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Skyway Corridor Study
Background and Alternatives Report

Technical Appendix

September 10, 2008

Collision Rate Calculations

Intersection Collision Rate Calculation
for the
Skyway Corridor Study

Study Intersection # 1: Skyway & Neal-Schmale Lane

Date of Count: Thursday, April 10, 2008

Number of Collisions: 12
ADT: 16800
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: FOUR-LEGGED
Control Type: SIGNALS
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1\ \text{MILLION}}{\text{ADT} \times 365\ \text{DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{12 \times 1{,}000{,}000}{16{,}800 \times 365 \times 9}$$

collision rate = 0.22 c/mve

statewide average collision rate* = 0.43 c/mve

Study Intersection # 2: Skyway & Pearson

Date of Count: Thursday, April 10, 2008

Number of Collisions: 13
ADT: 17600
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: TEE
Control Type: SIGNALS
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1\ \text{MILLION}}{\text{ADT} \times 365\ \text{DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{13 \times 1{,}000{,}000}{17{,}600 \times 365 \times 9}$$

collision rate = 0.22 c/mve

statewide average collision rate* = 0.28 c/mve

ADT = average daily total vehicles entering intersection (adjusted for seasonal & weekday changes)

c/mve = collisions per million vehicles entering intersection

* *2002 Collision Data on California State Highways*, Caltrans

Intersection Collision Rate Calculation
for the
Skyway Corridor Study

Study Intersection # 3: Skyway & Honey Run-Birch

Date of Count: Thursday, April 10, 2008

Number of Collisions: 21
ADT: 13800
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: OFFSET
Control Type: 4 WAY STOP
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1\ \text{MILLION}}{\text{ADT} \times 365\ \text{DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{21 \times 1{,}000{,}000}{13{,}800 \times 365 \times 9}$$

collision rate = 0.46 c/mve

statewide average collision rate* = 0.41 c/mve

Study Intersection # 4: Skyway & Foster

Date of Count: Thursday, April 10, 2008

Number of Collisions: 16
ADT: 16700
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: TEE
Control Type: STOP & YEILD SIGNS
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1\ \text{MILLION}}{\text{ADT} \times 365\ \text{DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{16 \times 1{,}000{,}000}{16{,}700 \times 365 \times 9}$$

collision rate = 0.29 c/mve

statewide average collision rate* = 0.14 c/mve

ADT = average daily total vehicles entering intersection (adjusted for seasonal & weekday changes)

c/mve = collisions per million vehicles entering intersection

* *2002 Collision Data on California State Highways*, Caltrans

Intersection Collision Rate Calculation
for the
Skyway Corridor Study

Study Intersection # 5: Skyway & Fir

Date of Count: Thursday, April 10, 2008

Number of Collisions: 15
ADT: 13800
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: TEE
Control Type: 4 WAY STOP
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1\ \text{MILLION}}{\text{ADT} \times 365\ \text{DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{15 \times 1{,}000{,}000}{13{,}800 \times 365 \times 9}$$

collision rate = 0.33 c/mve

statewide average collision rate* = 0.18 c/mve

Study Intersection # 6: Skyway & Elliot

Date of Count: Thursday, April 10, 2008

Number of Collisions: 32
ADT: 16600
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: FOUR-LEGGED
Control Type: SIGNALS
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1\ \text{MILLION}}{\text{ADT} \times 365\ \text{DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{32 \times 1{,}000{,}000}{16{,}600 \times 365 \times 9}$$

collision rate = 0.59 c/mve

statewide average collision rate* = 0.43 c/mve

ADT = average daily total vehicles entering intersection (adjusted for seasonal & weekday changes)

c/mve = collisions per million vehicles entering intersection

* *2002 Collision Data on California State Highways*, Caltrans

Intersection Collision Rate Calculation
for the
Skyway Corridor Study

Study Intersection # 7: Skyway & Oliver

Date of Count: Thursday, April 10, 2008

Number of Collisions: 18
ADT: 13900
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: TEE
Control Type: 4 WAY STOP
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1\ \text{MILLION}}{\text{ADT} \times 365\ \text{DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{18 \times 1{,}000{,}000}{13{,}900 \times 365 \times 9}$$

collision rate = 0.39 c/mve

statewide average collision rate* = 0.18 c/mve

Study Intersection # 8: Skyway & Maxwell

Date of Count: Thursday, April 10, 2008

Number of Collisions: 0
ADT: 16900
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: TEE
Control Type: 4 WAY STOP
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1\ \text{MILLION}}{\text{ADT} \times 365\ \text{DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{0 \times 1{,}000{,}000}{16{,}900 \times 365 \times 9}$$

collision rate = 0.00 c/mve

statewide average collision rate* = 0.18 c/mve

ADT = average daily total vehicles entering intersection (adjusted for seasonal & weekday changes)

c/mve = collisions per million vehicles entering intersection

* *2002 Collision Data on California State Highways*, Caltrans

Intersection Collision Rate Calculation
for the
Skyway Corridor Study

Study Intersection # 9: Skyway & Billie

Date of Count: Thursday, April 10, 2008

Number of Collisions: 30
ADT: 14700
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: FOUR-LEGGED
Control Type: SIGNALS
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1\ \text{MILLION}}{\text{ADT} \times 365\ \text{DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{30 \times 1{,}000{,}000}{14{,}700 \times 365 \times 9}$$

collision rate = 0.62 c/mve

statewide average collision rate* = 0.43 c/mve

Study Intersection # 10: Skyway & Wagstaff

Date of Count: Thursday, April 10, 2008

Number of Collisions: 9
ADT: 9500
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: FOUR-LEGGED
Control Type: 4 WAY STOP
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1\ \text{MILLION}}{\text{ADT} \times 365\ \text{DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{9 \times 1{,}000{,}000}{9{,}500 \times 365 \times 9}$$

collision rate = 0.29 c/mve

statewide average collision rate* = 0.41 c/mve

ADT = average daily total vehicles entering intersection (adjusted for seasonal & weekday changes)

c/mve = collisions per million vehicles entering intersection

* *2002 Collision Data on California State Highways*, Caltrans

Intersection Collision Rate Calculation
for the
Skyway Corridor Study

Study Intersection # : 0 & 0

Date of Count: Thursday, April 10, 2008

Number of Collisions: 0
ADT: 13900
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: TEE
Control Type: 4 WAY STOP
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1\ \text{MILLION}}{\text{ADT} \times 365\ \text{DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{0 \times 1{,}000{,}000}{13{,}900 \times 365 \times 9}$$

collision rate = 0.00 c/mve

statewide average collision rate* = 0.18 c/mve

Study Intersection # : 0 & 0

Date of Count: Thursday, April 10, 2008

Number of Collisions: 30
ADT: 17700
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: FOUR-LEGGED
Control Type: SIGNALS
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1\ \text{MILLION}}{\text{ADT} \times 365\ \text{DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{30 \times 1{,}000{,}000}{17{,}700 \times 365 \times 9}$$

collision rate = 0.52 c/mve

statewide average collision rate* = 0.43 c/mve

ADT = average daily total vehicles entering intersection (adjusted for seasonal & weekday changes)

c/mve = collisions per million vehicles entering intersection

* *2002 Collision Data on California State Highways*, Caltrans

Intersection Collision Rate Calculation
for the
Skyway Corridor Study

Study Intersection # 9: Skyway & Black Olive

Date of Count: Wednesday, April 9, 2008

Number of Collisions: 29
ADT: 25000
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: TEE
Control Type: STOP & YEILD SIGNS
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1\ \text{MILLION}}{\text{ADT} \times 365\ \text{DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{29 \times 1{,}000{,}000}{25{,}000 \times 365 \times 9}$$

collision rate = 0.35 c/mve

statewide average collision rate* = 0.14 c/mve

Study Intersection # 0: Skyway & 0

Date of Count: Thursday, April 10, 2008

Number of Collisions: 0
ADT: 9500
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: FOUR-LEGGED
Control Type: 4 WAY STOP
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1\ \text{MILLION}}{\text{ADT} \times 365\ \text{DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{0 \times 1{,}000{,}000}{9{,}500 \times 365 \times 9}$$

collision rate = 0.00 c/mve

statewide average collision rate* = 0.41 c/mve

ADT = average daily total vehicles entering intersection (adjusted for seasonal & weekday changes)

c/mve = collisions per million vehicles entering intersection

* *2002 Collision Data on California State Highways*, Caltrans

Intersection Collision Rate Calculation
for the
Skyway Corridor Study

Study Intersection # : 0 & 0

Date of Count: Thursday, April 10, 2008

Number of Collisions: 0
ADT: 13900
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: TEE
Control Type: 4 WAY STOP
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1\ \text{MILLION}}{\text{ADT} \times 365\ \text{DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{0 \times 1{,}000{,}000}{13{,}900 \times 365 \times 9}$$

collision rate = 0.00 c/mve

statewide average collision rate* = 0.18 c/mve

Study Intersection # : 0 & 0

Date of Count: Thursday, April 10, 2008

Number of Collisions: 30
ADT: 17700
Start Date: January 1, 1998
End Date: December 31, 2006
Number of Years: 9

Intersection Type: FOUR-LEGGED
Control Type: SIGNALS
Area: URBAN

$$\text{collision rate} = \frac{\text{NUMBER OF COLLISIONS} \times 1\ \text{MILLION}}{\text{ADT} \times 365\ \text{DAYS PER YEAR} \times \text{NUMBER OF YEARS}}$$

$$\text{collision rate} = \frac{30 \times 1{,}000{,}000}{17{,}700 \times 365 \times 9}$$

collision rate = 0.52 c/mve

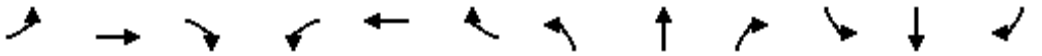
statewide average collision rate* = 0.43 c/mve

ADT = average daily total vehicles entering intersection (adjusted for seasonal & weekday changes)

c/mve = collisions per million vehicles entering intersection

* *2002 Collision Data on California State Highways*, Caltrans

Intersection Level of Service Calculations

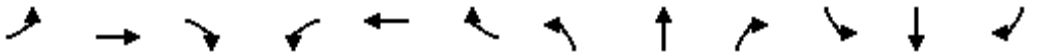


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1	362	13	71	1268	12	90	1	137	21	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3534			1775	1583		1770	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3534			1775	1583		1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	393	14	77	1378	13	98	1	149	23	0	11
RTOR Reduction (vph)	0	0	5	0	1	0	0	0	133	0	0	11
Lane Group Flow (vph)	1	393	9	77	1390	0	0	99	16	0	23	0
Turn Type	Prot		Perm	Prot			Split		Perm	Split		Perm
Protected Phases	1	6		5	2		8	8		7	7	
Permitted Phases			6						8			7
Actuated Green, G (s)	0.7	59.0	59.0	7.3	65.6			10.4	10.4		2.9	2.9
Effective Green, g (s)	0.7	59.0	59.0	7.3	65.6			10.4	10.4		2.9	2.9
Actuated g/C Ratio	0.01	0.62	0.62	0.08	0.69			0.11	0.11		0.03	0.03
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	13	2184	977	135	2425			193	172		54	48
v/s Ratio Prot	0.00	0.11		c0.04	c0.39			c0.06			c0.01	
v/s Ratio Perm			0.01						0.01			0.00
v/c Ratio	0.08	0.18	0.01	0.57	0.57			0.51	0.09		0.43	0.01
Uniform Delay, d1	47.1	7.9	7.0	42.6	7.8			40.2	38.4		45.5	45.0
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	2.5	0.2	0.0	5.7	1.0			2.3	0.2		5.3	0.1
Delay (s)	49.7	8.1	7.1	48.3	8.8			42.5	38.6		50.9	45.0
Level of Service	D	A	A	D	A			D	D		D	D
Approach Delay (s)		8.1			10.8			40.2			49.0	
Approach LOS		A			B			D			D	

Intersection Summary			
HCM Average Control Delay	14.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	95.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	60.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

