.00	0.980	2592	6929	0.37	67.7	12.6	B
3	1.00	0.980	2209	6929	0.33	67.8	10.7	A
4	1.00	0.980	2345	6929	0.33	67.8	11.4	B

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.980	0.862	4171	1899	6824	3678	0.61	0.52	61.3	59.8	22.7	20.2	C
2	1.00	1.00	0.980	0.862	4783	2191	6824	3678	0.69	0.60	60.0	58.3	26.6	23.8	C
3	1.00	1.00	0.980	0.862	4108	1899	6824	3678	0.62	0.52	61.5	60.0	22.3	19.9	B
4	1.00	1.00	0.980	0.862	4244	1899	6824	3678	0.62	0.52	61.2	59.7	23.1	20.5	C

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	4171	6929	0.60	68.0	20.4	C
2	1.00	0.926	4783	6929	0.68	66.3	24.0	C
3	1.00	0.926	4108	6929	0.61	68.1	20.1	C
4	1.00	0.926	4244	6929	0.61	67.8	20.9	C

Segment 6: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.926	0.926	4171	394	6824	1936	0.61	0.20	62.1	57.7	22.4	19.7	B
2	1.00	1.00	0.926	0.926	4783	442	6824	1936	0.69	0.23	62.0	57.5	25.7	22.6	C
3	1.00	1.00	0.926	0.926	4108	394	6824	1936	0.62	0.20	62.1	57.7	22.1	19.4	B
4	1.00	1.00	0.926	0.926	4244	394	6824	1936	0.62	0.20	62.2	57.7	22.7	20.1	C

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	3777	6929	0.54	67.6	18.4	C
2	1.00	0.926	4331	6929	0.62	67.6	21.4	C
3	1.00	0.926	3724	6929	0.55	67.6	18.1	C
4	1.00	0.926	3848	6929	0.55	67.6	18.8	C

Segment 8: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.926	0.926	3844	67	6824	1936	0.56	0.03	62.7	61.3	20.4	16.9	B
2	1.00	1.00	0.926	0.926	4407	76	6824	1936	0.64	0.04	62.1	60.8	23.7	19.6	B
3	1.00	1.00	0.926	0.926	3791	67	6824	1936	0.57	0.03	62.7	61.3	20.2	16.7	B
4	1.00	1.00	0.926	0.926	3915	67	6824	1936	0.57	0.03	62.6	61.2	20.8	17.3	B

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	3844	6929	0.55	68.5	18.7	C
2	1.00	0.926	4407	6929	0.63	67.5	21.8	C
3	1.00	0.926	3791	6929	0.56	68.5	18.4	C
4	1.00	0.926	3915	6929	0.56	68.4	19.1	C

Segment 10: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.926	0.980	3844	663	6824	1936	0.56	0.34	61.4	57.0	20.9	25.5	C
2	1.00	1.00	0.926	0.980	4407	888	6824	1936	0.64	0.46	61.0	56.5	24.1	28.5	D
3	1.00	1.00	0.926	0.980	3791	663	6824	1936	0.57	0.34	61.4	57.0	20.6	25.2	C
4	1.00	1.00	0.926	0.980	3915	663	6824	1936	0.57	0.34	61.4	57.0	21.3	25.8	C

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	3181	6929	0.46	67.7	15.5	B
2	1.00	0.909	3646	6929	0.50	67.6	17.7	B
3	1.00	0.909	3019	6929	0.47	67.7	14.7	B
4	1.00	0.909	3248	6929	0.47	67.7	15.8	B

Segment 12: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.909	0.962	3935	754	6824	1839	0.58	0.41	61.8	60.1	21.2	18.6	B
2	1.00	1.00	0.909	0.962	4529	883	6824	1839	0.64	0.48	61.1	59.3	24.7	21.7	C
3	1.00	1.00	0.909	0.962	3773	754	6824	1839	0.59	0.41	61.9	60.2	20.3	17.8	B
4	1.00	1.00	0.909	0.962	4002	754	6824	1839	0.59	0.41	61.7	60.0	21.6	18.9	B

Segment 13: Overlap

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	3935	6929	0.57	66.6	19.1	C
2	1.00	0.926	4529	6929	0.63	66.4	21.4	C

3	1.00	0.926	3773	6929	0.57	66.6	19.4	C
4	1.00	0.926	4002	6929	0.57	66.6	19.4	C

Segment 14: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.926	0.980	4415	480	6824	1936	0.64	0.25	61.7	60.1	23.9	22.0	C
2	1.00	1.00	0.926	0.980	5172	643	6824	1936	0.73	0.33	60.6	58.9	28.4	26.0	C
3	1.00	1.00	0.926	0.980	4253	480	6824	1936	0.65	0.25	61.9	60.3	22.9	21.2	C
4	1.00	1.00	0.926	0.980	4482	480	6824	1936	0.65	0.25	61.6	60.0	24.3	22.3	C

Segment 15: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	4415	6929	0.64	67.4	21.8	C
2	1.00	0.926	5172	6929	0.72	64.6	26.7	D
3	1.00	0.926	4253	6929	0.65	67.8	20.9	C
4	1.00	0.926	4482	6929	0.65	67.2	22.2	C

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	4479	4276	3.86	64.8	20.1	18.6	4.60	F
2	5150	4826	5.76	63.7	23.5	21.7	4.70	F
3	4389	4333	3.69	64.9	19.7	18.2	4.60	F
4	4556	4333	3.98	64.7	20.5	18.9	4.60	F

Facility Overall Results

Space Mean Speed, mi/h	64.5	Density, veh/mi/ln	19.3
Average Travel Time, min	4.60	Density, pc/mi/ln	21.0

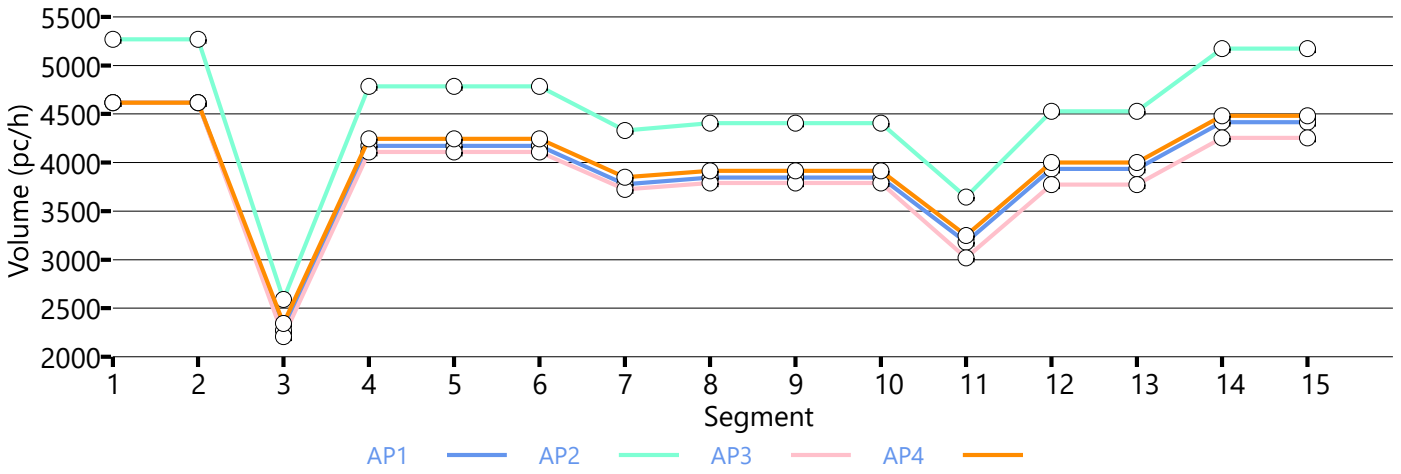
Messages

WARNING 1	Oversaturated conditions currently exist in boundary analysis period 1. Results may not be reliable. Consider expanding analysis in time and/or space to resolve this warning.
WARNING 2	Oversaturated conditions currently exist in boundary analysis period 4. Results may not be reliable. Consider expanding analysis in time and/or space to resolve this warning.
WARNING 3	Oversaturated conditions currently exist on segment 1, which is less than 300 feet. Due to time step size, these segments may produce unreliable results. Consider reviewing facility segmentation to resolve this warning.
WARNING 4	Oversaturated conditions currently exist on segment 13, which is less than 300 feet. Due to time step size, these segments may produce unreliable results. Consider reviewing facility segmentation to resolve this warning.
WARNING 5	Diverge capacity is less than diverge demand. This may result in an off-ramp queue affecting the mainline flow. This is not currently modeled in HCM methodologies. Use caution when reviewing results.
WARNING 6	Diverge capacity is less than diverge demand. This may result in an off-ramp queue affecting the mainline flow. This is not currently modeled in HCM methodologies. Use caution when reviewing results.
WARNING 7	Diverge capacity is less than diverge demand. This may result in an off-ramp queue affecting the mainline flow. This is not currently modeled in HCM methodologies. Use caution when reviewing

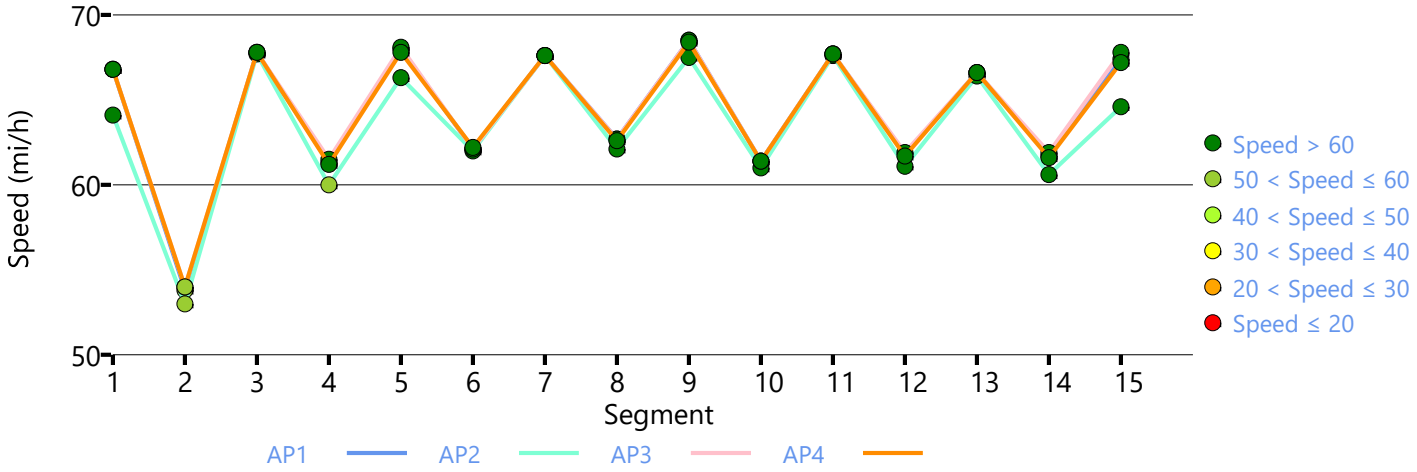
	results.
WARNING 8	Diverge capacity is less than diverge demand. This may result in an off-ramp queue affecting the mainline flow. This is not currently modeled in HCM methodologies. Use caution when reviewing results.

Comments

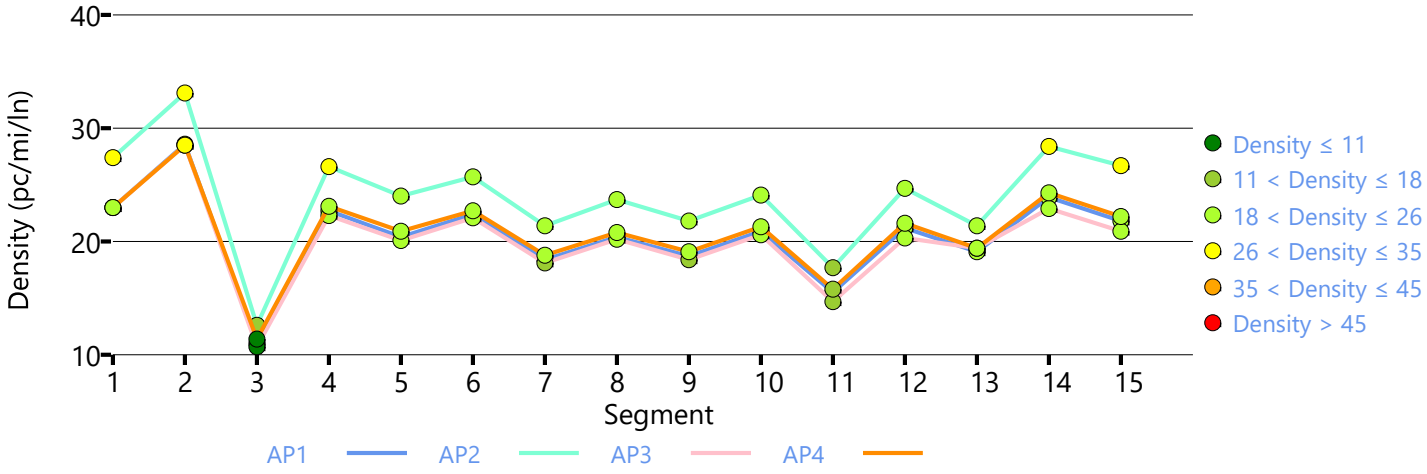
Volume Distribution



Speed Distribution



Density Distribution



HCS Freeway Facilities Report

Project Information

Analyst	APS	Date	7/5/2022
Agency	Garver	Analysis Year	2045
Jurisdiction	ARDOT	Time Analyzed	AM Peak hour
Project Description	I-49 SB No Action with Bella Vista Bypass	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	11
Total Analysis Periods	4	Analysis Period Duration, min	15
Facility Length, mi	4.96		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	north of Hwy 71B	50	3
2	Diverge	Diverge	off-ramp to Hwy 71B	1500	3
3	Basic	Basic	between Hwy 71B ramps	2080	3
4	Merge	Merge	on-ramp from Hwy 71B	1500	3
5	Basic	Basic	between Hwy 71B and Hwy 72	13665	3
6	Diverge	Diverge	off-ramp to Hwy 72	1500	3
7	Basic	Basic	between Hwy 72 off-ramp and loop on-ramp	1015	3
8	Merge	Merge	loop on-ramp from Hwy 72	1225	3
9	Overlap	Basic	between on-ramps from Hwy 72	275	3
10	Merge	Merge	on-ramp from Hwy 72	1225	3
11	Basic	Basic	between Hwy 72 and SE 8th St	2165	3

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.820	5245	6943	0.76	64.5	27.1	D
2	1.00	0.820	5999	6943	0.86	59.7	33.5	D
3	1.00	0.820	5245	6943	0.76	64.5	27.1	D
4	1.00	0.820	5245	6943	0.76	64.5	27.1	D

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.820	0.667	5245	2586	6824	1839	0.77	1.41	53.7	49.2	32.6	36.0	F
2	1.00	1.00	0.820	0.667	5999	3127	6824	1839	0.88	1.70	52.5	47.8	38.1	40.5	F

3	1.00	1.00	0.820	0.667	5245	2586	6824	1839	0.77	1.41	53.7	49.2	32.6	36.0	F
4	1.00	1.00	0.820	0.667	5245	2586	6824	1839	0.77	1.41	53.7	49.2	32.6	36.0	F

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.980	2659	6943	0.38	68.3	12.8	B
2	1.00	0.980	3041	6943	0.42	68.2	14.7	B
3	1.00	0.980	2511	6943	0.38	68.3	12.1	B
4	1.00	0.980	2659	6943	0.38	68.3	12.8	B

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.980	0.847	4437	1778	6824	3678	0.65	0.48	61.5	59.9	24.0	21.0	C
2	1.00	1.00	0.980	0.847	5093	2052	6824	3678	0.72	0.56	60.0	58.1	28.3	24.8	C
3	1.00	1.00	0.980	0.847	4289	1778	6824	3678	0.65	0.48	61.8	60.2	23.1	20.4	C
4	1.00	1.00	0.980	0.847	4437	1778	6824	3678	0.65	0.48	61.5	59.9	24.0	21.0	C

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	4437	6943	0.63	67.7	21.8	C
2	1.00	0.926	5093	6943	0.71	65.3	26.0	C
3	1.00	0.926	4289	6943	0.63	68.1	21.0	C
4	1.00	0.926	4437	6943	0.63	67.7	21.8	C

Segment 6: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.926	0.980	4437	762	6824	1936	0.65	0.39	61.6	57.0	24.0	28.4	D
2	1.00	1.00	0.926	0.980	5093	1020	6824	1936	0.72	0.53	61.0	56.4	27.8	31.8	D
3	1.00	1.00	0.926	0.980	4289	762	6824	1936	0.65	0.39	61.5	57.0	23.2	27.8	C
4	1.00	1.00	0.926	0.980	4437	762	6824	1936	0.65	0.39	61.6	57.0	24.0	28.4	D

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.909	3675	6943	0.53	68.1	17.8	B
2	1.00	0.909	4213	6943	0.57	68.0	20.6	C
3	1.00	0.909	3403	6943	0.53	68.1	16.4	B
4	1.00	0.909	3670	6943	0.53	68.1	17.7	B

Segment 8: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	

1	1.00	1.00	0.909	0.962	4440	765	6824	1839	0.65	0.42	61.7	59.9	24.0	21.0	C
2	1.00	1.00	0.909	0.962	5110	897	6824	1839	0.71	0.49	60.5	58.6	28.2	24.6	C
3	1.00	1.00	0.909	0.962	4168	765	6824	1839	0.65	0.42	62.0	60.2	22.4	19.7	B
4	1.00	1.00	0.909	0.962	4435	765	6824	1839	0.65	0.42	61.7	59.9	24.0	21.0	C

Segment 9: Overlap

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	4440	6943	0.63	66.9	21.6	C
2	1.00	0.926	5110	6943	0.69	66.5	24.0	C
3	1.00	0.926	4168	6943	0.63	67.0	21.6	C
4	1.00	0.926	4435	6943	0.63	66.9	21.6	C

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.926	0.980	5183	743	6824	1936	0.75	0.38	60.8	59.0	28.4	26.3	C
2	1.00	1.00	0.926	0.980	6105	995	6824	1936	0.85	0.51	58.4	56.1	34.8	31.3	D
3	1.00	1.00	0.926	0.980	4911	743	6824	1936	0.75	0.38	61.2	59.5	26.7	25.0	C
4	1.00	1.00	0.926	0.980	5178	743	6824	1936	0.75	0.38	60.8	59.1	28.4	26.3	C

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	5183	6943	0.75	64.8	26.7	D
2	1.00	0.926	6105	6943	0.84	58.9	34.6	D
3	1.00	0.926	4911	6943	0.75	66.1	24.8	C
4	1.00	0.926	5178	6943	0.75	64.8	26.6	D

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	5050	4818	4.67	65.0	22.7	20.9	4.60	F
2	5818	5372	8.62	62.7	27.0	24.9	4.70	F
3	4857	4818	4.10	65.3	21.7	20.0	4.60	F
4	5048	4818	4.67	65.0	22.6	20.9	4.60	F

Facility Overall Results

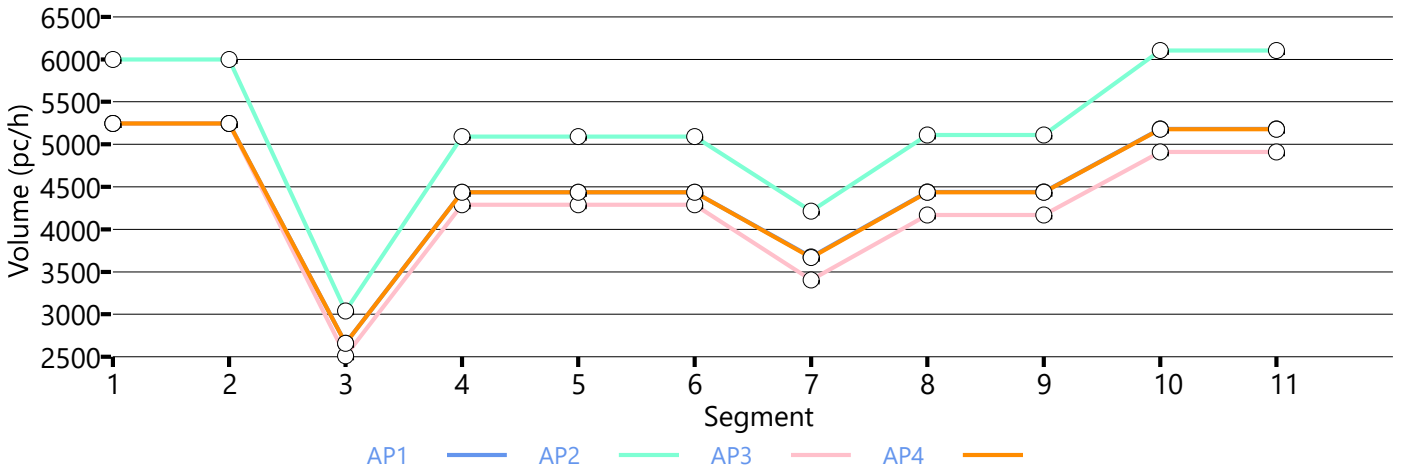
Space Mean Speed, mi/h	64.4	Density, veh/mi/ln	21.7
Average Travel Time, min	4.60	Density, pc/mi/ln	23.5

Messages

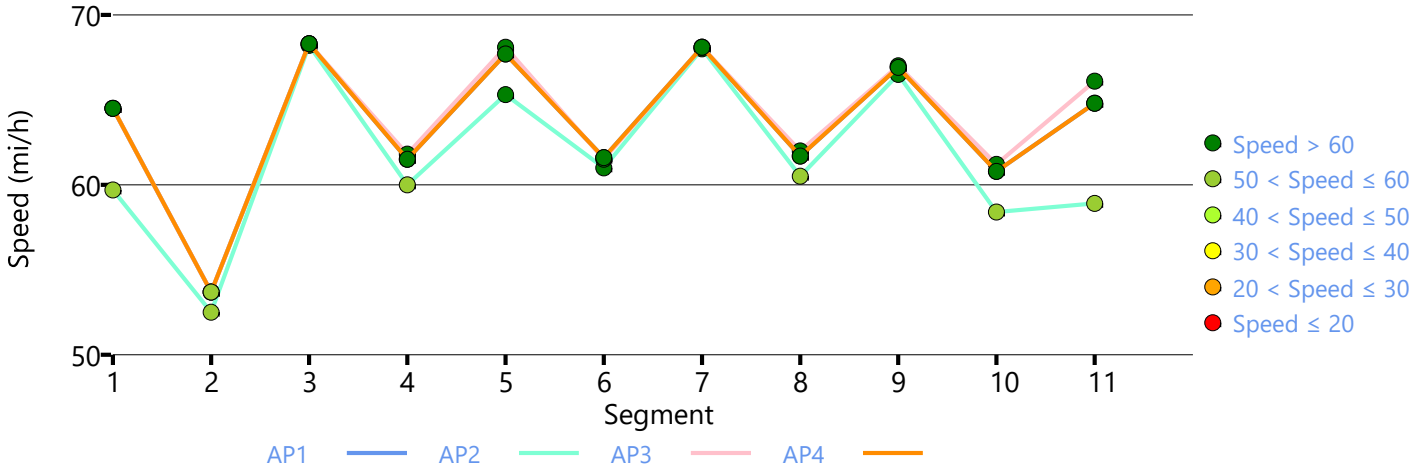
WARNING 1	Oversaturated conditions currently exist in boundary analysis period 1. Results may not be reliable. Consider expanding analysis in time and/or space to resolve this warning.
WARNING 2	Oversaturated conditions currently exist in boundary analysis period 4. Results may not be reliable. Consider expanding analysis in time and/or space to resolve this warning.
WARNING 3	Oversaturated conditions currently exist on segment 1, which is less than 300 feet. Due to time step size, these segments may produce unreliable results. Consider reviewing facility segmentation to

	resolve this warning.
WARNING 4	Oversaturated conditions currently exist on segment 9, which is less than 300 feet. Due to time step size, these segments may produce unreliable results. Consider reviewing facility segmentation to resolve this warning.
WARNING 5	Diverge capacity is less than diverge demand. This may result in an off-ramp queue affecting the mainline flow. This is not currently modeled in HCM methodologies. Use caution when reviewing results.
WARNING 6	Diverge capacity is less than diverge demand. This may result in an off-ramp queue affecting the mainline flow. This is not currently modeled in HCM methodologies. Use caution when reviewing results.
WARNING 7	Diverge capacity is less than diverge demand. This may result in an off-ramp queue affecting the mainline flow. This is not currently modeled in HCM methodologies. Use caution when reviewing results.
WARNING 8	Diverge capacity is less than diverge demand. This may result in an off-ramp queue affecting the mainline flow. This is not currently modeled in HCM methodologies. Use caution when reviewing results.
Comments	

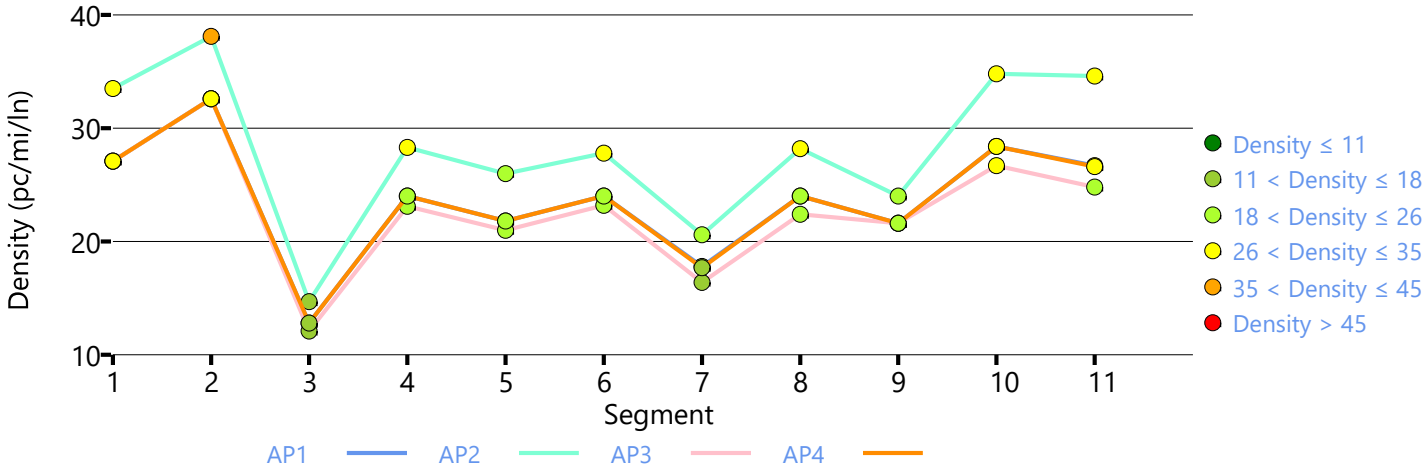
Volume Distribution



Speed Distribution



Density Distribution



HCS Freeway Facilities Report

Project Information

Analyst	APS	Date	10/20/2022
Agency	Garver	Analysis Year	2045
Jurisdiction	ARDOT	Time Analyzed	PM Peak hour
Project Description	I-49 SB Action with Bella Vista Bypass	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	15
Total Analysis Periods	4	Analysis Period Duration, min	15
Facility Length, mi	4.96		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	north of Hwy 71B	50	3
2	Diverge	Diverge	off-ramp to Hwy 71B	1500	3
3	Basic	Basic	between Hwy 71B ramps	2080	3
4	Merge	Merge	on-ramp from Hwy 71B	1500	3
5	Basic	Basic	between Hwy 71B and NE J St	4650	3
6	Diverge	Diverge	off-ramp to NE J St	1500	3
7	Basic	Basic	between NE J St ramps	850	3
8	Merge	Merge	on-ramp from NE J St	1500	3
9	Basic	Basic	between NE J St and Hwy 72	5165	3
10	Diverge	Diverge	off-ramp to Hwy 72	1500	3
11	Basic	Basic	between Hwy 72 off-ramp and loop on-ramp	1015	3
12	Merge	Merge	loop on-ramp from Hwy 72	1225	3
13	Overlap	Basic	between on-ramps from Hwy 72	275	3
14	Merge	Merge	on-ramp from Hwy 72	1225	3
15	Basic	Basic	between Hwy 72 and SE 8th St	2165	3

