

# Appendix B – Traffic Analysis Software Results

US 62 Corridor Planning Study

*Hardin County, KY*  
May 19, 2023

Lanes, Volumes, Timings  
3: US 62 & Brook St

05/18/2023























Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	5	5	480	5	5	585
Future Volume (vph)	5	5	480	5	5	585
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932		0.999			
Flt Protected	0.976					
Satd. Flow (prot)	1694	0	3536	0	0	3539
Flt Permitted	0.976					
Satd. Flow (perm)	1694	0	3536	0	0	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	802		662			816
Travel Time (s)	18.2		15.0			18.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	5	522	5	5	636
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	527	0	0	641
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	29.7%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	110	30	50	10	25	5	30	445	10	5	530	65
Future Volume (vph)	110	30	50	10	25	5	30	445	10	5	530	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	0		0	250		0	100		100
Storage Lanes	1		0	0		0	1		0	1		1
Taper Length (ft)	25			25			50			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt		0.907			0.984			0.997				0.850
Flt Protected	0.950				0.987		0.950			0.950		
Satd. Flow (prot)	1770	1690	0	0	1809	0	1770	3529	0	1770	3539	1583
Flt Permitted	0.729				0.903		0.399			0.471		
Satd. Flow (perm)	1358	1690	0	0	1655	0	743	3529	0	877	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		47			4			2				61
Link Speed (mph)		30			30			30				30
Link Distance (ft)		776			653			816				2071
Travel Time (s)		17.6			14.8			18.5				47.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	120	33	54	11	27	5	33	484	11	5	576	71
Shared Lane Traffic (%)												
Lane Group Flow (vph)	120	87	0	0	43	0	33	495	0	5	576	71
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			12				12
Link Offset(ft)		12			0			0				0
Crosswalk Width(ft)		16			24			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			4		5	2		1	6	
Permitted Phases	4			4			2			6		6

Lanes, Volumes, Timings  
5: US 62 & French St

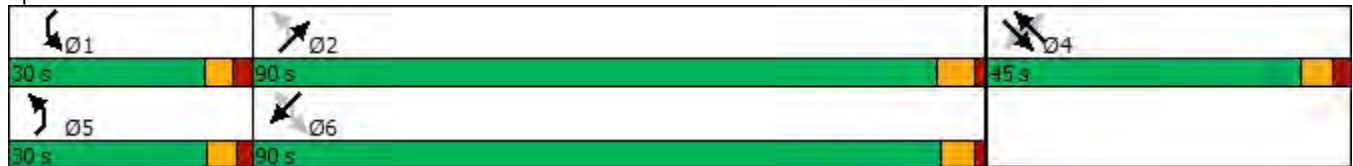
05/18/2023

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	4	4		4	4		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		4.0	15.0		4.0	15.0	15.0
Minimum Split (s)	24.3	24.3		24.3	24.3		9.6	24.0		9.9	23.5	23.5
Total Split (s)	45.0	45.0		45.0	45.0		30.0	90.0		30.0	90.0	90.0
Total Split (%)	27.3%	27.3%		27.3%	27.3%		18.2%	54.5%		18.2%	54.5%	54.5%
Maximum Green (s)	38.7	38.7		38.7	38.7		24.4	84.0		24.1	84.5	84.5
Yellow Time (s)	3.8	3.8		3.8	3.8		3.5	4.7		3.5	4.2	4.2
All-Red Time (s)	2.5	2.5		2.5	2.5		2.1	1.3		2.4	1.3	1.3
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.3	6.3			6.3		5.6	6.0		5.9	5.5	5.5
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	2.2		3.0	2.2	2.2
Recall Mode	None	None		None	None		None	Min		None	Min	Min
Act Effect Green (s)	10.3	10.3			10.3		21.5	20.0		19.6	18.2	18.2
Actuated g/C Ratio	0.23	0.23			0.23		0.48	0.45		0.44	0.41	0.41
v/c Ratio	0.38	0.20			0.11		0.07	0.31		0.01	0.40	0.11
Control Delay	20.3	10.8			15.5		6.3	9.9		6.4	12.5	5.7
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	20.3	10.8			15.5		6.3	9.9		6.4	12.5	5.7
LOS	C	B			B		A	A		A	B	A
Approach Delay		16.3			15.5			9.6			11.7	
Approach LOS		B			B			A			B	

Intersection Summary

Area Type: Other  
 Cycle Length: 165  
 Actuated Cycle Length: 44.9  
 Natural Cycle: 60  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.40  
 Intersection Signal Delay: 11.7  
 Intersection LOS: B  
 Intersection Capacity Utilization 45.2%  
 ICU Level of Service A  
 Analysis Period (min) 15


















Splits and Phases: 5: US 62 & French St



Lanes, Volumes, Timings

8: US 62 & Main St

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	5	0	5	5	0	125	10	540	10	75	590	5
Future Volume (vph)	5	0	5	5	0	125	10	540	10	75	590	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	200		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95
Frt		0.932			0.870			0.997			0.999	
Flt Protected		0.976			0.998			0.999		0.950		
Satd. Flow (prot)	0	1694	0	0	1617	0	0	3525	0	1770	3536	0
Flt Permitted		0.976			0.998			0.999		0.950		
Satd. Flow (perm)	0	1694	0	0	1617	0	0	3525	0	1770	3536	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		288			444			2071			149	
Travel Time (s)		6.5			10.1			47.1			3.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	0	5	5	0	136	11	587	11	82	641	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	10	0	0	141	0	0	609	0	82	646	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			24			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	50.0%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
11: US 62 & Ring Rd

05/18/2023

Lane Group	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER	NER2
Lane Configurations												
Traffic Volume (vph)	15	560	490	5	5	5	355	10	105	170	480	5
Future Volume (vph)	15	560	490	5	5	5	355	10	105	170	480	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		100	100	0		100	0		0	200	0	
Storage Lanes		1	1	0		1	1		1	2	2	
Taper Length (ft)		50		25			25			100		
Lane Util. Factor	1.00	0.97	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.88	0.95
Frt			0.850			0.850			0.850		0.850	
Flt Protected	0.950	0.950			0.976		0.950	0.955		0.950		
Satd. Flow (prot)	1770	3433	1583	0	1818	1583	1681	1690	1583	3433	2787	0
Flt Permitted	0.950	0.950			0.976		0.950	0.955		0.950		
Satd. Flow (perm)	1770	3433	1583	0	1818	1583	1681	1690	1583	3433	2787	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			213			82			114		80	
Link Speed (mph)		30			30			30		30		
Link Distance (ft)		400			333			1291		698		
Travel Time (s)		9.1			7.6			29.3		15.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	609	533	5	5	5	386	11	114	185	522	5
Shared Lane Traffic (%)							49%					
Lane Group Flow (vph)	16	609	533	0	10	5	197	200	114	185	527	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right	Right
Median Width(ft)		48			12			12		24		
Link Offset(ft)		0			0			18		0		
Crosswalk Width(ft)		16			30			28		70		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15	9	15		9	15		9	15	9	9
Number of Detectors	1	1	1	1	2	1	1	2	1	1	1	
Detector Template	Left	Left	Right	Left	Thru	Right	Left	Thru	Right	Left	Right	
Leading Detector (ft)	20	20	20	20	100	20	20	100	20	20	20	
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	20	20	20	6	20	20	6	20	20	20	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)					94			94				
Detector 2 Size(ft)					6			6				
Detector 2 Type					Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0				
Turn Type	Prot	Prot	Perm	Split	NA	Perm	Split	NA	Perm	Prot	Prot	
Protected Phases	1	6		4	4		8	8		5	2	
Permitted Phases			6			4			8			

Lanes, Volumes, Timings  
11: US 62 & Ring Rd

05/18/2023



Lane Group	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER	NER2
Detector Phase	1	6	6	4	4	4	8	8	8	5	2	
Switch Phase												
Minimum Initial (s)	5.0	25.0	25.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0	25.0	
Minimum Split (s)	11.5	32.0	32.0	22.5	22.5	22.5	46.6	46.6	46.6	22.5	49.3	
Total Split (s)	45.0	90.0	90.0	45.0	45.0	45.0	46.6	46.6	46.6	45.0	90.0	
Total Split (%)	19.9%	39.7%	39.7%	19.9%	19.9%	19.9%	20.6%	20.6%	20.6%	19.9%	39.7%	
Maximum Green (s)	38.5	83.0	83.0	38.5	38.5	38.5	40.0	40.0	40.0	38.9	83.7	
Yellow Time (s)	3.5	4.7	4.7	4.6	4.6	4.6	4.7	4.7	4.7	3.5	4.0	
All-Red Time (s)	3.0	2.3	2.3	1.9	1.9	1.9	1.9	1.9	1.9	2.6	2.3	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.5	7.0	7.0		6.5	6.5	6.6	6.6	6.6	6.1	6.3	
Lead/Lag	Lead	Lag	Lag							Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes							Yes	Yes	
Vehicle Extension (s)	3.0	2.6	2.6	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.6	
Recall Mode	None	Min	Min	None	None	None	None	None	None	None	Min	
Walk Time (s)							7.0	7.0	7.0		7.0	
Flash Dont Walk (s)							33.0	33.0	33.0		36.0	
Pedestrian Calls (#/hr)							0	0	0		0	
Act Effct Green (s)	7.1	35.1	35.1		6.7	6.7	20.1	20.1	20.1	12.5	50.6	
Actuated g/C Ratio	0.08	0.38	0.38		0.07	0.07	0.22	0.22	0.22	0.13	0.54	
v/c Ratio	0.12	0.47	0.73		0.08	0.03	0.54	0.55	0.27	0.40	0.34	
Control Delay	54.5	25.2	23.1		55.2	0.2	41.9	42.0	9.1	44.7	14.2	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	54.5	25.2	23.1		55.2	0.2	41.9	42.0	9.1	44.7	14.2	
LOS	D	C	C		E	A	D	D	A	D	B	
Approach Delay		24.7			36.9			34.6		22.1		
Approach LOS		C			D			C		C		

Intersection Summary

Area Type:	Other
Cycle Length:	226.6
Actuated Cycle Length:	93.3
Natural Cycle:	130
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.73
Intersection Signal Delay:	26.1
Intersection LOS:	C
Intersection Capacity Utilization:	58.9%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 11: US 62 & Ring Rd



Lanes, Volumes, Timings  
14: Dolphin Dr & US 62

05/18/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	740	0	0	1005	125	0	5	5	0	0	60
Future Volume (vph)	100	740	0	0	1005	125	0	5	5	0	0	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.983			0.932				0.865
Flt Protected	0.950											
Satd. Flow (prot)	1770	3539	0	0	3479	0	0	1736	0	0	0	1611
Flt Permitted	0.950											
Satd. Flow (perm)	1770	3539	0	0	3479	0	0	1736	0	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		400			1196			275				468
Travel Time (s)		9.1			27.2			6.3				10.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	804	0	0	1092	136	0	5	5	0	0	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	109	804	0	0	1228	0	0	10	0	0	0	65
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Free

**Intersection Summary**

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 65.6% ICU Level of Service C

Analysis Period (min) 15



Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	640	90	40	1020	15	90	5	55	5	15	20
Future Volume (vph)	15	640	90	40	1020	15	90	5	55	5	15	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		200	240		0	0		0	25		0
Storage Lanes	1		1	1		0	0		1	1		0
Taper Length (ft)	75			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.998				0.850		0.913	
Flt Protected	0.950			0.950				0.955		0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3532	0	0	1779	1583	1770	1701	0
Flt Permitted	0.950			0.950				0.955		0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3532	0	0	1779	1583	1770	1701	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			135		1				140		22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1196			659			621			278	
Travel Time (s)		27.2			15.0			14.1			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	696	98	43	1109	16	98	5	60	5	16	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	696	98	43	1125	0	0	103	60	5	38	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			12			0			12	
Link Offset(ft)		-12			0			50			-20	
Crosswalk Width(ft)		70			40			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases			2						4			

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023

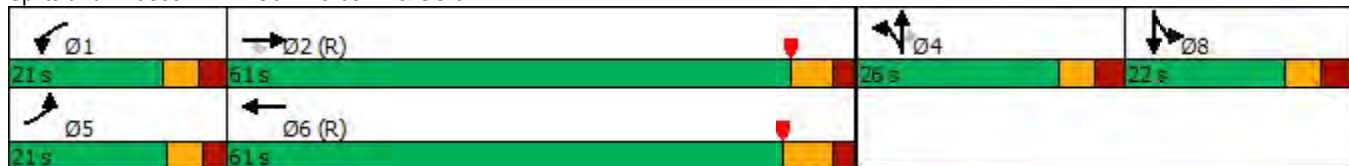


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	1	6		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	5.0	25.0	25.0	5.0	25.0		7.0	7.0	7.0	5.0	5.0	
Minimum Split (s)	10.8	31.7	31.7	11.1	32.1		22.5	22.5	22.5	22.5	22.5	
Total Split (s)	21.0	61.0	61.0	21.0	61.0		26.0	26.0	26.0	22.0	22.0	
Total Split (%)	16.2%	46.9%	46.9%	16.2%	46.9%		20.0%	20.0%	20.0%	16.9%	16.9%	
Maximum Green (s)	15.2	54.6	54.6	14.9	53.9		19.5	19.5	19.5	15.5	15.5	
Yellow Time (s)	3.5	4.1	4.1	3.5	4.8		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.3	2.3	2.3	2.6	2.3		3.0	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.8	6.4	6.4	6.1	7.1			6.5	6.5	6.5	6.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		5.0	5.0	5.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Act Effect Green (s)	6.8	78.9	78.9	8.5	85.0			14.7	14.7	7.1	7.1	
Actuated g/C Ratio	0.05	0.61	0.61	0.07	0.65			0.11	0.11	0.05	0.05	
v/c Ratio	0.18	0.32	0.10	0.37	0.49			0.51	0.20	0.05	0.34	
Control Delay	62.7	15.4	1.3	83.3	5.8			62.6	1.5	58.0	39.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay	62.7	15.4	1.3	83.3	5.8			62.6	1.5	58.0	39.8	
LOS	E	B	A	F	A			E	A	E	D	
Approach Delay		14.6			8.7			40.1			41.9	
Approach LOS		B			A			D			D	

Intersection Summary

Area Type:	Other
Cycle Length:	130
Actuated Cycle Length:	130
Offset:	32 (25%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.51
Intersection Signal Delay:	13.9
Intersection LOS:	B
Intersection Capacity Utilization:	56.5%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 17: Commerce Dr & US 62



Lanes, Volumes, Timings  
20: Executive Dr & US 62

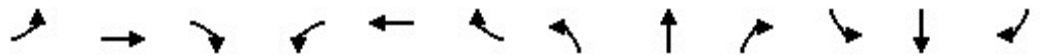
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	530	50	40	915	160	10	10	30	135	10	150
Future Volume (vph)	120	530	50	40	915	160	10	10	30	135	10	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	185		0	100		0	0		100	0		0
Storage Lanes	1		0	1		1	0		1	1		1
Taper Length (ft)	25			75			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987				0.850			0.850			0.850
Flt Protected	0.950			0.950				0.976		0.950		
Satd. Flow (prot)	1770	3493	0	1770	3539	1583	0	1818	1583	1770	1863	1583
Flt Permitted	0.950			0.950				0.886		0.743		
Satd. Flow (perm)	1770	3493	0	1770	3539	1583	0	1650	1583	1384	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11				174			71			163
Link Speed (mph)		30			30			30				30
Link Distance (ft)		659			506			493				539
Travel Time (s)		15.0			11.5			11.2				12.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	576	54	43	995	174	11	11	33	147	11	163
Shared Lane Traffic (%)												
Lane Group Flow (vph)	130	630	0	43	995	174	0	22	33	147	11	163
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			20			0				12
Link Offset(ft)		-10			0			-15				25
Crosswalk Width(ft)		40			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			4				4
Permitted Phases						6	4		4	4		4

Lanes, Volumes, Timings  
20: Executive Dr & US 62

05/18/2023

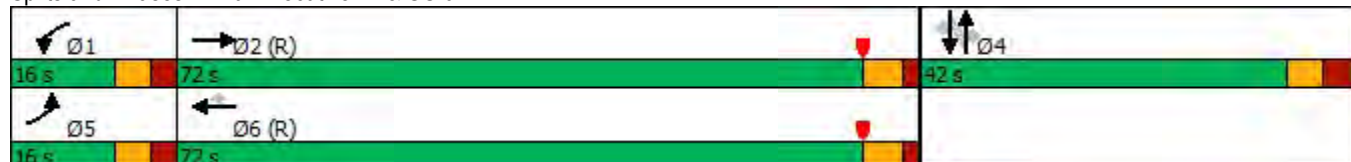


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6	6	4	4	4	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	30.0		5.0	30.0	30.0	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.9	35.6		10.9	35.6	35.6	25.5	25.5	25.5	25.5	25.5	25.5
Total Split (s)	16.0	72.0		16.0	72.0	72.0	42.0	42.0	42.0	42.0	42.0	42.0
Total Split (%)	12.3%	55.4%		12.3%	55.4%	55.4%	32.3%	32.3%	32.3%	32.3%	32.3%	32.3%
Maximum Green (s)	10.1	66.4		10.1	66.4	66.4	35.5	35.5	35.5	35.5	35.5	35.5
Yellow Time (s)	3.5	3.9		3.5	3.9	3.9	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.4	1.7		2.4	1.7	1.7	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.9	5.6		5.9	5.6	5.6		6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None	None	None	None	None
Walk Time (s)		7.0			7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		12.0			12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Pedestrian Calls (#/hr)		0			0	0	0	0	0	0	0	0
Act Effct Green (s)	16.0	85.2		8.5	75.4	75.4		20.5	20.5	20.5	20.5	20.5
Actuated g/C Ratio	0.12	0.66		0.07	0.58	0.58		0.16	0.16	0.16	0.16	0.16
v/c Ratio	0.60	0.27		0.37	0.48	0.18		0.08	0.11	0.67	0.04	0.42
Control Delay	81.3	5.9		79.2	15.2	2.6		44.0	0.9	65.8	42.6	9.6
Queue Delay	0.0	0.0		0.0	0.2	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	81.3	5.9		79.2	15.5	2.6		44.0	0.9	65.8	42.6	9.6
LOS	F	A		E	B	A		D	A	E	D	A
Approach Delay		18.8			15.9			18.2			36.5	
Approach LOS		B			B			B			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 130  
 Actuated Cycle Length: 130  
 Offset: 30 (23%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.67  
 Intersection Signal Delay: 19.7  
 Intersection LOS: B  
 Intersection Capacity Utilization 61.1%  
 ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 20: Executive Dr & US 62



# Lanes, Volumes, Timings

## 23: I-65 SB & US 62

05/18/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↘		↗
Traffic Volume (vph)	0	465	230	135	860	0	0	0	0	15	0	255
Future Volume (vph)	0	465	230	135	860	0	0	0	0	15	0	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		225	70		0	0		0	0		325
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			100			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	1770	0	1583
Flt Permitted				0.424						0.950		
Satd. Flow (perm)	0	3539	1583	790	3539	0	0	0	0	1770	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			250									161
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		506			821			555			635	
Travel Time (s)		11.5			18.7			12.6			14.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	505	250	147	935	0	0	0	0	16	0	277
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	505	250	147	935	0	0	0	0	16	0	277
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			40	
Crosswalk Width(ft)		16			50			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	1	1	2					1		1
Detector Template		Thru	Right	Left	Thru					Left		Right
Leading Detector (ft)		100	20	20	100					20		20
Trailing Detector (ft)		0	0	0	0					0		0
Detector 1 Position(ft)		0	0	0	0					0		0
Detector 1 Size(ft)		6	20	20	6					20		20
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA	Perm	pm+pt	NA					Perm		Perm
Protected Phases		2		1	6							
Permitted Phases			2	6						4		4

# Lanes, Volumes, Timings

## 23: I-65 SB & US 62

05/18/2023

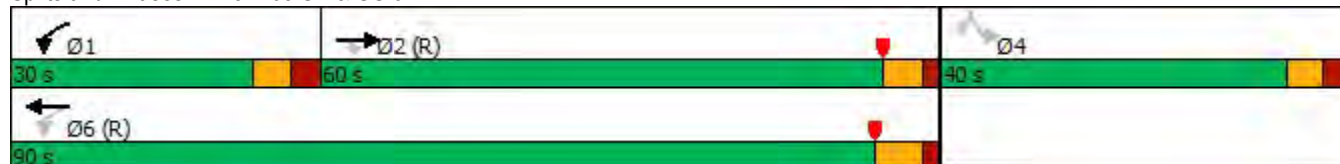


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2	2	1	6					4		4
Switch Phase												
Minimum Initial (s)		30.0	30.0	5.0	30.0					7.0		7.0
Minimum Split (s)		35.6	35.6	11.5	36.5					24.5		24.5
Total Split (s)		60.0	60.0	30.0	90.0					40.0		40.0
Total Split (%)		46.2%	46.2%	23.1%	69.2%					30.8%		30.8%
Maximum Green (s)		54.4	54.4	23.5	83.5					33.5		33.5
Yellow Time (s)		3.9	3.9	3.5	4.8					3.5		3.5
All-Red Time (s)		1.7	1.7	3.0	1.7					3.0		3.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0					0.0		0.0
Total Lost Time (s)		5.6	5.6	6.5	6.5					6.5		6.5
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Vehicle Extension (s)		0.2	0.2	3.0	0.2					3.0		3.0
Recall Mode		C-Max	C-Max	None	C-Max					None		None
Act Effect Green (s)		86.8	86.8	100.8	100.8					16.2		16.2
Actuated g/C Ratio		0.67	0.67	0.78	0.78					0.12		0.12
v/c Ratio		0.21	0.22	0.22	0.34					0.07		0.82
Control Delay		7.9	1.8	4.0	4.7					46.5		41.4
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		7.9	1.8	4.0	4.7					46.5		41.4
LOS		A	A	A	A					D		D
Approach Delay		5.9			4.6							41.7
Approach LOS		A			A							D

### Intersection Summary

Area Type:	Other
Cycle Length:	130
Actuated Cycle Length:	130
Offset:	30 (23%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	10.2
Intersection LOS:	B
Intersection Capacity Utilization:	67.9%
ICU Level of Service:	C
Analysis Period (min):	15

### Splits and Phases: 23: I-65 SB & US 62



Lanes, Volumes, Timings  
26: I-65 NB & US 62

05/18/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	260	220	0	0	645	55	350	0	150	0	0	0
Future Volume (vph)	260	220	0	0	645	55	350	0	150	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	460		0	0		175	250		100	0		0
Storage Lanes	1		0	0		1	1		1	0		0
Taper Length (ft)	100			25			75			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1770	3539	0	0	3539	1583	3433	0	1583	0	0	0
Flt Permitted	0.314						0.950					
Satd. Flow (perm)	585	3539	0	0	3539	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						84			155			
Link Speed (mph)		30			30			30				30
Link Distance (ft)		821			495			906				642
Travel Time (s)		18.7			11.3			20.6				14.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	283	239	0	0	701	60	380	0	163	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	283	239	0	0	701	60	380	0	163	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24				24
Link Offset(ft)		0			0			-25				75
Crosswalk Width(ft)		75			16			25				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1		1			
Detector Template	Left	Thru			Thru	Right	Left		Right			
Leading Detector (ft)	20	100			100	20	20		20			
Trailing Detector (ft)	0	0			0	0	0		0			
Detector 1 Position(ft)	0	0			0	0	0		0			
Detector 1 Size(ft)	20	6			6	20	20		20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA			NA	Perm	Perm		Perm			
Protected Phases	5	2			6							
Permitted Phases	2					6	4		4			

# Lanes, Volumes, Timings

26: I-65 NB & US 62

05/18/2023

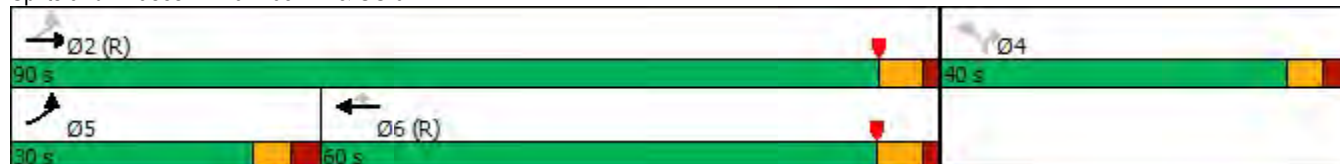


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2			6	6	4		4			
Switch Phase												
Minimum Initial (s)	5.0	30.0			30.0	30.0	15.0		15.0			
Minimum Split (s)	11.5	36.0			36.2	36.2	22.5		22.5			
Total Split (s)	30.0	90.0			60.0	60.0	40.0		40.0			
Total Split (%)	23.1%	69.2%			46.2%	46.2%	30.8%		30.8%			
Maximum Green (s)	23.5	84.0			53.8	53.8	33.5		33.5			
Yellow Time (s)	3.5	4.3			4.5	4.5	3.5		3.5			
All-Red Time (s)	3.0	1.7			1.7	1.7	3.0		3.0			
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Total Lost Time (s)	6.5	6.0			6.2	6.2	6.5		6.5			
Lead/Lag	Lead				Lag				Lag			
Lead-Lag Optimize?	Yes				Yes				Yes			
Vehicle Extension (s)	3.0	0.2			0.2	0.2	6.0		6.0			
Recall Mode	None	C-Max			C-Max	C-Max	None		None			
Act Effct Green (s)	92.9	93.4			73.8	73.8	24.1		24.1			
Actuated g/C Ratio	0.71	0.72			0.57	0.57	0.19		0.19			
v/c Ratio	0.53	0.09			0.35	0.06	0.60		0.39			
Control Delay	16.9	4.4			16.9	1.8	52.0		10.1			
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0			
Total Delay	16.9	4.4			16.9	1.8	52.0		10.1			
LOS	B	A			B	A	D		B			
Approach Delay		11.2			15.7			39.4				
Approach LOS		B			B			D				

## Intersection Summary

Area Type:	Other
Cycle Length:	130
Actuated Cycle Length:	130
Offset:	32 (25%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	21.5
Intersection LOS:	C
Intersection Capacity Utilization:	67.9%
ICU Level of Service:	C
Analysis Period (min):	15

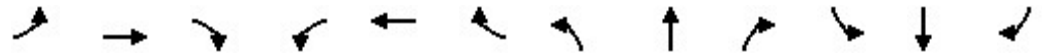
Splits and Phases: 26: I-65 NB & US 62





Lanes, Volumes, Timings  
29: Medley Ln & US 62

05/18/2023



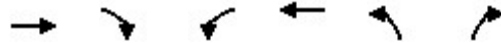
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	360	5	5	685	5	5	0	5	5	0	10
Future Volume (vph)	5	360	5	5	685	5	5	0	5	5	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.999			0.932			0.907	
Flt Protected	0.950			0.950				0.976			0.985	
Satd. Flow (prot)	1770	3532	0	1770	3536	0	0	1694	0	0	1664	0
Flt Permitted	0.950			0.950				0.976			0.985	
Satd. Flow (perm)	1770	3532	0	1770	3536	0	0	1694	0	0	1664	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		495			559			630			395	
Travel Time (s)		11.3			12.7			14.3			9.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	391	5	5	745	5	5	0	5	5	0	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	396	0	5	750	0	0	10	0	0	16	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	29.1%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
32: Howell Dr & US 62

05/18/2023



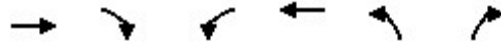
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	
Traffic Volume (vph)	330	40	5	690	5	5
Future Volume (vph)	330	40	5	690	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	50		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt	0.984				0.932	
Flt Protected			0.950		0.976	
Satd. Flow (prot)	3483	0	1770	3539	1694	0
Flt Permitted			0.950		0.976	
Satd. Flow (perm)	3483	0	1770	3539	1694	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	559			165	731	
Travel Time (s)	12.7			3.8	16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	359	43	5	750	5	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	402	0	5	750	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	29.1%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
34: McCormack Ave & US 62

05/18/2023



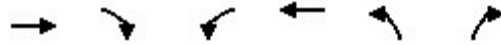
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	325	10	10	670	25	5
Future Volume (vph)	325	10	10	670	25	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Fr <sub>t</sub>	0.996			0.979		
Fl <sub>t</sub> Protected				0.999	0.960	
Satd. Flow (prot)	1855	0	0	3536	1751	0
Fl <sub>t</sub> Permitted				0.999	0.960	
Satd. Flow (perm)	1855	0	0	3536	1751	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	272			127	684	
Travel Time (s)	6.2			2.9	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	353	11	11	728	27	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	364	0	0	739	32	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	35.6%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
36: Gregory St & US 62

05/18/2023



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	315	15	5	675	5	5
Future Volume (vph)	315	15	5	675	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>	0.994			0.932		
Fl <sub>t</sub> Protected				0.976		
Satd. Flow (prot)	1852	0	0	1863	1694	0
Fl <sub>t</sub> Permitted				0.976		
Satd. Flow (perm)	1852	0	0	1863	1694	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	241			1032	915	
Travel Time (s)	5.5			23.5	20.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	342	16	5	734	5	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	358	0	0	739	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

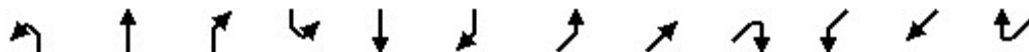
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	49.5%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings

40: US 62

05/18/2023



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	5	0	10	10	0	5	25	635	10	5	660	5
Future Volume (vph)	5	0	10	10	0	5	25	635	10	5	660	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	250		0
Storage Lanes	0		0	0		0	0		0	1		0
Taper Length (ft)	25			25			25			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.91	0.91	0.91
Frt		0.907			0.958			0.998			0.999	
Flt Protected		0.985			0.967			0.998				
Satd. Flow (prot)	0	1664	0	0	1726	0	0	3525	0	0	5080	0
Flt Permitted		0.985			0.967			0.998				
Satd. Flow (perm)	0	1664	0	0	1726	0	0	3525	0	0	5080	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		356			432			149			698	
Travel Time (s)		8.1			9.8			3.4			15.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	0	11	11	0	5	27	690	11	5	717	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	16	0	0	728	0	0	727	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	44.9%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
3: US 62 & Brook St

05/18/2023























Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	5	5	725	5	5	665
Future Volume (vph)	5	5	725	5	5	665
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932		0.999			
Flt Protected	0.976					
Satd. Flow (prot)	1694	0	3536	0	0	3539
Flt Permitted	0.976					
Satd. Flow (perm)	1694	0	3536	0	0	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	802		662			816
Travel Time (s)	18.2		15.0			18.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	5	788	5	5	723
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	793	0	0	728
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.9%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	145	45	45	5	40	10	55	660	15	10	620	140
Future Volume (vph)	145	45	45	5	40	10	55	660	15	10	620	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	0		0	250		0	100		100
Storage Lanes	1		0	0		0	1		0	1		1
Taper Length (ft)	25			25			50			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt		0.925			0.975			0.997				0.850
Flt Protected	0.950				0.996		0.950			0.950		
Satd. Flow (prot)	1770	1723	0	0	1809	0	1770	3529	0	1770	3539	1583
Flt Permitted	0.719				0.972		0.301			0.373		
Satd. Flow (perm)	1339	1723	0	0	1765	0	561	3529	0	695	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29			7			2				96
Link Speed (mph)		30			30			30				30
Link Distance (ft)		776			653			816				2071
Travel Time (s)		17.6			14.8			18.5				47.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	158	49	49	5	43	11	60	717	16	11	674	152
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	98	0	0	59	0	60	733	0	11	674	152
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			12				12
Link Offset(ft)		12			0			0				0
Crosswalk Width(ft)		16			24			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			4		5	2		1	6	
Permitted Phases	4			4			2			6		6

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023

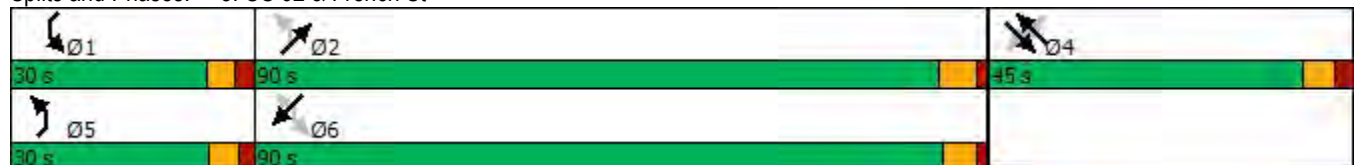


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	4	4		4	4		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		4.0	15.0		4.0	15.0	15.0
Minimum Split (s)	24.3	24.3		24.3	24.3		9.6	24.0		9.9	23.5	23.5
Total Split (s)	45.0	45.0		45.0	45.0		30.0	90.0		30.0	90.0	90.0
Total Split (%)	27.3%	27.3%		27.3%	27.3%		18.2%	54.5%		18.2%	54.5%	54.5%
Maximum Green (s)	38.7	38.7		38.7	38.7		24.4	84.0		24.1	84.5	84.5
Yellow Time (s)	3.8	3.8		3.8	3.8		3.5	4.7		3.5	4.2	4.2
All-Red Time (s)	2.5	2.5		2.5	2.5		2.1	1.3		2.4	1.3	1.3
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.3	6.3			6.3		5.6	6.0		5.9	5.5	5.5
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	2.2		3.0	2.2	2.2
Recall Mode	None	None		None	None		None	Min		None	Min	Min
Act Effect Green (s)	12.8	12.8			12.8		26.0	24.3		22.3	19.7	19.7
Actuated g/C Ratio	0.25	0.25			0.25		0.50	0.47		0.43	0.38	0.38
v/c Ratio	0.48	0.22			0.13		0.13	0.45		0.03	0.50	0.23
Control Delay	25.3	15.6			17.7		7.1	11.3		7.0	15.9	7.8
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	25.3	15.6			17.7		7.1	11.3		7.0	15.9	7.8
LOS	C	B			B		A	B		A	B	A
Approach Delay		21.6			17.7			11.0			14.3	
Approach LOS		C			B			B			B	

Intersection Summary

Area Type: Other  
 Cycle Length: 165  
 Actuated Cycle Length: 52.2  
 Natural Cycle: 60  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.50  
 Intersection Signal Delay: 14.0      Intersection LOS: B  
 Intersection Capacity Utilization 51.9%      ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 5: US 62 & French St





Lanes, Volumes, Timings

8: US 62 & Main St

05/18/2023


























Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕↔		↕	↕↔	
Traffic Volume (vph)	10	0	10	5	0	155	5	805	5	150	755	5
Future Volume (vph)	10	0	10	5	0	155	5	805	5	150	755	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	200		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95
Frt		0.932			0.869			0.999			0.999	
Flt Protected		0.976			0.999					0.950		
Satd. Flow (prot)	0	1694	0	0	1617	0	0	3536	0	1770	3536	0
Flt Permitted		0.976			0.999					0.950		
Satd. Flow (perm)	0	1694	0	0	1617	0	0	3536	0	1770	3536	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		288			444			2071			149	
Travel Time (s)		6.5			10.1			47.1			3.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	0	11	5	0	168	5	875	5	163	821	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	22	0	0	173	0	0	885	0	163	826	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			24			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	63.4%
ICU Level of Service	B
Analysis Period (min)	15

Lanes, Volumes, Timings  
11: US 62 & Ring Rd

05/18/2023

												
Lane Group	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER	NER2
Lane Configurations												
Traffic Volume (vph)	40	630	425	20	10	5	760	10	260	245	730	10
Future Volume (vph)	40	630	425	20	10	5	760	10	260	245	730	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		100	100	0		100	0		0	200	0	
Storage Lanes		1	1	0		1	1		1	2	2	
Taper Length (ft)		50		25			25			100		
Lane Util. Factor	1.00	0.97	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.88	0.95
Frt			0.850			0.850			0.850		0.850	
Flt Protected	0.950	0.950			0.968		0.950	0.954		0.950		
Satd. Flow (prot)	1770	3433	1583	0	1803	1583	1681	1688	1583	3433	2787	0
Flt Permitted	0.950	0.950			0.968		0.950	0.954		0.950		
Satd. Flow (perm)	1770	3433	1583	0	1803	1583	1681	1688	1583	3433	2787	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			164			82			144		80	
Link Speed (mph)		30			30			30		30		
Link Distance (ft)		400			333			1291		698		
Travel Time (s)		9.1			7.6			29.3		15.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	685	462	22	11	5	826	11	283	266	793	11
Shared Lane Traffic (%)							49%					
Lane Group Flow (vph)	43	685	462	0	33	5	421	416	283	266	804	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right	Right
Median Width(ft)		48			12			12		24		
Link Offset(ft)		0			0			18		0		
Crosswalk Width(ft)		16			30			28		70		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	60	9	15		9	15		9	15	60	9
Number of Detectors	1	1	1	1	2	1	1	2	1	1	1	
Detector Template	Left	Left	Right	Left	Thru	Right	Left	Thru	Right	Left	Right	
Leading Detector (ft)	20	20	20	20	100	20	20	100	20	20	20	
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	20	20	20	6	20	20	6	20	20	20	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)					94			94				
Detector 2 Size(ft)					6			6				
Detector 2 Type					Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0				
Turn Type	Prot	Prot	Perm	Split	NA	Perm	Split	NA	Perm	Prot	Prot	
Protected Phases	1	6		4	4		8	8		5	2	
Permitted Phases			6			4			8			

Lanes, Volumes, Timings  
11: US 62 & Ring Rd

05/18/2023

Lane Group	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER	NER2
Detector Phase	1	6	6	4	4	4	8	8	8	5	2	
Switch Phase												
Minimum Initial (s)	5.0	25.0	25.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0	25.0	
Minimum Split (s)	11.5	32.0	32.0	22.5	22.5	22.5	46.6	46.6	46.6	22.5	49.3	
Total Split (s)	45.0	90.0	90.0	45.0	45.0	45.0	46.6	46.6	46.6	45.0	90.0	
Total Split (%)	19.9%	39.7%	39.7%	19.9%	19.9%	19.9%	20.6%	20.6%	20.6%	19.9%	39.7%	
Maximum Green (s)	38.5	83.0	83.0	38.5	38.5	38.5	40.0	40.0	40.0	38.9	83.7	
Yellow Time (s)	3.5	4.7	4.7	4.6	4.6	4.6	4.7	4.7	4.7	3.5	4.0	
All-Red Time (s)	3.0	2.3	2.3	1.9	1.9	1.9	1.9	1.9	1.9	2.6	2.3	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.5	7.0	7.0		6.5	6.5	6.6	6.6	6.6	6.1	6.3	
Lead/Lag	Lead	Lag	Lag							Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes							Yes	Yes	
Vehicle Extension (s)	3.0	2.6	2.6	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.6	
Recall Mode	None	Min	Min	None	None	None	None	None	None	None	Min	
Walk Time (s)							7.0	7.0	7.0		7.0	
Flash Dont Walk (s)							33.0	33.0	33.0		36.0	
Pedestrian Calls (#/hr)							0	0	0		0	
Act Effct Green (s)	9.0	34.9	34.9		8.1	8.1	41.0	41.0	41.0	16.0	45.5	
Actuated g/C Ratio	0.07	0.28	0.28		0.07	0.07	0.33	0.33	0.33	0.13	0.37	
v/c Ratio	0.34	0.71	0.82		0.28	0.03	0.76	0.75	0.46	0.60	0.75	
Control Delay	67.0	44.6	39.6		66.8	0.2	50.3	49.6	21.0	58.8	36.8	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	67.0	44.6	39.6		66.8	0.2	50.3	49.6	21.0	58.8	36.8	
LOS	E	D	D		E	A	D	D	C	E	D	
Approach Delay		43.4			58.1			42.6		42.3		
Approach LOS		D			E			D		D		

Intersection Summary

Area Type: Other  
 Cycle Length: 226.6  
 Actuated Cycle Length: 123.7  
 Natural Cycle: 130  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 43.0      Intersection LOS: D  
 Intersection Capacity Utilization 72.2%      ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 11: US 62 & Ring Rd



Lanes, Volumes, Timings  
14: Dolphin Dr & US 62

05/18/2023

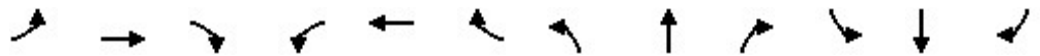
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	145	1350	0	5	915	155	20	0	10	0	0	160
Future Volume (vph)	145	1350	0	5	915	155	20	0	10	0	0	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.978			0.955				0.865
Flt Protected	0.950							0.968				
Satd. Flow (prot)	1770	3539	0	0	3461	0	0	1722	0	0	0	1611
Flt Permitted	0.950							0.968				
Satd. Flow (perm)	1770	3539	0	0	3461	0	0	1722	0	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		400			1196			275				468
Travel Time (s)		9.1			27.2			6.3				10.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	158	1467	0	5	995	168	22	0	11	0	0	174
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	1467	0	0	1168	0	0	33	0	0	0	174
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	81.0%
ICU Level of Service	D
Analysis Period (min)	15

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	1125	220	50	895	20	160	5	110	10	20	20
Future Volume (vph)	15	1125	220	50	895	20	160	5	110	10	20	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		200	240		0	0		0	25		0
Storage Lanes	1		1	1		0	0		1	1		0
Taper Length (ft)	75			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.997				0.850		0.925	
Flt Protected	0.950			0.950				0.954		0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3529	0	0	1777	1583	1770	1723	0
Flt Permitted	0.950			0.950				0.954		0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3529	0	0	1777	1583	1770	1723	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			159		2				140		22	
Link Speed (mph)		30		30				30		30		30
Link Distance (ft)		1196		659				621		278		278
Travel Time (s)		27.2		15.0				14.1		6.3		6.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	1223	239	54	973	22	174	5	120	11	22	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	1223	239	54	995	0	0	179	120	11	44	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30		12				0		12		12
Link Offset(ft)		-12		0				50		-20		-20
Crosswalk Width(ft)		70		40				16		16		16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94		94			94		94		94	
Detector 2 Size(ft)		6		6			6		6		6	
Detector 2 Type		Cl+Ex		Cl+Ex			Cl+Ex		Cl+Ex		Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0		0.0			0.0		0.0		0.0	
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases			2						4			

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023

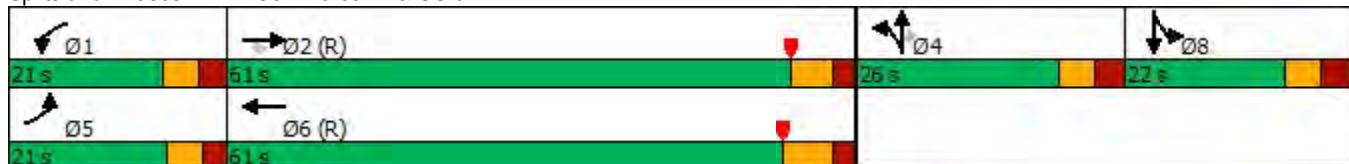


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	1	6		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	5.0	25.0	25.0	5.0	25.0		7.0	7.0	7.0	5.0	5.0	
Minimum Split (s)	10.8	31.7	31.7	11.1	32.1		22.5	22.5	22.5	11.5	11.5	
Total Split (s)	21.0	61.0	61.0	21.0	61.0		26.0	26.0	26.0	22.0	22.0	
Total Split (%)	16.2%	46.9%	46.9%	16.2%	46.9%		20.0%	20.0%	20.0%	16.9%	16.9%	
Maximum Green (s)	15.2	54.6	54.6	14.9	53.9		19.5	19.5	19.5	15.5	15.5	
Yellow Time (s)	3.5	4.1	4.1	3.5	4.8		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.3	2.3	2.3	2.6	2.3		3.0	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.8	6.4	6.4	6.1	7.1			6.5	6.5	6.5	6.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		5.0	5.0	5.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Act Effect Green (s)	6.8	74.5	74.5	9.3	81.4			18.0	18.0	7.4	7.4	
Actuated g/C Ratio	0.05	0.57	0.57	0.07	0.63			0.14	0.14	0.06	0.06	
v/c Ratio	0.18	0.60	0.25	0.43	0.45			0.73	0.35	0.11	0.37	
Control Delay	62.7	22.5	7.0	55.4	15.0			71.2	8.1	59.1	43.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.8	0.0	0.0	
Total Delay	62.7	22.5	7.0	55.4	15.0			71.2	8.9	59.1	43.5	
LOS	E	C	A	E	B			E	A	E	D	
Approach Delay		20.4			17.1			46.2			46.6	
Approach LOS		C			B			D			D	

Intersection Summary

Area Type:	Other
Cycle Length:	130
Actuated Cycle Length:	130
Offset:	72 (55%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.73
Intersection Signal Delay:	22.4
Intersection LOS:	C
Intersection Capacity Utilization:	66.9%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 17: Commerce Dr & US 62



Lanes, Volumes, Timings  
20: Executive Dr & US 62

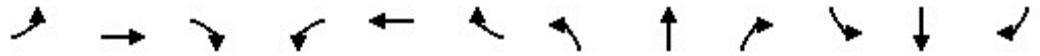
05/18/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	1100	20	80	830	170	25	10	65	185	15	110
Future Volume (vph)	125	1100	20	80	830	170	25	10	65	185	15	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	185		0	100		0	0		100	0		0
Storage Lanes	1		0	1		1	0		1	1		1
Taper Length (ft)	25			75			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997				0.850			0.850			0.850
Flt Protected	0.950			0.950				0.966		0.950		
Satd. Flow (prot)	1770	3529	0	1770	3539	1583	0	1799	1583	1770	1863	1583
Flt Permitted	0.950			0.950				0.819		0.732		
Satd. Flow (perm)	1770	3529	0	1770	3539	1583	0	1526	1583	1364	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				185			71			120
Link Speed (mph)		30			30			30				30
Link Distance (ft)		659			506			493				539
Travel Time (s)		15.0			11.5			11.2				12.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	136	1196	22	87	902	185	27	11	71	201	16	120
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	1218	0	87	902	185	0	38	71	201	16	120
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			20			0				12
Link Offset(ft)		-10			0			-15				25
Crosswalk Width(ft)		40			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			4				4
Permitted Phases						6	4		4	4		4

Lanes, Volumes, Timings  
20: Executive Dr & US 62

05/18/2023

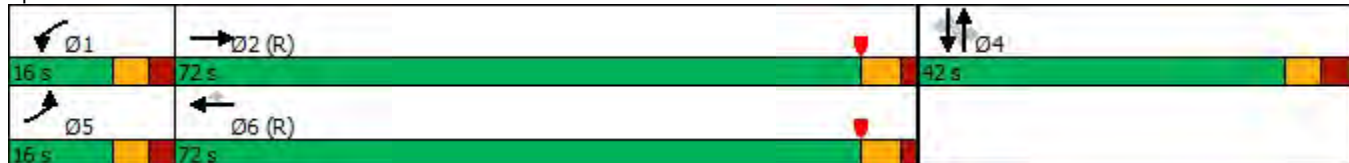


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6	6	4	4	4	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	30.0		5.0	30.0	30.0	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.9	35.6		10.9	35.6	35.6	25.5	25.5	25.5	25.5	25.5	25.5
Total Split (s)	16.0	72.0		16.0	72.0	72.0	42.0	42.0	42.0	42.0	42.0	42.0
Total Split (%)	12.3%	55.4%		12.3%	55.4%	55.4%	32.3%	32.3%	32.3%	32.3%	32.3%	32.3%
Maximum Green (s)	10.1	66.4		10.1	66.4	66.4	35.5	35.5	35.5	35.5	35.5	35.5
Yellow Time (s)	3.5	3.9		3.5	3.9	3.9	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.4	1.7		2.4	1.7	1.7	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.9	5.6		5.9	5.6	5.6		6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None	None	None	None	None
Walk Time (s)		7.0			7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		12.0			12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Pedestrian Calls (#/hr)		0			0	0	0	0	0	0	0	0
Act Effct Green (s)	15.0	75.3		10.7	71.0	71.0		26.0	26.0	26.0	26.0	26.0
Actuated g/C Ratio	0.12	0.58		0.08	0.55	0.55		0.20	0.20	0.20	0.20	0.20
v/c Ratio	0.67	0.60		0.60	0.47	0.20		0.12	0.19	0.74	0.04	0.29
Control Delay	51.7	37.8		83.3	17.8	2.8		40.3	9.4	63.8	38.1	8.2
Queue Delay	0.0	0.7		0.0	0.3	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	51.7	38.5		83.3	18.1	2.8		40.3	9.4	63.8	38.1	8.2
LOS	D	D		F	B	A		D	A	E	D	A
Approach Delay		39.8			20.5			20.1			42.8	
Approach LOS		D			C			C			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 130  
 Actuated Cycle Length: 130  
 Offset: 30 (23%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 31.8  
 Intersection LOS: C  
 Intersection Capacity Utilization 67.4%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 20: Executive Dr & US 62





# Lanes, Volumes, Timings

## 23: I-65 SB & US 62

05/18/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↘		↗
Traffic Volume (vph)	0	815	535	145	685	0	0	0	0	60	0	395
Future Volume (vph)	0	815	535	145	685	0	0	0	0	60	0	395
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		225	70		0	0		0	0		325
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			100			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	1770	0	1583
Flt Permitted				0.250						0.950		
Satd. Flow (perm)	0	3539	1583	466	3539	0	0	0	0	1770	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			582									240
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		506			821			555			635	
Travel Time (s)		11.5			18.7			12.6			14.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	886	582	158	745	0	0	0	0	65	0	429
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	886	582	158	745	0	0	0	0	65	0	429
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			40	
Crosswalk Width(ft)		16			50			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	1	1	2					1		1
Detector Template		Thru	Right	Left	Thru					Left		Right
Leading Detector (ft)		100	20	20	100					20		20
Trailing Detector (ft)		0	0	0	0					0		0
Detector 1 Position(ft)		0	0	0	0					0		0
Detector 1 Size(ft)		6	20	20	6					20		20
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA	Perm	pm+pt	NA					Perm		Perm
Protected Phases		2		1	6							
Permitted Phases			2	6						4		4

# Lanes, Volumes, Timings

## 23: I-65 SB & US 62

05/18/2023

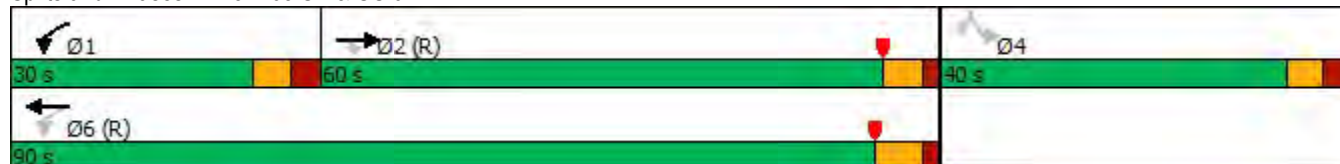


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2	2	1	6					4		4
Switch Phase												
Minimum Initial (s)		30.0	30.0	5.0	30.0					7.0		7.0
Minimum Split (s)		35.6	35.6	11.5	36.5					24.5		24.5
Total Split (s)		60.0	60.0	30.0	90.0					40.0		40.0
Total Split (%)		46.2%	46.2%	23.1%	69.2%					30.8%		30.8%
Maximum Green (s)		54.4	54.4	23.5	83.5					33.5		33.5
Yellow Time (s)		3.9	3.9	3.5	4.8					3.5		3.5
All-Red Time (s)		1.7	1.7	3.0	1.7					3.0		3.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0					0.0		0.0
Total Lost Time (s)		5.6	5.6	6.5	6.5					6.5		6.5
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Vehicle Extension (s)		0.2	0.2	3.0	0.2					3.0		3.0
Recall Mode		C-Max	C-Max	None	C-Max					None		None
Act Effect Green (s)		79.2	79.2	94.1	94.1					22.9		22.9
Actuated g/C Ratio		0.61	0.61	0.72	0.72					0.18		0.18
v/c Ratio		0.41	0.49	0.37	0.29					0.21		0.90
Control Delay		11.8	2.5	9.9	7.3					44.1		44.8
Queue Delay		0.2	0.2	0.0	0.0					0.0		0.0
Total Delay		12.0	2.7	9.9	7.3					44.1		44.8
LOS		B	A	A	A					D		D
Approach Delay		8.3			7.8							44.7
Approach LOS		A			A							D

### Intersection Summary

Area Type:	Other
Cycle Length:	130
Actuated Cycle Length:	130
Offset:	30 (23%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.90
Intersection Signal Delay:	14.4
Intersection LOS:	B
Intersection Capacity Utilization:	69.8%
ICU Level of Service:	C
Analysis Period (min):	15

### Splits and Phases: 23: I-65 SB & US 62



Lanes, Volumes, Timings  
26: I-65 NB & US 62

05/18/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	295	580	0	0	550	25	280	0	90	0	0	0
Future Volume (vph)	295	580	0	0	550	25	280	0	90	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	460		0	0		175	250		100	0		0
Storage Lanes	1		0	0		1	1		1	0		0
Taper Length (ft)	100			25			75			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1770	3539	0	0	3539	1583	3433	0	1583	0	0	0
Flt Permitted	0.368						0.950					
Satd. Flow (perm)	685	3539	0	0	3539	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						84			98			
Link Speed (mph)		30			30			30				30
Link Distance (ft)		821			495			906				642
Travel Time (s)		18.7			11.3			20.6				14.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	321	630	0	0	598	27	304	0	98	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	321	630	0	0	598	27	304	0	98	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24				24
Link Offset(ft)		0			0			-25				75
Crosswalk Width(ft)		75			16			25				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1		1			
Detector Template	Left	Thru			Thru	Right	Left		Right			
Leading Detector (ft)	20	100			100	20	20		20			
Trailing Detector (ft)	0	0			0	0	0		0			
Detector 1 Position(ft)	0	0			0	0	0		0			
Detector 1 Size(ft)	20	6			6	20	20		20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA			NA	Perm	Perm		Perm			
Protected Phases	5	2			6							
Permitted Phases	2					6	4		4			

# Lanes, Volumes, Timings

26: I-65 NB & US 62

05/18/2023

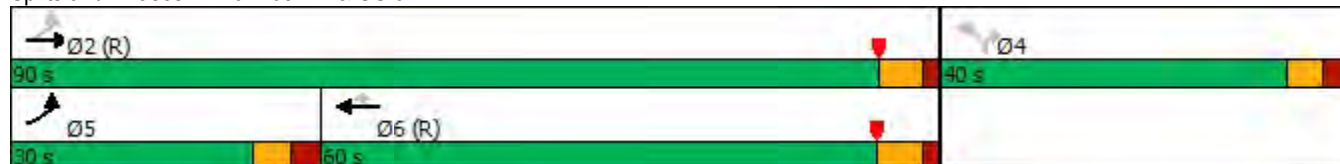


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2			6	6	4		4			
Switch Phase												
Minimum Initial (s)	5.0	30.0			30.0	30.0	15.0		15.0			
Minimum Split (s)	11.5	36.0			36.2	36.2	22.5		22.5			
Total Split (s)	30.0	90.0			60.0	60.0	40.0		40.0			
Total Split (%)	23.1%	69.2%			46.2%	46.2%	30.8%		30.8%			
Maximum Green (s)	23.5	84.0			53.8	53.8	33.5		33.5			
Yellow Time (s)	3.5	4.3			4.5	4.5	3.5		3.5			
All-Red Time (s)	3.0	1.7			1.7	1.7	3.0		3.0			
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Total Lost Time (s)	6.5	6.0			6.2	6.2	6.5		6.5			
Lead/Lag	Lead				Lag				Lag			
Lead-Lag Optimize?	Yes				Yes				Yes			
Vehicle Extension (s)	3.0	0.2			0.2	0.2	6.0		6.0			
Recall Mode	None	C-Max			C-Max	C-Max	None		None			
Act Effct Green (s)	96.7	97.2			77.3	77.3	20.3		20.3			
Actuated g/C Ratio	0.74	0.75			0.59	0.59	0.16		0.16			
v/c Ratio	0.52	0.24			0.28	0.03	0.57		0.30			
Control Delay	14.1	3.1			14.2	0.0	54.6		10.8			
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0			
Total Delay	14.1	3.1			14.2	0.0	54.6		10.8			
LOS	B	A			B	A	D		B			
Approach Delay		6.8			13.6				43.9			
Approach LOS		A			B				D			

## Intersection Summary



















Area Type:	Other
Cycle Length:	130
Actuated Cycle Length:	130
Offset:	32 (25%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.57
Intersection Signal Delay:	16.5
Intersection LOS:	B
Intersection Capacity Utilization:	69.8%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 26: I-65 NB & US 62