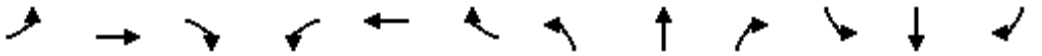
Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	417	79	393	128	119	838
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.96		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1583	3409		1770	3539
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	1583	3409		1770	3539
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	453	86	427	139	129	911
RTOR Reduction (vph)	0	58	35	0	0	0
Lane Group Flow (vph)	453	28	531	0	129	911
Turn Type		Perm			Prot	
Protected Phases	8		6		5	2
Permitted Phases		8				
Actuated Green, G (s)	21.9	21.9	25.1		7.9	37.0
Effective Green, g (s)	21.9	21.9	25.1		7.9	37.0
Actuated g/C Ratio	0.33	0.33	0.38		0.12	0.55
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	579	518	1279		209	1957
v/s Ratio Prot	c0.26		0.16		c0.07	c0.26
v/s Ratio Perm		0.02				
v/c Ratio	0.78	0.05	0.42		0.62	0.47
Uniform Delay, d1	20.3	15.4	15.5		28.1	9.0
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	6.8	0.0	1.0		5.3	0.2
Delay (s)	27.2	15.5	16.5		33.4	9.2
Level of Service	C	B	B		C	A
Approach Delay (s)	25.3		16.5			12.2
Approach LOS	C		B			B

Intersection Summary			
HCM Average Control Delay	16.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	66.9	Sum of lost time (s)	8.0
Intersection Capacity Utilization	54.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	49	29	168	8	68	12	404	111	191	836	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.95			0.96		1.00	0.97		1.00	1.00	
Flt Protected		0.99			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1769			1733		1770	3425		1770	3536	
Flt Permitted		0.96			0.74		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1712			1331		1770	3425		1770	3536	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	53	32	183	9	74	13	439	121	208	909	5
RTOR Reduction (vph)	0	20	0	0	16	0	0	21	0	0	0	0
Lane Group Flow (vph)	0	76	0	0	250	0	13	539	0	208	914	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		1	6		5	2	
Permitted Phases	4			8								
Actuated Green, G (s)		20.4			20.4		0.7	37.5		14.7	51.5	
Effective Green, g (s)		20.4			20.4		0.7	37.5		14.7	51.5	
Actuated g/C Ratio		0.24			0.24		0.01	0.44		0.17	0.61	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		413			321		15	1518		308	2153	
v/s Ratio Prot							0.01	c0.16		c0.12	c0.26	
v/s Ratio Perm		0.04			c0.19							
v/c Ratio		0.18			0.78		0.87	0.36		0.68	0.42	
Uniform Delay, d1		25.5			30.0		41.9	15.6		32.7	8.7	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.2			11.3		162.9	0.7		5.8	0.6	
Delay (s)		25.7			41.3		204.8	16.2		38.5	9.3	
Level of Service		C			D		F	B		D	A	
Approach Delay (s)		25.7			41.3			20.5			14.7	
Approach LOS		C			D			C			B	

Intersection Summary			
HCM Average Control Delay	20.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	84.6	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

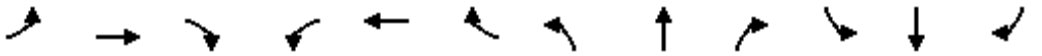


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	63	0	189	14	2	2	93	361	15	3	836	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.85			0.99		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00			0.96		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1583			1767		1770	3518		1770	3508	
Flt Permitted	0.75	1.00			0.58		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1388	1583			1073		1770	3518		1770	3508	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	68	0	205	15	2	2	101	392	16	3	909	57
RTOR Reduction (vph)	0	179	0	0	2	0	0	3	0	0	7	0
Lane Group Flow (vph)	68	26	0	0	17	0	101	405	0	3	959	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	8.6	8.6			8.6		23.0	46.6		0.7	24.3	
Effective Green, g (s)	8.6	8.6			8.6		23.0	46.6		0.7	24.3	
Actuated g/C Ratio	0.13	0.13			0.13		0.34	0.69		0.01	0.36	
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	176	200			136		600	2414		18	1255	
v/s Ratio Prot		0.02					0.06	c0.12		0.00	c0.27	
v/s Ratio Perm	c0.05				0.02							
v/c Ratio	0.39	0.13			0.13		0.17	0.17		0.17	0.76	
Uniform Delay, d1	27.2	26.3			26.3		15.7	3.8		33.3	19.3	
Progression Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.4	0.3			0.4		0.6	0.2		4.3	2.8	
Delay (s)	28.6	26.6			26.7		16.3	3.9		37.7	22.1	
Level of Service	C	C			C		B	A		D	C	
Approach Delay (s)		27.1			26.7			6.4			22.1	
Approach LOS		C			C			A			C	

Intersection Summary			
HCM Average Control Delay	18.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	67.9	Sum of lost time (s)	8.0
Intersection Capacity Utilization	52.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

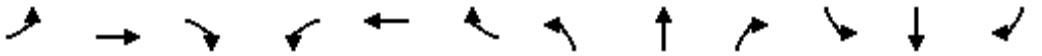
Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Volume (vph)	428	62	175	840	79	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	0.95		1.00	0.95	1.00	
Frt	0.98		1.00	1.00	0.95	
Flt Protected	1.00		0.95	1.00	0.97	
Satd. Flow (prot)	3472		1770	3539	1710	
Flt Permitted	1.00		0.95	1.00	0.97	
Satd. Flow (perm)	3472		1770	3539	1710	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	465	67	190	913	86	59
RTOR Reduction (vph)	16	0	0	0	35	0
Lane Group Flow (vph)	516	0	190	913	110	0
Turn Type			Prot			
Protected Phases	2		1	6		
Permitted Phases					8	
Actuated Green, G (s)	15.9		32.2	52.1	9.6	
Effective Green, g (s)	15.9		32.2	52.1	9.6	
Actuated g/C Ratio	0.23		0.46	0.75	0.14	
Clearance Time (s)	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	792		818	2645	236	
v/s Ratio Prot	c0.15		0.11	c0.26		
v/s Ratio Perm					c0.06	
v/c Ratio	0.65		0.23	0.35	0.46	
Uniform Delay, d1	24.4		11.3	3.0	27.7	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	1.9		0.7	0.4	1.4	
Delay (s)	26.3		12.0	3.4	29.1	
Level of Service	C		B	A	C	
Approach Delay (s)	26.3			4.8	29.1	
Approach LOS	C			A	C	

Intersection Summary			
HCM Average Control Delay	13.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	69.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	41.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	27	86	100	278	64	22	30	258	183	11	640	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.92		1.00	0.96		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1712		1770	1791		1770	1863	1583	1770	3520	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	1712		1770	1791		1770	1863	1583	1770	3520	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	93	109	302	70	24	33	280	199	12	696	26
RTOR Reduction (vph)	0	42	0	0	15	0	0	0	113	0	2	0
Lane Group Flow (vph)	29	160	0	302	79	0	33	280	86	12	720	0
Turn Type	Prot			Prot			Prot		Perm	Prot		
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases									6			
Actuated Green, G (s)	10.5	15.4		19.2	24.1		3.2	38.9	38.9	0.7	36.4	
Effective Green, g (s)	10.5	15.4		19.2	24.1		3.2	38.9	38.9	0.7	36.4	
Actuated g/C Ratio	0.12	0.17		0.21	0.27		0.04	0.43	0.43	0.01	0.40	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	206	292		377	479		63	803	683	14	1420	
v/s Ratio Prot	0.02	c0.09		c0.17	0.04		c0.02	0.15		0.01	c0.20	
v/s Ratio Perm									0.05			
v/c Ratio	0.14	0.55		0.80	0.17		0.52	0.35	0.13	0.86	0.51	
Uniform Delay, d1	35.8	34.2		33.7	25.3		42.8	17.2	15.4	44.7	20.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.3	2.1		11.6	0.2		7.6	1.2	0.4	164.6	1.3	
Delay (s)	36.1	36.3		45.3	25.5		50.4	18.4	15.8	209.3	21.5	
Level of Service	D	D		D	C		D	B	B	F	C	
Approach Delay (s)		36.3			40.6			19.4			24.5	
Approach LOS		D			D			B			C	

Intersection Summary			
HCM Average Control Delay	28.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	90.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	61.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

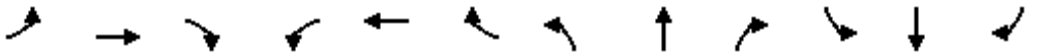


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	1136	75	137	719	40	58	3	138	40	5	3
Ideal Flow (vphpl)	1900	1900	1900	1700	1700	1700	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.96	1.00
Satd. Flow (prot)	1770	3539	1583	1583	3142			1778	1583		1783	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.96	1.00
Satd. Flow (perm)	1770	3539	1583	1583	3142			1778	1583		1783	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	1235	82	149	782	43	63	3	150	43	5	3
RTOR Reduction (vph)	0	0	25	0	3	0	0	0	136	0	0	3
Lane Group Flow (vph)	11	1235	57	149	822	0	0	66	14	0	48	0
Turn Type	Prot		Perm	Prot			Split		Perm	Split		Perm
Protected Phases	1	6		5	2		8	8		7	7	
Permitted Phases			6						8			7
Actuated Green, G (s)	0.8	56.4	56.4	10.0	65.6			8.7	8.7		3.9	3.9
Effective Green, g (s)	0.8	56.4	56.4	10.0	65.6			8.7	8.7		3.9	3.9
Actuated g/C Ratio	0.01	0.59	0.59	0.11	0.69			0.09	0.09		0.04	0.04
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	15	2101	940	167	2170			163	145		73	65
v/s Ratio Prot	0.01	c0.35		c0.09	0.26			c0.04			c0.03	
v/s Ratio Perm			0.04						0.01			0.00
v/c Ratio	0.73	0.59	0.06	0.89	0.38			0.40	0.09		0.66	0.00
Uniform Delay, d1	47.0	12.0	8.1	42.0	6.2			40.7	39.5		44.9	43.7
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	103.2	1.2	0.1	40.2	0.5			1.6	0.3		19.3	0.0
Delay (s)	150.2	13.3	8.3	82.2	6.7			42.4	39.8		64.2	43.7
Level of Service	F	B	A	F	A			D	D		E	D
Approach Delay (s)		14.1			18.2			40.6			63.0	
Approach LOS		B			B			D			E	

Intersection Summary			
HCM Average Control Delay	18.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

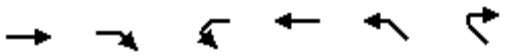
Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	259	113	1012	283	116	603
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1583	3423		1770	3539
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	1583	3423		1770	3539
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	282	123	1100	308	126	655
RTOR Reduction (vph)	0	93	26	0	0	0
Lane Group Flow (vph)	282	30	1382	0	126	655
Turn Type		Perm			Prot	
Protected Phases	8		6		5	2
Permitted Phases		8				
Actuated Green, G (s)	14.8	14.8	25.5		7.6	37.1
Effective Green, g (s)	14.8	14.8	25.5		7.6	37.1
Actuated g/C Ratio	0.25	0.25	0.43		0.13	0.62
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	437	391	1457		225	2192
v/s Ratio Prot	c0.16		c0.40		c0.07	0.19
v/s Ratio Perm		0.02				
v/c Ratio	0.65	0.08	0.95		0.56	0.30
Uniform Delay, d1	20.2	17.3	16.6		24.6	5.3
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	3.3	0.1	14.1		3.2	0.1
Delay (s)	23.5	17.4	30.7		27.7	5.4
Level of Service	C	B	C		C	A
Approach Delay (s)	21.6		30.7			9.0
Approach LOS	C		C			A

Intersection Summary			
HCM Average Control Delay	22.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	59.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