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.833	2934	6929	0.42	68.6	14.3	B
2	1.00	0.833	3217	6929	0.46	68.6	15.6	B
3	1.00	0.833	2934	6929	0.42	68.6	14.3	B
4	1.00	0.833	2934	6929	0.42	68.6	14.3	B

Segment 2: Diverge

AP	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS

					(pc/h)		(pc/h)		Ratio		(mi/h)		(pc/mi/ln)		
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.833	0.658	2934	1251	6824	1839	0.43	0.68	55.8	52.2	17.5	22.0	C
2	1.00	1.00	0.833	0.658	3217	1538	6824	1839	0.47	0.84	55.0	51.5	19.5	24.1	C
3	1.00	1.00	0.833	0.658	2934	1251	6824	1839	0.43	0.68	55.8	52.2	17.5	22.0	C
4	1.00	1.00	0.833	0.658	2934	1251	6824	1839	0.43	0.68	55.8	52.2	17.5	22.0	C

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.943	1719	6929	0.25	67.9	8.4	A
2	1.00	0.980	1702	6929	0.25	67.9	8.3	A
3	1.00	0.943	1719	6929	0.25	67.9	8.4	A
4	1.00	0.943	1719	6929	0.25	67.9	8.4	A

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.943	0.685	2801	1082	6824	3678	0.41	0.29	63.1	61.6	14.8	11.7	B
2	1.00	1.00	0.980	0.685	3127	1425	6824	3678	0.46	0.39	62.7	61.3	16.6	14.2	B
3	1.00	1.00	0.943	0.685	2801	1082	6824	3678	0.41	0.29	63.1	61.6	14.8	11.7	B
4	1.00	1.00	0.943	0.685	2801	1082	6824	3678	0.41	0.29	63.1	61.6	14.8	11.7	B

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.847	2789	6929	0.40	68.6	13.6	B
2	1.00	0.847	3122	6929	0.45	68.6	15.2	B
3	1.00	0.847	2789	6929	0.40	68.6	13.6	B
4	1.00	0.847	2789	6929	0.40	68.6	13.6	B

Segment 6: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.847	0.847	2789	485	6824	1936	0.41	0.25	61.4	57.4	15.1	13.0	B
2	1.00	1.00	0.847	0.847	3122	543	6824	1936	0.46	0.28	61.5	57.3	16.9	14.9	B
3	1.00	1.00	0.847	0.847	2789	485	6824	1936	0.41	0.25	61.4	57.4	15.1	13.0	B
4	1.00	1.00	0.847	0.847	2789	485	6824	1936	0.41	0.25	61.4	57.4	15.1	13.0	B

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.847	2303	6929	0.33	67.5	11.2	B
2	1.00	0.847	2579	6929	0.37	67.5	12.5	B
3	1.00	0.847	2303	6929	0.33	67.5	11.2	B
4	1.00	0.847	2303	6929	0.33	67.5	11.2	B

Segment 8: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.847	0.847	2386	83	6824	1936	0.35	0.04	63.9	62.0	12.4	10.0	A
2	1.00	1.00	0.847	0.847	2671	92	6824	1936	0.39	0.05	63.6	61.8	14.0	11.4	B
3	1.00	1.00	0.847	0.847	2386	83	6824	1936	0.35	0.04	63.9	62.0	12.4	10.0	A
4	1.00	1.00	0.847	0.847	2386	83	6824	1936	0.35	0.04	63.9	62.0	12.4	10.0	A

Segment 9: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.847	2386	6929	0.34	68.6	11.6	B
2	1.00	0.847	2671	6929	0.39	68.6	13.0	B
3	1.00	0.847	2386	6929	0.34	68.6	11.6	B
4	1.00	0.847	2386	6929	0.34	68.6	11.6	B

Segment 10: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.847	0.980	2386	243	6824	1936	0.35	0.13	62.0	58.0	12.8	17.2	B
2	1.00	1.00	0.847	0.980	2671	423	6824	1936	0.39	0.22	61.6	57.6	14.5	19.1	B
3	1.00	1.00	0.847	0.980	2386	243	6824	1936	0.35	0.13	62.0	58.0	12.8	17.2	B
4	1.00	1.00	0.847	0.980	2386	243	6824	1936	0.35	0.13	62.0	58.0	12.8	17.2	B

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.833	2140	6929	0.31	67.7	10.4	A
2	1.00	0.820	2252	6929	0.33	67.7	10.9	A
3	1.00	0.833	2140	6929	0.31	67.7	10.4	A
4	1.00	0.833	2140	6929	0.31	67.7	10.4	A

Segment 12: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.833	0.980	2617	477	6824	1839	0.38	0.26	62.9	61.0	13.9	11.6	B
2	1.00	1.00	0.820	0.980	2880	628	6824	1839	0.42	0.34	62.7	60.9	15.3	13.2	B
3	1.00	1.00	0.833	0.980	2617	477	6824	1839	0.38	0.26	62.9	61.0	13.9	11.6	B
4	1.00	1.00	0.833	0.980	2617	477	6824	1839	0.38	0.26	62.9	61.0	13.9	11.6	B

Segment 13: Overlap

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.862	2610	6929	0.38	66.9	12.7	B
2	1.00	0.862	2856	6929	0.41	66.8	13.9	B

3	1.00	0.862	2610	6929	0.38	66.9	12.7	B
4	1.00	0.862	2610	6929	0.38	66.9	12.7	B

Segment 14: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.862	0.980	3230	620	6824	1936	0.47	0.32	62.7	61.0	17.2	16.8	B
2	1.00	1.00	0.862	0.980	3702	846	6824	1936	0.54	0.44	62.2	60.5	19.8	19.6	B
3	1.00	1.00	0.862	0.980	3230	620	6824	1936	0.47	0.32	62.7	61.0	17.2	16.8	B
4	1.00	1.00	0.862	0.980	3230	620	6824	1936	0.47	0.32	62.7	61.0	17.2	16.8	B

Segment 15: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.877	3259	6929	0.47	68.2	15.8	B
2	1.00	0.877	3753	6929	0.54	68.2	18.3	C
3	1.00	0.877	3259	6929	0.47	68.2	15.8	B
4	1.00	0.877	3259	6929	0.47	68.2	15.8	B

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	2770	2639	1.97	65.4	13.2	11.4	4.60	B
2	3091	2914	2.33	65.2	14.7	12.7	4.60	B
3	2770	2639	1.97	65.4	13.2	11.4	4.60	B
4	2770	2639	1.97	65.4	13.2	11.4	4.60	B

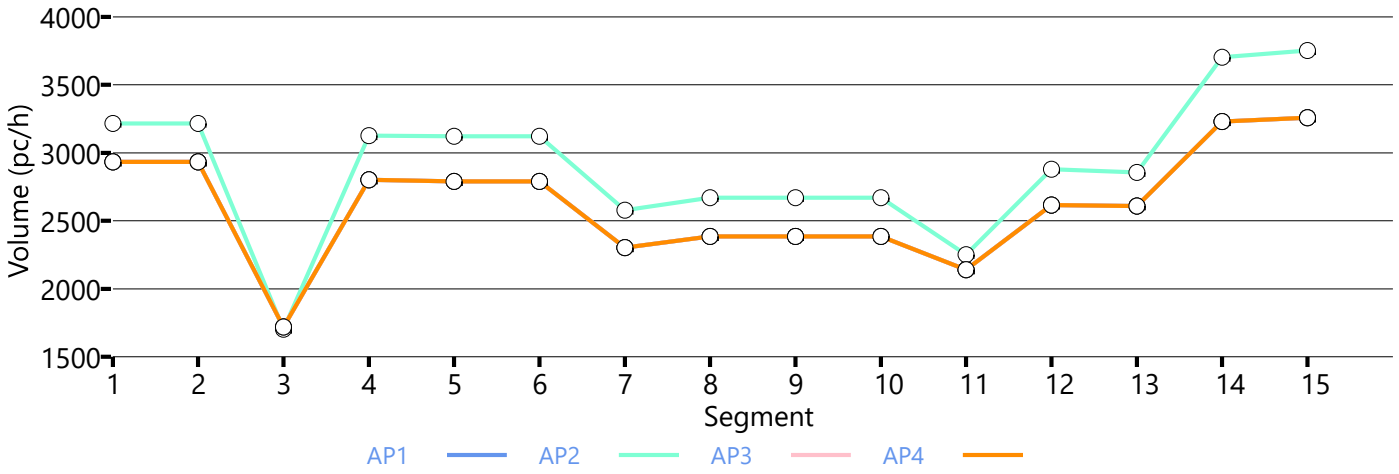
Facility Overall Results

Space Mean Speed, mi/h	65.4	Density, veh/mi/ln	11.7
Average Travel Time, min	4.60	Density, pc/mi/ln	13.6

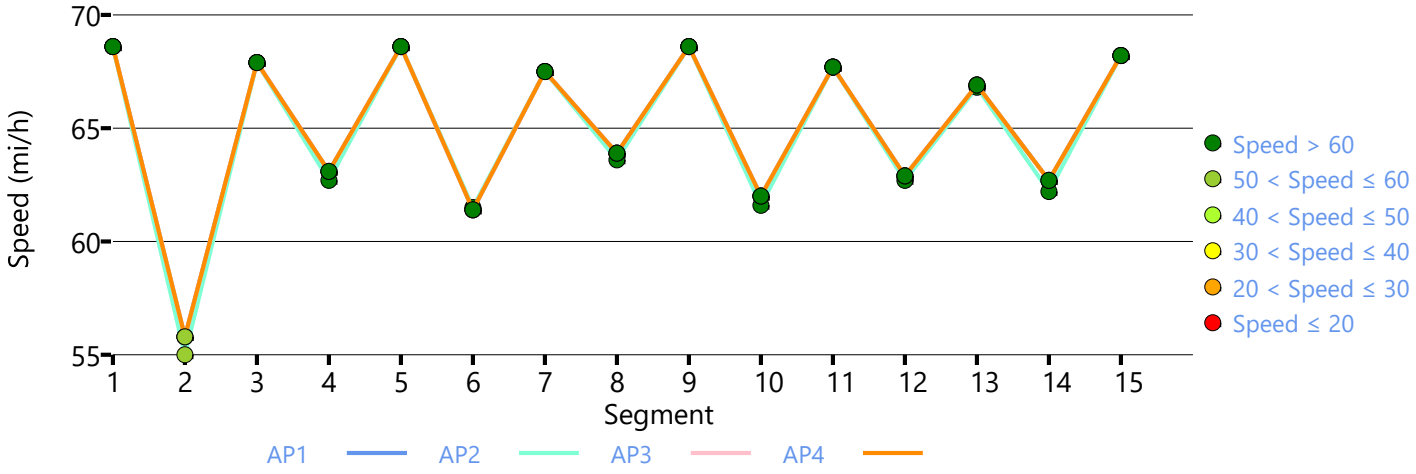
Messages

Comments

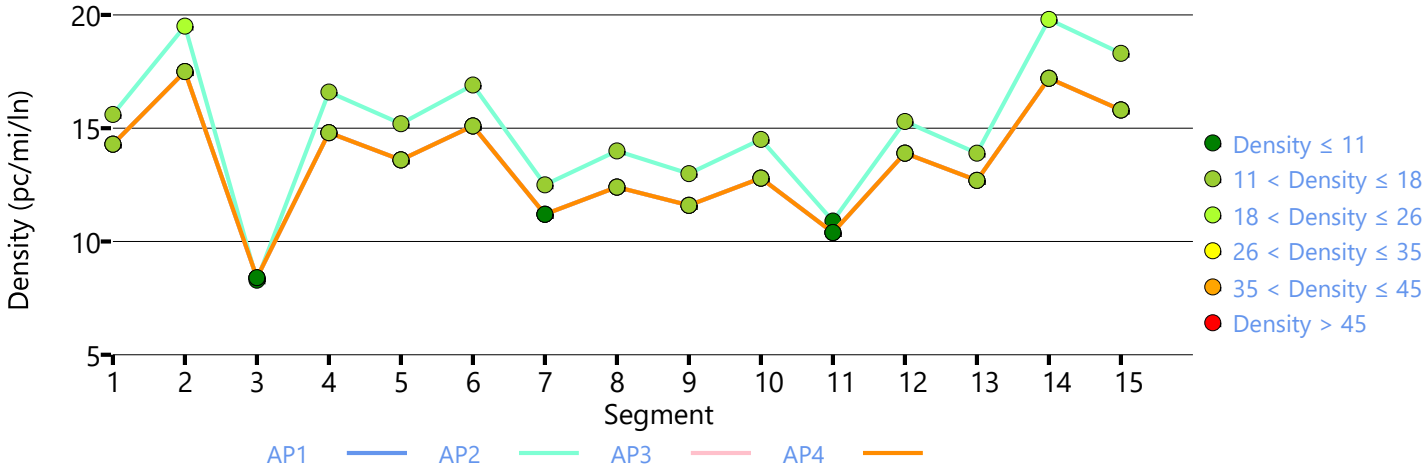
Volume Distribution



Speed Distribution



Density Distribution



HCS Freeway Facilities Report

Project Information

Analyst	APS	Date	7/5/2022
Agency	Garver	Analysis Year	2045
Jurisdiction	ARDOT	Time Analyzed	PM Peak hour
Project Description	I-49 SB No Action with Bella Vista Bypass	Units	U.S. Customary

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	11
Total Analysis Periods	4	Analysis Period Duration, min	15
Facility Length, mi	4.96		

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	north of Hwy 71B	50	3
2	Diverge	Diverge	off-ramp to Hwy 71B	1500	3
3	Basic	Basic	between Hwy 71B ramps	2080	3
4	Merge	Merge	on-ramp from Hwy 71B	1500	3
5	Basic	Basic	between Hwy 71B and Hwy 72	13665	3
6	Diverge	Diverge	off-ramp to Hwy 72	1500	3
7	Basic	Basic	between Hwy 72 off-ramp and loop on-ramp	1015	3
8	Merge	Merge	loop on-ramp from Hwy 72	1225	3
9	Overlap	Basic	between on-ramps from Hwy 72	275	3
10	Merge	Merge	on-ramp from Hwy 72	1225	3
11	Basic	Basic	between Hwy 72 and SE 8th St	2165	3

Facility Segment Data

Segment 1: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.820	3266	6943	0.47	69.1	15.8	B
2	1.00	0.820	3618	6943	0.52	69.1	17.5	B
3	1.00	0.820	3266	6943	0.47	69.1	15.8	B
4	1.00	0.820	3266	6943	0.47	69.1	15.8	B

Segment 2: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.820	0.658	3266	1422	6824	1839	0.48	0.77	55.8	52.0	19.5	24.0	C
2	1.00	1.00	0.820	0.658	3618	1749	6824	1839	0.53	0.95	55.0	51.2	21.9	26.6	C

3	1.00	1.00	0.820	0.658	3266	1422	6824	1839	0.48	0.77	55.8	52.0	19.5	24.0	C
4	1.00	1.00	0.820	0.658	3266	1422	6824	1839	0.48	0.77	55.8	52.0	19.5	24.0	C

Segment 3: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.926	1881	6943	0.27	68.4	9.1	A
2	1.00	0.962	1888	6943	0.27	68.3	9.1	A
3	1.00	0.926	1881	6943	0.27	68.4	9.1	A
4	1.00	0.926	1881	6943	0.27	68.4	9.1	A

Segment 4: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.926	0.685	2877	996	6824	3678	0.42	0.27	63.5	61.9	15.1	11.8	B
2	1.00	1.00	0.962	0.685	3199	1311	6824	3678	0.47	0.36	63.1	61.6	16.9	14.2	B
3	1.00	1.00	0.926	0.685	2877	996	6824	3678	0.42	0.27	63.5	61.9	15.1	11.8	B
4	1.00	1.00	0.926	0.685	2877	996	6824	3678	0.42	0.27	63.5	61.9	15.1	11.8	B

Segment 5: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.847	2862	6943	0.41	69.1	13.8	B
2	1.00	0.847	3204	6943	0.46	69.1	15.5	B
3	1.00	0.847	2862	6943	0.41	69.1	13.8	B
4	1.00	0.847	2862	6943	0.41	69.1	13.8	B

Segment 6: Diverge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.847	0.980	2862	279	6824	1936	0.42	0.14	62.4	58.2	15.3	19.9	B
2	1.00	1.00	0.847	0.980	3204	486	6824	1936	0.47	0.25	62.0	57.7	17.2	22.0	C
3	1.00	1.00	0.847	0.980	2862	279	6824	1936	0.42	0.14	62.4	58.2	15.3	19.9	B
4	1.00	1.00	0.847	0.980	2862	279	6824	1936	0.42	0.14	62.4	58.2	15.3	19.9	B

Segment 7: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.833	2582	6943	0.37	68.2	12.5	B
2	1.00	0.820	2729	6943	0.39	68.2	13.2	B
3	1.00	0.833	2582	6943	0.37	68.2	12.5	B
4	1.00	0.833	2582	6943	0.37	68.2	12.5	B

Segment 8: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	

1	1.00	1.00	0.833	0.980	3067	485	6824	1839	0.45	0.26	63.1	61.2	16.2	13.8	B
2	1.00	1.00	0.820	0.980	3366	637	6824	1839	0.49	0.35	62.8	61.0	17.9	15.6	B
3	1.00	1.00	0.833	0.980	3067	485	6824	1839	0.45	0.26	63.1	61.2	16.2	13.8	B
4	1.00	1.00	0.833	0.980	3067	485	6824	1839	0.45	0.26	63.1	61.2	16.2	13.8	B

Segment 9: Overlap

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.862	3046	6943	0.44	67.3	14.7	B
2	1.00	0.847	3379	6943	0.49	67.2	16.3	B
3	1.00	0.862	3046	6943	0.44	67.3	14.7	B
4	1.00	0.862	3046	6943	0.44	67.3	14.7	B

Segment 10: Merge

AP	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R Infl.	F	R Infl.	
1	1.00	1.00	0.862	0.980	4006	960	6824	1936	0.59	0.50	62.2	60.5	21.5	21.4	C
2	1.00	1.00	0.847	0.980	4689	1310	6824	1936	0.69	0.68	61.1	59.3	25.6	25.5	C
3	1.00	1.00	0.862	0.980	4006	960	6824	1936	0.59	0.50	62.2	60.5	21.5	21.4	C
4	1.00	1.00	0.862	0.980	4006	960	6824	1936	0.59	0.50	62.2	60.5	21.5	21.4	C

Segment 11: Basic

AP	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	1.00	0.893	3994	6943	0.58	68.7	19.4	C
2	1.00	0.893	4643	6943	0.67	67.1	23.1	C
3	1.00	0.893	3994	6943	0.58	68.7	19.4	C
4	1.00	0.893	3994	6943	0.58	68.7	19.4	C

Facility Analysis Results

AP	VMT veh-mi/p	VMT-Demand veh-mi/p	VHD veh-h/p	Speed mi/h	Density pc/mi/ln	Density veh/mi/ln	TT min	LOS
1	3150	3013	1.78	66.5	14.8	12.7	4.50	B
2	3524	3340	2.32	66.1	16.7	14.3	4.50	B
3	3150	3013	1.78	66.5	14.8	12.7	4.50	B
4	3150	3013	1.78	66.5	14.8	12.7	4.50	B

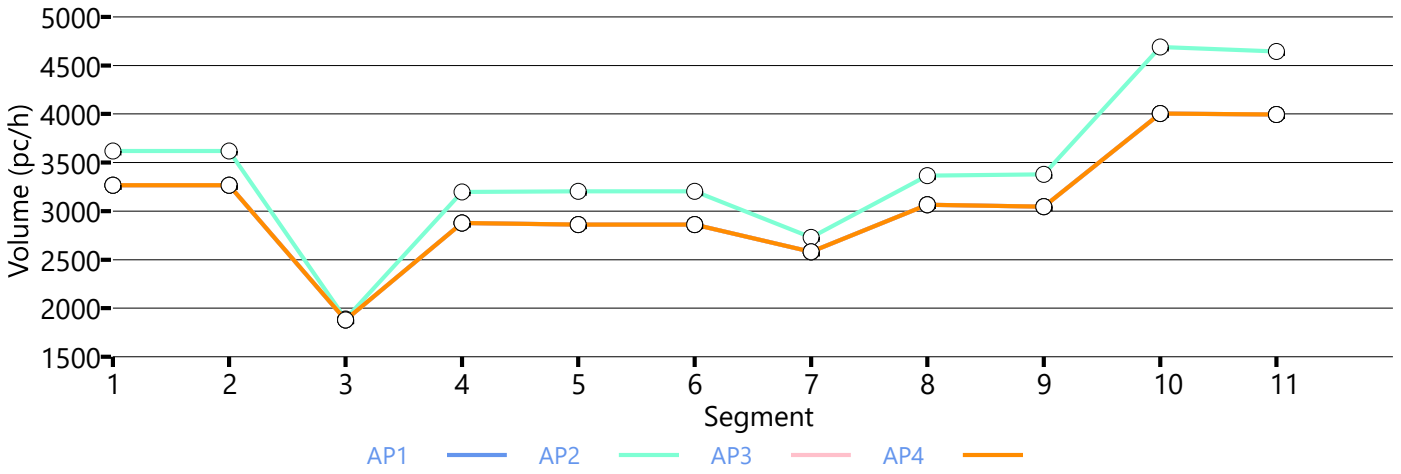
Facility Overall Results

Space Mean Speed, mi/h	66.4	Density, veh/mi/ln	13.1
Average Travel Time, min	4.50	Density, pc/mi/ln	15.3

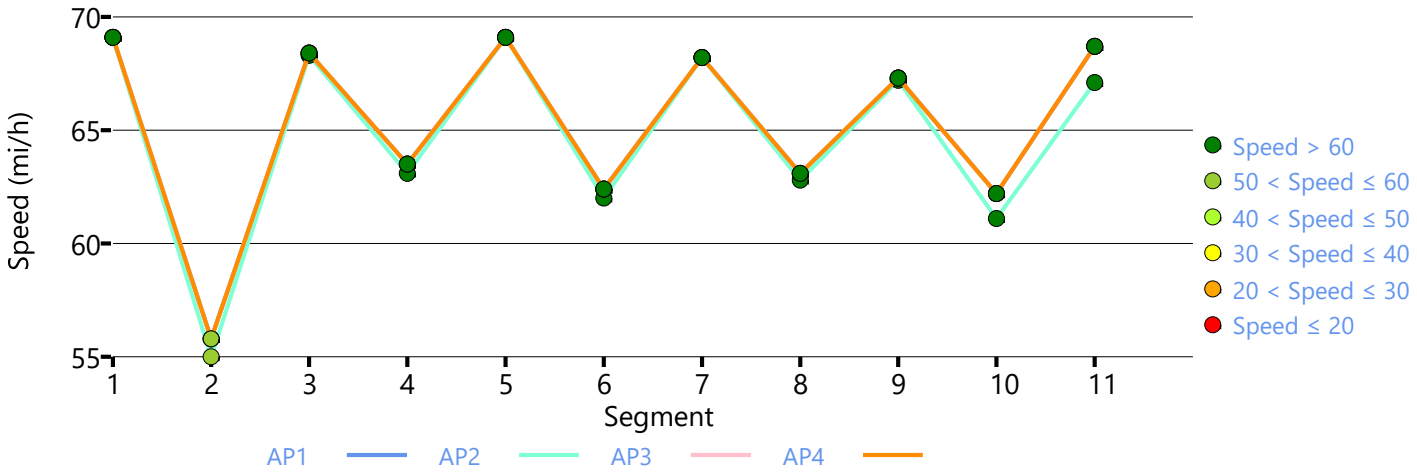
Messages

Comments

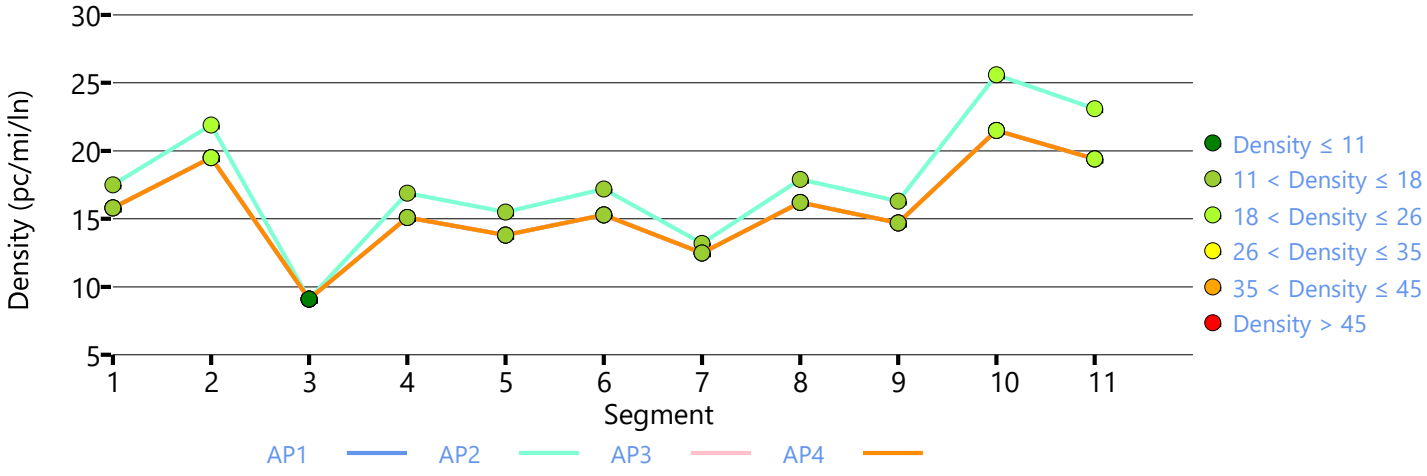
Volume Distribution



Speed Distribution



Density Distribution



Intersection	
Intersection Delay, s/veh	13.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	194	257	21	189	5	113	13	18	4	30	7
Future Vol, veh/h	13	194	257	21	189	5	113	13	18	4	30	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	211	279	23	205	5	123	14	20	4	33	8
Number of Lanes	0	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	15.7	11	11.2	9.7
HCM LOS	C	B	B	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	3%	10%	10%
Vol Thru, %	0%	42%	42%	88%	73%
Vol Right, %	0%	58%	55%	2%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	113	31	464	215	41
LT Vol	113	0	13	21	4
Through Vol	0	13	194	189	30
RT Vol	0	18	257	5	7
Lane Flow Rate	123	34	504	234	45
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0.235	0.056	0.647	0.34	0.076
Departure Headway (Hd)	6.894	5.972	4.621	5.233	6.107
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	521	599	787	687	586
Service Time	4.635	3.712	2.621	3.268	4.156
HCM Lane V/C Ratio	0.236	0.057	0.64	0.341	0.077
HCM Control Delay	11.8	9.1	15.7	11	9.7
HCM Lane LOS	B	A	C	B	A
HCM 95th-tile Q	0.9	0.2	4.8	1.5	0.2