Lanes, Volumes, Timings  
29: Medley Ln & US 62

05/18/2023

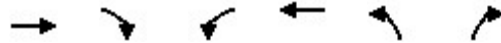
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	660	5	5	550	5	5	0	5	5	0	20
Future Volume (vph)	5	660	5	5	550	5	5	0	5	5	0	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.999			0.932				0.890
Flt Protected	0.950			0.950				0.976				0.991
Satd. Flow (prot)	1770	3536	0	1770	3536	0	0	1694	0	0	1643	0
Flt Permitted	0.950			0.950				0.976				0.991
Satd. Flow (perm)	1770	3536	0	1770	3536	0	0	1694	0	0	1643	0
Link Speed (mph)		30			30			30				30
Link Distance (ft)		495			559			630				395
Travel Time (s)		11.3			12.7			14.3				9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	717	5	5	598	5	5	0	5	5	0	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	722	0	5	603	0	0	10	0	0	27	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	28.4%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
32: Howell Dr & US 62

05/18/2023



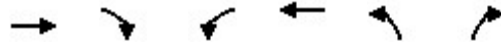
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↙	↑↑	↘	
Traffic Volume (vph)	640	30	5	545	15	5
Future Volume (vph)	640	30	5	545	15	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	50		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt	0.993				0.968	
Flt Protected			0.950		0.963	
Satd. Flow (prot)	3514	0	1770	3539	1736	0
Flt Permitted			0.950		0.963	
Satd. Flow (perm)	3514	0	1770	3539	1736	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	559			165	731	
Travel Time (s)	12.7			3.8	16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	696	33	5	592	16	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	729	0	5	592	21	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	28.6%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
34: McCormack Ave & US 62

05/18/2023



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	605	40	5	530	20	5
Future Volume (vph)	605	40	5	530	20	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Fr <sub>t</sub>	0.992			0.975		
Fl <sub>t</sub> Protected				0.961		
Satd. Flow (prot)	1848	0	0	3539	1745	0
Fl <sub>t</sub> Permitted				0.961		
Satd. Flow (perm)	1848	0	0	3539	1745	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	272			127	684	
Travel Time (s)	6.2			2.9	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	658	43	5	576	22	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	701	0	0	581	27	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	44.3%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
36: Gregory St & US 62

05/18/2023



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	565	45	5	525	10	5
Future Volume (vph)	565	45	5	525	10	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>	0.990			0.958		
Fl <sub>t</sub> Protected				0.967		
Satd. Flow (prot)	1844	0	0	1863	1726	0
Fl <sub>t</sub> Permitted				0.967		
Satd. Flow (perm)	1844	0	0	1863	1726	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	241			1032	915	
Travel Time (s)	5.5			23.5	20.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	614	49	5	571	11	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	663	0	0	576	16	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

















Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	42.5%
ICU Level of Service	A
Analysis Period (min)	15



Lanes, Volumes, Timings

40: US 62

05/18/2023

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	20	0	20	20	0	10	5	945	20	20	880	10
Future Volume (vph)	20	0	20	20	0	10	5	945	20	20	880	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	250		0
Storage Lanes	0		0	0		0	0		0	1		0
Taper Length (ft)	25			25			25			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.91	0.91	0.91
Frt		0.932			0.955			0.997			0.998	
Flt Protected		0.976			0.968						0.999	
Satd. Flow (prot)	0	1694	0	0	1722	0	0	3529	0	0	5070	0
Flt Permitted		0.976			0.968						0.999	
Satd. Flow (perm)	0	1694	0	0	1722	0	0	3529	0	0	5070	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		356			432			149			698	
Travel Time (s)		8.1			9.8			3.4			15.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	0	22	22	0	11	5	1027	22	22	957	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	44	0	0	33	0	0	1054	0	0	990	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	41.5%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
3: US 62 & Brook St

05/18/2023























Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	5	5	540	5	5	655
Future Volume (vph)	5	5	540	5	5	655
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932		0.999			
Flt Protected	0.976					
Satd. Flow (prot)	1694	0	3536	0	0	3539
Flt Permitted	0.976					
Satd. Flow (perm)	1694	0	3536	0	0	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	802		662			816
Travel Time (s)	18.2		15.0			18.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	5	587	5	5	712
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	592	0	0	717
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.6%
Analysis Period (min)	15
	ICU Level of Service A













Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	125	35	55	10	30	10	35	500	10	5	595	75
Future Volume (vph)	125	35	55	10	30	10	35	500	10	5	595	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	0		0	250		0	100		100
Storage Lanes	1		0	0		0	1		0	1		1
Taper Length (ft)	25			25			50			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt		0.908			0.973			0.997				0.850
Flt Protected	0.950				0.990		0.950			0.950		
Satd. Flow (prot)	1770	1691	0	0	1794	0	1770	3529	0	1770	3539	1583
Flt Permitted	0.721				0.924		0.348			0.445		
Satd. Flow (perm)	1343	1691	0	0	1675	0	648	3529	0	829	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		45			7			2				61
Link Speed (mph)		30			30			30				30
Link Distance (ft)		776			653			816				2071
Travel Time (s)		17.6			14.8			18.5				47.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	136	38	60	11	33	11	38	543	11	5	647	82
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	98	0	0	55	0	38	554	0	5	647	82
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			12				12
Link Offset(ft)		12			0			0				0
Crosswalk Width(ft)		16			24			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			4		5	2		1	6	
Permitted Phases	4			4			2			6		6

Lanes, Volumes, Timings  
5: US 62 & French St

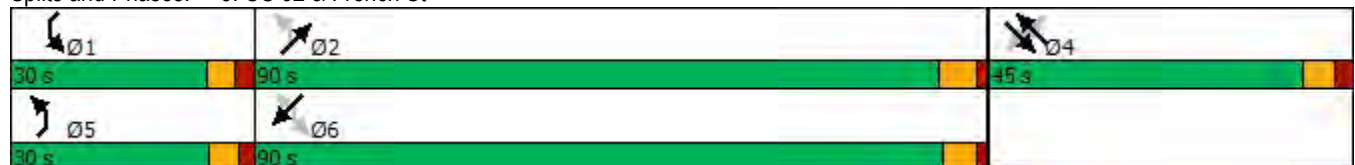
05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	4	4		4	4		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		4.0	15.0		4.0	15.0	15.0
Minimum Split (s)	24.3	24.3		24.3	24.3		9.6	24.0		9.9	23.5	23.5
Total Split (s)	45.0	45.0		45.0	45.0		30.0	90.0		30.0	90.0	90.0
Total Split (%)	27.3%	27.3%		27.3%	27.3%		18.2%	54.5%		18.2%	54.5%	54.5%
Maximum Green (s)	38.7	38.7		38.7	38.7		24.4	84.0		24.1	84.5	84.5
Yellow Time (s)	3.8	3.8		3.8	3.8		3.5	4.7		3.5	4.2	4.2
All-Red Time (s)	2.5	2.5		2.5	2.5		2.1	1.3		2.4	1.3	1.3
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.3	6.3			6.3		5.6	6.0		5.9	5.5	5.5
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	2.2		3.0	2.2	2.2
Recall Mode	None	None		None	None		None	Min		None	Min	Min
Act Effect Green (s)	11.2	11.2			11.2		21.7	20.2		19.7	18.4	18.4
Actuated g/C Ratio	0.24	0.24			0.24		0.47	0.44		0.43	0.40	0.40
v/c Ratio	0.42	0.22			0.13		0.08	0.36		0.01	0.46	0.12
Control Delay	21.8	12.2			16.0		6.6	10.3		6.4	13.2	6.3
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	21.8	12.2			16.0		6.6	10.3		6.4	13.2	6.3
LOS	C	B			B		A	B		A	B	A
Approach Delay		17.8			16.0			10.1			12.4	
Approach LOS		B			B			B			B	

Intersection Summary

Area Type: Other  
 Cycle Length: 165  
 Actuated Cycle Length: 46.2  
 Natural Cycle: 60  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.46  
 Intersection Signal Delay: 12.4      Intersection LOS: B  
 Intersection Capacity Utilization 47.9%      ICU Level of Service A  
 Analysis Period (min) 15


















Splits and Phases: 5: US 62 & French St



Lanes, Volumes, Timings

8: US 62 & Main St

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	5	0	5	5	0	140	15	605	15	85	665	10
Future Volume (vph)	5	0	5	5	0	140	15	605	15	85	665	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	200		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95
Frt		0.932			0.869			0.997			0.998	
Flt Protected		0.976			0.998			0.999		0.950		
Satd. Flow (prot)	0	1694	0	0	1615	0	0	3525	0	1770	3532	0
Flt Permitted		0.976			0.998			0.999		0.950		
Satd. Flow (perm)	0	1694	0	0	1615	0	0	3525	0	1770	3532	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		288			444			2071			149	
Travel Time (s)		6.5			10.1			47.1			3.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	0	5	5	0	152	16	658	16	92	723	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	10	0	0	157	0	0	690	0	92	734	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			24			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	55.3%
ICU Level of Service	B
Analysis Period (min)	15

Lanes, Volumes, Timings  
11: US 62 & Ring Rd

05/18/2023

Lane Group	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER	NER2
Lane Configurations												
Traffic Volume (vph)	15	630	550	5	5	5	400	10	125	190	540	10
Future Volume (vph)	15	630	550	5	5	5	400	10	125	190	540	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		100	100	0		100	0		0	200	0	
Storage Lanes		1	1	0		1	1		1	2	2	
Taper Length (ft)		50		25			25			100		
Lane Util. Factor	1.00	0.97	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.88	0.95
Frt			0.850			0.850			0.850		0.850	
Flt Protected	0.950	0.950			0.976		0.950	0.955		0.950		
Satd. Flow (prot)	1770	3433	1583	0	1818	1583	1681	1690	1583	3433	2787	0
Flt Permitted	0.950	0.950			0.976		0.950	0.955		0.950		
Satd. Flow (perm)	1770	3433	1583	0	1818	1583	1681	1690	1583	3433	2787	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			212			82			129		80	
Link Speed (mph)		30			30			30		30		
Link Distance (ft)		400			333			1291		698		
Travel Time (s)		9.1			7.6			29.3		15.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	685	598	5	5	5	435	11	136	207	587	11
Shared Lane Traffic (%)							49%					
Lane Group Flow (vph)	16	685	598	0	10	5	222	224	136	207	598	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right	Right
Median Width(ft)		48			12			12		24		
Link Offset(ft)		0			0			18		0		
Crosswalk Width(ft)		16			30			28		70		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15	9	15		9	15		9	15	9	9
Number of Detectors	1	1	1	1	2	1	1	2	1	1	1	
Detector Template	Left	Left	Right	Left	Thru	Right	Left	Thru	Right	Left	Right	
Leading Detector (ft)	20	20	20	20	100	20	20	100	20	20	20	
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	20	20	20	6	20	20	6	20	20	20	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)					94			94				
Detector 2 Size(ft)					6			6				
Detector 2 Type					Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0				
Turn Type	Prot	Prot	Perm	Split	NA	Perm	Split	NA	Perm	Prot	Prot	
Protected Phases	1	6		4	4		8	8		5	2	
Permitted Phases			6			4			8			

Lanes, Volumes, Timings  
11: US 62 & Ring Rd

05/18/2023



Lane Group	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER	NER2
Detector Phase	1	6	6	4	4	4	8	8	8	5	2	
Switch Phase												
Minimum Initial (s)	5.0	25.0	25.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0	25.0	
Minimum Split (s)	11.5	32.0	32.0	22.5	22.5	22.5	46.6	46.6	46.6	22.5	49.3	
Total Split (s)	45.0	90.0	90.0	45.0	45.0	45.0	46.6	46.6	46.6	45.0	90.0	
Total Split (%)	19.9%	39.7%	39.7%	19.9%	19.9%	19.9%	20.6%	20.6%	20.6%	19.9%	39.7%	
Maximum Green (s)	38.5	83.0	83.0	38.5	38.5	38.5	40.0	40.0	40.0	38.9	83.7	
Yellow Time (s)	3.5	4.7	4.7	4.6	4.6	4.6	4.7	4.7	4.7	3.5	4.0	
All-Red Time (s)	3.0	2.3	2.3	1.9	1.9	1.9	1.9	1.9	1.9	2.6	2.3	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.5	7.0	7.0		6.5	6.5	6.6	6.6	6.6	6.1	6.3	
Lead/Lag	Lead	Lag	Lag							Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes							Yes	Yes	
Vehicle Extension (s)	3.0	2.6	2.6	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.6	
Recall Mode	None	Min	Min	None	None	None	None	None	None	None	Min	
Walk Time (s)							7.0	7.0	7.0		7.0	
Flash Dont Walk (s)							33.0	33.0	33.0		36.0	
Pedestrian Calls (#/hr)							0	0	0		0	
Act Effct Green (s)	7.3	42.8	42.8		6.9	6.9	24.7	24.7	24.7	14.4	60.3	
Actuated g/C Ratio	0.07	0.40	0.40		0.06	0.06	0.23	0.23	0.23	0.13	0.56	
v/c Ratio	0.13	0.50	0.79		0.09	0.03	0.58	0.58	0.29	0.45	0.38	
Control Delay	64.8	27.3	28.2		65.7	0.2	47.5	47.5	10.4	52.5	15.3	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	64.8	27.3	28.2		65.7	0.2	47.5	47.5	10.4	52.5	15.3	
LOS	E	C	C		E	A	D	D	B	D	B	
Approach Delay		28.2			43.8			38.9		24.9		
Approach LOS		C			D			D		C		

Intersection Summary


















Area Type:	Other
Cycle Length:	226.6
Actuated Cycle Length:	107.9
Natural Cycle:	130
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	29.6
Intersection LOS:	C
Intersection Capacity Utilization:	60.7%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 11: US 62 & Ring Rd



Lanes, Volumes, Timings  
14: Dolphin Dr & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	115	830	0	0	1125	140	0	5	5	0	0	70
Future Volume (vph)	115	830	0	0	1125	140	0	5	5	0	0	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.983			0.932				0.865
Flt Protected	0.950											
Satd. Flow (prot)	1770	3539	0	0	3479	0	0	1736	0	0	0	1611
Flt Permitted	0.950											
Satd. Flow (perm)	1770	3539	0	0	3479	0	0	1736	0	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		400			1196			275				468
Travel Time (s)		9.1			27.2			6.3				10.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	125	902	0	0	1223	152	0	5	5	0	0	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	125	902	0	0	1375	0	0	10	0	0	0	76
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Free

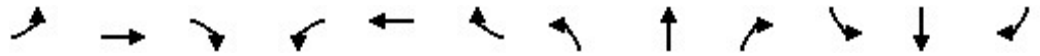
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	71.8%
ICU Level of Service	C
Analysis Period (min)	15



Lanes, Volumes, Timings  
17: Commerce Dr & US 62

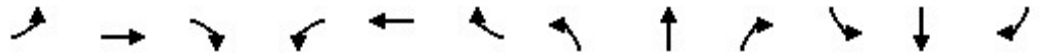
05/18/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	720	100	45	1145	15	100	5	60	5	15	20
Future Volume (vph)	15	720	100	45	1145	15	100	5	60	5	15	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		200	240		0	0		0	25		0
Storage Lanes	1		1	1		0	0		1	1		0
Taper Length (ft)	75			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.998				0.850		0.913	
Flt Protected	0.950			0.950				0.954		0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3532	0	0	1777	1583	1770	1701	0
Flt Permitted	0.950			0.950				0.954		0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3532	0	0	1777	1583	1770	1701	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			135		1				140		22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1196			659			621			278	
Travel Time (s)		27.2			15.0			14.1			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	783	109	49	1245	16	109	5	65	5	16	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	783	109	49	1261	0	0	114	65	5	38	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			12			0			12	
Link Offset(ft)		-12			0			50			-20	
Crosswalk Width(ft)		70			40			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases			2						4			

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023

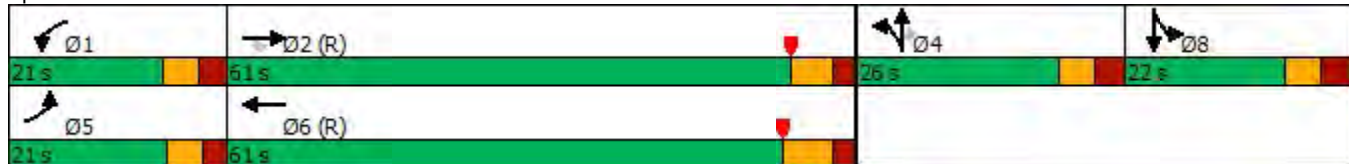


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	1	6		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	5.0	25.0	25.0	5.0	25.0		7.0	7.0	7.0	5.0	5.0	
Minimum Split (s)	10.8	31.7	31.7	11.1	32.1		22.5	22.5	22.5	22.5	22.5	
Total Split (s)	21.0	61.0	61.0	21.0	61.0		26.0	26.0	26.0	22.0	22.0	
Total Split (%)	16.2%	46.9%	46.9%	16.2%	46.9%		20.0%	20.0%	20.0%	16.9%	16.9%	
Maximum Green (s)	15.2	54.6	54.6	14.9	53.9		19.5	19.5	19.5	15.5	15.5	
Yellow Time (s)	3.5	4.1	4.1	3.5	4.8		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.3	2.3	2.3	2.6	2.3		3.0	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.8	6.4	6.4	6.1	7.1			6.5	6.5	6.5	6.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		5.0	5.0	5.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Act Effect Green (s)	6.8	77.9	77.9	9.0	84.4			15.3	15.3	7.1	7.1	
Actuated g/C Ratio	0.05	0.60	0.60	0.07	0.65			0.12	0.12	0.05	0.05	
v/c Ratio	0.18	0.37	0.11	0.40	0.55			0.55	0.21	0.05	0.34	
Control Delay	62.7	16.5	1.7	81.8	7.1			63.5	1.6	58.0	39.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay	62.7	16.5	1.7	81.8	7.1			63.5	1.6	58.0	39.8	
LOS	E	B	A	F	A			E	A	E	D	
Approach Delay		15.6			9.9			41.0			41.9	
Approach LOS		B			A			D			D	

Intersection Summary























Area Type:	Other
Cycle Length:	130
Actuated Cycle Length:	130
Offset:	32 (25%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.55
Intersection Signal Delay:	14.9
Intersection LOS:	B
Intersection Capacity Utilization:	61.2%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 17: Commerce Dr & US 62



Lanes, Volumes, Timings  
20: Executive Dr & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	135	595	55	45	1025	180	10	10	35	150	10	170
Future Volume (vph)	135	595	55	45	1025	180	10	10	35	150	10	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	185		0	100		0	0		100	0		0
Storage Lanes	1		0	1		1	0		1	1		1
Taper Length (ft)	25			75			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987				0.850			0.850			0.850
Flt Protected	0.950			0.950				0.976		0.950		
Satd. Flow (prot)	1770	3493	0	1770	3539	1583	0	1818	1583	1770	1863	1583
Flt Permitted	0.950			0.950				0.890		0.743		
Satd. Flow (perm)	1770	3493	0	1770	3539	1583	0	1658	1583	1384	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11				196			71			185
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		659			506			493			539	
Travel Time (s)		15.0			11.5			11.2			12.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	147	647	60	49	1114	196	11	11	38	163	11	185
Shared Lane Traffic (%)												
Lane Group Flow (vph)	147	707	0	49	1114	196	0	22	38	163	11	185
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			20			0			12	
Link Offset(ft)		-10			0			-15			25	
Crosswalk Width(ft)		40			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			4			4	
Permitted Phases						6	4		4	4		4

Lanes, Volumes, Timings  
20: Executive Dr & US 62

05/18/2023

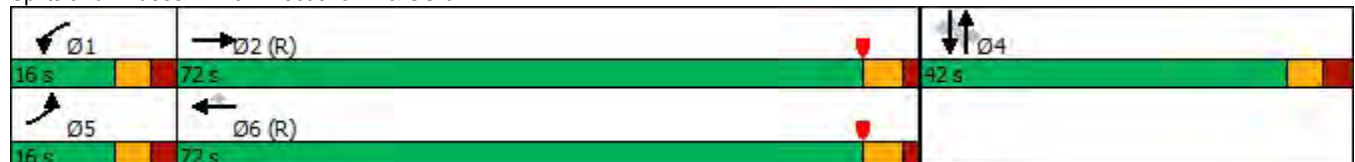


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6	6	4	4	4	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	30.0		5.0	30.0	30.0	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.9	35.6		10.9	35.6	35.6	25.5	25.5	25.5	25.5	25.5	25.5
Total Split (s)	16.0	72.0		16.0	72.0	72.0	42.0	42.0	42.0	42.0	42.0	42.0
Total Split (%)	12.3%	55.4%		12.3%	55.4%	55.4%	32.3%	32.3%	32.3%	32.3%	32.3%	32.3%
Maximum Green (s)	10.1	66.4		10.1	66.4	66.4	35.5	35.5	35.5	35.5	35.5	35.5
Yellow Time (s)	3.5	3.9		3.5	3.9	3.9	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.4	1.7		2.4	1.7	1.7	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.9	5.6		5.9	5.6	5.6		6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None	None	None	None	None
Walk Time (s)		7.0			7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		12.0			12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Pedestrian Calls (#/hr)		0			0	0	0	0	0	0	0	0
Act Effct Green (s)	18.0	82.8		9.0	71.5	71.5		22.5	22.5	22.5	22.5	22.5
Actuated g/C Ratio	0.14	0.64		0.07	0.55	0.55		0.17	0.17	0.17	0.17	0.17
v/c Ratio	0.60	0.32		0.40	0.57	0.20		0.08	0.11	0.68	0.03	0.43
Control Delay	78.8	6.4		79.5	18.2	2.2		42.0	2.4	63.7	40.6	8.9
Queue Delay	0.0	0.0		0.0	0.3	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	78.8	6.4		79.5	18.5	2.2		42.0	2.4	63.7	40.6	8.9
LOS	E	A		E	B	A		D	A	E	D	A
Approach Delay		18.9			18.3			16.9			34.8	
Approach LOS		B			B			B			C	

Intersection Summary

Area Type: Other  
 Cycle Length: 130  
 Actuated Cycle Length: 130  
 Offset: 30 (23%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.68  
 Intersection Signal Delay: 20.7  
 Intersection LOS: C  
 Intersection Capacity Utilization 65.8%  
 ICU Level of Service C  
 Analysis Period (min) 15













Splits and Phases: 20: Executive Dr & US 62



Lanes, Volumes, Timings

23: I-65 SB & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↖		↗
Traffic Volume (vph)	0	520	260	155	965	0	0	0	0	15	0	285
Future Volume (vph)	0	520	260	155	965	0	0	0	0	15	0	285
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		225	70		0	0		0	0		325
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			100			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	1770	0	1583
Flt Permitted				0.385						0.950		
Satd. Flow (perm)	0	3539	1583	717	3539	0	0	0	0	1770	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			283									126
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		506			821			555			635	
Travel Time (s)		11.5			18.7			12.6			14.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	565	283	168	1049	0	0	0	0	16	0	310
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	565	283	168	1049	0	0	0	0	16	0	310
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			40	
Crosswalk Width(ft)		16			50			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	1	1	2					1		1
Detector Template		Thru	Right	Left	Thru					Left		Right
Leading Detector (ft)		100	20	20	100					20		20
Trailing Detector (ft)		0	0	0	0					0		0
Detector 1 Position(ft)		0	0	0	0					0		0
Detector 1 Size(ft)		6	20	20	6					20		20
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA	Perm	pm+pt	NA					Perm		Perm
Protected Phases		2		1	6							
Permitted Phases			2	6						4		4

# Lanes, Volumes, Timings

## 23: I-65 SB & US 62

05/18/2023

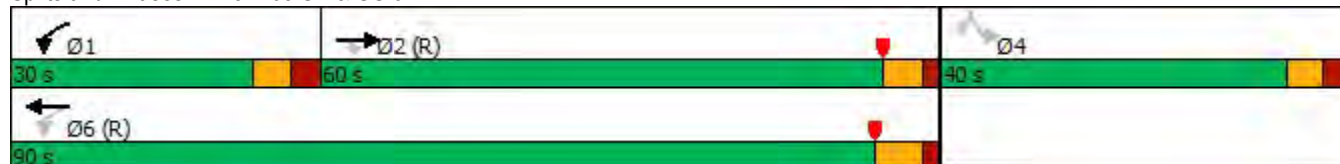


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2	2	1	6					4		4
Switch Phase												
Minimum Initial (s)		30.0	30.0	5.0	30.0					7.0		7.0
Minimum Split (s)		35.6	35.6	11.5	36.5					24.5		24.5
Total Split (s)		60.0	60.0	30.0	90.0					40.0		40.0
Total Split (%)		46.2%	46.2%	23.1%	69.2%					30.8%		30.8%
Maximum Green (s)		54.4	54.4	23.5	83.5					33.5		33.5
Yellow Time (s)		3.9	3.9	3.5	4.8					3.5		3.5
All-Red Time (s)		1.7	1.7	3.0	1.7					3.0		3.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0					0.0		0.0
Total Lost Time (s)		5.6	5.6	6.5	6.5					6.5		6.5
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Vehicle Extension (s)		0.2	0.2	3.0	0.2					3.0		3.0
Recall Mode		C-Max	C-Max	None	C-Max					None		None
Act Effect Green (s)		80.3	80.3	95.3	95.3					21.7		21.7
Actuated g/C Ratio		0.62	0.62	0.73	0.73					0.17		0.17
v/c Ratio		0.26	0.26	0.28	0.40					0.05		0.84
Control Delay		9.8	1.7	6.1	7.1					41.5		49.9
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		9.8	1.7	6.1	7.1					41.5		49.9
LOS		A	A	A	A					D		D
Approach Delay		7.1			7.0							49.5
Approach LOS		A			A							D

### Intersection Summary

Area Type:	Other
Cycle Length:	130
Actuated Cycle Length:	130
Offset:	30 (23%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.84
Intersection Signal Delay:	12.8
Intersection LOS:	B
Intersection Capacity Utilization:	69.6%
ICU Level of Service:	C
Analysis Period (min):	15

### Splits and Phases: 23: I-65 SB & US 62



Lanes, Volumes, Timings  
26: I-65 NB & US 62

05/18/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	290	245	0	0	725	60	395	0	175	0	0	0
Future Volume (vph)	290	245	0	0	725	60	395	0	175	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	460		0	0		175	250		100	0		0
Storage Lanes	1		0	0		1	1		1	0		0
Taper Length (ft)	100			25			75			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1770	3539	0	0	3539	1583	3433	0	1583	0	0	0
Flt Permitted	0.269						0.950					
Satd. Flow (perm)	501	3539	0	0	3539	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						84			160			
Link Speed (mph)		30			30			30				30
Link Distance (ft)		821			495			906				642
Travel Time (s)		18.7			11.3			20.6				14.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	315	266	0	0	788	65	429	0	190	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	315	266	0	0	788	65	429	0	190	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24				24
Link Offset(ft)		0			0			-25				75
Crosswalk Width(ft)		75			16			25				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1		1			
Detector Template	Left	Thru			Thru	Right	Left		Right			
Leading Detector (ft)	20	100			100	20	20		20			
Trailing Detector (ft)	0	0			0	0	0		0			
Detector 1 Position(ft)	0	0			0	0	0		0			
Detector 1 Size(ft)	20	6			6	20	20		20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA			NA	Perm	Perm		Perm			
Protected Phases	5	2			6							
Permitted Phases	2					6	4		4			

# Lanes, Volumes, Timings

26: I-65 NB & US 62

05/18/2023

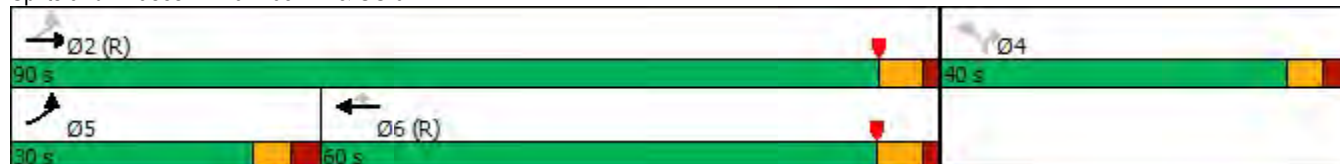


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2			6	6	4		4			
Switch Phase												
Minimum Initial (s)	5.0	30.0			30.0	30.0	15.0		15.0			
Minimum Split (s)	11.5	36.0			36.2	36.2	22.5		22.5			
Total Split (s)	30.0	90.0			60.0	60.0	40.0		40.0			
Total Split (%)	23.1%	69.2%			46.2%	46.2%	30.8%		30.8%			
Maximum Green (s)	23.5	84.0			53.8	53.8	33.5		33.5			
Yellow Time (s)	3.5	4.3			4.5	4.5	3.5		3.5			
All-Red Time (s)	3.0	1.7			1.7	1.7	3.0		3.0			
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Total Lost Time (s)	6.5	6.0			6.2	6.2	6.5		6.5			
Lead/Lag	Lead				Lag				Lag			
Lead-Lag Optimize?	Yes				Yes				Yes			
Vehicle Extension (s)	3.0	0.2			0.2	0.2	6.0		6.0			
Recall Mode	None	C-Max			C-Max	C-Max	None		None			
Act Effct Green (s)	90.7	91.2			69.8	69.8	26.3		26.3			
Actuated g/C Ratio	0.70	0.70			0.54	0.54	0.20		0.20			
v/c Ratio	0.64	0.11			0.41	0.07	0.62		0.43			
Control Delay	28.6	5.3			20.3	2.6	50.8		12.3			
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0			
Total Delay	28.6	5.3			20.3	2.6	50.8		12.3			
LOS	C	A			C	A	D		B			
Approach Delay		17.9			18.9			39.0				
Approach LOS		B			B			D				

## Intersection Summary

Area Type:	Other
Cycle Length:	130
Actuated Cycle Length:	130
Offset:	32 (25%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.64
Intersection Signal Delay:	24.7
Intersection LOS:	C
Intersection Capacity Utilization:	69.6%
ICU Level of Service:	C
Analysis Period (min):	15




















## Splits and Phases: 26: I-65 NB & US 62





Lanes, Volumes, Timings  
29: Medley Ln & US 62

05/18/2023

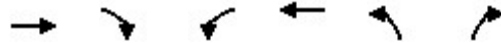
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	405	5	5	770	5	5	0	5	5	0	10
Future Volume (vph)	10	405	5	5	770	5	5	0	5	5	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.999			0.932				0.907
Flt Protected	0.950			0.950				0.976				0.985
Satd. Flow (prot)	1770	3532	0	1770	3536	0	0	1694	0	0	1664	0
Flt Permitted	0.950			0.950				0.976				0.985
Satd. Flow (perm)	1770	3532	0	1770	3536	0	0	1694	0	0	1664	0
Link Speed (mph)		30			30			30				30
Link Distance (ft)		495			559			630				395
Travel Time (s)		11.3			12.7			14.3				9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	440	5	5	837	5	5	0	5	5	0	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	445	0	5	842	0	0	10	0	0	16	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.4%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
32: Howell Dr & US 62

05/18/2023



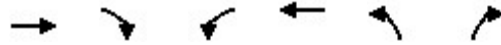
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	
Traffic Volume (vph)	370	45	5	775	5	5
Future Volume (vph)	370	45	5	775	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	50		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt	0.984				0.932	
Flt Protected			0.950		0.976	
Satd. Flow (prot)	3483	0	1770	3539	1694	0
Flt Permitted			0.950		0.976	
Satd. Flow (perm)	3483	0	1770	3539	1694	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	559			165	731	
Travel Time (s)	12.7			3.8	16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	402	49	5	842	5	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	451	0	5	842	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.4%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
34: McCormack Ave & US 62

05/18/2023



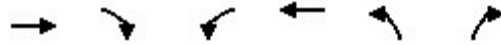
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	365	10	10	750	30	5
Future Volume (vph)	365	10	10	750	30	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt	0.996			0.982		
Flt Protected				0.999	0.958	
Satd. Flow (prot)	1855	0	0	3536	1752	0
Flt Permitted				0.999	0.958	
Satd. Flow (perm)	1855	0	0	3536	1752	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	272			127	684	
Travel Time (s)	6.2			2.9	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	397	11	11	815	33	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	408	0	0	826	38	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	37.8%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
36: Gregory St & US 62

05/18/2023



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	355	15	5	755	5	5
Future Volume (vph)	355	15	5	755	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>	0.995			0.932		
Fl <sub>t</sub> Protected				0.976		
Satd. Flow (prot)	1853	0	0	1863	1694	0
Fl <sub>t</sub> Permitted				0.976		
Satd. Flow (perm)	1853	0	0	1863	1694	0
Link Speed (mph)	30			30		
Link Distance (ft)	241			1032		915
Travel Time (s)	5.5			23.5		20.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	386	16	5	821	5	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	402	0	0	826	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0		12
Link Offset(ft)	0			0		0
Crosswalk Width(ft)	16			16		16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15		9	
Sign Control	Free			Free		Stop

















Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	53.7%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

40: US 62

05/18/2023

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	5	0	15	10	0	5	25	715	10	5	750	5
Future Volume (vph)	5	0	15	10	0	5	25	715	10	5	750	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	250		0
Storage Lanes	0		0	0		0	0		0	1		0
Taper Length (ft)	25			25			25			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.91	0.91	0.91
Frt		0.897			0.958			0.998			0.999	
Flt Protected		0.988			0.967			0.998				
Satd. Flow (prot)	0	1651	0	0	1726	0	0	3525	0	0	5080	0
Flt Permitted		0.988			0.967			0.998				
Satd. Flow (perm)	0	1651	0	0	1726	0	0	3525	0	0	5080	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		356			432			149			698	
Travel Time (s)		8.1			9.8			3.4			15.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	0	16	11	0	5	27	777	11	5	815	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	21	0	0	16	0	0	815	0	0	825	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	48.3%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
3: US 62 & Brook St

05/18/2023























Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	5	5	815	5	5	750
Future Volume (vph)	5	5	815	5	5	750
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932		0.999			
Flt Protected	0.976					
Satd. Flow (prot)	1694	0	3536	0	0	3539
Flt Permitted	0.976					
Satd. Flow (perm)	1694	0	3536	0	0	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	802		662			816
Travel Time (s)	18.2		15.0			18.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	5	886	5	5	815
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	891	0	0	820
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.2%
Analysis Period (min)	15
	ICU Level of Service A













Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	170	50	50	10	45	15	65	740	15	10	695	155
Future Volume (vph)	170	50	50	10	45	15	65	740	15	10	695	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	0		0	250		0	100		100
Storage Lanes	1		0	0		0	1		0	1		1
Taper Length (ft)	25			25			50			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt		0.925			0.972			0.997				0.850
Flt Protected	0.950				0.993		0.950			0.950		
Satd. Flow (prot)	1770	1723	0	0	1798	0	1770	3529	0	1770	3539	1583
Flt Permitted	0.708				0.951		0.240			0.343		
Satd. Flow (perm)	1319	1723	0	0	1722	0	447	3529	0	639	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29			8			2				95
Link Speed (mph)		30			30			30				30
Link Distance (ft)		776			653			816				2071
Travel Time (s)		17.6			14.8			18.5				47.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	185	54	54	11	49	16	71	804	16	11	755	168
Shared Lane Traffic (%)												
Lane Group Flow (vph)	185	108	0	0	76	0	71	820	0	11	755	168
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			12				12
Link Offset(ft)		12			0			0				0
Crosswalk Width(ft)		16			24			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			4		5	2		1	6	
Permitted Phases	4			4			2			6		6

Lanes, Volumes, Timings  
5: US 62 & French St

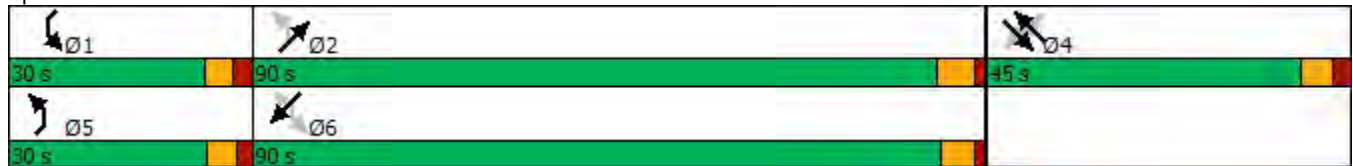
05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	4	4		4	4		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		4.0	15.0		4.0	15.0	15.0
Minimum Split (s)	24.3	24.3		24.3	24.3		9.6	24.0		9.9	23.5	23.5
Total Split (s)	45.0	45.0		45.0	45.0		30.0	90.0		30.0	90.0	90.0
Total Split (%)	27.3%	27.3%		27.3%	27.3%		18.2%	54.5%		18.2%	54.5%	54.5%
Maximum Green (s)	38.7	38.7		38.7	38.7		24.4	84.0		24.1	84.5	84.5
Yellow Time (s)	3.8	3.8		3.8	3.8		3.5	4.7		3.5	4.2	4.2
All-Red Time (s)	2.5	2.5		2.5	2.5		2.1	1.3		2.4	1.3	1.3
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.3	6.3			6.3		5.6	6.0		5.9	5.5	5.5
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	2.2		3.0	2.2	2.2
Recall Mode	None	None		None	None		None	Min		None	Min	Min
Act Effect Green (s)	15.6	15.6			15.6		32.8	31.0		26.9	23.0	23.0
Actuated g/C Ratio	0.25	0.25			0.25		0.53	0.50		0.44	0.37	0.37
v/c Ratio	0.56	0.24			0.17		0.17	0.46		0.03	0.57	0.26
Control Delay	29.9	17.7			20.0		8.0	11.9		7.8	18.8	9.0
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	29.9	17.7			20.0		8.0	11.9		7.8	18.8	9.0
LOS	C	B			C		A	B		A	B	A
Approach Delay		25.4			20.0			11.6			16.9	
Approach LOS		C			C			B			B	

Intersection Summary

Area Type: Other  
 Cycle Length: 165  
 Actuated Cycle Length: 61.6  
 Natural Cycle: 60  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.57  
 Intersection Signal Delay: 16.0  
 Intersection LOS: B  
 Intersection Capacity Utilization 55.5%  
 ICU Level of Service B  
 Analysis Period (min) 15


















Splits and Phases: 5: US 62 & French St




























Lanes, Volumes, Timings  
8: US 62 & Main St

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	10	0	10	5	0	175	10	905	10	170	845	5
Future Volume (vph)	10	0	10	5	0	175	10	905	10	170	845	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	200		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95
Frt		0.932			0.868			0.998			0.999	
Flt Protected		0.976			0.999			0.999		0.950		
Satd. Flow (prot)	0	1694	0	0	1615	0	0	3529	0	1770	3536	0
Flt Permitted		0.976			0.999			0.999		0.950		
Satd. Flow (perm)	0	1694	0	0	1615	0	0	3529	0	1770	3536	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		288			444			2071			149	
Travel Time (s)		6.5			10.1			47.1			3.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	0	11	5	0	190	11	984	11	185	918	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	22	0	0	195	0	0	1006	0	185	923	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			24			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	70.2%						ICU Level of Service C					
Analysis Period (min)	15											

Lanes, Volumes, Timings  
11: US 62 & Ring Rd

05/18/2023

												
Lane Group	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER	NER2
Lane Configurations												
Traffic Volume (vph)	45	705	485	20	10	5	850	10	290	275	820	10
Future Volume (vph)	45	705	485	20	10	5	850	10	290	275	820	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		100	100	0		100	0		0	200	0	
Storage Lanes		1	1	0		1	1		1	2	2	
Taper Length (ft)		50		25			25			100		
Lane Util. Factor	1.00	0.97	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.97	0.88	0.95
Frt			0.850			0.850			0.850		0.850	
Flt Protected	0.950	0.950			0.968		0.950	0.953		0.950		
Satd. Flow (prot)	1770	3433	1583	0	1803	1583	1681	1686	1583	3433	2787	0
Flt Permitted	0.950	0.950			0.968		0.950	0.953		0.950		
Satd. Flow (perm)	1770	3433	1583	0	1803	1583	1681	1686	1583	3433	2787	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			167			82			144		80	
Link Speed (mph)		30			30			30		30		
Link Distance (ft)		400			333			1291		698		
Travel Time (s)		9.1			7.6			29.3		15.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	49	766	527	22	11	5	924	11	315	299	891	11
Shared Lane Traffic (%)							49%					
Lane Group Flow (vph)	49	766	527	0	33	5	471	464	315	299	902	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right	Right
Median Width(ft)		48			12			12		24		
Link Offset(ft)		0			0			18		0		
Crosswalk Width(ft)		16			30			28		70		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	60	9	15		9	15		9	15	60	9
Number of Detectors	1	1	1	1	2	1	1	2	1	1	1	
Detector Template	Left	Left	Right	Left	Thru	Right	Left	Thru	Right	Left	Right	
Leading Detector (ft)	20	20	20	20	100	20	20	100	20	20	20	
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	20	20	20	6	20	20	6	20	20	20	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)					94			94				
Detector 2 Size(ft)					6			6				
Detector 2 Type					Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0				
Turn Type	Prot	Prot	Perm	Split	NA	Perm	Split	NA	Perm	Prot	Prot	
Protected Phases	1	6		4	4		8	8		5	2	
Permitted Phases			6			4			8			

Lanes, Volumes, Timings  
11: US 62 & Ring Rd

05/18/2023



Lane Group	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER	NER2
Detector Phase	1	6	6	4	4	4	8	8	8	5	2	
Switch Phase												
Minimum Initial (s)	5.0	25.0	25.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0	25.0	
Minimum Split (s)	11.5	32.0	32.0	22.5	22.5	22.5	46.6	46.6	46.6	22.5	49.3	
Total Split (s)	45.0	90.0	90.0	45.0	45.0	45.0	46.6	46.6	46.6	45.0	90.0	
Total Split (%)	19.9%	39.7%	39.7%	19.9%	19.9%	19.9%	20.6%	20.6%	20.6%	19.9%	39.7%	
Maximum Green (s)	38.5	83.0	83.0	38.5	38.5	38.5	40.0	40.0	40.0	38.9	83.7	
Yellow Time (s)	3.5	4.7	4.7	4.6	4.6	4.6	4.7	4.7	4.7	3.5	4.0	
All-Red Time (s)	3.0	2.3	2.3	1.9	1.9	1.9	1.9	1.9	1.9	2.6	2.3	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.5	7.0	7.0		6.5	6.5	6.6	6.6	6.6	6.1	6.3	
Lead/Lag	Lead	Lag	Lag							Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes							Yes	Yes	
Vehicle Extension (s)	3.0	2.6	2.6	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.6	
Recall Mode	None	Min	Min	None	None	None	None	None	None	None	Min	
Walk Time (s)							7.0	7.0	7.0		7.0	
Flash Dont Walk (s)							33.0	33.0	33.0		36.0	
Pedestrian Calls (#/hr)							0	0	0		0	
Act Effct Green (s)	9.8	42.2	42.2		8.4	8.4	41.4	41.4	41.4	18.5	54.7	
Actuated g/C Ratio	0.07	0.31	0.31		0.06	0.06	0.31	0.31	0.31	0.14	0.41	
v/c Ratio	0.38	0.71	0.86		0.29	0.03	0.91	0.89	0.54	0.63	0.76	
Control Delay	74.5	44.6	44.5		74.2	0.4	69.9	67.7	27.9	63.5	36.8	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	74.5	44.6	44.5		74.2	0.4	69.9	67.7	27.9	63.5	36.8	
LOS	E	D	D		E	A	E	E	C	E	D	
Approach Delay		45.6			64.5			58.5		43.5		
Approach LOS		D			E			E		D		

Intersection Summary


















Area Type:	Other
Cycle Length:	226.6
Actuated Cycle Length:	134.2
Natural Cycle:	130
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.91
Intersection Signal Delay:	49.3
Intersection LOS:	D
Intersection Capacity Utilization	75.6%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 11: US 62 & Ring Rd



Lanes, Volumes, Timings  
14: Dolphin Dr & US 62

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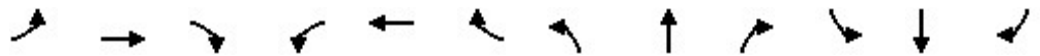
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	165	1510	0	5	1035	180	20	0	15	0	0	180
Future Volume (vph)	165	1510	0	5	1035	180	20	0	15	0	0	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.978			0.943				0.865
Flt Protected	0.950							0.972				
Satd. Flow (prot)	1770	3539	0	0	3461	0	0	1707	0	0	0	1611
Flt Permitted	0.950							0.972				
Satd. Flow (perm)	1770	3539	0	0	3461	0	0	1707	0	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		400			1196			275				468
Travel Time (s)		9.1			27.2			6.3				10.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	179	1641	0	5	1125	196	22	0	16	0	0	196
Shared Lane Traffic (%)												
Lane Group Flow (vph)	179	1641	0	0	1326	0	0	38	0	0	0	196
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	89.6%
ICU Level of Service	E
Analysis Period (min)	15

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

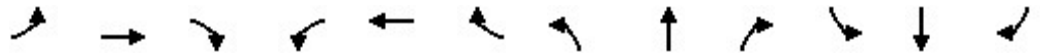
05/18/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	1265	245	55	1020	20	175	5	125	10	25	25
Future Volume (vph)	15	1265	245	55	1020	20	175	5	125	10	25	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		200	240		0	0		0	25		0
Storage Lanes	1		1	1		0	0		1	1		0
Taper Length (ft)	75			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.997				0.850		0.925	
Flt Protected	0.950			0.950				0.954		0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3529	0	0	1777	1583	1770	1723	0
Flt Permitted	0.950			0.950				0.954		0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3529	0	0	1777	1583	1770	1723	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			158		2				140		27	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1196			659			621			278	
Travel Time (s)		27.2			15.0			14.1			6.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	1375	266	60	1109	22	190	5	136	11	27	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	1375	266	60	1131	0	0	195	136	11	54	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			12			0			12	
Link Offset(ft)		-12			0			50			-20	
Crosswalk Width(ft)		70			40			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases			2						4			

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	1	6		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	5.0	25.0	25.0	5.0	25.0		7.0	7.0	7.0	5.0	5.0	
Minimum Split (s)	10.8	31.7	31.7	11.1	32.1		22.5	22.5	22.5	11.5	11.5	
Total Split (s)	21.0	61.0	61.0	21.0	61.0		26.0	26.0	26.0	22.0	22.0	
Total Split (%)	16.2%	46.9%	46.9%	16.2%	46.9%		20.0%	20.0%	20.0%	16.9%	16.9%	
Maximum Green (s)	15.2	54.6	54.6	14.9	53.9		19.5	19.5	19.5	15.5	15.5	
Yellow Time (s)	3.5	4.1	4.1	3.5	4.8		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.3	2.3	2.3	2.6	2.3		3.0	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.8	6.4	6.4	6.1	7.1			6.5	6.5	6.5	6.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		5.0	5.0	5.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	None	None	
Act Effect Green (s)	6.8	73.2	73.2	9.8	80.5			18.5	18.5	7.8	7.8	
Actuated g/C Ratio	0.05	0.56	0.56	0.08	0.62			0.14	0.14	0.06	0.06	
v/c Ratio	0.18	0.69	0.28	0.45	0.52			0.77	0.39	0.10	0.42	
Control Delay	62.7	25.6	8.4	59.4	15.0			74.2	10.8	58.3	43.4	
Queue Delay	0.0	0.1	0.0	0.0	0.4			0.0	1.2	0.0	0.0	
Total Delay	62.7	25.7	8.4	59.4	15.3			74.2	12.0	58.3	43.4	
LOS	E	C	A	E	B			E	B	E	D	
Approach Delay		23.3			17.5			48.7			45.9	
Approach LOS		C			B			D			D	

Intersection Summary

Area Type:	Other
Cycle Length:	130
Actuated Cycle Length:	130
Offset:	72 (55%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	24.2
Intersection LOS:	C
Intersection Capacity Utilization	71.6%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 17: Commerce Dr & US 62



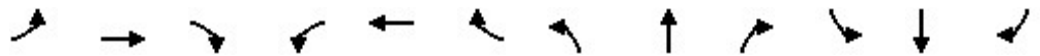
Lanes, Volumes, Timings  
20: Executive Dr & US 62

05/18/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	1240	20	90	930	190	40	10	75	205	15	125
Future Volume (vph)	140	1240	20	90	930	190	40	10	75	205	15	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	185		0	100		0	0		100	0		0
Storage Lanes	1		0	1		1	0		1	1		1
Taper Length (ft)	25			75			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998				0.850			0.850			0.850
Flt Protected	0.950			0.950				0.962		0.950		
Satd. Flow (prot)	1770	3532	0	1770	3539	1583	0	1792	1583	1770	1863	1583
Flt Permitted	0.950			0.950				0.780		0.722		
Satd. Flow (perm)	1770	3532	0	1770	3539	1583	0	1453	1583	1345	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				207			82			136
Link Speed (mph)		30			30			30				30
Link Distance (ft)		659			506			493				539
Travel Time (s)		15.0			11.5			11.2				12.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	1348	22	98	1011	207	43	11	82	223	16	136
Shared Lane Traffic (%)												
Lane Group Flow (vph)	152	1370	0	98	1011	207	0	54	82	223	16	136
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			20			0				12
Link Offset(ft)		-10			0			-15				25
Crosswalk Width(ft)		40			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2		1	6			4				4
Permitted Phases						6	4		4	4		4

Lanes, Volumes, Timings  
20: Executive Dr & US 62

05/18/2023

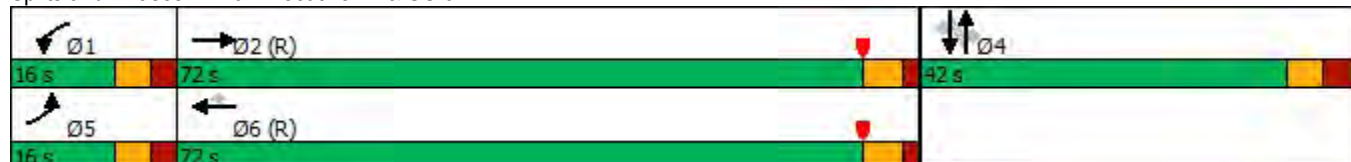


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6	6	4	4	4	4	4	4
Switch Phase												
Minimum Initial (s)	5.0	30.0		5.0	30.0	30.0	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	10.9	35.6		10.9	35.6	35.6	25.5	25.5	25.5	25.5	25.5	25.5
Total Split (s)	16.0	72.0		16.0	72.0	72.0	42.0	42.0	42.0	42.0	42.0	42.0
Total Split (%)	12.3%	55.4%		12.3%	55.4%	55.4%	32.3%	32.3%	32.3%	32.3%	32.3%	32.3%
Maximum Green (s)	10.1	66.4		10.1	66.4	66.4	35.5	35.5	35.5	35.5	35.5	35.5
Yellow Time (s)	3.5	3.9		3.5	3.9	3.9	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.4	1.7		2.4	1.7	1.7	3.0	3.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.9	5.6		5.9	5.6	5.6		6.5	6.5	6.5	6.5	6.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None	None	None	None	None
Walk Time (s)		7.0			7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		12.0			12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Pedestrian Calls (#/hr)		0			0	0	0	0	0	0	0	0
Act Effct Green (s)	16.1	73.2		11.0	68.1	68.1		27.8	27.8	27.8	27.8	27.8
Actuated g/C Ratio	0.12	0.56		0.08	0.52	0.52		0.21	0.21	0.21	0.21	0.21
v/c Ratio	0.69	0.69		0.66	0.55	0.22		0.17	0.20	0.78	0.04	0.31
Control Delay	50.1	42.7		85.1	19.2	2.3		40.4	8.7	65.7	37.1	7.7
Queue Delay	0.0	1.5		0.0	0.4	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	50.1	44.1		85.1	19.6	2.3		40.4	8.7	65.7	37.1	7.7
LOS	D	D		F	B	A		D	A	E	D	A
Approach Delay		44.7			21.7			21.3			43.5	
Approach LOS		D			C			C			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 130  
 Actuated Cycle Length: 130  
 Offset: 30 (23%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 34.6  
 Intersection LOS: C  
 Intersection Capacity Utilization 72.9%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 20: Executive Dr & US 62





Lanes, Volumes, Timings

23: I-65 SB & US 62

05/18/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↘		↗
Traffic Volume (vph)	0	915	605	165	765	0	0	0	0	65	0	445
Future Volume (vph)	0	915	605	165	765	0	0	0	0	65	0	445
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		225	70		0	0		0	0		325
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			100			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	1770	0	1583
Flt Permitted				0.193						0.950		
Satd. Flow (perm)	0	3539	1583	360	3539	0	0	0	0	1770	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			598									200
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		506			821			555			635	
Travel Time (s)		11.5			18.7			12.6			14.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	995	658	179	832	0	0	0	0	71	0	484
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	995	658	179	832	0	0	0	0	71	0	484
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			40	
Crosswalk Width(ft)		16			50			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	1	1	2					1		1
Detector Template		Thru	Right	Left	Thru					Left		Right
Leading Detector (ft)		100	20	20	100					20		20
Trailing Detector (ft)		0	0	0	0					0		0
Detector 1 Position(ft)		0	0	0	0					0		0
Detector 1 Size(ft)		6	20	20	6					20		20
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA	Perm	pm+pt	NA					Perm		Perm
Protected Phases		2		1	6							
Permitted Phases			2	6						4		4

# Lanes, Volumes, Timings

## 23: I-65 SB & US 62

05/18/2023

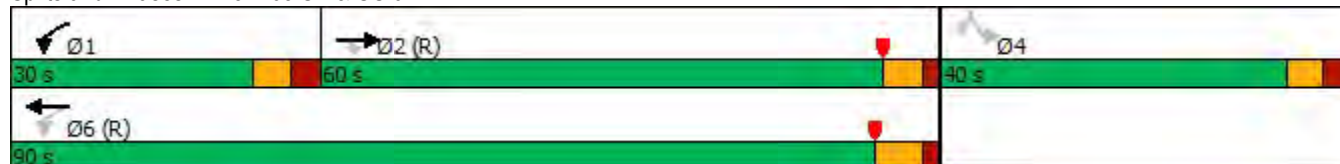


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2	2	1	6					4		4
Switch Phase												
Minimum Initial (s)		30.0	30.0	5.0	30.0					7.0		7.0
Minimum Split (s)		35.6	35.6	11.5	36.5					24.5		24.5
Total Split (s)		60.0	60.0	30.0	90.0					40.0		40.0
Total Split (%)		46.2%	46.2%	23.1%	69.2%					30.8%		30.8%
Maximum Green (s)		54.4	54.4	23.5	83.5					33.5		33.5
Yellow Time (s)		3.9	3.9	3.5	4.8					3.5		3.5
All-Red Time (s)		1.7	1.7	3.0	1.7					3.0		3.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0					0.0		0.0
Total Lost Time (s)		5.6	5.6	6.5	6.5					6.5		6.5
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Vehicle Extension (s)		0.2	0.2	3.0	0.2					3.0		3.0
Recall Mode		C-Max	C-Max	None	C-Max					None		None
Act Effect Green (s)		71.0	71.0	87.2	87.2					29.8		29.8
Actuated g/C Ratio		0.55	0.55	0.67	0.67					0.23		0.23
v/c Ratio		0.52	0.58	0.50	0.35					0.18		0.94
Control Delay		13.4	2.7	18.8	10.2					39.7		55.1
Queue Delay		0.3	0.4	0.0	0.0					0.0		0.0
Total Delay		13.6	3.1	18.8	10.2					39.7		55.1
LOS		B	A	B	B					D		E
Approach Delay		9.4			11.7							53.2
Approach LOS		A			B							D

### Intersection Summary



















Area Type:	Other
Cycle Length:	130
Actuated Cycle Length:	130
Offset:	30 (23%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.94
Intersection Signal Delay:	17.7
Intersection LOS:	B
Intersection Capacity Utilization	71.8%
ICU Level of Service	C
Analysis Period (min)	15

### Splits and Phases: 23: I-65 SB & US 62



Lanes, Volumes, Timings  
26: I-65 NB & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	330	650	0	0	615	30	315	0	100	0	0	0
Future Volume (vph)	330	650	0	0	615	30	315	0	100	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	460		0	0		175	250		100	0		0
Storage Lanes	1		0	0		1	1		1	0		0
Taper Length (ft)	100			25			75			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1770	3539	0	0	3539	1583	3433	0	1583	0	0	0
Flt Permitted	0.329						0.950					
Satd. Flow (perm)	613	3539	0	0	3539	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						84			109			
Link Speed (mph)		30			30			30				30
Link Distance (ft)		821			495			906				642
Travel Time (s)		18.7			11.3			20.6				14.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	359	707	0	0	668	33	342	0	109	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	359	707	0	0	668	33	342	0	109	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24				24
Link Offset(ft)		0			0			-25				75
Crosswalk Width(ft)		75			16			25				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1		1			
Detector Template	Left	Thru			Thru	Right	Left		Right			
Leading Detector (ft)	20	100			100	20	20		20			
Trailing Detector (ft)	0	0			0	0	0		0			
Detector 1 Position(ft)	0	0			0	0	0		0			
Detector 1 Size(ft)	20	6			6	20	20		20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA			NA	Perm	Perm		Perm			
Protected Phases	5	2			6							
Permitted Phases	2					6	4		4			