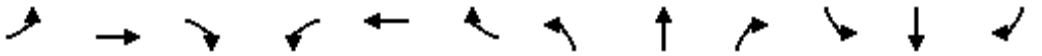
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	17	11	162	17	178	40	1008	210	189	620	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.96			0.93		1.00	0.97		1.00	1.00	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1765			1699		1770	3448		1770	3538	
Flt Permitted		0.92			0.83		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1645			1450		1770	3448		1770	3538	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	18	12	176	18	193	43	1096	228	205	674	2
RTOR Reduction (vph)	0	9	0	0	39	0	0	15	0	0	0	0
Lane Group Flow (vph)	0	31	0	0	348	0	43	1309	0	205	676	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		1	6		5	2	
Permitted Phases	4			8								
Actuated Green, G (s)		25.6			25.6		2.2	37.5		15.5	50.8	
Effective Green, g (s)		25.6			25.6		2.2	37.5		15.5	50.8	
Actuated g/C Ratio		0.28			0.28		0.02	0.41		0.17	0.56	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		465			410		43	1427		303	1984	
v/s Ratio Prot							0.02	c0.38		c0.12	0.19	
v/s Ratio Perm		0.02			c0.24							
v/c Ratio		0.07			0.85		1.00	0.92		0.68	0.34	
Uniform Delay, d1		23.8			30.7		44.2	25.1		35.2	10.8	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.1			15.1		137.2	10.8		5.9	0.5	
Delay (s)		23.8			45.8		181.4	35.9		41.1	11.3	
Level of Service		C			D		F	D		D	B	
Approach Delay (s)		23.8			45.8			40.5			18.2	
Approach LOS		C			D			D			B	

Intersection Summary			
HCM Average Control Delay	33.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	90.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



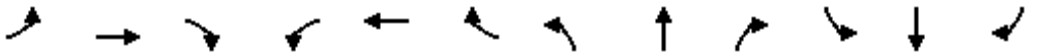
Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Volume (vph)	975	100	61	641	55	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	0.95		1.00	0.95	1.00	
Frt	0.99		1.00	1.00	0.94	
Flt Protected	1.00		0.95	1.00	0.97	
Satd. Flow (prot)	3490		1770	3539	1700	
Flt Permitted	1.00		0.95	1.00	0.97	
Satd. Flow (perm)	3490		1770	3539	1700	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1060	109	66	697	60	52
RTOR Reduction (vph)	9	0	0	0	47	0
Lane Group Flow (vph)	1160	0	66	697	65	0
Turn Type			Prot			
Protected Phases	2		1	6		
Permitted Phases					8	
Actuated Green, G (s)	26.2		22.2	52.4	6.8	
Effective Green, g (s)	26.2		22.2	52.4	6.8	
Actuated g/C Ratio	0.39		0.33	0.78	0.10	
Clearance Time (s)	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1361		585	2760	172	
v/s Ratio Prot	c0.33		0.04	c0.20		
v/s Ratio Perm					c0.04	
v/c Ratio	0.85		0.11	0.25	0.38	
Uniform Delay, d1	18.7		15.7	2.0	28.2	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	5.4		0.4	0.2	1.4	
Delay (s)	24.1		16.0	2.2	29.6	
Level of Service	C		B	A	C	
Approach Delay (s)	24.1			3.4	29.6	
Approach LOS	C			A	C	

Intersection Summary			
HCM Average Control Delay	16.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	67.2	Sum of lost time (s)	8.0
Intersection Capacity Utilization	49.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



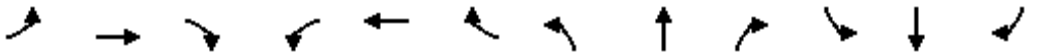
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	75	68	217	117	57	96	594	330	44	383	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.93		1.00	0.95		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1730		1770	1771		1770	1863	1583	1770	3504	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	1730		1770	1771		1770	1863	1583	1770	3504	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	40	82	74	236	127	62	104	646	359	48	416	30
RTOR Reduction (vph)	0	34	0	0	22	0	0	0	191	0	5	0
Lane Group Flow (vph)	40	122	0	236	167	0	104	646	168	48	441	0
Turn Type	Prot			Prot			Prot		Perm	Prot		
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases									6			
Actuated Green, G (s)	9.6	12.9		16.2	19.5		6.1	37.2	37.2	3.1	34.2	
Effective Green, g (s)	9.6	12.9		16.2	19.5		6.1	37.2	37.2	3.1	34.2	
Actuated g/C Ratio	0.11	0.15		0.19	0.23		0.07	0.44	0.44	0.04	0.40	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	199	261		336	404		126	812	690	64	1403	
v/s Ratio Prot	0.02	c0.07		c0.13	0.09		0.06	c0.35		c0.03	0.13	
v/s Ratio Perm									0.11			
v/c Ratio	0.20	0.47		0.70	0.41		0.83	0.80	0.24	0.75	0.31	
Uniform Delay, d1	34.4	33.1		32.3	28.1		39.1	20.8	15.2	40.8	17.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.5	1.3		6.5	0.7		33.7	7.9	0.8	38.4	0.6	
Delay (s)	34.9	34.4		38.9	28.8		72.8	28.8	16.0	79.1	18.1	
Level of Service	C	C		D	C		E	C	B	E	B	
Approach Delay (s)		34.5			34.4			28.8			24.1	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	29.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	85.4	Sum of lost time (s)	16.0
Intersection Capacity Utilization	68.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	10	138	63	28	7	177	999	35	11	610	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.86			0.99		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1602			1786		1770	3521		1770	3501	
Flt Permitted	0.72	1.00			0.59		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1346	1602			1080		1770	3521		1770	3501	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	55	11	150	68	30	8	192	1086	38	12	663	52
RTOR Reduction (vph)	0	128	0	0	4	0	0	2	0	0	10	0
Lane Group Flow (vph)	55	33	0	0	102	0	192	1122	0	12	705	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	10.2	10.2			10.2		27.4	46.4		0.7	19.7	
Effective Green, g (s)	10.2	10.2			10.2		27.4	46.4		0.7	19.7	
Actuated g/C Ratio	0.15	0.15			0.15		0.40	0.67		0.01	0.28	
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	198	236			159		700	2357		18	995	
v/s Ratio Prot		0.02					0.11	c0.32		0.01	c0.20	
v/s Ratio Perm	0.04				c0.09							
v/c Ratio	0.28	0.14			0.64		0.27	0.48		0.67	0.71	
Uniform Delay, d1	26.3	25.7			27.8		14.2	5.6		34.2	22.2	
Progression Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.8	0.3			8.2		1.0	0.7		66.1	2.3	
Delay (s)	27.0	26.0			36.0		15.2	6.2		100.3	24.6	
Level of Service	C	C			D		B	A		F	C	
Approach Delay (s)		26.3			36.0			7.5			25.8	
Approach LOS		C			D			A			C	

Intersection Summary			
HCM Average Control Delay	16.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	69.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	59.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	55	31	186	9	74	16	532	190	229	952	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	10	12	12	12	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.96			0.96		1.00	0.96		1.00	1.00	
Flt Protected		0.99			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1772			1733		1652	3400		1770	3536	
Flt Permitted		0.96			0.73		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1715			1306		1652	3400		1770	3536	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	58	33	196	9	78	17	560	200	241	1002	6
RTOR Reduction (vph)	0	19	0	0	15	0	0	31	0	0	0	0
Lane Group Flow (vph)	0	83	0	0	268	0	17	729	0	241	1008	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		1	6		5	2	
Permitted Phases	4			8								
Actuated Green, G (s)		22.1			22.1		1.4	37.1		16.4	52.1	
Effective Green, g (s)		22.1			22.1		1.4	37.1		16.4	52.1	
Actuated g/C Ratio		0.25			0.25		0.02	0.42		0.19	0.59	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		433			329		26	1440		331	2103	
v/s Ratio Prot							0.01	c0.21		c0.14	0.28	
v/s Ratio Perm		0.05			c0.21							
v/c Ratio		0.19			0.81		0.65	0.51		0.73	0.48	
Uniform Delay, d1		25.7			30.8		42.9	18.5		33.5	10.1	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.2			14.3		46.4	1.3		7.8	0.8	
Delay (s)		25.9			45.1		89.2	19.8		41.3	10.8	
Level of Service		C			D		F	B		D	B	
Approach Delay (s)		25.9			45.1			21.3			16.7	
Approach LOS		C			D			C			B	

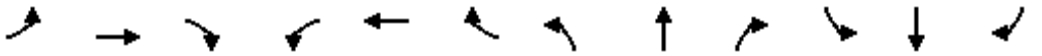
Intersection Summary			
HCM Average Control Delay	21.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	87.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	90	62	506	63	175	940
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	10	12
Total Lost time (s)	4.0		4.0		4.0	4.0
Lane Util. Factor	1.00		0.95		1.00	0.95
Frt	0.95		0.98		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	1710		3481		1652	3539
Flt Permitted	0.97		1.00		0.95	1.00
Satd. Flow (perm)	1710		3481		1652	3539
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	95	65	533	66	184	989
RTOR Reduction (vph)	35	0	14	0	0	0
Lane Group Flow (vph)	125	0	586	0	184	989
Turn Type					Prot	
Protected Phases			2		1	6
Permitted Phases	8					
Actuated Green, G (s)	10.3		17.6		30.5	52.1
Effective Green, g (s)	10.3		17.6		30.5	52.1
Actuated g/C Ratio	0.15		0.25		0.43	0.74
Clearance Time (s)	4.0		4.0		4.0	4.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	250		870		716	2619
v/s Ratio Prot			c0.17		0.11	c0.28
v/s Ratio Perm	c0.07					
v/c Ratio	0.50		0.67		0.26	0.38
Uniform Delay, d1	27.7		23.8		12.7	3.3
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	1.6		2.1		0.9	0.4
Delay (s)	29.3		25.9		13.6	3.7
Level of Service	C		C		B	A
Approach Delay (s)	29.3		25.9			5.3
Approach LOS	C		C			A

Intersection Summary			
HCM Average Control Delay	13.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	70.4	Sum of lost time (s)	8.0
Intersection Capacity Utilization	44.5%	ICU Level of Service	A
Analysis Period (min)	15		

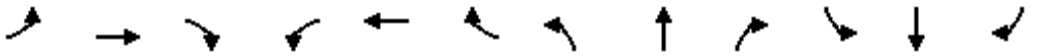
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	93	107	372	71	30	30	309	213	11	670	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	12	10	12	12	10	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.92		1.00	0.96		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1652	1713		1652	1779		1652	1863	1583	1770	3521	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1652	1713		1652	1779		1652	1863	1583	1770	3521	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	32	98	113	392	75	32	32	325	224	12	705	25
RTOR Reduction (vph)	0	41	0	0	19	0	0	0	140	0	3	0
Lane Group Flow (vph)	32	170	0	392	88	0	32	325	84	12	727	0
Turn Type	Prot			Prot			Prot		Perm	Prot		
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases									6			
Actuated Green, G (s)	12.2	15.4		24.6	27.8		2.1	33.8	33.8	0.7	32.4	
Effective Green, g (s)	12.2	15.4		24.6	27.8		2.1	33.8	33.8	0.7	32.4	
Actuated g/C Ratio	0.13	0.17		0.27	0.31		0.02	0.37	0.37	0.01	0.36	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	223	291		449	546		38	696	591	14	1261	
v/s Ratio Prot	0.02	c0.10		c0.24	0.05		c0.02	0.17		0.01	c0.21	
v/s Ratio Perm									0.05			
v/c Ratio	0.14	0.59		0.87	0.16		0.84	0.47	0.14	0.86	0.58	
Uniform Delay, d1	34.5	34.6		31.5	22.9		44.0	21.5	18.8	44.9	23.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.3	3.0		16.9	0.1		85.4	2.2	0.5	164.6	1.9	
Delay (s)	34.8	37.6		48.3	23.0		129.4	23.8	19.3	209.5	25.4	
Level of Service	C	D		D	C		F	C	B	F	C	
Approach Delay (s)		37.2			42.9			27.8			28.4	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM Average Control Delay	32.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	90.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	68	5	199	14	2	2	97	439	15	3	959	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	10	12	12	10	12	12
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.85			0.99		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00			0.96		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1590			1767		1652	3521		1652	3512	
Flt Permitted	0.75	1.00			0.56		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1388	1590			1024		1652	3521		1652	3512	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	72	5	209	15	2	2	102	462	16	3	1009	55
RTOR Reduction (vph)	0	182	0	0	2	0	0	2	0	0	5	0
Lane Group Flow (vph)	72	32	0	0	17	0	102	476	0	3	1059	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	8.9	8.9			8.9		21.8	48.3		0.7	27.2	
Effective Green, g (s)	8.9	8.9			8.9		21.8	48.3		0.7	27.2	
Actuated g/C Ratio	0.13	0.13			0.13		0.31	0.69		0.01	0.39	
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	177	202			130		515	2433		17	1367	
v/s Ratio Prot		0.02					0.06	c0.14		0.00	c0.30	
v/s Ratio Perm	c0.05				0.02							
v/c Ratio	0.41	0.16			0.13		0.20	0.20		0.18	0.77	
Uniform Delay, d1	28.1	27.2			27.1		17.6	3.9		34.3	18.7	
Progression Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.5	0.4			0.5		0.9	0.2		4.9	2.8	
Delay (s)	29.6	27.5			27.5		18.5	4.0		39.2	21.5	
Level of Service	C	C			C		B	A		D	C	
Approach Delay (s)		28.0			27.5			6.6			21.5	
Approach LOS		C			C			A			C	