3: NE J St & Tiger Blvd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.6	0.5	0.4	0.3	0.2	0.2	0.6	0.1	0.1	0.2	0.2	0.1
Total Delay (hr)	0.0	0.7	0.6	0.0	0.5	0.0	0.2	0.0	0.0	0.0	0.1	0.0
Total Del/Veh (s)	10.4	12.7	8.8	7.2	9.6	5.1	6.2	7.7	2.6	6.3	8.1	3.6
Stop Delay (hr)	0.0	0.2	0.3	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	4.5	4.2	4.2	3.7	3.5	2.5	3.4	3.1	2.6	4.1	3.6	3.0
Total Stops	11	200	256	17	195	5	113	15	19	4	34	7
Stop/Veh	1.00	0.98	0.98	0.94	0.99	1.00	0.98	1.00	1.00	1.00	1.00	0.88
Travel Dist (mi)	6.0	109.1	140.2	10.5	118.3	3.0	54.3	7.2	9.0	1.9	15.5	3.4
Travel Time (hr)	0.2	3.9	5.0	0.4	3.9	0.1	1.8	0.2	0.3	0.1	0.5	0.1
Avg Speed (mph)	28	28	28	30	30	31	30	30	31	28	30	30
Vehicles Entered	11	199	257	17	192	5	112	15	19	4	33	8
Vehicles Exited	11	200	255	17	195	5	113	15	19	4	34	7
Hourly Exit Rate	11	200	255	17	195	5	113	15	19	4	34	7
Input Volume	13	194	257	21	189	5	113	13	18	4	30	7
% of Volume	83	103	99	82	103	100	100	113	107	100	113	97
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	0	4	5	0	4	0	2	0	0	0	1	0

3: NE J St & Tiger Blvd Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.4
Total Delay (hr)	2.3
Total Del/Veh (s)	9.3
Stop Delay (hr)	1.0
Stop Del/Veh (s)	3.8
Total Stops	876
Stop/Veh	0.98
Travel Dist (mi)	478.5
Travel Time (hr)	16.6
Avg Speed (mph)	29
Vehicles Entered	872
Vehicles Exited	875
Hourly Exit Rate	875
Input Volume	865
% of Volume	101
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	828
Occupancy (veh)	16

Total Network Performance

Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.4
Total Delay (hr)	3.1
Total Del/Veh (s)	12.2
Stop Delay (hr)	1.1
Stop Del/Veh (s)	4.2
Total Stops	876
Stop/Veh	0.97
Travel Dist (mi)	957.2
Travel Time (hr)	31.6
Avg Speed (mph)	30
Vehicles Entered	872
Vehicles Exited	875
Hourly Exit Rate	875
Input Volume	1730
% of Volume	51
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	432
Occupancy (veh)	32

Intersection: 3: NE J St & Tiger Blvd

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	L	TR	LTR
Maximum Queue (ft)	148	81	84	39	67
Average Queue (ft)	74	48	37	19	26
95th Queue (ft)	114	73	61	42	54
Link Distance (ft)	2882	3227		2540	2447
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			330		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 0

Intersection	
Intersection Delay, s/veh	17.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	203	205	15	281	6	247	17	15	2	20	14
Future Vol, veh/h	12	203	205	15	281	6	247	17	15	2	20	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	221	223	16	305	7	268	18	16	2	22	15
Number of Lanes	0	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	19.5	15.6	17.2	10.5
HCM LOS	C	C	C	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	3%	5%	6%
Vol Thru, %	0%	53%	48%	93%	56%
Vol Right, %	0%	47%	49%	2%	39%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	247	32	420	302	36
LT Vol	247	0	12	15	2
Through Vol	0	17	203	281	20
RT Vol	0	15	205	6	14
Lane Flow Rate	268	35	457	328	39
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0.539	0.062	0.685	0.535	0.075
Departure Headway (Hd)	7.227	6.382	5.403	5.862	6.937
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	497	558	662	611	520
Service Time	5.008	4.162	3.483	3.948	4.937
HCM Lane V/C Ratio	0.539	0.063	0.69	0.537	0.075
HCM Control Delay	18.2	9.6	19.5	15.6	10.5
HCM Lane LOS	C	A	C	C	B
HCM 95th-tile Q	3.2	0.2	5.4	3.2	0.2

3: NE J St & Tiger Blvd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.4	0.4	0.4	0.4	0.3	0.2	0.6	0.4	0.4	0.1	0.1	0.1
Total Delay (hr)	0.0	0.7	0.5	0.0	0.9	0.0	0.6	0.0	0.0	0.0	0.1	0.0
Total Del/Veh (s)	10.3	12.7	8.9	10.2	11.3	6.3	8.8	9.2	3.9	2.7	9.1	3.6
Stop Delay (hr)	0.0	0.3	0.3	0.0	0.4	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	4.9	5.1	4.6	5.3	4.5	4.2	4.9	3.5	2.7	1.8	4.7	3.4
Total Stops	11	207	204	14	284	6	243	19	16	1	20	15
Stop/Veh	1.00	0.98	0.98	1.00	0.97	1.00	0.98	1.00	1.00	1.00	1.00	1.00
Travel Dist (mi)	6.1	113.5	111.7	8.3	173.9	3.8	117.0	9.2	7.8	0.3	9.3	6.8
Travel Time (hr)	0.2	4.1	4.0	0.3	5.9	0.1	4.2	0.3	0.3	0.0	0.3	0.2
Avg Speed (mph)	28	28	28	29	29	29	28	29	30	30	29	30
Vehicles Entered	11	208	205	13	285	6	244	19	16	1	20	15
Vehicles Exited	11	208	204	14	285	6	243	19	16	1	20	15
Hourly Exit Rate	11	208	204	14	285	6	243	19	16	1	20	15
Input Volume	12	203	205	15	281	6	247	17	15	2	20	14
% of Volume	90	102	100	92	101	96	98	110	105	50	101	105
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	0	4	4	0	6	0	4	0	0	0	0	0

3: NE J St & Tiger Blvd Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.4
Total Delay (hr)	3.0
Total Del/Veh (s)	10.2
Stop Delay (hr)	1.4
Stop Del/Veh (s)	4.7
Total Stops	1040
Stop/Veh	0.98
Travel Dist (mi)	567.6
Travel Time (hr)	19.9
Avg Speed (mph)	29
Vehicles Entered	1043
Vehicles Exited	1042
Hourly Exit Rate	1042
Input Volume	1038
% of Volume	100
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	690
Occupancy (veh)	20

Total Network Performance

Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.4
Total Delay (hr)	4.1
Total Del/Veh (s)	13.7
Stop Delay (hr)	1.5
Stop Del/Veh (s)	5.1
Total Stops	1040
Stop/Veh	0.96
Travel Dist (mi)	1142.5
Travel Time (hr)	38.1
Avg Speed (mph)	30
Vehicles Entered	1043
Vehicles Exited	1039
Hourly Exit Rate	1039
Input Volume	2076
% of Volume	50
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	359
Occupancy (veh)	38

Intersection: 3: NE J St & Tiger Blvd

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	L	TR	LTR
Maximum Queue (ft)	143	109	121	44	48
Average Queue (ft)	74	60	58	21	22
95th Queue (ft)	119	91	98	43	46
Link Distance (ft)	2882	3227		2540	2447
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			330		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 0

Intersection	
Intersection Delay, s/veh	159.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	359	405	39	568	18	179	21	90	6	47	11
Future Vol, veh/h	21	359	405	39	568	18	179	21	90	6	47	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	390	440	42	617	20	195	23	98	7	51	12
Number of Lanes	0	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	238.2	141.2	17.7	15.2
HCM LOS	F	F	C	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	3%	6%	9%
Vol Thru, %	0%	19%	46%	91%	73%
Vol Right, %	0%	81%	52%	3%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	179	111	785	625	64
LT Vol	179	0	21	39	6
Through Vol	0	21	359	568	47
RT Vol	0	90	405	18	11
Lane Flow Rate	195	121	853	679	70
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0.454	0.246	1.466	1.224	0.166
Departure Headway (Hd)	9.583	8.466	6.572	7.188	10.212
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	379	427	563	510	353
Service Time	7.283	6.166	4.572	5.188	8.212
HCM Lane V/C Ratio	0.515	0.283	1.515	1.331	0.198
HCM Control Delay	20	13.9	238.2	141.2	15.2
HCM Lane LOS	C	B	F	F	C
HCM 95th-tile Q	2.3	1	39.5	23.7	0.6

Intersection	
Intersection Delay, s/veh	239.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	368	323	90	651	22	389	27	129	3	32	23
Future Vol, veh/h	19	368	323	90	651	22	389	27	129	3	32	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	400	351	98	708	24	423	29	140	3	35	25
Number of Lanes	0	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	275	352.2	59.8	18.7
HCM LOS	F	F	F	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	3%	12%	5%
Vol Thru, %	0%	17%	52%	85%	55%
Vol Right, %	0%	83%	45%	3%	40%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	389	156	710	763	58
LT Vol	389	0	19	90	3
Through Vol	0	27	368	651	32
RT Vol	0	129	323	22	23
Lane Flow Rate	423	170	772	829	63
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0.986	0.345	1.537	1.715	0.166
Departure Headway (Hd)	10.203	9.066	8.388	8.405	13.14
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	359	400	440	440	275
Service Time	7.903	6.766	6.388	6.405	11.14
HCM Lane V/C Ratio	1.178	0.425	1.755	1.884	0.229
HCM Control Delay	77.1	16.5	275	352.2	18.7
HCM Lane LOS	F	C	F	F	C
HCM 95th-tile Q	11.1	1.5	35.7	44.5	0.6

3: NE J St & Tiger Blvd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.4	0.4	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	5.0	3.7	3.5	0.6	0.6	0.6	0.6	0.3	0.3	0.1	0.2	0.2
Total Delay (hr)	1.2	20.9	22.0	0.5	8.2	0.1	0.6	0.1	0.1	0.0	0.1	0.0
Total Del/Veh (s)	198.5	205.7	190.7	52.3	50.2	37.1	10.3	10.8	5.3	7.0	10.5	6.3
Stop Delay (hr)	1.2	22.0	23.6	0.4	7.1	0.1	0.4	0.0	0.1	0.0	0.1	0.0
Stop Del/Veh (s)	211.5	217.4	204.1	48.9	43.8	32.4	6.5	5.0	3.9	5.2	5.8	5.2
Total Stops	19	333	383	32	568	13	193	18	96	5	45	13
Stop/Veh	0.90	0.91	0.92	0.97	0.97	1.00	0.99	1.00	0.98	1.00	1.00	1.00
Travel Dist (mi)	11.0	188.7	214.6	19.9	348.8	8.2	91.7	8.6	46.4	2.2	20.9	6.1
Travel Time (hr)	1.5	26.7	29.0	1.1	18.3	0.4	3.3	0.3	1.6	0.1	0.7	0.2
Avg Speed (mph)	7	7	8	18	19	22	28	28	29	28	28	29
Fuel Used (gal)	0.5	8.8	9.7	0.6	10.2	0.2	2.5	0.2	1.2	0.1	0.5	0.2
Fuel Eff. (mpg)	22.3	21.4	22.1	34.6	34.3	36.0	37.2	37.8	37.5	41.9	38.2	37.8
HC Emissions (g)	1	32	60	2	79	1	25	1	16	0	4	1
CO Emissions (g)	40	1029	1460	53	1614	24	559	29	333	4	95	27
NOx Emissions (g)	3	85	135	8	247	3	84	4	50	1	15	3
Vehicles Entered	20	357	405	33	570	13	190	17	97	5	45	13
Vehicles Exited	19	330	376	32	572	13	193	18	96	5	45	13
Hourly Exit Rate	19	330	376	32	572	13	193	18	96	5	45	13
Input Volume	21	359	405	39	568	18	179	21	90	6	47	11
% of Volume	92	92	93	82	101	73	108	87	107	80	95	116
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	2	3	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	1	26	29	1	18	0	3	0	2	0	1	0

3: NE J St & Tiger Blvd Performance by movement

Movement	All
Denied Delay (hr)	0.9
Denied Del/Veh (s)	1.9
Total Delay (hr)	53.8
Total Del/Veh (s)	106.9
Stop Delay (hr)	55.1
Stop Del/Veh (s)	109.7
Total Stops	1718
Stop/Veh	0.95
Travel Dist (mi)	967.1
Travel Time (hr)	83.2
Avg Speed (mph)	12
Fuel Used (gal)	34.7
Fuel Eff. (mpg)	27.9
HC Emissions (g)	221
CO Emissions (g)	5265
NOx Emissions (g)	638
Vehicles Entered	1765
Vehicles Exited	1712
Hourly Exit Rate	1712
Input Volume	1764
% of Volume	97
Denied Entry Before	0
Denied Entry After	5
Density (ft/veh)	166
Occupancy (veh)	82

Total Network Performance

Denied Delay (hr)	0.9
Denied Del/Veh (s)	1.9
Total Delay (hr)	55.9
Total Del/Veh (s)	109.3
Stop Delay (hr)	55.5
Stop Del/Veh (s)	108.5
Total Stops	1718
Stop/Veh	0.93
Travel Dist (mi)	1915.2
Travel Time (hr)	113.5
Avg Speed (mph)	17
Fuel Used (gal)	67.4
Fuel Eff. (mpg)	28.4
HC Emissions (g)	610
CO Emissions (g)	17712
NOx Emissions (g)	1933
Vehicles Entered	1765
Vehicles Exited	1714
Hourly Exit Rate	1714
Input Volume	3528
% of Volume	49
Denied Entry Before	0
Denied Entry After	5
Density (ft/veh)	121
Occupancy (veh)	113

Intersection: 3: NE J St & Tiger Blvd

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	L	TR	LTR
Maximum Queue (ft)	2097	679	120	80	66
Average Queue (ft)	1251	287	56	38	31
95th Queue (ft)	2771	735	95	65	58
Link Distance (ft)	2882	3227		2540	2447
Upstream Blk Time (%)	8				
Queuing Penalty (veh)	0				
Storage Bay Dist (ft)			330		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 0

3: NE J St & Tiger Blvd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.1	3.7	3.2	3.9	32.5	0.7	0.1	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	29.6	36.1	36.8	176.8	178.7	139.1	0.8	0.5	0.5	0.1	0.1	0.2
Total Delay (hr)	1.5	35.0	29.2	11.3	90.7	2.8	3.4	0.1	0.3	0.0	0.1	0.0
Total Del/Veh (s)	334.4	346.5	338.0	583.4	566.9	587.6	29.3	14.3	8.5	5.5	12.3	6.8
Stop Delay (hr)	1.6	37.1	31.2	12.1	96.4	3.0	2.9	0.1	0.2	0.0	0.1	0.0
Stop Del/Veh (s)	355.8	366.8	361.0	622.5	602.6	627.2	24.7	7.0	5.2	4.3	7.6	6.1
Total Stops	13	294	251	34	289	10	408	26	132	1	32	24
Stop/Veh	0.81	0.81	0.81	0.49	0.50	0.59	0.98	1.00	0.98	0.50	0.97	1.00
Travel Dist (mi)	8.1	180.4	153.4	37.2	303.8	9.3	195.9	12.5	63.9	0.7	14.9	11.0
Travel Time (hr)	1.9	43.9	37.1	16.4	132.0	3.8	9.4	0.5	2.3	0.0	0.5	0.4
Avg Speed (mph)	5	4	5	3	3	3	21	27	28	28	27	29
Fuel Used (gal)	0.5	12.4	10.5	4.2	33.9	1.0	5.7	0.3	1.7	0.0	0.4	0.3
Fuel Eff. (mpg)	15.3	14.5	14.6	8.9	9.0	9.5	34.1	36.8	37.0	41.5	37.5	38.0
HC Emissions (g)	0	41	35	9	88	0	52	5	23	0	5	2
CO Emissions (g)	42	1395	1171	355	3140	63	1143	105	491	2	102	53
NOx Emissions (g)	2	86	69	12	130	2	169	15	70	0	17	8
Vehicles Entered	16	353	301	67	549	17	406	26	133	2	32	24
Vehicles Exited	14	306	261	55	456	13	406	26	132	1	33	24
Hourly Exit Rate	14	306	261	55	456	13	406	26	132	1	33	24
Input Volume	19	368	323	90	651	22	389	27	129	3	32	23
% of Volume	75	83	81	61	70	60	104	97	103	33	103	105
Denied Entry Before	0	0	0	0	0	0	1	0	0	0	0	0
Denied Entry After	1	18	17	13	106	2	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	2	40	34	12	99	3	9	0	2	0	1	0

3: NE J St & Tiger Blvd Performance by movement

Movement	All
Denied Delay (hr)	44.4
Denied Del/Veh (s)	76.7
Total Delay (hr)	174.5
Total Del/Veh (s)	316.0
Stop Delay (hr)	184.5
Stop Del/Veh (s)	334.2
Total Stops	1514
Stop/Veh	0.76
Travel Dist (mi)	991.3
Travel Time (hr)	248.2
Avg Speed (mph)	5
Fuel Used (gal)	71.0
Fuel Eff. (mpg)	14.0
HC Emissions (g)	260
CO Emissions (g)	8060
NOx Emissions (g)	581
Vehicles Entered	1926
Vehicles Exited	1727
Hourly Exit Rate	1727
Input Volume	2075
% of Volume	83
Denied Entry Before	1
Denied Entry After	157
Density (ft/veh)	67
Occupancy (veh)	204

Total Network Performance

Denied Delay (hr)	44.4
Denied Del/Veh (s)	76.7
Total Delay (hr)	176.7
Total Del/Veh (s)	314.9
Stop Delay (hr)	185.0
Stop Del/Veh (s)	329.6
Total Stops	1514
Stop/Veh	0.75
Travel Dist (mi)	1955.0
Travel Time (hr)	279.2
Avg Speed (mph)	8
Fuel Used (gal)	104.3
Fuel Eff. (mpg)	18.7
HC Emissions (g)	670
CO Emissions (g)	20831
NOx Emissions (g)	1933
Vehicles Entered	1926
Vehicles Exited	1728
Hourly Exit Rate	1728
Input Volume	4150
% of Volume	42
Denied Entry Before	1
Denied Entry After	157
Density (ft/veh)	58
Occupancy (veh)	235

Intersection: 3: NE J St & Tiger Blvd

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	L	TR	LTR
Maximum Queue (ft)	2688	3281	308	172	68
Average Queue (ft)	1735	2656	140	51	31
95th Queue (ft)	3237	4129	254	113	61
Link Distance (ft)	2882	3227		2540	2447
Upstream Blk Time (%)	21	60			
Queuing Penalty (veh)	0	0			
Storage Bay Dist (ft)			330		
Storage Blk Time (%)			1		
Queuing Penalty (veh)			1		

Network Summary

Network wide Queuing Penalty: 1

Intersection	
Intersection Delay, s/veh	12.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	56	167	222	16	139	21	88	56	14	18	133	32
Future Vol, veh/h	56	167	222	16	139	21	88	56	14	18	133	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	61	182	241	17	151	23	96	61	15	20	145	35
Number of Lanes	1	1	1	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	11.9	12.8	11.7	12
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	80%	0%	100%	0%	0%	87%	0%	100%	0%
Vol Right, %	0%	20%	0%	0%	100%	0%	13%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	88	70	56	167	222	16	160	18	133	32
LT Vol	88	0	56	0	0	16	0	18	0	0
Through Vol	0	56	0	167	0	0	139	0	133	0
RT Vol	0	14	0	0	222	0	21	0	0	32
Lane Flow Rate	96	76	61	182	241	17	174	20	145	35
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.202	0.147	0.117	0.324	0.383	0.036	0.331	0.041	0.284	0.061
Departure Headway (Hd)	7.613	6.965	6.926	6.421	5.715	7.453	6.854	7.579	7.073	6.364
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	469	511	515	557	625	478	522	470	505	558
Service Time	5.406	4.757	4.701	4.196	3.489	5.242	4.644	5.372	4.866	4.156
HCM Lane V/C Ratio	0.205	0.149	0.118	0.327	0.386	0.036	0.333	0.043	0.287	0.063
HCM Control Delay	12.3	11	10.6	12.3	12	10.5	13	10.7	12.7	9.6
HCM Lane LOS	B	B	B	B	B	B	B	B	B	A
HCM 95th-tile Q	0.7	0.5	0.4	1.4	1.8	0.1	1.4	0.1	1.2	0.2

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	41	0	0	81	0	0
Future Vol, veh/h	41	0	0	81	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	Yield	-	None
Storage Length	0	200	-	-	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	45	0	0	88	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	45	44	0	0	0	0
Stage 1	44	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	960	1017	-	-	-	-
Stage 1	973	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	960	1017	-	-	-	-
Mov Cap-2 Maneuver	960	-	-	-	-	-
Stage 1	973	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	960	-	-	-
HCM Lane V/C Ratio	-	-	0.046	-	-	-
HCM Control Delay (s)	-	-	8.9	0	0	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	-	-	-

Intersection	
Int Delay, s/veh	5.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	109	70	57	76	63	74
Future Vol, veh/h	109	70	57	76	63	74
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	-	-	85	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	118	76	62	83	68	80

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	320	73	0	0	145	0
Stage 1	104	-	-	-	-	-
Stage 2	216	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	661	975	-	-	1436	-
Stage 1	909	-	-	-	-	-
Stage 2	819	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	630	975	-	-	1436	-
Mov Cap-2 Maneuver	664	-	-	-	-	-
Stage 1	909	-	-	-	-	-
Stage 2	781	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	3.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	759	1436	-
HCM Lane V/C Ratio	-	-	0.256	0.048	-
HCM Control Delay (s)	-	-	11.4	7.6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	1	0.1	-

Intersection	
Intersection Delay, s/veh	18.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	49	181	183	13	246	24	248	69	15	9	87	61
Future Vol, veh/h	49	181	183	13	246	24	248	69	15	9	87	61
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	53	197	199	14	267	26	270	75	16	10	95	66
Number of Lanes	1	1	1	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	14.8	23.1	21.1	13
HCM LOS	B	C	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	82%	0%	100%	0%	0%	91%	0%	100%	0%
Vol Right, %	0%	18%	0%	0%	100%	0%	9%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	248	84	49	181	183	13	270	9	87	61
LT Vol	248	0	49	0	0	13	0	9	0	0
Through Vol	0	69	0	181	0	0	246	0	87	0
RT Vol	0	15	0	0	183	0	24	0	0	61
Lane Flow Rate	270	91	53	197	199	14	293	10	95	66
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.624	0.195	0.122	0.423	0.388	0.033	0.64	0.025	0.224	0.144
Departure Headway (Hd)	8.327	7.69	8.251	7.741	7.027	8.423	7.85	9.059	8.546	7.826
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	431	465	433	462	509	423	458	393	418	456
Service Time	6.106	5.469	6.031	5.521	4.806	6.204	5.632	6.858	6.344	5.624
HCM Lane V/C Ratio	0.626	0.196	0.122	0.426	0.391	0.033	0.64	0.025	0.227	0.145
HCM Control Delay	24.1	12.3	12.2	16.1	14.2	11.5	23.7	12.1	13.8	12
HCM Lane LOS	C	B	B	C	B	B	C	B	B	B
HCM 95th-tile Q	4.1	0.7	0.4	2.1	1.8	0.1	4.4	0.1	0.8	0.5

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	46	0	0	91	0	0
Future Vol, veh/h	46	0	0	91	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	Yield	-	None
Storage Length	0	200	-	-	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	50	0	0	99	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	51	50	0	0	0	0
Stage 1	50	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	952	1008	-	-	-	-
Stage 1	966	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	952	1008	-	-	-	-
Mov Cap-2 Maneuver	952	-	-	-	-	-
Stage 1	966	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	952	-	-	-
HCM Lane V/C Ratio	-	-	0.053	-	-	-
HCM Control Delay (s)	-	-	9	0	0	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	-	-	-

Intersection	
Int Delay, s/veh	4.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	68	52	91	52	65	89
Future Vol, veh/h	68	52	91	52	65	89
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	-	-	85	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	74	57	99	57	71	97

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	367	78	0	0	156	0
Stage 1	128	-	-	-	-	-
Stage 2	239	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	619	967	-	-	1423	-
Stage 1	885	-	-	-	-	-
Stage 2	800	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	588	967	-	-	1423	-
Mov Cap-2 Maneuver	636	-	-	-	-	-
Stage 1	885	-	-	-	-	-
Stage 2	760	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	3.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	747	1423	-
HCM Lane V/C Ratio	-	-	0.175	0.05	-
HCM Control Delay (s)	-	-	10.8	7.7	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0.2	-

3: NE J St & Tiger Blvd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.5	0.4	0.4	0.2	0.2	0.2	0.5	0.2	0.2	0.0	0.0	0.0
Total Delay (hr)	0.1	0.5	0.4	0.0	0.4	0.0	0.2	0.1	0.0	0.0	0.4	0.0
Total Del/Veh (s)	8.5	10.6	6.5	6.3	9.7	6.5	6.8	8.2	3.1	6.2	9.7	4.3
Stop Delay (hr)	0.1	0.2	0.2	0.0	0.2	0.0	0.1	0.1	0.0	0.0	0.2	0.0
Stop Del/Veh (s)	4.1	3.9	3.6	3.9	4.3	4.1	4.3	3.5	2.8	3.4	4.4	3.1
Total Stops	59	173	216	14	139	19	87	59	15	21	135	34
Stop/Veh	0.98	0.98	0.98	1.00	0.97	0.95	0.99	0.98	1.00	0.95	0.97	1.00
Travel Dist (mi)	31.9	94.3	118.1	8.2	84.9	12.1	41.9	28.1	7.1	11.2	71.0	17.6
Travel Time (hr)	1.1	3.3	4.1	0.3	2.8	0.4	1.4	1.0	0.2	0.4	2.4	0.6
Avg Speed (mph)	29	29	29	30	30	30	29	29	31	30	29	30
Fuel Used (gal)	0.8	2.5	3.1	0.2	2.2	0.3	1.1	0.7	0.2	0.3	1.9	0.5
Fuel Eff. (mpg)	37.7	38.2	37.7	37.5	38.3	38.6	38.0	38.6	37.8	38.5	36.7	36.8
HC Emissions (g)	6	22	31	1	21	1	10	9	1	2	16	6
CO Emissions (g)	131	447	678	31	435	38	228	197	27	56	431	142
NOx Emissions (g)	20	72	103	4	74	6	35	29	4	6	54	19
Vehicles Entered	58	172	217	13	138	20	88	59	15	22	137	34
Vehicles Exited	59	173	217	14	139	19	87	58	15	21	136	34
Hourly Exit Rate	59	173	217	14	139	19	87	58	15	21	136	34
Input Volume	56	167	222	16	139	21	88	56	14	18	134	32
% of Volume	106	104	98	86	100	92	99	104	105	118	101	106
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	1	3	4	0	3	0	1	1	0	0	2	1