# Lanes, Volumes, Timings

26: I-65 NB & US 62

05/18/2023

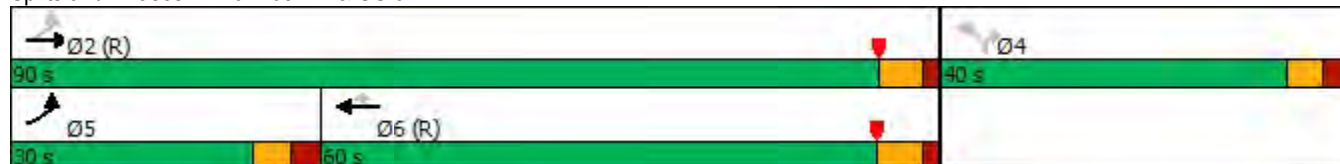


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2			6	6	4		4			
Switch Phase												
Minimum Initial (s)	5.0	30.0			30.0	30.0	15.0		15.0			
Minimum Split (s)	11.5	36.0			36.2	36.2	22.5		22.5			
Total Split (s)	30.0	90.0			60.0	60.0	40.0		40.0			
Total Split (%)	23.1%	69.2%			46.2%	46.2%	30.8%		30.8%			
Maximum Green (s)	23.5	84.0			53.8	53.8	33.5		33.5			
Yellow Time (s)	3.5	4.3			4.5	4.5	3.5		3.5			
All-Red Time (s)	3.0	1.7			1.7	1.7	3.0		3.0			
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Total Lost Time (s)	6.5	6.0			6.2	6.2	6.5		6.5			
Lead/Lag	Lead				Lag				Lag			
Lead-Lag Optimize?	Yes				Yes				Yes			
Vehicle Extension (s)	3.0	0.2			0.2	0.2	6.0		6.0			
Recall Mode	None	C-Max			C-Max	C-Max	None		None			
Act Effct Green (s)	95.0	95.5			73.9	73.9	22.0		22.0			
Actuated g/C Ratio	0.73	0.73			0.57	0.57	0.17		0.17			
v/c Ratio	0.62	0.27			0.33	0.04	0.59		0.30			
Control Delay	25.5	4.6			16.7	0.1	53.5		9.9			
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0			
Total Delay	25.5	4.6			16.7	0.1	53.5		9.9			
LOS	C	A			B	A	D		A			
Approach Delay		11.7			15.9			43.0				
Approach LOS		B			B			D				

## Intersection Summary



















Area Type:	Other
Cycle Length:	130
Actuated Cycle Length:	130
Offset:	32 (25%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.62
Intersection Signal Delay:	19.4
Intersection LOS:	B
Intersection Capacity Utilization	71.8%
ICU Level of Service	C
Analysis Period (min)	15

## Splits and Phases: 26: I-65 NB & US 62



Lanes, Volumes, Timings  
29: Medley Ln & US 62

05/18/2023

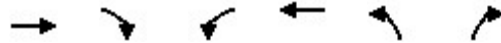
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	740	5	5	615	5	5	0	5	5	0	25
Future Volume (vph)	5	740	5	5	615	5	5	0	5	5	0	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.999			0.932				0.886
Flt Protected	0.950			0.950				0.976				0.992
Satd. Flow (prot)	1770	3536	0	1770	3536	0	0	1694	0	0	1637	0
Flt Permitted	0.950			0.950				0.976				0.992
Satd. Flow (perm)	1770	3536	0	1770	3536	0	0	1694	0	0	1637	0
Link Speed (mph)		30			30			30				30
Link Distance (ft)		495			559			630				395
Travel Time (s)		11.3			12.7			14.3				9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	804	5	5	668	5	5	0	5	5	0	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	809	0	5	673	0	0	10	0	0	32	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	30.6%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
32: Howell Dr & US 62

05/18/2023



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵↵	
Traffic Volume (vph)	720	30	5	610	15	5
Future Volume (vph)	720	30	5	610	15	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	50		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	0.95	1.00	0.95	1.00	1.00
Frt	0.994				0.968	
Flt Protected			0.950		0.963	
Satd. Flow (prot)	3518	0	1770	3539	1736	0
Flt Permitted			0.950		0.963	
Satd. Flow (perm)	3518	0	1770	3539	1736	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	559			165	731	
Travel Time (s)	12.7			3.8	16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	783	33	5	663	16	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	816	0	5	663	21	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	30.9%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
34: McCormack Ave & US 62

05/18/2023



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	680	45	5	595	20	5
Future Volume (vph)	680	45	5	595	20	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Fr <sub>t</sub>	0.992			0.975		
Fl <sub>t</sub> Protected				0.961		
Satd. Flow (prot)	1848	0	0	3539	1745	0
Fl <sub>t</sub> Permitted				0.961		
Satd. Flow (perm)	1848	0	0	3539	1745	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	272			127	684	
Travel Time (s)	6.2			2.9	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	739	49	5	647	22	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	788	0	0	652	27	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	48.5%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
36: Gregory St & US 62

05/18/2023



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	635	50	5	590	10	5
Future Volume (vph)	635	50	5	590	10	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>	0.990			0.958		
Fl <sub>t</sub> Protected				0.967		
Satd. Flow (prot)	1844	0	0	1863	1726	0
Fl <sub>t</sub> Permitted				0.967		
Satd. Flow (perm)	1844	0	0	1863	1726	0
Link Speed (mph)	30			30		
Link Distance (ft)	241			1032		915
Travel Time (s)	5.5			23.5		20.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	690	54	5	641	11	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	744	0	0	646	16	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0		12
Link Offset(ft)	0			0		0
Crosswalk Width(ft)	16			16		16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15		15	
Sign Control	Free			Free		Stop

Intersection Summary

















Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	46.5%
Analysis Period (min)	15
	ICU Level of Service A



Lanes, Volumes, Timings

40: US 62

05/18/2023

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	20	0	20	20	0	15	5	1065	20	20	985	10
Future Volume (vph)	20	0	20	20	0	15	5	1065	20	20	985	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	250		0
Storage Lanes	0		0	0		0	0		0	1		0
Taper Length (ft)	25			25			25			50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.91	0.91	0.91
Frt		0.932			0.943			0.997			0.999	
Flt Protected		0.976			0.972						0.999	
Satd. Flow (prot)	0	1694	0	0	1707	0	0	3529	0	0	5075	0
Flt Permitted		0.976			0.972						0.999	
Satd. Flow (perm)	0	1694	0	0	1707	0	0	3529	0	0	5075	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		356			432			149			698	
Travel Time (s)		8.1			9.8			3.4			15.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	0	22	22	0	16	5	1158	22	22	1071	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	44	0	0	38	0	0	1185	0	0	1104	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	43.6%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
3: US 62 & Brook St

05/18/2023






















Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	5	5	540	5	5	675
Future Volume (vph)	5	5	540	5	5	675
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932		0.999			
Flt Protected	0.976					
Satd. Flow (prot)	1694	0	3536	0	0	3539
Flt Permitted	0.976					
Satd. Flow (perm)	1694	0	3536	0	0	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	802		662			397
Travel Time (s)	18.2		15.0			9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	5	587	5	5	734
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	592	0	0	739
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	32.2%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Lane Configurations												
Traffic Volume (vph)	125	35	55	10	30	10	35	500	10	25	5	615
Future Volume (vph)	125	35	55	10	30	10	35	500	10	25	5	615
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	0		0	200		0		225	
Storage Lanes	1		0	0		0	1		0		1	
Taper Length (ft)	25			25			50				50	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Frt		0.908			0.973			0.997				
Flt Protected	0.950				0.990		0.950				0.950	
Satd. Flow (prot)	1770	1691	0	0	1794	0	1770	3529	0	0	1770	3539
Flt Permitted	0.811				0.931		0.378				0.435	
Satd. Flow (perm)	1511	1691	0	0	1687	0	704	3529	0	0	810	3539
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		60			11			2				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		776			653			420				611
Travel Time (s)		17.6			14.8			9.5				13.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	136	38	60	11	33	11	38	543	11	27	5	668
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	98	0	0	55	0	38	554	0	0	32	668
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		12			0			24				24
Link Offset(ft)		12			0			0				0
Crosswalk Width(ft)		16			24			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2		1	2		1	2		1	1	2
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Left	Thru
Leading Detector (ft)	20	100		20	100		20	100		20	20	100
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	pm+pt	NA
Protected Phases		4			4		5	2		1	1	6
Permitted Phases	4			4			2			6	6	

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023



Lane Group	SWR
Lane Configurations	
Traffic Volume (vph)	85
Future Volume (vph)	85
Ideal Flow (vphpl)	1900
Storage Length (ft)	150
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	92
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Adj. Flow (vph)	92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	92
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	6

# Lanes, Volumes, Timings

## 5: US 62 & French St

05/18/2023

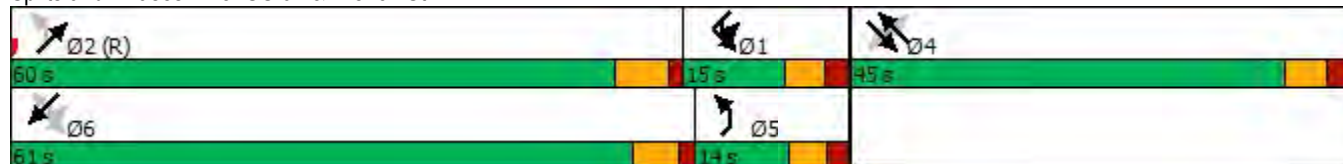


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Detector Phase	4	4		4	4		5	2		1	1	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		4.0	15.0		4.0	4.0	15.0
Minimum Split (s)	12.3	12.3		12.3	12.3		9.6	24.0		9.9	9.9	20.5
Total Split (s)	45.0	45.0		45.0	45.0		14.0	60.0		15.0	15.0	61.0
Total Split (%)	37.5%	37.5%		37.5%	37.5%		11.7%	50.0%		12.5%	12.5%	50.8%
Maximum Green (s)	38.7	38.7		38.7	38.7		8.4	54.0		9.1	9.1	55.5
Yellow Time (s)	3.8	3.8		3.8	3.8		3.5	4.7		3.5	3.5	4.2
All-Red Time (s)	2.5	2.5		2.5	2.5		2.1	1.3		2.4	2.4	1.3
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	6.3	6.3			6.3		5.6	6.0			5.9	5.5
Lead/Lag							Lag	Lead		Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	2.2		3.0	3.0	2.2
Recall Mode	None	None		None	None		None	C-Min		None	None	Min
Act Effect Green (s)	17.8	17.8			17.8		88.1	82.1			89.8	83.6
Actuated g/C Ratio	0.15	0.15			0.15		0.73	0.68			0.75	0.70
v/c Ratio	0.61	0.33			0.21		0.07	0.23			0.05	0.27
Control Delay	58.4	21.8			36.8		5.5	9.0			5.2	8.4
Queue Delay	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Delay	58.4	21.8			36.8		5.5	9.0			5.2	8.4
LOS	E	C			D		A	A			A	A
Approach Delay		43.1			36.8			8.8				7.5
Approach LOS		D			D			A				A

### Intersection Summary

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	0 (0%), Referenced to phase 2:NETL, Start of Green
Natural Cycle:	50
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.61
Intersection Signal Delay:	13.9
Intersection LOS:	B
Intersection Capacity Utilization:	48.4%
ICU Level of Service:	A
Analysis Period (min):	15

### Splits and Phases: 5: US 62 & French St
























Lane Group	SWR
Detector Phase	6
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	20.5
Total Split (s)	61.0
Total Split (%)	50.8%
Maximum Green (s)	55.5
Yellow Time (s)	4.2
All-Red Time (s)	1.3
Lost Time Adjust (s)	0.0
Total Lost Time (s)	5.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.2
Recall Mode	Min
Act Effct Green (s)	83.6
Actuated g/C Ratio	0.70
v/c Ratio	0.08
Control Delay	2.1
Queue Delay	0.0
Total Delay	2.1
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

8: US 62 & Main St

05/18/2023























												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			 	
Traffic Volume (vph)	0	0	10	0	0	145	0	645	20	85	685	25
Future Volume (vph)	0	0	10	0	0	145	0	645	20	85	685	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.865			0.865		0.995			0.995	
Flt Protected										0.950		
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3522	0	1770	3522	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3522	0	1770	3522	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		288			444			348			150	
Travel Time (s)		6.5			10.1			7.9			3.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	11	0	0	158	0	701	22	92	745	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	11	0	0	158	0	723	0	92	772	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			36			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			24			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.1%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
11: Ring Rd & US 62

05/18/2023


















												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	190	540	10	15	630	550	5	5	5	400	10	125
Future Volume (vph)	190	540	10	15	630	550	5	5	5	400	10	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	100		100	0		100	0		0
Storage Lanes	2		0	1		1	0		1	1		1
Taper Length (ft)	25			50			25			25		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.997				0.850			0.850			0.850
Flt Protected	0.950			0.950				0.976		0.950	0.955	
Satd. Flow (prot)	3433	3529	0	1770	3539	1583	0	1818	1583	1681	1690	1583
Flt Permitted	0.950			0.426				0.976		0.950	0.955	
Satd. Flow (perm)	3433	3529	0	794	3539	1583	0	1818	1583	1681	1690	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				371			155			155
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		361			400			333			1291	
Travel Time (s)		8.2			9.1			7.6			29.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	207	587	11	16	685	598	5	5	5	435	11	136
Shared Lane Traffic (%)										49%		
Lane Group Flow (vph)	207	598	0	16	685	598	0	10	5	222	224	136
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			36			12			12	
Link Offset(ft)		0			0			0			18	
Crosswalk Width(ft)		50			16			30			28	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases				6		6				4		8





Lanes, Volumes, Timings  
14: Dolphin Dr & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	115	830	0	0	1125	145	0	0	10	0	0	70
Future Volume (vph)	115	830	0	0	1125	145	0	0	10	0	0	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		1
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.983				0.865			0.865
Flt Protected	0.950											
Satd. Flow (prot)	1770	3539	0	0	3479	0	0	0	1611	0	0	1611
Flt Permitted	0.950											
Satd. Flow (perm)	1770	3539	0	0	3479	0	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		400			1196			275				468
Travel Time (s)		9.1			27.2			6.3				10.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	125	902	0	0	1223	158	0	0	11	0	0	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	125	902	0	0	1381	0	0	0	11	0	0	76
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	48.8%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	5	15	720	100	150	55	1135	15	110	5	70	5
Future Volume (vph)	5	15	720	100	150	55	1135	15	110	5	70	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		175		200		200		0	0		0	0
Storage Lanes		1		1		1		0	0		1	0
Taper Length (ft)		75				50			25			25
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt				0.850			0.998				0.850	
Flt Protected		0.950				0.950				0.954		
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3532	0	0	1777	1583	0
Flt Permitted		0.148				0.293				0.954		
Satd. Flow (perm)	0	276	3539	1583	0	546	3532	0	0	1777	1583	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				211			2				210	
Link Speed (mph)			30				30			30		
Link Distance (ft)			1196				659			621		
Travel Time (s)			27.2				15.0			14.1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	16	783	109	163	60	1234	16	120	5	76	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	21	783	109	0	223	1250	0	0	125	76	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)			30				12			0		
Link Offset(ft)			-12				0			50		
Crosswalk Width(ft)			70				40			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Number of Detectors	1	1	2	1	1	1	2		1	2	1	1
Detector Template	Left	Left	Thru	Right	Left	Left	Thru		Left	Thru	Right	Left
Leading Detector (ft)	20	20	100	20	20	20	100		20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0	0		0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0		0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	20	6		20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94				94			94		
Detector 2 Size(ft)			6				6			6		
Detector 2 Type			Cl+Ex				Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0				0.0			0.0		
Turn Type	pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt	NA		Split	NA	Perm	Split
Protected Phases	5	5	2		1	1	6		4	4		8
Permitted Phases	2	2		2	6	6					4	

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

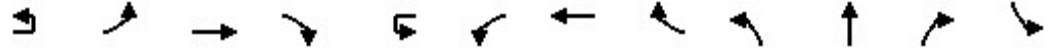
05/18/2023



Lane Group	SBT	SBR
Lane Configurations	↕	↗
Traffic Volume (vph)	15	20
Future Volume (vph)	15	20
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		50
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt		0.850
Flt Protected	0.988	
Satd. Flow (prot)	1840	1583
Flt Permitted	0.988	
Satd. Flow (perm)	1840	1583
Right Turn on Red		Yes
Satd. Flow (RTOR)		210
Link Speed (mph)	30	
Link Distance (ft)	310	
Travel Time (s)	7.0	
Peak Hour Factor	0.92	0.92
Adj. Flow (vph)	16	22
Shared Lane Traffic (%)		
Lane Group Flow (vph)	21	22
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	0	
Link Offset(ft)	-40	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Detector 1 Position(ft)	0	0
Detector 1 Size(ft)	6	20
Detector 1 Type	Cl+Ex	Cl+Ex
Detector 1 Channel		
Detector 1 Extend (s)	0.0	0.0
Detector 1 Queue (s)	0.0	0.0
Detector 1 Delay (s)	0.0	0.0
Detector 2 Position(ft)	94	
Detector 2 Size(ft)	6	
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	Perm
Protected Phases	8	
Permitted Phases		8

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023

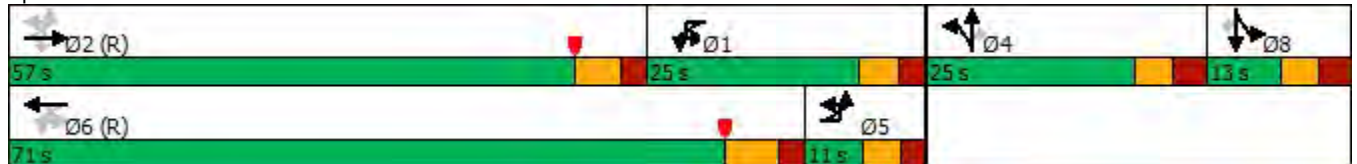


Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Detector Phase	5	5	2	2	1	1	6		4	4	4	8
Switch Phase												
Minimum Initial (s)	5.0	5.0	25.0	25.0	5.0	5.0	25.0		7.0	7.0	7.0	5.0
Minimum Split (s)	10.8	10.8	31.7	31.7	11.1	11.1	32.1		22.5	22.5	22.5	11.5
Total Split (s)	11.0	11.0	57.0	57.0	25.0	25.0	71.0		25.0	25.0	25.0	13.0
Total Split (%)	9.2%	9.2%	47.5%	47.5%	20.8%	20.8%	59.2%		20.8%	20.8%	20.8%	10.8%
Maximum Green (s)	5.2	5.2	50.6	50.6	18.9	18.9	63.9		18.5	18.5	18.5	6.5
Yellow Time (s)	3.5	3.5	4.1	4.1	3.5	3.5	4.8		3.5	3.5	3.5	3.5
All-Red Time (s)	2.3	2.3	2.3	2.3	2.6	2.6	2.3		3.0	3.0	3.0	3.0
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.8	6.4	6.4			6.1	7.1		6.5	6.5	
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		5.0	5.0	5.0	3.0
Recall Mode	None	None	C-Max	C-Max	None	None	C-Max		None	None	None	None
Act Effect Green (s)		71.3	65.5	65.5			84.2	78.8		15.1	15.1	
Actuated g/C Ratio		0.59	0.55	0.55			0.70	0.66		0.13	0.13	
v/c Ratio		0.09	0.41	0.11			0.44	0.54		0.56	0.20	
Control Delay		10.8	15.9	3.5			11.3	8.5		58.6	1.2	
Queue Delay		0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Total Delay		10.8	15.9	3.5			11.3	8.5		58.6	1.2	
LOS		B	B	A			B	A		E	A	
Approach Delay			14.3				9.0			36.9		
Approach LOS			B				A			D		

Intersection Summary

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	22 (18%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.56
Intersection Signal Delay:	13.3
Intersection LOS:	B
Intersection Capacity Utilization:	68.1%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 17: Commerce Dr & US 62



Lanes, Volumes, Timings  
 17: Commerce Dr & US 62

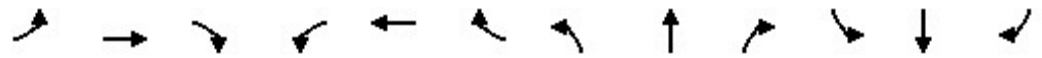
05/18/2023



Lane Group	SBT	SBR
Detector Phase	8	8
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	11.5	11.5
Total Split (s)	13.0	13.0
Total Split (%)	10.8%	10.8%
Maximum Green (s)	6.5	6.5
Yellow Time (s)	3.5	3.5
All-Red Time (s)	3.0	3.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.5
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)	6.4	6.4
Actuated g/C Ratio	0.05	0.05
v/c Ratio	0.21	0.08
Control Delay	59.4	0.6
Queue Delay	0.0	0.0
Total Delay	59.4	0.6
LOS	E	A
Approach Delay	29.3	
Approach LOS	C	
Intersection Summary		

Lanes, Volumes, Timings  
20: Executive Dr & US 62

05/18/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	145	745	55	45	1025	180	0	0	35	0	0	330
Future Volume (vph)	145	745	55	45	1025	180	0	0	35	0	0	330
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	185		0	100		150	0		100	0		0
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	50			75			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990				0.850			0.865			0.865
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	3504	0	1770	3539	1583	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	3504	0	1770	3539	1583	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		659			517			493				539
Travel Time (s)		15.0			11.8			11.2				12.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	158	810	60	49	1114	196	0	0	38	0	0	359
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	870	0	49	1114	196	0	0	38	0	0	359
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0				0
Link Offset(ft)		-10			0			-15				25
Crosswalk Width(ft)		40			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Stop

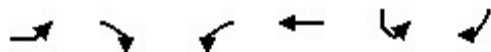
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	55.4%
ICU Level of Service	B
Analysis Period (min)	15

Lanes, Volumes, Timings

23: US 62

05/18/2023



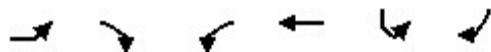
Lane Group	EBL	EBR	WBL	WBT	SBL2	SBR
Lane Configurations						
Traffic Volume (vph)	520	260	155	965	15	285
Future Volume (vph)	520	260	155	965	15	285
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	240	20			0
Storage Lanes	2	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	0.97	1.00	1.00	0.95	1.00	1.00
Fr <sub>t</sub>		0.850				0.850
Fl <sub>t</sub> Protected	0.950		0.950		0.950	
Satd. Flow (prot)	3433	1583	1770	3539	1770	1583
Fl <sub>t</sub> Permitted	0.950		0.950		0.950	
Satd. Flow (perm)	3433	1583	1770	3539	1770	1583
Right Turn on Red		Yes	Yes		Yes	Yes
Satd. Flow (RTOR)		283	34		174	75
Link Speed (mph)				30		
Link Distance (ft)				635		
Travel Time (s)				14.4		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	565	283	168	1049	16	310
Shared Lane Traffic (%)						
Lane Group Flow (vph)	565	283	168	1049	16	310
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)				36		
Link Offset(ft)				-12		
Crosswalk Width(ft)				16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15		15	9
Number of Detectors	1	1	1	2	1	1
Detector Template	Left	Right	Left	Thru	Left	Right
Leading Detector (ft)	20	20	20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)				94		
Detector 2 Size(ft)				6		
Detector 2 Type				Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)				0.0		
Turn Type	Prot	Prot	Split	NA	Prot	Prot
Protected Phases	2	2	3	3	3	2
Permitted Phases						



Lanes, Volumes, Timings

23: US 62

05/18/2023



Lane Group	EBL	EBR	WBL	WBT	SBL2	SBR
Detector Phase	2	2	3	3	3	2
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	9.5	9.5	9.5	9.5	9.5
Total Split (s)	53.0	53.0	67.0	67.0	67.0	53.0
Total Split (%)	44.2%	44.2%	55.8%	55.8%	55.8%	44.2%
Maximum Green (s)	48.5	48.5	62.5	62.5	62.5	48.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	None	None	None	C-Max
Act Effect Green (s)	62.6	62.6	48.4	48.4	48.4	62.6
Actuated g/C Ratio	0.52	0.52	0.40	0.40	0.40	0.52
v/c Ratio	0.32	0.29	0.23	0.74	0.02	0.36
Control Delay	4.5	1.2	9.3	18.1	0.1	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.5	1.2	9.3	18.1	0.1	15.3
LOS	A	A	A	B	A	B
Approach Delay				16.9		
Approach LOS				B		

Intersection Summary

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	3 (3%), Referenced to phase 2:EBL and 6:, Start of Green
Natural Cycle:	40
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.74
Intersection Signal Delay:	11.8
Intersection LOS:	B
Intersection Capacity Utilization:	55.3%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 23: US 62



Lanes, Volumes, Timings  
25: US 62

05/18/2023



Lane Group	NWL2	NWR	NEL	NET	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	395	175	290	245	725	60
Future Volume (vph)	395	175	290	245	725	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	20		0	175
Storage Lanes		1	1		2	1
Taper Length (ft)			50		25	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.97	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950		0.950	
Satd. Flow (prot)	1770	1583	1770	3539	3433	1583
Flt Permitted	0.950		0.950		0.950	
Satd. Flow (perm)	1770	1583	1770	3539	3433	1583
Right Turn on Red	Yes	Yes	Yes			Yes
Satd. Flow (RTOR)	105	535	233			65
Link Speed (mph)				30		
Link Distance (ft)				655		
Travel Time (s)				14.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	429	190	315	266	788	65
Shared Lane Traffic (%)						
Lane Group Flow (vph)	429	190	315	266	788	65
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)				36		
Link Offset(ft)				0		
Crosswalk Width(ft)				16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15		15	9
Number of Detectors	1	1	1	2	1	1
Detector Template	Left	Right	Left	Thru	Left	Right
Leading Detector (ft)	20	20	20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)				94		
Detector 2 Size(ft)				6		
Detector 2 Type				Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)				0.0		
Turn Type	Prot	Perm	Perm	NA	Prot	Prot
Protected Phases	2			2	3	2
Permitted Phases		3	2			

Lanes, Volumes, Timings  
25: US 62

05/18/2023

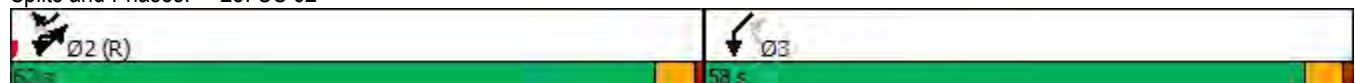


Lane Group	NWL2	NWR	NEL	NET	SWL	SWR
Detector Phase	2	3	2	2	3	2
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	9.5	9.5	9.5	9.5	9.5
Total Split (s)	62.0	58.0	62.0	62.0	58.0	62.0
Total Split (%)	51.7%	48.3%	51.7%	51.7%	48.3%	51.7%
Maximum Green (s)	57.5	53.5	57.5	57.5	53.5	57.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	None	C-Max	C-Max	None	C-Max
Act Effect Green (s)	75.9	35.1	75.9	75.9	35.1	75.9
Actuated g/C Ratio	0.63	0.29	0.63	0.63	0.29	0.63
v/c Ratio	0.37	0.23	0.26	0.12	0.79	0.06
Control Delay	9.6	0.6	1.9	6.2	44.7	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.6	0.6	1.9	6.2	44.7	2.9
LOS	A	A	A	A	D	A
Approach Delay				3.9		
Approach LOS				A		

Intersection Summary




















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 112 (93%), Referenced to phase 2:NENW and 6:, Start of Green  
 Natural Cycle: 40  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 20.4  
 Intersection Capacity Utilization 60.2%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service B

Splits and Phases: 25: US 62



Lanes, Volumes, Timings  
29: Medley Ln & US 62

05/18/2023














												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	405	5	5	770	5	5	0	5	5	0	10
Future Volume (vph)	10	405	5	5	770	5	5	0	5	5	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.999			0.932				0.907
Flt Protected	0.950			0.950				0.976				0.985
Satd. Flow (prot)	1770	3532	0	1770	3536	0	0	1694	0	0	1664	0
Flt Permitted	0.950			0.950				0.976				0.985
Satd. Flow (perm)	1770	3532	0	1770	3536	0	0	1694	0	0	1664	0
Link Speed (mph)		30			30			30				30
Link Distance (ft)		471			559			630				395
Travel Time (s)		10.7			12.7			14.3				9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	440	5	5	837	5	5	0	5	5	0	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	445	0	5	842	0	0	10	0	0	16	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.4%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
32: Howell Dr & US 62

05/18/2023

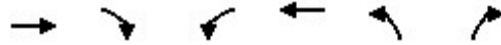
						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				 	 	
Traffic Volume (vph)	370	45	5	775	5	5
Future Volume (vph)	370	45	5	775	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	50		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00
Frt		0.850			0.932	
Flt Protected			0.950		0.976	
Satd. Flow (prot)	1863	1583	1770	3539	1694	0
Flt Permitted			0.950		0.976	
Satd. Flow (perm)	1863	1583	1770	3539	1694	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	559			438	731	
Travel Time (s)	12.7			10.0	16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	402	49	5	842	5	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	402	49	5	842	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.4%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
34: McCormack Ave & US 62

05/18/2023



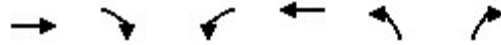
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	365	10	10	750	30	5
Future Volume (vph)	365	10	10	750	30	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Fr <sub>t</sub>	0.996			0.982		
Fl <sub>t</sub> Protected				0.999	0.958	
Satd. Flow (prot)	1855	0	0	3536	1752	0
Fl <sub>t</sub> Permitted				0.999	0.958	
Satd. Flow (perm)	1855	0	0	3536	1752	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	438			127	684	
Travel Time (s)	10.0			2.9	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	397	11	11	815	33	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	408	0	0	826	38	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes					
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	37.8%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
36: Gregory St & US 62

05/18/2023





















Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	355	15	5	755	5	5
Future Volume (vph)	355	15	5	755	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>	0.995			0.932		
Fl <sub>t</sub> Protected				0.976		
Satd. Flow (prot)	1853	0	0	1863	1694	0
Fl <sub>t</sub> Permitted				0.976		
Satd. Flow (perm)	1853	0	0	1863	1694	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	241			1032	915	
Travel Time (s)	5.5			23.5	20.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	386	16	5	821	5	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	402	0	0	826	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	53.7%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
40: US 62 & Pawnee Dr

05/18/2023

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	20	0	0	15	0	770	20	0	780	30
Future Volume (vph)	0	0	20	0	0	15	0	770	20	0	780	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	275		0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91
Frt			0.865			0.865		0.996			0.994	
Flt Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3525	0	0	5055	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3525	0	0	5055	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		356			432			150			346	
Travel Time (s)		8.1			9.8			3.4			7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	22	0	0	16	0	837	22	0	848	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	22	0	0	16	0	859	0	0	881	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			6	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	31.9%						ICU Level of Service A					
Analysis Period (min)	15											



Lanes, Volumes, Timings  
43: US 62

05/18/2023



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations		↗	↗↗		↘	↘↘
Traffic Volume (vph)	0	0	545	0	0	680
Future Volume (vph)	0	0	545	0	0	680
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				50	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	3539	0	1863	3539
Flt Permitted						
Satd. Flow (perm)	0	1863	3539	0	1863	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	161		397			420
Travel Time (s)	3.7		9.0			9.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	592	0	0	739
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	592	0	0	739
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	22.1%
	ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings  
45: US 62

05/18/2023



Lane Group	SEL	SER	NEU	NEL	NET	SWT	SWR
Lane Configurations		↗	↘		↕	↕	
Traffic Volume (vph)	0	0	50	0	645	675	0
Future Volume (vph)	0	0	50	0	645	675	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		225			0
Storage Lanes	0	1		1			0
Taper Length (ft)	25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt							
Flt Protected			0.950				
Satd. Flow (prot)	0	1863	1770	0	3539	3539	0
Flt Permitted			0.950				
Satd. Flow (perm)	0	1863	1770	0	3539	3539	0
Link Speed (mph)	30				30	30	
Link Distance (ft)	290				626	476	
Travel Time (s)	6.6				14.2	10.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	54	0	701	734	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	54	0	701	734	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	R NA	Left	Left	Left	Right
Median Width(ft)	0				24	24	
Link Offset(ft)	0				0	0	
Crosswalk Width(ft)	16				16	16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15			9
Sign Control	Stop				Free	Free	
<b>Intersection Summary</b>							
Area Type:	Other						
Control Type:	Unsignalized						
Intersection Capacity Utilization	28.7%			ICU Level of Service A			
Analysis Period (min)	15						

Lanes, Volumes, Timings

47: US 62

05/18/2023



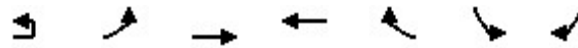
Lane Group	SEL	SER	NEL	NET	SWU	SWT	SWR
Lane Configurations							
Traffic Volume (vph)	0	0	0	645	20	675	0
Future Volume (vph)	0	0	0	645	20	675	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0		275		0
Storage Lanes	0	1	0		1		0
Taper Length (ft)	25		25		25		
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	0.95	0.95
Frt							
Flt Protected					0.950		
Satd. Flow (prot)	0	1863	0	3539	1770	3539	0
Flt Permitted					0.950		
Satd. Flow (perm)	0	1863	0	3539	1770	3539	0
Link Speed (mph)	30			30		30	
Link Distance (ft)	145			476		348	
Travel Time (s)	3.3			10.8		7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	701	22	734	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	0	701	22	734	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	R NA	Left	Right
Median Width(ft)	0			24		36	
Link Offset(ft)	0			0		0	
Crosswalk Width(ft)	16			16		16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15		9		9
Sign Control	Stop			Free		Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	22.0%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
49: US 62

05/18/2023



Lane Group	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↔		↑↑	↑↑			↗
Traffic Volume (vph)	50	0	740	760	0	0	0
Future Volume (vph)	50	0	740	760	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	1.00	1.00
<b>Frnt</b>							
Flt Protected	0.950						
Satd. Flow (prot)	1770	0	3539	3539	0	0	1863
Flt Permitted	0.950						
Satd. Flow (perm)	1770	0	3539	3539	0	0	1863
Link Speed (mph)			30	30		30	
Link Distance (ft)			346	361		423	
Travel Time (s)			7.9	8.2		9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	0	804	826	0	0	0
<b>Shared Lane Traffic (%)</b>							
Lane Group Flow (vph)	54	0	804	826	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Left	Right	Left	Right
Median Width(ft)			30	24		0	
Link Offset(ft)			0	0		0	
Crosswalk Width(ft)			16	16		16	
<b>Two way Left Turn Lane</b>							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15			9	15	9
Sign Control			Free	Free		Stop	



















**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.0%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings

51: US 62

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			 	
Traffic Volume (vph)	0	0	25	0	0	50	0	645	15	0	705	20
Future Volume (vph)	0	0	25	0	0	50	0	645	15	0	705	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.865			0.865		0.997			0.996	
Flt Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3529	0	0	3525	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3529	0	0	3525	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		238			284			611			626	
Travel Time (s)		5.4			6.5			13.9			14.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	27	0	0	54	0	701	16	0	766	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	27	0	0	54	0	717	0	0	788	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	30.1%						ICU Level of Service A					
Analysis Period (min)	15											

Lanes, Volumes, Timings  
3: US 62 & Brook St

05/18/2023






















Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	5	5	815	5	5	770
Future Volume (vph)	5	5	815	5	5	770
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932		0.999			
Flt Protected	0.976					
Satd. Flow (prot)	1694	0	3536	0	0	3539
Flt Permitted	0.976					
Satd. Flow (perm)	1694	0	3536	0	0	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	802		662			397
Travel Time (s)	18.2		15.0			9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	5	886	5	5	837
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	891	0	0	842
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.8%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Lane Configurations												
Traffic Volume (vph)	170	50	50	10	45	15	65	740	15	25	10	715
Future Volume (vph)	170	50	50	10	45	15	65	740	15	25	10	715
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	0		0	200		0		225	
Storage Lanes	1		0	0		0	1		0		1	
Taper Length (ft)	25			25			50				50	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Frt		0.925			0.972			0.997				
Flt Protected	0.950				0.993		0.950				0.950	
Satd. Flow (prot)	1770	1723	0	0	1798	0	1770	3529	0	0	1770	3539
Flt Permitted	0.739				0.952		0.321				0.308	
Satd. Flow (perm)	1377	1723	0	0	1724	0	598	3529	0	0	574	3539
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		44			12			2				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		776			653			420				611
Travel Time (s)		17.6			14.8			9.5				13.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	185	54	54	11	49	16	71	804	16	27	11	777
Shared Lane Traffic (%)												
Lane Group Flow (vph)	185	108	0	0	76	0	71	820	0	0	38	777
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		12			0			24				24
Link Offset(ft)		12			0			0				0
Crosswalk Width(ft)		16			24			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2		1	2		1	2		1	1	2
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Left	Thru
Leading Detector (ft)	20	100		20	100		20	100		20	20	100
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	pm+pt	NA
Protected Phases		4			4		5	2		1	1	6
Permitted Phases	4			4			2			6	6	

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023



Lane Group	SWR
Lane Configurations	
Traffic Volume (vph)	155
Future Volume (vph)	155
Ideal Flow (vphpl)	1900
Storage Length (ft)	150
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	156
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Adj. Flow (vph)	168
Shared Lane Traffic (%)	
Lane Group Flow (vph)	168
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	6



Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023

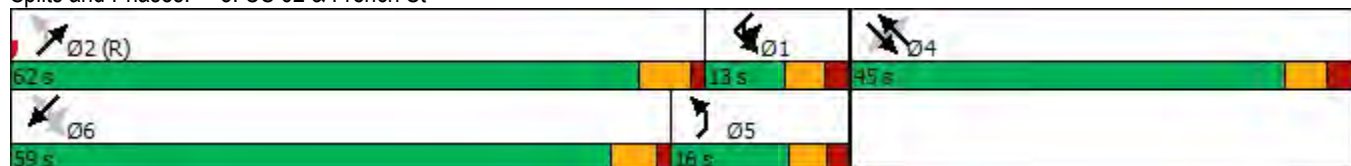


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Detector Phase	4	4		4	4		5	2		1	1	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		4.0	15.0		4.0	4.0	15.0
Minimum Split (s)	24.3	24.3		24.3	24.3		9.6	24.0		9.9	9.9	23.5
Total Split (s)	45.0	45.0		45.0	45.0		16.0	62.0		13.0	13.0	59.0
Total Split (%)	37.5%	37.5%		37.5%	37.5%		13.3%	51.7%		10.8%	10.8%	49.2%
Maximum Green (s)	38.7	38.7		38.7	38.7		10.4	56.0		7.1	7.1	53.5
Yellow Time (s)	3.8	3.8		3.8	3.8		3.5	4.7		3.5	3.5	4.2
All-Red Time (s)	2.5	2.5		2.5	2.5		2.1	1.3		2.4	2.4	1.3
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	6.3	6.3			6.3		5.6	6.0			5.9	5.5
Lead/Lag							Lag	Lead		Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	2.2		3.0	3.0	2.2
Recall Mode	None	None		None	None		None	C-Min		None	None	Min
Act Effct Green (s)	21.5	21.5			21.5		84.7	79.4			82.4	77.3
Actuated g/C Ratio	0.18	0.18			0.18		0.71	0.66			0.69	0.64
v/c Ratio	0.75	0.31			0.24		0.15	0.35			0.08	0.34
Control Delay	64.6	26.4			35.0		7.6	11.1			7.4	11.8
Queue Delay	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Delay	64.6	26.4			35.0		7.6	11.1			7.4	11.8
LOS	E	C			D		A	B			A	B
Approach Delay		50.5			35.0			10.8				10.1
Approach LOS		D			D			B				B

Intersection Summary

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	0 (0%), Referenced to phase 2:NETL, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	16.5
Intersection LOS:	B
Intersection Capacity Utilization:	55.5%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 5: US 62 & French St
























Lane Group	SWR
Detector Phase	6
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	23.5
Total Split (s)	59.0
Total Split (%)	49.2%
Maximum Green (s)	53.5
Yellow Time (s)	4.2
All-Red Time (s)	1.3
Lost Time Adjust (s)	0.0
Total Lost Time (s)	5.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.2
Recall Mode	Min
Act Effct Green (s)	77.3
Actuated g/C Ratio	0.64
v/c Ratio	0.16
Control Delay	2.8
Queue Delay	0.0
Total Delay	2.8
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

8: US 62 & Main St

05/18/2023

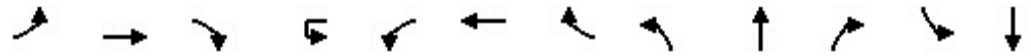
												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			 	
Traffic Volume (vph)	0	0	20	0	0	180	0	950	15	170	870	15
Future Volume (vph)	0	0	20	0	0	180	0	950	15	170	870	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.865			0.865		0.998			0.998	
Flt Protected										0.950		
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3532	0	1770	3532	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3532	0	1770	3532	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		288			444			348			150	
Travel Time (s)		6.5			10.1			7.9			3.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	22	0	0	196	0	1033	16	185	946	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	22	0	0	196	0	1049	0	185	962	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			36			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			24			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	44.5%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
11: Ring Rd & US 62

05/18/2023



Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	275	820	10	5	45	705	485	20	10	5	850	10
Future Volume (vph)	275	820	10	5	45	705	485	20	10	5	850	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0		100		100	0		100	0	
Storage Lanes	2		0		1		1	0		1	1	
Taper Length (ft)	25				50			25			25	
Lane Util. Factor	0.97	0.95	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.998					0.850			0.850		
Flt Protected	0.950				0.950				0.968		0.950	0.953
Satd. Flow (prot)	3433	3532	0	0	1770	3539	1583	0	1803	1583	1681	1686
Flt Permitted	0.950				0.147				0.968		0.950	0.953
Satd. Flow (perm)	3433	3532	0	0	274	3539	1583	0	1803	1583	1681	1686
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)		1					277			213		
Link Speed (mph)		30				30			30			30
Link Distance (ft)		361				400			333			1291
Travel Time (s)		8.2				9.1			7.6			29.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	299	891	11	5	49	766	527	22	11	5	924	11
Shared Lane Traffic (%)											49%	
Lane Group Flow (vph)	299	902	0	0	54	766	527	0	33	5	471	464
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)		24				36			12			12
Link Offset(ft)		0				0			0			18
Crosswalk Width(ft)		50				16			30			28
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15		9	15		9	15	
Number of Detectors	1	2		1	1	2	1	1	2	1	1	2
Detector Template	Left	Thru		Left	Left	Thru	Right	Left	Thru	Right	Left	Thru
Leading Detector (ft)	20	100		20	20	100	20	20	100	20	20	100
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	20	6	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94				94			94			94
Detector 2 Size(ft)		6				6			6			6
Detector 2 Type		Cl+Ex				Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0				0.0			0.0			0.0
Turn Type	Prot	NA		pm+pt	pm+pt	NA	Perm	Split	NA	Perm	Split	NA
Protected Phases	5	2		1	1	6		4	4		8	8
Permitted Phases				6	6		6			4		

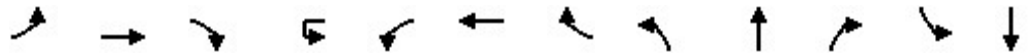
Lanes, Volumes, Timings  
 11: Ring Rd & US 62

05/18/2023

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	290
Future Volume (vph)	290
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	241
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Adj. Flow (vph)	315
Shared Lane Traffic (%)	
Lane Group Flow (vph)	315
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	8

Lanes, Volumes, Timings  
11: Ring Rd & US 62

05/18/2023

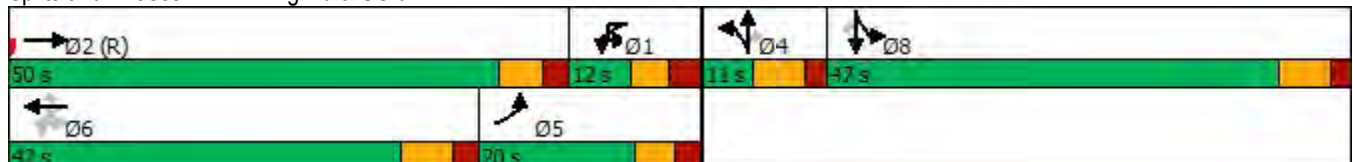


Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Detector Phase	5	2		1	1	6	6	4	4	4	8	8
Switch Phase												
Minimum Initial (s)	5.0	25.0		5.0	5.0	25.0	25.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	11.1	49.3		11.5	11.5	32.0	32.0	10.5	10.5	10.5	46.6	46.6
Total Split (s)	20.0	50.0		12.0	12.0	42.0	42.0	11.0	11.0	11.0	47.0	47.0
Total Split (%)	16.7%	41.7%		10.0%	10.0%	35.0%	35.0%	9.2%	9.2%	9.2%	39.2%	39.2%
Maximum Green (s)	13.9	43.7		5.5	5.5	35.0	35.0	4.5	4.5	4.5	40.4	40.4
Yellow Time (s)	3.5	4.0		3.5	3.5	4.7	4.7	4.6	4.6	4.6	4.7	4.7
All-Red Time (s)	2.6	2.3		3.0	3.0	2.3	2.3	1.9	1.9	1.9	1.9	1.9
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	6.1	6.3			6.5	7.0	7.0		6.5	6.5	6.6	6.6
Lead/Lag	Lag	Lead		Lag	Lag	Lead	Lead					
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes					
Vehicle Extension (s)	3.0	2.6		3.0	3.0	2.6	2.6	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	C-Min		None	None	Min	Min	None	None	None	None	None
Walk Time (s)		7.0									7.0	7.0
Flash Dont Walk (s)		36.0									33.0	33.0
Pedestrian Calls (#/hr)		0									0	0
Act Effct Green (s)	13.5	49.5			51.0	41.9	41.9		5.1	5.1	38.3	38.3
Actuated g/C Ratio	0.11	0.41			0.42	0.35	0.35		0.04	0.04	0.32	0.32
v/c Ratio	0.77	0.62			0.24	0.62	0.72		0.43	0.02	0.88	0.86
Control Delay	66.1	32.6			36.1	33.2	24.7		73.9	0.2	57.0	55.1
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	66.1	32.6			36.1	33.2	24.7		73.9	0.2	57.0	55.1
LOS	E	C			D	C	C		E	A	E	E
Approach Delay		40.9				30.0			64.2			44.5
Approach LOS		D				C			E			D

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 62 (52%), Referenced to phase 2:EBT, Start of Green  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 38.5  
 Intersection LOS: D  
 Intersection Capacity Utilization 75.9%  
 ICU Level of Service D  
 Analysis Period (min) 15


















Splits and Phases: 11: Ring Rd & US 62



Lane Group	SBR
Detector Phase	8
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	46.6
Total Split (s)	47.0
Total Split (%)	39.2%
Maximum Green (s)	40.4
Yellow Time (s)	4.7
All-Red Time (s)	1.9
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.6
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	33.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	38.3
Actuated g/C Ratio	0.32
v/c Ratio	0.47
Control Delay	10.3
Queue Delay	0.0
Total Delay	10.3
LOS	B
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings  
14: Dolphin Dr & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	165	1510	5	0	1060	180	0	0	35	0	0	180
Future Volume (vph)	165	1510	5	0	1060	180	0	0	35	0	0	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		1
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.978				0.865			0.865
Flt Protected	0.950											
Satd. Flow (prot)	1770	3539	0	0	3461	0	0	0	1611	0	0	1611
Flt Permitted	0.950											
Satd. Flow (perm)	1770	3539	0	0	3461	0	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		400			1196			275				468
Travel Time (s)		9.1			27.2			6.3				10.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	179	1641	5	0	1152	196	0	0	38	0	0	196
Shared Lane Traffic (%)												
Lane Group Flow (vph)	179	1646	0	0	1348	0	0	0	38	0	0	196
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	52.9%
ICU Level of Service	A
Analysis Period (min)	15



Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	20	15	1265	245	205	70	980	20	215	5	135	10
Future Volume (vph)	20	15	1265	245	205	70	980	20	215	5	135	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		175		200		200		0	0		0	0
Storage Lanes		1		1		1		0	0		1	0
Taper Length (ft)		75				50			25			25
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt				0.850			0.997				0.850	
Flt Protected		0.950				0.950				0.953		
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3529	0	0	1775	1583	0
Flt Permitted		0.132				0.084				0.953		
Satd. Flow (perm)	0	246	3539	1583	0	156	3529	0	0	1775	1583	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				173			3				207	
Link Speed (mph)			30				30			30		
Link Distance (ft)			1196				659			621		
Travel Time (s)			27.2				15.0			14.1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	16	1375	266	223	76	1065	22	234	5	147	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	38	1375	266	0	299	1087	0	0	239	147	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)			30				12			0		
Link Offset(ft)			-12				0			50		
Crosswalk Width(ft)			70				40			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Number of Detectors	1	1	2	1	1	1	2		1	2	1	1
Detector Template	Left	Left	Thru	Right	Left	Left	Thru		Left	Thru	Right	Left
Leading Detector (ft)	20	20	100	20	20	20	100		20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0	0		0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0		0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	20	6		20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94				94			94		
Detector 2 Size(ft)			6				6			6		
Detector 2 Type			Cl+Ex				Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0				0.0			0.0		
Turn Type	pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt	NA		Split	NA	Perm	Split
Protected Phases	5	5	2		1	1	6		4	4		8
Permitted Phases	2	2		2	6	6					4	

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

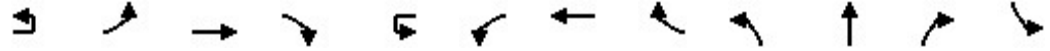
05/18/2023



Lane Group	SBT	SBR
Lane Configurations	↕	↗
Traffic Volume (vph)	25	25
Future Volume (vph)	25	25
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		50
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt		0.850
Flt Protected	0.986	
Satd. Flow (prot)	1837	1583
Flt Permitted	0.986	
Satd. Flow (perm)	1837	1583
Right Turn on Red		Yes
Satd. Flow (RTOR)		207
Link Speed (mph)	30	
Link Distance (ft)	310	
Travel Time (s)	7.0	
Peak Hour Factor	0.92	0.92
Adj. Flow (vph)	27	27
Shared Lane Traffic (%)		
Lane Group Flow (vph)	38	27
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	0	
Link Offset(ft)	-40	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Detector 1 Position(ft)	0	0
Detector 1 Size(ft)	6	20
Detector 1 Type	Cl+Ex	Cl+Ex
Detector 1 Channel		
Detector 1 Extend (s)	0.0	0.0
Detector 1 Queue (s)	0.0	0.0
Detector 1 Delay (s)	0.0	0.0
Detector 2 Position(ft)	94	
Detector 2 Size(ft)	6	
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	Perm
Protected Phases	8	
Permitted Phases		8

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023

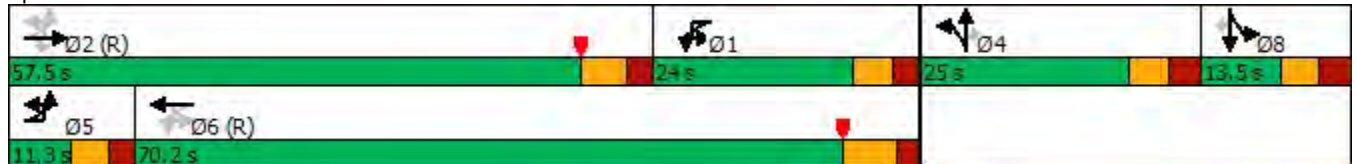


Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Detector Phase	5	5	2	2	1	1	6		4	4	4	8
Switch Phase												
Minimum Initial (s)	5.0	5.0	25.0	25.0	5.0	5.0	25.0		7.0	7.0	7.0	5.0
Minimum Split (s)	10.8	10.8	31.7	31.7	11.1	11.1	32.1		13.5	13.5	13.5	13.5
Total Split (s)	11.3	11.3	57.5	57.5	24.0	24.0	70.2		25.0	25.0	25.0	13.5
Total Split (%)	9.4%	9.4%	47.9%	47.9%	20.0%	20.0%	58.5%		20.8%	20.8%	20.8%	11.3%
Maximum Green (s)	5.5	5.5	51.1	51.1	17.9	17.9	63.1		18.5	18.5	18.5	7.0
Yellow Time (s)	3.5	3.5	4.1	4.1	3.5	3.5	4.8		3.5	3.5	3.5	3.5
All-Red Time (s)	2.3	2.3	2.3	2.3	2.6	2.6	2.3		3.0	3.0	3.0	3.0
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.8	6.4	6.4			6.1	7.1		6.5	6.5	
Lead/Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		5.0	5.0	5.0	3.0
Recall Mode	None	None	C-Max	C-Max	None	None	C-Max		None	None	None	None
Act Effect Green (s)		54.6	54.0	54.0			71.5	70.5		18.4	18.4	
Actuated g/C Ratio		0.46	0.45	0.45			0.60	0.59		0.15	0.15	
v/c Ratio		0.21	0.86	0.33			0.90	0.52		0.88	0.35	
Control Delay		11.9	28.0	7.4			62.4	10.8		81.6	3.8	
Queue Delay		0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Total Delay		11.9	28.0	7.4			62.4	10.8		81.6	3.8	
LOS		B	C	A			E	B		F	A	
Approach Delay			24.3				21.9			52.0		
Approach LOS			C				C			D		

Intersection Summary

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	14 (12%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle:	100
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.90
Intersection Signal Delay:	26.7
Intersection LOS:	C
Intersection Capacity Utilization:	84.9%
ICU Level of Service:	E
Analysis Period (min):	15

Splits and Phases: 17: Commerce Dr & US 62



Lanes, Volumes, Timings  
 17: Commerce Dr & US 62




















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Lane Group	SBT	SBR
Detector Phase	8	8
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	13.5	13.5
Total Split (s)	13.5	13.5
Total Split (%)	11.3%	11.3%
Maximum Green (s)	7.0	7.0
Yellow Time (s)	3.5	3.5
All-Red Time (s)	3.0	3.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.5
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)	6.6	6.6
Actuated g/C Ratio	0.06	0.06
v/c Ratio	0.38	0.10
Control Delay	65.3	0.7
Queue Delay	0.0	0.0
Total Delay	65.3	0.7
LOS	E	A
Approach Delay	38.4	
Approach LOS	D	
Intersection Summary		

Lanes, Volumes, Timings  
20: Executive Dr & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	1445	20	90	930	190	0	0	75	0	0	345
Future Volume (vph)	150	1445	20	90	930	190	0	0	75	0	0	345
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	185		0	100		150	0		100	0		0
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	50			75			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998				0.850			0.865			0.865
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	3532	0	1770	3539	1583	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	3532	0	1770	3539	1583	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		659			517			493				539
Travel Time (s)		15.0			11.8			11.2				12.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	1571	22	98	1011	207	0	0	82	0	0	375
Shared Lane Traffic (%)												
Lane Group Flow (vph)	163	1593	0	98	1011	207	0	0	82	0	0	375
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0				0
Link Offset(ft)		-10			0			-15				25
Crosswalk Width(ft)		40			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	53.7%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
23: US 62

05/18/2023



Lane Group	EBL	EBR	WBL	WBT	SBL2	SBR
Lane Configurations						
Traffic Volume (vph)	915	605	165	765	65	445
Future Volume (vph)	915	605	165	765	65	445
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	240	20			0
Storage Lanes	2	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	0.97	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950		0.950	
Satd. Flow (prot)	3433	1583	1770	3539	1770	1583
Flt Permitted	0.950		0.950		0.950	
Satd. Flow (perm)	3433	1583	1770	3539	1770	1583
Right Turn on Red		Yes	Yes		Yes	Yes
Satd. Flow (RTOR)		596	36		97	58
Link Speed (mph)				30		
Link Distance (ft)				635		
Travel Time (s)				14.4		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	995	658	179	832	71	484
Shared Lane Traffic (%)						
Lane Group Flow (vph)	995	658	179	832	71	484
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)				36		
Link Offset(ft)				-12		
Crosswalk Width(ft)				16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60		60	60
Number of Detectors	1	1	1	2	1	1
Detector Template	Left	Right	Left	Thru	Left	Right
Leading Detector (ft)	20	20	20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)				94		
Detector 2 Size(ft)				6		
Detector 2 Type				Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)				0.0		
Turn Type	Prot	Prot	Split	NA	Prot	Prot
Protected Phases	2	2	3	3	3	2
Permitted Phases						