Intersection Summary			
HCM Average Control Delay	18.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	69.9	Sum of lost time (s)	8.0
Intersection Capacity Utilization	56.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

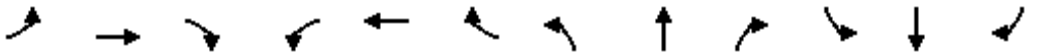
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	20	60	28	176	12	20	6	240	94	20	524	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.95		1.00	0.91		1.00	1.00	0.85	1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1775		1770	1690		1770	1863	1583	1770	1860	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	1775		1770	1690		1770	1863	1583	1770	1860	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	21	63	29	185	13	21	6	253	99	21	552	5
RTOR Reduction (vph)	0	17	0	0	15	0	0	0	58	0	1	0
Lane Group Flow (vph)	21	75	0	185	19	0	6	253	41	21	556	0
Turn Type	Prot			Prot			Prot		Perm	Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Actuated Green, G (s)	1.6	9.0		12.3	19.7		0.5	27.2	27.2	1.6	28.3	
Effective Green, g (s)	1.6	9.0		12.3	19.7		0.5	27.2	27.2	1.6	28.3	
Actuated g/C Ratio	0.02	0.14		0.19	0.30		0.01	0.41	0.41	0.02	0.43	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	43	242		329	504		13	767	651	43	796	
v/s Ratio Prot	0.01	c0.04		c0.10	0.01		0.00	0.14		c0.01	c0.30	
v/s Ratio Perm									0.03			
v/c Ratio	0.49	0.31		0.56	0.04		0.46	0.33	0.06	0.49	0.70	
Uniform Delay, d1	31.8	25.7		24.5	16.5		32.7	13.2	11.7	31.8	15.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	8.5	0.7		2.2	0.0		23.8	0.3	0.0	8.5	2.7	
Delay (s)	40.3	26.5		26.6	16.5		56.4	13.5	11.8	40.3	18.1	
Level of Service	D	C		C	B		E	B	B	D	B	
Approach Delay (s)		29.0			25.1			13.7			18.9	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM Average Control Delay	19.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	66.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	51.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	492	83	573	284	144	1019
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	10	12
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.95		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1593	1425	3027		1486	3185
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1593	1425	3027		1486	3185
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	518	87	603	299	152	1073
RTOR Reduction (vph)	0	55	74	0	0	0
Lane Group Flow (vph)	518	32	828	0	152	1073
Turn Type		Perm			Prot	
Protected Phases	8		6		5	2
Permitted Phases		8				
Actuated Green, G (s)	27.7	27.7	26.2		10.4	40.6
Effective Green, g (s)	27.7	27.7	26.2		10.4	40.6
Actuated g/C Ratio	0.36	0.36	0.34		0.14	0.53
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	578	517	1039		203	1695
v/s Ratio Prot	c0.33		c0.27		c0.10	0.34
v/s Ratio Perm		0.02				
v/c Ratio	0.90	0.06	0.80		0.75	0.63
Uniform Delay, d1	22.9	15.8	22.6		31.7	12.6
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	16.4	0.0	6.3		14.0	0.8
Delay (s)	39.3	15.9	29.0		45.7	13.4
Level of Service	D	B	C		D	B
Approach Delay (s)	36.0		29.0			17.4
Approach LOS	D		C			B

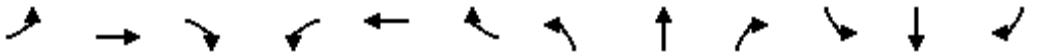
Intersection Summary			
HCM Average Control Delay	25.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	76.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1	591	19	76	1770	12	161	1	211	21	1	10
Ideal Flow (vphpl)	1900	1900	1900	1700	1700	1700	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)	1770	3539	1583	1583	3163			1775	1583		1778	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (perm)	1770	3539	1583	1583	3163			1775	1583		1778	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1	622	20	80	1863	13	169	1	222	22	1	11
RTOR Reduction (vph)	0	0	8	0	0	0	0	0	192	0	0	11
Lane Group Flow (vph)	1	622	12	80	1876	0	0	170	30	0	23	0
Turn Type	Prot		Perm	Prot			Split		Perm	Split		Perm
Protected Phases	1	6		5	2		8	8		7	7	
Permitted Phases			6						8			7
Actuated Green, G (s)	0.7	58.2	58.2	7.8	65.3			13.1	13.1		2.2	2.2
Effective Green, g (s)	0.7	58.2	58.2	7.8	65.3			13.1	13.1		2.2	2.2
Actuated g/C Ratio	0.01	0.60	0.60	0.08	0.67			0.13	0.13		0.02	0.02
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	13	2117	947	127	2123			239	213		40	36
v/s Ratio Prot	0.00	0.18		c0.05	c0.59			c0.10			c0.01	
v/s Ratio Perm			0.01						0.02			0.00
v/c Ratio	0.08	0.29	0.01	0.63	0.88			0.71	0.14		0.57	0.01
Uniform Delay, d1	48.0	9.5	7.9	43.4	12.9			40.3	37.1		47.1	46.5
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	2.5	0.4	0.0	9.4	5.8			9.6	0.3		18.4	0.1
Delay (s)	50.5	9.9	7.9	52.8	18.7			49.9	37.4		65.5	46.6
Level of Service	D	A	A	D	B			D	D		E	D
Approach Delay (s)		9.9			20.1			42.8			59.4	
Approach LOS		A			C			D			E	

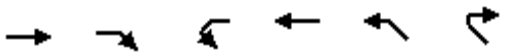
Intersection Summary			
HCM Average Control Delay	21.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	97.3	Sum of lost time (s)	16.0
Intersection Capacity Utilization	84.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	19	13	219	22	251	44	1098	210	200	732	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	10	12	12	12	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.96			0.93		1.00	0.98		1.00	1.00	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1763			1697		1652	3454		1770	3538	
Flt Permitted		0.89			0.83		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1596			1448		1652	3454		1770	3538	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	12	20	14	231	23	264	46	1156	221	211	771	2
RTOR Reduction (vph)	0	9	0	0	38	0	0	15	0	0	0	0
Lane Group Flow (vph)	0	37	0	0	480	0	46	1362	0	211	773	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		1	6		5	2	
Permitted Phases	4			8								
Actuated Green, G (s)		33.0			33.0		4.2	43.6		13.0	52.4	
Effective Green, g (s)		33.0			33.0		4.2	43.6		13.0	52.4	
Actuated g/C Ratio		0.32			0.32		0.04	0.43		0.13	0.52	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		518			470		68	1482		226	1825	
v/s Ratio Prot							0.03	c0.39		c0.12	0.22	
v/s Ratio Perm		0.02			c0.33							
v/c Ratio		0.07			1.02		0.68	0.92		0.93	0.42	
Uniform Delay, d1		23.7			34.3		48.0	27.3		43.9	15.2	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.1			47.1		23.5	10.6		41.6	0.7	
Delay (s)		23.8			81.4		71.5	38.0		85.5	16.0	
Level of Service		C			F		E	D		F	B	
Approach Delay (s)		23.8			81.4			39.1			30.9	
Approach LOS		C			F			D			C	

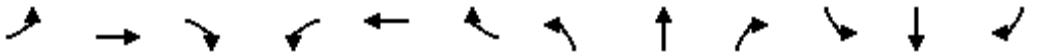
Intersection Summary			
HCM Average Control Delay	43.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	101.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	93.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Volume (vph)	1079	106	94	734	56	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	0.95		1.00	0.95	1.00	
Frt	0.99		1.00	1.00	0.93	
Flt Protected	1.00		0.95	1.00	0.98	
Satd. Flow (prot)	3492		1770	3539	1687	
Flt Permitted	1.00		0.95	1.00	0.98	
Satd. Flow (perm)	3492		1770	3539	1687	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1136	112	99	773	59	72
RTOR Reduction (vph)	10	0	0	0	62	0
Lane Group Flow (vph)	1238	0	99	773	69	0
Turn Type			Prot			
Protected Phases	2		1	6		
Permitted Phases					8	
Actuated Green, G (s)	33.4		20.9	58.3	7.2	
Effective Green, g (s)	33.4		20.9	58.3	7.2	
Actuated g/C Ratio	0.45		0.28	0.79	0.10	
Clearance Time (s)	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	1587		503	2807	165	
v/s Ratio Prot	c0.35		0.06	c0.22		
v/s Ratio Perm					c0.04	
v/c Ratio	0.78		0.20	0.28	0.42	
Uniform Delay, d1	16.9		19.9	2.0	31.2	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	2.5		0.9	0.2	1.7	
Delay (s)	19.4		20.8	2.3	32.9	
Level of Service	B		C	A	C	
Approach Delay (s)	19.4			4.4	32.9	
Approach LOS	B			A	C	

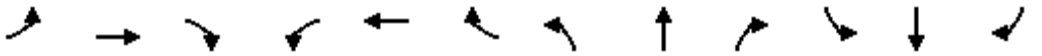
Intersection Summary			
HCM Average Control Delay	14.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	73.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	80	68	249	123	59	103	636	421	57	460	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	12	10	12	12	10	12	12	12	12	12
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.93		1.00	0.95		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1652	1734		1652	1772		1652	1863	1583	1770	3506	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1652	1734		1652	1772		1652	1863	1583	1770	3506	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	39	84	72	262	129	62	108	669	443	60	484	32
RTOR Reduction (vph)	0	32	0	0	19	0	0	0	243	0	4	0
Lane Group Flow (vph)	39	124	0	262	172	0	108	669	200	60	512	0
Turn Type	Prot			Prot			Prot		Perm	Prot		
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases									6			
Actuated Green, G (s)	9.3	13.2		17.8	21.7		8.9	42.6	42.6	4.6	38.3	
Effective Green, g (s)	9.3	13.2		17.8	21.7		8.9	42.6	42.6	4.6	38.3	
Actuated g/C Ratio	0.10	0.14		0.19	0.23		0.09	0.45	0.45	0.05	0.41	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	163	243		312	408		156	843	716	86	1425	
v/s Ratio Prot	0.02	c0.07		c0.16	0.10		0.07	c0.36		c0.03	0.15	
v/s Ratio Perm									0.13			
v/c Ratio	0.24	0.51		0.84	0.42		0.69	0.79	0.28	0.70	0.36	
Uniform Delay, d1	39.2	37.5		36.8	30.9		41.3	22.0	16.2	44.1	19.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.8	1.8		17.7	0.7		12.5	7.6	1.0	21.8	0.7	
Delay (s)	39.9	39.3		54.5	31.6		53.8	29.6	17.2	65.9	20.1	
Level of Service	D	D		D	C		D	C	B	E	C	
Approach Delay (s)		39.4			44.8			27.2			24.9	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM Average Control Delay	30.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	94.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	72.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	10	142	63	28	7	182	1118	35	11	714	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	10	12	12
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.86			0.99		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1603			1788		1770	3523		1652	3503	
Flt Permitted	0.73	1.00			0.60		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1352	1603			1115		1770	3523		1652	3503	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	55	11	149	66	29	7	192	1177	37	12	752	55
RTOR Reduction (vph)	0	125	0	0	3	0	0	2	0	0	8	0
Lane Group Flow (vph)	55	35	0	0	99	0	192	1212	0	12	799	0
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	11.2	11.2			11.2		25.6	46.6		0.7	21.7	
Effective Green, g (s)	11.2	11.2			11.2		25.6	46.6		0.7	21.7	
Actuated g/C Ratio	0.16	0.16			0.16		0.36	0.66		0.01	0.31	
Clearance Time (s)	4.0	4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	215	255			177		643	2329		16	1078	
v/s Ratio Prot		0.02					0.11	c0.34		0.01	c0.23	
v/s Ratio Perm	0.04				c0.09							
v/c Ratio	0.26	0.14			0.56		0.30	0.52		0.75	0.74	
Uniform Delay, d1	26.0	25.5			27.4		16.0	6.2		34.8	21.9	
Progression Factor	1.00	1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.6	0.2			3.8		1.2	0.8		106.0	2.8	
Delay (s)	26.6	25.7			31.1		17.2	7.0		140.8	24.7	
Level of Service	C	C			C		B	A		F	C	
Approach Delay (s)		26.0			31.1			8.4			26.4	
Approach LOS		C			C			A			C	