3: NE J St & Tiger Blvd Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	2.3
Total Del/Veh (s)	8.3
Stop Delay (hr)	1.1
Stop Del/Veh (s)	3.9
Total Stops	971
Stop/Veh	0.98
Travel Dist (mi)	526.3
Travel Time (hr)	18.0
Avg Speed (mph)	29
Fuel Used (gal)	13.9
Fuel Eff. (mpg)	37.8
HC Emissions (g)	125
CO Emissions (g)	2841
NOx Emissions (g)	427
Vehicles Entered	973
Vehicles Exited	972
Hourly Exit Rate	972
Input Volume	963
% of Volume	101
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	1583
Occupancy (veh)	18

8: NE J St & I-49 SB Ramps Performance by movement

Movement	WBL	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.8	0.0	0.0	0.0	0.3
Total Delay (hr)	0.1	0.1	0.1	0.0	0.3
Total Del/Veh (s)	4.9	2.6	4.2	0.7	3.4
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	3.3	0.1	0.1	0.2	1.3
Total Stops	100	0	0	0	100
Stop/Veh	1.00	0.00	0.00	0.00	0.37
Travel Dist (mi)	13.0	19.3	10.5	9.9	52.7
Travel Time (hr)	0.7	0.6	0.4	0.3	2.0
Avg Speed (mph)	19	31	28	29	26
Fuel Used (gal)	0.4	0.7	0.4	0.4	1.9
Fuel Eff. (mpg)	34.0	27.4	29.3	22.7	28.0
HC Emissions (g)	2	7	5	4	19
CO Emissions (g)	64	329	202	220	815
NOx Emissions (g)	8	25	16	15	64
Vehicles Entered	100	78	47	45	270
Vehicles Exited	100	79	46	46	271
Hourly Exit Rate	100	79	46	46	271
Input Volume	96	81	46	41	264
% of Volume	104	97	99	112	102
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0
Density (ft/veh)					3987
Occupancy (veh)	1	1	0	0	2

10: NE J St & I-49 NB Ramps Performance by movement

Movement	WBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.0
Total Delay (hr)	0.0	0.1	0.1
Total Del/Veh (s)	4.0	2.7	3.2
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	2.4	0.0	0.9
Total Stops	45	0	45
Stop/Veh	1.00	0.00	0.36
Travel Dist (mi)	6.0	16.0	22.0
Travel Time (hr)	0.3	0.6	0.9
Avg Speed (mph)	20	29	26
Fuel Used (gal)	0.2	0.4	0.5
Fuel Eff. (mpg)	36.2	42.0	40.2
HC Emissions (g)	1	3	4
CO Emissions (g)	18	90	109
NOx Emissions (g)	2	10	13
Vehicles Entered	45	79	124
Vehicles Exited	45	79	124
Hourly Exit Rate	45	79	124
Input Volume	41	81	122
% of Volume	109	97	101
Denied Entry Before	0	0	0
Denied Entry After	0	0	0
Density (ft/veh)			6310
Occupancy (veh)	0	1	1

12: NE J St Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.3	0.1	0.0	0.0	0.1	0.0	0.5
Total Del/Veh (s)	8.6	7.5	0.2	0.3	4.0	0.7	4.0
Stop Delay (hr)	0.1	0.1	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	4.6	3.5	0.0	0.0	0.6	0.2	1.7
Total Stops	111	69	0	0	9	0	189
Stop/Veh	0.98	0.99	0.00	0.00	0.14	0.00	0.41
Travel Dist (mi)	28.7	17.8	3.6	5.2	16.2	20.4	91.8
Travel Time (hr)	1.2	0.7	0.1	0.2	0.7	0.7	3.7
Avg Speed (mph)	23	24	29	29	25	27	25
Fuel Used (gal)	0.8	0.5	0.1	0.2	0.6	0.7	2.9
Fuel Eff. (mpg)	36.4	36.3	32.0	30.6	28.4	28.2	32.2
HC Emissions (g)	5	4	1	2	3	9	25
CO Emissions (g)	122	104	35	65	150	237	713
NOx Emissions (g)	14	13	3	6	14	28	77
Vehicles Entered	111	68	56	80	65	81	461
Vehicles Exited	111	69	56	80	64	80	460
Hourly Exit Rate	111	69	56	80	64	80	460
Input Volume	109	70	57	76	63	75	450
% of Volume	102	99	98	105	102	107	102
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0
Density (ft/veh)							1260
Occupancy (veh)	1	1	0	0	1	1	4

Total Network Performance

Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.4
Total Delay (hr)	4.3
Total Del/Veh (s)	13.4
Stop Delay (hr)	1.6
Stop Del/Veh (s)	5.0
Total Stops	1305
Stop/Veh	1.13
Travel Dist (mi)	1288.2
Travel Time (hr)	44.3
Avg Speed (mph)	29
Fuel Used (gal)	39.7
Fuel Eff. (mpg)	32.4
HC Emissions (g)	396
CO Emissions (g)	11674
NOx Emissions (g)	1334
Vehicles Entered	1105
Vehicles Exited	1104
Hourly Exit Rate	1104
Input Volume	3211
% of Volume	34
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	1121
Occupancy (veh)	44

Intersection: 3: NE J St & Tiger Blvd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	T	R
Maximum Queue (ft)	67	93	86	35	98	64	43	35	80	51
Average Queue (ft)	27	43	43	10	47	28	21	16	43	20
95th Queue (ft)	52	73	72	33	77	50	37	40	67	44
Link Distance (ft)		2872			3227		2521		2720	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	125		225	300		400		100		100
Storage Blk Time (%)		0							0	
Queuing Penalty (veh)		0							0	

Intersection: 8: NE J St & I-49 SB Ramps

Movement	WB	WB
Directions Served	L	L
Maximum Queue (ft)	45	60
Average Queue (ft)	22	30
95th Queue (ft)	46	54
Link Distance (ft)		685
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	300	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: NE J St & I-49 NB Ramps

Movement	WB
Directions Served	L
Maximum Queue (ft)	55
Average Queue (ft)	26
95th Queue (ft)	48
Link Distance (ft)	712
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: NE J St

Movement	WB	NB	SB
Directions Served	LR	TR	L
Maximum Queue (ft)	106	4	40
Average Queue (ft)	47	0	8
95th Queue (ft)	78	3	31
Link Distance (ft)	1366		1250
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		85	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

3: NE J St & Tiger Blvd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.4	0.4	0.4	0.3	0.3	0.3	0.7	0.4	0.5	0.0	0.0	0.0
Total Delay (hr)	0.1	0.6	0.3	0.0	1.1	0.1	0.9	0.2	0.0	0.0	0.3	0.1
Total Del/Veh (s)	9.5	11.7	6.6	8.4	15.1	11.0	12.5	10.0	5.8	6.7	11.8	6.6
Stop Delay (hr)	0.1	0.3	0.2	0.0	0.6	0.0	0.6	0.1	0.0	0.0	0.1	0.1
Stop Del/Veh (s)	5.3	5.2	3.9	5.5	8.5	7.5	8.7	4.5	3.7	4.4	6.4	5.2
Total Stops	47	182	182	12	262	24	241	68	12	10	83	64
Stop/Veh	1.00	0.97	0.98	1.00	0.98	1.00	0.98	1.00	1.00	1.00	0.99	0.97
Travel Dist (mi)	25.6	99.2	98.7	7.2	160.0	14.6	115.4	32.2	5.7	5.3	43.7	33.9
Travel Time (hr)	0.9	3.5	3.4	0.2	5.8	0.5	4.4	1.1	0.2	0.2	1.5	1.2
Avg Speed (mph)	29	28	29	29	28	28	27	29	29	29	28	29
Fuel Used (gal)	0.7	2.6	2.6	0.2	4.2	0.4	3.1	0.8	0.2	0.1	1.2	0.9
Fuel Eff. (mpg)	38.2	37.9	37.5	36.6	37.8	38.1	37.1	38.3	37.3	37.6	37.2	35.9
HC Emissions (g)	5	24	29	1	37	3	25	10	1	1	14	11
CO Emissions (g)	115	497	616	27	733	63	608	212	23	25	330	264
NOx Emissions (g)	18	79	96	4	125	10	88	33	3	3	44	34
Vehicles Entered	47	182	181	12	262	24	240	67	12	10	84	65
Vehicles Exited	47	182	182	12	262	24	242	68	12	10	83	64
Hourly Exit Rate	47	182	182	12	262	24	242	68	12	10	83	64
Input Volume	49	181	183	13	246	24	248	69	15	9	87	61
% of Volume	95	100	99	91	107	101	97	99	79	108	96	105
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	1	3	3	0	6	1	4	1	0	0	2	1

3: NE J St & Tiger Blvd Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.4
Total Delay (hr)	3.8
Total Del/Veh (s)	11.2
Stop Delay (hr)	2.2
Stop Del/Veh (s)	6.5
Total Stops	1187
Stop/Veh	0.98
Travel Dist (mi)	641.6
Travel Time (hr)	23.0
Avg Speed (mph)	28
Fuel Used (gal)	17.1
Fuel Eff. (mpg)	37.5
HC Emissions (g)	160
CO Emissions (g)	3513
NOx Emissions (g)	535
Vehicles Entered	1186
Vehicles Exited	1188
Hourly Exit Rate	1188
Input Volume	1186
% of Volume	100
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	1241
Occupancy (veh)	23

8: NE J St & I-49 SB Ramps Performance by movement

Movement	WBL	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.7	0.0	0.0	0.0	0.3
Total Delay (hr)	0.2	0.1	0.1	0.0	0.3
Total Del/Veh (s)	4.9	2.4	3.9	0.7	3.4
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	3.2	0.1	0.1	0.2	1.3
Total Stops	110	0	0	0	110
Stop/Veh	0.99	0.00	0.00	0.00	0.37
Travel Dist (mi)	14.3	22.4	11.5	8.9	57.1
Travel Time (hr)	0.8	0.7	0.4	0.3	2.2
Avg Speed (mph)	19	31	28	29	26
Fuel Used (gal)	0.4	0.8	0.4	0.4	2.0
Fuel Eff. (mpg)	34.1	28.1	31.8	23.0	29.1
HC Emissions (g)	3	10	5	8	26
CO Emissions (g)	74	385	184	275	919
NOx Emissions (g)	9	32	15	25	81
Vehicles Entered	110	91	50	40	291
Vehicles Exited	110	92	50	41	293
Hourly Exit Rate	110	92	50	41	293
Input Volume	108	91	51	46	297
% of Volume	102	101	98	89	99
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0
Density (ft/veh)					3704
Occupancy (veh)	1	1	0	0	2

10: NE J St & I-49 NB Ramps Performance by movement

Movement	WBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.0
Total Delay (hr)	0.0	0.1	0.1
Total Del/Veh (s)	3.9	2.8	3.2
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	2.4	0.0	0.7
Total Stops	40	0	40
Stop/Veh	0.98	0.00	0.30
Travel Dist (mi)	5.5	18.5	24.0
Travel Time (hr)	0.3	0.6	0.9
Avg Speed (mph)	20	29	26
Fuel Used (gal)	0.2	0.5	0.6
Fuel Eff. (mpg)	36.3	40.9	39.8
HC Emissions (g)	2	4	6
CO Emissions (g)	36	115	151
NOx Emissions (g)	5	14	19
Vehicles Entered	41	91	132
Vehicles Exited	40	91	131
Hourly Exit Rate	40	91	131
Input Volume	46	91	137
% of Volume	86	100	96
Denied Entry Before	0	0	0
Denied Entry After	0	0	0
Density (ft/veh)			5895
Occupancy (veh)	0	1	1

12: NE J St Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.1	0.0	0.0	0.1
Total Delay (hr)	0.2	0.1	0.0	0.0	0.1	0.0	0.4
Total Del/Veh (s)	8.5	6.7	0.2	0.3	3.9	0.7	3.1
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	4.5	3.0	0.0	0.0	0.5	0.2	1.3
Total Stops	69	58	0	0	6	0	133
Stop/Veh	1.00	0.98	0.00	0.00	0.10	0.00	0.32
Travel Dist (mi)	17.9	14.8	5.5	3.5	14.7	22.9	79.5
Travel Time (hr)	0.8	0.6	0.2	0.1	0.6	0.8	3.1
Avg Speed (mph)	23	24	29	29	25	27	25
Fuel Used (gal)	0.5	0.4	0.2	0.1	0.5	0.8	2.5
Fuel Eff. (mpg)	36.1	36.7	32.3	30.5	28.0	28.1	31.4
HC Emissions (g)	3	4	2	1	3	12	26
CO Emissions (g)	79	93	51	47	148	312	730
NOx Emissions (g)	9	12	6	4	13	36	80
Vehicles Entered	69	57	86	54	59	91	416
Vehicles Exited	69	57	86	54	58	92	416
Hourly Exit Rate	69	57	86	54	58	92	416
Input Volume	68	52	92	52	65	90	418
% of Volume	101	110	94	104	89	103	100
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0
Density (ft/veh)							1494
Occupancy (veh)	1	1	0	0	1	1	3

Total Network Performance

Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.4
Total Delay (hr)	6.0
Total Del/Veh (s)	15.9
Stop Delay (hr)	2.7
Stop Del/Veh (s)	7.1
Total Stops	1470
Stop/Veh	1.08
Travel Dist (mi)	1515.6
Travel Time (hr)	52.8
Avg Speed (mph)	29
Fuel Used (gal)	46.8
Fuel Eff. (mpg)	32.4
HC Emissions (g)	501
CO Emissions (g)	14210
NOx Emissions (g)	1656
Vehicles Entered	1305
Vehicles Exited	1304
Hourly Exit Rate	1304
Input Volume	3639
% of Volume	36
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	941
Occupancy (veh)	53

Intersection: 3: NE J St & Tiger Blvd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	T	R
Maximum Queue (ft)	51	96	88	36	145	168	44	31	66	64
Average Queue (ft)	25	45	40	9	73	60	24	9	37	31
95th Queue (ft)	46	76	73	33	122	116	42	32	63	54
Link Distance (ft)		2872			3227		2521		2720	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	125		225	300		400		100		100
Storage Blk Time (%)		0							0	
Queuing Penalty (veh)		0							0	

Intersection: 8: NE J St & I-49 SB Ramps

Movement	WB	WB
Directions Served	L	L
Maximum Queue (ft)	50	58
Average Queue (ft)	20	32
95th Queue (ft)	46	50
Link Distance (ft)		685
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	300	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: NE J St & I-49 NB Ramps

Movement	WB
Directions Served	L
Maximum Queue (ft)	55
Average Queue (ft)	24
95th Queue (ft)	50
Link Distance (ft)	712
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: NE J St

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	92	36
Average Queue (ft)	40	5
95th Queue (ft)	68	25
Link Distance (ft)	1366	1250
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Intersection	
Intersection Delay, s/veh	36.6
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	60	246	240	27	259	143	71	60	62	118	143	35
Future Vol, veh/h	60	246	240	27	259	143	71	60	62	118	143	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	65	267	261	29	282	155	77	65	67	128	155	38
Number of Lanes	1	1	1	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	22.2	77	16.6	17.6
HCM LOS	C	F	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	49%	0%	100%	0%	0%	64%	0%	100%	0%
Vol Right, %	0%	51%	0%	0%	100%	0%	36%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	71	122	60	246	240	27	402	118	143	35
LT Vol	71	0	60	0	0	27	0	118	0	0
Through Vol	0	60	0	246	0	0	259	0	143	0
RT Vol	0	62	0	0	240	0	143	0	0	35
Lane Flow Rate	77	133	65	267	261	29	437	128	155	38
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.218	0.342	0.165	0.637	0.569	0.076	1.031	0.35	0.402	0.091
Departure Headway (Hd)	10.377	9.491	9.286	8.771	8.05	9.262	8.496	10.044	9.526	8.801
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	348	382	389	414	451	389	428	360	381	410
Service Time	8.077	7.191	6.986	6.471	5.75	6.962	6.196	7.744	7.226	6.501
HCM Lane V/C Ratio	0.221	0.348	0.167	0.645	0.579	0.075	1.021	0.356	0.407	0.093
HCM Control Delay	15.9	17	13.8	25.6	20.9	12.7	81.3	18.1	18.5	12.4
HCM Lane LOS	C	C	B	D	C	B	F	C	C	B
HCM 95th-tile Q	0.8	1.5	0.6	4.3	3.5	0.2	13.6	1.5	1.9	0.3

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	41	0	0	249	0	0
Future Vol, veh/h	41	0	0	249	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	Yield	-	None
Storage Length	0	200	-	-	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	45	0	0	271	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	137	136	0	0	0	0
Stage 1	136	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	842	888	-	-	-	-
Stage 1	876	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	842	888	-	-	-	-
Mov Cap-2 Maneuver	842	-	-	-	-	-
Stage 1	876	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	842	-	-	-
HCM Lane V/C Ratio	-	-	0.053	-	-	-
HCM Control Delay (s)	-	-	9.5	0	0	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	-	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	42	42	251	13	52	255
Future Vol, veh/h	42	42	251	13	52	255
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	-	-	85	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	46	273	14	57	277

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	671	144	0	0	287	0
Stage 1	280	-	-	-	-	-
Stage 2	391	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	405	878	-	-	1274	-
Stage 1	743	-	-	-	-	-
Stage 2	683	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	387	878	-	-	1274	-
Mov Cap-2 Maneuver	492	-	-	-	-	-
Stage 1	743	-	-	-	-	-
Stage 2	652	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.7	0	1.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	631	1274	-
HCM Lane V/C Ratio	-	-	0.145	0.044	-
HCM Control Delay (s)	-	-	11.7	8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

Intersection	
Intersection Delay, s/veh	80.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	53	253	198	62	334	128	248	75	89	161	95	67
Future Vol, veh/h	53	253	198	62	334	128	248	75	89	161	95	67
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	275	215	67	363	139	270	82	97	175	103	73
Number of Lanes	1	1	1	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	31.9	197.6	36.5	22.8
HCM LOS	D	F	E	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	46%	0%	100%	0%	0%	72%	0%	100%	0%
Vol Right, %	0%	54%	0%	0%	100%	0%	28%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	248	164	53	253	198	62	462	161	95	67
LT Vol	248	0	53	0	0	62	0	161	0	0
Through Vol	0	75	0	253	0	0	334	0	95	0
RT Vol	0	89	0	0	198	0	128	0	0	67
Lane Flow Rate	270	178	58	275	215	67	502	175	103	73
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.783	0.475	0.167	0.757	0.551	0.201	1.398	0.532	0.3	0.197
Departure Headway (Hd)	11.52	10.6	11.422	10.897	10.162	10.739	10.021	12.088	11.561	10.822
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	315	342	316	336	357	336	367	301	313	334
Service Time	9.22	8.3	9.122	8.597	7.862	8.439	7.721	9.788	9.261	8.522
HCM Lane V/C Ratio	0.857	0.52	0.184	0.818	0.602	0.199	1.368	0.581	0.329	0.219
HCM Control Delay	45.7	22.5	16.4	40.8	24.6	16.1	222	27.7	19.1	16.2
HCM Lane LOS	E	C	C	E	C	C	F	D	C	C
HCM 95th-tile Q	6.2	2.4	0.6	5.9	3.2	0.7	25.3	2.9	1.2	0.7

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	46	0	0	280	0	0
Future Vol, veh/h	46	0	0	280	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	Yield	-	None
Storage Length	0	200	-	-	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	50	0	0	304	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	153	152	0	0	0	0
Stage 1	152	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	823	867	-	-	-	-
Stage 1	860	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	823	867	-	-	-	-
Mov Cap-2 Maneuver	823	-	-	-	-	-
Stage 1	860	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	823	-	-	-
HCM Lane V/C Ratio	-	-	0.061	-	-	-
HCM Control Delay (s)	-	-	9.7	0	0	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	-	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	40	41	290	15	64	281
Future Vol, veh/h	40	41	290	15	64	281
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	-	-	85	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	45	315	16	70	305

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	768	166	0	0	331	0
Stage 1	323	-	-	-	-	-
Stage 2	445	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	354	850	-	-	1227	-
Stage 1	707	-	-	-	-	-
Stage 2	645	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	334	850	-	-	1227	-
Mov Cap-2 Maneuver	449	-	-	-	-	-
Stage 1	707	-	-	-	-	-
Stage 2	608	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.2	0	1.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	590	1227	-
HCM Lane V/C Ratio	-	-	0.149	0.057	-
HCM Control Delay (s)	-	-	12.2	8.1	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0.2	-

3: NE J St & Tiger Blvd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.5	0.5	0.5	0.4	0.4	0.4	0.6	0.3	0.2	0.0	0.0	0.0
Total Delay (hr)	0.2	1.0	0.5	0.1	1.3	0.5	0.2	0.2	0.1	0.4	0.5	0.1
Total Del/Veh (s)	10.1	14.0	8.2	9.1	17.1	13.0	8.3	11.1	6.3	10.5	13.3	6.6
Stop Delay (hr)	0.1	0.4	0.3	0.0	0.7	0.3	0.1	0.1	0.1	0.2	0.3	0.0
Stop Del/Veh (s)	5.2	6.4	4.6	5.1	9.6	9.0	5.6	5.9	5.4	5.9	6.6	4.2
Total Stops	57	246	234	26	265	134	72	58	61	125	136	39
Stop/Veh	0.98	0.98	0.98	1.00	0.98	0.99	0.99	0.97	0.98	0.98	0.97	1.00
Travel Dist (mi)	31.1	134.3	127.9	15.9	162.1	81.5	34.8	28.0	29.2	66.0	72.5	20.5
Travel Time (hr)	1.1	4.9	4.5	0.5	6.0	3.0	1.2	1.0	1.0	2.4	2.6	0.7
Avg Speed (mph)	28	28	28	29	27	27	29	28	29	28	28	29
Fuel Used (gal)	0.8	3.6	3.4	0.4	4.3	2.2	0.9	0.7	0.8	1.8	2.0	0.6
Fuel Eff. (mpg)	38.0	37.7	37.4	37.1	37.8	37.5	37.6	37.8	38.1	36.5	36.3	36.1
HC Emissions (g)	6	28	38	3	42	25	7	3	8	18	19	7
CO Emissions (g)	133	606	771	80	824	477	174	102	181	445	459	154
NOx Emissions (g)	20	96	120	11	138	80	24	14	28	60	62	21
Vehicles Entered	57	246	236	26	265	134	73	59	61	126	139	39
Vehicles Exited	57	246	234	26	264	134	72	59	61	125	138	39
Hourly Exit Rate	57	246	234	26	264	134	72	59	61	125	138	39
Input Volume	60	246	240	27	259	143	71	60	62	118	144	35
% of Volume	95	100	98	97	102	94	101	99	99	106	96	111
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	1	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	1	5	4	1	6	3	1	1	1	2	3	1

3: NE J St & Tiger Blvd Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	4.9
Total Del/Veh (s)	12.0
Stop Delay (hr)	2.7
Stop Del/Veh (s)	6.7
Total Stops	1453
Stop/Veh	0.98
Travel Dist (mi)	803.8
Travel Time (hr)	29.0
Avg Speed (mph)	28
Fuel Used (gal)	21.5
Fuel Eff. (mpg)	37.4
HC Emissions (g)	204
CO Emissions (g)	4408
NOx Emissions (g)	673
Vehicles Entered	1461
Vehicles Exited	1455
Hourly Exit Rate	1455
Input Volume	1464
% of Volume	99
Denied Entry Before	0
Denied Entry After	1
Density (ft/veh)	983
Occupancy (veh)	29

8: NE J St & I-49 SB Ramps Performance by movement

Movement	WBL	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.5	0.0	0.0	0.0	0.2
Total Delay (hr)	0.6	0.1	0.1	0.0	0.8
Total Del/Veh (s)	7.6	1.8	3.9	0.8	4.6
Stop Delay (hr)	0.4	0.0	0.0	0.0	0.4
Stop Del/Veh (s)	5.5	0.0	0.0	0.2	2.5
Total Stops	270	0	0	0	270
Stop/Veh	1.00	0.00	0.00	0.00	0.45
Travel Dist (mi)	35.1	57.4	11.4	9.3	113.2
Travel Time (hr)	2.1	1.8	0.4	0.3	4.6
Avg Speed (mph)	17	32	28	29	25
Fuel Used (gal)	1.1	1.9	0.3	0.4	3.8
Fuel Eff. (mpg)	31.7	29.8	32.8	22.8	29.9
HC Emissions (g)	9	25	5	3	42
CO Emissions (g)	247	896	161	204	1508
NOx Emissions (g)	30	81	16	13	139
Vehicles Entered	270	233	50	43	596
Vehicles Exited	269	233	50	42	594
Hourly Exit Rate	269	233	50	42	594
Input Volume	266	249	45	41	602
% of Volume	101	93	110	102	99
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0
Density (ft/veh)					1763
Occupancy (veh)	2	2	0	0	5

10: NE J St & I-49 NB Ramps Performance by movement

Movement	WBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.0
Total Delay (hr)	0.0	0.2	0.3
Total Del/Veh (s)	4.1	3.7	3.8
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	2.4	0.0	0.4
Total Stops	43	0	43
Stop/Veh	1.00	0.00	0.16
Travel Dist (mi)	5.7	47.3	53.1
Travel Time (hr)	0.3	1.7	2.0
Avg Speed (mph)	20	28	27
Fuel Used (gal)	0.2	1.1	1.3
Fuel Eff. (mpg)	35.8	41.3	40.6
HC Emissions (g)	0	11	11
CO Emissions (g)	17	298	316
NOx Emissions (g)	2	36	38
Vehicles Entered	42	233	275
Vehicles Exited	43	232	275
Hourly Exit Rate	43	232	275
Input Volume	41	249	290
% of Volume	104	93	95
Denied Entry Before	0	0	0
Denied Entry After	0	0	0
Density (ft/veh)			2727
Occupancy (veh)	0	2	2