Lanes, Volumes, Timings

23: US 62

05/18/2023



Lane Group	EBL	EBR	WBL	WBT	SBL2	SBR
Detector Phase	2	2	3	3	3	2
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	9.5	22.5	22.5	22.5	9.5
Total Split (s)	70.0	70.0	50.0	50.0	50.0	70.0
Total Split (%)	58.3%	58.3%	41.7%	41.7%	41.7%	58.3%
Maximum Green (s)	65.5	65.5	45.5	45.5	45.5	65.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	None	None	None	C-Max
Walk Time (s)			7.0	7.0	7.0	
Flash Dont Walk (s)			11.0	11.0	11.0	
Pedestrian Calls (#/hr)			0	0	0	
Act Effct Green (s)	73.5	73.5	37.5	37.5	37.5	73.5
Actuated g/C Ratio	0.61	0.61	0.31	0.31	0.31	0.61
v/c Ratio	0.47	0.55	0.31	0.75	0.11	0.49
Control Delay	3.5	2.9	11.4	22.1	2.6	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.5	2.9	11.4	22.1	2.6	14.2
LOS	A	A	B	C	A	B
Approach Delay				20.2		
Approach LOS				C		

Intersection Summary













Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:EBL and 6:, Start of Green  
 Natural Cycle: 50  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.75  
 Intersection Signal Delay: 10.2  
 Intersection Capacity Utilization 61.3%  
 Analysis Period (min) 15  
 Intersection LOS: B  
 ICU Level of Service B

Splits and Phases: 23: US 62



Lanes, Volumes, Timings  
25: US 62

05/18/2023

						
Lane Group	NWL2	NWR	NEL	NET	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	315	100	330	650	615	30
Future Volume (vph)	315	100	330	650	615	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	20		0	175
Storage Lanes		1	1		2	1
Taper Length (ft)			50		25	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.97	1.00
Frt		0.850				0.850
Flt Protected	0.950		0.950		0.950	
Satd. Flow (prot)	1770	1583	1770	3539	3433	1583
Flt Permitted	0.950		0.950		0.950	
Satd. Flow (perm)	1770	1583	1770	3539	3433	1583
Right Turn on Red	Yes	Yes	Yes			Yes
Satd. Flow (RTOR)	146	162	102			33
Link Speed (mph)				30		
Link Distance (ft)				655		
Travel Time (s)				14.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	342	109	359	707	668	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	342	109	359	707	668	33
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)				36		
Link Offset(ft)				0		
Crosswalk Width(ft)				16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60		60	60
Number of Detectors	1	1	1	2	1	1
Detector Template	Left	Right	Left	Thru	Left	Right
Leading Detector (ft)	20	20	20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)				94		
Detector 2 Size(ft)				6		
Detector 2 Type				Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)				0.0		
Turn Type	Prot	Perm	Perm	NA	Prot	Prot
Protected Phases	2			2	3	2
Permitted Phases		3	2			



Lanes, Volumes, Timings

25: US 62

05/18/2023



Lane Group	NWL2	NWR	NEL	NET	SWL	SWR
Detector Phase	2	3	2	2	3	2
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	63.0	57.0	63.0	63.0	57.0	63.0
Total Split (%)	52.5%	47.5%	52.5%	52.5%	47.5%	52.5%
Maximum Green (s)	58.5	52.5	58.5	58.5	52.5	58.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	None	C-Max	C-Max	None	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effect Green (s)	80.8	30.2	80.8	80.8	30.2	80.8
Actuated g/C Ratio	0.67	0.25	0.67	0.67	0.25	0.67
v/c Ratio	0.28	0.21	0.29	0.30	0.77	0.03
Control Delay	5.5	2.0	2.4	4.1	47.9	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.5	2.0	2.4	4.1	47.9	3.0
LOS	A	A	A	A	D	A
Approach Delay				3.5		
Approach LOS				A		

Intersection Summary




















Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	2 (2%), Referenced to phase 2:NENW and 6:, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.77
Intersection Signal Delay:	17.1
Intersection LOS:	B
Intersection Capacity Utilization:	63.7%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 25: US 62



Lanes, Volumes, Timings  
29: Medley Ln & US 62

05/18/2023

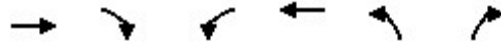
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	740	5	5	615	5	5	0	5	5	0	25
Future Volume (vph)	5	740	5	5	615	5	5	0	5	5	0	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.999			0.932				0.886
Flt Protected	0.950			0.950				0.976				0.992
Satd. Flow (prot)	1770	3536	0	1770	3536	0	0	1694	0	0	1637	0
Flt Permitted	0.950			0.950				0.976				0.992
Satd. Flow (perm)	1770	3536	0	1770	3536	0	0	1694	0	0	1637	0
Link Speed (mph)		30			30			30				30
Link Distance (ft)		471			559			630				395
Travel Time (s)		10.7			12.7			14.3				9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	804	5	5	668	5	5	0	5	5	0	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	809	0	5	673	0	0	10	0	0	32	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	30.6%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
32: Howell Dr & US 62

05/18/2023



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↓	↑↑	↓	
Traffic Volume (vph)	720	30	5	610	15	5
Future Volume (vph)	720	30	5	610	15	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	50		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00
Frt		0.850			0.968	
Flt Protected			0.950		0.963	
Satd. Flow (prot)	1863	1583	1770	3539	1736	0
Flt Permitted			0.950		0.963	
Satd. Flow (perm)	1863	1583	1770	3539	1736	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	559			438	731	
Travel Time (s)	12.7			10.0	16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	783	33	5	663	16	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	783	33	5	663	21	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	47.9%
	ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings  
34: McCormack Ave & US 62

05/18/2023



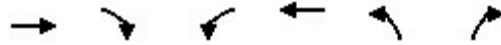
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	680	45	5	595	20	5
Future Volume (vph)	680	45	5	595	20	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Fr <sub>t</sub>	0.992			0.975		
Fl <sub>t</sub> Protected				0.961		
Satd. Flow (prot)	1848	0	0	3539	1745	0
Fl <sub>t</sub> Permitted				0.961		
Satd. Flow (perm)	1848	0	0	3539	1745	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	438			127	684	
Travel Time (s)	10.0			2.9	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	739	49	5	647	22	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	788	0	0	652	27	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes					
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	48.5%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
36: Gregory St & US 62

05/18/2023





















Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	635	50	5	590	10	5
Future Volume (vph)	635	50	5	590	10	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.990			0.958		
Flt Protected				0.967		
Satd. Flow (prot)	1844	0	0	1863	1726	0
Flt Permitted				0.967		
Satd. Flow (perm)	1844	0	0	1863	1726	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	241			1032	915	
Travel Time (s)	5.5			23.5	20.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	690	54	5	641	11	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	744	0	0	646	16	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	46.5%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
40: US 62 & Pawnee Dr

05/18/2023

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	40	0	0	35	0	1085	45	0	1020	15
Future Volume (vph)	0	0	40	0	0	35	0	1085	45	0	1020	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	275		0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91
Frt			0.865			0.865		0.994			0.998	
Flt Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3518	0	0	5075	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3518	0	0	5075	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		356			432			150			346	
Travel Time (s)		8.1			9.8			3.4			7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	43	0	0	38	0	1179	49	0	1109	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	43	0	0	38	0	1228	0	0	1125	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			6	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	41.4%						ICU Level of Service A					
Analysis Period (min)	15											

Lanes, Volumes, Timings  
43: US 62

05/18/2023



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations		↗	↕		↘	↕
Traffic Volume (vph)	0	0	820	0	0	775
Future Volume (vph)	0	0	820	0	0	775
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				50	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	3539	0	1863	3539
Flt Permitted						
Satd. Flow (perm)	0	1863	3539	0	1863	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	161		397			420
Travel Time (s)	3.7		9.0			9.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	891	0	0	842
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	891	0	0	842
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	26.0%
	ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings  
45: US 62

05/18/2023



Lane Group	SEL	SER	NEU	NEL	NET	SWT	SWR
Lane Configurations							
Traffic Volume (vph)	0	0	50	0	935	860	0
Future Volume (vph)	0	0	50	0	935	860	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		225			0
Storage Lanes	0	1		1			0
Taper Length (ft)	25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt							
Flt Protected			0.950				
Satd. Flow (prot)	0	1863	1770	0	3539	3539	0
Flt Permitted			0.950				
Satd. Flow (perm)	0	1863	1770	0	3539	3539	0
Link Speed (mph)	30				30	30	
Link Distance (ft)	290				626	476	
Travel Time (s)	6.6				14.2	10.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	54	0	1016	935	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	54	0	1016	935	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	R NA	Left	Left	Left	Right
Median Width(ft)	0				24	24	
Link Offset(ft)	0				0	0	
Crosswalk Width(ft)	16				16	16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15			9
Sign Control	Stop				Free	Free	
<b>Intersection Summary</b>							
Area Type:	Other						
Control Type:	Unsignalized						
Intersection Capacity Utilization	33.8%			ICU Level of Service A			
Analysis Period (min)	15						



Lanes, Volumes, Timings  
47: US 62

05/18/2023

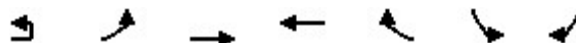


Lane Group	SEL	SER	NEL	NET	SWU	SWT	SWR
Lane Configurations							
Traffic Volume (vph)	0	0	0	935	30	860	0
Future Volume (vph)	0	0	0	935	30	860	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0		275		0
Storage Lanes	0	1	0		1		0
Taper Length (ft)	25		25		25		
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	0.95	0.95
Frt							
Flt Protected					0.950		
Satd. Flow (prot)	0	1863	0	3539	1770	3539	0
Flt Permitted					0.950		
Satd. Flow (perm)	0	1863	0	3539	1770	3539	0
Link Speed (mph)	30			30		30	
Link Distance (ft)	145			476		348	
Travel Time (s)	3.3			10.8		7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	1016	33	935	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	0	1016	33	935	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	R NA	Left	Right
Median Width(ft)	0			24		36	
Link Offset(ft)	0			0		0	
Crosswalk Width(ft)	16			16		16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15		9		9
Sign Control	Stop			Free		Free	
<b>Intersection Summary</b>							
Area Type:	Other						
Control Type:	Unsignalized						
Intersection Capacity Utilization	29.2%			ICU Level of Service A			
Analysis Period (min)	15						

Lanes, Volumes, Timings

49: US 62

05/18/2023



Lane Group	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↕		↑↑	↑↑			↗
Traffic Volume (vph)	20	0	1105	1015	0	0	0
Future Volume (vph)	20	0	1105	1015	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	1.00	1.00
<b>Fr</b>							
Flt Protected	0.950						
Satd. Flow (prot)	1770	0	3539	3539	0	0	1863
Flt Permitted	0.950						
Satd. Flow (perm)	1770	0	3539	3539	0	0	1863
Link Speed (mph)			30	30		30	
Link Distance (ft)			346	361		423	
Travel Time (s)			7.9	8.2		9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	0	1201	1103	0	0	0
<b>Shared Lane Traffic (%)</b>							
Lane Group Flow (vph)	22	0	1201	1103	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Left	Right	Left	Right
Median Width(ft)			30	24		0	
Link Offset(ft)			0	0		0	
Crosswalk Width(ft)			16	16		16	
<b>Two way Left Turn Lane</b>							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15			9	15	9
Sign Control			Free	Free		Stop	


















Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	33.9%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings

51: US 62

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	25	0	0	50	0	935	15	0	880	30
Future Volume (vph)	0	0	25	0	0	50	0	935	15	0	880	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Fr <sub>t</sub>			0.865			0.865		0.998			0.995	
Fl <sub>t</sub> Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3532	0	0	3522	0
Fl <sub>t</sub> Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3532	0	0	3522	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		238			284			611			626	
Travel Time (s)		5.4			6.5			13.9			14.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	27	0	0	54	0	1016	16	0	957	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	27	0	0	54	0	1032	0	0	990	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	36.3%					ICU Level of Service A						
Analysis Period (min)	15											

Lanes, Volumes, Timings  
3: US 62 & Brook St

05/18/2023























Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	5	5	540	5	5	675
Future Volume (vph)	5	5	540	5	5	675
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932		0.999			
Flt Protected	0.976					
Satd. Flow (prot)	1694	0	3536	0	0	3539
Flt Permitted	0.976					
Satd. Flow (perm)	1694	0	3536	0	0	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	802		662			397
Travel Time (s)	18.2		15.0			9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	5	587	5	5	734
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	592	0	0	739
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	32.2%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Lane Configurations												
Traffic Volume (vph)	125	35	55	10	30	10	35	500	10	25	5	615
Future Volume (vph)	125	35	55	10	30	10	35	500	10	25	5	615
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	0		0	200		0		225	
Storage Lanes	1		0	0		0	1		0		1	
Taper Length (ft)	25			25			50				50	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Frt		0.908			0.973			0.997				
Flt Protected	0.950				0.990		0.950				0.950	
Satd. Flow (prot)	1770	1691	0	0	1794	0	1770	3529	0	0	1770	3539
Flt Permitted	0.811				0.931		0.378				0.435	
Satd. Flow (perm)	1511	1691	0	0	1687	0	704	3529	0	0	810	3539
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		60			11			2				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		776			653			420				611
Travel Time (s)		17.6			14.8			9.5				13.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	136	38	60	11	33	11	38	543	11	27	5	668
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	98	0	0	55	0	38	554	0	0	32	668
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		12			0			24				24
Link Offset(ft)		12			0			0				0
Crosswalk Width(ft)		16			24			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2		1	2		1	2		1	1	2
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Left	Thru
Leading Detector (ft)	20	100		20	100		20	100		20	20	100
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	pm+pt	NA
Protected Phases		4			4		5	2		1	1	6
Permitted Phases	4			4			2			6	6	

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023



Lane Group	SWR
Lane Configurations	
Traffic Volume (vph)	85
Future Volume (vph)	85
Ideal Flow (vphpl)	1900
Storage Length (ft)	150
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	92
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Adj. Flow (vph)	92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	92
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	6

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023

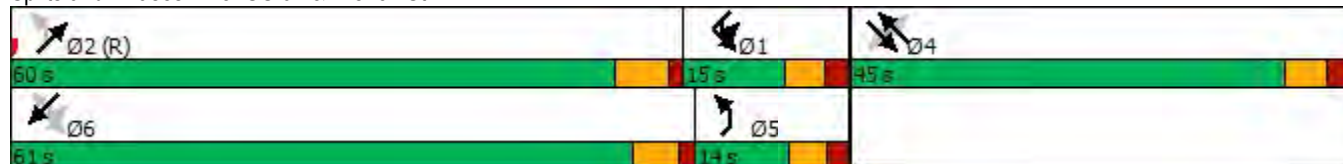


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Detector Phase	4	4		4	4		5	2		1	1	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		4.0	15.0		4.0	4.0	15.0
Minimum Split (s)	24.3	24.3		24.3	24.3		9.6	24.0		9.9	9.9	23.5
Total Split (s)	45.0	45.0		45.0	45.0		14.0	60.0		15.0	15.0	61.0
Total Split (%)	37.5%	37.5%		37.5%	37.5%		11.7%	50.0%		12.5%	12.5%	50.8%
Maximum Green (s)	38.7	38.7		38.7	38.7		8.4	54.0		9.1	9.1	55.5
Yellow Time (s)	3.8	3.8		3.8	3.8		3.5	4.7		3.5	3.5	4.2
All-Red Time (s)	2.5	2.5		2.5	2.5		2.1	1.3		2.4	2.4	1.3
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	6.3	6.3			6.3		5.6	6.0			5.9	5.5
Lead/Lag							Lag	Lead		Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	2.2		3.0	3.0	2.2
Recall Mode	None	None		None	None		None	C-Min		None	None	Min
Act Effect Green (s)	17.8	17.8			17.8		88.1	82.1			89.8	83.6
Actuated g/C Ratio	0.15	0.15			0.15		0.73	0.68			0.75	0.70
v/c Ratio	0.61	0.33			0.21		0.07	0.23			0.05	0.27
Control Delay	58.4	21.8			36.8		5.5	9.0			5.2	8.4
Queue Delay	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Delay	58.4	21.8			36.8		5.5	9.0			5.2	8.4
LOS	E	C			D		A	A			A	A
Approach Delay		43.1			36.8			8.8				7.5
Approach LOS		D			D			A				A

Intersection Summary

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	0 (0%), Referenced to phase 2:NETL, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.61
Intersection Signal Delay:	13.9
Intersection LOS:	B
Intersection Capacity Utilization:	48.4%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 5: US 62 & French St
























Lane Group	SWR
Detector Phase	6
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	23.5
Total Split (s)	61.0
Total Split (%)	50.8%
Maximum Green (s)	55.5
Yellow Time (s)	4.2
All-Red Time (s)	1.3
Lost Time Adjust (s)	0.0
Total Lost Time (s)	5.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.2
Recall Mode	Min
Act Effct Green (s)	83.6
Actuated g/C Ratio	0.70
v/c Ratio	0.08
Control Delay	2.1
Queue Delay	0.0
Total Delay	2.1
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	



Lanes, Volumes, Timings

8: US 62 & Main St

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			 	
Traffic Volume (vph)	0	0	10	0	0	145	0	670	20	85	710	25
Future Volume (vph)	0	0	10	0	0	145	0	670	20	85	710	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.865			0.865		0.996			0.995	
Flt Protected										0.950		
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3525	0	1770	3522	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3525	0	1770	3522	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		288			444			348			150	
Travel Time (s)		6.5			10.1			7.9			3.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	11	0	0	158	0	728	22	92	772	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	11	0	0	158	0	750	0	92	799	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			36			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			24			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	34.8%					ICU Level of Service A						
Analysis Period (min)	15											

Lanes, Volumes, Timings  
11: Ring Rd & US 62













05/18/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	190	540	35	0	650	555	0	0	15	400	0	135
Future Volume (vph)	190	540	35	0	650	555	0	0	15	400	0	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	100		100	0		100	0		0
Storage Lanes	2		0	0		1	0		0	2		1
Taper Length (ft)	25			50			25			25		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt		0.991				0.850			0.865			0.850
Flt Protected	0.950									0.950		
Satd. Flow (prot)	3433	1846	0	0	3539	1583	0	0	1611	3433	0	1583
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	3433	1846	0	0	3539	1583	0	0	1611	3433	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						425			191			147
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		361			400			333			1291	
Travel Time (s)		8.2			9.1			7.6			29.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	207	587	38	0	707	603	0	0	16	435	0	147
Shared Lane Traffic (%)												
Lane Group Flow (vph)	207	625	0	0	707	603	0	0	16	435	0	147
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	R NA	Right	Left	Left	Right	Left	Left	Right	L NA	Left	Right
Median Width(ft)		24			36			24			24	
Link Offset(ft)		0			0			0			18	
Crosswalk Width(ft)		50			16			30			28	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1			1	1		1
Detector Template	Left	Thru			Thru	Right			Right	Left		Right
Leading Detector (ft)	20	100			100	20			20	20		20
Trailing Detector (ft)	0	0			0	0			0	0		0
Detector 1 Position(ft)	0	0			0	0			0	0		0
Detector 1 Size(ft)	20	6			6	20			20	20		20
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0			0.0	0.0		0.0
Detector 1 Queue (s)	0.0	0.0			0.0	0.0			0.0	0.0		0.0
Detector 1 Delay (s)	0.0	0.0			0.0	0.0			0.0	0.0		0.0
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA			NA	Perm			Perm	Prot		Perm
Protected Phases	5	2 8!			6					8!		
Permitted Phases						6			6			8

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	

Lanes, Volumes, Timings  
11: Ring Rd & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2 8			6	6			6	8		8
Switch Phase												
Minimum Initial (s)	5.0				25.0	25.0			25.0	4.0		4.0
Minimum Split (s)	11.1				32.0	32.0			32.0	46.6		46.6
Total Split (s)	15.0				38.4	38.4			38.4	46.6		46.6
Total Split (%)	15.0%				38.4%	38.4%			38.4%	46.6%		46.6%
Maximum Green (s)	8.9				31.4	31.4			31.4	40.0		40.0
Yellow Time (s)	3.5				4.7	4.7			4.7	4.7		4.7
All-Red Time (s)	2.6				2.3	2.3			2.3	1.9		1.9
Lost Time Adjust (s)	0.0				0.0	0.0			0.0	0.0		0.0
Total Lost Time (s)	6.1				7.0	7.0			7.0	6.6		6.6
Lead/Lag	Lead				Lag	Lag			Lag			
Lead-Lag Optimize?	Yes				Yes	Yes			Yes			
Vehicle Extension (s)	3.0				2.6	2.6			2.6	3.0		3.0
Recall Mode	None				Min	Min			Min	None		None
Walk Time (s)										7.0		7.0
Flash Dont Walk (s)										33.0		33.0
Pedestrian Calls (#/hr)										0		0
Act Effct Green (s)	11.1	100.0			44.3	44.3			44.3	24.9		24.9
Actuated g/C Ratio	0.11	1.00			0.44	0.44			0.44	0.25		0.25
v/c Ratio	0.54	0.34			0.45	0.64			0.02	0.51		0.29
Control Delay	47.2	0.5			22.5	11.1			0.1	33.4		5.6
Queue Delay	0.0	0.0			0.0	0.0			0.0	0.0		0.0
Total Delay	47.2	0.5			22.5	11.1			0.1	33.4		5.6
LOS	D	A			C	B			A	C		A
Approach Delay		12.1			17.3			0.1				26.4
Approach LOS		B			B			A				C

Intersection Summary

Area Type: Other  
 Cycle Length: 100  
 Actuated Cycle Length: 100  
 Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.64  
 Intersection Signal Delay: 17.5      Intersection LOS: B  
 Intersection Capacity Utilization 77.2%      ICU Level of Service D  
 Analysis Period (min) 15  
 ! Phase conflict between lane groups.

















Splits and Phases: 11: Ring Rd & US 62



Lane Group	Ø2
Detector Phase	
Switch Phase	
Minimum Initial (s)	25.0
Minimum Split (s)	49.3
Total Split (s)	53.4
Total Split (%)	53%
Maximum Green (s)	47.1
Yellow Time (s)	4.0
All-Red Time (s)	2.3
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.6
Recall Mode	C-Min
Walk Time (s)	7.0
Flash Dont Walk (s)	36.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

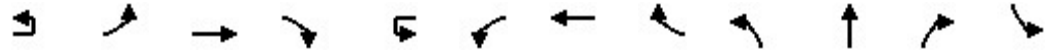
Lanes, Volumes, Timings  
14: Dolphin Dr & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	955	0	0	1135	260	0	0	10	0	0	70
Future Volume (vph)	0	955	0	0	1135	260	0	0	10	0	0	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.972				0.865			0.865
Flt Protected												
Satd. Flow (prot)	0	5085	0	0	3440	0	0	0	1611	0	0	1611
Flt Permitted												
Satd. Flow (perm)	0	5085	0	0	3440	0	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		400			1196			275				468
Travel Time (s)		9.1			27.2			6.3				10.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1038	0	0	1234	283	0	0	11	0	0	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1038	0	0	1517	0	0	0	11	0	0	76
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Right	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			24			0				0
Link Offset(ft)		-6			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Free
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	50.7%						ICU Level of Service A					
Analysis Period (min)	15											

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

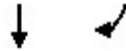
05/18/2023



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	130	15	720	100	70	45	1045	15	110	15	60	85
Future Volume (vph)	130	15	720	100	70	45	1045	15	110	15	60	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		175		200		200		0	0		0	0
Storage Lanes		1		1		1		0	0		1	0
Taper Length (ft)		75				50			25			25
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt				0.850			0.998				0.850	
Flt Protected		0.950				0.950				0.958		
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3532	0	0	1785	1583	0
Flt Permitted		0.145				0.285				0.958		
Satd. Flow (perm)	0	270	3539	1583	0	531	3532	0	0	1785	1583	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				146			1				152	
Link Speed (mph)			30				30			30		
Link Distance (ft)			1196				659			621		
Travel Time (s)			27.2				15.0			14.1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	141	16	783	109	76	49	1136	16	120	16	65	92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	157	783	109	0	125	1152	0	0	136	65	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)			30				12			0		
Link Offset(ft)			-12				0			50		
Crosswalk Width(ft)			70				40			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Number of Detectors	1	1	2	1	1	1	2		1	2	1	1
Detector Template	Left	Left	Thru	Right	Left	Left	Thru		Left	Thru	Right	Left
Leading Detector (ft)	20	20	100	20	20	20	100		20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0	0		0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0		0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	20	6		20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94				94			94		
Detector 2 Size(ft)			6				6			6		
Detector 2 Type			Cl+Ex				Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0				0.0			0.0		
Turn Type	pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt	NA		Split	NA	Perm	Split
Protected Phases	5	5	2		1	1	6		4	4		8
Permitted Phases	2	2		2	6	6					4	

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023

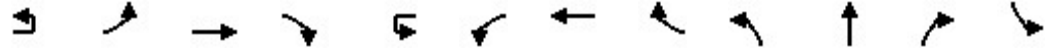


Lane Group	SBT	SBR
Lane Configurations	↕	↗
Traffic Volume (vph)	25	110
Future Volume (vph)	25	110
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		50
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt		0.850
Flt Protected	0.963	
Satd. Flow (prot)	1794	1583
Flt Permitted	0.963	
Satd. Flow (perm)	1794	1583
Right Turn on Red		Yes
Satd. Flow (RTOR)		152
Link Speed (mph)	30	
Link Distance (ft)	310	
Travel Time (s)	7.0	
Peak Hour Factor	0.92	0.92
Adj. Flow (vph)	27	120
Shared Lane Traffic (%)		
Lane Group Flow (vph)	119	120
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	0	
Link Offset(ft)	-40	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Detector 1 Position(ft)	0	0
Detector 1 Size(ft)	6	20
Detector 1 Type	Cl+Ex	Cl+Ex
Detector 1 Channel		
Detector 1 Extend (s)	0.0	0.0
Detector 1 Queue (s)	0.0	0.0
Detector 1 Delay (s)	0.0	0.0
Detector 2 Position(ft)	94	
Detector 2 Size(ft)	6	
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	Perm
Protected Phases	8	
Permitted Phases		8



Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023

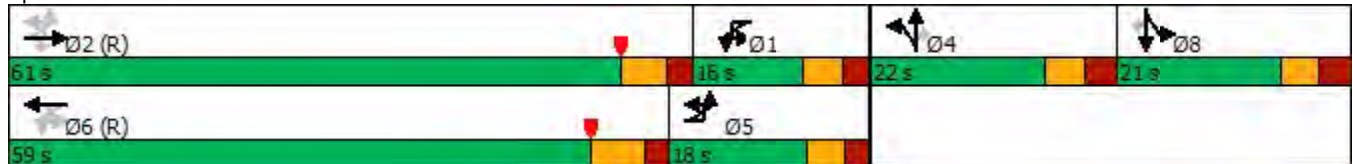


Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Detector Phase	5	5	2	2	1	1	6		4	4	4	8
Switch Phase												
Minimum Initial (s)	5.0	5.0	25.0	25.0	5.0	5.0	25.0		7.0	7.0	7.0	5.0
Minimum Split (s)	10.8	10.8	31.7	31.7	11.1	11.1	32.1		13.5	13.5	13.5	13.5
Total Split (s)	18.0	18.0	61.0	61.0	16.0	16.0	59.0		22.0	22.0	22.0	21.0
Total Split (%)	15.0%	15.0%	50.8%	50.8%	13.3%	13.3%	49.2%		18.3%	18.3%	18.3%	17.5%
Maximum Green (s)	12.2	12.2	54.6	54.6	9.9	9.9	51.9		15.5	15.5	15.5	14.5
Yellow Time (s)	3.5	3.5	4.1	4.1	3.5	3.5	4.8		3.5	3.5	3.5	3.5
All-Red Time (s)	2.3	2.3	2.3	2.3	2.6	2.6	2.3		3.0	3.0	3.0	3.0
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.8	6.4	6.4			6.1	7.1		6.5	6.5	
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		5.0	5.0	5.0	3.0
Recall Mode	None	None	C-Max	C-Max	None	None	C-Max		None	None	None	None
Act Effect Green (s)		70.5	60.2	60.2			65.9	57.5		14.6	14.6	
Actuated g/C Ratio		0.59	0.50	0.50			0.55	0.48		0.12	0.12	
v/c Ratio		0.56	0.44	0.13			0.34	0.68		0.63	0.20	
Control Delay		33.5	21.1	1.5			13.6	21.7		63.1	1.4	
Queue Delay		0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Total Delay		33.5	21.1	1.5			13.6	21.7		63.1	1.4	
LOS		C	C	A			B	C		E	A	
Approach Delay			20.9				20.9			43.1		
Approach LOS			C				C			D		

Intersection Summary

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	4 (3%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle:	80
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	23.9
Intersection LOS:	C
Intersection Capacity Utilization	72.7%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 17: Commerce Dr & US 62



Lanes, Volumes, Timings  
 17: Commerce Dr & US 62




















05/18/2023



Lane Group	SBT	SBR
Detector Phase	8	8
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	13.5	13.5
Total Split (s)	21.0	21.0
Total Split (%)	17.5%	17.5%
Maximum Green (s)	14.5	14.5
Yellow Time (s)	3.5	3.5
All-Red Time (s)	3.0	3.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.5
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)	12.3	12.3
Actuated g/C Ratio	0.10	0.10
v/c Ratio	0.65	0.40
Control Delay	67.9	7.6
Queue Delay	0.0	0.0
Total Delay	67.9	7.6
LOS	E	A
Approach Delay	37.6	
Approach LOS	D	
Intersection Summary		

Lanes, Volumes, Timings  
20: Executive Dr & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	135	745	55	45	1025	180	0	0	35	0	0	150
Future Volume (vph)	135	745	55	45	1025	180	0	0	35	0	0	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	185		0	100		0	0		100	0		0
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	50			75			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990				0.850			0.865			0.865
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	3504	0	1770	3539	1583	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	3504	0	1770	3539	1583	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		659			506			493				539
Travel Time (s)		15.0			11.5			11.2				12.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	147	810	60	49	1114	196	0	0	38	0	0	163
Shared Lane Traffic (%)												
Lane Group Flow (vph)	147	870	0	49	1114	196	0	0	38	0	0	163
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			20			0				0
Link Offset(ft)		-10			0			-15				25
Crosswalk Width(ft)		40			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	44.3%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

23: I-65 SB & US 62

05/18/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↘		↗↗
Traffic Volume (vph)	0	520	260	155	965	0	0	0	0	15	0	285
Future Volume (vph)	0	520	260	155	965	0	0	0	0	15	0	285
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		225	250		0	0			400		400
Storage Lanes	0		1	1		0	0			1		1
Taper Length (ft)	25			100			25			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.88
Frt			0.850									0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	1770	0	2787
Flt Permitted				0.400						0.950		
Satd. Flow (perm)	0	3539	1583	745	3539	0	0	0	0	1770	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			283									225
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		506			821			555			635	
Travel Time (s)		11.5			18.7			12.6			14.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	565	283	168	1049	0	0	0	0	16	0	310
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	565	283	168	1049	0	0	0	0	16	0	310
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			40	
Crosswalk Width(ft)		16			50			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	1	1	2					1		1
Detector Template		Thru	Right	Left	Thru					Left		Right
Leading Detector (ft)		100	20	20	100					20		20
Trailing Detector (ft)		0	0	0	0					0		0
Detector 1 Position(ft)		0	0	0	0					0		0
Detector 1 Size(ft)		6	20	20	6					20		20
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA	Perm	pm+pt	NA					Perm		Perm
Protected Phases		2		1	6							
Permitted Phases			2	6						4		4

# Lanes, Volumes, Timings

## 23: I-65 SB & US 62

05/18/2023

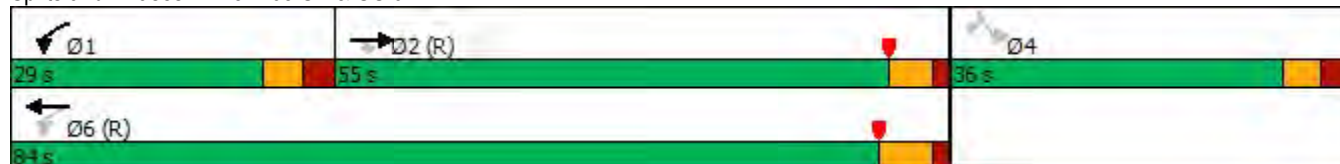


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2	2	1	6					4		4
Switch Phase												
Minimum Initial (s)		30.0	30.0	5.0	30.0					7.0		7.0
Minimum Split (s)		35.6	35.6	11.5	36.5					24.5		24.5
Total Split (s)		55.0	55.0	29.0	84.0					36.0		36.0
Total Split (%)		45.8%	45.8%	24.2%	70.0%					30.0%		30.0%
Maximum Green (s)		49.4	49.4	22.5	77.5					29.5		29.5
Yellow Time (s)		3.9	3.9	3.5	4.8					3.5		3.5
All-Red Time (s)		1.7	1.7	3.0	1.7					3.0		3.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0					0.0		0.0
Total Lost Time (s)		5.6	5.6	6.5	6.5					6.5		6.5
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Vehicle Extension (s)		0.2	0.2	3.0	0.2					3.0		3.0
Recall Mode		C-Max	C-Max	None	C-Max					None		None
Act Effect Green (s)		83.3	83.3	97.0	97.0					10.0		10.0
Actuated g/C Ratio		0.69	0.69	0.81	0.81					0.08		0.08
v/c Ratio		0.23	0.24	0.25	0.37					0.11		0.71
Control Delay		1.6	0.6	2.6	2.2					50.3		24.6
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		1.6	0.6	2.6	2.2					50.3		24.6
LOS		A	A	A	A					D		C
Approach Delay		1.3			2.3						25.8	
Approach LOS		A			A						C	

### Intersection Summary























Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	48 (40%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.71
Intersection Signal Delay:	5.1
Intersection LOS:	A
Intersection Capacity Utilization:	61.8%
ICU Level of Service:	B
Analysis Period (min):	15

### Splits and Phases: 23: I-65 SB & US 62



Lanes, Volumes, Timings  
26: I-65 NB & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 		 					
Traffic Volume (vph)	290	245	0	0	725	60	395	0	175	0	0	0
Future Volume (vph)	290	245	0	0	725	60	395	0	175	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	0		180	300		300	0		0
Storage Lanes	2		0	0		1	1		1	0		0
Taper Length (ft)	200			25			75			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	3433	3539	0	0	3539	1583	3433	0	1583	0	0	0
Flt Permitted	0.274						0.950					
Satd. Flow (perm)	990	3539	0	0	3539	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			190			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		821			495			906			393	
Travel Time (s)		18.7			11.3			20.6			8.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	315	266	0	0	788	65	429	0	190	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	315	266	0	0	788	65	429	0	190	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			12			24			24	
Link Offset(ft)		0			0			-25			75	
Crosswalk Width(ft)		75			16			25			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1		1			
Detector Template	Left	Thru			Thru	Right	Left		Right			
Leading Detector (ft)	20	100			100	20	20		20			
Trailing Detector (ft)	0	0			0	0	0		0			
Detector 1 Position(ft)	0	0			0	0	0		0			
Detector 1 Size(ft)	20	6			6	20	20		20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA			NA	Perm	Perm		Perm			
Protected Phases	5	2			6							
Permitted Phases	2					6	4		4			

# Lanes, Volumes, Timings

## 26: I-65 NB & US 62

05/18/2023

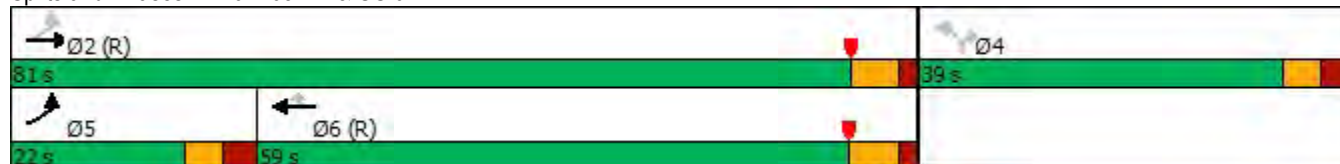


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2			6	6	4		4			
Switch Phase												
Minimum Initial (s)	5.0	30.0			30.0	30.0	15.0		15.0			
Minimum Split (s)	11.5	36.0			36.2	36.2	22.5		22.5			
Total Split (s)	22.0	81.0			59.0	59.0	39.0		39.0			
Total Split (%)	18.3%	67.5%			49.2%	49.2%	32.5%		32.5%			
Maximum Green (s)	15.5	75.0			52.8	52.8	32.5		32.5			
Yellow Time (s)	3.5	4.3			4.5	4.5	3.5		3.5			
All-Red Time (s)	3.0	1.7			1.7	1.7	3.0		3.0			
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Total Lost Time (s)	6.5	6.0			6.2	6.2	6.5		6.5			
Lead/Lag	Lead				Lag				Lag			
Lead-Lag Optimize?	Yes				Yes				Yes			
Vehicle Extension (s)	3.0	0.2			0.2	0.2	6.0		6.0			
Recall Mode	None	C-Max			C-Max	C-Max	None		None			
Act Effct Green (s)	82.0	82.5			66.3	66.3	25.0		25.0			
Actuated g/C Ratio	0.68	0.69			0.55	0.55	0.21		0.21			
v/c Ratio	0.36	0.11			0.40	0.07	0.60		0.40			
Control Delay	3.2	1.0			17.2	1.8	46.0		7.5			
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0			
Total Delay	3.2	1.0			17.2	1.8	46.0		7.5			
LOS	A	A			B	A	D		A			
Approach Delay		2.2			16.1			34.2				
Approach LOS		A			B			C				

### Intersection Summary



















Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	61 (51%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	17.6
Intersection LOS:	B
Intersection Capacity Utilization:	61.8%
ICU Level of Service:	B
Analysis Period (min):	15

### Splits and Phases: 26: I-65 NB & US 62



Lanes, Volumes, Timings  
29: Medley Ln & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	405	5	5	770	5	5	0	5	5	0	10
Future Volume (vph)	10	405	5	5	770	5	5	0	5	5	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.999			0.932				0.907
Flt Protected	0.950			0.950				0.976				0.985
Satd. Flow (prot)	1770	3532	0	1770	3536	0	0	1694	0	0	1664	0
Flt Permitted	0.950			0.950				0.976				0.985
Satd. Flow (perm)	1770	3532	0	1770	3536	0	0	1694	0	0	1664	0
Link Speed (mph)		30			30			30				30
Link Distance (ft)		495			559			630				395
Travel Time (s)		11.3			12.7			14.3				9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	440	5	5	837	5	5	0	5	5	0	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	445	0	5	842	0	0	10	0	0	16	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Stop

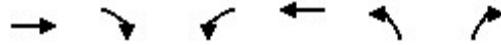
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.4%
ICU Level of Service	A
Analysis Period (min)	15



Lanes, Volumes, Timings  
32: Howell Dr & US 62

05/18/2023



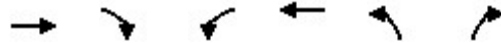
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↓	↑↑	↓	
Traffic Volume (vph)	370	45	5	775	5	5
Future Volume (vph)	370	45	5	775	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	50		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00
Frt		0.850			0.932	
Flt Protected			0.950		0.976	
Satd. Flow (prot)	1863	1583	1770	3539	1694	0
Flt Permitted			0.950		0.976	
Satd. Flow (perm)	1863	1583	1770	3539	1694	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	559			438	731	
Travel Time (s)	12.7			10.0	16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	402	49	5	842	5	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	402	49	5	842	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.4%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
34: McCormack Ave & US 62

05/18/2023



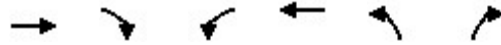
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	365	10	10	750	30	5
Future Volume (vph)	365	10	10	750	30	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Fr <sub>t</sub>	0.996			0.982		
Fl <sub>t</sub> Protected				0.999	0.958	
Satd. Flow (prot)	1855	0	0	3536	1752	0
Fl <sub>t</sub> Permitted				0.999	0.958	
Satd. Flow (perm)	1855	0	0	3536	1752	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	438			127	684	
Travel Time (s)	10.0			2.9	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	397	11	11	815	33	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	408	0	0	826	38	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes					
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	37.8%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
36: Gregory St & US 62

05/18/2023






















Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	355	15	5	755	5	5
Future Volume (vph)	355	15	5	755	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>	0.995			0.932		
Fl <sub>t</sub> Protected				0.976		
Satd. Flow (prot)	1853	0	0	1863	1694	0
Fl <sub>t</sub> Permitted				0.976		
Satd. Flow (perm)	1853	0	0	1863	1694	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	241			1032	915	
Travel Time (s)	5.5			23.5	20.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	386	16	5	821	5	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	402	0	0	826	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	53.7%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
40: US 62 & Pawnee Dr

05/18/2023

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			  	
Traffic Volume (vph)	0	0	20	0	0	15	0	795	20	0	805	30
Future Volume (vph)	0	0	20	0	0	15	0	795	20	0	805	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	275		0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91
Frt			0.865			0.865		0.996			0.995	
Flt Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3525	0	0	5060	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3525	0	0	5060	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		356			432			150			346	
Travel Time (s)		8.1			9.8			3.4			7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	22	0	0	16	0	864	22	0	875	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	22	0	0	16	0	886	0	0	908	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			6	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	32.6%						ICU Level of Service A					
Analysis Period (min)	15											

Lanes, Volumes, Timings  
43: US 62

05/18/2023



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations		↗	↗↗		↘	↗↗
Traffic Volume (vph)	0	0	545	0	0	680
Future Volume (vph)	0	0	545	0	0	680
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				50	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	3539	0	1863	3539
Flt Permitted						
Satd. Flow (perm)	0	1863	3539	0	1863	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	161		397			420
Travel Time (s)	3.7		9.0			9.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	592	0	0	739
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	592	0	0	739
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	22.1%
	ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings  
45: US 62

05/18/2023



Lane Group	SEL	SER	NEU	NEL	NET	SWT	SWR
Lane Configurations		↗	↘		↕	↕	
Traffic Volume (vph)	0	0	50	0	645	675	0
Future Volume (vph)	0	0	50	0	645	675	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		225			0
Storage Lanes	0	1		1			0
Taper Length (ft)	25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt							
Flt Protected			0.950				
Satd. Flow (prot)	0	1863	1770	0	3539	3539	0
Flt Permitted			0.950				
Satd. Flow (perm)	0	1863	1770	0	3539	3539	0
Link Speed (mph)	30				30	30	
Link Distance (ft)	290				626	476	
Travel Time (s)	6.6				14.2	10.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	54	0	701	734	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	54	0	701	734	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	R NA	Left	Left	Left	Right
Median Width(ft)	0				24	24	
Link Offset(ft)	0				0	0	
Crosswalk Width(ft)	16				16	16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15			9
Sign Control	Stop				Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	28.7%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

47: US 62

05/18/2023



Lane Group	SEL	SER	NEL	NET	SWU	SWT	SWR
Lane Configurations							
Traffic Volume (vph)	0	0	0	645	45	675	0
Future Volume (vph)	0	0	0	645	45	675	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0		275		0
Storage Lanes	0	1	0		1		0
Taper Length (ft)	25		25		25		
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	0.95	0.95
Frt							
Flt Protected					0.950		
Satd. Flow (prot)	0	1863	0	3539	1770	3539	0
Flt Permitted					0.950		
Satd. Flow (perm)	0	1863	0	3539	1770	3539	0
Link Speed (mph)	30			30		30	
Link Distance (ft)	145			476		348	
Travel Time (s)	3.3			10.8		7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	701	49	734	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	0	701	49	734	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	R NA	Left	Right
Median Width(ft)	0			24		36	
Link Offset(ft)	0			0		0	
Crosswalk Width(ft)	16			16		16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15		9		9
Sign Control	Stop			Free		Free	

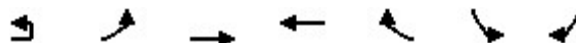
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	27.8%
	ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings

49: US 62

05/18/2023



Lane Group	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↔		↑↑	↑↑			↗
Traffic Volume (vph)	50	0	765	785	0	0	0
Future Volume (vph)	50	0	765	785	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	1.00	1.00
<b>Fr</b>							
Flt Protected	0.950						
Satd. Flow (prot)	1770	0	3539	3539	0	0	1863
Flt Permitted	0.950						
Satd. Flow (perm)	1770	0	3539	3539	0	0	1863
Link Speed (mph)			30	30		30	
Link Distance (ft)			346	361		423	
Travel Time (s)			7.9	8.2		9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	0	832	853	0	0	0
<b>Shared Lane Traffic (%)</b>							
Lane Group Flow (vph)	54	0	832	853	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Left	Right	Left	Right
Median Width(ft)			30	24		0	
Link Offset(ft)			0	0		0	
Crosswalk Width(ft)			16	16		16	
<b>Two way Left Turn Lane</b>							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15			9	15	9
Sign Control			Free	Free		Stop	

**Intersection Summary**

















Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.7%
Analysis Period (min)	15
	ICU Level of Service A



Lanes, Volumes, Timings

51: US 62

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	25	0	0	50	0	645	15	0	705	20
Future Volume (vph)	0	0	25	0	0	50	0	645	15	0	705	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.865			0.865		0.997			0.996	
Flt Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3529	0	0	3525	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3529	0	0	3525	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		238			284			611			626	
Travel Time (s)		5.4			6.5			13.9			14.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	27	0	0	54	0	701	16	0	766	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	27	0	0	54	0	717	0	0	788	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	30.1%						ICU Level of Service A					
Analysis Period (min)	15											

Lanes, Volumes, Timings  
3: US 62 & Brook St

05/18/2023






















Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	5	5	815	5	5	770
Future Volume (vph)	5	5	815	5	5	770
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932		0.999			
Flt Protected	0.976					
Satd. Flow (prot)	1694	0	3536	0	0	3539
Flt Permitted	0.976					
Satd. Flow (perm)	1694	0	3536	0	0	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	802		662			397
Travel Time (s)	18.2		15.0			9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	5	886	5	5	837
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	891	0	0	842
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.8%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Lane Configurations												
Traffic Volume (vph)	170	50	50	10	45	15	65	740	15	25	10	715
Future Volume (vph)	170	50	50	10	45	15	65	740	15	25	10	715
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	0		0	200		0		225	
Storage Lanes	1		0	0		0	1		0		1	
Taper Length (ft)	25			25			50				50	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Frt		0.925			0.972			0.997				
Flt Protected	0.950				0.993		0.950				0.950	
Satd. Flow (prot)	1770	1723	0	0	1798	0	1770	3529	0	0	1770	3539
Flt Permitted	0.739				0.952		0.321				0.308	
Satd. Flow (perm)	1377	1723	0	0	1724	0	598	3529	0	0	574	3539
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		44			12			2				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		776			653			420				611
Travel Time (s)		17.6			14.8			9.5				13.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	185	54	54	11	49	16	71	804	16	27	11	777
Shared Lane Traffic (%)												
Lane Group Flow (vph)	185	108	0	0	76	0	71	820	0	0	38	777
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		12			0			24				24
Link Offset(ft)		12			0			0				0
Crosswalk Width(ft)		16			24			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2		1	2		1	2		1	1	2
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Left	Thru
Leading Detector (ft)	20	100		20	100		20	100		20	20	100
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	pm+pt	NA
Protected Phases		4			4		5	2		1	1	6
Permitted Phases	4			4			2			6	6	

Lanes, Volumes, Timings  
5: US 62 & French St

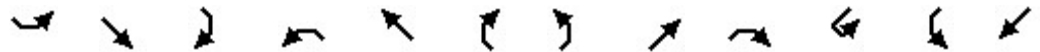
05/18/2023



Lane Group	SWR
Lane Configurations	
Traffic Volume (vph)	155
Future Volume (vph)	155
Ideal Flow (vphpl)	1900
Storage Length (ft)	150
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	156
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Adj. Flow (vph)	168
Shared Lane Traffic (%)	
Lane Group Flow (vph)	168
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	6

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023

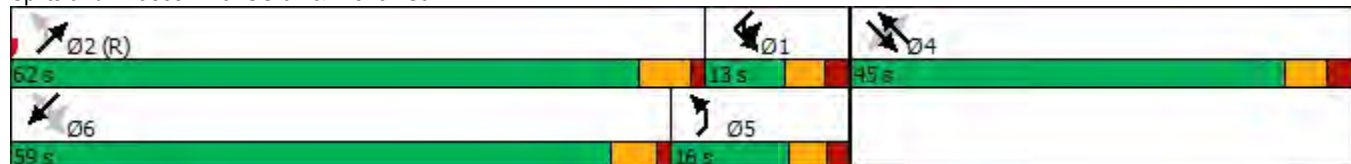


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Detector Phase	4	4		4	4		5	2		1	1	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		4.0	15.0		4.0	4.0	15.0
Minimum Split (s)	24.3	24.3		24.3	24.3		9.6	24.0		9.9	9.9	23.5
Total Split (s)	45.0	45.0		45.0	45.0		16.0	62.0		13.0	13.0	59.0
Total Split (%)	37.5%	37.5%		37.5%	37.5%		13.3%	51.7%		10.8%	10.8%	49.2%
Maximum Green (s)	38.7	38.7		38.7	38.7		10.4	56.0		7.1	7.1	53.5
Yellow Time (s)	3.8	3.8		3.8	3.8		3.5	4.7		3.5	3.5	4.2
All-Red Time (s)	2.5	2.5		2.5	2.5		2.1	1.3		2.4	2.4	1.3
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	6.3	6.3			6.3		5.6	6.0			5.9	5.5
Lead/Lag							Lag	Lead		Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	2.2		3.0	3.0	2.2
Recall Mode	None	None		None	None		None	C-Min		None	None	Min
Act Effct Green (s)	21.5	21.5			21.5		84.7	79.4			82.4	77.3
Actuated g/C Ratio	0.18	0.18			0.18		0.71	0.66			0.69	0.64
v/c Ratio	0.75	0.31			0.24		0.15	0.35			0.08	0.34
Control Delay	64.6	26.4			35.0		7.6	11.1			7.4	11.8
Queue Delay	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Delay	64.6	26.4			35.0		7.6	11.1			7.4	11.8
LOS	E	C			D		A	B			A	B
Approach Delay		50.5			35.0			10.8				10.1
Approach LOS		D			D			B				B

Intersection Summary

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	0 (0%), Referenced to phase 2:NETL, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	16.5
Intersection LOS:	B
Intersection Capacity Utilization:	55.5%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 5: US 62 & French St
























Lane Group	SWR
Detector Phase	6
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	23.5
Total Split (s)	59.0
Total Split (%)	49.2%
Maximum Green (s)	53.5
Yellow Time (s)	4.2
All-Red Time (s)	1.3
Lost Time Adjust (s)	0.0
Total Lost Time (s)	5.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.2
Recall Mode	Min
Act Effct Green (s)	77.3
Actuated g/C Ratio	0.64
v/c Ratio	0.16
Control Delay	2.8
Queue Delay	0.0
Total Delay	2.8
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

8: US 62 & Main St

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

















												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			 	
Traffic Volume (vph)	0	0	20	0	0	180	0	1005	15	170	925	15
Future Volume (vph)	0	0	20	0	0	180	0	1005	15	170	925	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.865			0.865		0.998			0.998	
Flt Protected										0.950		
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3532	0	1770	3532	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3532	0	1770	3532	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		288			444			348			150	
Travel Time (s)		6.5			10.1			7.9			3.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	22	0	0	196	0	1092	16	185	1005	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	22	0	0	196	0	1108	0	185	1021	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			36			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			24			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	46.1%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
11: Ring Rd & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	275	820	65	0	770	495	0	0	35	850	0	300
Future Volume (vph)	275	820	65	0	770	495	0	0	35	850	0	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	100		100	0		100	0		0
Storage Lanes	2		0	0		1	0		0	2		1
Taper Length (ft)	25			50			25			25		
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt		0.989				0.850			0.865			0.850
Flt Protected	0.950									0.950		
Satd. Flow (prot)	3433	1842	0	0	3539	1583	0	0	1611	3433	0	1583
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	3433	1842	0	0	3539	1583	0	0	1611	3433	0	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						308			106			326
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		361			400			333			1291	
Travel Time (s)		8.2			9.1			7.6			29.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	299	891	71	0	837	538	0	0	38	924	0	326
Shared Lane Traffic (%)												
Lane Group Flow (vph)	299	962	0	0	837	538	0	0	38	924	0	326
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	R NA	Right	Left	Left	Right	Left	Left	Right	L NA	Left	Right
Median Width(ft)		24			36			24			24	
Link Offset(ft)		0			0			0			18	
Crosswalk Width(ft)		50			16			30			28	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1			1	1		1
Detector Template	Left	Thru			Thru	Right			Right	Left		Right
Leading Detector (ft)	20	100			100	20			20	20		20
Trailing Detector (ft)	0	0			0	0			0	0		0
Detector 1 Position(ft)	0	0			0	0			0	0		0
Detector 1 Size(ft)	20	6			6	20			20	20		20
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0			0.0	0.0		0.0
Detector 1 Queue (s)	0.0	0.0			0.0	0.0			0.0	0.0		0.0
Detector 1 Delay (s)	0.0	0.0			0.0	0.0			0.0	0.0		0.0
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Prot	NA			NA	Perm			Perm	Prot		Perm
Protected Phases	5	2 8!			6				8!			
Permitted Phases						6			6			8



Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	

Lanes, Volumes, Timings  
11: Ring Rd & US 62

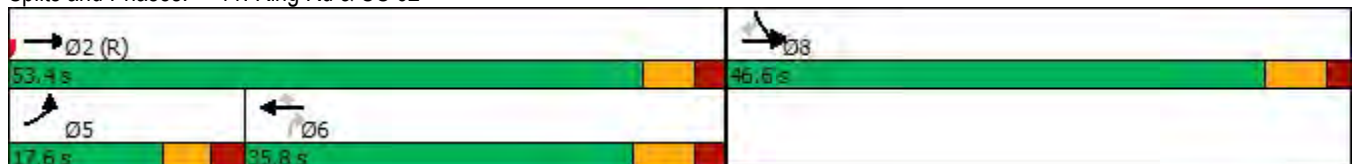
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2 8			6	6				6	8	8
Switch Phase												
Minimum Initial (s)	5.0				25.0	25.0			25.0	4.0		4.0
Minimum Split (s)	11.1				32.0	32.0			32.0	46.6		46.6
Total Split (s)	17.6				35.8	35.8			35.8	46.6		46.6
Total Split (%)	17.6%				35.8%	35.8%			35.8%	46.6%		46.6%
Maximum Green (s)	11.5				28.8	28.8			28.8	40.0		40.0
Yellow Time (s)	3.5				4.7	4.7			4.7	4.7		4.7
All-Red Time (s)	2.6				2.3	2.3			2.3	1.9		1.9
Lost Time Adjust (s)	0.0				0.0	0.0			0.0	0.0		0.0
Total Lost Time (s)	6.1				7.0	7.0			7.0	6.6		6.6
Lead/Lag	Lead				Lag	Lag			Lag			
Lead-Lag Optimize?	Yes				Yes	Yes			Yes			
Vehicle Extension (s)	3.0				2.6	2.6			2.6	3.0		3.0
Recall Mode	None				Min	Min			Min	None		None
Walk Time (s)										7.0		7.0
Flash Dont Walk (s)										33.0		33.0
Pedestrian Calls (#/hr)										0		0
Act Effct Green (s)	11.3	100.0			29.7	29.7			29.7	39.3		39.3
Actuated g/C Ratio	0.11	1.00			0.30	0.30			0.30	0.39		0.39
v/c Ratio	0.77	0.52			0.80	0.78			0.07	0.69		0.40
Control Delay	57.6	1.1			39.4	23.0			0.2	28.2		3.8
Queue Delay	0.0	0.0			0.0	0.0			0.0	0.0		0.0
Total Delay	57.6	1.1			39.4	23.0			0.2	28.2		3.8
LOS	E	A			D	C			A	C		A
Approach Delay		14.5			33.0			0.2				21.9
Approach LOS		B			C			A				C

Intersection Summary

Area Type: Other  
 Cycle Length: 100  
 Actuated Cycle Length: 100  
 Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 23.2  
 Intersection LOS: C  
 Intersection Capacity Utilization 106.6%  
 ICU Level of Service G  
 Analysis Period (min) 15  
 ! Phase conflict between lane groups.