Intersection Summary			
HCM Average Control Delay	16.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	70.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

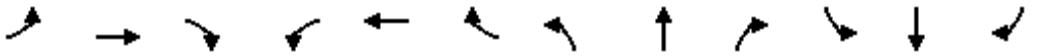
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	31	50	16	125	62	50	21	547	147	55	353	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.96		1.00	0.93		1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	1795		1770	1737		1770	1863	1583	1770	1851	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	1795		1770	1737		1770	1863	1583	1770	1851	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	33	53	17	132	65	53	22	576	155	58	372	17
RTOR Reduction (vph)	0	12	0	0	31	0	0	0	78	0	1	0
Lane Group Flow (vph)	33	58	0	132	87	0	22	576	77	58	388	0
Turn Type	Prot			Prot			Prot		Perm	Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Actuated Green, G (s)	1.8	8.2		8.8	15.2		1.5	36.6	36.6	3.9	39.0	
Effective Green, g (s)	1.8	8.2		8.8	15.2		1.5	36.6	36.6	3.9	39.0	
Actuated g/C Ratio	0.02	0.11		0.12	0.21		0.02	0.50	0.50	0.05	0.53	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	43	200		212	359		36	928	788	94	982	
v/s Ratio Prot	0.02	0.03		c0.07	c0.05		0.01	c0.31		c0.03	0.21	
v/s Ratio Perm									0.05			
v/c Ratio	0.77	0.29		0.62	0.24		0.61	0.62	0.10	0.62	0.39	
Uniform Delay, d1	35.6	30.0		30.8	24.3		35.7	13.4	9.7	34.1	10.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	56.1	0.8		5.6	0.4		27.0	1.3	0.1	11.5	0.3	
Delay (s)	91.8	30.8		36.4	24.7		62.7	14.7	9.8	45.5	10.5	
Level of Service	F	C		D	C		E	B	A	D	B	
Approach Delay (s)		50.3			30.9			15.1			15.0	
Approach LOS		D			C			B			B	

Intersection Summary			
HCM Average Control Delay	20.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	73.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	427	113	1108	294	116	790
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	10	12
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1593	1425	3085		1486	3185
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1593	1425	3085		1486	3185
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	449	119	1166	309	122	832
RTOR Reduction (vph)	0	85	30	0	0	0
Lane Group Flow (vph)	449	34	1445	0	122	832
Turn Type		Perm			Prot	
Protected Phases	8		6		5	2
Permitted Phases		8				
Actuated Green, G (s)	23.0	23.0	38.0		7.0	49.0
Effective Green, g (s)	23.0	23.0	38.0		7.0	49.0
Actuated g/C Ratio	0.29	0.29	0.48		0.09	0.61
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	458	410	1465		130	1951
v/s Ratio Prot	c0.28		c0.47		c0.08	0.26
v/s Ratio Perm		0.02				
v/c Ratio	0.98	0.08	0.99		0.94	0.43
Uniform Delay, d1	28.3	20.8	20.7		36.3	8.1
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	36.8	0.1	20.5		59.5	0.2
Delay (s)	65.1	20.9	41.2		95.8	8.3
Level of Service	E	C	D		F	A
Approach Delay (s)	55.8		41.2			19.5
Approach LOS	E		D			B

Intersection Summary			
HCM Average Control Delay	37.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	87.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	1488	129	228	1067	40	63	3	138	40	6	3
Ideal Flow (vphpl)	1900	1900	1900	1700	1700	1700	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.96	1.00
Satd. Flow (prot)	1770	3539	1583	1583	3150			1778	1583		1785	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.96	1.00
Satd. Flow (perm)	1770	3539	1583	1583	3150			1778	1583		1785	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	11	1566	136	240	1123	42	66	3	145	42	6	3
RTOR Reduction (vph)	0	0	35	0	2	0	0	0	131	0	0	3
Lane Group Flow (vph)	11	1566	101	240	1163	0	0	69	14	0	48	0
Turn Type	Prot		Perm	Prot			Split		Perm	Split		Perm
Protected Phases	1	6		5	2		8	8		7	7	
Permitted Phases			6						8			7
Actuated Green, G (s)	0.8	50.5	50.5	16.4	66.1			8.9	8.9		3.1	3.1
Effective Green, g (s)	0.8	50.5	50.5	16.4	66.1			8.9	8.9		3.1	3.1
Actuated g/C Ratio	0.01	0.53	0.53	0.17	0.70			0.09	0.09		0.03	0.03
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	15	1883	842	274	2194			167	148		58	52
v/s Ratio Prot	0.01	c0.44		c0.15	0.37			c0.04			c0.03	
v/s Ratio Perm			0.06						0.01			0.00
v/c Ratio	0.73	0.83	0.12	0.88	0.53			0.41	0.09		0.83	0.00
Uniform Delay, d1	46.9	18.6	11.1	38.3	6.9			40.5	39.3		45.6	44.4
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	103.2	4.5	0.3	25.3	0.9			1.7	0.3		59.9	0.0
Delay (s)	150.2	23.1	11.4	63.5	7.8			42.2	39.6		105.5	44.4
Level of Service	F	C	B	E	A			D	D		F	D
Approach Delay (s)		23.0			17.4			40.4			101.9	
Approach LOS		C			B			D			F	

Intersection Summary			
HCM Average Control Delay	22.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	94.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	75.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Average Corridor Speed Calculations

Arterial Level of Service: NB Skyway #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
	36	2.2	12.0	0.1	24	23	2.4
Honey Run	35	0.3	2.1	0.0	28	27	0.4
Foster Street	26	0.4	8.5	0.1	33	32	0.5
Fir Street	18	0.4	8.3	0.1	27	26	0.6
	2	0.2	7.8	0.1	29	28	0.3
	3	0.8	16.0	0.1	28	28	0.9
Elliott Road	1	13.9	21.3	0.1	10	7	22.2
Total		18.4	76.0	0.5	23	21	27.3

Arterial Level of Service: NB Skyway #2

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
	24	1.9	24	2.0	23	2.3	24
Honey Run	27	0.2	29	0.2	28	0.4	28
Foster Street	33	0.3	34	0.3	34	0.4	33
Fir Street	27	0.4	28	0.3	27	0.2	27
	29	0.3	29	0.2	29	0.2	29
	28	1.0	29	0.5	29	0.5	28
Elliott Road	14	8.9	10	14.1	12	10.5	9
Total	25	13.0	23	17.7	24	14.6	22

Arterial Level of Service: NB Skyway #2

Cross Street	Run 5 Delay	Run Speed	Run Delay
	1.9	23	2.7
Honey Run	0.2	28	0.5
Foster Street	0.5	32	0.6
Fir Street	0.4	27	0.5
	0.2	29	0.3
	0.9	28	0.9
Elliott Road	15.7	11	12.1
Total	19.8	23	17.5

Arterial Level of Service: SB Skyway #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
	3	1.3	8.6	0.1	26	25	1.5
	2	1.0	16.4	0.1	28	27	1.2
Fir Street	18	1.1	8.8	0.1	25	26	1.2
Foster Street	26	2.0	9.4	0.1	24	25	1.6
Honey Run	35	0.8	9.6	0.1	29	30	0.8
	36	0.3	2.1	0.0	25	26	0.2
Pearson Road	20	10.2	19.1	0.1	15	14	11.8
Total		16.6	74.0	0.5	24	23	18.1

Arterial Level of Service: SB Skyway #2

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
	25	1.6	26	1.3	26	1.2	27
	27	1.0	28	0.9	27	1.1	28
Fir Street	25	1.0	25	1.4	25	1.2	26
Foster Street	23	2.1	22	2.7	23	2.0	25
Honey Run	30	0.7	29	0.9	30	0.8	29
	26	0.2	26	0.3	25	0.3	25
Pearson Road	20	5.0	17	7.9	15	9.7	13
Total	25	11.6	24	15.3	24	16.4	23

Arterial Level of Service: SB Skyway #2

Cross Street	Run 5 Delay	Run Speed	Run Delay
	1.1	26	1.3
	0.9	28	0.9
Fir Street	0.8	25	1.0
Foster Street	1.3	23	2.1
Honey Run	0.9	30	0.7
	0.3	25	0.3
Pearson Road	12.9	12	13.8
Total	18.2	22	20.1

Arterial Level of Service: NB Skyway #3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
	41	2.1	11.3	0.1	28	26	2.6
Oliver Street	15	2.3	16.5	0.1	32	34	1.3
	42	1.0	12.5	0.1	32	33	0.6
	14	0.5	18.8	0.2	34	33	0.5
Maxwell Drive	7	20.4	45.3	0.3	21	22	18.6
	47	2.4	13.7	0.1	24	25	2.2
Bille Road	10	18.7	39.8	0.2	16	20	10.7
Total		47.3	157.9	1.0	24	26	36.5

Arterial Level of Service: NB Skyway #3

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
	28	1.9	27	2.5	29	1.5	28
Oliver Street	33	1.5	32	2.6	36	1.7	30
	33	0.7	32	0.9	33	1.1	32
	34	0.3	34	0.3	34	0.2	33
Maxwell Drive	21	18.1	20	20.8	21	21.0	21
	24	2.4	25	1.9	26	2.0	23
Bille Road	14	22.6	16	19.5	19	11.0	14
Total	24	47.6	24	48.5	26	38.5	23

Arterial Level of Service: NB Skyway #3

Cross Street	Run 5 Delay	Run Speed	Run Delay
	1.9	27	2.2
Oliver Street	2.6	29	3.8
	1.0	31	1.5
	0.4	33	0.9
Maxwell Drive	19.1	18	25.3
	3.0	24	2.9
Bille Road	23.4	15	19.8
Total	51.4	22	56.4

Arterial Level of Service: SB Skyway #3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
	47	3.1	21.9	0.2	29	29	2.9
Maxwell Drive	7	2.8	12.3	0.1	27	30	1.6
	14	2.2	29.3	0.3	32	31	1.6
Center	42	1.3	18.9	0.2	33	34	1.1
Oliver Street	15	13.5	25.1	0.1	16	16	13.3
	41	4.0	19.4	0.1	27	28	3.6
Elliott Road	1	9.2	19.8	0.1	16	15	10.1
Total		36.2	146.6	1.0	26	26	34.1