12: NE J St Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.1	0.0	0.0	0.1	0.1	0.4
Total Del/Veh (s)	8.9	6.6	0.3	0.4	4.8	1.2	2.0
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	5.3	2.9	0.0	0.0	1.1	0.4	0.8
Total Stops	44	43	0	0	13	0	100
Stop/Veh	1.00	0.98	0.00	0.00	0.25	0.00	0.15
Travel Dist (mi)	11.3	11.2	15.4	0.8	13.1	66.0	117.8
Travel Time (hr)	0.5	0.5	0.5	0.0	0.5	2.5	4.5
Avg Speed (mph)	23	25	29	28	24	27	26
Fuel Used (gal)	0.3	0.3	0.5	0.0	0.5	2.5	4.1
Fuel Eff. (mpg)	36.8	35.7	31.1	29.0	27.1	26.4	28.6
HC Emissions (g)	1	5	5	0	4	33	49
CO Emissions (g)	40	103	149	10	153	946	1399
NOx Emissions (g)	4	15	15	1	14	104	152
Vehicles Entered	44	44	238	13	52	260	651
Vehicles Exited	44	43	238	13	52	260	650
Hourly Exit Rate	44	43	238	13	52	260	650
Input Volume	42	42	251	13	52	255	656
% of Volume	104	102	95	98	100	102	99
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0
Density (ft/veh)							1026
Occupancy (veh)	0	0	1	0	1	2	5

Total Network Performance

Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.4
Total Delay (hr)	8.3
Total Del/Veh (s)	18.4
Stop Delay (hr)	3.6
Stop Del/Veh (s)	8.0
Total Stops	1866
Stop/Veh	1.15
Travel Dist (mi)	1969.8
Travel Time (hr)	69.8
Avg Speed (mph)	28
Fuel Used (gal)	61.1
Fuel Eff. (mpg)	32.2
HC Emissions (g)	653
CO Emissions (g)	18393
NOx Emissions (g)	2152
Vehicles Entered	1560
Vehicles Exited	1551
Hourly Exit Rate	1551
Input Volume	5132
% of Volume	30
Denied Entry Before	0
Denied Entry After	1
Density (ft/veh)	712
Occupancy (veh)	70

Intersection: 3: NE J St & Tiger Blvd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	T	R
Maximum Queue (ft)	62	113	100	57	203	60	79	87	98	72
Average Queue (ft)	26	58	50	18	97	26	32	46	47	23
95th Queue (ft)	48	95	84	46	166	51	60	73	79	51
Link Distance (ft)		2872			3227		2521		2720	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	125		225	300		400		100		100
Storage Blk Time (%)		0			0			0	0	0
Queuing Penalty (veh)		0			0			0	0	0

Intersection: 8: NE J St & I-49 SB Ramps

Movement	WB	WB	NB
Directions Served	L	L	TR
Maximum Queue (ft)	53	107	8
Average Queue (ft)	26	57	0
95th Queue (ft)	50	91	6
Link Distance (ft)		685	1250
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	300		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: NE J St & I-49 NB Ramps

Movement	WB
Directions Served	L
Maximum Queue (ft)	50
Average Queue (ft)	23
95th Queue (ft)	49
Link Distance (ft)	712
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: NE J St

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	61	45
Average Queue (ft)	35	11
95th Queue (ft)	57	38
Link Distance (ft)	1366	1250
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 1

3: NE J St & Tiger Blvd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.4	0.4	0.4	0.5	0.5	0.4	0.7	0.5	0.4	0.0	0.0	0.0
Total Delay (hr)	0.2	1.5	0.4	0.5	7.9	2.5	1.4	0.3	0.2	0.7	0.4	0.2
Total Del/Veh (s)	13.4	20.7	8.2	28.3	82.8	72.7	19.6	15.7	9.2	14.6	15.9	10.2
Stop Delay (hr)	0.1	1.0	0.3	0.4	7.5	2.5	1.2	0.2	0.2	0.5	0.2	0.1
Stop Del/Veh (s)	8.6	13.8	5.1	21.0	78.7	72.0	15.8	9.7	7.7	10.0	9.4	7.2
Total Stops	56	252	189	79	335	119	260	77	82	162	89	68
Stop/Veh	0.98	0.98	0.98	1.23	0.98	0.97	0.98	0.97	0.98	0.98	0.97	0.99
Travel Dist (mi)	30.3	137.4	103.4	38.2	203.9	73.5	124.0	37.1	39.6	85.3	46.9	36.0
Travel Time (hr)	1.1	5.5	3.6	1.7	13.8	4.7	5.2	1.4	1.5	3.2	1.8	1.3
Avg Speed (mph)	27	25	29	23	15	16	24	26	27	26	27	28
Fuel Used (gal)	0.8	3.8	2.7	1.1	6.7	2.4	3.5	1.0	1.1	2.3	1.2	0.9
Fuel Eff. (mpg)	36.8	36.5	37.7	34.0	30.4	31.0	35.7	37.0	36.9	37.4	38.2	38.4
HC Emissions (g)	6	35	31	7	56	14	29	6	13	23	16	8
CO Emissions (g)	136	729	657	221	1173	328	695	153	286	392	260	144
NOx Emissions (g)	20	115	100	27	174	48	99	22	42	76	49	28
Vehicles Entered	55	252	191	63	334	120	259	77	83	164	90	69
Vehicles Exited	56	251	189	62	333	119	260	78	82	163	89	68
Hourly Exit Rate	56	251	189	62	333	119	260	78	82	163	89	68
Input Volume	53	253	198	62	334	128	248	75	89	161	95	67
% of Volume	106	99	96	100	100	93	105	104	92	101	94	101
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	1	5	4	2	14	5	5	1	1	3	2	1

3: NE J St & Tiger Blvd Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.4
Total Delay (hr)	16.2
Total Del/Veh (s)	32.7
Stop Delay (hr)	14.1
Stop Del/Veh (s)	28.3
Total Stops	1768
Stop/Veh	0.99
Travel Dist (mi)	955.6
Travel Time (hr)	44.8
Avg Speed (mph)	21
Fuel Used (gal)	27.5
Fuel Eff. (mpg)	34.7
HC Emissions (g)	244
CO Emissions (g)	5173
NOx Emissions (g)	800
Vehicles Entered	1757
Vehicles Exited	1750
Hourly Exit Rate	1750
Input Volume	1762
% of Volume	99
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	635
Occupancy (veh)	45

8: NE J St & I-49 SB Ramps Performance by movement

Movement	WBL	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.5	0.0	0.0	0.0	0.2
Total Delay (hr)	0.7	0.1	0.0	0.0	0.9
Total Del/Veh (s)	8.2	1.8	3.6	0.9	4.7
Stop Delay (hr)	0.5	0.0	0.0	0.0	0.5
Stop Del/Veh (s)	6.0	0.0	0.0	0.2	2.7
Total Stops	299	1	0	0	300
Stop/Veh	0.99	0.00	0.00	0.00	0.44
Travel Dist (mi)	38.8	69.0	11.5	10.7	129.9
Travel Time (hr)	2.4	2.1	0.4	0.4	5.3
Avg Speed (mph)	17	32	29	29	25
Fuel Used (gal)	1.2	2.1	0.3	0.5	4.1
Fuel Eff. (mpg)	31.1	33.5	38.5	22.3	31.8
HC Emissions (g)	12	21	4	7	42
CO Emissions (g)	308	636	94	279	1316
NOx Emissions (g)	37	72	12	22	144
Vehicles Entered	298	281	50	48	677
Vehicles Exited	298	281	50	49	678
Hourly Exit Rate	298	281	50	49	678
Input Volume	299	281	50	46	676
% of Volume	100	100	100	106	100
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0
Density (ft/veh)					1544
Occupancy (veh)	2	2	0	0	5

10: NE J St & I-49 NB Ramps Performance by movement

Movement	WBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.0
Total Delay (hr)	0.1	0.3	0.4
Total Del/Veh (s)	4.0	3.8	3.9
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	2.4	0.0	0.4
Total Stops	49	0	49
Stop/Veh	1.00	0.00	0.15
Travel Dist (mi)	6.5	56.4	62.9
Travel Time (hr)	0.3	2.0	2.4
Avg Speed (mph)	20	28	27
Fuel Used (gal)	0.2	1.4	1.5
Fuel Eff. (mpg)	35.3	41.4	40.7
HC Emissions (g)	1	10	11
CO Emissions (g)	31	310	341
NOx Emissions (g)	4	35	39
Vehicles Entered	48	277	325
Vehicles Exited	48	277	325
Hourly Exit Rate	48	277	325
Input Volume	46	280	326
% of Volume	104	99	100
Denied Entry Before	0	0	0
Denied Entry After	0	0	0
Density (ft/veh)			2291
Occupancy (veh)	0	2	2

12: NE J St Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.5	0.0	0.0	0.1
Total Delay (hr)	0.1	0.1	0.0	0.0	0.1	0.1	0.4
Total Del/Veh (s)	10.2	6.9	0.4	0.4	5.5	1.3	2.1
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	6.6	3.2	0.0	0.0	1.0	0.4	0.8
Total Stops	39	43	0	0	14	0	96
Stop/Veh	1.00	1.00	0.00	0.00	0.22	0.00	0.13
Travel Dist (mi)	10.1	11.2	16.9	1.1	15.7	71.9	126.9
Travel Time (hr)	0.5	0.5	0.5	0.0	0.6	2.4	4.5
Avg Speed (mph)	22	24	33	32	26	30	28
Fuel Used (gal)	0.3	0.3	0.7	0.0	0.6	2.9	4.8
Fuel Eff. (mpg)	35.0	35.8	25.6	26.7	25.4	24.6	26.2
HC Emissions (g)	2	4	8	0	5	47	67
CO Emissions (g)	56	83	379	22	283	1548	2370
NOx Emissions (g)	8	12	25	1	20	151	216
Vehicles Entered	39	43	288	18	63	284	735
Vehicles Exited	39	43	288	18	63	284	735
Hourly Exit Rate	39	43	288	18	63	284	735
Input Volume	40	41	290	15	64	282	733
% of Volume	98	104	99	118	98	101	100
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0
Density (ft/veh)							1035
Occupancy (veh)	0	0	1	0	1	2	4

Total Network Performance

Denied Delay (hr)	0.3
Denied Del/Veh (s)	0.5
Total Delay (hr)	20.4
Total Del/Veh (s)	36.8
Stop Delay (hr)	15.2
Stop Del/Veh (s)	27.4
Total Stops	2213
Stop/Veh	1.11
Travel Dist (mi)	2343.5
Travel Time (hr)	92.3
Avg Speed (mph)	25
Fuel Used (gal)	75.3
Fuel Eff. (mpg)	31.1
HC Emissions (g)	803
CO Emissions (g)	23079
NOx Emissions (g)	2669
Vehicles Entered	1915
Vehicles Exited	1909
Hourly Exit Rate	1909
Input Volume	5990
% of Volume	32
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	538
Occupancy (veh)	92

Intersection: 3: NE J St & Tiger Blvd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	T	R
Maximum Queue (ft)	58	166	85	334	644	148	91	112	88	67
Average Queue (ft)	29	73	44	119	326	80	42	56	41	32
95th Queue (ft)	55	130	75	377	676	135	75	93	71	57
Link Distance (ft)		2872			3227		2521		2720	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	125		225	300		400		100		100
Storage Blk Time (%)		2			35			1	0	0
Queuing Penalty (veh)		6			22			1	0	0

Intersection: 8: NE J St & I-49 SB Ramps

Movement	WB	WB	NB
Directions Served	L	L	TR
Maximum Queue (ft)	56	125	5
Average Queue (ft)	29	58	0
95th Queue (ft)	51	96	4
Link Distance (ft)		685	1250
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	300		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: NE J St & I-49 NB Ramps

Movement	WB
Directions Served	L
Maximum Queue (ft)	58
Average Queue (ft)	26
95th Queue (ft)	51
Link Distance (ft)	712
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: NE J St

Movement	WB	NB	SB
Directions Served	LR	TR	L
Maximum Queue (ft)	70	4	40
Average Queue (ft)	36	0	12
95th Queue (ft)	59	3	37
Link Distance (ft)	1366		1250
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		85	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 29

Intersection	
Intersection Delay, s/veh	164
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	88	359	350	39	377	209	103	88	90	172	209	51
Future Vol, veh/h	88	359	350	39	377	209	103	88	90	172	209	51
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	96	390	380	42	410	227	112	96	98	187	227	55
Number of Lanes	1	1	1	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	85.8	414	29.2	34.1
HCM LOS	F	F	D	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	49%	0%	100%	0%	0%	64%	0%	100%	0%
Vol Right, %	0%	51%	0%	0%	100%	0%	36%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	103	178	88	359	350	39	586	172	209	51
LT Vol	103	0	88	0	0	39	0	172	0	0
Through Vol	0	88	0	359	0	0	377	0	209	0
RT Vol	0	90	0	0	350	0	209	0	0	51
Lane Flow Rate	112	193	96	390	380	42	637	187	227	55
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.366	0.587	0.277	1.076	0.975	0.135	1.9	0.585	0.679	0.155
Departure Headway (Hd)	13.712	12.803	12.406	11.875	11.132	11.717	10.939	13.366	12.833	12.087
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	264	284	292	308	331	308	338	273	284	299
Service Time	11.412	10.503	10.106	9.575	8.832	9.417	8.639	11.066	10.533	9.787
HCM Lane V/C Ratio	0.424	0.68	0.329	1.266	1.148	0.136	1.885	0.685	0.799	0.184
HCM Control Delay	24.1	32.2	19.8	109.4	78.3	16.2	440.5	33.3	38.9	17
HCM Lane LOS	C	D	C	F	F	C	F	D	E	C
HCM 95th-tile Q	1.6	3.4	1.1	12.6	10.4	0.5	42.5	3.4	4.5	0.5

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	60	0	0	363	0	0
Future Vol, veh/h	60	0	0	363	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	Yield	-	None
Storage Length	0	200	-	-	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	65	0	0	395	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	199	198	0	0	0	0
Stage 1	198	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	771	810	-	-	-	-
Stage 1	816	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	771	810	-	-	-	-
Mov Cap-2 Maneuver	771	-	-	-	-	-
Stage 1	816	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	771	-	-	-
HCM Lane V/C Ratio	-	-	0.085	-	-	-
HCM Control Delay (s)	-	-	10.1	0	0	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.3	-	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	61	62	366	19	76	371
Future Vol, veh/h	61	62	366	19	76	371
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	-	-	85	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	66	67	398	21	83	403

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	978	210	0	0	419	0
Stage 1	409	-	-	-	-	-
Stage 2	569	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	262	796	-	-	1138	-
Stage 1	640	-	-	-	-	-
Stage 2	565	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	243	796	-	-	1138	-
Mov Cap-2 Maneuver	372	-	-	-	-	-
Stage 1	640	-	-	-	-	-
Stage 2	524	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.6	0	1.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	509	1138	-
HCM Lane V/C Ratio	-	-	0.263	0.073	-
HCM Control Delay (s)	-	-	14.6	8.4	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	1	0.2	-

Intersection	
Intersection Delay, s/veh	266.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	77	368	288	90	487	186	361	109	129	234	138	97
Future Vol, veh/h	77	368	288	90	487	186	361	109	129	234	138	97
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	84	400	313	98	529	202	392	118	140	254	150	105
Number of Lanes	1	1	1	1	1	0	1	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	132.2	612.9	154.7	53.2
HCM LOS	F	F	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	0%	46%	0%	100%	0%	0%	72%	0%	100%	0%
Vol Right, %	0%	54%	0%	0%	100%	0%	28%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	361	238	77	368	288	90	673	234	138	97
LT Vol	361	0	77	0	0	90	0	234	0	0
Through Vol	0	109	0	368	0	0	487	0	138	0
RT Vol	0	129	0	0	288	0	186	0	0	97
Lane Flow Rate	392	259	84	400	313	98	732	254	150	105
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	1.343	0.823	0.28	1.285	0.945	0.347	2.455	0.89	0.504	0.334
Departure Headway (Hd)	15.029	14.086	15.254	14.715	13.959	13.744	13.017	15.865	15.325	14.569
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	247	259	237	252	263	263	285	231	237	249
Service Time	12.729	11.786	12.954	12.415	11.659	11.444	10.717	13.565	13.025	12.269
HCM Lane V/C Ratio	1.587	1	0.354	1.587	1.19	0.373	2.568	1.1	0.633	0.422
HCM Control Delay	217.5	59.4	23.8	193.9	82.3	23.6	691.7	77.3	32.6	24.4
HCM Lane LOS	F	F	C	F	F	C	F	F	D	C
HCM 95th-tile Q	17.3	6.5	1.1	16.1	8.7	1.5	54.9	7.3	2.6	1.4

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	67	0	0	408	0	0
Future Vol, veh/h	67	0	0	408	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	Yield	-	None
Storage Length	0	200	-	-	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	73	0	0	443	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	223	222	0	0	0	0
Stage 1	222	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	745	782	-	-	-	-
Stage 1	794	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	745	782	-	-	-	-
Mov Cap-2 Maneuver	745	-	-	-	-	-
Stage 1	794	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	745	-	-	-
HCM Lane V/C Ratio	-	-	0.098	-	-	-
HCM Control Delay (s)	-	-	10.4	0	0	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.3	-	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	59	59	422	22	93	410
Future Vol, veh/h	59	59	422	22	93	410
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	-	-	85	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	64	64	459	24	101	446

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1119	242	0	0	483	0
Stage 1	471	-	-	-	-	-
Stage 2	648	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	214	759	-	-	1078	-
Stage 1	595	-	-	-	-	-
Stage 2	520	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	194	759	-	-	1078	-
Mov Cap-2 Maneuver	327	-	-	-	-	-
Stage 1	595	-	-	-	-	-
Stage 2	471	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.9	0	1.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	457	1078	-
HCM Lane V/C Ratio	-	-	0.281	0.094	-
HCM Control Delay (s)	-	-	15.9	8.7	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	1.1	0.3	-

3: NE J St & Tiger Blvd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.8	0.8	0.8	0.8	0.7	0.8	0.6	0.3	0.3	0.0	0.0	0.0
Total Delay (hr)	0.5	3.9	2.1	2.9	37.6	20.7	0.3	0.4	0.2	0.8	1.1	0.1
Total Del/Veh (s)	22.5	38.3	21.7	274.5	336.5	342.8	10.8	15.4	8.3	16.3	19.6	9.5
Stop Delay (hr)	0.3	3.1	1.5	3.0	39.4	21.9	0.2	0.2	0.2	0.5	0.7	0.1
Stop Del/Veh (s)	14.1	29.8	15.7	281.9	352.7	363.0	8.0	9.9	7.3	10.9	12.3	5.6
Total Stops	95	362	368	68	391	209	99	84	83	171	197	49
Stop/Veh	1.12	0.98	1.04	1.79	0.97	0.96	0.98	0.99	0.98	0.99	0.98	0.98
Travel Dist (mi)	45.9	196.7	189.5	21.6	224.1	120.5	47.4	40.6	39.8	89.6	103.0	25.8
Travel Time (hr)	1.9	9.7	8.0	3.5	44.1	24.4	1.7	1.5	1.4	3.5	4.1	0.9
Avg Speed (mph)	24	21	24	6	5	5	27	26	28	26	25	28
Fuel Used (gal)	1.3	5.7	5.3	1.2	13.2	7.3	1.3	1.1	1.1	2.6	2.9	0.7
Fuel Eff. (mpg)	35.8	34.4	36.1	18.5	17.0	16.6	36.8	37.7	37.1	34.9	35.3	36.2
HC Emissions (g)	11	52	46	3	41	23	11	9	18	21	26	7
CO Emissions (g)	231	1059	980	168	1483	805	280	216	356	531	631	164
NOx Emissions (g)	36	163	151	13	109	61	38	32	56	71	87	22
Vehicles Entered	84	362	348	37	391	209	100	85	83	171	196	50
Vehicles Exited	83	358	347	33	333	180	98	84	83	170	197	49
Hourly Exit Rate	83	358	347	33	333	180	98	84	83	170	197	49
Input Volume	88	359	350	39	377	209	103	88	90	172	209	51
% of Volume	95	100	99	85	88	86	95	96	92	99	94	96
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	2	10	8	4	44	24	2	2	1	3	4	1

3: NE J St & Tiger Blvd Performance by movement

Movement	All
Denied Delay (hr)	0.3
Denied Del/Veh (s)	0.6
Total Delay (hr)	70.6
Total Del/Veh (s)	117.5
Stop Delay (hr)	71.1
Stop Del/Veh (s)	118.4
Total Stops	2176
Stop/Veh	1.01
Travel Dist (mi)	1144.6
Travel Time (hr)	104.9
Avg Speed (mph)	11
Fuel Used (gal)	43.5
Fuel Eff. (mpg)	26.3
HC Emissions (g)	268
CO Emissions (g)	6903
NOx Emissions (g)	838
Vehicles Entered	2116
Vehicles Exited	2015
Hourly Exit Rate	2015
Input Volume	2135
% of Volume	94
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	271
Occupancy (veh)	105

8: NE J St & I-49 SB Ramps Performance by movement

Movement	WBL	NBT	NBR	SBT	All
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.6	0.0	0.0	0.0	0.3
Total Delay (hr)	1.2	0.2	0.1	0.0	1.5
Total Del/Veh (s)	11.4	2.2	4.0	1.0	6.4
Stop Delay (hr)	1.0	0.0	0.0	0.0	1.0
Stop Del/Veh (s)	9.1	0.1	0.0	0.2	4.2
Total Stops	379	1	0	0	380
Stop/Veh	1.00	0.00	0.00	0.00	0.45
Travel Dist (mi)	48.9	81.1	14.6	13.2	157.8
Travel Time (hr)	3.3	2.6	0.5	0.5	6.9
Avg Speed (mph)	15	32	28	29	23
Fuel Used (gal)	1.6	2.8	0.4	0.6	5.4
Fuel Eff. (mpg)	29.7	29.4	33.6	21.8	29.0
HC Emissions (g)	10	31	4	9	53
CO Emissions (g)	338	1234	159	346	2078
NOx Emissions (g)	38	103	13	28	183
Vehicles Entered	376	328	64	60	828
Vehicles Exited	377	330	64	60	831
Hourly Exit Rate	377	330	64	60	831
Input Volume	387	363	65	60	875
% of Volume	97	91	98	100	95
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0
Density (ft/veh)					1183
Occupancy (veh)	3	3	1	0	7

10: NE J St & I-49 NB Ramps Performance by movement

Movement	WBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.0
Total Delay (hr)	0.1	0.4	0.5
Total Del/Veh (s)	4.1	4.4	4.3
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	2.5	0.0	0.4
Total Stops	60	1	61
Stop/Veh	1.00	0.00	0.16
Travel Dist (mi)	8.1	67.1	75.2
Travel Time (hr)	0.4	2.5	2.9
Avg Speed (mph)	20	27	26
Fuel Used (gal)	0.2	1.7	1.9
Fuel Eff. (mpg)	34.9	39.9	39.3
HC Emissions (g)	2	15	17
CO Emissions (g)	38	464	503
NOx Emissions (g)	6	52	57
Vehicles Entered	60	330	390
Vehicles Exited	60	330	390
Hourly Exit Rate	60	330	390
Input Volume	60	363	422
% of Volume	100	91	92
Denied Entry Before	0	0	0
Denied Entry After	0	0	0
Density (ft/veh)			1884
Occupancy (veh)	0	2	3

12: NE J St Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.1	0.0	0.0	0.1	0.1	0.6
Total Del/Veh (s)	12.2	7.0	0.4	0.4	4.9	1.4	2.4
Stop Delay (hr)	0.1	0.1	0.0	0.0	0.0	0.0	0.3
Stop Del/Veh (s)	8.4	3.3	0.0	0.0	1.1	0.4	1.0
Total Stops	56	62	0	0	21	0	139
Stop/Veh	0.98	0.98	0.00	0.00	0.27	0.00	0.15
Travel Dist (mi)	14.4	16.0	21.5	1.0	19.5	90.9	163.3
Travel Time (hr)	0.7	0.7	0.8	0.0	0.8	3.5	6.4
Avg Speed (mph)	21	24	28	28	24	26	25
Fuel Used (gal)	0.4	0.4	0.7	0.0	0.7	3.5	5.8
Fuel Eff. (mpg)	34.9	35.8	30.3	29.2	26.8	26.3	28.2
HC Emissions (g)	3	4	7	0	6	38	59
CO Emissions (g)	72	94	232	12	235	1151	1795
NOx Emissions (g)	9	12	22	1	22	125	190
Vehicles Entered	55	62	332	16	77	360	902
Vehicles Exited	56	62	331	16	79	360	904
Hourly Exit Rate	56	62	331	16	79	360	904
Input Volume	61	62	367	19	76	372	956
% of Volume	92	100	90	85	104	97	95
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0
Density (ft/veh)							727
Occupancy (veh)	1	1	1	0	1	3	6

Total Network Performance

Denied Delay (hr)	0.4
Denied Del/Veh (s)	0.7
Total Delay (hr)	76.1
Total Del/Veh (s)	115.8
Stop Delay (hr)	72.8
Stop Del/Veh (s)	110.9
Total Stops	2756
Stop/Veh	1.17
Travel Dist (mi)	2765.8
Travel Time (hr)	162.6
Avg Speed (mph)	17
Fuel Used (gal)	99.2
Fuel Eff. (mpg)	27.9
HC Emissions (g)	866
CO Emissions (g)	26152
NOx Emissions (g)	2836
Vehicles Entered	2255
Vehicles Exited	2158
Hourly Exit Rate	2158
Input Volume	7477
% of Volume	29
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	306
Occupancy (veh)	162

Intersection: 3: NE J St & Tiger Blvd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	T	R
Maximum Queue (ft)	190	521	325	400	2782	67	106	110	151	71
Average Queue (ft)	54	156	112	232	1600	32	43	60	67	28
95th Queue (ft)	152	421	261	551	3040	56	79	99	113	55
Link Distance (ft)		2872			3227		2521		2720	
Upstream Blk Time (%)					1					
Queuing Penalty (veh)					0					
Storage Bay Dist (ft)	125		225	300		400		100		100
Storage Blk Time (%)	0	20	2		88			1	2	0
Queuing Penalty (veh)	0	91	8		34			3	4	0

Intersection: 8: NE J St & I-49 SB Ramps

Movement	WB	WB	NB	SB
Directions Served	L	L	TR	T
Maximum Queue (ft)	137	165	18	4
Average Queue (ft)	41	81	1	0
95th Queue (ft)	86	135	10	3
Link Distance (ft)		685	1250	1086
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	300			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 10: NE J St & I-49 NB Ramps

Movement	WB
Directions Served	L
Maximum Queue (ft)	65
Average Queue (ft)	29
95th Queue (ft)	54
Link Distance (ft)	712
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: NE J St

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	74	49
Average Queue (ft)	41	15
95th Queue (ft)	65	43
Link Distance (ft)	1366	1250
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 141