Splits and Phases: 11: Ring Rd & US 62



Lane Group	Ø2
Detector Phase	
Switch Phase	
Minimum Initial (s)	25.0
Minimum Split (s)	49.3
Total Split (s)	53.4
Total Split (%)	53%
Maximum Green (s)	47.1
Yellow Time (s)	4.0
All-Red Time (s)	2.3
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.6
Recall Mode	C-Min
Walk Time (s)	7.0
Flash Dont Walk (s)	36.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

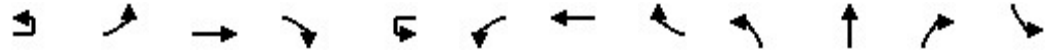
Lanes, Volumes, Timings  
14: Dolphin Dr & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑			↑↑				↑			↑
Traffic Volume (vph)	0	1700	5	0	1085	345	0	0	35	0	0	180
Future Volume (vph)	0	1700	5	0	1085	345	0	0	35	0	0	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.964				0.865			0.865
Flt Protected												
Satd. Flow (prot)	0	5085	0	0	3412	0	0	0	1611	0	0	1611
Flt Permitted												
Satd. Flow (perm)	0	5085	0	0	3412	0	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		400			1196			275				468
Travel Time (s)		9.1			27.2			6.3				10.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1848	5	0	1179	375	0	0	38	0	0	196
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1853	0	0	1554	0	0	0	38	0	0	196
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Right	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			24			0				0
Link Offset(ft)		-6			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Free
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	58.8%						ICU Level of Service B					
Analysis Period (min)	15											

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	210	15	1265	245	100	55	915	20	215	15	125	115
Future Volume (vph)	210	15	1265	245	100	55	915	20	215	15	125	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		175		200		200		0	0		0	0
Storage Lanes		1		1		1		0	0		1	0
Taper Length (ft)		75				50			25			25
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt				0.850			0.997					0.850
Flt Protected		0.950				0.950				0.955		
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3529	0	0	1779	1583	0
Flt Permitted		0.152				0.087				0.955		
Satd. Flow (perm)	0	283	3539	1583	0	162	3529	0	0	1779	1583	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				174			2				152	
Link Speed (mph)			30				30			30		
Link Distance (ft)			1196				659			621		
Travel Time (s)			27.2				15.0			14.1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	228	16	1375	266	109	60	995	22	234	16	136	125
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	244	1375	266	0	169	1017	0	0	250	136	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)			30				12			0		
Link Offset(ft)			-12				0			50		
Crosswalk Width(ft)			70				40			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Number of Detectors	1	1	2	1	1	1	2		1	2	1	1
Detector Template	Left	Left	Thru	Right	Left	Left	Thru		Left	Thru	Right	Left
Leading Detector (ft)	20	20	100	20	20	20	100		20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0	0		0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0		0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	20	6		20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94				94			94		
Detector 2 Size(ft)			6				6			6		
Detector 2 Type			Cl+Ex				Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0				0.0			0.0		
Turn Type	pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt	NA		Split	NA	Perm	Split
Protected Phases	5	5	2		1	1	6		4	4		8
Permitted Phases	2	2		2	6	6					4	

Lanes, Volumes, Timings  
 17: Commerce Dr & US 62

05/18/2023



Lane Group	SBT	SBR
Lane Configurations	↕	↗
Traffic Volume (vph)	50	90
Future Volume (vph)	50	90
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		50
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt		0.850
Flt Protected	0.966	
Satd. Flow (prot)	1799	1583
Flt Permitted	0.966	
Satd. Flow (perm)	1799	1583
Right Turn on Red		Yes
Satd. Flow (RTOR)		152
Link Speed (mph)	30	
Link Distance (ft)	310	
Travel Time (s)	7.0	
Peak Hour Factor	0.92	0.92
Adj. Flow (vph)	54	98
Shared Lane Traffic (%)		
Lane Group Flow (vph)	179	98
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	0	
Link Offset(ft)	-40	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Detector 1 Position(ft)	0	0
Detector 1 Size(ft)	6	20
Detector 1 Type	Cl+Ex	Cl+Ex
Detector 1 Channel		
Detector 1 Extend (s)	0.0	0.0
Detector 1 Queue (s)	0.0	0.0
Detector 1 Delay (s)	0.0	0.0
Detector 2 Position(ft)	94	
Detector 2 Size(ft)	6	
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	Perm
Protected Phases	8	
Permitted Phases		8



Lanes, Volumes, Timings  
 17: Commerce Dr & US 62

05/18/2023






















Lane Group	SBT	SBR
Detector Phase	8	8
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	13.5	13.5
Total Split (s)	21.0	21.0
Total Split (%)	17.5%	17.5%
Maximum Green (s)	14.5	14.5
Yellow Time (s)	3.5	3.5
All-Red Time (s)	3.0	3.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.5
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)	14.0	14.0
Actuated g/C Ratio	0.12	0.12
v/c Ratio	0.85	0.31
Control Delay	85.4	4.0
Queue Delay	0.0	0.0
Total Delay	85.4	4.0
LOS	F	A
Approach Delay	56.6	
Approach LOS	E	
Intersection Summary		



Lanes, Volumes, Timings  
20: Executive Dr & US 62

05/18/2023













												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	1445	20	90	930	190	0	0	75	0	0	160
Future Volume (vph)	140	1445	20	90	930	190	0	0	75	0	0	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	185		0	100		0	0		100	0		0
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	50			75			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998				0.850			0.865			0.865
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	3532	0	1770	3539	1583	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	3532	0	1770	3539	1583	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		659			506			493				539
Travel Time (s)		15.0			11.5			11.2				12.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	1571	22	98	1011	207	0	0	82	0	0	174
Shared Lane Traffic (%)												
Lane Group Flow (vph)	152	1593	0	98	1011	207	0	0	82	0	0	174
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			20			0				0
Link Offset(ft)		-10			0			-15				25
Crosswalk Width(ft)		40			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	52.2%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
23: I-65 SB & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↖		↗↗
Traffic Volume (vph)	0	915	605	165	765	0	0	0	0	65	0	445
Future Volume (vph)	0	915	605	165	765	0	0	0	0	65	0	445
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		225	250		0	0		0	400		400
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			100			25			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.88
Frt			0.850									0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	1770	0	2787
Flt Permitted				0.233						0.950		
Satd. Flow (perm)	0	3539	1583	434	3539	0	0	0	0	1770	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			658									395
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		506			821			555			635	
Travel Time (s)		11.5			18.7			12.6			14.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	995	658	179	832	0	0	0	0	71	0	484
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	995	658	179	832	0	0	0	0	71	0	484
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			40	
Crosswalk Width(ft)		16			50			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	1	1	2					1		1
Detector Template		Thru	Right	Left	Thru					Left		Right
Leading Detector (ft)		100	20	20	100					20		20
Trailing Detector (ft)		0	0	0	0					0		0
Detector 1 Position(ft)		0	0	0	0					0		0
Detector 1 Size(ft)		6	20	20	6					20		20
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA	Perm	pm+pt	NA					Perm		Perm
Protected Phases		2			1					6		
Permitted Phases		2			6					4		

# Lanes, Volumes, Timings

23: I-65 SB & US 62

05/18/2023

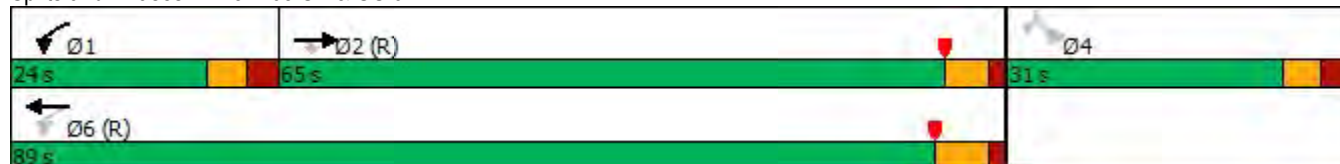


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2	2	1	6					4		4
Switch Phase												
Minimum Initial (s)		30.0	30.0	5.0	30.0					7.0		7.0
Minimum Split (s)		35.6	35.6	11.5	36.5					24.5		24.5
Total Split (s)		65.0	65.0	24.0	89.0					31.0		31.0
Total Split (%)		54.2%	54.2%	20.0%	74.2%					25.8%		25.8%
Maximum Green (s)		59.4	59.4	17.5	82.5					24.5		24.5
Yellow Time (s)		3.9	3.9	3.5	4.8					3.5		3.5
All-Red Time (s)		1.7	1.7	3.0	1.7					3.0		3.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0					0.0		0.0
Total Lost Time (s)		5.6	5.6	6.5	6.5					6.5		6.5
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Vehicle Extension (s)		0.2	0.2	3.0	0.2					3.0		3.0
Recall Mode		C-Max	C-Max	None	C-Max					None		None
Act Effect Green (s)		81.6	81.6	95.6	95.6					11.4		11.4
Actuated g/C Ratio		0.68	0.68	0.80	0.80					0.10		0.10
v/c Ratio		0.41	0.51	0.41	0.30					0.42		0.78
Control Delay		15.5	6.8	7.7	2.4					57.5		19.8
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		15.5	6.8	7.7	2.4					57.5		19.8
LOS		B	A	A	A					E		B
Approach Delay		12.0			3.3							24.6
Approach LOS		B			A							C

## Intersection Summary























Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	3 (3%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	11.5
Intersection LOS:	B
Intersection Capacity Utilization:	67.9%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 23: I-65 SB & US 62



Lanes, Volumes, Timings  
26: I-65 NB & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 		 					
Traffic Volume (vph)	330	650	0	0	615	30	315	0	100	0	0	0
Future Volume (vph)	330	650	0	0	615	30	315	0	100	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	0		180	300		300	0		0
Storage Lanes	2		0	0		1	1		1	0		0
Taper Length (ft)	200			25			75			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	3433	3539	0	0	3539	1583	3433	0	1583	0	0	0
Flt Permitted	0.334						0.950					
Satd. Flow (perm)	1207	3539	0	0	3539	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			109			
Link Speed (mph)		30			30			30				30
Link Distance (ft)		821			495			906				393
Travel Time (s)		18.7			11.3			20.6				8.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	359	707	0	0	668	33	342	0	109	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	359	707	0	0	668	33	342	0	109	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			12			24				24
Link Offset(ft)		0			0			-25				75
Crosswalk Width(ft)		75			16			25				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1		1			
Detector Template	Left	Thru			Thru	Right	Left		Right			
Leading Detector (ft)	20	100			100	20	20		20			
Trailing Detector (ft)	0	0			0	0	0		0			
Detector 1 Position(ft)	0	0			0	0	0		0			
Detector 1 Size(ft)	20	6			6	20	20		20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA			NA	Perm	Perm		Perm			
Protected Phases	5	2			6							
Permitted Phases	2					6	4		4			

Lanes, Volumes, Timings

26: I-65 NB & US 62

05/18/2023

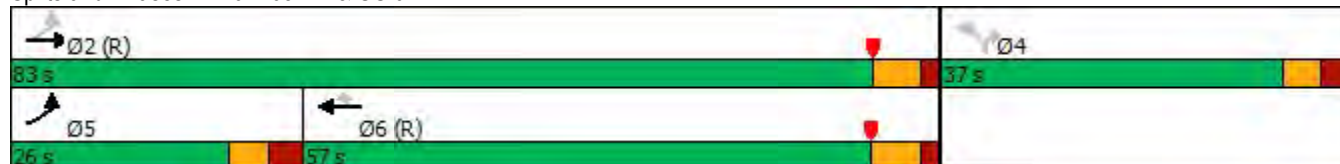


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2			6	6	4		4			
Switch Phase												
Minimum Initial (s)	5.0	30.0			30.0	30.0	15.0		15.0			
Minimum Split (s)	11.5	36.0			36.2	36.2	22.5		22.5			
Total Split (s)	26.0	83.0			57.0	57.0	37.0		37.0			
Total Split (%)	21.7%	69.2%			47.5%	47.5%	30.8%		30.8%			
Maximum Green (s)	19.5	77.0			50.8	50.8	30.5		30.5			
Yellow Time (s)	3.5	4.3			4.5	4.5	3.5		3.5			
All-Red Time (s)	3.0	1.7			1.7	1.7	3.0		3.0			
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Total Lost Time (s)	6.5	6.0			6.2	6.2	6.5		6.5			
Lead/Lag	Lead				Lag				Lag			
Lead-Lag Optimize?	Yes				Yes				Yes			
Vehicle Extension (s)	3.0	0.2			0.2	0.2	6.0		6.0			
Recall Mode	None	C-Max			C-Max	C-Max	None		None			
Act Effct Green (s)	86.0	86.5			70.3	70.3	21.0		21.0			
Actuated g/C Ratio	0.72	0.72			0.59	0.59	0.18		0.18			
v/c Ratio	0.34	0.28			0.32	0.03	0.57		0.30			
Control Delay	7.3	6.5			14.0	0.1	48.7		9.3			
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0			
Total Delay	7.3	6.5			14.0	0.1	48.7		9.3			
LOS	A	A			B	A	D		A			
Approach Delay		6.8			13.4				39.2			
Approach LOS		A			B				D			

Intersection Summary




















Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	13 (11%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.57
Intersection Signal Delay:	15.4
Intersection LOS:	B
Intersection Capacity Utilization:	67.9%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 26: I-65 NB & US 62



Lanes, Volumes, Timings  
29: Medley Ln & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	740	5	5	615	5	5	0	5	5	0	25
Future Volume (vph)	5	740	5	5	615	5	5	0	5	5	0	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.999			0.932				0.886
Flt Protected	0.950			0.950				0.976				0.992
Satd. Flow (prot)	1770	3536	0	1770	3536	0	0	1694	0	0	1637	0
Flt Permitted	0.950			0.950				0.976				0.992
Satd. Flow (perm)	1770	3536	0	1770	3536	0	0	1694	0	0	1637	0
Link Speed (mph)		30			30			30				30
Link Distance (ft)		495			559			630				395
Travel Time (s)		11.3			12.7			14.3				9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	804	5	5	668	5	5	0	5	5	0	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	809	0	5	673	0	0	10	0	0	32	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	30.6%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
32: Howell Dr & US 62

05/18/2023

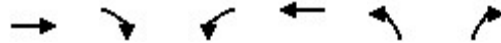
	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↙	↑↑	↖	
Traffic Volume (vph)	720	30	5	610	15	5
Future Volume (vph)	720	30	5	610	15	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	50		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00
Frt		0.850			0.968	
Flt Protected			0.950		0.963	
Satd. Flow (prot)	1863	1583	1770	3539	1736	0
Flt Permitted			0.950		0.963	
Satd. Flow (perm)	1863	1583	1770	3539	1736	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	559			438	731	
Travel Time (s)	12.7			10.0	16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	783	33	5	663	16	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	783	33	5	663	21	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	47.9%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
34: McCormack Ave & US 62

05/18/2023



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	680	45	5	595	20	5
Future Volume (vph)	680	45	5	595	20	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Fr <sub>t</sub>	0.992			0.975		
Fl <sub>t</sub> Protected				0.961		
Satd. Flow (prot)	1848	0	0	3539	1745	0
Fl <sub>t</sub> Permitted				0.961		
Satd. Flow (perm)	1848	0	0	3539	1745	0
Link Speed (mph)	30			30		
Link Distance (ft)	438			127		684
Travel Time (s)	10.0			2.9		15.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	739	49	5	647	22	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	788	0	0	652	27	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12		12
Link Offset(ft)	0			0		0
Crosswalk Width(ft)	16			16		16
Two way Left Turn Lane	Yes					
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15		9	
Sign Control	Free			Free		Stop

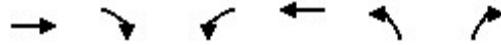
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	48.5%
Analysis Period (min)	15
	ICU Level of Service A



Lanes, Volumes, Timings  
36: Gregory St & US 62

05/18/2023





















Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	635	50	5	590	10	5
Future Volume (vph)	635	50	5	590	10	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>	0.990			0.958		
Fl <sub>t</sub> Protected				0.967		
Satd. Flow (prot)	1844	0	0	1863	1726	0
Fl <sub>t</sub> Permitted				0.967		
Satd. Flow (perm)	1844	0	0	1863	1726	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	241			1032	915	
Travel Time (s)	5.5			23.5	20.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	690	54	5	641	11	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	744	0	0	646	16	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	46.5%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
40: US 62 & Pawnee Dr

05/18/2023

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	40	0	0	35	0	1140	45	0	1075	15
Future Volume (vph)	0	0	40	0	0	35	0	1140	45	0	1075	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	275		0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91
Frt			0.865			0.865		0.994			0.998	
Flt Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3518	0	0	5075	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3518	0	0	5075	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		356			432			150			346	
Travel Time (s)		8.1			9.8			3.4			7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	43	0	0	38	0	1239	49	0	1168	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	43	0	0	38	0	1288	0	0	1184	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			6	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	42.9%						ICU Level of Service A					
Analysis Period (min)	15											

Lanes, Volumes, Timings

43: US 62

05/18/2023



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations		↗	↗↗		↘	↘↘
Traffic Volume (vph)	0	0	820	0	0	775
Future Volume (vph)	0	0	820	0	0	775
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				50	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	3539	0	1863	3539
Flt Permitted						
Satd. Flow (perm)	0	1863	3539	0	1863	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	161		397			420
Travel Time (s)	3.7		9.0			9.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	891	0	0	842
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	891	0	0	842
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	26.0%
	ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings  
45: US 62

05/18/2023



Lane Group	SEL	SER	NEU	NEL	NET	SWT	SWR
Lane Configurations							
Traffic Volume (vph)	0	0	50	0	935	860	0
Future Volume (vph)	0	0	50	0	935	860	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		225			0
Storage Lanes	0	1		1			0
Taper Length (ft)	25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt							
Flt Protected			0.950				
Satd. Flow (prot)	0	1863	1770	0	3539	3539	0
Flt Permitted			0.950				
Satd. Flow (perm)	0	1863	1770	0	3539	3539	0
Link Speed (mph)	30				30	30	
Link Distance (ft)	290				626	476	
Travel Time (s)	6.6				14.2	10.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	54	0	1016	935	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	54	0	1016	935	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	R NA	Left	Left	Left	Right
Median Width(ft)	0				24	24	
Link Offset(ft)	0				0	0	
Crosswalk Width(ft)	16				16	16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15			9
Sign Control	Stop				Free	Free	
<b>Intersection Summary</b>							
Area Type:	Other						
Control Type:	Unsignalized						
Intersection Capacity Utilization	33.8%			ICU Level of Service A			
Analysis Period (min)	15						

Lanes, Volumes, Timings

47: US 62

05/18/2023



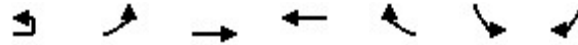
Lane Group	SEL	SER	NEL	NET	SWU	SWT	SWR
Lane Configurations							
Traffic Volume (vph)	0	0	0	935	85	860	0
Future Volume (vph)	0	0	0	935	85	860	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0		275		0
Storage Lanes	0	1	0		1		0
Taper Length (ft)	25		25		25		
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	0.95	0.95
Frt							
Flt Protected					0.950		
Satd. Flow (prot)	0	1863	0	3539	1770	3539	0
Flt Permitted					0.950		
Satd. Flow (perm)	0	1863	0	3539	1770	3539	0
Link Speed (mph)	30			30		30	
Link Distance (ft)	145			476		348	
Travel Time (s)	3.3			10.8		7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	1016	92	935	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	0	1016	92	935	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	R NA	Left	Right
Median Width(ft)	0			24		36	
Link Offset(ft)	0			0		0	
Crosswalk Width(ft)	16			16		16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15		9		9
Sign Control	Stop			Free		Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	37.2%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
49: US 62

05/18/2023



Lane Group	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↕		↑↑	↑↑			↗
Traffic Volume (vph)	20	0	1160	1070	0	0	0
Future Volume (vph)	20	0	1160	1070	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	1.00	1.00
<b>Fr</b>							
Flt Protected	0.950						
Satd. Flow (prot)	1770	0	3539	3539	0	0	1863
Flt Permitted	0.950						
Satd. Flow (perm)	1770	0	3539	3539	0	0	1863
Link Speed (mph)			30	30		30	
Link Distance (ft)			346	361		423	
Travel Time (s)			7.9	8.2		9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	0	1261	1163	0	0	0
<b>Shared Lane Traffic (%)</b>							
Lane Group Flow (vph)	22	0	1261	1163	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Left	Right	Left	Right
Median Width(ft)			30	24		0	
Link Offset(ft)			0	0		0	
Crosswalk Width(ft)			16	16		16	
<b>Two way Left Turn Lane</b>							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15			9	15	9
Sign Control			Free	Free		Stop	



















**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	35.4%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings

51: US 62

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			 	
Traffic Volume (vph)	0	0	25	0	0	50	0	935	15	0	880	30
Future Volume (vph)	0	0	25	0	0	50	0	935	15	0	880	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Fr <sub>t</sub>			0.865			0.865		0.998			0.995	
Fl <sub>t</sub> Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3532	0	0	3522	0
Fl <sub>t</sub> Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3532	0	0	3522	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		238			284			611			626	
Travel Time (s)		5.4			6.5			13.9			14.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	27	0	0	54	0	1016	16	0	957	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	27	0	0	54	0	1032	0	0	990	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	36.3%					ICU Level of Service A						
Analysis Period (min)	15											

Lanes, Volumes, Timings  
3: US 62 & Brook St

05/18/2023



Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	5	5	540	5	5	675
Future Volume (vph)	5	5	540	5	5	675
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932		0.999			
Flt Protected	0.976					
Satd. Flow (prot)	1694	0	3536	0	0	3539
Flt Permitted	0.976					
Satd. Flow (perm)	1694	0	3536	0	0	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	802		662			397
Travel Time (s)	18.2		15.0			9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	5	587	5	5	734
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	592	0	0	739
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free





















Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	32.2%
Analysis Period (min)	15
	ICU Level of Service A



Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Lane Configurations												
Traffic Volume (vph)	125	35	55	10	30	10	35	500	10	25	5	615
Future Volume (vph)	125	35	55	10	30	10	35	500	10	25	5	615
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	0		0	200		0		225	
Storage Lanes	1		0	0		0	1		0		1	
Taper Length (ft)	25			25			50				50	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Frt		0.908			0.973			0.997				
Flt Protected	0.950				0.990		0.950				0.950	
Satd. Flow (prot)	1770	1691	0	0	1794	0	1770	3529	0	0	1770	3539
Flt Permitted	0.811				0.931		0.378				0.435	
Satd. Flow (perm)	1511	1691	0	0	1687	0	704	3529	0	0	810	3539
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		60			11			2				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		776			653			420				611
Travel Time (s)		17.6			14.8			9.5				13.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	136	38	60	11	33	11	38	543	11	27	5	668
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	98	0	0	55	0	38	554	0	0	32	668
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		12			0			24				24
Link Offset(ft)		12			0			0				0
Crosswalk Width(ft)		16			24			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2		1	2		1	2		1	1	2
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Left	Thru
Leading Detector (ft)	20	100		20	100		20	100		20	20	100
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	pm+pt	NA
Protected Phases		4			4		5	2		1	1	6
Permitted Phases	4			4			2			6	6	

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023



Lane Group	SWR
Lane Configurations	
Traffic Volume (vph)	85
Future Volume (vph)	85
Ideal Flow (vphpl)	1900
Storage Length (ft)	150
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	92
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Adj. Flow (vph)	92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	92
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	6

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023

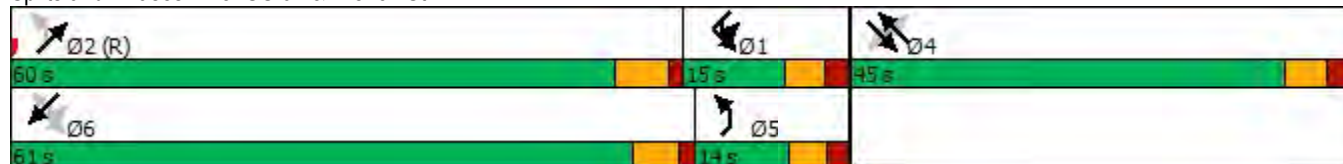


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Detector Phase	4	4		4	4		5	2		1	1	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		4.0	15.0		4.0	4.0	15.0
Minimum Split (s)	24.3	24.3		24.3	24.3		9.6	24.0		9.9	9.9	23.5
Total Split (s)	45.0	45.0		45.0	45.0		14.0	60.0		15.0	15.0	61.0
Total Split (%)	37.5%	37.5%		37.5%	37.5%		11.7%	50.0%		12.5%	12.5%	50.8%
Maximum Green (s)	38.7	38.7		38.7	38.7		8.4	54.0		9.1	9.1	55.5
Yellow Time (s)	3.8	3.8		3.8	3.8		3.5	4.7		3.5	3.5	4.2
All-Red Time (s)	2.5	2.5		2.5	2.5		2.1	1.3		2.4	2.4	1.3
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	6.3	6.3			6.3		5.6	6.0			5.9	5.5
Lead/Lag							Lag	Lead		Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	2.2		3.0	3.0	2.2
Recall Mode	None	None		None	None		None	C-Min		None	None	Min
Act Effect Green (s)	17.8	17.8			17.8		88.1	82.1			89.8	83.6
Actuated g/C Ratio	0.15	0.15			0.15		0.73	0.68			0.75	0.70
v/c Ratio	0.61	0.33			0.21		0.07	0.23			0.05	0.27
Control Delay	58.4	21.8			36.8		5.5	9.0			5.2	8.4
Queue Delay	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Delay	58.4	21.8			36.8		5.5	9.0			5.2	8.4
LOS	E	C			D		A	A			A	A
Approach Delay		43.1			36.8			8.8				7.5
Approach LOS		D			D			A				A

Intersection Summary

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	0 (0%), Referenced to phase 2:NETL, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.61
Intersection Signal Delay:	13.9
Intersection LOS:	B
Intersection Capacity Utilization:	48.4%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 5: US 62 & French St
























Lane Group	SWR
Detector Phase	6
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	23.5
Total Split (s)	61.0
Total Split (%)	50.8%
Maximum Green (s)	55.5
Yellow Time (s)	4.2
All-Red Time (s)	1.3
Lost Time Adjust (s)	0.0
Total Lost Time (s)	5.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.2
Recall Mode	Min
Act Effct Green (s)	83.6
Actuated g/C Ratio	0.70
v/c Ratio	0.08
Control Delay	2.1
Queue Delay	0.0
Total Delay	2.1
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

8: US 62 & Main St

05/18/2023























												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			 	
Traffic Volume (vph)	0	0	10	0	0	145	0	645	20	85	685	25
Future Volume (vph)	0	0	10	0	0	145	0	645	20	85	685	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.865			0.865		0.995			0.995	
Flt Protected										0.950		
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3522	0	1770	3522	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3522	0	1770	3522	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		288			444			348			150	
Travel Time (s)		6.5			10.1			7.9			3.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	11	0	0	158	0	701	22	92	745	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	11	0	0	158	0	723	0	92	772	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			36			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			24			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.1%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
11: Ring Rd & US 62


















05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	190	540	10	15	630	550	5	5	5	400	10	125
Future Volume (vph)	190	540	10	15	630	550	5	5	5	400	10	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	100		100	0		100	0		0
Storage Lanes	2		0	1		1	0		1	1		1
Taper Length (ft)	25			50			25			25		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.997				0.850			0.850			0.850
Flt Protected	0.950			0.950				0.976		0.950	0.955	
Satd. Flow (prot)	3433	3529	0	1770	3539	1583	0	1818	1583	1681	1690	1583
Flt Permitted	0.950			0.426				0.976		0.950	0.955	
Satd. Flow (perm)	3433	3529	0	794	3539	1583	0	1818	1583	1681	1690	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				368			155			155
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		361			400			333			1291	
Travel Time (s)		8.2			9.1			7.6			29.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	207	587	11	16	685	598	5	5	5	435	11	136
Shared Lane Traffic (%)										49%		
Lane Group Flow (vph)	207	598	0	16	685	598	0	10	5	222	224	136
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			36			12			12	
Link Offset(ft)		0			0			0			18	
Crosswalk Width(ft)		50			16			30			28	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases				6		6				4		8



Lanes, Volumes, Timings  
14: Dolphin Dr & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	115	830	0	0	1125	145	0	0	10	0	0	70
Future Volume (vph)	115	830	0	0	1125	145	0	0	10	0	0	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		1
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.983				0.865			0.865
Flt Protected	0.950											
Satd. Flow (prot)	1770	3539	0	0	3479	0	0	0	1611	0	0	1611
Flt Permitted	0.950											
Satd. Flow (perm)	1770	3539	0	0	3479	0	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		400			1196			275				468
Travel Time (s)		9.1			27.2			6.3				10.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	125	902	0	0	1223	158	0	0	11	0	0	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	125	902	0	0	1381	0	0	0	11	0	0	76
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

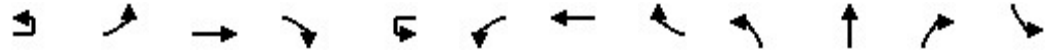
Intersection Capacity Utilization 48.8% ICU Level of Service A

Analysis Period (min) 15



Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	5	15	720	100	70	45	1045	15	110	15	60	85
Future Volume (vph)	5	15	720	100	70	45	1045	15	110	15	60	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		175		200		200		0	0		0	0
Storage Lanes		1		1		1		0	0		1	0
Taper Length (ft)		75				50			25			25
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt				0.850			0.998					0.850
Flt Protected		0.950				0.950				0.958		
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3532	0	0	1785	1583	0
Flt Permitted		0.147				0.272				0.958		
Satd. Flow (perm)	0	274	3539	1583	0	507	3532	0	0	1785	1583	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				211			2				210	
Link Speed (mph)			30				30			30		
Link Distance (ft)			1196				659			621		
Travel Time (s)			27.2				15.0			14.1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	16	783	109	76	49	1136	16	120	16	65	92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	21	783	109	0	125	1152	0	0	136	65	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)			30				12			0		
Link Offset(ft)			-12				0			50		
Crosswalk Width(ft)			70				40			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Number of Detectors	1	1	2	1	1	1	2		1	2	1	1
Detector Template	Left	Left	Thru	Right	Left	Left	Thru		Left	Thru	Right	Left
Leading Detector (ft)	20	20	100	20	20	20	100		20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0	0		0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0		0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	20	6		20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94				94			94		
Detector 2 Size(ft)			6				6			6		
Detector 2 Type			Cl+Ex				Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0				0.0			0.0		
Turn Type	pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt	NA		Split	NA	Perm	Split
Protected Phases	5	5	2		1	1	6		4	4		8
Permitted Phases	2	2		2	6	6					4	

Lanes, Volumes, Timings  
 17: Commerce Dr & US 62

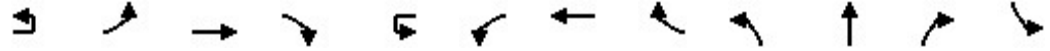
05/18/2023



Lane Group	SBT	SBR
Lane Configurations	↕	↗
Traffic Volume (vph)	25	110
Future Volume (vph)	25	110
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		50
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt		0.850
Flt Protected	0.963	
Satd. Flow (prot)	1794	1583
Flt Permitted	0.963	
Satd. Flow (perm)	1794	1583
Right Turn on Red		Yes
Satd. Flow (RTOR)		210
Link Speed (mph)	30	
Link Distance (ft)	310	
Travel Time (s)	7.0	
Peak Hour Factor	0.92	0.92
Adj. Flow (vph)	27	120
Shared Lane Traffic (%)		
Lane Group Flow (vph)	119	120
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	0	
Link Offset(ft)	-40	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Detector 1 Position(ft)	0	0
Detector 1 Size(ft)	6	20
Detector 1 Type	Cl+Ex	Cl+Ex
Detector 1 Channel		
Detector 1 Extend (s)	0.0	0.0
Detector 1 Queue (s)	0.0	0.0
Detector 1 Delay (s)	0.0	0.0
Detector 2 Position(ft)	94	
Detector 2 Size(ft)	6	
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	Perm
Protected Phases	8	
Permitted Phases		8

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023

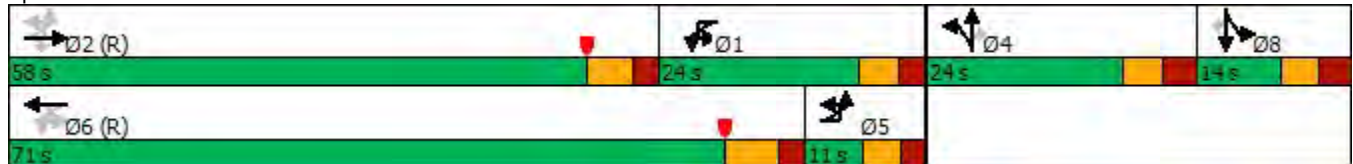


Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Detector Phase	5	5	2	2	1	1	6		4	4	4	8
Switch Phase												
Minimum Initial (s)	5.0	5.0	25.0	25.0	5.0	5.0	25.0		7.0	7.0	7.0	5.0
Minimum Split (s)	10.8	10.8	31.7	31.7	11.1	11.1	32.1		13.5	13.5	13.5	13.5
Total Split (s)	11.0	11.0	58.0	58.0	24.0	24.0	71.0		24.0	24.0	24.0	14.0
Total Split (%)	9.2%	9.2%	48.3%	48.3%	20.0%	20.0%	59.2%		20.0%	20.0%	20.0%	11.7%
Maximum Green (s)	5.2	5.2	51.6	51.6	17.9	17.9	63.9		17.5	17.5	17.5	7.5
Yellow Time (s)	3.5	3.5	4.1	4.1	3.5	3.5	4.8		3.5	3.5	3.5	3.5
All-Red Time (s)	2.3	2.3	2.3	2.3	2.6	2.6	2.3		3.0	3.0	3.0	3.0
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.8	6.4	6.4			6.1	7.1		6.5	6.5	
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		5.0	5.0	5.0	3.0
Recall Mode	None	None	C-Max	C-Max	None	None	C-Max		None	None	None	None
Act Effect Green (s)		61.5	55.7	55.7			73.4	68.0		15.2	15.2	
Actuated g/C Ratio		0.51	0.46	0.46			0.61	0.57		0.13	0.13	
v/c Ratio		0.10	0.48	0.13			0.29	0.58		0.60	0.17	
Control Delay		15.2	16.7	3.2			12.8	14.6		60.6	0.9	
Queue Delay		0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Total Delay		15.2	16.7	3.2			12.8	14.6		60.6	0.9	
LOS		B	B	A			B	B		E	A	
Approach Delay			15.0				14.4			41.3		
Approach LOS			B				B			D		

Intersection Summary

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	4 (3%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.65
Intersection Signal Delay:	18.6
Intersection LOS:	B
Intersection Capacity Utilization:	68.8%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 17: Commerce Dr & US 62



Lanes, Volumes, Timings  
 17: Commerce Dr & US 62

05/18/2023



Lane Group	SBT	SBR
Detector Phase	8	8
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	13.5	13.5
Total Split (s)	14.0	14.0
Total Split (%)	11.7%	11.7%
Maximum Green (s)	7.5	7.5
Yellow Time (s)	3.5	3.5
All-Red Time (s)	3.0	3.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.5
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)	12.3	12.3
Actuated g/C Ratio	0.10	0.10
v/c Ratio	0.65	0.34
Control Delay	69.8	2.7
Queue Delay	0.0	0.0
Total Delay	69.8	2.7
LOS	E	A
Approach Delay	36.1	
Approach LOS	D	
Intersection Summary		

Lanes, Volumes, Timings  
20: Executive Dr & US 62

05/18/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	135	745	55	45	1025	180	0	0	35	0	0	150
Future Volume (vph)	135	745	55	45	1025	180	0	0	35	0	0	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	185		0	100		0	0		100	0		0
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	50			75			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990				0.850			0.865			0.865
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	3504	0	1770	3539	1583	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	3504	0	1770	3539	1583	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		659			506			493				539
Travel Time (s)		15.0			11.5			11.2				12.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	147	810	60	49	1114	196	0	0	38	0	0	163
Shared Lane Traffic (%)												
Lane Group Flow (vph)	147	870	0	49	1114	196	0	0	38	0	0	163
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			20			0				0
Link Offset(ft)		-10			0			-15				25
Crosswalk Width(ft)		40			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Stop

Intersection Summary

Area Type: Other

Control Type: Unsignalized













Intersection Capacity Utilization 44.3%

ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings  
23: I-65 SB & US 62

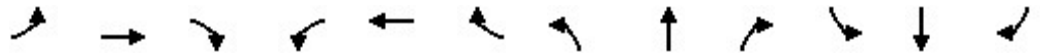
05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↖		↗↗
Traffic Volume (vph)	0	520	260	155	965	0	0	0	0	15	0	285
Future Volume (vph)	0	520	260	155	965	0	0	0	0	15	0	285
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		225	250		0	0			400		400
Storage Lanes	0		1	1		0	0			1		1
Taper Length (ft)	25			100			25			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.88
Frt			0.850									0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	1770	0	2787
Flt Permitted				0.400						0.950		
Satd. Flow (perm)	0	3539	1583	745	3539	0	0	0	0	1770	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			283									225
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		506			821			555			635	
Travel Time (s)		11.5			18.7			12.6			14.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	565	283	168	1049	0	0	0	0	16	0	310
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	565	283	168	1049	0	0	0	0	16	0	310
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			40	
Crosswalk Width(ft)		16			50			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	1	1	2					1		1
Detector Template		Thru	Right	Left	Thru					Left		Right
Leading Detector (ft)		100	20	20	100					20		20
Trailing Detector (ft)		0	0	0	0					0		0
Detector 1 Position(ft)		0	0	0	0					0		0
Detector 1 Size(ft)		6	20	20	6					20		20
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA	Perm	pm+pt	NA					Perm		Perm
Protected Phases		2		1	6							
Permitted Phases			2	6						4		4

Lanes, Volumes, Timings

23: I-65 SB & US 62

05/18/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2	2	1	6					4		4
Switch Phase												
Minimum Initial (s)		30.0	30.0	5.0	30.0					7.0		7.0
Minimum Split (s)		35.6	35.6	11.5	36.5					24.5		24.5
Total Split (s)		55.0	55.0	29.0	84.0					36.0		36.0
Total Split (%)		45.8%	45.8%	24.2%	70.0%					30.0%		30.0%
Maximum Green (s)		49.4	49.4	22.5	77.5					29.5		29.5
Yellow Time (s)		3.9	3.9	3.5	4.8					3.5		3.5
All-Red Time (s)		1.7	1.7	3.0	1.7					3.0		3.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0					0.0		0.0
Total Lost Time (s)		5.6	5.6	6.5	6.5					6.5		6.5
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Vehicle Extension (s)		0.2	0.2	3.0	0.2					3.0		3.0
Recall Mode		C-Max	C-Max	None	C-Max					None		None
Act Effect Green (s)		83.3	83.3	97.0	97.0					10.0		10.0
Actuated g/C Ratio		0.69	0.69	0.81	0.81					0.08		0.08
v/c Ratio		0.23	0.24	0.25	0.37					0.11		0.71
Control Delay		1.5	0.6	2.6	2.2					50.3		24.6
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		1.5	0.6	2.6	2.2					50.3		24.6
LOS		A	A	A	A					D		C
Approach Delay		1.2			2.3						25.8	
Approach LOS		A			A						C	

Intersection Summary























Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 48 (40%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.71  
 Intersection Signal Delay: 5.1  
 Intersection LOS: A  
 Intersection Capacity Utilization 61.8%  
 ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 23: I-65 SB & US 62



Lanes, Volumes, Timings  
26: I-65 NB & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 		 					
Traffic Volume (vph)	290	245	0	0	725	60	395	0	175	0	0	0
Future Volume (vph)	290	245	0	0	725	60	395	0	175	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	0		180	300		300	0		0
Storage Lanes	2		0	0		1	1		1	0		0
Taper Length (ft)	200			25			75			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	3433	3539	0	0	3539	1583	3433	0	1583	0	0	0
Flt Permitted	0.274						0.950					
Satd. Flow (perm)	990	3539	0	0	3539	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			190			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		821			495			906			393	
Travel Time (s)		18.7			11.3			20.6			8.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	315	266	0	0	788	65	429	0	190	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	315	266	0	0	788	65	429	0	190	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			12			24			24	
Link Offset(ft)		0			0			-25			75	
Crosswalk Width(ft)		75			16			25			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1		1			
Detector Template	Left	Thru			Thru	Right	Left		Right			
Leading Detector (ft)	20	100			100	20	20		20			
Trailing Detector (ft)	0	0			0	0	0		0			
Detector 1 Position(ft)	0	0			0	0	0		0			
Detector 1 Size(ft)	20	6			6	20	20		20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA			NA	Perm	Perm		Perm			
Protected Phases	5	2			6							
Permitted Phases	2					6	4		4			



# Lanes, Volumes, Timings

## 26: I-65 NB & US 62

05/18/2023

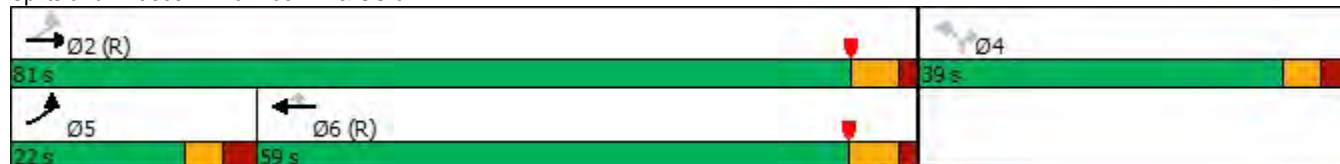


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2			6	6	4		4			
Switch Phase												
Minimum Initial (s)	5.0	30.0			30.0	30.0	15.0		15.0			
Minimum Split (s)	11.5	36.0			36.2	36.2	22.5		22.5			
Total Split (s)	22.0	81.0			59.0	59.0	39.0		39.0			
Total Split (%)	18.3%	67.5%			49.2%	49.2%	32.5%		32.5%			
Maximum Green (s)	15.5	75.0			52.8	52.8	32.5		32.5			
Yellow Time (s)	3.5	4.3			4.5	4.5	3.5		3.5			
All-Red Time (s)	3.0	1.7			1.7	1.7	3.0		3.0			
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Total Lost Time (s)	6.5	6.0			6.2	6.2	6.5		6.5			
Lead/Lag	Lead				Lag				Lag			
Lead-Lag Optimize?	Yes				Yes				Yes			
Vehicle Extension (s)	3.0	0.2			0.2	0.2	6.0		6.0			
Recall Mode	None	C-Max			C-Max	C-Max	None		None			
Act Effct Green (s)	82.0	82.5			66.3	66.3	25.0		25.0			
Actuated g/C Ratio	0.68	0.69			0.55	0.55	0.21		0.21			
v/c Ratio	0.36	0.11			0.40	0.07	0.60		0.40			
Control Delay	2.8	1.0			17.2	1.8	46.0		7.5			
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0			
Total Delay	2.8	1.0			17.2	1.8	46.0		7.5			
LOS	A	A			B	A	D		A			
Approach Delay		2.0			16.1			34.2				
Approach LOS		A			B			C				

### Intersection Summary



















Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	61 (51%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	17.5
Intersection LOS:	B
Intersection Capacity Utilization:	61.8%
ICU Level of Service:	B
Analysis Period (min):	15

### Splits and Phases: 26: I-65 NB & US 62



Lanes, Volumes, Timings  
29: Medley Ln & US 62

05/18/2023

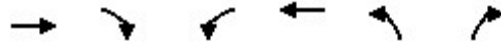
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	405	5	5	770	5	5	0	5	5	0	10
Future Volume (vph)	10	405	5	5	770	5	5	0	5	5	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.999			0.932				0.907
Flt Protected	0.950			0.950				0.976				0.985
Satd. Flow (prot)	1770	3532	0	1770	3536	0	0	1694	0	0	1664	0
Flt Permitted	0.950			0.950				0.976				0.985
Satd. Flow (perm)	1770	3532	0	1770	3536	0	0	1694	0	0	1664	0
Link Speed (mph)		30			30			30				30
Link Distance (ft)		495			559			630				395
Travel Time (s)		11.3			12.7			14.3				9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	440	5	5	837	5	5	0	5	5	0	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	445	0	5	842	0	0	10	0	0	16	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.4%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
32: Howell Dr & US 62

05/18/2023



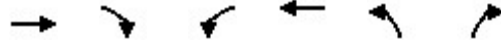
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↓	↑↑	↓	
Traffic Volume (vph)	370	45	5	775	5	5
Future Volume (vph)	370	45	5	775	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	50		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00
Frt		0.850			0.932	
Flt Protected			0.950		0.976	
Satd. Flow (prot)	1863	1583	1770	3539	1694	0
Flt Permitted			0.950		0.976	
Satd. Flow (perm)	1863	1583	1770	3539	1694	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	559			438	731	
Travel Time (s)	12.7			10.0	16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	402	49	5	842	5	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	402	49	5	842	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.4%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
 34: McCormack Ave & US 62

05/18/2023



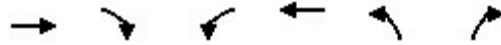
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	365	10	10	750	30	5
Future Volume (vph)	365	10	10	750	30	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Fr <sub>t</sub>	0.996			0.982		
Fl <sub>t</sub> Protected				0.999	0.958	
Satd. Flow (prot)	1855	0	0	3536	1752	0
Fl <sub>t</sub> Permitted				0.999	0.958	
Satd. Flow (perm)	1855	0	0	3536	1752	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	438			127	684	
Travel Time (s)	10.0			2.9	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	397	11	11	815	33	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	408	0	0	826	38	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes					
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	37.8%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
36: Gregory St & US 62

05/18/2023






















Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	355	15	5	755	5	5
Future Volume (vph)	355	15	5	755	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>	0.995			0.932		
Fl <sub>t</sub> Protected				0.976		
Satd. Flow (prot)	1853	0	0	1863	1694	0
Fl <sub>t</sub> Permitted				0.976		
Satd. Flow (perm)	1853	0	0	1863	1694	0
Link Speed (mph)	30			30		
Link Distance (ft)	241			1032		915
Travel Time (s)	5.5			23.5		20.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	386	16	5	821	5	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	402	0	0	826	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0		12
Link Offset(ft)	0			0		0
Crosswalk Width(ft)	16			16		16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15		9	
Sign Control	Free			Free		Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	53.7%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
40: US 62 & Pawnee Dr

05/18/2023

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			  	
Traffic Volume (vph)	0	0	20	0	0	15	0	770	20	0	780	30
Future Volume (vph)	0	0	20	0	0	15	0	770	20	0	780	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	275		0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91
Frt			0.865			0.865		0.996			0.994	
Flt Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3525	0	0	5055	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3525	0	0	5055	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		356			432			150			346	
Travel Time (s)		8.1			9.8			3.4			7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	22	0	0	16	0	837	22	0	848	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	22	0	0	16	0	859	0	0	881	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			6	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	31.9%						ICU Level of Service A					
Analysis Period (min)	15											

Lanes, Volumes, Timings

43: US 62

05/18/2023



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations		↗	↗↗		↘	↗↗
Traffic Volume (vph)	0	0	545	0	0	680
Future Volume (vph)	0	0	545	0	0	680
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				50	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	3539	0	1863	3539
Flt Permitted						
Satd. Flow (perm)	0	1863	3539	0	1863	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	161		397			420
Travel Time (s)	3.7		9.0			9.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	592	0	0	739
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	592	0	0	739
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	22.1%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
45: US 62

05/18/2023



Lane Group	SEL	SER	NEU	NEL	NET	SWT	SWR
Lane Configurations							
Traffic Volume (vph)	0	0	50	0	645	675	0
Future Volume (vph)	0	0	50	0	645	675	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		225			0
Storage Lanes	0	1		1			0
Taper Length (ft)	25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt							
Flt Protected			0.950				
Satd. Flow (prot)	0	1863	1770	0	3539	3539	0
Flt Permitted			0.950				
Satd. Flow (perm)	0	1863	1770	0	3539	3539	0
Link Speed (mph)	30				30	30	
Link Distance (ft)	290				626	476	
Travel Time (s)	6.6				14.2	10.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	54	0	701	734	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	54	0	701	734	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	R NA	Left	Left	Left	Right
Median Width(ft)	0				24	24	
Link Offset(ft)	0				0	0	
Crosswalk Width(ft)	16				16	16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15			9
Sign Control	Stop				Free	Free	
<b>Intersection Summary</b>							
Area Type:	Other						
Control Type:	Unsignalized						
Intersection Capacity Utilization	28.7%			ICU Level of Service A			
Analysis Period (min)	15						



Lanes, Volumes, Timings

47: US 62

05/18/2023



Lane Group	SEL	SER	NEL	NET	SWU	SWT	SWR
Lane Configurations							
Traffic Volume (vph)	0	0	0	645	20	675	0
Future Volume (vph)	0	0	0	645	20	675	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0		275		0
Storage Lanes	0	1	0		1		0
Taper Length (ft)	25		25		25		
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	0.95	0.95
Frt							
Flt Protected					0.950		
Satd. Flow (prot)	0	1863	0	3539	1770	3539	0
Flt Permitted					0.950		
Satd. Flow (perm)	0	1863	0	3539	1770	3539	0
Link Speed (mph)	30			30		30	
Link Distance (ft)	145			476		348	
Travel Time (s)	3.3			10.8		7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	701	22	734	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	0	701	22	734	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	R NA	Left	Right
Median Width(ft)	0			24		36	
Link Offset(ft)	0			0		0	
Crosswalk Width(ft)	16			16		16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15		9		9
Sign Control	Stop			Free		Free	

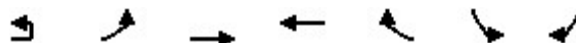
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	22.0%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

49: US 62

05/18/2023



Lane Group	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↔		↑↑	↑↑			↗
Traffic Volume (vph)	50	0	740	760	0	0	0
Future Volume (vph)	50	0	740	760	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	1.00	1.00
<b>Fr</b>							
Flt Protected	0.950						
Satd. Flow (prot)	1770	0	3539	3539	0	0	1863
Flt Permitted	0.950						
Satd. Flow (perm)	1770	0	3539	3539	0	0	1863
Link Speed (mph)			30	30		30	
Link Distance (ft)			346	361		423	
Travel Time (s)			7.9	8.2		9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	0	804	826	0	0	0
<b>Shared Lane Traffic (%)</b>							
Lane Group Flow (vph)	54	0	804	826	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Left	Right	Left	Right
Median Width(ft)			30	24		0	
Link Offset(ft)			0	0		0	
Crosswalk Width(ft)			16	16		16	
<b>Two way Left Turn Lane</b>							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15			9	15	9
Sign Control			Free	Free		Stop	



















**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.0%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings

51: US 62

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			 	
Traffic Volume (vph)	0	0	25	0	0	50	0	645	15	0	705	20
Future Volume (vph)	0	0	25	0	0	50	0	645	15	0	705	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.865			0.865		0.997			0.996	
Flt Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3529	0	0	3525	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3529	0	0	3525	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		238			284			611			626	
Travel Time (s)		5.4			6.5			13.9			14.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	27	0	0	54	0	701	16	0	766	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	27	0	0	54	0	717	0	0	788	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	30.1%						ICU Level of Service A					
Analysis Period (min)	15											

Lanes, Volumes, Timings  
3: US 62 & Brook St

05/18/2023






















Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	5	5	815	5	5	770
Future Volume (vph)	5	5	815	5	5	770
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932		0.999			
Flt Protected	0.976					
Satd. Flow (prot)	1694	0	3536	0	0	3539
Flt Permitted	0.976					
Satd. Flow (perm)	1694	0	3536	0	0	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	802		662			397
Travel Time (s)	18.2		15.0			9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	5	886	5	5	837
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	891	0	0	842
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.8%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Lane Configurations												
Traffic Volume (vph)	170	50	50	10	45	15	65	740	15	25	10	715
Future Volume (vph)	170	50	50	10	45	15	65	740	15	25	10	715
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	0		0	200		0		225	
Storage Lanes	1		0	0		0	1		0		1	
Taper Length (ft)	25			25			50				50	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Frt		0.925			0.972			0.997				
Flt Protected	0.950				0.993		0.950				0.950	
Satd. Flow (prot)	1770	1723	0	0	1798	0	1770	3529	0	0	1770	3539
Flt Permitted	0.739				0.952		0.321				0.308	
Satd. Flow (perm)	1377	1723	0	0	1724	0	598	3529	0	0	574	3539
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		44			12			2				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		776			653			420				611
Travel Time (s)		17.6			14.8			9.5				13.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	185	54	54	11	49	16	71	804	16	27	11	777
Shared Lane Traffic (%)												
Lane Group Flow (vph)	185	108	0	0	76	0	71	820	0	0	38	777
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		12			0			24				24
Link Offset(ft)		12			0			0				0
Crosswalk Width(ft)		16			24			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2		1	2		1	2		1	1	2
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Left	Thru
Leading Detector (ft)	20	100		20	100		20	100		20	20	100
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	pm+pt	NA
Protected Phases		4			4		5	2		1	1	6
Permitted Phases	4			4			2			6	6	

Lanes, Volumes, Timings  
5: US 62 & French St













05/18/2023



Lane Group	SWR
Lane Configurations	
Traffic Volume (vph)	155
Future Volume (vph)	155
Ideal Flow (vphpl)	1900
Storage Length (ft)	150
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	156
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Adj. Flow (vph)	168
Shared Lane Traffic (%)	
Lane Group Flow (vph)	168
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	6

Lanes, Volumes, Timings  
5: US 62 & French St

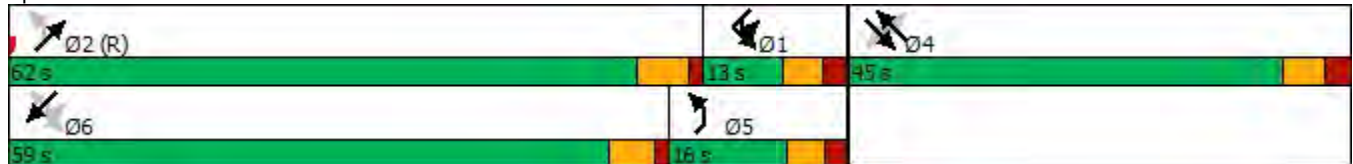
05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Detector Phase	4	4		4	4		5	2		1	1	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		4.0	15.0		4.0	4.0	15.0
Minimum Split (s)	24.3	24.3		24.3	24.3		9.6	24.0		9.9	9.9	23.5
Total Split (s)	45.0	45.0		45.0	45.0		16.0	62.0		13.0	13.0	59.0
Total Split (%)	37.5%	37.5%		37.5%	37.5%		13.3%	51.7%		10.8%	10.8%	49.2%
Maximum Green (s)	38.7	38.7		38.7	38.7		10.4	56.0		7.1	7.1	53.5
Yellow Time (s)	3.8	3.8		3.8	3.8		3.5	4.7		3.5	3.5	4.2
All-Red Time (s)	2.5	2.5		2.5	2.5		2.1	1.3		2.4	2.4	1.3
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	6.3	6.3			6.3		5.6	6.0			5.9	5.5
Lead/Lag							Lag	Lead		Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	2.2		3.0	3.0	2.2
Recall Mode	None	None		None	None		None	C-Min		None	None	Min
Act Effct Green (s)	21.5	21.5			21.5		84.7	79.4			82.4	77.3
Actuated g/C Ratio	0.18	0.18			0.18		0.71	0.66			0.69	0.64
v/c Ratio	0.75	0.31			0.24		0.15	0.35			0.08	0.34
Control Delay	64.6	26.4			35.0		7.6	11.1			7.4	11.8
Queue Delay	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Delay	64.6	26.4			35.0		7.6	11.1			7.4	11.8
LOS	E	C			D		A	B			A	B
Approach Delay		50.5			35.0			10.8				10.1
Approach LOS		D			D			B				B

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:NETL, Start of Green  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.75  
 Intersection Signal Delay: 16.5  
 Intersection LOS: B  
 Intersection Capacity Utilization 55.5%  
 ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 5: US 62 & French St
























Lane Group	SWR
Detector Phase	6
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	23.5
Total Split (s)	59.0
Total Split (%)	49.2%
Maximum Green (s)	53.5
Yellow Time (s)	4.2
All-Red Time (s)	1.3
Lost Time Adjust (s)	0.0
Total Lost Time (s)	5.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.2
Recall Mode	Min
Act Effct Green (s)	77.3
Actuated g/C Ratio	0.64
v/c Ratio	0.16
Control Delay	2.8
Queue Delay	0.0
Total Delay	2.8
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	



Lanes, Volumes, Timings

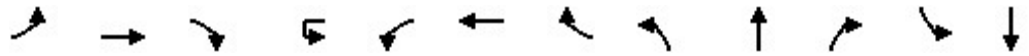
8: US 62 & Main St

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			 	
Traffic Volume (vph)	0	0	20	0	0	180	0	950	15	170	870	15
Future Volume (vph)	0	0	20	0	0	180	0	950	15	170	870	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.865			0.865		0.998			0.998	
Flt Protected										0.950		
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3532	0	1770	3532	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3532	0	1770	3532	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		288			444			348			150	
Travel Time (s)		6.5			10.1			7.9			3.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	22	0	0	196	0	1033	16	185	946	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	22	0	0	196	0	1049	0	185	962	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			36			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			24			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	44.5%					ICU Level of Service A						
Analysis Period (min)	15											