Arterial Level of Service: SB Skyway #3

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
	29	3.0	29	3.2	28	3.4	29
Maxwell Drive	28	2.4	26	3.3	26	3.5	26
	31	2.2	32	2.2	32	2.5	32
Center	33	1.4	34	1.2	33	1.6	33
Oliver Street	16	13.1	18	10.5	16	13.3	14
	28	3.5	28	3.0	27	4.5	27
Elliott Road	17	7.5	19	6.1	18	7.1	11
Total	26	33.2	27	29.6	26	35.8	24

Arterial Level of Service: SB Skyway #3

Cross Street	Run 5 Delay	Run Speed	Run Delay
	3.0	29	3.2
Maxwell Drive	3.1	26	3.1
	2.5	32	2.1
Center	1.4	33	1.3
Oliver Street	17.3	16	13.2
	5.1	27	4.3
Elliott Road	17.2	17	7.9
Total	49.6	26	35.1

Arterial Level of Service: NE Skyway #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
	40	1.6	5.5	0.0	23	25	1.1
	11	1.6	28.9	0.3	33	33	1.4
	48	3.5	34.9	0.3	31	32	2.8
Wagstaff Road	17	9.4	12.1	0.0	8	8	9.8
Total		16.1	81.4	0.6	28	28	15.1

Arterial Level of Service: NE Skyway #4

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
	23	1.6	22	1.8	26	1.0	22
	33	1.3	33	2.0	32	1.7	34
	32	3.0	31	4.0	31	3.6	31
Wagstaff Road	11	6.1	8	10.4	6	15.0	9
Total	29	12.1	27	18.1	26	21.3	28

Arterial Level of Service: NE Skyway #4

Cross Street	Run 5 Delay	Run Speed	Run Delay
	1.8	21	2.0
	1.4	33	2.2
	2.7	30	4.9
Wagstaff Road	8.5	8	9.4
Total	14.4	27	18.6

Arterial Level of Service: SB Skyway #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
	48	1.4	5.0	0.0	21	21	1.2
	11	2.0	33.9	0.3	32	32	1.8
	40	5.0	32.7	0.3	29	30	3.5
Bille Road	10	15.9	19.3	0.0	7	7	14.0
Total		24.2	91.0	0.6	25	26	20.4

Arterial Level of Service: SB Skyway #4

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
	19	1.7	20	1.4	20	1.4	22
	32	2.1	32	1.7	32	2.3	32
	25	9.7	31	3.9	30	4.7	30
Bille Road	5	23.2	6	16.2	6	16.3	7
Total	22	36.8	25	23.2	25	24.6	26

Arterial Level of Service: SB Skyway #4

Cross Street	Run 5 Delay	Run Speed	Run Delay
	1.0	20	1.5
	1.7	32	2.0
	3.8	30	3.8
Bille Road	15.3	9	10.4
Total	21.7	27	17.7

Arterial Level of Service: NE Skyway #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
	38	2.5	45.4	0.4	33	32	3.2
Black Olive	31	1.2	16.1	0.1	33	33	1.4
Pearson Road	20	19.2	38.5	0.2	18	16	22.3
Total		22.9	100.0	0.7	27	26	26.8

Arterial Level of Service: NE Skyway #1

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
	32	3.1	32	1.8	35	2.4	33
Black Olive	32	1.5	33	1.1	34	0.9	33
Pearson Road	20	14.4	16	21.2	16	21.1	18
Total	28	19.0	26	24.2	27	24.4	27

Arterial Level of Service: NE Skyway #1

Cross Street	Run 5 Delay	Run Speed	Run Delay
	2.0	32	2.6
Black Olive	1.1	33	1.2
Pearson Road	17.5	17	20.2
Total	20.7	27	23.9

Arterial Level of Service: WB Skyway #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Black Olive	31	3.1	22.7	0.2	30	31	2.8
	38	1.1	16.0	0.1	33	33	1.1
Schmale Lane	22	10.0	51.2	0.4	29	30	9.7
Total		14.2	89.8	0.7	30	31	13.6

Arterial Level of Service: WB Skyway #1

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Black Olive	32	2.1	31	2.7	30	3.2	29
	33	1.1	33	1.1	32	1.4	34
Schmale Lane	29	10.1	30	9.2	29	10.4	29
Total	30	13.2	31	13.0	30	14.9	30

Arterial Level of Service: WB Skyway #1

Cross Street	Run 5 Delay	Run Speed	Run Delay
Black Olive	4.8	30	3.1
	0.9	34	0.8
Schmale Lane	9.2	28	11.6
Total	14.9	30	15.5

Arterial Level of Service: NB Skyway #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
	36	3.0	12.9	0.1	22	22	2.8
Honey Run	35	0.3	2.1	0.0	26	25	0.3
Foster Street	26	1.0	9.3	0.1	30	31	0.9
Fir Street	18	1.2	9.1	0.1	24	25	1.1
	2	0.4	7.9	0.1	28	28	0.5
	3	1.5	16.8	0.1	27	27	1.8
Elliott Road	1	19.7	27.2	0.1	8	7	22.4
Total		27.2	85.3	0.5	20	20	29.7

Arterial Level of Service: NB Skyway #2

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
	22	2.8	20	4.4	22	2.9	24
Honey Run	25	0.3	24	0.5	27	0.2	26
Foster Street	31	0.9	30	1.2	30	1.1	31
Fir Street	25	1.1	24	1.3	25	1.2	24
	28	0.4	28	0.5	29	0.3	28
	26	1.9	27	1.7	28	1.1	27
Elliott Road	7	23.3	8	20.6	8	19.2	8
Total	20	30.8	20	30.1	21	26.0	21

Arterial Level of Service: NB Skyway #2

Cross Street	Run 5 Delay	Run Speed	Run Delay
	2.1	22	2.7
Honey Run	0.3	26	0.2
Foster Street	0.9	30	1.1
Fir Street	1.2	23	1.5
	0.5	29	0.3
	1.6	28	1.1
Elliott Road	19.3	11	13.0
Total	25.8	22	20.0

Arterial Level of Service: SB Skyway #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
	3	1.2	8.4	0.1	26	25	1.5
	2	0.8	16.0	0.1	28	28	0.8
Fir Street	18	1.4	8.9	0.1	25	26	1.3
Foster Street	26	2.5	9.9	0.1	22	22	2.5
Honey Run	35	1.3	10.2	0.1	28	29	0.8
	36	0.5	2.3	0.0	23	26	0.2
Pearson Road	20	7.8	16.9	0.1	17	17	7.2
Total		15.5	72.6	0.5	24	24	14.2

Arterial Level of Service: SB Skyway #2

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
	26	1.2	27	1.2	26	1.3	27
	28	0.7	29	0.6	28	0.9	29
Fir Street	28	0.5	22	2.3	26	1.2	24
Foster Street	23	2.3	22	2.4	18	4.7	25
Honey Run	26	1.8	27	1.6	26	1.9	30
	24	0.5	18	1.1	20	0.9	26
Pearson Road	16	8.7	15	9.6	19	5.4	15
Total	24	15.7	23	18.8	24	16.3	24

Arterial Level of Service: SB Skyway #2

Cross Street	Run 5 Delay	Run Speed	Run Delay
	1.0	26	1.3
	0.9	29	0.8
Fir Street	2.1	27	0.9
Foster Street	1.5	25	1.4
Honey Run	0.7	29	0.9
	0.2	25	0.3
Pearson Road	9.6	18	6.3
Total	16.1	25	11.9

Arterial Level of Service: NB Skyway #3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
	41	3.9	13.2	0.1	24	24	3.9
	32	5.2	16.8	0.1	24	23	5.6
Oliver Street	15	3.3	6.9	0.0	19	15	4.9
	42	2.1	13.7	0.1	29	29	2.3
	14	1.0	19.7	0.2	32	32	1.0
Maxwell Drive	7	17.9	43.7	0.3	21	23	15.1
	47	1.8	5.9	0.0	21	21	1.7
Bille Road	10	23.7	51.6	0.2	16	17	21.2
Total		58.9	171.5	1.0	22	22	55.8

Arterial Level of Service: NB Skyway #3

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
	24	3.7	23	4.1	24	3.8	24
	24	4.9	24	5.1	24	4.8	25
Oliver Street	19	3.4	20	2.9	22	2.4	21
	29	2.0	29	1.8	31	1.4	29
	32	0.9	33	0.7	32	0.9	32
Maxwell Drive	20	21.0	22	16.6	23	15.1	20
	21	1.8	21	1.7	21	1.9	21
Bille Road	16	24.8	17	22.8	18	17.8	19
Total	22	62.4	23	55.7	24	48.2	23

Arterial Level of Service: NB Skyway #3

Cross Street	Run 5 Delay	Run Speed	Run Delay
	3.5	23	4.1
	4.8	23	5.9
Oliver Street	2.7	18	3.5
	2.2	28	2.6
	0.9	31	1.5
Maxwell Drive	19.4	20	20.0
	1.8	21	1.9
Bille Road	16.7	13	37.9
Total	52.0	20	77.4

Arterial Level of Service: SB Skyway #3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
	47	5.2	28.9	0.2	29	29	5.6
Maxwell Drive	7	1.8	5.1	0.0	25	24	1.8
	14	1.5	28.9	0.3	32	32	1.6
Center	42	0.9	18.5	0.2	34	34	0.8
Oliver Street	15	21.0	33.1	0.1	12	12	21.4
	32	2.2	6.3	0.0	21	21	2.1
	41	1.3	12.9	0.1	31	31	0.9
Elliott Road	1	14.8	25.4	0.1	12	12	14.9
Total		48.5	159.1	1.0	24	24	49.1

Arterial Level of Service: SB Skyway #3

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
	29	5.4	29	4.5	28	6.0	29
Maxwell Drive	25	1.6	27	1.3	24	2.0	21
	32	1.4	32	1.3	33	1.6	32
Center	34	0.9	34	0.7	35	0.9	35
Oliver Street	12	21.7	12	21.8	11	24.0	13
	20	2.4	20	2.2	21	2.2	21
	31	1.3	30	1.5	30	1.4	31
Elliott Road	11	17.2	10	20.2	14	11.8	12
Total	23	51.8	23	53.6	24	49.9	24

Arterial Level of Service: SB Skyway #3

Cross Street	Run 5 Delay	Run Speed	Run Delay
	4.2	29	5.4
Maxwell Drive	2.7	27	1.5
	1.6	32	1.8
Center	0.8	35	1.0
Oliver Street	17.9	13	18.6
	2.2	21	2.0
	1.4	32	1.2
Elliott Road	15.6	15	10.4
Total	46.4	25	41.9

Arterial Level of Service: NE Skyway #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
	40	1.7	5.6	0.0	23	22	1.7
	11	2.2	29.5	0.3	32	33	2.0
	48	6.1	37.2	0.3	29	28	5.7
Wagstaff Road	17	6.8	9.5	0.0	11	11	6.4
Total		16.7	81.8	0.6	28	28	15.8

Arterial Level of Service: NE Skyway #4

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
	22	1.8	23	1.6	22	1.9	25
	32	2.1	32	2.2	31	2.4	32
	26	9.0	29	7.1	30	4.7	31
Wagstaff Road	9	8.1	10	7.3	12	5.8	11
Total	26	21.0	27	18.1	28	14.7	29

Arterial Level of Service: NE Skyway #4

Cross Street	Run 5 Delay	Run Speed	Run Delay
	1.1	22	1.9
	1.9	32	2.5
	4.1	29	5.7
Wagstaff Road	6.4	11	6.5
Total	13.5	28	16.6

Arterial Level of Service: SB Skyway #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
	48	1.0	4.7	0.0	22	23	0.9
	11	1.2	32.4	0.3	33	33	1.6
	40	2.6	30.3	0.3	31	30	3.7
Bille Road	10	14.5	17.9	0.0	7	7	14.4
Total		19.4	85.3	0.6	27	26	20.6