3: NE J St & Tiger Blvd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.2	0.7	0.5	7.7	47.6	17.7	0.3	0.1	0.1	0.0	0.0	0.0
Denied Del/Veh (s)	7.7	7.0	6.8	332.1	352.9	337.6	2.8	1.9	1.8	0.0	0.0	0.0
Total Delay (hr)	4.3	28.4	13.6	11.4	70.4	28.4	26.3	4.8	5.3	1.5	0.9	0.4
Total Del/Veh (s)	205.4	270.9	177.3	624.3	686.6	700.6	255.4	166.0	152.1	23.7	22.8	14.1
Stop Delay (hr)	4.4	29.1	13.7	12.0	74.0	30.0	27.0	4.7	5.3	1.2	0.6	0.3
Stop Del/Veh (s)	206.7	277.5	178.5	652.8	722.4	739.9	261.5	162.5	151.4	18.8	15.7	10.3
Total Stops	133	379	450	83	176	70	392	163	196	229	133	98
Stop/Veh	1.75	1.00	1.62	1.26	0.48	0.48	1.06	1.57	1.57	0.98	0.98	0.97
Travel Dist (mi)	38.9	194.1	141.8	34.4	187.5	75.7	166.3	47.3	57.3	120.4	70.0	51.6
Travel Time (hr)	5.7	34.8	18.5	20.1	123.4	48.4	31.6	6.2	7.1	5.1	2.9	2.0
Avg Speed (mph)	7	6	8	3	2	2	5	8	8	23	24	26
Fuel Used (gal)	1.9	10.8	6.6	5.1	30.5	11.9	9.8	2.3	2.6	3.3	1.9	1.4
Fuel Eff. (mpg)	20.5	17.9	21.4	6.8	6.2	6.4	17.0	20.8	21.8	36.4	37.6	37.2
HC Emissions (g)	11	56	39	27	71	59	42	10	17	26	12	12
CO Emissions (g)	310	1515	1116	703	2725	1441	1332	358	520	468	226	219
NOx Emissions (g)	32	142	115	42	132	79	126	33	52	89	44	40
Vehicles Entered	75	368	271	63	347	139	363	102	123	230	135	99
Vehicles Exited	67	334	248	51	281	109	320	94	115	231	134	98
Hourly Exit Rate	67	334	248	51	281	109	320	94	115	231	134	98
Input Volume	77	368	288	90	487	186	361	109	129	234	139	97
% of Volume	87	91	86	57	58	59	89	86	89	99	96	101
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	1	3	2	20	139	50	2	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	6	34	18	12	76	31	31	6	7	5	3	2

3: NE J St & Tiger Blvd Performance by movement

Movement	All
Denied Delay (hr)	74.8
Denied Del/Veh (s)	106.4
Total Delay (hr)	195.9
Total Del/Veh (s)	296.0
Stop Delay (hr)	202.3
Stop Del/Veh (s)	305.7
Total Stops	2502
Stop/Veh	1.05
Travel Dist (mi)	1185.3
Travel Time (hr)	305.9
Avg Speed (mph)	5
Fuel Used (gal)	88.0
Fuel Eff. (mpg)	13.5
HC Emissions (g)	382
CO Emissions (g)	10933
NOx Emissions (g)	927
Vehicles Entered	2315
Vehicles Exited	2082
Hourly Exit Rate	2082
Input Volume	2565
% of Volume	81
Denied Entry Before	0
Denied Entry After	217
Density (ft/veh)	123
Occupancy (veh)	231

8: NE J St & I-49 SB Ramps Performance by movement

Movement	WBL	NBT	NBR	SBT	All
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.8	0.0	0.0	0.0	0.4
Total Delay (hr)	1.4	0.2	0.1	0.0	1.7
Total Del/Veh (s)	11.6	2.2	3.8	1.0	6.9
Stop Delay (hr)	1.1	0.0	0.0	0.0	1.2
Stop Del/Veh (s)	9.2	0.0	0.1	0.2	4.6
Total Stops	450	1	0	0	451
Stop/Veh	1.00	0.00	0.00	0.00	0.50
Travel Dist (mi)	57.9	80.3	14.4	13.4	166.0
Travel Time (hr)	4.0	2.5	0.5	0.5	7.4
Avg Speed (mph)	15	32	29	29	23
Fuel Used (gal)	1.9	2.4	0.4	0.6	5.4
Fuel Eff. (mpg)	29.9	33.0	36.6	22.5	31.0
HC Emissions (g)	12	29	5	6	53
CO Emissions (g)	397	887	144	326	1753
NOx Emissions (g)	44	99	16	23	182
Vehicles Entered	444	326	63	61	894
Vehicles Exited	446	326	63	61	896
Hourly Exit Rate	446	326	63	61	896
Input Volume	436	408	74	67	985
% of Volume	102	80	85	91	91
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0
Density (ft/veh)					1094
Occupancy (veh)	4	3	1	0	7

10: NE J St & I-49 NB Ramps Performance by movement

Movement	WBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.0
Total Delay (hr)	0.1	0.4	0.4
Total Del/Veh (s)	4.0	4.1	4.1
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	2.4	0.0	0.4
Total Stops	61	0	61
Stop/Veh	1.00	0.00	0.16
Travel Dist (mi)	8.2	66.3	74.5
Travel Time (hr)	0.4	2.4	2.8
Avg Speed (mph)	20	28	26
Fuel Used (gal)	0.2	1.6	1.9
Fuel Eff. (mpg)	36.0	40.3	39.8
HC Emissions (g)	1	19	20
CO Emissions (g)	30	535	565
NOx Emissions (g)	4	60	64
Vehicles Entered	60	326	386
Vehicles Exited	61	326	387
Hourly Exit Rate	61	326	387
Input Volume	67	408	475
% of Volume	91	80	82
Denied Entry Before	0	0	0
Denied Entry After	0	0	0
Density (ft/veh)			1920
Occupancy (veh)	0	2	3

12: NE J St Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.3	1.1	0.0	0.0	0.1
Total Delay (hr)	0.2	0.1	0.0	0.0	0.2	0.2	0.7
Total Del/Veh (s)	13.9	7.9	0.4	0.6	5.8	1.5	2.6
Stop Delay (hr)	0.1	0.1	0.0	0.0	0.0	0.0	0.3
Stop Del/Veh (s)	10.2	4.1	0.0	0.0	1.2	0.4	1.1
Total Stops	52	60	0	0	25	0	137
Stop/Veh	1.00	0.98	0.00	0.00	0.27	0.00	0.14
Travel Dist (mi)	13.3	15.6	18.7	1.0	23.2	104.7	176.6
Travel Time (hr)	0.7	0.7	0.6	0.0	0.9	3.6	6.4
Avg Speed (mph)	20	24	32	31	26	29	28
Fuel Used (gal)	0.4	0.4	0.8	0.0	0.9	4.3	6.8
Fuel Eff. (mpg)	33.9	35.7	24.6	23.0	25.9	24.4	25.9
HC Emissions (g)	3	5	11	0	12	50	80
CO Emissions (g)	71	102	484	25	468	1998	3148
NOx Emissions (g)	8	13	34	1	39	176	271
Vehicles Entered	51	60	329	17	93	415	965
Vehicles Exited	52	60	328	17	93	412	962
Hourly Exit Rate	52	60	328	17	93	412	962
Input Volume	59	59	422	22	93	411	1065
% of Volume	89	102	78	78	100	100	90
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0
Density (ft/veh)							729
Occupancy (veh)	1	1	1	0	1	4	6

Total Network Performance

Denied Delay (hr)	75.0
Denied Del/Veh (s)	97.7
Total Delay (hr)	201.8
Total Del/Veh (s)	271.8
Stop Delay (hr)	204.3
Stop Del/Veh (s)	275.1
Total Stops	3151
Stop/Veh	1.18
Travel Dist (mi)	2886.1
Travel Time (hr)	365.2
Avg Speed (mph)	10
Fuel Used (gal)	146.7
Fuel Eff. (mpg)	19.7
HC Emissions (g)	1075
CO Emissions (g)	33365
NOx Emissions (g)	3238
Vehicles Entered	2544
Vehicles Exited	2314
Hourly Exit Rate	2314
Input Volume	8718
% of Volume	27
Denied Entry Before	0
Denied Entry After	217
Density (ft/veh)	171
Occupancy (veh)	290

Intersection: 3: NE J St & Tiger Blvd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	T	R
Maximum Queue (ft)	225	2126	325	400	3284	425	1749	167	112	89
Average Queue (ft)	175	1238	270	328	2754	341	872	86	55	44
95th Queue (ft)	317	2706	448	577	4098	542	2089	145	91	76
Link Distance (ft)		2872			3227		2521		2720	
Upstream Blk Time (%)		6			65		3			
Queuing Penalty (veh)		0			0		0			
Storage Bay Dist (ft)	125		225	300		400		100		100
Storage Blk Time (%)	0	91			100	62	5	9	1	0
Queuing Penalty (veh)	0	335			90	148	18	22	3	0

Intersection: 8: NE J St & I-49 SB Ramps

Movement	WB	WB	NB
Directions Served	L	L	TR
Maximum Queue (ft)	162	183	11
Average Queue (ft)	50	88	0
95th Queue (ft)	106	144	6
Link Distance (ft)		685	1250
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	300		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: NE J St & I-49 NB Ramps

Movement	WB
Directions Served	L
Maximum Queue (ft)	49
Average Queue (ft)	28
95th Queue (ft)	45
Link Distance (ft)	712
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: NE J St

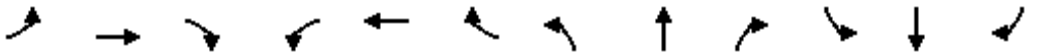
Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	91	49
Average Queue (ft)	42	19
95th Queue (ft)	72	47
Link Distance (ft)	1366	1250
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 615

HCM 6th Signalized Intersection Summary
3: NE J St & Tiger Blvd

11/17/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	246	240	27	259	143	71	60	62	118	143	35
Future Volume (veh/h)	60	246	240	27	259	143	71	60	62	118	143	35
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	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	65	267	28	29	282	129	77	65	15	128	155	-7
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	343	582	493	456	346	158	353	166	38	418	248	210
Arrive On Green	0.06	0.34	0.34	0.03	0.31	0.31	0.07	0.12	0.12	0.09	0.14	0.00
Sat Flow, veh/h	1641	1723	1460	1641	1119	512	1641	1354	312	1641	1723	1460
Grp Volume(v), veh/h	65	267	28	29	0	411	77	0	80	128	155	-7
Grp Sat Flow(s),veh/h/ln	1641	1723	1460	1641	0	1631	1641	0	1666	1641	1723	1460
Q Serve(g_s), s	1.1	5.3	0.6	0.5	0.0	10.1	1.7	0.0	1.9	2.9	3.7	0.0
Cycle Q Clear(g_c), s	1.1	5.3	0.6	0.5	0.0	10.1	1.7	0.0	1.9	2.9	3.7	0.0
Prop In Lane	1.00		1.00	1.00		0.31	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	343	582	493	456	0	504	353	0	205	418	248	210
V/C Ratio(X)	0.19	0.46	0.06	0.06	0.00	0.81	0.22	0.00	0.39	0.31	0.63	-0.03
Avail Cap(c_a), veh/h	429	734	622	590	0	695	428	0	707	462	734	622
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	10.2	11.3	9.7	9.0	0.0	13.8	14.3	0.0	17.5	14.6	17.5	0.0
Incr Delay (d2), s/veh	0.3	0.6	0.0	0.1	0.0	5.3	0.3	0.0	1.2	0.4	2.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.6	2.9	0.3	0.2	0.0	6.5	1.0	0.0	1.3	1.7	2.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.4	11.8	9.7	9.1	0.0	19.2	14.6	0.0	18.8	15.0	20.1	0.0
LnGrp LOS	B	B	A	A	A	B	B	A	B	B	C	A
Approach Vol, veh/h		360			440			157			276	
Approach Delay, s/veh		11.4			18.5			16.7			18.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	9.8	6.0	19.2	7.5	10.7	7.2	17.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.1	18.4	5.0	18.5	5.0	18.5	5.0	18.5
Max Q Clear Time (g_c+I1), s	4.9	3.9	2.5	7.3	3.7	5.7	3.1	12.1
Green Ext Time (p_c), s	0.0	0.3	0.0	1.1	0.0	0.6	0.0	1.3

Intersection Summary	
HCM 6th Ctrl Delay	16.1
HCM 6th LOS	B

Notes

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

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	41	0	0	249	0	0
Future Vol, veh/h	41	0	0	249	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	Yield	-	None
Storage Length	0	200	-	-	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	45	0	0	271	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	137	136	0	0	0	0
Stage 1	136	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	842	888	-	-	-	-
Stage 1	876	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	842	888	-	-	-	-
Mov Cap-2 Maneuver	842	-	-	-	-	-
Stage 1	876	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	842	-	-	-
HCM Lane V/C Ratio	-	-	0.053	-	-	-
HCM Control Delay (s)	-	-	9.5	0	0	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	-	-	-

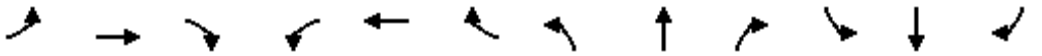
Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	42	42	251	13	52	255
Future Vol, veh/h	42	42	251	13	52	255
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	-	-	85	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	46	273	14	57	277

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	671	144	0	0	287	0
Stage 1	280	-	-	-	-	-
Stage 2	391	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	405	878	-	-	1274	-
Stage 1	743	-	-	-	-	-
Stage 2	683	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	387	878	-	-	1274	-
Mov Cap-2 Maneuver	492	-	-	-	-	-
Stage 1	743	-	-	-	-	-
Stage 2	652	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.7	0	1.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	631	1274	-
HCM Lane V/C Ratio	-	-	0.145	0.044	-
HCM Control Delay (s)	-	-	11.7	8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	253	198	62	334	128	248	75	89	161	95	67
Future Volume (veh/h)	53	253	198	62	334	128	248	75	89	161	95	67
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	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	58	275	23	67	363	126	270	82	52	175	103	-26
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	306	601	510	484	433	150	421	127	81	381	188	159
Arrive On Green	0.05	0.35	0.35	0.06	0.35	0.35	0.13	0.13	0.13	0.11	0.11	0.00
Sat Flow, veh/h	1641	1723	1460	1641	1222	424	1641	985	625	1641	1723	1460
Grp Volume(v), veh/h	58	275	23	67	0	489	270	0	134	175	103	-26
Grp Sat Flow(s),veh/h/ln	1641	1723	1460	1641	0	1646	1641	0	1610	1641	1723	1460
Q Serve(g_s), s	1.1	6.3	0.5	1.3	0.0	13.9	6.5	0.0	4.0	4.6	2.9	0.0
Cycle Q Clear(g_c), s	1.1	6.3	0.5	1.3	0.0	13.9	6.5	0.0	4.0	4.6	2.9	0.0
Prop In Lane	1.00		1.00	1.00		0.26	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	306	601	510	484	0	583	421	0	208	381	188	159
V/C Ratio(X)	0.19	0.46	0.05	0.14	0.00	0.84	0.64	0.00	0.65	0.46	0.55	-0.16
Avail Cap(c_a), veh/h	380	863	732	550	0	825	421	0	661	381	674	571
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.2	12.8	11.0	9.7	0.0	15.1	18.3	0.0	21.1	16.8	21.5	0.0
Incr Delay (d2), s/veh	0.3	0.5	0.0	0.1	0.0	5.4	3.3	0.0	3.3	0.9	2.5	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	0.6	3.8	0.3	0.7	0.0	8.7	5.1	0.0	2.8	2.9	2.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.5	13.4	11.0	9.8	0.0	20.5	21.6	0.0	24.4	17.6	23.9	0.0
LnGrp LOS	B	B	B	A	A	C	C	A	C	B	C	A
Approach Vol, veh/h		356			556			404			252	
Approach Delay, s/veh		12.9			19.2			22.5			22.0	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	11.1	7.6	22.3	11.0	10.1	7.3	22.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	20.9	5.1	25.5	6.5	19.9	5.1	25.5
Max Q Clear Time (g_c+I1), s	6.6	6.0	3.3	8.3	8.5	4.9	3.1	15.9
Green Ext Time (p_c), s	0.0	0.5	0.0	1.4	0.0	0.4	0.0	2.1

Intersection Summary	
HCM 6th Ctrl Delay	19.1
HCM 6th LOS	B

Notes

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

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	46	0	0	280	0	0
Future Vol, veh/h	46	0	0	280	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	Yield	-	None
Storage Length	0	200	-	-	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	50	0	0	304	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	153	152	0	0	0	0
Stage 1	152	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	823	867	-	-	-	-
Stage 1	860	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	823	867	-	-	-	-
Mov Cap-2 Maneuver	823	-	-	-	-	-
Stage 1	860	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	823	-	-	-
HCM Lane V/C Ratio	-	-	0.061	-	-	-
HCM Control Delay (s)	-	-	9.7	0	0	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	-	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	40	41	290	15	64	281
Future Vol, veh/h	40	41	290	15	64	281
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	-	-	85	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	45	315	16	70	305

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	768	166	0	0	331	0
Stage 1	323	-	-	-	-	-
Stage 2	445	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	354	850	-	-	1227	-
Stage 1	707	-	-	-	-	-
Stage 2	645	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	334	850	-	-	1227	-
Mov Cap-2 Maneuver	449	-	-	-	-	-
Stage 1	707	-	-	-	-	-
Stage 2	608	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.2	0	1.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	590	1227	-
HCM Lane V/C Ratio	-	-	0.149	0.057	-
HCM Control Delay (s)	-	-	12.2	8.1	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0.2	-

3: NE J St & Tiger Blvd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.4	0.5	0.5	0.5	0.4	0.3	0.9	0.3	0.3	0.0	0.0	0.0
Total Delay (hr)	0.2	0.9	0.4	0.1	1.3	0.5	0.3	0.3	0.1	0.5	0.6	0.1
Total Del/Veh (s)	13.9	12.7	6.6	12.1	17.3	11.8	13.3	15.0	7.0	14.4	15.0	6.7
Stop Delay (hr)	0.1	0.4	0.2	0.1	0.7	0.3	0.2	0.2	0.1	0.4	0.4	0.0
Stop Del/Veh (s)	9.2	6.5	3.1	8.1	9.5	6.8	10.6	10.3	5.6	9.8	9.1	4.3
Total Stops	45	125	127	22	165	92	55	42	46	96	81	26
Stop/Veh	0.80	0.51	0.54	0.81	0.61	0.66	0.77	0.67	0.73	0.74	0.58	0.68
Travel Dist (mi)	30.1	133.5	126.0	16.3	162.6	83.4	33.6	29.6	30.1	67.0	71.9	19.9
Travel Time (hr)	1.1	4.7	4.3	0.6	6.0	3.0	1.3	1.1	1.1	2.5	2.7	0.7
Avg Speed (mph)	27	28	29	28	27	28	26	27	28	26	27	29
Fuel Used (gal)	0.8	3.7	3.4	0.4	4.4	2.2	0.9	0.8	0.8	1.9	2.1	0.5
Fuel Eff. (mpg)	36.9	35.8	37.3	36.3	36.7	37.3	36.3	35.7	37.3	35.2	34.3	36.3
HC Emissions (g)	4	32	37	3	43	23	6	4	9	17	22	8
CO Emissions (g)	116	691	765	82	851	440	167	127	202	438	538	180
NOx Emissions (g)	17	109	120	11	142	75	22	16	30	58	72	25
Vehicles Entered	55	244	232	26	265	137	70	62	63	128	138	38
Vehicles Exited	55	245	230	26	265	137	69	61	63	127	137	38
Hourly Exit Rate	55	245	230	26	265	137	69	61	63	127	137	38
Input Volume	60	246	240	27	259	143	71	60	62	118	144	35
% of Volume	92	100	96	97	102	96	97	102	102	107	95	109
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	1	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	1	5	4	1	6	3	1	1	1	3	3	1

3: NE J St & Tiger Blvd Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.4
Total Delay (hr)	5.2
Total Del/Veh (s)	12.6
Stop Delay (hr)	3.1
Stop Del/Veh (s)	7.5
Total Stops	922
Stop/Veh	0.62
Travel Dist (mi)	804.0
Travel Time (hr)	29.2
Avg Speed (mph)	28
Fuel Used (gal)	22.1
Fuel Eff. (mpg)	36.3
HC Emissions (g)	209
CO Emissions (g)	4596
NOx Emissions (g)	697
Vehicles Entered	1458
Vehicles Exited	1453
Hourly Exit Rate	1453
Input Volume	1464
% of Volume	99
Denied Entry Before	0
Denied Entry After	1
Density (ft/veh)	975
Occupancy (veh)	29

8: NE J St & I-49 SB Ramps Performance by movement

Movement	WBL	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.5	0.0	0.0	0.0	0.2
Total Delay (hr)	0.6	0.1	0.1	0.0	0.7
Total Del/Veh (s)	7.6	1.7	3.9	0.8	4.5
Stop Delay (hr)	0.4	0.0	0.0	0.0	0.4
Stop Del/Veh (s)	5.4	0.0	0.0	0.2	2.5
Total Stops	268	0	0	0	268
Stop/Veh	1.00	0.00	0.00	0.00	0.45
Travel Dist (mi)	34.8	58.6	10.9	9.3	113.6
Travel Time (hr)	2.1	1.8	0.4	0.3	4.6
Avg Speed (mph)	17	32	28	29	25
Fuel Used (gal)	1.1	2.0	0.3	0.4	3.8
Fuel Eff. (mpg)	31.5	29.8	33.2	22.9	29.8
HC Emissions (g)	9	22	3	4	39
CO Emissions (g)	252	858	119	222	1451
NOx Emissions (g)	30	74	10	15	129
Vehicles Entered	267	238	48	43	596
Vehicles Exited	268	238	48	42	596
Hourly Exit Rate	268	238	48	42	596
Input Volume	266	249	45	41	602
% of Volume	101	95	106	102	99
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0
Density (ft/veh)					1767
Occupancy (veh)	2	2	0	0	5

10: NE J St & I-49 NB Ramps Performance by movement

Movement	WBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.0
Total Delay (hr)	0.0	0.2	0.3
Total Del/Veh (s)	4.1	3.7	3.7
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	2.4	0.0	0.4
Total Stops	43	1	44
Stop/Veh	1.00	0.00	0.16
Travel Dist (mi)	5.7	48.3	54.0
Travel Time (hr)	0.3	1.7	2.0
Avg Speed (mph)	20	28	27
Fuel Used (gal)	0.2	1.2	1.3
Fuel Eff. (mpg)	36.3	41.3	40.7
HC Emissions (g)	1	11	11
CO Emissions (g)	19	300	320
NOx Emissions (g)	2	36	38
Vehicles Entered	42	238	280
Vehicles Exited	43	237	280
Hourly Exit Rate	43	237	280
Input Volume	41	249	290
% of Volume	104	95	96
Denied Entry Before	0	0	0
Denied Entry After	0	0	0
Density (ft/veh)			2680
Occupancy (veh)	0	2	2

12: NE J St Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.1	0.0	0.0	0.1	0.1	0.4
Total Del/Veh (s)	8.8	6.7	0.3	0.4	4.4	1.2	1.9
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	5.1	3.0	0.0	0.0	0.8	0.4	0.7
Total Stops	43	43	0	0	9	0	95
Stop/Veh	0.98	1.00	0.00	0.00	0.18	0.00	0.14
Travel Dist (mi)	11.1	11.0	15.7	0.9	12.4	66.2	117.3
Travel Time (hr)	0.5	0.5	0.6	0.0	0.5	2.5	4.5
Avg Speed (mph)	23	24	29	28	24	27	26
Fuel Used (gal)	0.3	0.3	0.5	0.0	0.5	2.5	4.1
Fuel Eff. (mpg)	35.9	35.9	31.1	29.3	26.9	26.5	28.5
HC Emissions (g)	1	3	5	0	4	34	47
CO Emissions (g)	42	68	143	10	145	957	1365
NOx Emissions (g)	4	9	14	1	13	108	149
Vehicles Entered	43	43	242	13	50	260	651
Vehicles Exited	43	43	242	13	49	260	650
Hourly Exit Rate	43	43	242	13	49	260	650
Input Volume	42	42	251	13	52	255	656
% of Volume	102	102	96	98	95	102	99
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0
Density (ft/veh)							1032
Occupancy (veh)	0	0	1	0	1	2	5

Total Network Performance

Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.4
Total Delay (hr)	8.5
Total Del/Veh (s)	18.9
Stop Delay (hr)	3.8
Stop Del/Veh (s)	8.4
Total Stops	1329
Stop/Veh	0.82
Travel Dist (mi)	1971.2
Travel Time (hr)	70.1
Avg Speed (mph)	28
Fuel Used (gal)	61.1
Fuel Eff. (mpg)	32.3
HC Emissions (g)	630
CO Emissions (g)	17157
NOx Emissions (g)	2100
Vehicles Entered	1552
Vehicles Exited	1549
Hourly Exit Rate	1549
Input Volume	5132
% of Volume	30
Denied Entry Before	0
Denied Entry After	1
Density (ft/veh)	709
Occupancy (veh)	70

Intersection: 3: NE J St & Tiger Blvd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	T	R
Maximum Queue (ft)	66	146	93	52	225	82	102	106	104	64
Average Queue (ft)	26	65	43	18	110	28	37	51	48	18
95th Queue (ft)	52	121	76	46	188	60	77	90	89	46
Link Distance (ft)		2872			3227		2521		2720	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	125		225	300		400		100		100
Storage Blk Time (%)		0						1	0	
Queuing Penalty (veh)		1						1	1	

Intersection: 8: NE J St & I-49 SB Ramps

Movement	WB	WB
Directions Served	L	L
Maximum Queue (ft)	79	120
Average Queue (ft)	27	57
95th Queue (ft)	51	93
Link Distance (ft)		685
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	300	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 10: NE J St & I-49 NB Ramps

Movement	WB
Directions Served	L
Maximum Queue (ft)	54
Average Queue (ft)	23
95th Queue (ft)	50
Link Distance (ft)	712
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: NE J St

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	62	36
Average Queue (ft)	33	9
95th Queue (ft)	57	33
Link Distance (ft)	1366	1250
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 3

3: NE J St & Tiger Blvd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.7	0.5	0.7	0.5	0.5	0.4	1.0	0.5	0.4	0.0	0.0	0.0
Total Delay (hr)	0.2	1.1	0.3	0.2	1.8	0.4	1.5	0.4	0.2	0.8	0.5	0.2
Total Del/Veh (s)	15.5	15.1	6.2	14.2	19.0	12.4	19.9	17.7	8.7	17.6	20.9	9.2
Stop Delay (hr)	0.2	0.6	0.2	0.2	1.0	0.2	1.1	0.3	0.2	0.6	0.4	0.1
Stop Del/Veh (s)	11.1	8.9	3.0	9.3	10.2	6.6	15.1	11.8	6.4	12.8	14.9	6.5
Total Stops	48	135	107	47	205	79	226	50	64	126	62	55
Stop/Veh	0.86	0.53	0.56	0.77	0.60	0.61	0.84	0.62	0.74	0.78	0.69	0.81
Travel Dist (mi)	29.9	137.2	102.6	36.6	205.0	77.9	126.0	38.0	41.3	83.5	46.2	35.2
Travel Time (hr)	1.2	5.1	3.5	1.3	7.8	2.8	5.4	1.5	1.5	3.3	1.9	1.3
Avg Speed (mph)	26	27	29	27	26	28	24	26	28	25	25	28
Fuel Used (gal)	0.8	3.9	2.7	1.0	5.7	2.1	3.6	1.1	1.1	2.3	1.3	0.9
Fuel Eff. (mpg)	36.1	35.3	37.7	36.2	36.2	37.4	35.0	34.9	37.0	36.3	36.3	38.0
HC Emissions (g)	6	37	29	8	55	16	30	6	14	22	12	6
CO Emissions (g)	131	791	615	194	1067	328	705	169	302	378	213	115
NOx Emissions (g)	20	123	94	27	178	55	102	21	44	73	39	23
Vehicles Entered	55	251	190	60	335	127	263	79	86	160	89	67
Vehicles Exited	55	252	188	60	337	127	263	79	85	158	87	67
Hourly Exit Rate	55	252	188	60	337	127	263	79	85	158	87	67
Input Volume	53	253	198	62	334	128	248	75	89	161	95	67
% of Volume	104	100	95	97	101	99	106	105	96	98	92	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	1	5	3	1	8	3	5	1	1	3	2	1