Lanes, Volumes, Timings  
11: Ring Rd & US 62

05/18/2023



Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	275	820	10	5	45	705	485	20	10	5	850	10
Future Volume (vph)	275	820	10	5	45	705	485	20	10	5	850	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0		100		100	0		100	0	
Storage Lanes	2		0		1		1	0		1	1	
Taper Length (ft)	25				50			25			25	
Lane Util. Factor	0.97	0.95	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.998					0.850			0.850		
Flt Protected	0.950				0.950				0.968		0.950	0.953
Satd. Flow (prot)	3433	3532	0	0	1770	3539	1583	0	1803	1583	1681	1686
Flt Permitted	0.950				0.226				0.968		0.950	0.953
Satd. Flow (perm)	3433	3532	0	0	421	3539	1583	0	1803	1583	1681	1686
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)		1					280			211		
Link Speed (mph)		30				30			30			30
Link Distance (ft)		361				400			333			1291
Travel Time (s)		8.2				9.1			7.6			29.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	299	891	11	5	49	766	527	22	11	5	924	11
Shared Lane Traffic (%)											49%	
Lane Group Flow (vph)	299	902	0	0	54	766	527	0	33	5	471	464
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)		24				36			12			12
Link Offset(ft)		0				0			0			18
Crosswalk Width(ft)		50				16			30			28
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15		9	15		9	15	
Number of Detectors	1	2		1	1	2	1	1	2	1	1	2
Detector Template	Left	Thru		Left	Left	Thru	Right	Left	Thru	Right	Left	Thru
Leading Detector (ft)	20	100		20	20	100	20	20	100	20	20	100
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	20	6	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94				94			94			94
Detector 2 Size(ft)		6				6			6			6
Detector 2 Type		Cl+Ex				Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0				0.0			0.0			0.0
Turn Type	Prot	NA		pm+pt	pm+pt	NA	Perm	Split	NA	Perm	Split	NA
Protected Phases	5	2		1	1	6		4	4		8	8
Permitted Phases				6	6		6			4		

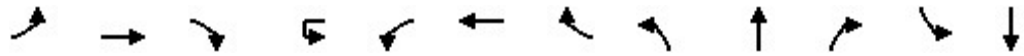
Lanes, Volumes, Timings  
11: Ring Rd & US 62

05/18/2023

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	290
Future Volume (vph)	290
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	224
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Adj. Flow (vph)	315
Shared Lane Traffic (%)	
Lane Group Flow (vph)	315
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	8

Lanes, Volumes, Timings  
11: Ring Rd & US 62

05/18/2023



Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Detector Phase	5	2		1	1	6	6	4	4	4	8	8
Switch Phase												
Minimum Initial (s)	5.0	25.0		5.0	5.0	25.0	25.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	11.1	49.3		11.5	11.5	32.0	32.0	10.5	10.5	10.5	46.6	46.6
Total Split (s)	19.0	50.0		12.0	12.0	43.0	43.0	11.0	11.0	11.0	47.0	47.0
Total Split (%)	15.8%	41.7%		10.0%	10.0%	35.8%	35.8%	9.2%	9.2%	9.2%	39.2%	39.2%
Maximum Green (s)	12.9	43.7		5.5	5.5	36.0	36.0	4.5	4.5	4.5	40.4	40.4
Yellow Time (s)	3.5	4.0		3.5	3.5	4.7	4.7	4.6	4.6	4.6	4.7	4.7
All-Red Time (s)	2.6	2.3		3.0	3.0	2.3	2.3	1.9	1.9	1.9	1.9	1.9
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	6.1	6.3			6.5	7.0	7.0		6.5	6.5	6.6	6.6
Lead/Lag	Lead	Lag		Lead	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes					
Vehicle Extension (s)	3.0	2.6		3.0	3.0	2.6	2.6	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	C-Min		None	None	Min	Min	None	None	None	None	None
Walk Time (s)		7.0									7.0	7.0
Flash Dont Walk (s)		36.0									33.0	33.0
Pedestrian Calls (#/hr)		0									0	0
Act Effct Green (s)	13.0	52.4			48.5	42.3	42.3		5.1	5.1	38.3	38.3
Actuated g/C Ratio	0.11	0.44			0.40	0.35	0.35		0.04	0.04	0.32	0.32
v/c Ratio	0.80	0.58			0.23	0.61	0.71		0.43	0.02	0.88	0.86
Control Delay	69.2	29.9			15.7	26.9	14.0		73.9	0.2	57.0	55.1
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	69.2	29.9			15.7	26.9	14.0		73.9	0.2	57.0	55.1
LOS	E	C			B	C	B		E	A	E	E
Approach Delay		39.7				21.4			64.2			44.9
Approach LOS		D				C			E			D

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 67 (56%), Referenced to phase 2:EBT, Start of Green  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 35.2  
 Intersection LOS: D  
 Intersection Capacity Utilization 75.9%  
 ICU Level of Service D  
 Analysis Period (min) 15


















Splits and Phases: 11: Ring Rd & US 62



Lane Group	SBR
Detector Phase	8
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	46.6
Total Split (s)	47.0
Total Split (%)	39.2%
Maximum Green (s)	40.4
Yellow Time (s)	4.7
All-Red Time (s)	1.9
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.6
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	33.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	38.3
Actuated g/C Ratio	0.32
v/c Ratio	0.48
Control Delay	11.8
Queue Delay	0.0
Total Delay	11.8
LOS	B
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings  
14: Dolphin Dr & US 62

05/18/2023

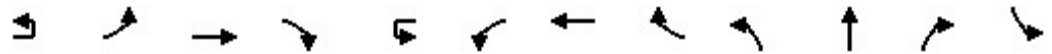
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	165	1510	5	0	1060	180	0	0	35	0	0	180
Future Volume (vph)	165	1510	5	0	1060	180	0	0	35	0	0	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		1
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.978				0.865			0.865
Flt Protected	0.950											
Satd. Flow (prot)	1770	3539	0	0	3461	0	0	0	1611	0	0	1611
Flt Permitted	0.950											
Satd. Flow (perm)	1770	3539	0	0	3461	0	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		400			1196			275				468
Travel Time (s)		9.1			27.2			6.3				10.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	179	1641	5	0	1152	196	0	0	38	0	0	196
Shared Lane Traffic (%)												
Lane Group Flow (vph)	179	1646	0	0	1348	0	0	0	38	0	0	196
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	52.9%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	20	15	1265	245	100	55	915	20	215	15	125	115
Future Volume (vph)	20	15	1265	245	100	55	915	20	215	15	125	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		175		200		200		0	0		0	0
Storage Lanes		1		1		1		0	0		1	0
Taper Length (ft)		75				50			25			25
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt				0.850			0.997					0.850
Flt Protected		0.950				0.950				0.955		
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3529	0	0	1779	1583	0
Flt Permitted		0.175				0.070				0.955		
Satd. Flow (perm)	0	326	3539	1583	0	130	3529	0	0	1779	1583	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				174			2				145	
Link Speed (mph)			30				30			30		
Link Distance (ft)			1196				659			621		
Travel Time (s)			27.2				15.0			14.1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	16	1375	266	109	60	995	22	234	16	136	125
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	38	1375	266	0	169	1017	0	0	250	136	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)			30				12			0		
Link Offset(ft)			-12				0			50		
Crosswalk Width(ft)			70				40			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Number of Detectors	1	1	2	1	1	1	2		1	2	1	1
Detector Template	Left	Left	Thru	Right	Left	Left	Thru		Left	Thru	Right	Left
Leading Detector (ft)	20	20	100	20	20	20	100		20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0	0		0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0		0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	20	6		20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94				94			94		
Detector 2 Size(ft)			6				6			6		
Detector 2 Type			Cl+Ex				Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0				0.0			0.0		
Turn Type	pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt	NA		Split	NA	Perm	Split
Protected Phases	5	5	2		1	1	6		4	4		8
Permitted Phases	2	2		2	6	6					4	

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023



Lane Group	SBT	SBR
Lane Configurations	↕	↗
Traffic Volume (vph)	50	90
Future Volume (vph)	50	90
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		50
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt		0.850
Flt Protected	0.966	
Satd. Flow (prot)	1799	1583
Flt Permitted	0.966	
Satd. Flow (perm)	1799	1583
Right Turn on Red		Yes
Satd. Flow (RTOR)		145
Link Speed (mph)	30	
Link Distance (ft)	310	
Travel Time (s)	7.0	
Peak Hour Factor	0.92	0.92
Adj. Flow (vph)	54	98
Shared Lane Traffic (%)		
Lane Group Flow (vph)	179	98
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	0	
Link Offset(ft)	-40	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Detector 1 Position(ft)	0	0
Detector 1 Size(ft)	6	20
Detector 1 Type	Cl+Ex	Cl+Ex
Detector 1 Channel		
Detector 1 Extend (s)	0.0	0.0
Detector 1 Queue (s)	0.0	0.0
Detector 1 Delay (s)	0.0	0.0
Detector 2 Position(ft)	94	
Detector 2 Size(ft)	6	
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	Perm
Protected Phases	8	
Permitted Phases		8



Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023

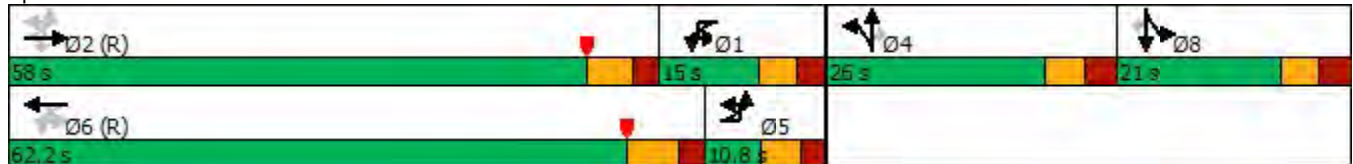


Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Detector Phase	5	5	2	2	1	1	6		4	4	4	8
Switch Phase												
Minimum Initial (s)	5.0	5.0	25.0	25.0	5.0	5.0	25.0		7.0	7.0	7.0	5.0
Minimum Split (s)	10.8	10.8	31.7	31.7	11.1	11.1	32.1		13.5	13.5	13.5	13.5
Total Split (s)	10.8	10.8	58.0	58.0	15.0	15.0	62.2		26.0	26.0	26.0	21.0
Total Split (%)	9.0%	9.0%	48.3%	48.3%	12.5%	12.5%	51.8%		21.7%	21.7%	21.7%	17.5%
Maximum Green (s)	5.0	5.0	51.6	51.6	8.9	8.9	55.1		19.5	19.5	19.5	14.5
Yellow Time (s)	3.5	3.5	4.1	4.1	3.5	3.5	4.8		3.5	3.5	3.5	3.5
All-Red Time (s)	2.3	2.3	2.3	2.3	2.6	2.6	2.3		3.0	3.0	3.0	3.0
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.8	6.4	6.4			6.1	7.1		6.5	6.5	
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		5.0	5.0	5.0	3.0
Recall Mode	None	None	C-Max	C-Max	None	None	C-Max		None	None	None	None
Act Effect Green (s)		58.2	52.6	52.6			66.5	60.1		19.2	19.2	
Actuated g/C Ratio		0.48	0.44	0.44			0.55	0.50		0.16	0.16	
v/c Ratio		0.17	0.89	0.34			0.89	0.57		0.88	0.36	
Control Delay		16.1	31.8	9.1			81.8	18.9		79.2	9.0	
Queue Delay		0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Total Delay		16.1	31.8	9.1			81.8	18.9		79.2	9.0	
LOS		B	C	A			F	B		E	A	
Approach Delay			27.9				27.9			54.5		
Approach LOS			C				C			D		

Intersection Summary

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	76 (63%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.89
Intersection Signal Delay:	33.1
Intersection LOS:	C
Intersection Capacity Utilization:	81.5%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 17: Commerce Dr & US 62



Lanes, Volumes, Timings  
 17: Commerce Dr & US 62




















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Lane Group	SBT	SBR
Detector Phase	8	8
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	13.5	13.5
Total Split (s)	21.0	21.0
Total Split (%)	17.5%	17.5%
Maximum Green (s)	14.5	14.5
Yellow Time (s)	3.5	3.5
All-Red Time (s)	3.0	3.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.5
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)	14.0	14.0
Actuated g/C Ratio	0.12	0.12
v/c Ratio	0.85	0.31
Control Delay	85.4	4.8
Queue Delay	0.0	0.0
Total Delay	85.4	4.8
LOS	F	A
Approach Delay	56.9	
Approach LOS	E	
Intersection Summary		

Lanes, Volumes, Timings  
20: Executive Dr & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	1445	20	90	930	190	0	0	75	0	0	160
Future Volume (vph)	140	1445	20	90	930	190	0	0	75	0	0	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	185		0	100		0	0		100	0		0
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	50			75			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998				0.850			0.865			0.865
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	3532	0	1770	3539	1583	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	3532	0	1770	3539	1583	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		659			506			493				539
Travel Time (s)		15.0			11.5			11.2				12.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	152	1571	22	98	1011	207	0	0	82	0	0	174
Shared Lane Traffic (%)												
Lane Group Flow (vph)	152	1593	0	98	1011	207	0	0	82	0	0	174
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			20			0				0
Link Offset(ft)		-10			0			-15				25
Crosswalk Width(ft)		40			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Stop













Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	52.2%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

23: I-65 SB & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↖		↗↗
Traffic Volume (vph)	0	915	605	165	765	0	0	0	0	65	0	445
Future Volume (vph)	0	915	605	165	765	0	0	0	0	65	0	445
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		225	250		0	0		0	400		400
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			100			25			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.88
Frt			0.850									0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	1770	0	2787
Flt Permitted				0.233						0.950		
Satd. Flow (perm)	0	3539	1583	434	3539	0	0	0	0	1770	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			658									395
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		506			821			555			635	
Travel Time (s)		11.5			18.7			12.6			14.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	995	658	179	832	0	0	0	0	71	0	484
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	995	658	179	832	0	0	0	0	71	0	484
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			40	
Crosswalk Width(ft)		16			50			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	1	1	2					1		1
Detector Template		Thru	Right	Left	Thru					Left		Right
Leading Detector (ft)		100	20	20	100					20		20
Trailing Detector (ft)		0	0	0	0					0		0
Detector 1 Position(ft)		0	0	0	0					0		0
Detector 1 Size(ft)		6	20	20	6					20		20
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA	Perm	pm+pt	NA					Perm		Perm
Protected Phases		2		1	6							
Permitted Phases			2	6						4		4

# Lanes, Volumes, Timings

23: I-65 SB & US 62

05/18/2023

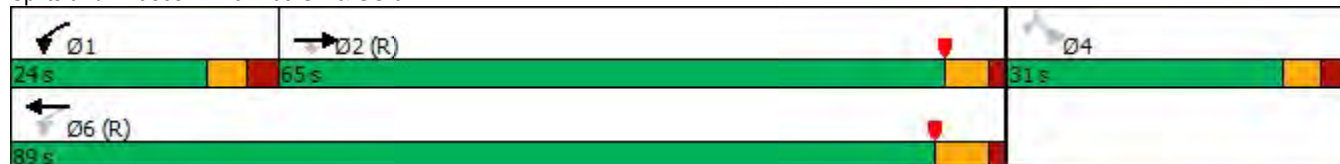


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2	2	1	6					4		4
Switch Phase												
Minimum Initial (s)		30.0	30.0	5.0	30.0					7.0		7.0
Minimum Split (s)		35.6	35.6	11.5	36.5					24.5		24.5
Total Split (s)		65.0	65.0	24.0	89.0					31.0		31.0
Total Split (%)		54.2%	54.2%	20.0%	74.2%					25.8%		25.8%
Maximum Green (s)		59.4	59.4	17.5	82.5					24.5		24.5
Yellow Time (s)		3.9	3.9	3.5	4.8					3.5		3.5
All-Red Time (s)		1.7	1.7	3.0	1.7					3.0		3.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0					0.0		0.0
Total Lost Time (s)		5.6	5.6	6.5	6.5					6.5		6.5
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Vehicle Extension (s)		0.2	0.2	3.0	0.2					3.0		3.0
Recall Mode		C-Max	C-Max	None	C-Max					None		None
Act Effect Green (s)		81.6	81.6	95.6	95.6					11.4		11.4
Actuated g/C Ratio		0.68	0.68	0.80	0.80					0.10		0.10
v/c Ratio		0.41	0.51	0.41	0.30					0.42		0.78
Control Delay		2.4	1.0	7.7	2.4					57.5		19.8
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		2.4	1.0	7.7	2.4					57.5		19.8
LOS		A	A	A	A					E		B
Approach Delay		1.8			3.3							24.6
Approach LOS		A			A							C

## Intersection Summary























Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	3 (3%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	6.2
Intersection LOS:	A
Intersection Capacity Utilization:	67.9%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 23: I-65 SB & US 62



Lanes, Volumes, Timings  
26: I-65 NB & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 		 					
Traffic Volume (vph)	330	650	0	0	615	30	315	0	100	0	0	0
Future Volume (vph)	330	650	0	0	615	30	315	0	100	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	0		180	300		300	0		0
Storage Lanes	2		0	0		1	1		1	0		0
Taper Length (ft)	200			25			75			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	3433	3539	0	0	3539	1583	3433	0	1583	0	0	0
Flt Permitted	0.334						0.950					
Satd. Flow (perm)	1207	3539	0	0	3539	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			109			
Link Speed (mph)		30			30			30				30
Link Distance (ft)		821			495			906				393
Travel Time (s)		18.7			11.3			20.6				8.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	359	707	0	0	668	33	342	0	109	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	359	707	0	0	668	33	342	0	109	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			12			24				24
Link Offset(ft)		0			0			-25				75
Crosswalk Width(ft)		75			16			25				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1		1			
Detector Template	Left	Thru			Thru	Right	Left		Right			
Leading Detector (ft)	20	100			100	20	20		20			
Trailing Detector (ft)	0	0			0	0	0		0			
Detector 1 Position(ft)	0	0			0	0	0		0			
Detector 1 Size(ft)	20	6			6	20	20		20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA			NA	Perm	Perm		Perm			
Protected Phases	5	2			6							
Permitted Phases	2					6	4		4			

# Lanes, Volumes, Timings

26: I-65 NB & US 62

05/18/2023

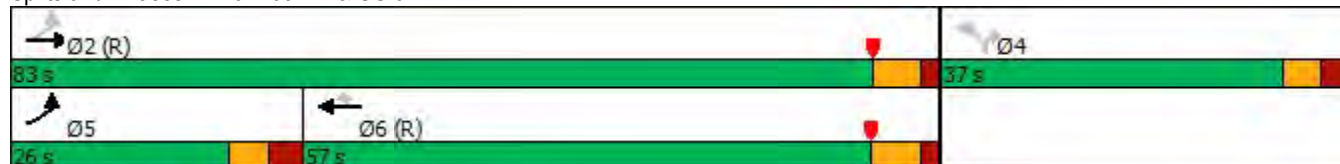


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2			6	6	4		4			
Switch Phase												
Minimum Initial (s)	5.0	30.0			30.0	30.0	15.0		15.0			
Minimum Split (s)	11.5	36.0			36.2	36.2	22.5		22.5			
Total Split (s)	26.0	83.0			57.0	57.0	37.0		37.0			
Total Split (%)	21.7%	69.2%			47.5%	47.5%	30.8%		30.8%			
Maximum Green (s)	19.5	77.0			50.8	50.8	30.5		30.5			
Yellow Time (s)	3.5	4.3			4.5	4.5	3.5		3.5			
All-Red Time (s)	3.0	1.7			1.7	1.7	3.0		3.0			
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Total Lost Time (s)	6.5	6.0			6.2	6.2	6.5		6.5			
Lead/Lag	Lead				Lag				Lag			
Lead-Lag Optimize?	Yes				Yes				Yes			
Vehicle Extension (s)	3.0	0.2			0.2	0.2	6.0		6.0			
Recall Mode	None	C-Max			C-Max	C-Max	None		None			
Act Effct Green (s)	86.0	86.5			70.3	70.3	21.0		21.0			
Actuated g/C Ratio	0.72	0.72			0.59	0.59	0.18		0.18			
v/c Ratio	0.34	0.28			0.32	0.03	0.57		0.30			
Control Delay	2.8	2.0			14.0	0.1	48.7		9.3			
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0			
Total Delay	2.8	2.0			14.0	0.1	48.7		9.3			
LOS	A	A			B	A	D		A			
Approach Delay		2.3			13.4				39.2			
Approach LOS		A			B				D			

## Intersection Summary




















Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	13 (11%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.57
Intersection Signal Delay:	13.3
Intersection LOS:	B
Intersection Capacity Utilization:	67.9%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 26: I-65 NB & US 62



Lanes, Volumes, Timings  
29: Medley Ln & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	740	5	5	615	5	5	0	5	5	0	25
Future Volume (vph)	5	740	5	5	615	5	5	0	5	5	0	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.999			0.932				0.886
Flt Protected	0.950			0.950				0.976				0.992
Satd. Flow (prot)	1770	3536	0	1770	3536	0	0	1694	0	0	1637	0
Flt Permitted	0.950			0.950				0.976				0.992
Satd. Flow (perm)	1770	3536	0	1770	3536	0	0	1694	0	0	1637	0
Link Speed (mph)		30			30			30				30
Link Distance (ft)		495			559			630				395
Travel Time (s)		11.3			12.7			14.3				9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	804	5	5	668	5	5	0	5	5	0	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	809	0	5	673	0	0	10	0	0	32	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Stop

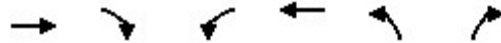
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	30.6%
ICU Level of Service	A
Analysis Period (min)	15



Lanes, Volumes, Timings  
32: Howell Dr & US 62

05/18/2023



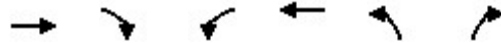
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑↑	↑↑	
Traffic Volume (vph)	720	30	5	610	15	5
Future Volume (vph)	720	30	5	610	15	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	50		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00
Frt		0.850			0.968	
Flt Protected			0.950		0.963	
Satd. Flow (prot)	1863	1583	1770	3539	1736	0
Flt Permitted			0.950		0.963	
Satd. Flow (perm)	1863	1583	1770	3539	1736	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	559			438	731	
Travel Time (s)	12.7			10.0	16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	783	33	5	663	16	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	783	33	5	663	21	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	47.9%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
34: McCormack Ave & US 62

05/18/2023



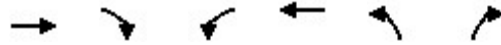
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	680	45	5	595	20	5
Future Volume (vph)	680	45	5	595	20	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Fr <sub>t</sub>	0.992			0.975		
Fl <sub>t</sub> Protected				0.961		
Satd. Flow (prot)	1848	0	0	3539	1745	0
Fl <sub>t</sub> Permitted				0.961		
Satd. Flow (perm)	1848	0	0	3539	1745	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	438			127	684	
Travel Time (s)	10.0			2.9	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	739	49	5	647	22	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	788	0	0	652	27	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes					
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	48.5%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
36: Gregory St & US 62

05/18/2023






















Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	635	50	5	590	10	5
Future Volume (vph)	635	50	5	590	10	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>	0.990			0.958		
Fl <sub>t</sub> Protected				0.967		
Satd. Flow (prot)	1844	0	0	1863	1726	0
Fl <sub>t</sub> Permitted				0.967		
Satd. Flow (perm)	1844	0	0	1863	1726	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	241			1032	915	
Travel Time (s)	5.5			23.5	20.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	690	54	5	641	11	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	744	0	0	646	16	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	46.5%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
40: US 62 & Pawnee Dr

05/18/2023

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			  	
Traffic Volume (vph)	0	0	40	0	0	35	0	1085	45	0	1020	15
Future Volume (vph)	0	0	40	0	0	35	0	1085	45	0	1020	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	275		0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91
Frt			0.865			0.865		0.994			0.998	
Flt Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3518	0	0	5075	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3518	0	0	5075	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		356			432			150			346	
Travel Time (s)		8.1			9.8			3.4			7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	43	0	0	38	0	1179	49	0	1109	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	43	0	0	38	0	1228	0	0	1125	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			6	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	41.4%						ICU Level of Service A					
Analysis Period (min)	15											

Lanes, Volumes, Timings

43: US 62

05/18/2023



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations		↗	↗↗		↘	↗↗
Traffic Volume (vph)	0	0	820	0	0	775
Future Volume (vph)	0	0	820	0	0	775
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				50	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	3539	0	1863	3539
Flt Permitted						
Satd. Flow (perm)	0	1863	3539	0	1863	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	161		397			420
Travel Time (s)	3.7		9.0			9.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	891	0	0	842
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	891	0	0	842
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	26.0%
	ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings  
45: US 62

05/18/2023



Lane Group	SEL	SER	NEU	NEL	NET	SWT	SWR
Lane Configurations							
Traffic Volume (vph)	0	0	50	0	935	860	0
Future Volume (vph)	0	0	50	0	935	860	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		225			0
Storage Lanes	0	1		1			0
Taper Length (ft)	25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt							
Flt Protected			0.950				
Satd. Flow (prot)	0	1863	1770	0	3539	3539	0
Flt Permitted			0.950				
Satd. Flow (perm)	0	1863	1770	0	3539	3539	0
Link Speed (mph)	30				30	30	
Link Distance (ft)	290				626	476	
Travel Time (s)	6.6				14.2	10.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	54	0	1016	935	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	54	0	1016	935	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	R NA	Left	Left	Left	Right
Median Width(ft)	0				24	24	
Link Offset(ft)	0				0	0	
Crosswalk Width(ft)	16				16	16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15			9
Sign Control	Stop				Free	Free	
<b>Intersection Summary</b>							
Area Type:	Other						
Control Type:	Unsignalized						
Intersection Capacity Utilization	33.8%			ICU Level of Service A			
Analysis Period (min)	15						

Lanes, Volumes, Timings

47: US 62

05/18/2023



Lane Group	SEL	SER	NEL	NET	SWU	SWT	SWR
Lane Configurations		↗		↕	↘	↕	↗
Traffic Volume (vph)	0	0	0	935	30	860	0
Future Volume (vph)	0	0	0	935	30	860	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0		275		0
Storage Lanes	0	1	0		1		0
Taper Length (ft)	25		25		25		
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	0.95	0.95
Frt							
Flt Protected					0.950		
Satd. Flow (prot)	0	1863	0	3539	1770	3539	0
Flt Permitted					0.950		
Satd. Flow (perm)	0	1863	0	3539	1770	3539	0
Link Speed (mph)	30			30		30	
Link Distance (ft)	145			476		348	
Travel Time (s)	3.3			10.8		7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	1016	33	935	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	0	1016	33	935	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	R NA	Left	Right
Median Width(ft)	0			24		36	
Link Offset(ft)	0			0		0	
Crosswalk Width(ft)	16			16		16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15		9		9
Sign Control	Stop			Free		Free	

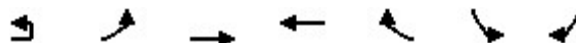
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	29.2%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

49: US 62

05/18/2023



Lane Group	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↕		↑↑	↑↑			↗
Traffic Volume (vph)	20	0	1105	1015	0	0	0
Future Volume (vph)	20	0	1105	1015	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	1.00	1.00
<b>Fr</b>							
Flt Protected	0.950						
Satd. Flow (prot)	1770	0	3539	3539	0	0	1863
Flt Permitted	0.950						
Satd. Flow (perm)	1770	0	3539	3539	0	0	1863
Link Speed (mph)			30	30		30	
Link Distance (ft)			346	361		423	
Travel Time (s)			7.9	8.2		9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	0	1201	1103	0	0	0
<b>Shared Lane Traffic (%)</b>							
Lane Group Flow (vph)	22	0	1201	1103	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Left	Right	Left	Right
Median Width(ft)			30	24		0	
Link Offset(ft)			0	0		0	
Crosswalk Width(ft)			16	16		16	
<b>Two way Left Turn Lane</b>							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15			9	15	9
Sign Control			Free	Free		Stop	

**Intersection Summary**



















Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	33.9%
Analysis Period (min)	15
	ICU Level of Service A



Lanes, Volumes, Timings

51: US 62

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			 	
Traffic Volume (vph)	0	0	25	0	0	50	0	935	15	0	880	30
Future Volume (vph)	0	0	25	0	0	50	0	935	15	0	880	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Fr <sub>t</sub>			0.865			0.865		0.998			0.995	
Fl <sub>t</sub> Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3532	0	0	3522	0
Fl <sub>t</sub> Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3532	0	0	3522	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		238			284			611			626	
Travel Time (s)		5.4			6.5			13.9			14.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	27	0	0	54	0	1016	16	0	957	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	27	0	0	54	0	1032	0	0	990	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	36.3%						ICU Level of Service A					
Analysis Period (min)	15											

Lanes, Volumes, Timings  
3: US 62 & Brook St

05/18/2023























Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	5	5	540	5	5	675
Future Volume (vph)	5	5	540	5	5	675
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932		0.999			
Flt Protected	0.976					
Satd. Flow (prot)	1694	0	3536	0	0	3539
Flt Permitted	0.976					
Satd. Flow (perm)	1694	0	3536	0	0	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	802		662			397
Travel Time (s)	18.2		15.0			9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	5	587	5	5	734
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	592	0	0	739
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	32.2%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Lane Configurations												
Traffic Volume (vph)	125	35	55	10	30	10	35	500	10	25	5	615
Future Volume (vph)	125	35	55	10	30	10	35	500	10	25	5	615
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	0		0	200		0		225	
Storage Lanes	1		0	0		0	1		0		1	
Taper Length (ft)	25			25			50				50	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Frt		0.908			0.973			0.997				
Flt Protected	0.950				0.990		0.950				0.950	
Satd. Flow (prot)	1770	1691	0	0	1794	0	1770	3529	0	0	1770	3539
Flt Permitted	0.811				0.931		0.378				0.435	
Satd. Flow (perm)	1511	1691	0	0	1687	0	704	3529	0	0	810	3539
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		60			11			2				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		776			653			420				611
Travel Time (s)		17.6			14.8			9.5				13.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	136	38	60	11	33	11	38	543	11	27	5	668
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	98	0	0	55	0	38	554	0	0	32	668
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		12			0			24				24
Link Offset(ft)		12			0			0				0
Crosswalk Width(ft)		16			24			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2		1	2		1	2		1	1	2
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Left	Thru
Leading Detector (ft)	20	100		20	100		20	100		20	20	100
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	pm+pt	NA
Protected Phases		4			4		5	2		1	1	6
Permitted Phases	4			4			2			6	6	

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023



Lane Group	SWR
Lane Configurations	
Traffic Volume (vph)	85
Future Volume (vph)	85
Ideal Flow (vphpl)	1900
Storage Length (ft)	150
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	92
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Adj. Flow (vph)	92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	92
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	6

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023

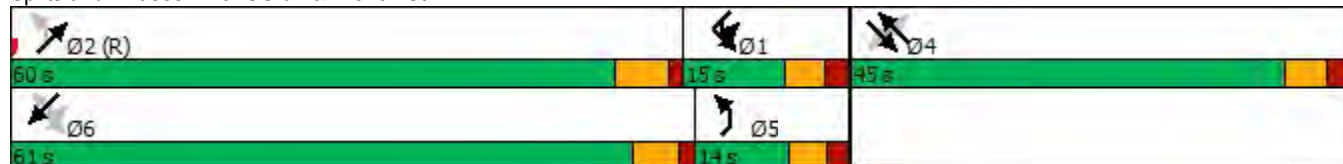


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Detector Phase	4	4		4	4		5	2		1	1	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		4.0	15.0		4.0	4.0	15.0
Minimum Split (s)	24.3	24.3		24.3	24.3		9.6	24.0		9.9	9.9	23.5
Total Split (s)	45.0	45.0		45.0	45.0		14.0	60.0		15.0	15.0	61.0
Total Split (%)	37.5%	37.5%		37.5%	37.5%		11.7%	50.0%		12.5%	12.5%	50.8%
Maximum Green (s)	38.7	38.7		38.7	38.7		8.4	54.0		9.1	9.1	55.5
Yellow Time (s)	3.8	3.8		3.8	3.8		3.5	4.7		3.5	3.5	4.2
All-Red Time (s)	2.5	2.5		2.5	2.5		2.1	1.3		2.4	2.4	1.3
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	6.3	6.3			6.3		5.6	6.0			5.9	5.5
Lead/Lag							Lag	Lead		Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	2.2		3.0	3.0	2.2
Recall Mode	None	None		None	None		None	C-Min		None	None	Min
Act Effect Green (s)	17.8	17.8			17.8		88.1	82.1			89.8	83.6
Actuated g/C Ratio	0.15	0.15			0.15		0.73	0.68			0.75	0.70
v/c Ratio	0.61	0.33			0.21		0.07	0.23			0.05	0.27
Control Delay	58.4	21.8			36.8		5.5	9.0			5.2	8.4
Queue Delay	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Delay	58.4	21.8			36.8		5.5	9.0			5.2	8.4
LOS	E	C			D		A	A			A	A
Approach Delay		43.1			36.8			8.8				7.5
Approach LOS		D			D			A				A

Intersection Summary

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	0 (0%), Referenced to phase 2:NETL, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.61
Intersection Signal Delay:	13.9
Intersection LOS:	B
Intersection Capacity Utilization:	48.4%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 5: US 62 & French St
























Lane Group	SWR
Detector Phase	6
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	23.5
Total Split (s)	61.0
Total Split (%)	50.8%
Maximum Green (s)	55.5
Yellow Time (s)	4.2
All-Red Time (s)	1.3
Lost Time Adjust (s)	0.0
Total Lost Time (s)	5.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.2
Recall Mode	Min
Act Effct Green (s)	83.6
Actuated g/C Ratio	0.70
v/c Ratio	0.08
Control Delay	2.1
Queue Delay	0.0
Total Delay	2.1
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

8: US 62 & Main St

05/18/2023





























												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			 	
Traffic Volume (vph)	0	0	10	0	0	145	0	645	20	85	685	25
Future Volume (vph)	0	0	10	0	0	145	0	645	20	85	685	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.865			0.865		0.995			0.995	
Flt Protected										0.950		
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3522	0	1770	3522	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3522	0	1770	3522	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		288			444			348			150	
Travel Time (s)		6.5			10.1			7.9			3.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	11	0	0	158	0	701	22	92	745	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	11	0	0	158	0	723	0	92	772	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			36			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			24			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.1%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
11: Ring Rd & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 					 	 	
Traffic Volume (vph)	190	540	10	15	630	550	5	5	5	400	10	125
Future Volume (vph)	190	540	10	15	630	550	5	5	5	400	10	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	100		100	0		100	0		0
Storage Lanes	2		0	1		1	0		1	1		1
Taper Length (ft)	25			50			25			25		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.997				0.850			0.850			0.850
Flt Protected	0.950			0.950				0.976		0.950	0.955	
Satd. Flow (prot)	3433	3529	0	1770	3539	1583	0	1818	1583	1681	1690	1583
Flt Permitted	0.950			0.426				0.976		0.950	0.955	
Satd. Flow (perm)	3433	3529	0	794	3539	1583	0	1818	1583	1681	1690	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				368			155			155
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		361			400			333			1291	
Travel Time (s)		8.2			9.1			7.6			29.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	207	587	11	16	685	598	5	5	5	435	11	136
Shared Lane Traffic (%)										49%		
Lane Group Flow (vph)	207	598	0	16	685	598	0	10	5	222	224	136
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			36			12			12	
Link Offset(ft)		0			0			0			18	
Crosswalk Width(ft)		50			16			30			28	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases				6		6				4		8



Lanes, Volumes, Timings  
11: Ring Rd & US 62

05/18/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6	6	4	4	4	8	8	8
Switch Phase												
Minimum Initial (s)	5.0	25.0		5.0	25.0	25.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	11.1	49.3		11.5	32.0	32.0	10.5	10.5	10.5	46.6	46.6	46.6
Total Split (s)	16.0	50.0		12.0	46.0	46.0	11.0	11.0	11.0	47.0	47.0	47.0
Total Split (%)	13.3%	41.7%		10.0%	38.3%	38.3%	9.2%	9.2%	9.2%	39.2%	39.2%	39.2%
Maximum Green (s)	9.9	43.7		5.5	39.0	39.0	4.5	4.5	4.5	40.4	40.4	40.4
Yellow Time (s)	3.5	4.0		3.5	4.7	4.7	4.6	4.6	4.6	4.7	4.7	4.7
All-Red Time (s)	2.6	2.3		3.0	2.3	2.3	1.9	1.9	1.9	1.9	1.9	1.9
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.1	6.3		6.5	7.0	7.0		6.5	6.5	6.6	6.6	6.6
Lead/Lag	Lead	Lag		Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes						
Vehicle Extension (s)	3.0	2.6		3.0	2.6	2.6	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	C-Min		None	Min	Min	None	None	None	None	None	None
Walk Time (s)		7.0								7.0	7.0	7.0
Flash Dont Walk (s)		36.0								33.0	33.0	33.0
Pedestrian Calls (#/hr)		0								0	0	0
Act Effct Green (s)	12.7	74.8		67.1	60.6	60.6		5.5	5.5	22.3	22.3	22.3
Actuated g/C Ratio	0.11	0.62		0.56	0.50	0.50		0.05	0.05	0.19	0.19	0.19
v/c Ratio	0.57	0.27		0.03	0.38	0.61		0.12	0.02	0.71	0.71	0.32
Control Delay	57.1	14.0		5.9	12.3	7.7		58.6	0.2	57.5	57.6	6.0
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	57.1	14.0		5.9	12.3	7.7		58.6	0.2	57.5	57.6	6.0
LOS	E	B		A	B	A		E	A	E	E	A
Approach Delay		25.1			10.1			39.1			45.5	
Approach LOS		C			B			D			D	

Intersection Summary


















Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 5 (4%), Referenced to phase 2:EBT, Start of Green  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.71  
 Intersection Signal Delay: 22.4  
 Intersection LOS: C  
 Intersection Capacity Utilization 61.3%  
 ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 11: Ring Rd & US 62



Lanes, Volumes, Timings  
14: Dolphin Dr & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	115	830	0	0	1125	145	0	0	10	0	0	70
Future Volume (vph)	115	830	0	0	1125	145	0	0	10	0	0	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		1
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.983				0.865			0.865
Flt Protected	0.950											
Satd. Flow (prot)	1770	3539	0	0	3479	0	0	0	1611	0	0	1611
Flt Permitted	0.950											
Satd. Flow (perm)	1770	3539	0	0	3479	0	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		400			1196			275				468
Travel Time (s)		9.1			27.2			6.3				10.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	125	902	0	0	1223	158	0	0	11	0	0	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	125	902	0	0	1381	0	0	0	11	0	0	76
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Free

Intersection Summary

Area Type: Other

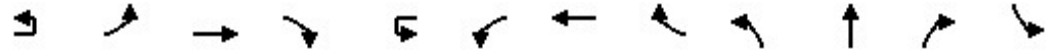
Control Type: Unsignalized

Intersection Capacity Utilization 48.8% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	5	15	720	100	150	55	1135	15	110	5	70	5
Future Volume (vph)	5	15	720	100	150	55	1135	15	110	5	70	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		175		200		200		0	0		0	0
Storage Lanes		1		1		1		0	0		1	0
Taper Length (ft)		75				50			25			25
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt				0.850			0.998				0.850	
Flt Protected		0.950				0.950				0.954		
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3532	0	0	1777	1583	0
Flt Permitted		0.149				0.295				0.954		
Satd. Flow (perm)	0	278	3539	1583	0	550	3532	0	0	1777	1583	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				211			2				210	
Link Speed (mph)			30				30			30		
Link Distance (ft)			1196				659			621		
Travel Time (s)			27.2				15.0			14.1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	16	783	109	163	60	1234	16	120	5	76	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	21	783	109	0	223	1250	0	0	125	76	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)			30				12			0		
Link Offset(ft)			-12				0			50		
Crosswalk Width(ft)			70				40			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Number of Detectors	1	1	2	1	1	1	2		1	2	1	1
Detector Template	Left	Left	Thru	Right	Left	Left	Thru		Left	Thru	Right	Left
Leading Detector (ft)	20	20	100	20	20	20	100		20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0	0		0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0		0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	20	6		20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94				94			94		
Detector 2 Size(ft)			6				6			6		
Detector 2 Type			Cl+Ex				Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0				0.0			0.0		
Turn Type	pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt	NA		Split	NA	Perm	Split
Protected Phases	5	5	2		1	1	6		4	4		8
Permitted Phases	2	2		2	6	6					4	

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

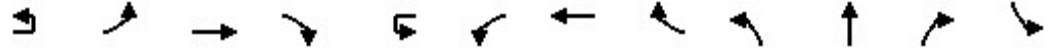
05/18/2023



Lane Group	SBT	SBR
Lane Configurations	↕	↗
Traffic Volume (vph)	15	20
Future Volume (vph)	15	20
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		50
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt		0.850
Flt Protected	0.988	
Satd. Flow (prot)	1840	1583
Flt Permitted	0.988	
Satd. Flow (perm)	1840	1583
Right Turn on Red		Yes
Satd. Flow (RTOR)		210
Link Speed (mph)	30	
Link Distance (ft)	310	
Travel Time (s)	7.0	
Peak Hour Factor	0.92	0.92
Adj. Flow (vph)	16	22
Shared Lane Traffic (%)		
Lane Group Flow (vph)	21	22
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	0	
Link Offset(ft)	-40	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Detector 1 Position(ft)	0	0
Detector 1 Size(ft)	6	20
Detector 1 Type	Cl+Ex	Cl+Ex
Detector 1 Channel		
Detector 1 Extend (s)	0.0	0.0
Detector 1 Queue (s)	0.0	0.0
Detector 1 Delay (s)	0.0	0.0
Detector 2 Position(ft)	94	
Detector 2 Size(ft)	6	
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	Perm
Protected Phases	8	
Permitted Phases		8

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023

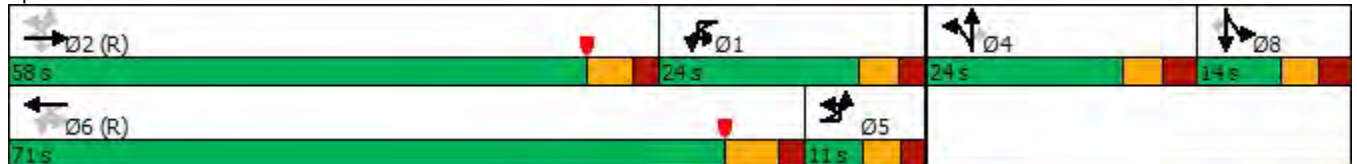


Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Detector Phase	5	5	2	2	1	1	6		4	4	4	8
Switch Phase												
Minimum Initial (s)	5.0	5.0	25.0	25.0	5.0	5.0	25.0		7.0	7.0	7.0	5.0
Minimum Split (s)	10.8	10.8	31.7	31.7	11.1	11.1	32.1		13.5	13.5	13.5	13.5
Total Split (s)	11.0	11.0	58.0	58.0	24.0	24.0	71.0		24.0	24.0	24.0	14.0
Total Split (%)	9.2%	9.2%	48.3%	48.3%	20.0%	20.0%	59.2%		20.0%	20.0%	20.0%	11.7%
Maximum Green (s)	5.2	5.2	51.6	51.6	17.9	17.9	63.9		17.5	17.5	17.5	7.5
Yellow Time (s)	3.5	3.5	4.1	4.1	3.5	3.5	4.8		3.5	3.5	3.5	3.5
All-Red Time (s)	2.3	2.3	2.3	2.3	2.6	2.6	2.3		3.0	3.0	3.0	3.0
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.8	6.4	6.4			6.1	7.1		6.5	6.5	
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		5.0	5.0	5.0	3.0
Recall Mode	None	None	C-Max	C-Max	None	None	C-Max		None	None	None	None
Act Effect Green (s)		72.3	66.5	66.5			84.2	78.8		14.9	14.9	
Actuated g/C Ratio		0.60	0.55	0.55			0.70	0.66		0.12	0.12	
v/c Ratio		0.09	0.40	0.11			0.45	0.54		0.57	0.20	
Control Delay		14.5	13.7	3.1			14.5	11.0		59.3	1.2	
Queue Delay		0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Total Delay		14.5	13.7	3.1			14.5	11.0		59.3	1.2	
LOS		B	B	A			B	B		E	A	
Approach Delay			12.5				11.5			37.3		
Approach LOS			B				B			D		

Intersection Summary

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	4 (3%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.57
Intersection Signal Delay:	14.1
Intersection LOS:	B
Intersection Capacity Utilization:	68.1%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 17: Commerce Dr & US 62



Lanes, Volumes, Timings  
 17: Commerce Dr & US 62




















05/18/2023



Lane Group	SBT	SBR
Detector Phase	8	8
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	13.5	13.5
Total Split (s)	14.0	14.0
Total Split (%)	11.7%	11.7%
Maximum Green (s)	7.5	7.5
Yellow Time (s)	3.5	3.5
All-Red Time (s)	3.0	3.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.5
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)	6.7	6.7
Actuated g/C Ratio	0.06	0.06
v/c Ratio	0.21	0.08
Control Delay	58.6	0.6
Queue Delay	0.0	0.0
Total Delay	58.6	0.6
LOS	E	A
Approach Delay	28.9	
Approach LOS	C	
Intersection Summary		

Lanes, Volumes, Timings  
20: Executive Dr & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	145	745	55	45	1025	180	0	0	35	0	0	330
Future Volume (vph)	145	745	55	45	1025	180	0	0	35	0	0	330
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	185		0	100		0	0		100	0		0
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	50			75			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990				0.850			0.865			0.865
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	3504	0	1770	3539	1583	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	3504	0	1770	3539	1583	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		659			506			493				539
Travel Time (s)		15.0			11.5			11.2				12.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	158	810	60	49	1114	196	0	0	38	0	0	359
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	870	0	49	1114	196	0	0	38	0	0	359
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			20			0				0
Link Offset(ft)		-10			0			-15				25
Crosswalk Width(ft)		40			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Stop

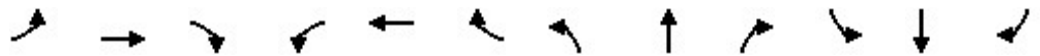
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	55.4%
ICU Level of Service	B
Analysis Period (min)	15

Lanes, Volumes, Timings

23: I-65 SB & US 62

05/18/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↘		↗↗
Traffic Volume (vph)	0	520	260	155	965	0	0	0	0	15	0	285
Future Volume (vph)	0	520	260	155	965	0	0	0	0	15	0	285
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		225	250		0	0		0	400		400
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			100			25			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.88
Frt			0.850									0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	1770	0	2787
Flt Permitted				0.400						0.950		
Satd. Flow (perm)	0	3539	1583	745	3539	0	0	0	0	1770	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			283									225
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		506			821			555			635	
Travel Time (s)		11.5			18.7			12.6			14.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	565	283	168	1049	0	0	0	0	16	0	310
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	565	283	168	1049	0	0	0	0	16	0	310
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			40	
Crosswalk Width(ft)		16			50			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	1	1	2					1		1
Detector Template		Thru	Right	Left	Thru					Left		Right
Leading Detector (ft)		100	20	20	100					20		20
Trailing Detector (ft)		0	0	0	0					0		0
Detector 1 Position(ft)		0	0	0	0					0		0
Detector 1 Size(ft)		6	20	20	6					20		20
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA	Perm	pm+pt	NA					Perm		Perm
Protected Phases		2		1	6							
Permitted Phases			2	6						4		4



# Lanes, Volumes, Timings

23: I-65 SB & US 62

05/18/2023

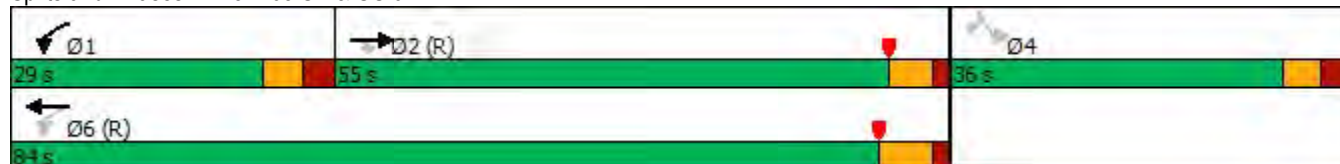


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2	2	1	6					4		4
Switch Phase												
Minimum Initial (s)		30.0	30.0	5.0	30.0					7.0		7.0
Minimum Split (s)		35.6	35.6	11.5	36.5					24.5		24.5
Total Split (s)		55.0	55.0	29.0	84.0					36.0		36.0
Total Split (%)		45.8%	45.8%	24.2%	70.0%					30.0%		30.0%
Maximum Green (s)		49.4	49.4	22.5	77.5					29.5		29.5
Yellow Time (s)		3.9	3.9	3.5	4.8					3.5		3.5
All-Red Time (s)		1.7	1.7	3.0	1.7					3.0		3.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0					0.0		0.0
Total Lost Time (s)		5.6	5.6	6.5	6.5					6.5		6.5
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Vehicle Extension (s)		0.2	0.2	3.0	0.2					3.0		3.0
Recall Mode		C-Max	C-Max	None	C-Max					None		None
Act Effect Green (s)		83.3	83.3	97.0	97.0					10.0		10.0
Actuated g/C Ratio		0.69	0.69	0.81	0.81					0.08		0.08
v/c Ratio		0.23	0.24	0.25	0.37					0.11		0.71
Control Delay		1.8	0.8	2.6	2.2					50.3		24.6
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		1.8	0.8	2.6	2.2					50.3		24.6
LOS		A	A	A	A					D		C
Approach Delay		1.5			2.3						25.8	
Approach LOS		A			A						C	

## Intersection Summary























Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	48 (40%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.71
Intersection Signal Delay:	5.2
Intersection LOS:	A
Intersection Capacity Utilization:	61.8%
ICU Level of Service:	B
Analysis Period (min):	15

## Splits and Phases: 23: I-65 SB & US 62



Lanes, Volumes, Timings  
26: I-65 NB & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 		 					
Traffic Volume (vph)	290	245	0	0	725	60	395	0	175	0	0	0
Future Volume (vph)	290	245	0	0	725	60	395	0	175	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	0		180	300		300	0		0
Storage Lanes	2		0	0		1	1		1	0		0
Taper Length (ft)	200			25			75			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	3433	3539	0	0	3539	1583	3433	0	1583	0	0	0
Flt Permitted	0.274						0.950					
Satd. Flow (perm)	990	3539	0	0	3539	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			190			
Link Speed (mph)		30			30			30				30
Link Distance (ft)		821			495			906				393
Travel Time (s)		18.7			11.3			20.6				8.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	315	266	0	0	788	65	429	0	190	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	315	266	0	0	788	65	429	0	190	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			12			24				24
Link Offset(ft)		0			0			-25				75
Crosswalk Width(ft)		75			16			25				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1		1			
Detector Template	Left	Thru			Thru	Right	Left		Right			
Leading Detector (ft)	20	100			100	20	20		20			
Trailing Detector (ft)	0	0			0	0	0		0			
Detector 1 Position(ft)	0	0			0	0	0		0			
Detector 1 Size(ft)	20	6			6	20	20		20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA			NA	Perm	Perm		Perm			
Protected Phases	5	2			6							
Permitted Phases	2					6	4		4			

# Lanes, Volumes, Timings

## 26: I-65 NB & US 62

05/18/2023

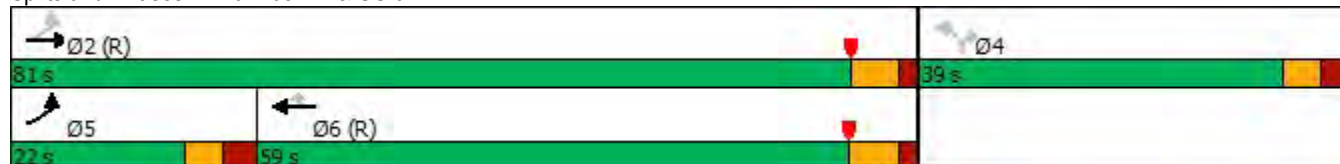


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2			6	6	4		4			
Switch Phase												
Minimum Initial (s)	5.0	30.0			30.0	30.0	15.0		15.0			
Minimum Split (s)	11.5	36.0			36.2	36.2	22.5		22.5			
Total Split (s)	22.0	81.0			59.0	59.0	39.0		39.0			
Total Split (%)	18.3%	67.5%			49.2%	49.2%	32.5%		32.5%			
Maximum Green (s)	15.5	75.0			52.8	52.8	32.5		32.5			
Yellow Time (s)	3.5	4.3			4.5	4.5	3.5		3.5			
All-Red Time (s)	3.0	1.7			1.7	1.7	3.0		3.0			
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Total Lost Time (s)	6.5	6.0			6.2	6.2	6.5		6.5			
Lead/Lag	Lead				Lag				Lag			
Lead-Lag Optimize?	Yes				Yes				Yes			
Vehicle Extension (s)	3.0	0.2			0.2	0.2	6.0		6.0			
Recall Mode	None	C-Max			C-Max	C-Max	None		None			
Act Effct Green (s)	82.0	82.5			66.3	66.3	25.0		25.0			
Actuated g/C Ratio	0.68	0.69			0.55	0.55	0.21		0.21			
v/c Ratio	0.36	0.11			0.40	0.07	0.60		0.40			
Control Delay	2.9	1.1			17.2	1.8	46.0		7.5			
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0			
Total Delay	2.9	1.1			17.2	1.8	46.0		7.5			
LOS	A	A			B	A	D		A			
Approach Delay		2.1			16.1			34.2				
Approach LOS		A			B			C				

### Intersection Summary



















Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	61 (51%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	17.6
Intersection LOS:	B
Intersection Capacity Utilization:	61.8%
ICU Level of Service:	B
Analysis Period (min):	15

### Splits and Phases: 26: I-65 NB & US 62



Lanes, Volumes, Timings  
29: Medley Ln & US 62

05/18/2023

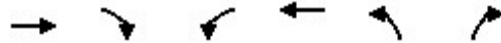
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	405	5	5	770	5	5	0	5	5	0	10
Future Volume (vph)	10	405	5	5	770	5	5	0	5	5	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.999			0.932				0.907
Flt Protected	0.950			0.950				0.976				0.985
Satd. Flow (prot)	1770	3532	0	1770	3536	0	0	1694	0	0	1664	0
Flt Permitted	0.950			0.950				0.976				0.985
Satd. Flow (perm)	1770	3532	0	1770	3536	0	0	1694	0	0	1664	0
Link Speed (mph)		30			30			30				30
Link Distance (ft)		495			559			630				395
Travel Time (s)		11.3			12.7			14.3				9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	440	5	5	837	5	5	0	5	5	0	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	445	0	5	842	0	0	10	0	0	16	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.4%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
32: Howell Dr & US 62

05/18/2023



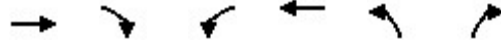
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↓	↑↑	↓	
Traffic Volume (vph)	370	45	5	775	5	5
Future Volume (vph)	370	45	5	775	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	50		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00
Frt		0.850			0.932	
Flt Protected			0.950		0.976	
Satd. Flow (prot)	1863	1583	1770	3539	1694	0
Flt Permitted			0.950		0.976	
Satd. Flow (perm)	1863	1583	1770	3539	1694	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	559			438	731	
Travel Time (s)	12.7			10.0	16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	402	49	5	842	5	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	402	49	5	842	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.4%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
 34: McCormack Ave & US 62

05/18/2023



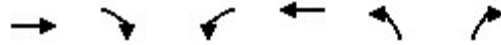
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	365	10	10	750	30	5
Future Volume (vph)	365	10	10	750	30	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Fr <sub>t</sub>	0.996			0.982		
Fl <sub>t</sub> Protected				0.999	0.958	
Satd. Flow (prot)	1855	0	0	3536	1752	0
Fl <sub>t</sub> Permitted				0.999	0.958	
Satd. Flow (perm)	1855	0	0	3536	1752	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	438			127	684	
Travel Time (s)	10.0			2.9	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	397	11	11	815	33	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	408	0	0	826	38	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes					
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	37.8%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
36: Gregory St & US 62