Arterial Level of Service: SB Skyway #4

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
	19	1.6	23	0.9	24	0.7	21
	33	1.4	33	0.9	34	0.9	34
	32	2.4	32	1.9	32	2.3	32
Bille Road	7	14.9	7	15.1	7	14.5	8
Total	26	20.3	27	18.9	27	18.5	28

Arterial Level of Service: SB Skyway #4

Cross Street	Run 5 Delay	Run Speed	Run Delay
	1.2	23	1.0
	0.8	33	1.5
	1.9	32	3.2
Bille Road	12.3	7	15.9
Total	16.2	26	21.6

Arterial Level of Service: NE Skyway #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
	38	7.0	49.9	0.4	30	30	6.5
Black Olive	31	4.5	19.6	0.1	27	27	4.4
Pearson Road	20	22.3	41.3	0.2	17	16	24.0
Total		33.8	110.7	0.7	24	24	34.9

Arterial Level of Service: NE Skyway #1

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
	30	6.6	28	9.3	30	7.2	30
Black Olive	27	4.8	26	4.9	27	4.6	27
Pearson Road	17	20.4	14	31.3	17	21.7	19
Total	25	31.9	22	45.5	25	33.4	25

Arterial Level of Service: NE Skyway #1

Cross Street	Run 5 Delay	Run Speed	Run Delay
	6.8	31	5.7
Black Olive	4.2	28	3.8
Pearson Road	16.9	18	18.1
Total	27.9	26	27.6

Arterial Level of Service: WB Skyway #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed	Run 1 Speed	Run 1 Delay
Black Olive	31	7.3	26.7	0.2	26	28	5.0
	38	1.0	15.9	0.1	33	33	1.2
Schmale Lane	22	8.7	49.1	0.4	30	30	9.5
Total		17.0	91.7	0.7	29	30	15.7

Arterial Level of Service: WB Skyway #1

Cross Street	Run 2 Speed	Run 2 Delay	Run 3 Speed	Run 3 Delay	Run 4 Speed	Run 4 Delay	Run 5 Speed
Black Olive	22	11.4	23	9.3	28	4.2	26
	33	1.1	33	1.1	33	0.9	34
Schmale Lane	31	8.4	29	9.9	30	9.0	31
Total	28	21.0	28	20.3	30	14.2	30

Arterial Level of Service: WB Skyway #1

Cross Street	Run 5 Delay	Run Speed	Run Delay
Black Olive	8.1	27	6.0
	0.9	34	0.8
Schmale Lane	7.0	31	8.4
Total	16.1	30	15.1

Arterial Level of Service: NB Skyway #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	33	2.3	6.9	0.0	19
	36	1.6	6.8	0.0	24
Honey Run	35	0.7	2.5	0.0	24
Foster Street	26	1.1	9.2	0.1	30
Fir Street	18	1.0	8.9	0.1	25
	2	0.4	8.0	0.1	28
	3	1.6	18.9	0.1	27
Elliott Road	1	17.0	22.5	0.0	7
Total		25.6	83.8	0.5	21

Arterial Level of Service: SB Skyway #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	3	5.3	11.0	0.0	15
	2	2.3	19.4	0.1	26
Fir Street	18	3.2	10.8	0.1	23
Foster Street	26	2.3	9.6	0.1	24
Honey Run	35	2.4	11.3	0.1	25
	36	0.9	2.8	0.0	20
	33	3.9	9.0	0.0	17
Pearson Road	20	10.1	14.0	0.0	9
Total		30.4	87.9	0.5	20

Arterial Level of Service: NB Skyway #3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	41	1.8	11.3	0.1	28
Oliver Street	15	2.3	16.6	0.1	32
	42	1.0	12.6	0.1	32
	14	0.5	18.8	0.2	34
Maxwell Drive	7	21.4	46.5	0.3	20
Bille Road	10	18.9	51.3	0.3	19
Total		46.0	157.1	1.0	24

Arterial Level of Service: WB Skyway #3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Maxwell Drive	7	6.7	34.0	0.3	28
	14	2.2	29.4	0.3	32
Center	42	1.2	18.8	0.2	34
Oliver Street	15	13.2	24.9	0.1	16
	41	4.9	20.2	0.1	26
Elliott Road	1	19.6	30.0	0.1	10
Total		47.9	157.4	1.0	24

Arterial Level of Service: NE Skyway #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	40	1.5	5.3	0.0	24
	11	1.3	29.0	0.3	33
	48	2.8	34.1	0.3	32
Wagstaff Road	17	8.3	11.0	0.0	9
Total		13.8	79.4	0.6	28

Arterial Level of Service: SB Skyway #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	48	1.2	4.8	0.0	21
	11	2.1	33.4	0.3	32
	40	5.7	33.2	0.3	29
Bille Road	10	16.5	20.0	0.0	6
Total		25.4	91.4	0.6	25

Arterial Level of Service: NE Skyway #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	38	3.0	45.6	0.4	32
Black Olive	31	1.4	16.4	0.1	32
Pearson Road	20	35.0	54.6	0.2	12
Total		39.4	116.6	0.7	23

Arterial Level of Service: WB Skyway #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Olive	31	2.2	22.0	0.2	31
	38	0.9	16.0	0.1	33
Schmale Lane	22	9.7	50.9	0.4	29
Total		12.8	88.8	0.7	30

Arterial Level of Service: NB Skyway #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	33	2.5	7.1	0.0	18
	36	1.4	6.7	0.0	23
Honey Run	35	0.5	2.4	0.0	23
Foster Street	26	2.0	10.4	0.1	27
Fir Street	18	2.6	10.5	0.1	21
	2	0.8	8.3	0.1	27
	3	4.0	21.1	0.1	24
Elliott Road	1	17.7	23.1	0.0	7
Total		31.4	89.4	0.5	19

Arterial Level of Service: SB Skyway #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	3	3.7	9.4	0.0	17
	2	1.7	18.9	0.1	27
Fir Street	18	2.2	9.7	0.1	24
Foster Street	26	1.3	8.7	0.1	26
Honey Run	35	1.5	10.4	0.1	27
	36	0.4	2.2	0.0	24
	33	1.2	6.3	0.0	24
Pearson Road	20	7.1	11.1	0.0	12
Total		19.2	76.7	0.5	23

Arterial Level of Service: NB Skyway #3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	41	2.0	11.4	0.1	27
Oliver Street	15	5.7	20.6	0.1	26
	42	2.2	13.7	0.1	29
	14	1.1	19.4	0.2	33
Maxwell Drive	7	15.2	41.1	0.3	23
Bille Road	10	29.0	61.7	0.3	16
Total		55.2	167.9	1.0	22

Arterial Level of Service: WB Skyway #3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Maxwell Drive	7	4.4	29.9	0.3	32
	14	1.5	29.1	0.3	32
Center	42	0.8	18.2	0.2	35
Oliver Street	15	18.5	30.5	0.1	13
	41	3.9	19.3	0.1	28
Elliott Road	1	12.7	22.8	0.1	14
Total		41.8	149.9	1.0	25

Arterial Level of Service: NE Skyway #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	40	1.6	5.4	0.0	23
	11	2.3	29.6	0.3	32
	48	5.9	36.9	0.3	29
Wagstaff Road	17	6.5	9.2	0.0	11
Total		16.3	81.1	0.6	28

Arterial Level of Service: SB Skyway #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	48	1.0	4.6	0.0	22
	11	1.3	32.8	0.3	33
	40	2.7	30.4	0.3	31
Bille Road	10	15.8	19.3	0.0	7
Total		20.8	87.1	0.6	26

Arterial Level of Service: NE Skyway #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	38	6.8	49.6	0.4	30
Black Olive	31	9.1	24.3	0.1	22
Pearson Road	20	95.1	114.3	0.2	6
Total		110.9	188.2	0.7	15

Arterial Level of Service: WB Skyway #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Olive	31	2.1	21.5	0.2	32
	38	0.8	15.9	0.1	33
Schmale Lane	22	7.6	48.5	0.4	31
Total		10.5	85.9	0.7	31

Arterial Level of Service: NB Skyway #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	33	1.4	6.0	0.0	22
	36	1.4	6.7	0.0	24
Honey Run	35	0.7	2.6	0.0	24
Foster Street	26	2.1	10.2	0.1	28
Fir Street	18	10.5	18.3	0.1	12
	2	1.0	8.5	0.1	26
	3	1.9	19.1	0.1	27
Elliott Road	1	15.8	21.3	0.0	8
Total		34.9	92.7	0.5	19

Arterial Level of Service: SB Skyway #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	3	5.0	10.6	0.0	15
	2	3.1	20.5	0.1	25
Fir Street	18	6.9	14.4	0.1	18
Foster Street	26	3.9	11.6	0.1	21
Honey Run	35	2.4	11.3	0.1	25
	36	0.8	2.7	0.0	20
	33	2.3	7.3	0.0	21
Pearson Road	20	7.3	11.3	0.0	11
Total		31.7	89.6	0.5	20

Arterial Level of Service: NB Skyway #3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	41	1.7	11.1	0.1	28
Oliver Street	15	1.9	16.1	0.1	33
	42	0.8	12.4	0.1	32
	14	0.4	19.1	0.2	33
Maxwell Drive	7	18.8	44.0	0.3	21
Bille Road	10	18.7	50.6	0.3	19
Total		42.4	153.2	1.0	25

Arterial Level of Service: WB Skyway #3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Maxwell Drive	7	8.3	36.1	0.3	27
	14	2.6	29.9	0.3	31
Center	42	1.2	19.0	0.2	33
Oliver Street	15	14.9	26.6	0.1	15
	41	4.9	20.3	0.1	26
Elliott Road	1	16.0	26.4	0.1	12
Total		48.0	158.3	1.0	24

Arterial Level of Service: NE Skyway #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	40	1.5	5.3	0.0	24
	11	1.4	29.0	0.3	33
	48	2.8	33.5	0.3	32
Wagstaff Road	17	5.8	8.5	0.0	12
Total		11.5	76.3	0.6	30

Arterial Level of Service: SB Skyway #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	48	1.3	4.9	0.0	21
	11	2.2	33.8	0.3	32
	40	4.7	32.1	0.3	30
Bille Road	10	14.5	18.0	0.0	7
Total		22.7	88.7	0.6	25

Arterial Level of Service: NE Skyway #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	38	2.5	45.0	0.4	33
Black Olive	31	7.8	22.8	0.1	23
Pearson Road	20	23.5	42.8	0.2	16
Total		33.8	110.6	0.7	24

Arterial Level of Service: WB Skyway #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Olive	31	6.0	25.8	0.2	26
	38	2.0	17.3	0.1	31
Schmale Lane	22	11.0	52.4	0.4	28
Total		19.0	95.4	0.7	28

Arterial Level of Service: NB Skyway #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	33	1.6	6.5	0.0	21
	36	1.6	6.7	0.0	21
Honey Run	35	0.8	2.7	0.0	20
Foster Street	26	6.1	14.5	0.1	19
Fir Street	18	9.2	17.1	0.1	13
	2	1.3	8.8	0.1	25
	3	5.2	22.6	0.1	23
Elliott Road	1	16.0	21.4	0.0	8
Total		41.8	100.3	0.5	17

Arterial Level of Service: SB Skyway #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	3	3.7	9.5	0.0	17
	2	2.7	20.0	0.1	26
Fir Street	18	8.5	15.8	0.1	16
Foster Street	26	6.7	14.3	0.1	16
Honey Run	35	11.0	19.9	0.1	14
	36	1.4	3.3	0.0	16
	33	0.8	5.6	0.0	26
Pearson Road	20	4.3	8.6	0.0	16
Total		39.2	96.9	0.5	18

Arterial Level of Service: NB Skyway #3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	41	1.8	11.3	0.1	28
Oliver Street	15	5.3	20.4	0.1	26
	42	2.4	14.0	0.1	29
	14	1.1	19.6	0.2	32
Maxwell Drive	7	18.0	44.1	0.3	21
Bille Road	10	23.1	56.1	0.3	17
Total		51.7	165.5	1.0	23