3: NE J St & Tiger Blvd Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.5
Total Delay (hr)	7.7
Total Del/Veh (s)	15.5
Stop Delay (hr)	4.9
Stop Del/Veh (s)	9.9
Total Stops	1204
Stop/Veh	0.67
Travel Dist (mi)	959.3
Travel Time (hr)	36.5
Avg Speed (mph)	26
Fuel Used (gal)	26.5
Fuel Eff. (mpg)	36.2
HC Emissions (g)	240
CO Emissions (g)	5010
NOx Emissions (g)	798
Vehicles Entered	1762
Vehicles Exited	1758
Hourly Exit Rate	1758
Input Volume	1762
% of Volume	100
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	782
Occupancy (veh)	36

8: NE J St & I-49 SB Ramps Performance by movement

Movement	WBL	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.6	0.0	0.0	0.0	0.2
Total Delay (hr)	0.7	0.2	0.1	0.0	0.9
Total Del/Veh (s)	8.4	1.9	3.8	0.9	4.8
Stop Delay (hr)	0.5	0.0	0.0	0.0	0.5
Stop Del/Veh (s)	6.2	0.0	0.0	0.2	2.7
Total Stops	294	1	0	0	295
Stop/Veh	0.99	0.00	0.00	0.00	0.43
Travel Dist (mi)	38.2	70.4	12.1	10.5	131.2
Travel Time (hr)	2.3	2.2	0.4	0.4	5.3
Avg Speed (mph)	17	32	29	29	25
Fuel Used (gal)	1.2	2.1	0.3	0.5	4.1
Fuel Eff. (mpg)	30.8	33.4	37.3	22.2	31.6
HC Emissions (g)	10	22	5	6	43
CO Emissions (g)	286	657	119	260	1322
NOx Emissions (g)	34	76	16	20	146
Vehicles Entered	294	287	54	48	683
Vehicles Exited	293	286	52	48	679
Hourly Exit Rate	293	286	52	48	679
Input Volume	299	281	50	46	676
% of Volume	98	102	103	104	100
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0
Density (ft/veh)					1528
Occupancy (veh)	2	2	0	0	5

10: NE J St & I-49 NB Ramps Performance by movement

Movement	WBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.0
Total Delay (hr)	0.1	0.3	0.4
Total Del/Veh (s)	4.0	4.0	4.0
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	2.4	0.0	0.4
Total Stops	48	1	49
Stop/Veh	1.00	0.00	0.15
Travel Dist (mi)	6.4	57.7	64.1
Travel Time (hr)	0.3	2.1	2.4
Avg Speed (mph)	20	28	27
Fuel Used (gal)	0.2	1.4	1.6
Fuel Eff. (mpg)	35.0	40.5	39.8
HC Emissions (g)	1	11	12
CO Emissions (g)	31	348	379
NOx Emissions (g)	4	38	42
Vehicles Entered	47	283	330
Vehicles Exited	48	284	332
Hourly Exit Rate	48	284	332
Input Volume	46	280	326
% of Volume	104	101	102
Denied Entry Before	0	0	0
Denied Entry After	0	0	0
Density (ft/veh)			2243
Occupancy (veh)	0	2	2

12: NE J St Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.2	0.5	0.0	0.0	0.1
Total Delay (hr)	0.1	0.1	0.0	0.0	0.1	0.1	0.4
Total Del/Veh (s)	10.0	6.7	0.4	0.5	5.5	1.2	2.0
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.2
Stop Del/Veh (s)	6.4	3.0	0.0	0.0	1.0	0.4	0.7
Total Stops	38	42	0	0	15	0	95
Stop/Veh	1.00	1.00	0.00	0.00	0.23	0.00	0.13
Travel Dist (mi)	9.8	10.8	17.6	1.0	15.8	70.4	125.4
Travel Time (hr)	0.4	0.4	0.6	0.0	0.6	2.4	4.5
Avg Speed (mph)	23	24	32	32	26	30	28
Fuel Used (gal)	0.3	0.3	0.7	0.0	0.6	2.9	4.8
Fuel Eff. (mpg)	35.7	35.6	25.5	25.2	25.5	24.4	26.1
HC Emissions (g)	2	6	8	0	5	41	62
CO Emissions (g)	40	103	384	22	280	1448	2277
NOx Emissions (g)	5	15	25	1	20	137	203
Vehicles Entered	38	42	298	17	63	278	736
Vehicles Exited	38	42	299	17	63	279	738
Hourly Exit Rate	38	42	299	17	63	279	738
Input Volume	40	41	290	15	64	282	733
% of Volume	95	102	103	111	98	99	101
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0
Density (ft/veh)							1050
Occupancy (veh)	0	0	1	0	1	2	4

Total Network Performance

Denied Delay (hr)	0.3
Denied Del/Veh (s)	0.6
Total Delay (hr)	12.0
Total Del/Veh (s)	21.6
Stop Delay (hr)	5.8
Stop Del/Veh (s)	10.4
Total Stops	1643
Stop/Veh	0.82
Travel Dist (mi)	2355.3
Travel Time (hr)	84.4
Avg Speed (mph)	28
Fuel Used (gal)	73.7
Fuel Eff. (mpg)	32.0
HC Emissions (g)	752
CO Emissions (g)	20921
NOx Emissions (g)	2546
Vehicles Entered	1921
Vehicles Exited	1918
Hourly Exit Rate	1918
Input Volume	5990
% of Volume	32
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	590
Occupancy (veh)	84

Intersection: 3: NE J St & Tiger Blvd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	T	R
Maximum Queue (ft)	68	159	83	78	276	178	106	140	118	71
Average Queue (ft)	29	75	36	30	133	86	45	61	42	30
95th Queue (ft)	61	137	66	61	222	146	89	105	90	58
Link Distance (ft)		2872			3227		2521		2720	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	125		225	300		400		100		100
Storage Blk Time (%)		1			0			2	0	0
Queuing Penalty (veh)		3			0			3	1	0

Intersection: 8: NE J St & I-49 SB Ramps

Movement	WB	WB	NB
Directions Served	L	L	TR
Maximum Queue (ft)	73	131	11
Average Queue (ft)	31	57	0
95th Queue (ft)	57	98	8
Link Distance (ft)		685	1250
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	300		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: NE J St & I-49 NB Ramps

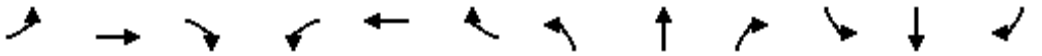
Movement	WB
Directions Served	L
Maximum Queue (ft)	54
Average Queue (ft)	25
95th Queue (ft)	50
Link Distance (ft)	712
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: NE J St

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	71	39
Average Queue (ft)	36	12
95th Queue (ft)	58	37
Link Distance (ft)	1366	1250
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 7



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	359	350	39	377	209	103	88	90	172	209	51
Future Volume (veh/h)	88	359	350	39	377	209	103	88	90	172	209	51
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	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	96	390	147	42	410	201	112	96	46	187	227	10
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	269	759	643	417	456	224	281	179	86	346	291	246
Arrive On Green	0.06	0.44	0.44	0.04	0.42	0.42	0.07	0.16	0.16	0.08	0.17	0.17
Sat Flow, veh/h	1641	1723	1460	1641	1091	535	1641	1100	527	1641	1723	1460
Grp Volume(v), veh/h	96	390	147	42	0	611	112	0	142	187	227	10
Grp Sat Flow(s),veh/h/ln	1641	1723	1460	1641	0	1626	1641	0	1628	1641	1723	1460
Q Serve(g_s), s	2.1	10.7	4.1	0.9	0.0	22.9	3.6	0.0	5.2	5.3	8.2	0.4
Cycle Q Clear(g_c), s	2.1	10.7	4.1	0.9	0.0	22.9	3.6	0.0	5.2	5.3	8.2	0.4
Prop In Lane	1.00		1.00	1.00		0.33	1.00		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	269	759	643	417	0	680	281	0	264	346	291	246
V/C Ratio(X)	0.36	0.51	0.23	0.10	0.00	0.90	0.40	0.00	0.54	0.54	0.78	0.04
Avail Cap(c_a), veh/h	293	859	728	476	0	809	287	0	476	346	509	431
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.9	13.2	11.4	9.9	0.0	17.7	20.7	0.0	25.1	22.2	26.0	22.7
Incr Delay (d2), s/veh	0.8	0.5	0.2	0.1	0.0	11.5	0.9	0.0	1.7	1.7	4.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	6.6	2.1	0.5	0.0	14.5	2.4	0.0	3.6	4.3	6.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.7	13.8	11.6	10.1	0.0	29.3	21.6	0.0	26.8	23.9	30.6	22.8
LnGrp LOS	B	B	B	B	A	C	C	A	C	C	C	C
Approach Vol, veh/h		633			653			254			424	
Approach Delay, s/veh		13.4			28.0			24.5			27.4	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	15.1	7.2	33.3	9.4	15.5	8.6	31.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.3	19.1	5.0	32.6	5.1	19.3	5.1	32.5
Max Q Clear Time (g_c+I1), s	7.3	7.2	2.9	12.7	5.6	10.2	4.1	24.9
Green Ext Time (p_c), s	0.0	0.5	0.0	2.7	0.0	0.8	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

Notes

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

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	60	0	0	363	0	0
Future Vol, veh/h	60	0	0	363	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	Yield	-	None
Storage Length	0	200	-	-	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	65	0	0	395	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	199	198	0	0	0	0
Stage 1	198	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	771	810	-	-	-	-
Stage 1	816	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	771	810	-	-	-	-
Mov Cap-2 Maneuver	771	-	-	-	-	-
Stage 1	816	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	771	-	-	-
HCM Lane V/C Ratio	-	-	0.085	-	-	-
HCM Control Delay (s)	-	-	10.1	0	0	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.3	-	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	61	62	366	19	76	371
Future Vol, veh/h	61	62	366	19	76	371
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	-	-	85	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	66	67	398	21	83	403

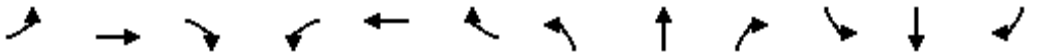
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	978	210	0	0	419	0
Stage 1	409	-	-	-	-	-
Stage 2	569	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	262	796	-	-	1138	-
Stage 1	640	-	-	-	-	-
Stage 2	565	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	243	796	-	-	1138	-
Mov Cap-2 Maneuver	372	-	-	-	-	-
Stage 1	640	-	-	-	-	-
Stage 2	524	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.6	0	1.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	509	1138	-
HCM Lane V/C Ratio	-	-	0.263	0.073	-
HCM Control Delay (s)	-	-	14.6	8.4	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	1	0.2	-

HCM 6th Signalized Intersection Summary
3: NE J St & Tiger Blvd

10/28/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	368	288	90	487	186	361	109	129	234	138	97
Future Volume (veh/h)	77	368	288	90	487	186	361	109	129	234	138	97
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	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	84	400	121	98	529	189	392	118	95	254	150	6
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	173	781	662	406	554	198	444	162	131	360	187	159
Arrive On Green	0.05	0.45	0.45	0.05	0.46	0.46	0.21	0.18	0.18	0.13	0.11	0.11
Sat Flow, veh/h	1641	1723	1460	1641	1212	433	1641	883	711	1641	1723	1460
Grp Volume(v), veh/h	84	400	121	98	0	718	392	0	213	254	150	6
Grp Sat Flow(s),veh/h/ln	1641	1723	1460	1641	0	1645	1641	0	1595	1641	1723	1460
Q Serve(g_s), s	2.7	16.6	5.0	3.2	0.0	42.2	21.0	0.0	12.6	12.5	8.5	0.4
Cycle Q Clear(g_c), s	2.7	16.6	5.0	3.2	0.0	42.2	21.0	0.0	12.6	12.5	8.5	0.4
Prop In Lane	1.00		1.00	1.00		0.26	1.00		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	173	781	662	406	0	752	444	0	293	360	187	159
V/C Ratio(X)	0.49	0.51	0.18	0.24	0.00	0.95	0.88	0.00	0.73	0.71	0.80	0.04
Avail Cap(c_a), veh/h	181	781	662	481	0	787	444	0	405	360	309	262
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.0	19.5	16.3	14.7	0.0	26.2	31.3	0.0	38.6	28.6	43.6	40.0
Incr Delay (d2), s/veh	2.1	0.6	0.1	0.3	0.0	21.2	18.3	0.0	4.1	6.2	7.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.9	10.6	2.9	2.1	0.0	27.0	15.7	0.0	8.9	9.2	7.1	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.1	20.1	16.5	15.1	0.0	47.4	49.6	0.0	42.7	34.8	51.3	40.1
LnGrp LOS	C	C	B	B	A	D	D	A	D	C	D	D
Approach Vol, veh/h		605			816			605			410	
Approach Delay, s/veh		20.0			43.5			47.2			40.9	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	22.9	9.4	50.0	25.5	15.4	9.0	50.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	25.5	9.5	43.5	21.0	18.0	5.0	48.0
Max Q Clear Time (g_c+I1), s	14.5	14.6	5.2	18.6	23.0	10.5	4.7	44.2
Green Ext Time (p_c), s	0.0	0.8	0.1	2.8	0.0	0.4	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	38.2
HCM 6th LOS	D

Notes

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

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	67	0	0	408	0	0
Future Vol, veh/h	67	0	0	408	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	Yield	-	None
Storage Length	0	200	-	-	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	73	0	0	443	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	223	222	0	0	0	0
Stage 1	222	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	745	782	-	-	-	-
Stage 1	794	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	745	782	-	-	-	-
Mov Cap-2 Maneuver	745	-	-	-	-	-
Stage 1	794	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	745	-	-	-
HCM Lane V/C Ratio	-	-	0.098	-	-	-
HCM Control Delay (s)	-	-	10.4	0	0	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.3	-	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	59	59	422	22	93	410
Future Vol, veh/h	59	59	422	22	93	410
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	-	-	85	0	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	64	64	459	24	101	446

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1119	242	0	0	483	0
Stage 1	471	-	-	-	-	-
Stage 2	648	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	214	759	-	-	1078	-
Stage 1	595	-	-	-	-	-
Stage 2	520	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	194	759	-	-	1078	-
Mov Cap-2 Maneuver	327	-	-	-	-	-
Stage 1	595	-	-	-	-	-
Stage 2	471	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.9	0	1.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	457	1078	-
HCM Lane V/C Ratio	-	-	0.281	0.094	-
HCM Control Delay (s)	-	-	15.9	8.7	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	1.1	0.3	-

3: NE J St & Tiger Blvd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	1.2	0.8	1.1	0.7	0.6	0.6	0.9	0.3	0.3	0.0	0.0	0.0
Total Delay (hr)	0.6	1.6	1.0	0.2	3.4	1.5	0.6	0.6	0.3	1.5	1.5	0.2
Total Del/Veh (s)	25.0	15.6	10.3	21.2	30.2	25.8	23.2	23.1	11.1	29.6	26.4	10.9
Stop Delay (hr)	0.4	0.8	0.4	0.2	2.0	0.9	0.5	0.4	0.2	1.2	1.1	0.1
Stop Del/Veh (s)	18.4	7.6	4.4	13.8	17.8	15.9	19.9	17.4	9.3	23.3	18.6	6.6
Total Stops	78	168	169	36	286	159	87	65	65	156	154	40
Stop/Veh	0.89	0.47	0.48	0.90	0.71	0.74	0.90	0.72	0.75	0.85	0.74	0.73
Travel Dist (mi)	46.9	192.6	189.6	23.8	241.0	127.6	46.1	42.1	41.5	94.2	106.9	28.7
Travel Time (hr)	2.0	7.2	6.9	1.0	10.4	5.4	2.0	1.8	1.6	4.3	4.6	1.1
Avg Speed (mph)	23	27	28	25	23	24	23	24	27	22	23	27
Fuel Used (gal)	1.4	5.5	5.1	0.7	6.8	3.6	1.3	1.2	1.1	2.9	3.2	0.8
Fuel Eff. (mpg)	34.4	35.1	37.4	35.2	35.5	35.8	34.4	35.0	36.6	32.6	33.3	36.0
HC Emissions (g)	11	49	52	4	56	40	9	9	19	22	31	8
CO Emissions (g)	242	1048	1032	121	1114	739	245	234	350	558	739	195
NOx Emissions (g)	36	161	164	15	185	123	32	32	56	76	102	27
Vehicles Entered	86	354	347	39	394	209	96	89	86	180	203	55
Vehicles Exited	86	352	348	39	392	210	95	88	86	178	205	55
Hourly Exit Rate	86	352	348	39	392	210	95	88	86	178	205	55
Input Volume	88	359	350	39	377	209	103	88	90	172	209	51
% of Volume	98	98	99	100	104	100	92	100	96	103	98	107
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	2	7	7	1	10	5	2	2	2	4	5	1

3: NE J St & Tiger Blvd Performance by movement

Movement	All
Denied Delay (hr)	0.4
Denied Del/Veh (s)	0.6
Total Delay (hr)	13.0
Total Del/Veh (s)	21.5
Stop Delay (hr)	8.3
Stop Del/Veh (s)	13.7
Total Stops	1463
Stop/Veh	0.67
Travel Dist (mi)	1181.1
Travel Time (hr)	48.4
Avg Speed (mph)	25
Fuel Used (gal)	33.5
Fuel Eff. (mpg)	35.2
HC Emissions (g)	310
CO Emissions (g)	6617
NOx Emissions (g)	1011
Vehicles Entered	2138
Vehicles Exited	2134
Hourly Exit Rate	2134
Input Volume	2135
% of Volume	100
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	589
Occupancy (veh)	48

8: NE J St & I-49 SB Ramps Performance by movement

Movement	WBL	NBT	NBR	SBT	All
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.6	0.0	0.0	0.0	0.3
Total Delay (hr)	1.4	0.2	0.1	0.0	1.7
Total Del/Veh (s)	12.3	2.4	4.1	1.0	6.9
Stop Delay (hr)	1.1	0.0	0.0	0.0	1.1
Stop Del/Veh (s)	10.0	0.0	0.0	0.2	4.5
Total Stops	397	1	0	0	398
Stop/Veh	1.00	0.00	0.00	0.00	0.45
Travel Dist (mi)	51.3	88.2	15.7	12.7	167.8
Travel Time (hr)	3.6	2.8	0.6	0.4	7.4
Avg Speed (mph)	15	31	28	29	23
Fuel Used (gal)	1.7	3.0	0.5	0.6	5.8
Fuel Eff. (mpg)	29.4	29.4	33.3	22.1	29.0
HC Emissions (g)	12	34	5	8	59
CO Emissions (g)	369	1343	184	336	2232
NOx Emissions (g)	41	115	16	27	200
Vehicles Entered	394	357	69	58	878
Vehicles Exited	394	357	69	57	877
Hourly Exit Rate	394	357	69	57	877
Input Volume	387	363	65	60	875
% of Volume	102	98	106	95	100
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0
Density (ft/veh)					1100
Occupancy (veh)	4	3	1	0	7

10: NE J St & I-49 NB Ramps Performance by movement

Movement	WBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.0
Total Delay (hr)	0.1	0.5	0.5
Total Del/Veh (s)	4.1	4.5	4.5
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	2.4	0.0	0.4
Total Stops	57	3	60
Stop/Veh	0.98	0.01	0.14
Travel Dist (mi)	7.8	72.5	80.3
Travel Time (hr)	0.4	2.7	3.1
Avg Speed (mph)	20	27	26
Fuel Used (gal)	0.2	1.8	2.1
Fuel Eff. (mpg)	35.1	39.5	39.0
HC Emissions (g)	2	17	19
CO Emissions (g)	40	527	566
NOx Emissions (g)	6	58	64
Vehicles Entered	57	357	414
Vehicles Exited	58	356	414
Hourly Exit Rate	58	356	414
Input Volume	60	363	422
% of Volume	97	98	98
Denied Entry Before	0	0	0
Denied Entry After	0	0	0
Density (ft/veh)			1763
Occupancy (veh)	0	3	3

12: NE J St Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.1	0.0	0.0	0.1	0.2	0.7
Total Del/Veh (s)	12.5	7.9	0.5	0.5	5.0	1.5	2.5
Stop Delay (hr)	0.2	0.1	0.0	0.0	0.0	0.0	0.3
Stop Del/Veh (s)	8.6	4.1	0.0	0.0	1.3	0.4	1.1
Total Stops	63	61	0	0	23	0	147
Stop/Veh	0.98	0.98	0.00	0.00	0.29	0.00	0.15
Travel Dist (mi)	16.3	15.8	23.8	1.2	19.6	94.6	171.2
Travel Time (hr)	0.8	0.7	0.8	0.0	0.8	3.6	6.8
Avg Speed (mph)	21	24	28	28	24	26	25
Fuel Used (gal)	0.5	0.4	0.8	0.0	0.7	3.6	6.1
Fuel Eff. (mpg)	35.0	35.3	29.7	29.2	27.2	26.2	28.1
HC Emissions (g)	3	3	9	0	5	43	64
CO Emissions (g)	79	74	277	15	226	1276	1947
NOx Emissions (g)	9	9	28	1	20	139	206
Vehicles Entered	63	61	367	18	77	374	960
Vehicles Exited	63	61	366	18	78	375	961
Hourly Exit Rate	63	61	366	18	78	375	961
Input Volume	61	62	367	19	76	372	956
% of Volume	104	99	100	96	102	101	101
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0
Density (ft/veh)							690
Occupancy (veh)	1	1	1	0	1	4	7

Total Network Performance

Denied Delay (hr)	0.4
Denied Del/Veh (s)	0.7
Total Delay (hr)	19.3
Total Del/Veh (s)	29.1
Stop Delay (hr)	9.9
Stop Del/Veh (s)	14.9
Total Stops	2068
Stop/Veh	0.87
Travel Dist (mi)	2894.9
Travel Time (hr)	109.9
Avg Speed (mph)	26
Fuel Used (gal)	91.5
Fuel Eff. (mpg)	31.6
HC Emissions (g)	945
CO Emissions (g)	25441
NOx Emissions (g)	3131
Vehicles Entered	2278
Vehicles Exited	2272
Hourly Exit Rate	2272
Input Volume	7477
% of Volume	30
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	453
Occupancy (veh)	109

Intersection: 3: NE J St & Tiger Blvd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	T	R
Maximum Queue (ft)	95	186	184	328	487	96	132	200	183	89
Average Queue (ft)	43	93	65	40	231	46	61	84	95	26
95th Queue (ft)	82	159	128	169	424	83	115	148	156	56
Link Distance (ft)		2872			3227		2521		2720	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	125		225	300		400		100		100
Storage Blk Time (%)	0	2	0		6			9	7	
Queuing Penalty (veh)	0	9	0		2			24	17	

Intersection: 8: NE J St & I-49 SB Ramps

Movement	WB	WB	NB
Directions Served	L	L	TR
Maximum Queue (ft)	138	179	16
Average Queue (ft)	43	83	0
95th Queue (ft)	90	139	9
Link Distance (ft)		685	1250
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	300		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: NE J St & I-49 NB Ramps

Movement	WB
Directions Served	L
Maximum Queue (ft)	65
Average Queue (ft)	28
95th Queue (ft)	54
Link Distance (ft)	712
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: NE J St

Movement	WB	NB	SB
Directions Served	LR	TR	L
Maximum Queue (ft)	89	4	49
Average Queue (ft)	44	0	20
95th Queue (ft)	74	3	47
Link Distance (ft)	1366		1250
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		85	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 52

3: NE J St & Tiger Blvd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.1	0.1	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	1.2	0.9	1.3	0.8	0.7	0.9	1.5	0.7	0.8	0.0	0.0	0.0
Total Delay (hr)	0.9	2.7	0.8	0.9	7.4	2.5	5.1	1.1	0.8	2.4	1.8	0.6
Total Del/Veh (s)	41.7	25.5	10.4	36.9	53.2	47.7	49.2	39.4	24.1	36.7	46.0	20.6
Stop Delay (hr)	0.7	1.8	0.4	0.6	4.8	1.7	4.3	0.9	0.7	1.9	1.5	0.4
Stop Del/Veh (s)	33.9	16.5	4.9	24.9	34.3	31.9	41.0	30.9	19.2	29.9	37.8	15.8
Total Stops	74	221	160	91	448	171	388	77	101	209	123	83
Stop/Veh	1.00	0.58	0.57	1.05	0.89	0.90	1.03	0.75	0.80	0.89	0.88	0.86
Travel Dist (mi)	39.8	203.5	150.8	52.2	299.1	113.3	175.1	47.5	59.4	120.4	72.1	49.8
Travel Time (hr)	2.1	8.7	5.6	2.5	16.2	6.0	10.6	2.5	2.7	6.0	3.9	2.1
Avg Speed (mph)	19	24	28	21	19	19	17	19	22	20	19	24
Fuel Used (gal)	1.2	5.9	4.1	1.6	9.2	3.4	5.8	1.5	1.7	3.6	2.2	1.4
Fuel Eff. (mpg)	32.6	34.3	37.1	33.5	32.7	33.3	30.4	32.0	34.4	33.7	33.0	36.0
HC Emissions (g)	9	55	37	12	73	36	42	11	13	25	16	14
CO Emissions (g)	200	1108	793	326	1475	684	987	290	338	465	297	249
NOx Emissions (g)	29	178	122	41	233	110	137	37	44	86	54	45
Vehicles Entered	73	373	277	85	489	186	366	99	124	230	139	95
Vehicles Exited	73	375	276	86	489	183	366	100	125	230	138	95
Hourly Exit Rate	73	375	276	86	489	183	366	100	125	230	138	95
Input Volume	77	368	288	90	487	186	361	109	129	234	139	97
% of Volume	94	102	96	96	100	98	101	92	97	98	99	98
Denied Entry Before	0	0	0	0	1	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	2	9	5	2	16	6	10	2	3	6	4	2

3: NE J St & Tiger Blvd Performance by movement

Movement	All
Denied Delay (hr)	0.6
Denied Del/Veh (s)	0.8
Total Delay (hr)	27.0
Total Del/Veh (s)	37.5
Stop Delay (hr)	19.6
Stop Del/Veh (s)	27.2
Total Stops	2146
Stop/Veh	0.83
Travel Dist (mi)	1382.9
Travel Time (hr)	68.7
Avg Speed (mph)	20
Fuel Used (gal)	41.4
Fuel Eff. (mpg)	33.4
HC Emissions (g)	343
CO Emissions (g)	7212
NOx Emissions (g)	1116
Vehicles Entered	2536
Vehicles Exited	2536
Hourly Exit Rate	2536
Input Volume	2565
% of Volume	99
Denied Entry Before	1
Denied Entry After	0
Density (ft/veh)	416
Occupancy (veh)	68