05/18/2023






















Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	355	15	5	755	5	5
Future Volume (vph)	355	15	5	755	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>	0.995			0.932		
Fl <sub>t</sub> Protected				0.976		
Satd. Flow (prot)	1853	0	0	1863	1694	0
Fl <sub>t</sub> Permitted				0.976		
Satd. Flow (perm)	1853	0	0	1863	1694	0
Link Speed (mph)	30			30		
Link Distance (ft)	241			1032		915
Travel Time (s)	5.5			23.5		20.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	386	16	5	821	5	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	402	0	0	826	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0		12
Link Offset(ft)	0			0		0
Crosswalk Width(ft)	16			16		16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15		9	
Sign Control	Free			Free		Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	53.7%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
40: US 62 & Pawnee Dr

05/18/2023

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			  	
Traffic Volume (vph)	0	0	20	0	0	15	0	770	20	0	780	30
Future Volume (vph)	0	0	20	0	0	15	0	770	20	0	780	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	275		0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91
Frt			0.865			0.865		0.996			0.994	
Flt Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3525	0	0	5055	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3525	0	0	5055	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		356			432			150			346	
Travel Time (s)		8.1			9.8			3.4			7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	22	0	0	16	0	837	22	0	848	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	22	0	0	16	0	859	0	0	881	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			6	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	31.9%						ICU Level of Service A					
Analysis Period (min)	15											



Lanes, Volumes, Timings  
43: US 62

05/18/2023



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations		↗	↗↗		↘	↗↗
Traffic Volume (vph)	0	0	545	0	0	680
Future Volume (vph)	0	0	545	0	0	680
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				50	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	3539	0	1863	3539
Flt Permitted						
Satd. Flow (perm)	0	1863	3539	0	1863	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	161		397			420
Travel Time (s)	3.7		9.0			9.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	592	0	0	739
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	592	0	0	739
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	22.1%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
45: US 62

05/18/2023



Lane Group	SEL	SER	NEU	NEL	NET	SWT	SWR
Lane Configurations							
Traffic Volume (vph)	0	0	50	0	645	675	0
Future Volume (vph)	0	0	50	0	645	675	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		225			0
Storage Lanes	0	1		1			0
Taper Length (ft)	25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt							
Flt Protected			0.950				
Satd. Flow (prot)	0	1863	1770	0	3539	3539	0
Flt Permitted			0.950				
Satd. Flow (perm)	0	1863	1770	0	3539	3539	0
Link Speed (mph)	30				30	30	
Link Distance (ft)	290				626	476	
Travel Time (s)	6.6				14.2	10.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	54	0	701	734	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	54	0	701	734	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	R NA	Left	Left	Left	Right
Median Width(ft)	0				24	24	
Link Offset(ft)	0				0	0	
Crosswalk Width(ft)	16				16	16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15			9
Sign Control	Stop				Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	28.7%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
47: US 62

05/18/2023



Lane Group	SEL	SER	NEL	NET	SWU	SWT	SWR
Lane Configurations							
Traffic Volume (vph)	0	0	0	645	20	675	0
Future Volume (vph)	0	0	0	645	20	675	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0		275		0
Storage Lanes	0	1	0		1		0
Taper Length (ft)	25		25		25		
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	0.95	0.95
Frt							
Flt Protected					0.950		
Satd. Flow (prot)	0	1863	0	3539	1770	3539	0
Flt Permitted					0.950		
Satd. Flow (perm)	0	1863	0	3539	1770	3539	0
Link Speed (mph)	30			30		30	
Link Distance (ft)	145			476		348	
Travel Time (s)	3.3			10.8		7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	701	22	734	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	0	701	22	734	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	R NA	Left	Right
Median Width(ft)	0			24		36	
Link Offset(ft)	0			0		0	
Crosswalk Width(ft)	16			16		16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15		9		9
Sign Control	Stop			Free		Free	

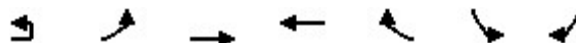
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	22.0%
	ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings

49: US 62

05/18/2023



Lane Group	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↔		↑↑	↑↑			↗
Traffic Volume (vph)	50	0	740	760	0	0	0
Future Volume (vph)	50	0	740	760	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	1.00	1.00
<b>Fr</b>							
Flt Protected	0.950						
Satd. Flow (prot)	1770	0	3539	3539	0	0	1863
Flt Permitted	0.950						
Satd. Flow (perm)	1770	0	3539	3539	0	0	1863
Link Speed (mph)			30	30		30	
Link Distance (ft)			346	361		423	
Travel Time (s)			7.9	8.2		9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	0	804	826	0	0	0
<b>Shared Lane Traffic (%)</b>							
Lane Group Flow (vph)	54	0	804	826	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Left	Right	Left	Right
Median Width(ft)			30	24		0	
Link Offset(ft)			0	0		0	
Crosswalk Width(ft)			16	16		16	
<b>Two way Left Turn Lane</b>							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15			9	15	9
Sign Control			Free	Free		Stop	

















**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.0%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings

51: US 62

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	25	0	0	50	0	645	15	0	705	20
Future Volume (vph)	0	0	25	0	0	50	0	645	15	0	705	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.865			0.865		0.997			0.996	
Flt Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3529	0	0	3525	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3529	0	0	3525	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		238			284			611			626	
Travel Time (s)		5.4			6.5			13.9			14.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	27	0	0	54	0	701	16	0	766	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	27	0	0	54	0	717	0	0	788	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	30.1%						ICU Level of Service A					
Analysis Period (min)	15											

Lanes, Volumes, Timings  
3: US 62 & Brook St

05/18/2023
























Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	5	5	815	5	5	770
Future Volume (vph)	5	5	815	5	5	770
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932		0.999			
Flt Protected	0.976					
Satd. Flow (prot)	1694	0	3536	0	0	3539
Flt Permitted	0.976					
Satd. Flow (perm)	1694	0	3536	0	0	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	802		662			397
Travel Time (s)	18.2		15.0			9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	5	886	5	5	837
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	891	0	0	842
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.8%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023

													
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT	
Lane Configurations													
Traffic Volume (vph)	170	50	50	10	45	15	65	740	15	25	10	715	
Future Volume (vph)	170	50	50	10	45	15	65	740	15	25	10	715	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	250		0	0		0	200		0		225		
Storage Lanes	1		0	0		0	1		0		1		
Taper Length (ft)	25			25			50				50		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	
Frt		0.925			0.972			0.997					
Flt Protected	0.950				0.993		0.950				0.950		
Satd. Flow (prot)	1770	1723	0	0	1798	0	1770	3529	0	0	1770	3539	
Flt Permitted	0.739				0.952		0.321				0.308		
Satd. Flow (perm)	1377	1723	0	0	1724	0	598	3529	0	0	574	3539	
Right Turn on Red			Yes			Yes			Yes				
Satd. Flow (RTOR)		44			12			2					
Link Speed (mph)		30			30			30				30	
Link Distance (ft)		776			653			420				611	
Travel Time (s)		17.6			14.8			9.5				13.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	185	54	54	11	49	16	71	804	16	27	11	777	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	185	108	0	0	76	0	71	820	0	0	38	777	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left	
Median Width(ft)		12			0			24				24	
Link Offset(ft)		12			0			0				0	
Crosswalk Width(ft)		16			24			16				16	
Two way Left Turn Lane													
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15		9	15		9	15		9	9	15		
Number of Detectors	1	2		1	2		1	2		1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel													
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94				94	
Detector 2 Size(ft)		6			6			6				6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex	
Detector 2 Channel													
Detector 2 Extend (s)		0.0			0.0			0.0				0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	pm+pt	NA	
Protected Phases		4			4		5	2		1	1	6	
Permitted Phases	4			4			2			6	6		

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023



Lane Group	SWR
Lane Configurations	
Traffic Volume (vph)	155
Future Volume (vph)	155
Ideal Flow (vphpl)	1900
Storage Length (ft)	150
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	156
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Adj. Flow (vph)	168
Shared Lane Traffic (%)	
Lane Group Flow (vph)	168
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	6



Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023

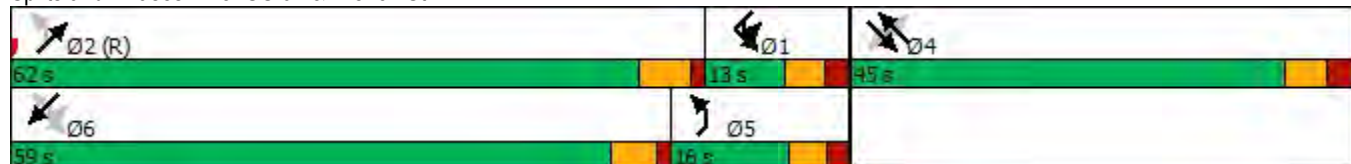


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Detector Phase	4	4		4	4		5	2		1	1	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		4.0	15.0		4.0	4.0	15.0
Minimum Split (s)	24.3	24.3		24.3	24.3		9.6	24.0		9.9	9.9	23.5
Total Split (s)	45.0	45.0		45.0	45.0		16.0	62.0		13.0	13.0	59.0
Total Split (%)	37.5%	37.5%		37.5%	37.5%		13.3%	51.7%		10.8%	10.8%	49.2%
Maximum Green (s)	38.7	38.7		38.7	38.7		10.4	56.0		7.1	7.1	53.5
Yellow Time (s)	3.8	3.8		3.8	3.8		3.5	4.7		3.5	3.5	4.2
All-Red Time (s)	2.5	2.5		2.5	2.5		2.1	1.3		2.4	2.4	1.3
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	6.3	6.3			6.3		5.6	6.0			5.9	5.5
Lead/Lag							Lag	Lead		Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	2.2		3.0	3.0	2.2
Recall Mode	None	None		None	None		None	C-Min		None	None	Min
Act Effect Green (s)	21.5	21.5			21.5		84.7	79.4			82.4	77.3
Actuated g/C Ratio	0.18	0.18			0.18		0.71	0.66			0.69	0.64
v/c Ratio	0.75	0.31			0.24		0.15	0.35			0.08	0.34
Control Delay	64.6	26.4			35.0		7.6	11.1			7.4	11.8
Queue Delay	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Delay	64.6	26.4			35.0		7.6	11.1			7.4	11.8
LOS	E	C			D		A	B			A	B
Approach Delay		50.5			35.0			10.8				10.1
Approach LOS		D			D			B				B

Intersection Summary

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	0 (0%), Referenced to phase 2:NETL, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	16.5
Intersection LOS:	B
Intersection Capacity Utilization:	55.5%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 5: US 62 & French St
























Lane Group	SWR
Detector Phase	6
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	23.5
Total Split (s)	59.0
Total Split (%)	49.2%
Maximum Green (s)	53.5
Yellow Time (s)	4.2
All-Red Time (s)	1.3
Lost Time Adjust (s)	0.0
Total Lost Time (s)	5.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.2
Recall Mode	Min
Act Effct Green (s)	77.3
Actuated g/C Ratio	0.64
v/c Ratio	0.16
Control Delay	2.8
Queue Delay	0.0
Total Delay	2.8
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings

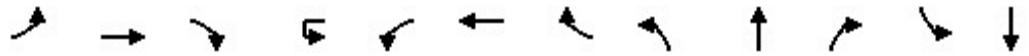
8: US 62 & Main St

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			 	
Traffic Volume (vph)	0	0	20	0	0	180	0	950	15	170	870	15
Future Volume (vph)	0	0	20	0	0	180	0	950	15	170	870	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.865			0.865		0.998			0.998	
Flt Protected										0.950		
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3532	0	1770	3532	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3532	0	1770	3532	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		288			444			348			150	
Travel Time (s)		6.5			10.1			7.9			3.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	22	0	0	196	0	1033	16	185	946	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	22	0	0	196	0	1049	0	185	962	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			36			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			24			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	44.5%					ICU Level of Service A						
Analysis Period (min)	15											

Lanes, Volumes, Timings  
11: Ring Rd & US 62

05/18/2023



Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	275	820	10	5	45	705	485	20	10	5	850	10
Future Volume (vph)	275	820	10	5	45	705	485	20	10	5	850	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0		100		100	0		100	0	
Storage Lanes	2		0		1		1	0		1	1	
Taper Length (ft)	25				50			25			25	
Lane Util. Factor	0.97	0.95	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.998					0.850			0.850		
Flt Protected	0.950				0.950				0.968		0.950	0.953
Satd. Flow (prot)	3433	3532	0	0	1770	3539	1583	0	1803	1583	1681	1686
Flt Permitted	0.950				0.226				0.968		0.950	0.953
Satd. Flow (perm)	3433	3532	0	0	421	3539	1583	0	1803	1583	1681	1686
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)		1					280			211		
Link Speed (mph)		30				30			30			30
Link Distance (ft)		361				400			333			1291
Travel Time (s)		8.2				9.1			7.6			29.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	299	891	11	5	49	766	527	22	11	5	924	11
Shared Lane Traffic (%)											49%	
Lane Group Flow (vph)	299	902	0	0	54	766	527	0	33	5	471	464
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)		24				36			12			12
Link Offset(ft)		0				0			0			18
Crosswalk Width(ft)		50				16			30			28
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15		9	15		9	15	
Number of Detectors	1	2		1	1	2	1	1	2	1	1	2
Detector Template	Left	Thru		Left	Left	Thru	Right	Left	Thru	Right	Left	Thru
Leading Detector (ft)	20	100		20	20	100	20	20	100	20	20	100
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	20	6	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94				94			94			94
Detector 2 Size(ft)		6				6			6			6
Detector 2 Type		Cl+Ex				Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0				0.0			0.0			0.0
Turn Type	Prot	NA		pm+pt	pm+pt	NA	Perm	Split	NA	Perm	Split	NA
Protected Phases	5	2		1	1	6		4	4		8	8
Permitted Phases				6	6		6			4		

Lanes, Volumes, Timings  
11: Ring Rd & US 62

05/18/2023


















Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	290
Future Volume (vph)	290
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	224
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Adj. Flow (vph)	315
Shared Lane Traffic (%)	
Lane Group Flow (vph)	315
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	8



Lane Group	SBR
Detector Phase	8
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	46.6
Total Split (s)	47.0
Total Split (%)	39.2%
Maximum Green (s)	40.4
Yellow Time (s)	4.7
All-Red Time (s)	1.9
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.6
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	33.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	38.3
Actuated g/C Ratio	0.32
v/c Ratio	0.48
Control Delay	11.8
Queue Delay	0.0
Total Delay	11.8
LOS	B
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings  
14: Dolphin Dr & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	165	1510	5	0	1060	180	0	0	35	0	0	180
Future Volume (vph)	165	1510	5	0	1060	180	0	0	35	0	0	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		1
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.978				0.865			0.865
Flt Protected	0.950											
Satd. Flow (prot)	1770	3539	0	0	3461	0	0	0	1611	0	0	1611
Flt Permitted	0.950											
Satd. Flow (perm)	1770	3539	0	0	3461	0	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		400			1196			275				468
Travel Time (s)		9.1			27.2			6.3				10.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	179	1641	5	0	1152	196	0	0	38	0	0	196
Shared Lane Traffic (%)												
Lane Group Flow (vph)	179	1646	0	0	1348	0	0	0	38	0	0	196
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	52.9%
ICU Level of Service	A
Analysis Period (min)	15



Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	20	15	1265	245	205	70	980	20	215	5	135	10
Future Volume (vph)	20	15	1265	245	205	70	980	20	215	5	135	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		175		200		200		0	0		0	0
Storage Lanes		1		1		1		0	0		1	0
Taper Length (ft)		75				50			25			25
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt				0.850			0.997				0.850	
Flt Protected		0.950				0.950				0.953		
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3529	0	0	1775	1583	0
Flt Permitted		0.172				0.070				0.953		
Satd. Flow (perm)	0	320	3539	1583	0	130	3529	0	0	1775	1583	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				211			3				210	
Link Speed (mph)			30				30			30		
Link Distance (ft)			1196				659			621		
Travel Time (s)			27.2				15.0			14.1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	16	1375	266	223	76	1065	22	234	5	147	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	38	1375	266	0	299	1087	0	0	239	147	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)			30				12			0		
Link Offset(ft)			-12				0			50		
Crosswalk Width(ft)			70				40			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Number of Detectors	1	1	2	1	1	1	2		1	2	1	1
Detector Template	Left	Left	Thru	Right	Left	Left	Thru		Left	Thru	Right	Left
Leading Detector (ft)	20	20	100	20	20	20	100		20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0	0		0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0		0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	20	6		20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94				94			94		
Detector 2 Size(ft)			6				6			6		
Detector 2 Type			Cl+Ex				Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0				0.0			0.0		
Turn Type	pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt	NA		Split	NA	Perm	Split
Protected Phases	5	5	2		1	1	6		4	4		8
Permitted Phases	2	2		2	6	6					4	

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

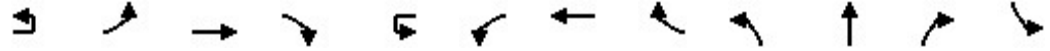
05/18/2023



Lane Group	SBT	SBR
Lane Configurations	↕	↗
Traffic Volume (vph)	25	25
Future Volume (vph)	25	25
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		50
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt		0.850
Flt Protected	0.986	
Satd. Flow (prot)	1837	1583
Flt Permitted	0.986	
Satd. Flow (perm)	1837	1583
Right Turn on Red		Yes
Satd. Flow (RTOR)		210
Link Speed (mph)	30	
Link Distance (ft)	310	
Travel Time (s)	7.0	
Peak Hour Factor	0.92	0.92
Adj. Flow (vph)	27	27
Shared Lane Traffic (%)		
Lane Group Flow (vph)	38	27
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	0	
Link Offset(ft)	-40	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Detector 1 Position(ft)	0	0
Detector 1 Size(ft)	6	20
Detector 1 Type	Cl+Ex	Cl+Ex
Detector 1 Channel		
Detector 1 Extend (s)	0.0	0.0
Detector 1 Queue (s)	0.0	0.0
Detector 1 Delay (s)	0.0	0.0
Detector 2 Position(ft)	94	
Detector 2 Size(ft)	6	
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	Perm
Protected Phases	8	
Permitted Phases		8

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023

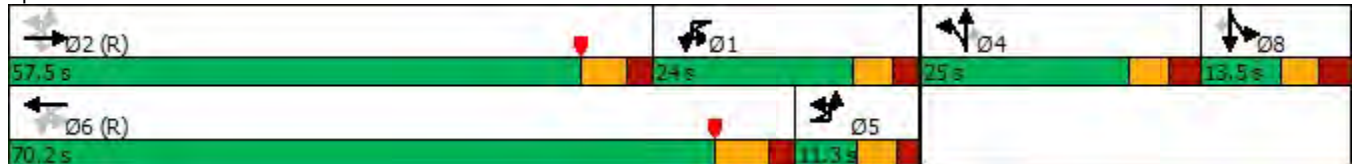


Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Detector Phase	5	5	2	2	1	1	6		4	4	4	8
Switch Phase												
Minimum Initial (s)	5.0	5.0	25.0	25.0	5.0	5.0	25.0		7.0	7.0	7.0	5.0
Minimum Split (s)	10.8	10.8	31.7	31.7	11.1	11.1	32.1		13.5	13.5	13.5	13.5
Total Split (s)	11.3	11.3	57.5	57.5	24.0	24.0	70.2		25.0	25.0	25.0	13.5
Total Split (%)	9.4%	9.4%	47.9%	47.9%	20.0%	20.0%	58.5%		20.8%	20.8%	20.8%	11.3%
Maximum Green (s)	5.5	5.5	51.1	51.1	17.9	17.9	63.1		18.5	18.5	18.5	7.0
Yellow Time (s)	3.5	3.5	4.1	4.1	3.5	3.5	4.8		3.5	3.5	3.5	3.5
All-Red Time (s)	2.3	2.3	2.3	2.3	2.6	2.6	2.3		3.0	3.0	3.0	3.0
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.8	6.4	6.4			6.1	7.1		6.5	6.5	
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		5.0	5.0	5.0	3.0
Recall Mode	None	None	C-Max	C-Max	None	None	C-Max		None	None	None	None
Act Effect Green (s)		60.8	54.7	54.7			78.3	70.5		18.4	18.4	
Actuated g/C Ratio		0.51	0.46	0.46			0.65	0.59		0.15	0.15	
v/c Ratio		0.17	0.85	0.32			0.93	0.52		0.88	0.35	
Control Delay		16.0	29.8	7.6			80.7	15.8		81.6	3.6	
Queue Delay		0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Total Delay		16.0	29.8	7.6			80.7	15.8		81.6	3.6	
LOS		B	C	A			F	B		F	A	
Approach Delay			26.0				29.8			51.9		
Approach LOS			C				C			D		

Intersection Summary

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	76 (63%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle:	100
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.93
Intersection Signal Delay:	30.5
Intersection LOS:	C
Intersection Capacity Utilization:	84.9%
ICU Level of Service:	E
Analysis Period (min):	15

Splits and Phases: 17: Commerce Dr & US 62



Lanes, Volumes, Timings  
 17: Commerce Dr & US 62




















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Lane Group	SBT	SBR
Detector Phase	8	8
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	13.5	13.5
Total Split (s)	13.5	13.5
Total Split (%)	11.3%	11.3%
Maximum Green (s)	7.0	7.0
Yellow Time (s)	3.5	3.5
All-Red Time (s)	3.0	3.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.5
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)	6.6	6.6
Actuated g/C Ratio	0.06	0.06
v/c Ratio	0.38	0.09
Control Delay	65.3	0.6
Queue Delay	0.0	0.0
Total Delay	65.3	0.6
LOS	E	A
Approach Delay	38.4	
Approach LOS	D	
Intersection Summary		

Lanes, Volumes, Timings  
20: Executive Dr & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	1445	20	90	930	190	0	0	75	0	0	345
Future Volume (vph)	150	1445	20	90	930	190	0	0	75	0	0	345
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	185		0	100		0	0		100	0		0
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	50			75			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998				0.850			0.865			0.865
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	3532	0	1770	3539	1583	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	3532	0	1770	3539	1583	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		659			506			493				539
Travel Time (s)		15.0			11.5			11.2				12.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	1571	22	98	1011	207	0	0	82	0	0	375
Shared Lane Traffic (%)												
Lane Group Flow (vph)	163	1593	0	98	1011	207	0	0	82	0	0	375
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			20			0				0
Link Offset(ft)		-10			0			-15				25
Crosswalk Width(ft)		40			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Stop













Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	53.7%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

23: I-65 SB & US 62























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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↖		↗↗
Traffic Volume (vph)	0	915	605	165	765	0	0	0	0	65	0	445
Future Volume (vph)	0	915	605	165	765	0	0	0	0	65	0	445
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		225	250		0	0		0	400		400
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			100			25			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.88
Frt			0.850									0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	3539	1583	1770	3539	0	0	0	0	1770	0	2787
Flt Permitted				0.233						0.950		
Satd. Flow (perm)	0	3539	1583	434	3539	0	0	0	0	1770	0	2787
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			658									395
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		506			821			555			635	
Travel Time (s)		11.5			18.7			12.6			14.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	995	658	179	832	0	0	0	0	71	0	484
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	995	658	179	832	0	0	0	0	71	0	484
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			40	
Crosswalk Width(ft)		16			50			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	1	1	2					1		1
Detector Template		Thru	Right	Left	Thru					Left		Right
Leading Detector (ft)		100	20	20	100					20		20
Trailing Detector (ft)		0	0	0	0					0		0
Detector 1 Position(ft)		0	0	0	0					0		0
Detector 1 Size(ft)		6	20	20	6					20		20
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex		Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0		0.0
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type		NA	Perm	pm+pt	NA					Perm		Perm
Protected Phases		2		1	6							
Permitted Phases			2	6						4		4



Lanes, Volumes, Timings  
26: I-65 NB & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 		 					
Traffic Volume (vph)	330	650	0	0	615	30	315	0	100	0	0	0
Future Volume (vph)	330	650	0	0	615	30	315	0	100	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	0		180	300		300	0		0
Storage Lanes	2		0	0		1	1		1	0		0
Taper Length (ft)	200			25			75			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	3433	3539	0	0	3539	1583	3433	0	1583	0	0	0
Flt Permitted	0.334						0.950					
Satd. Flow (perm)	1207	3539	0	0	3539	1583	3433	0	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						91			109			
Link Speed (mph)		30			30			30				30
Link Distance (ft)		821			495			906				393
Travel Time (s)		18.7			11.3			20.6				8.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	359	707	0	0	668	33	342	0	109	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	359	707	0	0	668	33	342	0	109	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			12			24				24
Link Offset(ft)		0			0			-25				75
Crosswalk Width(ft)		75			16			25				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1		1			
Detector Template	Left	Thru			Thru	Right	Left		Right			
Leading Detector (ft)	20	100			100	20	20		20			
Trailing Detector (ft)	0	0			0	0	0		0			
Detector 1 Position(ft)	0	0			0	0	0		0			
Detector 1 Size(ft)	20	6			6	20	20		20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Detector 2 Position(ft)		94			94							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	pm+pt	NA			NA	Perm	Perm		Perm			
Protected Phases	5	2			6							
Permitted Phases	2					6	4		4			



Lanes, Volumes, Timings

26: I-65 NB & US 62

05/18/2023

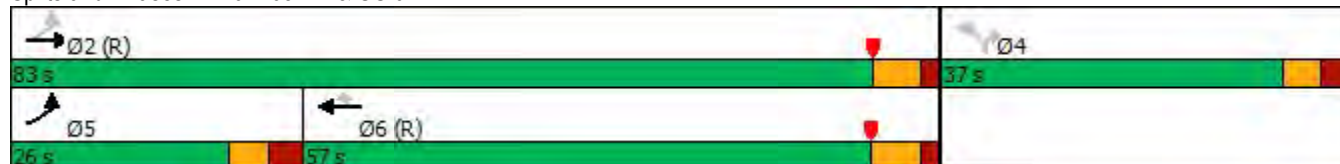


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2			6	6	4		4			
Switch Phase												
Minimum Initial (s)	5.0	30.0			30.0	30.0	15.0		15.0			
Minimum Split (s)	11.5	36.0			36.2	36.2	22.5		22.5			
Total Split (s)	26.0	83.0			57.0	57.0	37.0		37.0			
Total Split (%)	21.7%	69.2%			47.5%	47.5%	30.8%		30.8%			
Maximum Green (s)	19.5	77.0			50.8	50.8	30.5		30.5			
Yellow Time (s)	3.5	4.3			4.5	4.5	3.5		3.5			
All-Red Time (s)	3.0	1.7			1.7	1.7	3.0		3.0			
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0		0.0			
Total Lost Time (s)	6.5	6.0			6.2	6.2	6.5		6.5			
Lead/Lag	Lead				Lag				Lag			
Lead-Lag Optimize?	Yes				Yes				Yes			
Vehicle Extension (s)	3.0	0.2			0.2	0.2	6.0		6.0			
Recall Mode	None	C-Max			C-Max	C-Max	None		None			
Act Effct Green (s)	86.0	86.5			70.3	70.3	21.0		21.0			
Actuated g/C Ratio	0.72	0.72			0.59	0.59	0.18		0.18			
v/c Ratio	0.34	0.28			0.32	0.03	0.57		0.30			
Control Delay	3.9	3.1			14.0	0.1	48.7		9.3			
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0			
Total Delay	3.9	3.1			14.0	0.1	48.7		9.3			
LOS	A	A			B	A	D		A			
Approach Delay		3.4			13.4				39.2			
Approach LOS		A			B				D			

Intersection Summary

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	13 (11%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.57
Intersection Signal Delay:	13.8
Intersection LOS:	B
Intersection Capacity Utilization:	67.9%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 26: I-65 NB & US 62



Lanes, Volumes, Timings  
29: Medley Ln & US 62

05/18/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	740	5	5	615	5	5	0	5	5	0	25
Future Volume (vph)	5	740	5	5	615	5	5	0	5	5	0	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.999			0.932				0.886
Flt Protected	0.950			0.950				0.976				0.992
Satd. Flow (prot)	1770	3536	0	1770	3536	0	0	1694	0	0	1637	0
Flt Permitted	0.950			0.950				0.976				0.992
Satd. Flow (perm)	1770	3536	0	1770	3536	0	0	1694	0	0	1637	0
Link Speed (mph)		30			30			30				30
Link Distance (ft)		495			559			630				395
Travel Time (s)		11.3			12.7			14.3				9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	804	5	5	668	5	5	0	5	5	0	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	809	0	5	673	0	0	10	0	0	32	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	30.6%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
32: Howell Dr & US 62

05/18/2023

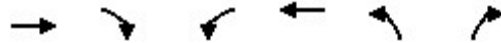
	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↙	↑↑	↖	
Traffic Volume (vph)	720	30	5	610	15	5
Future Volume (vph)	720	30	5	610	15	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	50		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00
Frt		0.850			0.968	
Flt Protected			0.950		0.963	
Satd. Flow (prot)	1863	1583	1770	3539	1736	0
Flt Permitted			0.950		0.963	
Satd. Flow (perm)	1863	1583	1770	3539	1736	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	559			438	731	
Travel Time (s)	12.7			10.0	16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	783	33	5	663	16	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	783	33	5	663	21	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	47.9%
	ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings  
34: McCormack Ave & US 62

05/18/2023



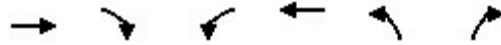
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	680	45	5	595	20	5
Future Volume (vph)	680	45	5	595	20	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Fr <sub>t</sub>	0.992			0.975		
Fl <sub>t</sub> Protected				0.961		
Satd. Flow (prot)	1848	0	0	3539	1745	0
Fl <sub>t</sub> Permitted				0.961		
Satd. Flow (perm)	1848	0	0	3539	1745	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	438			127	684	
Travel Time (s)	10.0			2.9	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	739	49	5	647	22	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	788	0	0	652	27	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes					
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	48.5%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
36: Gregory St & US 62

05/18/2023






















Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	635	50	5	590	10	5
Future Volume (vph)	635	50	5	590	10	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>	0.990			0.958		
Fl <sub>t</sub> Protected				0.967		
Satd. Flow (prot)	1844	0	0	1863	1726	0
Fl <sub>t</sub> Permitted				0.967		
Satd. Flow (perm)	1844	0	0	1863	1726	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	241			1032	915	
Travel Time (s)	5.5			23.5	20.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	690	54	5	641	11	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	744	0	0	646	16	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	46.5%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
40: US 62 & Pawnee Dr

05/18/2023

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			  	
Traffic Volume (vph)	0	0	40	0	0	35	0	1085	45	0	1020	15
Future Volume (vph)	0	0	40	0	0	35	0	1085	45	0	1020	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	275		0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91
Frt			0.865			0.865		0.994			0.998	
Flt Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3518	0	0	5075	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3518	0	0	5075	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		356			432			150			346	
Travel Time (s)		8.1			9.8			3.4			7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	43	0	0	38	0	1179	49	0	1109	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	43	0	0	38	0	1228	0	0	1125	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			6	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	41.4%						ICU Level of Service A					
Analysis Period (min)	15											

Lanes, Volumes, Timings  
43: US 62

05/18/2023



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations		↗	↗↗		↘	↘↘
Traffic Volume (vph)	0	0	820	0	0	775
Future Volume (vph)	0	0	820	0	0	775
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				50	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	3539	0	1863	3539
Flt Permitted						
Satd. Flow (perm)	0	1863	3539	0	1863	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	161		397			420
Travel Time (s)	3.7		9.0			9.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	891	0	0	842
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	891	0	0	842
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	26.0%
	ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings  
45: US 62

05/18/2023



Lane Group	SEL	SER	NEU	NEL	NET	SWT	SWR
Lane Configurations							
Traffic Volume (vph)	0	0	50	0	935	860	0
Future Volume (vph)	0	0	50	0	935	860	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		225			0
Storage Lanes	0	1		1			0
Taper Length (ft)	25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt							
Flt Protected			0.950				
Satd. Flow (prot)	0	1863	1770	0	3539	3539	0
Flt Permitted			0.950				
Satd. Flow (perm)	0	1863	1770	0	3539	3539	0
Link Speed (mph)	30				30	30	
Link Distance (ft)	290				626	476	
Travel Time (s)	6.6				14.2	10.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	54	0	1016	935	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	54	0	1016	935	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	R NA	Left	Left	Left	Right
Median Width(ft)	0				24	24	
Link Offset(ft)	0				0	0	
Crosswalk Width(ft)	16				16	16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15			9
Sign Control	Stop				Free	Free	
<b>Intersection Summary</b>							
Area Type:	Other						
Control Type:	Unsignalized						
Intersection Capacity Utilization	33.8%			ICU Level of Service A			
Analysis Period (min)	15						



Lanes, Volumes, Timings

47: US 62

05/18/2023



Lane Group	SEL	SER	NEL	NET	SWU	SWT	SWR
Lane Configurations							
Traffic Volume (vph)	0	0	0	935	30	860	0
Future Volume (vph)	0	0	0	935	30	860	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0		275		0
Storage Lanes	0	1	0		1		0
Taper Length (ft)	25		25		25		
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	0.95	0.95
Frt							
Flt Protected					0.950		
Satd. Flow (prot)	0	1863	0	3539	1770	3539	0
Flt Permitted					0.950		
Satd. Flow (perm)	0	1863	0	3539	1770	3539	0
Link Speed (mph)	30			30		30	
Link Distance (ft)	145			476		348	
Travel Time (s)	3.3			10.8		7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	1016	33	935	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	0	1016	33	935	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	R NA	Left	Right
Median Width(ft)	0			24		36	
Link Offset(ft)	0			0		0	
Crosswalk Width(ft)	16			16		16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15		9		9
Sign Control	Stop			Free		Free	

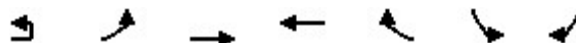
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	29.2%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

49: US 62

05/18/2023



Lane Group	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↕		↑↑	↑↑			↗
Traffic Volume (vph)	20	0	1105	1015	0	0	0
Future Volume (vph)	20	0	1105	1015	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	1.00	1.00
<b>Fr</b>							
Flt Protected	0.950						
Satd. Flow (prot)	1770	0	3539	3539	0	0	1863
Flt Permitted	0.950						
Satd. Flow (perm)	1770	0	3539	3539	0	0	1863
Link Speed (mph)			30	30		30	
Link Distance (ft)			346	361		423	
Travel Time (s)			7.9	8.2		9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	0	1201	1103	0	0	0
<b>Shared Lane Traffic (%)</b>							
Lane Group Flow (vph)	22	0	1201	1103	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Left	Right	Left	Right
Median Width(ft)			30	24		0	
Link Offset(ft)			0	0		0	
Crosswalk Width(ft)			16	16		16	
<b>Two way Left Turn Lane</b>							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15			9	15	9
Sign Control			Free	Free		Stop	



















**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	33.9%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings

51: US 62

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			 	
Traffic Volume (vph)	0	0	25	0	0	50	0	935	15	0	880	30
Future Volume (vph)	0	0	25	0	0	50	0	935	15	0	880	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Fr <sub>t</sub>			0.865			0.865		0.998			0.995	
Fl <sub>t</sub> Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3532	0	0	3522	0
Fl <sub>t</sub> Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3532	0	0	3522	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		238			284			611			626	
Travel Time (s)		5.4			6.5			13.9			14.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	27	0	0	54	0	1016	16	0	957	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	27	0	0	54	0	1032	0	0	990	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	36.3%						ICU Level of Service A					
Analysis Period (min)	15											

Lanes, Volumes, Timings  
3: US 62 & Brook St

05/18/2023























Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	5	5	540	5	5	675
Future Volume (vph)	5	5	540	5	5	675
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932		0.999			
Flt Protected	0.976					
Satd. Flow (prot)	1694	0	3536	0	0	3539
Flt Permitted	0.976					
Satd. Flow (perm)	1694	0	3536	0	0	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	802		662			397
Travel Time (s)	18.2		15.0			9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	5	587	5	5	734
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	592	0	0	739
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	32.2%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Lane Configurations												
Traffic Volume (vph)	125	35	55	10	30	10	35	500	10	25	5	615
Future Volume (vph)	125	35	55	10	30	10	35	500	10	25	5	615
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	0		0	200		0		225	
Storage Lanes	1		0	0		0	1		0		1	
Taper Length (ft)	25			25			50				50	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Frt		0.908			0.973			0.997				
Flt Protected	0.950				0.990		0.950				0.950	
Satd. Flow (prot)	1770	1691	0	0	1794	0	1770	3529	0	0	1770	3539
Flt Permitted	0.811				0.931		0.378				0.435	
Satd. Flow (perm)	1511	1691	0	0	1687	0	704	3529	0	0	810	3539
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		60			11			2				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		776			653			420				611
Travel Time (s)		17.6			14.8			9.5				13.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	136	38	60	11	33	11	38	543	11	27	5	668
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	98	0	0	55	0	38	554	0	0	32	668
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		12			0			24				24
Link Offset(ft)		12			0			0				0
Crosswalk Width(ft)		16			24			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2		1	2		1	2		1	1	2
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Left	Thru
Leading Detector (ft)	20	100		20	100		20	100		20	20	100
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	pm+pt	NA
Protected Phases		4			4		5	2		1	1	6
Permitted Phases	4			4			2			6	6	

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023



Lane Group	SWR
Lane Configurations	
Traffic Volume (vph)	85
Future Volume (vph)	85
Ideal Flow (vphpl)	1900
Storage Length (ft)	150
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	92
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Adj. Flow (vph)	92
Shared Lane Traffic (%)	
Lane Group Flow (vph)	92
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	6

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023

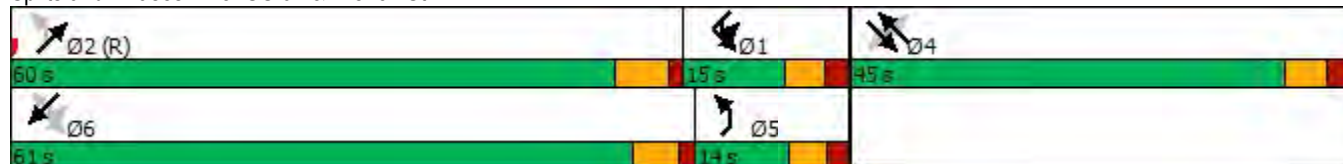


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Detector Phase	4	4		4	4		5	2		1	1	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		4.0	15.0		4.0	4.0	15.0
Minimum Split (s)	24.3	24.3		24.3	24.3		9.6	24.0		9.9	9.9	23.5
Total Split (s)	45.0	45.0		45.0	45.0		14.0	60.0		15.0	15.0	61.0
Total Split (%)	37.5%	37.5%		37.5%	37.5%		11.7%	50.0%		12.5%	12.5%	50.8%
Maximum Green (s)	38.7	38.7		38.7	38.7		8.4	54.0		9.1	9.1	55.5
Yellow Time (s)	3.8	3.8		3.8	3.8		3.5	4.7		3.5	3.5	4.2
All-Red Time (s)	2.5	2.5		2.5	2.5		2.1	1.3		2.4	2.4	1.3
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	6.3	6.3			6.3		5.6	6.0			5.9	5.5
Lead/Lag							Lag	Lead		Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	2.2		3.0	3.0	2.2
Recall Mode	None	None		None	None		None	C-Min		None	None	Min
Act Effect Green (s)	17.8	17.8			17.8		88.1	82.1			89.8	83.6
Actuated g/C Ratio	0.15	0.15			0.15		0.73	0.68			0.75	0.70
v/c Ratio	0.61	0.33			0.21		0.07	0.23			0.05	0.27
Control Delay	58.4	21.8			36.8		5.5	9.0			5.2	8.4
Queue Delay	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Delay	58.4	21.8			36.8		5.5	9.0			5.2	8.4
LOS	E	C			D		A	A			A	A
Approach Delay		43.1			36.8			8.8				7.5
Approach LOS		D			D			A				A

Intersection Summary

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	0 (0%), Referenced to phase 2:NETL, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.61
Intersection Signal Delay:	13.9
Intersection LOS:	B
Intersection Capacity Utilization:	48.4%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 5: US 62 & French St
























Lane Group	SWR
Detector Phase	6
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	23.5
Total Split (s)	61.0
Total Split (%)	50.8%
Maximum Green (s)	55.5
Yellow Time (s)	4.2
All-Red Time (s)	1.3
Lost Time Adjust (s)	0.0
Total Lost Time (s)	5.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.2
Recall Mode	Min
Act Effct Green (s)	83.6
Actuated g/C Ratio	0.70
v/c Ratio	0.08
Control Delay	2.1
Queue Delay	0.0
Total Delay	2.1
LOS	A
Approach Delay	
Approach LOS	
<b>Intersection Summary</b>	



Lanes, Volumes, Timings























8: US 62 & Main St

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			 	
Traffic Volume (vph)	0	0	10	0	0	145	0	645	20	85	685	25
Future Volume (vph)	0	0	10	0	0	145	0	645	20	85	685	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.865			0.865		0.995			0.995	
Flt Protected										0.950		
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3522	0	1770	3522	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3522	0	1770	3522	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		288			444			348			150	
Travel Time (s)		6.5			10.1			7.9			3.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	11	0	0	158	0	701	22	92	745	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	11	0	0	158	0	723	0	92	772	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			36			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			24			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	34.1%					ICU Level of Service A						
Analysis Period (min)	15											

Lanes, Volumes, Timings  
11: Ring Rd & US 62


















05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	190	540	10	15	630	550	5	5	5	400	10	125
Future Volume (vph)	190	540	10	15	630	550	5	5	5	400	10	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	100		100	0		100	0		0
Storage Lanes	2		0	1		1	0		1	1		1
Taper Length (ft)	25			50			25			25		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.997				0.850			0.850			0.850
Flt Protected	0.950			0.950				0.976		0.950	0.955	
Satd. Flow (prot)	3433	3529	0	1770	3539	1583	0	1818	1583	1681	1690	1583
Flt Permitted	0.950			0.426				0.976		0.950	0.955	
Satd. Flow (perm)	3433	3529	0	794	3539	1583	0	1818	1583	1681	1690	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				371			155			155
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		361			400			333			1291	
Travel Time (s)		8.2			9.1			7.6			29.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	207	587	11	16	685	598	5	5	5	435	11	136
Shared Lane Traffic (%)										49%		
Lane Group Flow (vph)	207	598	0	16	685	598	0	10	5	222	224	136
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			36			12			12	
Link Offset(ft)		0			0			0			18	
Crosswalk Width(ft)		50			16			30			28	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		pm+pt	NA	Perm	Split	NA	Perm	Split	NA	Perm
Protected Phases	5	2		1	6		4	4		8	8	
Permitted Phases				6		6				4		8



Lanes, Volumes, Timings  
14: Dolphin Dr & US 62

05/18/2023

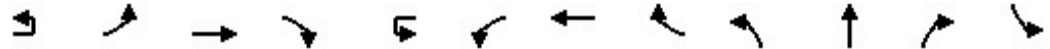
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	115	830	0	0	1125	145	0	0	10	0	0	70
Future Volume (vph)	115	830	0	0	1125	145	0	0	10	0	0	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		1
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.983				0.865			0.865
Flt Protected	0.950											
Satd. Flow (prot)	1770	3539	0	0	3479	0	0	0	1611	0	0	1611
Flt Permitted	0.950											
Satd. Flow (perm)	1770	3539	0	0	3479	0	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		400			1196			275				468
Travel Time (s)		9.1			27.2			6.3				10.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	125	902	0	0	1223	158	0	0	11	0	0	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	125	902	0	0	1381	0	0	0	11	0	0	76
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	48.8%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	5	15	720	100	150	55	1135	15	110	5	70	5
Future Volume (vph)	5	15	720	100	150	55	1135	15	110	5	70	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		175		200		200		0	0		0	0
Storage Lanes		1		1		1		0	0		1	0
Taper Length (ft)		75				50			25			25
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Fr <sub>t</sub>				0.850			0.998				0.850	
Fl <sub>t</sub> Protected		0.950				0.950				0.954		
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3532	0	0	1777	1583	0
Fl <sub>t</sub> Permitted		0.185				0.272				0.954		
Satd. Flow (perm)	0	345	3539	1583	0	507	3532	0	0	1777	1583	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				199			2				205	
Link Speed (mph)			30				30			30		
Link Distance (ft)			1196				659			621		
Travel Time (s)			27.2				15.0			14.1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	16	783	109	163	60	1234	16	120	5	76	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	21	783	109	0	223	1250	0	0	125	76	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)			30				12			0		
Link Offset(ft)			-12				0			50		
Crosswalk Width(ft)			70				40			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Number of Detectors	1	1	2	1	1	1	2		1	2	1	1
Detector Template	Left	Left	Thru	Right	Left	Left	Thru		Left	Thru	Right	Left
Leading Detector (ft)	20	20	100	20	20	20	100		20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0	0		0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0		0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	20	6		20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94				94			94		
Detector 2 Size(ft)			6				6			6		
Detector 2 Type			Cl+Ex				Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0				0.0			0.0		
Turn Type	pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt	NA		Split	NA	Perm	Split
Protected Phases	5	5	2		1	1	6		4	4		8
Permitted Phases	2	2		2	6	6					4	

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

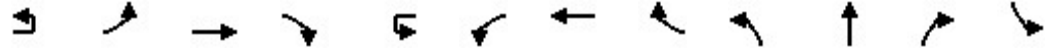
05/18/2023



Lane Group	SBT	SBR
Lane Configurations	↕	↗
Traffic Volume (vph)	15	20
Future Volume (vph)	15	20
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		50
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt		0.850
Flt Protected	0.988	
Satd. Flow (prot)	1840	1583
Flt Permitted	0.988	
Satd. Flow (perm)	1840	1583
Right Turn on Red		Yes
Satd. Flow (RTOR)		205
Link Speed (mph)	30	
Link Distance (ft)	310	
Travel Time (s)	7.0	
Peak Hour Factor	0.92	0.92
Adj. Flow (vph)	16	22
Shared Lane Traffic (%)		
Lane Group Flow (vph)	21	22
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	0	
Link Offset(ft)	-40	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Detector 1 Position(ft)	0	0
Detector 1 Size(ft)	6	20
Detector 1 Type	Cl+Ex	Cl+Ex
Detector 1 Channel		
Detector 1 Extend (s)	0.0	0.0
Detector 1 Queue (s)	0.0	0.0
Detector 1 Delay (s)	0.0	0.0
Detector 2 Position(ft)	94	
Detector 2 Size(ft)	6	
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	Perm
Protected Phases	8	
Permitted Phases		8

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Detector Phase	5	5	2	2	1	1	6		4	4	4	8
Switch Phase												
Minimum Initial (s)	5.0	5.0	25.0	25.0	5.0	5.0	25.0		7.0	7.0	7.0	5.0
Minimum Split (s)	10.8	10.8	31.7	31.7	11.1	11.1	32.1		13.5	13.5	13.5	13.5
Total Split (s)	11.0	11.0	58.0	58.0	24.0	24.0	71.0		24.0	24.0	24.0	14.0
Total Split (%)	9.2%	9.2%	48.3%	48.3%	20.0%	20.0%	59.2%		20.0%	20.0%	20.0%	11.7%
Maximum Green (s)	5.2	5.2	51.6	51.6	17.9	17.9	63.9		17.5	17.5	17.5	7.5
Yellow Time (s)	3.5	3.5	4.1	4.1	3.5	3.5	4.8		3.5	3.5	3.5	3.5
All-Red Time (s)	2.3	2.3	2.3	2.3	2.6	2.6	2.3		3.0	3.0	3.0	3.0
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.8	6.4	6.4			6.1	7.1		6.5	6.5	
Lead/Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		5.0	5.0	5.0	3.0
Recall Mode	None	None	C-Max	C-Max	None	None	C-Max		None	None	None	None
Act Effect Green (s)		72.8	66.7	66.7			84.2	78.8		14.9	14.9	
Actuated g/C Ratio		0.61	0.56	0.56			0.70	0.66		0.12	0.12	
v/c Ratio		0.08	0.40	0.11			0.47	0.54		0.57	0.20	
Control Delay		6.8	14.0	3.6			9.3	10.6		59.3	1.2	
Queue Delay		0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Total Delay		6.8	14.0	3.6			9.3	10.6		59.3	1.2	
LOS		A	B	A			A	B		E	A	
Approach Delay			12.6				10.4			37.3		
Approach LOS			B				B			D		

Intersection Summary

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	72 (60%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle:	75
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.57
Intersection Signal Delay:	13.5
Intersection LOS:	B
Intersection Capacity Utilization:	68.1%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 17: Commerce Dr & US 62



Lanes, Volumes, Timings  
 17: Commerce Dr & US 62

05/18/2023






















Lane Group	SBT	SBR
Detector Phase	8	8
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	13.5	13.5
Total Split (s)	14.0	14.0
Total Split (%)	11.7%	11.7%
Maximum Green (s)	7.5	7.5
Yellow Time (s)	3.5	3.5
All-Red Time (s)	3.0	3.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.5
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)	6.7	6.7
Actuated g/C Ratio	0.06	0.06
v/c Ratio	0.21	0.08
Control Delay	58.6	0.6
Queue Delay	0.0	0.0
Total Delay	58.6	0.6
LOS	E	A
Approach Delay	28.9	
Approach LOS	C	
Intersection Summary		



Lanes, Volumes, Timings  
20: Executive Dr & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	145	745	55	45	1025	180	0	0	35	0	0	330
Future Volume (vph)	145	745	55	45	1025	180	0	0	35	0	0	330
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	185		0	225		0	0		100	0		0
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990				0.850			0.865			0.865
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	3504	0	1770	3539	1583	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	3504	0	1770	3539	1583	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		659			355			493				539
Travel Time (s)		15.0			8.1			11.2				12.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	158	810	60	49	1114	196	0	0	38	0	0	359
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	870	0	49	1114	196	0	0	38	0	0	359
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0				0
Link Offset(ft)		-10			0			-15				25
Crosswalk Width(ft)		40			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	55.4%
ICU Level of Service	B
Analysis Period (min)	15

Lanes, Volumes, Timings

23: US 62

05/18/2023



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑↑		↑
Traffic Volume (vph)	245	0	0	725	0	175
Future Volume (vph)	245	0	0	725	0	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	1.00
Fr <sub>t</sub>						0.865
Fl <sub>t</sub> Protected						
Satd. Flow (prot)	3539	0	0	5085	0	1611
Fl <sub>t</sub> Permitted						
Satd. Flow (perm)	3539	0	0	5085	0	1611
Link Speed (mph)	30			30	30	
Link Distance (ft)	451			180	506	
Travel Time (s)	10.3			4.1	11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	266	0	0	788	0	190
Shared Lane Traffic (%)						
Lane Group Flow (vph)	266	0	0	788	0	190
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	24.3%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
25: US 62

05/18/2023



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑	↑		
Traffic Volume (vph)	0	420	725	60	0	0
Future Volume (vph)	0	420	725	60	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			150	0	0
Storage Lanes	0			1	0	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850		
Flt Protected						
Satd. Flow (prot)	0	3539	3539	1583	0	0
Flt Permitted						
Satd. Flow (perm)	0	3539	3539	1583	0	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		180	322		444	
Travel Time (s)		4.1	7.3		10.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	457	788	65	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	457	788	65	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Right
Median Width(ft)		0	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	23.4%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

26: US 62

05/18/2023



Lane Group	EBL	WBL	NEL	NET	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	15	395	290	230	155	570
Future Volume (vph)	15	395	290	230	155	570
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.97	0.97	1.00	0.95	1.00	0.95
Frnt						
Flt Protected	0.950	0.950	0.950		0.950	
Satd. Flow (prot)	3433	3433	1770	3539	1770	3539
Flt Permitted	0.950	0.950	0.374		0.597	
Satd. Flow (perm)	3433	3433	697	3539	1112	3539
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)				30		30
Link Distance (ft)				275		451
Travel Time (s)				6.3		10.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	429	315	250	168	620
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	429	315	250	168	620
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Left	Left	Left
Median Width(ft)				12		12
Link Offset(ft)				0		0
Crosswalk Width(ft)				25		16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15	15		15	
Number of Detectors	1	1	1	2	1	2
Detector Template	Left	Left	Left	Thru	Left	Thru
Leading Detector (ft)	20	20	20	100	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	20	6	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)				94		94
Detector 2 Size(ft)				6		6
Detector 2 Type				Cl+Ex		Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)				0.0		0.0
Turn Type	Perm	Perm	Perm	NA	Perm	NA
Protected Phases				4		8
Permitted Phases	6	2	4		8	
Detector Phase	6	2	4	4	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0

Lanes, Volumes, Timings

26: US 62

05/18/2023

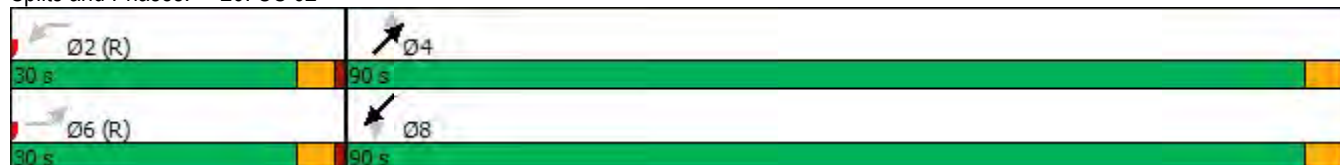


Lane Group	EBL	WBL	NEL	NET	SWL	SWT
Minimum Split (s)	9.5	9.5	9.5	9.5	9.5	9.5
Total Split (s)	30.0	30.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	25.5	25.5	85.5	85.5	85.5	85.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	None	None	None	None
Act Effect Green (s)	43.0	43.0	68.0	68.0	68.0	68.0
Actuated g/C Ratio	0.36	0.36	0.57	0.57	0.57	0.57
v/c Ratio	0.01	0.35	0.80	0.12	0.27	0.31
Control Delay	34.5	33.5	33.1	8.5	12.3	13.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.5	33.5	33.1	8.5	12.3	13.5
LOS	C	C	C	A	B	B
Approach Delay				22.2	13.3	
Approach LOS				C	B	

Intersection Summary

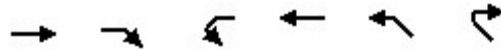
Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 107 (89%), Referenced to phase 2:WBL and 6:EBL, Start of Green  
 Natural Cycle: 40  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 21.1  
 Intersection Capacity Utilization 54.3%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service A

Splits and Phases: 26: US 62



Lanes, Volumes, Timings  
28: US 62

05/18/2023





















Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑	↑		↑↑		
Traffic Volume (vph)	520	260	0	1250	0	0
Future Volume (vph)	520	260	0	1250	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		125	0		0	0
Storage Lanes		1	0		0	0
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				
Flt Protected						
Satd. Flow (prot)	3539	1583	0	3539	0	0
Flt Permitted						
Satd. Flow (perm)	3539	1583	0	3539	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	355			240	338	
Travel Time (s)	8.1			5.5	7.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	565	283	0	1359	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	565	283	0	1359	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	37.9%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
29: Medley Ln & US 62

05/18/2023

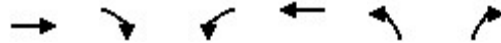
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	405	5	5	770	5	5	0	5	5	0	10
Future Volume (vph)	10	405	5	5	770	5	5	0	5	5	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.999			0.932			0.907	
Flt Protected	0.950			0.950				0.976			0.985	
Satd. Flow (prot)	1770	3532	0	1770	3536	0	0	1694	0	0	1664	0
Flt Permitted	0.950			0.950				0.976			0.985	
Satd. Flow (perm)	1770	3532	0	1770	3536	0	0	1694	0	0	1664	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		322			559			630			395	
Travel Time (s)		7.3			12.7			14.3			9.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	440	5	5	837	5	5	0	5	5	0	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	445	0	5	842	0	0	10	0	0	16	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.4%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
32: Howell Dr & US 62

05/18/2023



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↓	↑↑	↓	
Traffic Volume (vph)	370	45	5	775	5	5
Future Volume (vph)	370	45	5	775	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	50		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00
Frt		0.850			0.932	
Flt Protected			0.950		0.976	
Satd. Flow (prot)	1863	1583	1770	3539	1694	0
Flt Permitted			0.950		0.976	
Satd. Flow (perm)	1863	1583	1770	3539	1694	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	559			438	731	
Travel Time (s)	12.7			10.0	16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	402	49	5	842	5	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	402	49	5	842	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

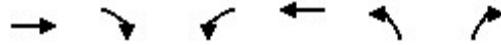
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.4%
ICU Level of Service	A
Analysis Period (min)	15



Lanes, Volumes, Timings  
34: McCormack Ave & US 62

05/18/2023



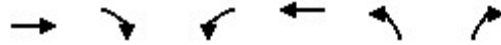
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	365	10	10	750	30	5
Future Volume (vph)	365	10	10	750	30	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Fr <sub>t</sub>	0.996			0.982		
Fl <sub>t</sub> Protected				0.999	0.958	
Satd. Flow (prot)	1855	0	0	3536	1752	0
Fl <sub>t</sub> Permitted				0.999	0.958	
Satd. Flow (perm)	1855	0	0	3536	1752	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	438			127	684	
Travel Time (s)	10.0			2.9	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	397	11	11	815	33	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	408	0	0	826	38	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes					
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	37.8%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
36: Gregory St & US 62