Arterial Level of Service: WB Skyway #3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Maxwell Drive	7	4.6	30.5	0.3	32
	14	1.6	28.8	0.3	32
Center	42	1.0	18.5	0.2	34
Oliver Street	15	16.7	28.8	0.1	14
	41	3.9	19.1	0.1	28
Elliott Road	1	13.1	23.2	0.1	14
Total		40.8	148.9	1.0	25

Arterial Level of Service: NE Skyway #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	40	1.5	5.4	0.0	23
	11	2.2	29.7	0.3	32
	48	5.8	37.5	0.3	29
Wagstaff Road	17	8.0	10.8	0.0	9
Total		17.5	83.4	0.6	27

Arterial Level of Service: SB Skyway #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	48	1.1	4.7	0.0	22
	11	1.2	32.1	0.3	33
	40	2.6	30.3	0.3	31
Bille Road	10	15.8	19.3	0.0	7
Total		20.8	86.4	0.6	26

Arterial Level of Service: NE Skyway #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	38	7.8	51.3	0.4	29
Black Olive	31	13.3	28.7	0.1	18
Pearson Road	20	47.6	66.8	0.2	10
Total		68.8	146.8	0.7	18

Arterial Level of Service: WB Skyway #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Olive	31	4.1	23.5	0.2	29
	38	1.1	16.3	0.1	32
Schmale Lane	22	8.4	49.0	0.4	30
Total		13.6	88.9	0.7	30

Arterial Level of Service: NB Skyway #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	33	2.5	8.8	0.1	21
	36	1.2	4.7	0.0	24
Honey Run	35	0.7	2.5	0.0	25
Foster Street	26	0.8	9.0	0.1	31
Fir Street	18	1.0	8.1	0.1	27
	3	0.3	3.6	0.0	24
	2	1.5	20.2	0.2	27
Elliott Road	1	14.1	22.8	0.1	12
Total		22.1	79.9	0.5	22

Arterial Level of Service: SB Skyway #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	2	2.1	11.2	0.1	24
	3	10.0	28.8	0.2	19
Fir Street	18	6.7	10.0	0.0	12
Foster Street	26	10.4	17.4	0.1	14
Honey Run	35	2.6	11.6	0.1	24
	36	0.5	2.4	0.0	22
	33	0.9	4.2	0.0	23
Pearson Road	20	11.3	17.0	0.1	11
Total		44.5	102.6	0.5	18

Arterial Level of Service: NB Skyway #3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	41	1.7	11.1	0.1	28
Oliver Street	15	4.5	18.9	0.1	28
	42	1.6	13.0	0.1	31
	14	1.1	19.5	0.2	32
Maxwell Drive	7	26.3	51.8	0.3	18
Bille Road	10	17.1	48.6	0.3	20
Total		52.3	163.0	1.0	23

Arterial Level of Service: SW Skyway #3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Maxwell Drive	7	12.4	38.8	0.3	25
	14	3.2	30.4	0.3	30
Center	42	4.3	22.1	0.2	29
Oliver Street	15	20.2	31.9	0.1	13
	41	6.9	22.5	0.1	24
Elliott Road	1	15.3	25.6	0.1	13
Total		62.4	171.3	1.0	22

Arterial Level of Service: NE Skyway #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	11	3.4	34.0	0.3	32
Wagstaff Road	17	5.9	37.9	0.3	31
Total		9.2	71.9	0.6	31

Arterial Level of Service: SB Skyway #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	11	3.8	38.0	0.3	31
Bille Road	10	27.3	57.9	0.3	19
Total		31.1	95.9	0.6	24

Arterial Level of Service: NE Skyway #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	38	2.9	46.1	0.4	32
Black Olive	31	1.4	16.4	0.1	32
Pearson Road	20	29.0	48.6	0.2	14
Total		33.3	111.1	0.7	24

Arterial Level of Service: WB Skyway #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Olive	31	2.5	22.1	0.2	31
	38	0.9	15.9	0.1	33
Schmale Lane	22	10.3	51.5	0.4	29
Total		13.7	89.6	0.7	30

Arterial Level of Service: NB Skyway #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	33	6.9	13.2	0.1	14
	36	5.0	8.6	0.0	12
Honey Run	35	1.4	3.3	0.0	16
Foster Street	26	2.8	11.2	0.1	25
Fir Street	18	2.6	9.7	0.1	22
	3	0.5	3.8	0.0	23
	2	4.2	22.8	0.2	24
Elliott Road	1	22.6	31.3	0.1	10
Total		45.9	103.9	0.5	17

Arterial Level of Service: SB Skyway #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	2	1.1	10.3	0.1	26
	3	12.0	30.9	0.2	18
Fir Street	18	10.1	13.4	0.0	8
Foster Street	26	18.2	25.2	0.1	9
Honey Run	35	7.3	16.3	0.1	17
	36	0.9	2.8	0.0	19
	33	0.6	3.9	0.0	25
Pearson Road	20	8.5	14.2	0.1	13
Total		58.7	117.0	0.5	15

Arterial Level of Service: NB Skyway #3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	41	1.7	11.0	0.1	28
Oliver Street	15	11.2	26.3	0.1	20
	42	3.3	14.8	0.1	27
	14	1.7	20.3	0.2	31
Maxwell Drive	7	19.6	45.0	0.3	21
Bille Road	10	22.8	54.9	0.3	17
Total		60.3	172.4	1.0	22

Arterial Level of Service: SW Skyway #3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Maxwell Drive	7	10.9	37.4	0.3	26
	14	2.9	30.3	0.3	31
Center	42	2.2	20.0	0.2	32
Oliver Street	15	22.7	34.6	0.1	12
	41	4.4	19.8	0.1	27
Elliott Road	1	7.9	18.2	0.1	17
Total		51.1	160.3	1.0	24

Arterial Level of Service: NE Skyway #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	11	3.8	34.8	0.3	31
Wagstaff Road	17	11.1	45.1	0.3	26
Total		14.9	79.9	0.6	28

Arterial Level of Service: SB Skyway #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	11	2.5	36.5	0.3	32
Bille Road	10	19.9	49.8	0.3	22
Total		22.4	86.3	0.6	26

Arterial Level of Service: NE Skyway #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	38	7.6	50.7	0.4	29
Black Olive	31	7.7	23.1	0.1	23
Pearson Road	20	91.8	110.8	0.2	6
Total		107.2	184.5	0.7	15

Arterial Level of Service: WB Skyway #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Black Olive	31	2.7	22.0	0.2	31
	38	0.8	15.7	0.1	34
Schmale Lane	22	7.4	47.8	0.4	31
Total		10.8	85.4	0.7	32

Arterial Level of Service: NB Skyway #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	33	2.0	8.5	0.1	22
	36	0.4	3.9	0.0	25
Honey Run	35	0.2	2.1	0.0	26
Foster Street	26	0.6	8.6	0.1	33
Fir Street	18	0.8	8.0	0.1	27
	2	1.5	23.6	0.2	27
Elliott Road	1	18.0	26.9	0.1	10
Total		23.6	81.5	0.5	21

Arterial Level of Service: SB Skyway #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	2	1.4	10.6	0.1	25
Fir Street	18	6.0	27.7	0.2	23
Foster Street	26	7.5	14.5	0.1	16
Honey Run	35	2.1	10.9	0.1	26
	36	0.5	2.4	0.0	23
	33	0.7	3.9	0.0	25
Pearson Road	20	10.0	15.7	0.1	12
Total		28.2	85.7	0.5	21

Arterial Level of Service: NB Skyway #3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	41	1.8	11.3	0.1	28
Oliver Street	15	4.2	18.2	0.1	29
	42	1.7	13.4	0.1	30
	14	1.1	19.4	0.2	33
Maxwell Drive	7	24.4	49.4	0.3	19
Bille Road	10	18.6	49.7	0.3	19
Total		51.9	161.3	1.0	23

Arterial Level of Service: SW Skyway #3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Maxwell Drive	7	13.0	39.7	0.3	24
	14	3.2	30.2	0.3	31
Center	42	2.9	20.5	0.2	31
Oliver Street	15	19.8	31.3	0.1	13
	41	7.2	22.6	0.1	23
Elliott Road	1	15.4	25.6	0.1	13
Total		61.5	169.8	1.0	22

Arterial Level of Service: NE Skyway #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	37	1.7	7.2	0.0	25
	11	1.5	27.6	0.3	33
	32	2.8	32.2	0.3	32
Wagstaff Road	17	6.5	10.2	0.0	14
Total		12.5	77.2	0.6	29

Arterial Level of Service: SB Skyway #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	32	1.8	6.0	0.0	23
	11	1.9	32.0	0.3	32
	37	10.8	37.2	0.3	24
Bille Road	10	24.3	29.3	0.0	6
Total		38.8	104.6	0.6	22

Arterial Level of Service: NE Skyway #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	38	2.6	45.8	0.4	32
Black Olive	31	1.4	16.4	0.1	32
	3	0.3	3.0	0.0	31
Pearson Road	20	22.4	39.3	0.2	15
Total		26.6	104.5	0.7	26

Arterial Level of Service: WB Skyway #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	3	2.7	20.4	0.2	29
Black Olive	31	0.4	3.1	0.0	32
	38	1.0	16.0	0.1	33
Schmale Lane	22	9.9	51.1	0.4	29
Total		14.0	90.6	0.7	30

Arterial Level of Service: NB Skyway #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	33	3.3	9.7	0.1	19
	36	1.5	5.0	0.0	19
Honey Run	35	0.5	2.5	0.0	22
Foster Street	26	1.8	10.1	0.1	28
Fir Street	18	2.2	9.5	0.1	22
	2	12.7	35.0	0.2	18
Elliott Road	1	21.8	30.6	0.1	9
Total		43.9	102.4	0.5	17

Arterial Level of Service: SB Skyway #2

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	2	2.2	11.4	0.1	23
Fir Street	18	16.5	37.8	0.2	17
Foster Street	26	14.9	22.1	0.1	10
Honey Run	35	8.9	17.9	0.1	16
	36	1.8	3.7	0.0	15
	33	0.5	3.7	0.0	26
Pearson Road	20	5.1	10.8	0.1	17
Total		50.0	107.3	0.5	16

Arterial Level of Service: NB Skyway #3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	41	2.2	11.7	0.1	27
Oliver Street	15	13.7	28.9	0.1	18
	42	3.9	15.5	0.1	26
	14	2.0	20.7	0.2	31
Maxwell Drive	7	23.7	50.0	0.3	19
Bille Road	10	22.1	54.0	0.3	18
Total		67.5	180.8	1.0	21

Arterial Level of Service: SW Skyway #3

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Maxwell Drive	7	7.1	32.4	0.3	30
	14	3.0	30.0	0.3	31
Center	42	2.7	20.4	0.2	31
Oliver Street	15	24.6	36.3	0.1	11
	41	9.0	24.3	0.1	22
Elliott Road	1	15.6	25.9	0.1	13
Total		62.0	169.2	1.0	22

Arterial Level of Service: NE Skyway #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	37	1.9	7.4	0.0	24
	11	1.9	27.7	0.3	33
	32	4.4	34.8	0.3	30
Wagstaff Road	17	8.1	11.9	0.0	12
Total		16.4	81.8	0.6	28

Arterial Level of Service: SB Skyway #4

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	32	1.4	5.6	0.0	25
	11	1.5	31.9	0.3	32
	37	3.0	29.3	0.3	31
Bille Road	10	18.2	23.0	0.0	8
Total		24.1	89.8	0.6	25

Arterial Level of Service: NE Skyway #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	38	7.3	50.2	0.4	29
Black Olive	31	4.3	19.4	0.1	27
	3	0.7	3.5	0.0	27
Pearson Road	20	21.9	38.3	0.2	15
Total		34.1	111.4	0.7	24

Arterial Level of Service: WB Skyway #1

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	3	2.4	19.8	0.2	30
Black Olive	31	0.9	3.5	0.0	27
	38	0.6	15.7	0.1	34
Schmale Lane	22	6.5	46.8	0.4	32
Total		10.3	85.8	0.7	31