8: NE J St & I-49 SB Ramps Performance by movement

Movement	WBL	NBT	NBR	SBT	All
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.7	0.0	0.0	0.0	0.3
Total Delay (hr)	1.6	0.3	0.1	0.0	2.0
Total Del/Veh (s)	13.5	2.4	4.0	1.0	7.4
Stop Delay (hr)	1.3	0.0	0.0	0.0	1.4
Stop Del/Veh (s)	11.2	0.0	0.0	0.2	5.0
Total Stops	434	3	0	0	437
Stop/Veh	1.00	0.01	0.00	0.00	0.45
Travel Dist (mi)	55.9	97.4	17.6	13.9	184.8
Travel Time (hr)	4.1	3.1	0.6	0.5	8.2
Avg Speed (mph)	14	32	28	29	23
Fuel Used (gal)	1.9	2.9	0.5	0.6	6.0
Fuel Eff. (mpg)	28.8	33.2	37.3	22.5	31.0
HC Emissions (g)	12	35	4	9	59
CO Emissions (g)	386	1067	124	378	1955
NOx Emissions (g)	42	119	13	29	204
Vehicles Entered	429	394	77	63	963
Vehicles Exited	430	394	77	64	965
Hourly Exit Rate	430	394	77	64	965
Input Volume	436	408	74	67	985
% of Volume	99	97	104	96	98
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0
Density (ft/veh)					989
Occupancy (veh)	4	3	1	0	8

10: NE J St & I-49 NB Ramps Performance by movement

Movement	WBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.0
Total Delay (hr)	0.1	0.5	0.6
Total Del/Veh (s)	4.0	4.8	4.7
Stop Delay (hr)	0.0	0.0	0.0
Stop Del/Veh (s)	2.4	0.0	0.3
Total Stops	63	3	66
Stop/Veh	0.98	0.01	0.14
Travel Dist (mi)	8.5	80.0	88.6
Travel Time (hr)	0.4	3.0	3.4
Avg Speed (mph)	20	27	26
Fuel Used (gal)	0.2	2.0	2.3
Fuel Eff. (mpg)	35.6	39.6	39.2
HC Emissions (g)	2	22	24
CO Emissions (g)	42	643	685
NOx Emissions (g)	6	72	78
Vehicles Entered	63	394	457
Vehicles Exited	63	393	456
Hourly Exit Rate	63	393	456
Input Volume	67	408	475
% of Volume	94	96	96
Denied Entry Before	0	0	0
Denied Entry After	0	0	0
Density (ft/veh)			1588
Occupancy (veh)	0	3	3

12: NE J St Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.3	0.8	0.0	0.0	0.1
Total Delay (hr)	0.3	0.1	0.1	0.0	0.2	0.2	0.8
Total Del/Veh (s)	14.9	8.6	0.5	0.7	6.1	1.5	2.7
Stop Delay (hr)	0.2	0.1	0.0	0.0	0.0	0.1	0.4
Stop Del/Veh (s)	11.1	4.7	0.0	0.0	1.5	0.4	1.2
Total Stops	63	55	0	0	28	0	146
Stop/Veh	0.98	1.00	0.00	0.00	0.31	0.00	0.14
Travel Dist (mi)	16.2	14.2	24.3	1.2	22.4	102.1	180.4
Travel Time (hr)	0.8	0.6	0.8	0.0	0.9	3.5	6.6
Avg Speed (mph)	20	23	32	31	26	29	27
Fuel Used (gal)	0.5	0.4	1.0	0.1	0.9	4.2	7.0
Fuel Eff. (mpg)	33.3	35.4	24.5	22.8	25.7	24.4	25.8
HC Emissions (g)	3	3	13	0	12	50	81
CO Emissions (g)	80	77	623	31	460	1957	3227
NOx Emissions (g)	8	9	42	2	38	175	275
Vehicles Entered	63	55	416	21	89	405	1049
Vehicles Exited	63	55	416	21	90	402	1047
Hourly Exit Rate	63	55	416	21	90	402	1047
Input Volume	59	59	422	22	93	411	1065
% of Volume	107	94	99	97	97	98	98
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0
Density (ft/veh)							709
Occupancy (veh)	1	1	1	0	1	3	7

Total Network Performance

Denied Delay (hr)	0.7
Denied Del/Veh (s)	0.9
Total Delay (hr)	34.9
Total Del/Veh (s)	43.5
Stop Delay (hr)	21.5
Stop Del/Veh (s)	26.8
Total Stops	2795
Stop/Veh	0.97
Travel Dist (mi)	3382.8
Travel Time (hr)	138.9
Avg Speed (mph)	24
Fuel Used (gal)	109.7
Fuel Eff. (mpg)	30.8
HC Emissions (g)	1091
CO Emissions (g)	30363
NOx Emissions (g)	3676
Vehicles Entered	2764
Vehicles Exited	2761
Hourly Exit Rate	2761
Input Volume	8718
% of Volume	32
Denied Entry Before	1
Denied Entry After	0
Density (ft/veh)	359
Occupancy (veh)	138

Intersection: 3: NE J St & Tiger Blvd

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	T	R
Maximum Queue (ft)	198	349	260	400	778	383	327	245	260	136
Average Queue (ft)	54	154	63	105	405	220	105	121	102	49
95th Queue (ft)	128	277	150	323	723	363	224	203	189	101
Link Distance (ft)		2872			3227		2521		2720	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	125		225	300		400		100		100
Storage Blk Time (%)	0	14			24	1		21	12	0
Queuing Penalty (veh)	0	50			21	2		49	38	1

Intersection: 8: NE J St & I-49 SB Ramps

Movement	WB	WB	NB
Directions Served	L	L	TR
Maximum Queue (ft)	132	167	32
Average Queue (ft)	47	93	1
95th Queue (ft)	95	148	13
Link Distance (ft)		685	1250
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	300		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: NE J St & I-49 NB Ramps

Movement	WB
Directions Served	L
Maximum Queue (ft)	55
Average Queue (ft)	28
95th Queue (ft)	48
Link Distance (ft)	712
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: NE J St

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	97	49
Average Queue (ft)	43	20
95th Queue (ft)	73	48
Link Distance (ft)	1366	1250
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 162

NE J STREET TRAFFIC REPORT

APPENDIX B

SIGNAL WARRANT ANALYSIS RESULTS

HCS Warrants Report

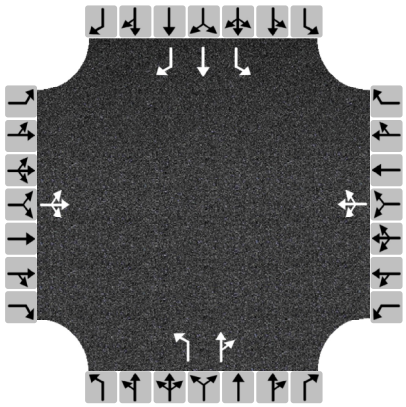
Project Information

Analyst	APS	Date	11/16/2022
Agency	Garver	Analysis Year	2026
Jurisdiction	Bentonville	Time Period Analyzed	7 AM - 7 PM
Project Description	NE J St at Tiger Blvd- Action Alternative		

General

Major Street Direction	East-West	Population < 10,000	No
Starting Time Interval	7	Coordinated Signal System	No
Median Type	Undivided	Crashes (crashes/year)	0
Major Street Speed (mi/h)	35	Adequate Trials of Crash Exp. Alt.	No
Nearest Signal (ft)	6500		

Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	1	0	0	1	0	1	1	0	1	1	1
Lane Usage		LTR			LTR		L	TR		L	T	R
Vehicle Volumes Averages (veh/h)	40	179	154	34	218	96	126	49	55	103	82	38
Pedestrian Averages (peds/h)	0			0			0			0		
Gap Averages (gaps/h)	0			0			0			0		
Delay (s/veh)	0.0			0.0			0.0			0.0		
Delay (veh-hrs)	0.0			0.0			0.0			0.0		

School Crossing and Roadway Network

Number of Students in Highest Hour	0	Two or More Major Routes	No
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	0	5-year Growth Factor (%)	0

Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	4
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)	-	Tractor-Trailer Trucks (%)	10

Volume Summary

Hour	Major Volume	Minor Volume	Total Volume	Peds/h	Gaps/h	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (80%)	4A (100%)	4B (80%)
07 - 08	975	296	1464	0	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
08 - 09	805	244	1208	0	0	Yes	Yes	Yes	Yes	Yes	No	No	No	No
09 - 10	434	132	652	0	0	No	No	No	No	No	No	No	No	No
10 - 11	528	161	794	0	0	No	Yes	No	No	No	No	No	No	No
11 - 12	633	193	951	0	0	No	Yes	No	Yes	No	No	No	No	No
12 - 13	614	246	1053	0	0	Yes	Yes	No	Yes	No	No	No	No	No
13 - 14	598	241	1027	0	0	Yes	Yes	No	No	No	No	No	No	No
14 - 15	676	270	1158	0	0	Yes	Yes	No	Yes	Yes	No	No	No	No
15 - 16	794	317	1359	0	0	Yes	Yes	Yes	Yes	Yes	No	No	No	No
16 - 17	951	381	1631	0	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
17 - 18	1028	412	1763	0	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
18 - 19	629	252	1078	0	0	Yes	Yes	No	Yes	No	No	No	No	No
Total	8665	3145	14138	0	0	9	11	5	9	6	0	3	0	0

Warrants

Warrant 1: Eight-Hour Vehicular Volume	✔
A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--	✓
B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--	
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)	✓
Warrant 2: Four-Hour Vehicular Volume	✔
Four-Hour Vehicular Volume (Both major approaches --and-- higher minor approach)	✓
Warrant 3: Peak Hour	✔
A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	
B. Peak-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	✓
Warrant 4: Pedestrian Volume	
A. Four Hour Volumes --or--	
B. One-Hour Volumes	
Warrant 5: School Crossing	
Gaps Same Period --and--	
Student Volumes	
Nearest Traffic Control Signal (optional)	✓
Warrant 6: Coordinated Signal System	
Degree of Platooning (Predominant direction or both directions)	
Warrant 7: Crash Experience	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported crashes susceptible to correction by signal (12-month period) --and--	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	✓
Warrant 8: Roadway Network	
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	
B. Weekend Volume (Five hours total)	
Warrant 9: Grade Crossing	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	

HCS Warrants Report

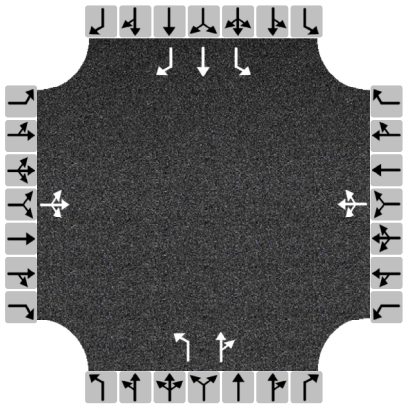
Project Information

Analyst	APS	Date	11/16/2022
Agency	Garver	Analysis Year	2026
Jurisdiction	Bentonville	Time Period Analyzed	7 AM - 7 PM
Project Description	NE J St at Tiger Blvd- Action Alternative- with right turn reductions		

General

Major Street Direction	East-West	Population < 10,000	No
Starting Time Interval	7	Coordinated Signal System	No
Median Type	Undivided	Crashes (crashes/year)	0
Major Street Speed (mi/h)	35	Adequate Trials of Crash Exp. Alt.	No
Nearest Signal (ft)	6500		

Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	1	0	0	1	0	1	1	0	1	1	1
Lane Usage		LTR			LTR		L	TR		L	T	R
Vehicle Volumes Averages (veh/h)	40	179	154	34	218	96	126	49	33	103	82	10
Pedestrian Averages (peds/h)	0			0			0			0		
Gap Averages (gaps/h)	0			0			0			0		
Delay (s/veh)	0.0			0.0			0.0			0.0		
Delay (veh-hrs)	0.0			0.0			0.0			0.0		

School Crossing and Roadway Network

Number of Students in Highest Hour	0	Two or More Major Routes	No
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	0	5-year Growth Factor (%)	0

Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	4
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)	-	Tractor-Trailer Trucks (%)	10

Volume Summary

Hour	Major Volume	Minor Volume	Total Volume	Peds/h	Gaps/h	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (80%)	4A (100%)	4B (80%)
07 - 08	975	272	1415	0	0	Yes	Yes	Yes	Yes	Yes	No	No	No	No
08 - 09	805	222	1166	0	0	Yes	Yes	Yes	Yes	Yes	No	No	No	No
09 - 10	434	120	629	0	0	No	No	No	No	No	No	No	No	No
10 - 11	528	147	766	0	0	No	No	No	No	No	No	No	No	No
11 - 12	633	176	918	0	0	No	Yes	No	Yes	No	No	No	No	No
12 - 13	614	225	1002	0	0	Yes	Yes	No	Yes	No	No	No	No	No
13 - 14	598	220	977	0	0	Yes	Yes	No	No	No	No	No	No	No
14 - 15	676	247	1102	0	0	Yes	Yes	No	Yes	No	No	No	No	No
15 - 16	794	290	1294	0	0	Yes	Yes	Yes	Yes	Yes	No	No	No	No
16 - 17	951	348	1555	0	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
17 - 18	1028	376	1680	0	0	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
18 - 19	629	231	1026	0	0	Yes	Yes	No	Yes	No	No	No	No	No
Total	8665	2874	13530	0	0	9	10	5	9	5	0	2	0	0

Warrants

Warrant 1: Eight-Hour Vehicular Volume	✔
A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--	✓
B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--	
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)	✓
Warrant 2: Four-Hour Vehicular Volume	✔
Four-Hour Vehicular Volume (Both major approaches --and-- higher minor approach)	✓
Warrant 3: Peak Hour	✔
A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	
B. Peak-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	✓
Warrant 4: Pedestrian Volume	
A. Four Hour Volumes --or--	
B. One-Hour Volumes	
Warrant 5: School Crossing	
Gaps Same Period --and--	
Student Volumes	
Nearest Traffic Control Signal (optional)	✓
Warrant 6: Coordinated Signal System	
Degree of Platooning (Predominant direction or both directions)	
Warrant 7: Crash Experience	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported crashes susceptible to correction by signal (12-month period) --and--	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	✓
Warrant 8: Roadway Network	
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	
B. Weekend Volume (Five hours total)	
Warrant 9: Grade Crossing	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	

HCS Warrants Report

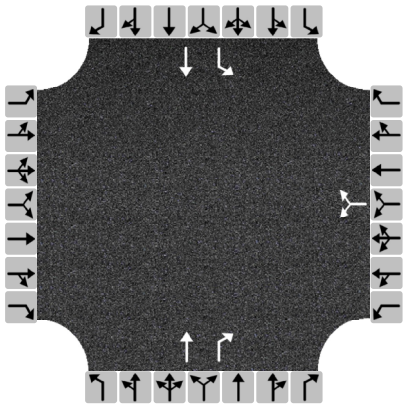
Project Information

Analyst	APS	Date	11/18/2022
Agency	Garver	Analysis Year	2026
Jurisdiction	Bentonville	Time Period Analyzed	7:00-19:00
Project Description	Old J Street at New J Street- Build Alternative		

General

Major Street Direction	North-South	Population < 10,000	No
Starting Time Interval	7	Coordinated Signal System	No
Median Type	Undivided	Crashes (crashes/year)	0
Major Street Speed (mi/h)	35	Adequate Trials of Crash Exp. Alt.	No
Nearest Signal (ft)	3000		

Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	0	0	0	0	0	0	1	1	1	1	0
Lane Usage					LR			T	R	L	T	
Vehicle Volumes Averages (veh/h)	0	0	0	29	0	29	0	197	10	42	194	0
Pedestrian Averages (peds/h)	0			0			0			0		
Gap Averages (gaps/h)	0			0			0			0		
Delay (s/veh)	0.0			0.0			0.0			0.0		
Delay (veh-hrs)	0.0			0.0			0.0			0.0		

School Crossing and Roadway Network

Number of Students in Highest Hour	0	Two or More Major Routes	No
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	0	5-year Growth Factor (%)	0

Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	0
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)	-	Tractor-Trailer Trucks (%)	2

Volume Summary

Hour	Major Volume	Minor Volume	Total Volume	Peds/h	Gaps/h	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (80%)	4A (100%)	4B (80%)
07 - 08	571	84	655	0	0	No	No	No	No	No	No	No	No	No
08 - 09	472	69	541	0	0	No	No	No	No	No	No	No	No	No
09 - 10	254	38	292	0	0	No	No	No	No	No	No	No	No	No
10 - 11	309	46	355	0	0	No	No	No	No	No	No	No	No	No
11 - 12	370	55	425	0	0	No	No	No	No	No	No	No	No	No
12 - 13	388	48	436	0	0	No	No	No	No	No	No	No	No	No
13 - 14	379	47	426	0	0	No	No	No	No	No	No	No	No	No
14 - 15	428	53	481	0	0	No	No	No	No	No	No	No	No	No
15 - 16	502	62	564	0	0	No	No	No	No	No	No	No	No	No
16 - 17	603	75	678	0	0	No	No	No	No	No	No	No	No	No
17 - 18	650	81	731	0	0	No	No	No	No	No	No	No	No	No
18 - 19	399	50	449	0	0	No	No	No	No	No	No	No	No	No
Total	5325	708	6033	0	0	0	0	0	0	0	0	0	0	0

Warrants

Warrant 1: Eight-Hour Vehicular Volume	
A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--	
B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--	
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)	
Warrant 2: Four-Hour Vehicular Volume	
Four-Hour Vehicular Volume (Both major approaches --and-- higher minor approach)	
Warrant 3: Peak Hour	
A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	
B. Peak-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	
Warrant 4: Pedestrian Volume	
A. Four Hour Volumes --or--	
B. One-Hour Volumes	
Warrant 5: School Crossing	
Gaps Same Period --and--	
Student Volumes	
Nearest Traffic Control Signal (optional)	✓
Warrant 6: Coordinated Signal System	
Degree of Platooning (Predominant direction or both directions)	
Warrant 7: Crash Experience	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported crashes susceptible to correction by signal (12-month period) --and--	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	
Warrant 8: Roadway Network	
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	
B. Weekend Volume (Five hours total)	
Warrant 9: Grade Crossing	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	

HCS Warrants Report

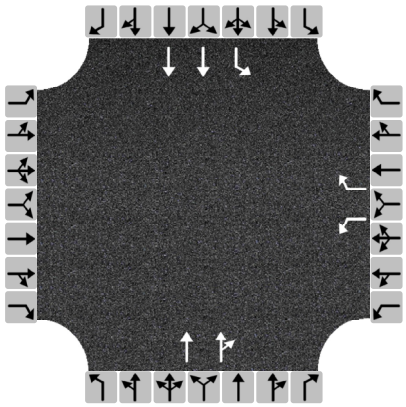
Project Information

Analyst	APS	Date	11/18/2022
Agency	Garver	Analysis Year	2026
Jurisdiction	Bentonville	Time Period Analyzed	7 AM - 7 PM
Project Description	NE J Street at I-49 SB Ramps - Action		

General

Major Street Direction	North-South	Population < 10,000	No
Starting Time Interval	7	Coordinated Signal System	No
Median Type	Undivided	Crashes (crashes/year)	0
Major Street Speed (mi/h)	35	Adequate Trials of Crash Exp. Alt.	No
Nearest Signal (ft)	9999		

Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	0	0	1	0	1	0	2	0	1	2	0
Lane Usage				L		R		TR		L	T	
Vehicle Volumes Averages (veh/h)	0	0	0	205	0	0	0	192	34	0	31	0
Pedestrian Averages (peds/h)	0			0			0			0		
Gap Averages (gaps/h)	0			0			0			0		
Delay (s/veh)	0.0			0.0			0.0			0.0		
Delay (veh-hrs)	0.0			0.0			0.0			0.0		

School Crossing and Roadway Network

Number of Students in Highest Hour	0	Two or More Major Routes	No
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	0	5-year Growth Factor (%)	0

Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	0
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)	-	Tractor-Trailer Trucks (%)	10

Volume Summary

Hour	Major Volume	Minor Volume	Total Volume	Peds/h	Gaps/h	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (80%)	4A (100%)	4B (80%)
07 - 08	335	266	601	0	0	No	No	No	No	No	No	No	No	No
08 - 09	277	219	496	0	0	No	No	No	No	No	No	No	No	No
09 - 10	149	118	267	0	0	No	No	No	No	No	No	No	No	No
10 - 11	181	144	325	0	0	No	No	No	No	No	No	No	No	No
11 - 12	218	173	391	0	0	No	No	No	No	No	No	No	No	No
12 - 13	226	179	405	0	0	No	No	No	No	No	No	No	No	No
13 - 14	220	175	395	0	0	No	No	No	No	No	No	No	No	No
14 - 15	247	197	444	0	0	No	No	No	No	No	No	No	No	No
15 - 16	291	231	522	0	0	No	No	No	No	No	No	No	No	No
16 - 17	350	277	627	0	0	No	No	No	No	No	No	No	No	No
17 - 18	376	299	675	0	0	No	No	No	No	No	No	No	No	No
18 - 19	231	183	414	0	0	No	No	No	No	No	No	No	No	No
Total	3101	2461	5562	0	0	0	0	0	0	0	0	0	0	0

Warrants

Warrant 1: Eight-Hour Vehicular Volume	
A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--	
B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--	
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)	
Warrant 2: Four-Hour Vehicular Volume	
Four-Hour Vehicular Volume (Both major approaches --and-- higher minor approach)	
Warrant 3: Peak Hour	
A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	
B. Peak-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	
Warrant 4: Pedestrian Volume	
A. Four Hour Volumes --or--	
B. One-Hour Volumes	
Warrant 5: School Crossing	
Gaps Same Period --and--	
Student Volumes	
Nearest Traffic Control Signal (optional)	✓
Warrant 6: Coordinated Signal System	
Degree of Platooning (Predominant direction or both directions)	
Warrant 7: Crash Experience	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported crashes susceptible to correction by signal (12-month period) --and--	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	
Warrant 8: Roadway Network	
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	
B. Weekend Volume (Five hours total)	
Warrant 9: Grade Crossing	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	

HCS Warrants Report

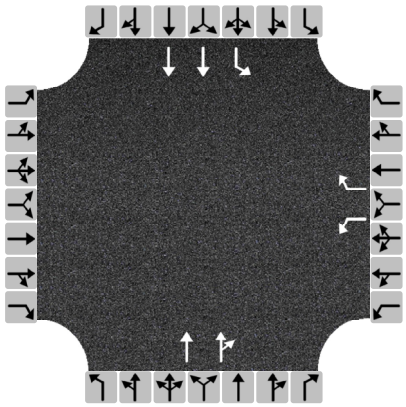
Project Information

Analyst	APS	Date	11/18/2022
Agency	Garver	Analysis Year	2026
Jurisdiction	Bentonville	Time Period Analyzed	7 AM - 7 PM
Project Description	NE J Street at I-49 NB Ramps - Action		

General

Major Street Direction	North-South	Population < 10,000	No
Starting Time Interval	7	Coordinated Signal System	No
Median Type	Undivided	Crashes (crashes/year)	0
Major Street Speed (mi/h)	35	Adequate Trials of Crash Exp. Alt.	No
Nearest Signal (ft)	9999		

Geometry and Traffic



Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Number of Lanes, N	0	0	0	1	0	1	0	2	0	1	2	0
Lane Usage				L		R		TR		L	T	
Vehicle Volumes Averages (veh/h)	0	0	0	31	0	0	0	0	192	0	0	0
Pedestrian Averages (peds/h)	0			0			0			0		
Gap Averages (gaps/h)	0			0			0			0		
Delay (s/veh)	0.0			0.0			0.0			0.0		
Delay (veh-hrs)	0.0			0.0			0.0			0.0		

School Crossing and Roadway Network

Number of Students in Highest Hour	0	Two or More Major Routes	No
Number of Adequate Gaps in Period	0	Weekend Counts	No
Number of Minutes in Period	0	5-year Growth Factor (%)	0

Railroad Crossing

Grade Crossing Approach	None	Rail Traffic (trains/day)	0
Highest Volume Hour with Trains	Unknown	High Occupancy Buses (%)	0
Distance to Stop Line (ft)	-	Tractor-Trailer Trucks (%)	10

Volume Summary

Hour	Major Volume	Minor Volume	Total Volume	Peds/h	Gaps/h	1A (100%)	1A (80%)	1B (100%)	1B (80%)	2 (100%)	3A (100%)	3B (80%)	4A (100%)	4B (80%)
07 - 08	249	41	290	0	0	No	No	No	No	No	No	No	No	No
08 - 09	206	34	240	0	0	No	No	No	No	No	No	No	No	No
09 - 10	111	18	129	0	0	No	No	No	No	No	No	No	No	No
10 - 11	135	22	157	0	0	No	No	No	No	No	No	No	No	No
11 - 12	162	27	189	0	0	No	No	No	No	No	No	No	No	No
12 - 13	168	28	196	0	0	No	No	No	No	No	No	No	No	No
13 - 14	164	27	191	0	0	No	No	No	No	No	No	No	No	No
14 - 15	184	30	214	0	0	No	No	No	No	No	No	No	No	No
15 - 16	216	36	252	0	0	No	No	No	No	No	No	No	No	No
16 - 17	260	43	303	0	0	No	No	No	No	No	No	No	No	No
17 - 18	280	46	326	0	0	No	No	No	No	No	No	No	No	No
18 - 19	172	28	200	0	0	No	No	No	No	No	No	No	No	No
Total	2307	380	2687	0	0	0	0	0	0	0	0	0	0	0

Warrants

Warrant 1: Eight-Hour Vehicular Volume	
A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--	
B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--	
80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)	
Warrant 2: Four-Hour Vehicular Volume	
Four-Hour Vehicular Volume (Both major approaches --and-- higher minor approach)	
Warrant 3: Peak Hour	
A. Peak-Hour Conditions (Minor delay -- and-- minor volume --and-- total volume) --or--	
B. Peak-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)	
Warrant 4: Pedestrian Volume	
A. Four Hour Volumes --or--	
B. One-Hour Volumes	
Warrant 5: School Crossing	
Gaps Same Period --and--	
Student Volumes	
Nearest Traffic Control Signal (optional)	✓
Warrant 6: Coordinated Signal System	
Degree of Platooning (Predominant direction or both directions)	
Warrant 7: Crash Experience	
A. Adequate trials of alternatives, observance and enforcement failed --and--	
B. Reported crashes susceptible to correction by signal (12-month period) --and--	
C. 80% Volumes for Warrants 1A, 1B, --or-- 4 are satisfied	
Warrant 8: Roadway Network	
A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2, or 3) --or--	
B. Weekend Volume (Five hours total)	
Warrant 9: Grade Crossing	
A. Grade Crossing within 140 ft --and--	
B. Peak-Hour Vehicular Volumes	