05/18/2023






















Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	355	15	5	755	5	5
Future Volume (vph)	355	15	5	755	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>	0.995			0.932		
Fl <sub>t</sub> Protected				0.976		
Satd. Flow (prot)	1853	0	0	1863	1694	0
Fl <sub>t</sub> Permitted				0.976		
Satd. Flow (perm)	1853	0	0	1863	1694	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	241			1032	915	
Travel Time (s)	5.5			23.5	20.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	386	16	5	821	5	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	402	0	0	826	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	53.7%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
40: US 62 & Pawnee Dr

05/18/2023

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			  	
Traffic Volume (vph)	0	0	20	0	0	15	0	770	20	0	780	30
Future Volume (vph)	0	0	20	0	0	15	0	770	20	0	780	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	275		0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91
Frt			0.865			0.865		0.996			0.994	
Flt Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3525	0	0	5055	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3525	0	0	5055	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		356			432			150			346	
Travel Time (s)		8.1			9.8			3.4			7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	22	0	0	16	0	837	22	0	848	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	22	0	0	16	0	859	0	0	881	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			6	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	31.9%						ICU Level of Service A					
Analysis Period (min)	15											

Lanes, Volumes, Timings  
43: US 62

05/18/2023



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations		↗	↗↗		↘	↗↗
Traffic Volume (vph)	0	0	545	0	0	680
Future Volume (vph)	0	0	545	0	0	680
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				50	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	3539	0	1863	3539
Flt Permitted						
Satd. Flow (perm)	0	1863	3539	0	1863	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	161		397			420
Travel Time (s)	3.7		9.0			9.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	592	0	0	739
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	592	0	0	739
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	22.1%
	ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings  
45: US 62

05/18/2023



Lane Group	SEL	SER	NEU	NEL	NET	SWT	SWR
Lane Configurations							
Traffic Volume (vph)	0	0	50	0	645	675	0
Future Volume (vph)	0	0	50	0	645	675	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		225			0
Storage Lanes	0	1		1			0
Taper Length (ft)	25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt							
Flt Protected			0.950				
Satd. Flow (prot)	0	1863	1770	0	3539	3539	0
Flt Permitted			0.950				
Satd. Flow (perm)	0	1863	1770	0	3539	3539	0
Link Speed (mph)	30				30	30	
Link Distance (ft)	290				626	476	
Travel Time (s)	6.6				14.2	10.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	54	0	701	734	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	54	0	701	734	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	R NA	Left	Left	Left	Right
Median Width(ft)	0				24	24	
Link Offset(ft)	0				0	0	
Crosswalk Width(ft)	16				16	16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15			9
Sign Control	Stop				Free	Free	
<b>Intersection Summary</b>							
Area Type:	Other						
Control Type:	Unsignalized						
Intersection Capacity Utilization	28.7%			ICU Level of Service A			
Analysis Period (min)	15						

Lanes, Volumes, Timings  
47: US 62

05/18/2023



Lane Group	SEL	SER	NEL	NET	SWU	SWT	SWR
Lane Configurations							
Traffic Volume (vph)	0	0	0	645	20	675	0
Future Volume (vph)	0	0	0	645	20	675	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0		275		0
Storage Lanes	0	1	0		1		0
Taper Length (ft)	25		25		25		
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	0.95	0.95
Frt							
Flt Protected					0.950		
Satd. Flow (prot)	0	1863	0	3539	1770	3539	0
Flt Permitted					0.950		
Satd. Flow (perm)	0	1863	0	3539	1770	3539	0
Link Speed (mph)	30			30		30	
Link Distance (ft)	145			476		348	
Travel Time (s)	3.3			10.8		7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	701	22	734	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	0	701	22	734	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	R NA	Left	Right
Median Width(ft)	0			24		36	
Link Offset(ft)	0			0		0	
Crosswalk Width(ft)	16			16		16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15		9		9
Sign Control	Stop			Free		Free	









Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	22.0%
ICU Level of Service	A
Analysis Period (min)	15

# Lanes, Volumes, Timings

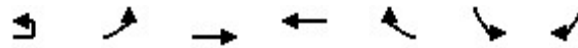
48:

05/18/2023

						
Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	0	0	155	0	0	260
Future Volume (vph)	0	0	155	0	0	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>						0.865
Fl <sub>t</sub> Protected						
Satd. Flow (prot)	0	0	1863	0	0	1611
Fl <sub>t</sub> Permitted						
Satd. Flow (perm)	0	0	1863	0	0	1611
Link Speed (mph)		30	30		30	
Link Distance (ft)		235	545		338	
Travel Time (s)		5.3	12.4		7.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	168	0	0	283
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	168	0	0	283
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Stop	Free		Yield	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	30.9%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings  
49: US 62

05/18/2023



Lane Group	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↔		↑↑	↑↑			↗
Traffic Volume (vph)	50	0	740	760	0	0	0
Future Volume (vph)	50	0	740	760	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	1.00	1.00
<b>Frnt</b>							
Flt Protected	0.950						
Satd. Flow (prot)	1770	0	3539	3539	0	0	1863
Flt Permitted	0.950						
Satd. Flow (perm)	1770	0	3539	3539	0	0	1863
Link Speed (mph)			30	30		30	
Link Distance (ft)			346	361		423	
Travel Time (s)			7.9	8.2		9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	0	804	826	0	0	0
<b>Shared Lane Traffic (%)</b>							
Lane Group Flow (vph)	54	0	804	826	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Left	Right	Left	Right
Median Width(ft)			30	24		0	
Link Offset(ft)			0	0		0	
Crosswalk Width(ft)			16	16		16	
<b>Two way Left Turn Lane</b>							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15			9	15	9
Sign Control			Free	Free		Stop	

**Intersection Summary**



















Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.0%
Analysis Period (min)	15
	ICU Level of Service A



Lanes, Volumes, Timings

51: US 62

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			 	
Traffic Volume (vph)	0	0	25	0	0	50	0	645	15	0	705	20
Future Volume (vph)	0	0	25	0	0	50	0	645	15	0	705	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.865			0.865		0.997			0.996	
Flt Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3529	0	0	3525	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3529	0	0	3525	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		238			284			611			626	
Travel Time (s)		5.4			6.5			13.9			14.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	27	0	0	54	0	701	16	0	766	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	27	0	0	54	0	717	0	0	788	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	30.1%						ICU Level of Service A					
Analysis Period (min)	15											

# Lanes, Volumes, Timings

55:

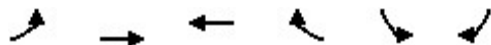
05/18/2023

	↑	↖	↙	↓	↘	↗
Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	↑					↗
Traffic Volume (vph)	290	0	0	0	0	60
Future Volume (vph)	290	0	0	0	0	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>						0.865
Fl <sub>t</sub> Protected						
Satd. Flow (prot)	1863	0	0	0	0	1611
Fl <sub>t</sub> Permitted						
Satd. Flow (perm)	1863	0	0	0	0	1611
Link Speed (mph)	30			30	30	
Link Distance (ft)	645			263	444	
Travel Time (s)	14.7			6.0	10.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	315	0	0	0	0	65
Shared Lane Traffic (%)						
Lane Group Flow (vph)	315	0	0	0	0	65
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Stop	Yield	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	25.6%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

56: US 62

05/18/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑			↑↑
Traffic Volume (vph)	0	520	965	0	0	285
Future Volume (vph)	0	520	965	0	0	285
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	0.95	1.00	1.00	0.88
Fr <sub>t</sub>						0.850
Fl <sub>t</sub> Protected						
Satd. Flow (prot)	0	5085	3539	0	0	2787
Fl <sub>t</sub> Permitted						
Satd. Flow (perm)	0	5085	3539	0	0	2787
Link Speed (mph)		30	30		30	
Link Distance (ft)		240	275		254	
Travel Time (s)		5.5	6.3		5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	565	1049	0	0	310
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	565	1049	0	0	310
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	43.3%
Analysis Period (min)	15
	ICU Level of Service A

# Lanes, Volumes, Timings

58:

05/18/2023



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	15	285
Future Volume (vph)	0	0	0	0	15	285
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						0.998
Satd. Flow (prot)	0	0	0	0	0	1859
Flt Permitted						0.998
Satd. Flow (perm)	0	0	0	0	0	1859
Link Speed (mph)	30		30			30
Link Distance (ft)	247		254			459
Travel Time (s)	5.6		5.8			10.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	16	310
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	326
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Stop			Free

## Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	19.2%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings

59:

05/18/2023



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations				4		
Traffic Volume (vph)	0	0	395	175	0	0
Future Volume (vph)	0	0	395	175	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected				0.967		
Satd. Flow (prot)	0	0	0	1801	0	0
Flt Permitted				0.967		
Satd. Flow (perm)	0	0	0	1801	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	394			404	506	
Travel Time (s)	9.0			9.2	11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	429	190	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	619	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.4%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
3: US 62 & Brook St

05/18/2023






















Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	5	5	815	5	5	770
Future Volume (vph)	5	5	815	5	5	770
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932		0.999			
Flt Protected	0.976					
Satd. Flow (prot)	1694	0	3536	0	0	3539
Flt Permitted	0.976					
Satd. Flow (perm)	1694	0	3536	0	0	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	802		662			397
Travel Time (s)	18.2		15.0			9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	5	886	5	5	837
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	891	0	0	842
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.8%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Lane Configurations												
Traffic Volume (vph)	170	50	50	10	45	15	65	740	15	25	10	715
Future Volume (vph)	170	50	50	10	45	15	65	740	15	25	10	715
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	0		0	200		0		225	
Storage Lanes	1		0	0		0	1		0		1	
Taper Length (ft)	25			25			50				50	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95
Frt		0.925			0.972			0.997				
Flt Protected	0.950				0.993		0.950				0.950	
Satd. Flow (prot)	1770	1723	0	0	1798	0	1770	3529	0	0	1770	3539
Flt Permitted	0.739				0.952		0.321				0.308	
Satd. Flow (perm)	1377	1723	0	0	1724	0	598	3529	0	0	574	3539
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		44			12			2				
Link Speed (mph)		30			30			30				30
Link Distance (ft)		776			653			420				611
Travel Time (s)		17.6			14.8			9.5				13.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	185	54	54	11	49	16	71	804	16	27	11	777
Shared Lane Traffic (%)												
Lane Group Flow (vph)	185	108	0	0	76	0	71	820	0	0	38	777
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		12			0			24				24
Link Offset(ft)		12			0			0				0
Crosswalk Width(ft)		16			24			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Number of Detectors	1	2		1	2		1	2		1	1	2
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Left	Thru
Leading Detector (ft)	20	100		20	100		20	100		20	20	100
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	pm+pt	NA
Protected Phases		4			4		5	2		1	1	6
Permitted Phases	4			4			2			6	6	

Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023



Lane Group	SWR
Lane Configurations	
Traffic Volume (vph)	155
Future Volume (vph)	155
Ideal Flow (vphpl)	1900
Storage Length (ft)	150
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	156
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Adj. Flow (vph)	168
Shared Lane Traffic (%)	
Lane Group Flow (vph)	168
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	6



Lanes, Volumes, Timings  
5: US 62 & French St

05/18/2023

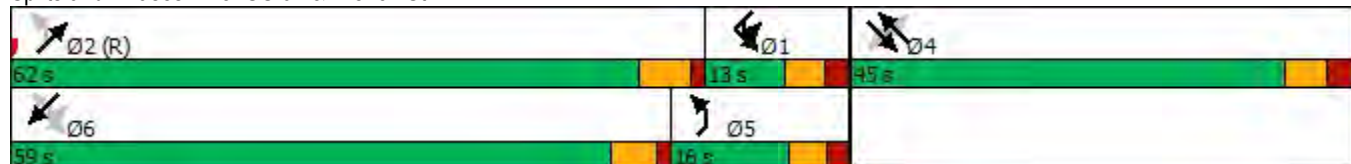


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWU	SWL	SWT
Detector Phase	4	4		4	4		5	2		1	1	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		4.0	15.0		4.0	4.0	15.0
Minimum Split (s)	24.3	24.3		24.3	24.3		9.6	24.0		9.9	9.9	23.5
Total Split (s)	45.0	45.0		45.0	45.0		16.0	62.0		13.0	13.0	59.0
Total Split (%)	37.5%	37.5%		37.5%	37.5%		13.3%	51.7%		10.8%	10.8%	49.2%
Maximum Green (s)	38.7	38.7		38.7	38.7		10.4	56.0		7.1	7.1	53.5
Yellow Time (s)	3.8	3.8		3.8	3.8		3.5	4.7		3.5	3.5	4.2
All-Red Time (s)	2.5	2.5		2.5	2.5		2.1	1.3		2.4	2.4	1.3
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	6.3	6.3			6.3		5.6	6.0			5.9	5.5
Lead/Lag							Lag	Lead		Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	2.2		3.0	3.0	2.2
Recall Mode	None	None		None	None		None	C-Min		None	None	Min
Act Effct Green (s)	21.5	21.5			21.5		84.7	79.4			82.4	77.3
Actuated g/C Ratio	0.18	0.18			0.18		0.71	0.66			0.69	0.64
v/c Ratio	0.75	0.31			0.24		0.15	0.35			0.08	0.34
Control Delay	64.6	26.4			35.0		7.6	11.1			7.4	11.8
Queue Delay	0.0	0.0			0.0		0.0	0.0			0.0	0.0
Total Delay	64.6	26.4			35.0		7.6	11.1			7.4	11.8
LOS	E	C			D		A	B			A	B
Approach Delay		50.5			35.0			10.8				10.1
Approach LOS		D			D			B				B

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:NETL, Start of Green  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.75  
 Intersection Signal Delay: 16.5      Intersection LOS: B  
 Intersection Capacity Utilization 55.5%      ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 5: US 62 & French St
























Lane Group	SWR
Detector Phase	6
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	23.5
Total Split (s)	59.0
Total Split (%)	49.2%
Maximum Green (s)	53.5
Yellow Time (s)	4.2
All-Red Time (s)	1.3
Lost Time Adjust (s)	0.0
Total Lost Time (s)	5.5
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.2
Recall Mode	Min
Act Effct Green (s)	77.3
Actuated g/C Ratio	0.64
v/c Ratio	0.16
Control Delay	2.8
Queue Delay	0.0
Total Delay	2.8
LOS	A
Approach Delay	
Approach LOS	
<b>Intersection Summary</b>	

Lanes, Volumes, Timings

8: US 62 & Main St

05/18/2023

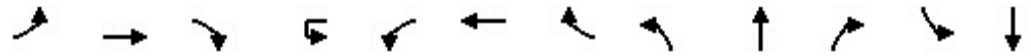
												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			 	
Traffic Volume (vph)	0	0	20	0	0	180	0	950	15	170	870	15
Future Volume (vph)	0	0	20	0	0	180	0	950	15	170	870	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.865			0.865		0.998			0.998	
Flt Protected										0.950		
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3532	0	1770	3532	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3532	0	1770	3532	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		288			444			348			150	
Travel Time (s)		6.5			10.1			7.9			3.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	22	0	0	196	0	1033	16	185	946	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	22	0	0	196	0	1049	0	185	962	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			36			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			24			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	44.5%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
11: Ring Rd & US 62

05/18/2023



Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	275	820	10	5	45	705	485	20	10	5	850	10
Future Volume (vph)	275	820	10	5	45	705	485	20	10	5	850	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0		100		100	0		100	0	
Storage Lanes	2		0		1		1	0		1	1	
Taper Length (ft)	25				50			25			25	
Lane Util. Factor	0.97	0.95	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95
Frt		0.998					0.850			0.850		
Flt Protected	0.950				0.950				0.968		0.950	0.953
Satd. Flow (prot)	3433	3532	0	0	1770	3539	1583	0	1803	1583	1681	1686
Flt Permitted	0.950				0.120				0.968		0.950	0.953
Satd. Flow (perm)	3433	3532	0	0	224	3539	1583	0	1803	1583	1681	1686
Right Turn on Red			Yes				Yes			Yes		
Satd. Flow (RTOR)		1					277			213		
Link Speed (mph)		30				30			30			30
Link Distance (ft)		361				400			333			1291
Travel Time (s)		8.2				9.1			7.6			29.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	299	891	11	5	49	766	527	22	11	5	924	11
Shared Lane Traffic (%)											49%	
Lane Group Flow (vph)	299	902	0	0	54	766	527	0	33	5	471	464
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)		24				36			12			12
Link Offset(ft)		0				0			0			18
Crosswalk Width(ft)		50				16			30			28
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15		9	15		9	15	
Number of Detectors	1	2		1	1	2	1	1	2	1	1	2
Detector Template	Left	Thru		Left	Left	Thru	Right	Left	Thru	Right	Left	Thru
Leading Detector (ft)	20	100		20	20	100	20	20	100	20	20	100
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	20	6	20	20	6	20	20	6
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94				94			94			94
Detector 2 Size(ft)		6				6			6			6
Detector 2 Type		Cl+Ex				Cl+Ex			Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0				0.0			0.0			0.0
Turn Type	Prot	NA		pm+pt	pm+pt	NA	Perm	Split	NA	Perm	Split	NA
Protected Phases	5	2		1	1	6		4	4		8	8
Permitted Phases				6	6		6			4		

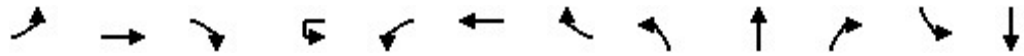
Lanes, Volumes, Timings  
 11: Ring Rd & US 62

05/18/2023

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	290
Future Volume (vph)	290
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	Yes
Satd. Flow (RTOR)	315
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Adj. Flow (vph)	315
Shared Lane Traffic (%)	
Lane Group Flow (vph)	315
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Number of Detectors	1
Detector Template	Right
Leading Detector (ft)	20
Trailing Detector (ft)	0
Detector 1 Position(ft)	0
Detector 1 Size(ft)	20
Detector 1 Type	Cl+Ex
Detector 1 Channel	
Detector 1 Extend (s)	0.0
Detector 1 Queue (s)	0.0
Detector 1 Delay (s)	0.0
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	Perm
Protected Phases	
Permitted Phases	8

Lanes, Volumes, Timings  
11: Ring Rd & US 62

05/18/2023



Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Detector Phase	5	2		1	1	6	6	4	4	4	8	8
Switch Phase												
Minimum Initial (s)	5.0	25.0		5.0	5.0	25.0	25.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	11.1	49.3		11.5	11.5	32.0	32.0	10.5	10.5	10.5	46.6	46.6
Total Split (s)	20.0	50.0		12.0	12.0	42.0	42.0	11.0	11.0	11.0	47.0	47.0
Total Split (%)	16.7%	41.7%		10.0%	10.0%	35.0%	35.0%	9.2%	9.2%	9.2%	39.2%	39.2%
Maximum Green (s)	13.9	43.7		5.5	5.5	35.0	35.0	4.5	4.5	4.5	40.4	40.4
Yellow Time (s)	3.5	4.0		3.5	3.5	4.7	4.7	4.6	4.6	4.6	4.7	4.7
All-Red Time (s)	2.6	2.3		3.0	3.0	2.3	2.3	1.9	1.9	1.9	1.9	1.9
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	6.1	6.3			6.5	7.0	7.0		6.5	6.5	6.6	6.6
Lead/Lag	Lag	Lag		Lead	Lead	Lead	Lead					
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes					
Vehicle Extension (s)	3.0	2.6		3.0	3.0	2.6	2.6	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	C-Min		None	None	Min	Min	None	None	None	None	None
Walk Time (s)		7.0									7.0	7.0
Flash Dont Walk (s)		36.0									33.0	33.0
Pedestrian Calls (#/hr)		0									0	0
Act Effct Green (s)	13.5	52.3			42.4	41.9	41.9		5.1	5.1	38.3	38.3
Actuated g/C Ratio	0.11	0.44			0.35	0.35	0.35		0.04	0.04	0.32	0.32
v/c Ratio	0.77	0.59			0.35	0.62	0.72		0.43	0.02	0.88	0.86
Control Delay	66.1	30.0			31.8	34.5	22.9		73.9	0.2	57.0	55.1
Queue Delay	0.0	0.0			0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	66.1	30.0			31.8	34.5	22.9		73.9	0.2	57.0	55.1
LOS	E	C			C	C	C		E	A	E	E
Approach Delay		39.0				29.8			64.2			43.2
Approach LOS		D				C			E			D

Intersection Summary

Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 111 (93%), Referenced to phase 2:EBT, Start of Green  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 37.4  
 Intersection LOS: D  
 Intersection Capacity Utilization 75.9%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 11: Ring Rd & US 62




















Lanes, Volumes, Timings  
 11: Ring Rd & US 62

05/18/2023

Lane Group	SBR
Detector Phase	8
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	46.6
Total Split (s)	47.0
Total Split (%)	39.2%
Maximum Green (s)	40.4
Yellow Time (s)	4.7
All-Red Time (s)	1.9
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.6
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	33.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	38.3
Actuated g/C Ratio	0.32
v/c Ratio	0.44
Control Delay	5.1
Queue Delay	0.0
Total Delay	5.1
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings  
14: Dolphin Dr & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	165	1510	5	0	1060	180	0	0	35	0	0	180
Future Volume (vph)	165	1510	5	0	1060	180	0	0	35	0	0	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		1
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.978				0.865			0.865
Flt Protected	0.950											
Satd. Flow (prot)	1770	3539	0	0	3461	0	0	0	1611	0	0	1611
Flt Permitted	0.950											
Satd. Flow (perm)	1770	3539	0	0	3461	0	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		400			1196			275				468
Travel Time (s)		9.1			27.2			6.3				10.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	179	1641	5	0	1152	196	0	0	38	0	0	196
Shared Lane Traffic (%)												
Lane Group Flow (vph)	179	1646	0	0	1348	0	0	0	38	0	0	196
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		30			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 52.9%

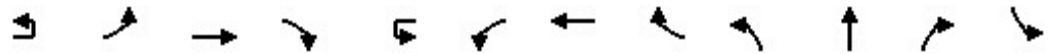
ICU Level of Service A

Analysis Period (min) 15



Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023



Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	20	15	1265	245	205	70	980	20	215	5	135	10
Future Volume (vph)	20	15	1265	245	205	70	980	20	215	5	135	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		175		200		200		0	0		0	0
Storage Lanes		1		1		1		0	0		1	0
Taper Length (ft)		75				50			25			25
Lane Util. Factor	0.95	1.00	0.95	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt				0.850			0.997				0.850	
Flt Protected		0.950				0.950				0.953		
Satd. Flow (prot)	0	1770	3539	1583	0	1770	3529	0	0	1775	1583	0
Flt Permitted		0.132				0.084				0.953		
Satd. Flow (perm)	0	246	3539	1583	0	156	3529	0	0	1775	1583	0
Right Turn on Red				Yes				Yes			Yes	
Satd. Flow (RTOR)				173			3				207	
Link Speed (mph)			30				30			30		
Link Distance (ft)			1196				659			621		
Travel Time (s)			27.2				15.0			14.1		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	16	1375	266	223	76	1065	22	234	5	147	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	38	1375	266	0	299	1087	0	0	239	147	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Right	R NA	Left	Left	Right	Left	Left	Right	Left
Median Width(ft)			30				12			0		
Link Offset(ft)			-12				0			50		
Crosswalk Width(ft)			70				40			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15		9	9	15		9	15		9	15
Number of Detectors	1	1	2	1	1	1	2		1	2	1	1
Detector Template	Left	Left	Thru	Right	Left	Left	Thru		Left	Thru	Right	Left
Leading Detector (ft)	20	20	100	20	20	20	100		20	100	20	20
Trailing Detector (ft)	0	0	0	0	0	0	0		0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0		0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	20	6		20	6	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94				94			94		
Detector 2 Size(ft)			6				6			6		
Detector 2 Type			Cl+Ex				Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0				0.0			0.0		
Turn Type	pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt	NA		Split	NA	Perm	Split
Protected Phases	5	5	2		1	1	6		4	4		8
Permitted Phases	2	2		2	6	6					4	

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

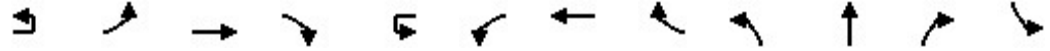
05/18/2023



Lane Group	SBT	SBR
Lane Configurations	↕	↗
Traffic Volume (vph)	25	25
Future Volume (vph)	25	25
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		50
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	1.00	1.00
Frt		0.850
Flt Protected	0.986	
Satd. Flow (prot)	1837	1583
Flt Permitted	0.986	
Satd. Flow (perm)	1837	1583
Right Turn on Red		Yes
Satd. Flow (RTOR)		207
Link Speed (mph)	30	
Link Distance (ft)	310	
Travel Time (s)	7.0	
Peak Hour Factor	0.92	0.92
Adj. Flow (vph)	27	27
Shared Lane Traffic (%)		
Lane Group Flow (vph)	38	27
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	0	
Link Offset(ft)	-40	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Detector 1 Position(ft)	0	0
Detector 1 Size(ft)	6	20
Detector 1 Type	Cl+Ex	Cl+Ex
Detector 1 Channel		
Detector 1 Extend (s)	0.0	0.0
Detector 1 Queue (s)	0.0	0.0
Detector 1 Delay (s)	0.0	0.0
Detector 2 Position(ft)	94	
Detector 2 Size(ft)	6	
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	Perm
Protected Phases	8	
Permitted Phases		8

Lanes, Volumes, Timings  
17: Commerce Dr & US 62

05/18/2023

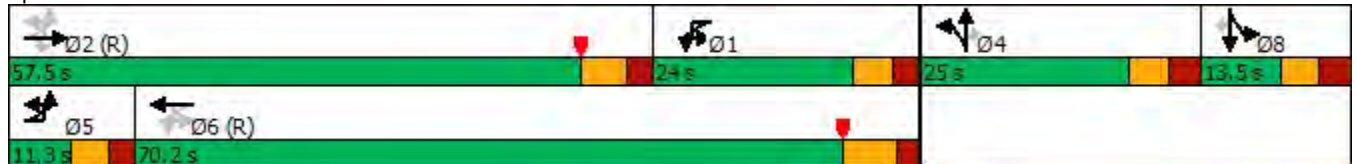


Lane Group	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Detector Phase	5	5	2	2	1	1	6		4	4	4	8
Switch Phase												
Minimum Initial (s)	5.0	5.0	25.0	25.0	5.0	5.0	25.0		7.0	7.0	7.0	5.0
Minimum Split (s)	10.8	10.8	31.7	31.7	11.1	11.1	32.1		13.5	13.5	13.5	13.5
Total Split (s)	11.3	11.3	57.5	57.5	24.0	24.0	70.2		25.0	25.0	25.0	13.5
Total Split (%)	9.4%	9.4%	47.9%	47.9%	20.0%	20.0%	58.5%		20.8%	20.8%	20.8%	11.3%
Maximum Green (s)	5.5	5.5	51.1	51.1	17.9	17.9	63.1		18.5	18.5	18.5	7.0
Yellow Time (s)	3.5	3.5	4.1	4.1	3.5	3.5	4.8		3.5	3.5	3.5	3.5
All-Red Time (s)	2.3	2.3	2.3	2.3	2.6	2.6	2.3		3.0	3.0	3.0	3.0
Lost Time Adjust (s)		0.0	0.0	0.0			0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.8	6.4	6.4			6.1	7.1		6.5	6.5	
Lead/Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes					
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		5.0	5.0	5.0	3.0
Recall Mode	None	None	C-Max	C-Max	None	None	C-Max		None	None	None	None
Act Effect Green (s)		54.6	54.0	54.0		71.5	70.5			18.4	18.4	
Actuated g/C Ratio		0.46	0.45	0.45		0.60	0.59			0.15	0.15	
v/c Ratio		0.21	0.86	0.33		0.90	0.52			0.88	0.35	
Control Delay		17.9	32.7	9.1		65.4	13.3			81.6	3.8	
Queue Delay		0.0	0.0	0.0		0.0	0.0			0.0	0.0	
Total Delay		17.9	32.7	9.1		65.4	13.3			81.6	3.8	
LOS		B	C	A		E	B			F	A	
Approach Delay			28.7				24.6			52.0		
Approach LOS			C				C			D		

Intersection Summary

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	56 (47%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle:	100
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.90
Intersection Signal Delay:	29.8
Intersection LOS:	C
Intersection Capacity Utilization:	84.9%
ICU Level of Service:	E
Analysis Period (min):	15

Splits and Phases: 17: Commerce Dr & US 62



Lanes, Volumes, Timings  
 17: Commerce Dr & US 62




















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Lane Group	SBT	SBR
Detector Phase	8	8
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	13.5	13.5
Total Split (s)	13.5	13.5
Total Split (%)	11.3%	11.3%
Maximum Green (s)	7.0	7.0
Yellow Time (s)	3.5	3.5
All-Red Time (s)	3.0	3.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.5	6.5
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Act Effct Green (s)	6.6	6.6
Actuated g/C Ratio	0.06	0.06
v/c Ratio	0.38	0.10
Control Delay	65.3	0.7
Queue Delay	0.0	0.0
Total Delay	65.3	0.7
LOS	E	A
Approach Delay	38.4	
Approach LOS	D	
Intersection Summary		

Lanes, Volumes, Timings  
20: Executive Dr & US 62

05/18/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	1445	20	90	930	190	0	0	75	0	0	345
Future Volume (vph)	150	1445	20	90	930	190	0	0	75	0	0	345
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	185		0	225		0	0		100	0		0
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998				0.850			0.865			0.865
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	3532	0	1770	3539	1583	0	0	1611	0	0	1611
Flt Permitted	0.950			0.950								
Satd. Flow (perm)	1770	3532	0	1770	3539	1583	0	0	1611	0	0	1611
Link Speed (mph)		30			30			30				30
Link Distance (ft)		659			355			493				539
Travel Time (s)		15.0			8.1			11.2				12.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	1571	22	98	1011	207	0	0	82	0	0	375
Shared Lane Traffic (%)												
Lane Group Flow (vph)	163	1593	0	98	1011	207	0	0	82	0	0	375
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0				0
Link Offset(ft)		-10			0			-15				25
Crosswalk Width(ft)		40			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	53.7%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

23: US 62

05/18/2023



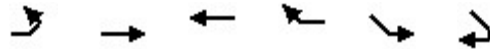
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑↑		↑
Traffic Volume (vph)	650	0	0	615	0	100
Future Volume (vph)	650	0	0	615	0	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	1.00	1.00	0.91	1.00	1.00
Fr <sub>t</sub>						0.865
Fl <sub>t</sub> Protected						
Satd. Flow (prot)	3539	0	0	5085	0	1611
Fl <sub>t</sub> Permitted						
Satd. Flow (perm)	3539	0	0	5085	0	1611
Link Speed (mph)	30			30	30	
Link Distance (ft)	451			180	506	
Travel Time (s)	10.3			4.1	11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	707	0	0	668	0	109
Shared Lane Traffic (%)						
Lane Group Flow (vph)	707	0	0	668	0	109
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	30.8%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
25: US 62

05/18/2023



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↑↑	↑↑	↑		
Traffic Volume (vph)	0	750	615	30	0	0
Future Volume (vph)	0	750	615	30	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			150	0	0
Storage Lanes	0			1	0	0
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850		
Flt Protected						
Satd. Flow (prot)	0	3539	3539	1583	0	0
Flt Permitted						
Satd. Flow (perm)	0	3539	3539	1583	0	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		180	322		444	
Travel Time (s)		4.1	7.3		10.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	815	668	33	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	815	668	33	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Right
Median Width(ft)		0	12		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60			60	60	60
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	24.1%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

26: US 62

05/18/2023



Lane Group	EBL	WBL	NEL	NET	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	65	315	330	585	165	450
Future Volume (vph)	65	315	330	585	165	450
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.97	0.97	1.00	0.95	1.00	0.95
Frnt						
Flt Protected	0.950	0.950	0.950		0.950	
Satd. Flow (prot)	3433	3433	1770	3539	1770	3539
Flt Permitted	0.950	0.950	0.446		0.368	
Satd. Flow (perm)	3433	3433	831	3539	685	3539
Right Turn on Red						
Satd. Flow (RTOR)						
Link Speed (mph)				30		30
Link Distance (ft)				275		451
Travel Time (s)				6.3		10.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	71	342	359	636	179	489
Shared Lane Traffic (%)						
Lane Group Flow (vph)	71	342	359	636	179	489
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Left	Left	Left
Median Width(ft)				12		12
Link Offset(ft)				0		0
Crosswalk Width(ft)				25		16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60		60	
Number of Detectors	1	1	1	2	1	2
Detector Template	Left	Left	Left	Thru	Left	Thru
Leading Detector (ft)	20	20	20	100	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	20	6	20	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)				94		94
Detector 2 Size(ft)				6		6
Detector 2 Type				Cl+Ex		Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)				0.0		0.0
Turn Type	Perm	Perm	Perm	NA	Perm	NA
Protected Phases				4		8
Permitted Phases	6	2	4		8	
Detector Phase	6	2	4	4	8	8
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0



Lanes, Volumes, Timings

26: US 62

05/18/2023

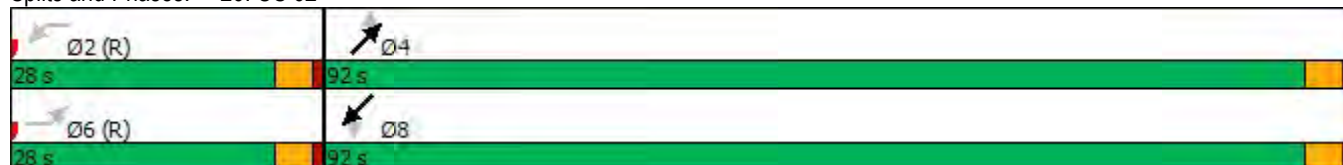


Lane Group	EBL	WBL	NEL	NET	SWL	SWT
Minimum Split (s)	9.5	9.5	9.5	9.5	9.5	9.5
Total Split (s)	28.0	28.0	92.0	92.0	92.0	92.0
Total Split (%)	23.3%	23.3%	76.7%	76.7%	76.7%	76.7%
Maximum Green (s)	23.5	23.5	87.5	87.5	87.5	87.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max	None	None	None	None
Act Effect Green (s)	42.1	42.1	68.9	68.9	68.9	68.9
Actuated g/C Ratio	0.35	0.35	0.57	0.57	0.57	0.57
v/c Ratio	0.06	0.28	0.75	0.31	0.46	0.24
Control Delay	33.0	33.3	12.1	4.3	16.4	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.0	33.3	12.1	4.3	16.4	12.2
LOS	C	C	B	A	B	B
Approach Delay				7.1		13.3
Approach LOS				A		B

Intersection Summary

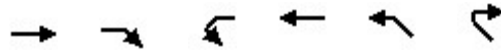
Area Type: Other  
 Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 8 (7%), Referenced to phase 2:WBL and 6:EBL, Start of Green  
 Natural Cycle: 50  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.75  
 Intersection Signal Delay: 14.3  
 Intersection Capacity Utilization 51.0%  
 Analysis Period (min) 15  
 Intersection LOS: B  
 ICU Level of Service A

Splits and Phases: 26: US 62



Lanes, Volumes, Timings  
28: US 62

05/18/2023





















Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑	↑		↑↑		
Traffic Volume (vph)	915	605	0	1210	0	0
Future Volume (vph)	915	605	0	1210	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		125	0		0	0
Storage Lanes		1	0		0	0
Taper Length (ft)			25		25	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				
Flt Protected						
Satd. Flow (prot)	3539	1583	0	3539	0	0
Flt Permitted						
Satd. Flow (perm)	3539	1583	0	3539	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	355			240	338	
Travel Time (s)	8.1			5.5	7.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	995	658	0	1315	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	995	658	0	1315	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	40.8%
	ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings  
29: Medley Ln & US 62

05/18/2023

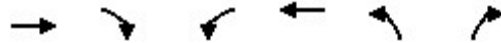
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	740	5	5	615	5	5	0	5	5	0	25
Future Volume (vph)	5	740	5	5	615	5	5	0	5	5	0	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.999			0.932				0.886
Flt Protected	0.950			0.950				0.976				0.992
Satd. Flow (prot)	1770	3536	0	1770	3536	0	0	1694	0	0	1637	0
Flt Permitted	0.950			0.950				0.976				0.992
Satd. Flow (perm)	1770	3536	0	1770	3536	0	0	1694	0	0	1637	0
Link Speed (mph)		30			30			30				30
Link Distance (ft)		322			559			630				395
Travel Time (s)		7.3			12.7			14.3				9.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	804	5	5	668	5	5	0	5	5	0	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	809	0	5	673	0	0	10	0	0	32	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop				Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	30.6%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
32: Howell Dr & US 62

05/18/2023



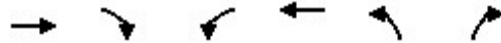
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↓	↑↑	↓	
Traffic Volume (vph)	720	30	5	610	15	5
Future Volume (vph)	720	30	5	610	15	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	50		0	0
Storage Lanes		1	1		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00
Frt		0.850			0.968	
Flt Protected			0.950		0.963	
Satd. Flow (prot)	1863	1583	1770	3539	1736	0
Flt Permitted			0.950		0.963	
Satd. Flow (perm)	1863	1583	1770	3539	1736	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	559			438	731	
Travel Time (s)	12.7			10.0	16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	783	33	5	663	16	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	783	33	5	663	21	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes			Yes		
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	47.9%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings  
34: McCormack Ave & US 62

05/18/2023



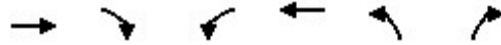
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	680	45	5	595	20	5
Future Volume (vph)	680	45	5	595	20	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Fr <sub>t</sub>	0.992			0.975		
Fl <sub>t</sub> Protected				0.961		
Satd. Flow (prot)	1848	0	0	3539	1745	0
Fl <sub>t</sub> Permitted				0.961		
Satd. Flow (perm)	1848	0	0	3539	1745	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	438			127	684	
Travel Time (s)	10.0			2.9	15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	739	49	5	647	22	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	788	0	0	652	27	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane	Yes					
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	48.5%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
36: Gregory St & US 62

05/18/2023






















Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	635	50	5	590	10	5
Future Volume (vph)	635	50	5	590	10	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>	0.990			0.958		
Fl <sub>t</sub> Protected				0.967		
Satd. Flow (prot)	1844	0	0	1863	1726	0
Fl <sub>t</sub> Permitted				0.967		
Satd. Flow (perm)	1844	0	0	1863	1726	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	241			1032	915	
Travel Time (s)	5.5			23.5	20.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	690	54	5	641	11	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	744	0	0	646	16	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	46.5%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings  
40: US 62 & Pawnee Dr

05/18/2023

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			  	
Traffic Volume (vph)	0	0	40	0	0	35	0	1085	45	0	1020	15
Future Volume (vph)	0	0	40	0	0	35	0	1085	45	0	1020	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	275		0
Storage Lanes	0		1	0		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91
Frt			0.865			0.865		0.994			0.998	
Flt Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3518	0	0	5075	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3518	0	0	5075	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		356			432			150			346	
Travel Time (s)		8.1			9.8			3.4			7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	43	0	0	38	0	1179	49	0	1109	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	43	0	0	38	0	1228	0	0	1125	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			6	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	41.4%						ICU Level of Service A					
Analysis Period (min)	15											

Lanes, Volumes, Timings

43: US 62

05/18/2023



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations		↗	↗↗		↘	↗↗
Traffic Volume (vph)	0	0	820	0	0	775
Future Volume (vph)	0	0	820	0	0	775
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	250	
Storage Lanes	0	1		0	1	
Taper Length (ft)	25				50	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	3539	0	1863	3539
Flt Permitted						
Satd. Flow (perm)	0	1863	3539	0	1863	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	161		397			420
Travel Time (s)	3.7		9.0			9.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	891	0	0	842
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	891	0	0	842
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		12			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	26.0%
	ICU Level of Service A
Analysis Period (min)	15



Lanes, Volumes, Timings  
45: US 62

05/18/2023



Lane Group	SEL	SER	NEU	NEL	NET	SWT	SWR
Lane Configurations							
Traffic Volume (vph)	0	0	50	0	935	860	0
Future Volume (vph)	0	0	50	0	935	860	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		225			0
Storage Lanes	0	1		1			0
Taper Length (ft)	25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt							
Flt Protected			0.950				
Satd. Flow (prot)	0	1863	1770	0	3539	3539	0
Flt Permitted			0.950				
Satd. Flow (perm)	0	1863	1770	0	3539	3539	0
Link Speed (mph)	30				30	30	
Link Distance (ft)	290				626	476	
Travel Time (s)	6.6				14.2	10.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	54	0	1016	935	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	54	0	1016	935	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	R NA	Left	Left	Left	Right
Median Width(ft)	0				24	24	
Link Offset(ft)	0				0	0	
Crosswalk Width(ft)	16				16	16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9	15			9
Sign Control	Stop				Free	Free	
<b>Intersection Summary</b>							
Area Type:	Other						
Control Type:	Unsignalized						
Intersection Capacity Utilization	33.8%			ICU Level of Service A			
Analysis Period (min)	15						

Lanes, Volumes, Timings

47: US 62

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Lane Group	SEL	SER	NEL	NET	SWU	SWT	SWR
Lane Configurations							
Traffic Volume (vph)	0	0	0	935	30	860	0
Future Volume (vph)	0	0	0	935	30	860	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0		275		0
Storage Lanes	0	1	0		1		0
Taper Length (ft)	25		25		25		
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	0.95	0.95
Frt							
Flt Protected					0.950		
Satd. Flow (prot)	0	1863	0	3539	1770	3539	0
Flt Permitted					0.950		
Satd. Flow (perm)	0	1863	0	3539	1770	3539	0
Link Speed (mph)	30			30		30	
Link Distance (ft)	145			476		348	
Travel Time (s)	3.3			10.8		7.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	1016	33	935	0
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	0	1016	33	935	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	R NA	Left	Right
Median Width(ft)	0			24		36	
Link Offset(ft)	0			0		0	
Crosswalk Width(ft)	16			16		16	
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15		9		9
Sign Control	Stop			Free		Free	









Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	29.2%
ICU Level of Service	A
Analysis Period (min)	15

Lanes, Volumes, Timings

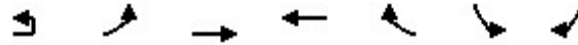
48:

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Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	0	0	165	0	0	605
Future Volume (vph)	0	0	165	0	0	605
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>						0.865
Fl <sub>t</sub> Protected						
Satd. Flow (prot)	0	0	1863	0	0	1611
Fl <sub>t</sub> Permitted						
Satd. Flow (perm)	0	0	1863	0	0	1611
Link Speed (mph)		30	30		30	
Link Distance (ft)		235	545		338	
Travel Time (s)		5.3	12.4		7.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	179	0	0	658
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	179	0	0	658
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60			60	60	60
Sign Control		Stop	Free		Yield	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	52.8%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings  
49: US 62

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Lane Group	EBU	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↕		↑↑	↑↑			↗
Traffic Volume (vph)	20	0	1105	1015	0	0	0
Future Volume (vph)	20	0	1105	1015	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	1.00	1.00
<b>Fr</b>							
Flt Protected	0.950						
Satd. Flow (prot)	1770	0	3539	3539	0	0	1863
Flt Permitted	0.950						
Satd. Flow (perm)	1770	0	3539	3539	0	0	1863
Link Speed (mph)			30	30		30	
Link Distance (ft)			346	361		423	
Travel Time (s)			7.9	8.2		9.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	0	1201	1103	0	0	0
<b>Shared Lane Traffic (%)</b>							
Lane Group Flow (vph)	22	0	1201	1103	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	R NA	Left	Left	Left	Right	Left	Right
Median Width(ft)			30	24		0	
Link Offset(ft)			0	0		0	
Crosswalk Width(ft)			16	16		16	
<b>Two way Left Turn Lane</b>							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15			9	15	9
Sign Control			Free	Free		Stop	



















**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	33.9%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings

51: US 62

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Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 			 	
Traffic Volume (vph)	0	0	25	0	0	50	0	935	15	0	880	30
Future Volume (vph)	0	0	25	0	0	50	0	935	15	0	880	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.865			0.865		0.998			0.995	
Flt Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	3532	0	0	3522	0
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	3532	0	0	3522	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		238			284			611			626	
Travel Time (s)		5.4			6.5			13.9			14.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	27	0	0	54	0	1016	16	0	957	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	27	0	0	54	0	1032	0	0	990	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	36.3%					ICU Level of Service A						
Analysis Period (min)	15											

Lanes, Volumes, Timings

55:

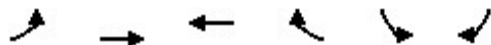
05/18/2023

	↑	↖	↙	↓	↘	↗
Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	↑					↗
Traffic Volume (vph)	330	0	0	0	0	30
Future Volume (vph)	330	0	0	0	0	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>						0.865
Fl <sub>t</sub> Protected						
Satd. Flow (prot)	1863	0	0	0	0	1611
Fl <sub>t</sub> Permitted						
Satd. Flow (perm)	1863	0	0	0	0	1611
Link Speed (mph)	30			30	30	
Link Distance (ft)	645			263	444	
Travel Time (s)	14.7			6.0	10.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	359	0	0	0	0	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	359	0	0	0	0	33
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Stop	Yield	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	27.4%			ICU Level of Service A		
Analysis Period (min)	15					

Lanes, Volumes, Timings

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Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑			↑↑
Traffic Volume (vph)	0	915	765	0	0	445
Future Volume (vph)	0	915	765	0	0	445
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	0.95	1.00	1.00	0.88
Fr <sub>t</sub>						0.850
Fl <sub>t</sub> Protected						
Satd. Flow (prot)	0	5085	3539	0	0	2787
Fl <sub>t</sub> Permitted						
Satd. Flow (perm)	0	5085	3539	0	0	2787
Link Speed (mph)		30	30		30	
Link Distance (ft)		240	275		254	
Travel Time (s)		5.5	6.3		5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	995	832	0	0	484
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	995	832	0	0	484
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60			60	60	60
Sign Control		Free	Free		Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	43.4%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings

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Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						↕
Traffic Volume (vph)	0	0	0	0	65	445
Future Volume (vph)	0	0	0	0	65	445
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
<b>Fr</b>						
Flt Protected						0.994
Satd. Flow (prot)	0	0	0	0	0	1852
Flt Permitted						0.994
Satd. Flow (perm)	0	0	0	0	0	1852
Link Speed (mph)	30		30			30
Link Distance (ft)	247		254			459
Travel Time (s)	5.6		5.8			10.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	71	484
<b>Shared Lane Traffic (%)</b>						
Lane Group Flow (vph)	0	0	0	0	0	555
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
<b>Two way Left Turn Lane</b>						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60		60	60	
Sign Control	Stop		Stop			Free

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	30.3%
Analysis Period (min)	15
	ICU Level of Service A



# Lanes, Volumes, Timings

59:

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Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations				4		
Traffic Volume (vph)	0	0	315	100	0	0
Future Volume (vph)	0	0	315	100	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected				0.963		
Satd. Flow (prot)	0	0	0	1794	0	0
Flt Permitted				0.963		
Satd. Flow (perm)	0	0	0	1794	0	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	394			404	506	
Travel Time (s)	9.0			9.2	11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	342	109	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	451	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Stop	

## Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	26.0%
Analysis Period (min)	15
	ICU Level of Service A

# INTERSECTION SUMMARY

Site: 101v [US 62 / Howell Drive - Conversion (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	21.6	21.6 mph
Travel Distance (Total)	veh-mi/h	208.7	250.4 pers-mi/h
Travel Time (Total)	veh-h/h	9.6	11.6 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.54	
Travel Time Index		4.90	
Congestion Coefficient		1.85	
Demand Flows (Total)	veh/h	1557	1868 pers/h
Arrival Flows (Total)	veh/h	1553	1864 pers/h
Percent Heavy Vehicles (Demand)	%	8.7	
Percent Heavy Vehicles (Arrivals)	%	8.7	
Degree of Saturation		0.620	
Practical Spare Capacity	%	37.0	
Effective Intersection Capacity	veh/h	2504	
Control Delay (Total)	veh-h/h	2.65	3.18 pers-h/h
Control Delay (Average)	sec	6.1	6.1 sec
Control Delay (Worst Lane by MC)	sec	7.4	
Control Delay (Worst Movement by MC)	sec	18.2	18.2 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	6.1	
Idling Time (Average)	sec	5.1	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	2.6	
Average Back of Queue - Dist (Worst Lane)	ft	70.3	
Ave. Que Storage Ratio (Worst Lane)		0.14	
Effective Stops (Total)	veh/h	77	93 pers/h
Effective Stop Rate		0.05	0.05
Proportion Queued		0.16	0.16
Performance Index		27.8	27.8
Cost (Total)	\$/h	290.42	290.42 \$/h
Fuel Consumption (Total)	gal/h	18.8	
Carbon Dioxide (Total)	kg/h	169.4	
Hydrocarbons (Total)	kg/h	0.016	
Carbon Monoxide (Total)	kg/h	0.17	
NOx (Total)	kg/h	0.524	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	747,130	896,557 pers/y
Arrival Flows (Total)	veh/y	745,604	
Delay (Total)	veh-h/y	1,273	1,527 pers-h/y
Effective Stops (Total)	veh/y	37,077	44,492 pers/y
Travel Distance (Total)	veh-mi/y	100,157	120,189 pers-mi/y
Travel Time (Total)	veh-h/y	4,627	5,553 pers-h/y
Cost (Total)	\$/y	139,403	139,403 \$/y
Fuel Consumption (Total)	gal/y	9,038	
Carbon Dioxide (Total)	kg/y	81,290	
Hydrocarbons (Total)	kg/y	8	
Carbon Monoxide (Total)	kg/y	80	
NOx (Total)	kg/y	251	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_AM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / Brooke Street (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	37.8	37.8 mph
Travel Distance (Total)	veh-mi/h	213.5	256.2 pers-mi/h
Travel Time (Total)	veh-h/h	5.6	6.8 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.95	
Travel Time Index		9.40	
Congestion Coefficient		1.06	
Demand Flows (Total)	veh/h	1321	1585 pers/h
Arrival Flows (Total)	veh/h	1310	1572 pers/h
Percent Heavy Vehicles (Demand)	%	8.4	
Percent Heavy Vehicles (Arrivals)	%	8.5	
Degree of Saturation		0.203	
Practical Spare Capacity	%	382.5	
Effective Intersection Capacity	veh/h	6452	
Control Delay (Total)	veh-h/h	0.30	0.37 pers-h/h
Control Delay (Average)	sec	0.8	0.8 sec
Control Delay (Worst Lane by MC)	sec	21.9	
Control Delay (Worst Movement by MC)	sec	115.0	115.0 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	0.8	
Idling Time (Average)	sec	0.6	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.1	
Average Back of Queue - Dist (Worst Lane)	ft	1.8	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	13	16 pers/h
Effective Stop Rate		0.01	0.01
Proportion Queued		0.01	0.01
Performance Index		6.1	6.1
Cost (Total)	\$/h	142.77	142.77 \$/h
Fuel Consumption (Total)	gal/h	7.4	
Carbon Dioxide (Total)	kg/h	67.1	
Hydrocarbons (Total)	kg/h	0.005	
Carbon Monoxide (Total)	kg/h	0.08	
NOx (Total)	kg/h	0.164	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 85.8% 0.6% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	633,913	760,696 pers/y
Arrival Flows (Total)	veh/y	628,969	
Delay (Total)	veh-h/y	146	175 pers-h/y
Effective Stops (Total)	veh/y	6,401	7,681 pers/y
Travel Distance (Total)	veh-mi/y	102,491	122,989 pers-mi/y
Travel Time (Total)	veh-h/y	2,708	3,250 pers-h/y
Cost (Total)	\$/y	68,531	68,531 \$/y
Fuel Consumption (Total)	gal/y	3,562	
Carbon Dioxide (Total)	kg/y	32,203	
Hydrocarbons (Total)	kg/y	2	
Carbon Monoxide (Total)	kg/y	40	
NOx (Total)	kg/y	79	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_AM.sip9

# INTERSECTION SUMMARY

Site: 101 [US 62/French Street (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	30.0	30.0 mph
Travel Distance (Total)	veh-mi/h	955.3	1146.4 pers-mi/h
Travel Time (Total)	veh-h/h	31.8	38.2 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.75	
Travel Time Index		7.23	
Congestion Coefficient		1.33	
Demand Flows (Total)	veh/h	2168	2602 pers/h
Arrival Flows (Total)	veh/h	2148	2578 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.3	
Degree of Saturation		0.527	
Practical Spare Capacity	%	61.4	
Effective Intersection Capacity	veh/h	4079	
Control Delay (Total)	veh-h/h	4.78	5.73 pers-h/h
Control Delay (Average)	sec	8.0	8.0 sec
Control Delay (Worst Lane by MC)	sec	10.7	
Control Delay (Worst Movement by MC)	sec	23.9	23.9 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	8.0	
Idling Time (Average)	sec	5.6	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	1.4	
Average Back of Queue - Dist (Worst Lane)	ft	38.5	
Ave. Que Storage Ratio (Worst Lane)		0.02	
Effective Stops (Total)	veh/h	491	590 pers/h
Effective Stop Rate		0.23	0.23
Proportion Queued		0.40	0.40
Performance Index		47.2	47.2
Cost (Total)	\$/h	898.57	898.57 \$/h
Fuel Consumption (Total)	gal/h	54.2	
Carbon Dioxide (Total)	kg/h	489.0	
Hydrocarbons (Total)	kg/h	0.041	
Carbon Monoxide (Total)	kg/h	0.52	
NOx (Total)	kg/h	1.531	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,040,870	1,249,044 pers/y
Arrival Flows (Total)	veh/y	1,031,059	
Delay (Total)	veh-h/y	2,292	2,751 pers-h/y
Effective Stops (Total)	veh/y	235,899	283,078 pers/y
Travel Distance (Total)	veh-mi/y	458,546	550,255 pers-mi/y
Travel Time (Total)	veh-h/y	15,264	18,317 pers-h/y
Cost (Total)	\$/y	431,315	431,315 \$/y
Fuel Consumption (Total)	gal/y	26,039	
Carbon Dioxide (Total)	kg/y	234,738	
Hydrocarbons (Total)	kg/y	20	
Carbon Monoxide (Total)	kg/y	252	
NOx (Total)	kg/y	735	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_AM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / Main Street (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	35.9	35.9 mph
Travel Distance (Total)	veh-mi/h	483.0	579.6 pers-mi/h
Travel Time (Total)	veh-h/h	13.5	16.1 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.90	
Travel Time Index		8.86	
Congestion Coefficient		1.11	
Demand Flows (Total)	veh/h	1647	1976 pers/h
Arrival Flows (Total)	veh/h	1624	1948 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.3	
Degree of Saturation		0.304	
Practical Spare Capacity	%	162.8	
Effective Intersection Capacity	veh/h	5335	
Control Delay (Total)	veh-h/h	1.14	1.37 pers-h/h
Control Delay (Average)	sec	2.5	2.5 sec
Control Delay (Worst Lane by MC)	sec	14.9	
Control Delay (Worst Movement by MC)	sec	805.3	805.3 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	2.5	
Idling Time (Average)	sec	1.4	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.7	
Average Back of Queue - Dist (Worst Lane)	ft	18.2	
Ave. Que Storage Ratio (Worst Lane)		0.01	
Effective Stops (Total)	veh/h	130	156 pers/h
Effective Stop Rate		0.08	0.08
Proportion Queued		0.09	0.09
Performance Index		17.0	17.0
Cost (Total)	\$/h	349.92	349.92 \$/h
Fuel Consumption (Total)	gal/h	19.0	
Carbon Dioxide (Total)	kg/h	170.5	
Hydrocarbons (Total)	kg/h	0.014	
Carbon Monoxide (Total)	kg/h	0.21	
NOx (Total)	kg/h	0.444	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 65.3% 47.7% 0.0%

## Intersection Performance - Annual Values



Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	790,435	948,522 pers/y
Arrival Flows (Total)	veh/y	779,354	
Delay (Total)	veh-h/y	546	656 pers-h/y
Effective Stops (Total)	veh/y	62,333	74,799 pers/y
Travel Distance (Total)	veh-mi/y	231,846	278,215 pers-mi/y
Travel Time (Total)	veh-h/y	6,457	7,749 pers-h/y
Cost (Total)	\$/y	167,962	167,962 \$/y
Fuel Consumption (Total)	gal/y	9,098	
Carbon Dioxide (Total)	kg/y	81,851	
Hydrocarbons (Total)	kg/y	7	
Carbon Monoxide (Total)	kg/y	99	
NOx (Total)	kg/y	213	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62/ Ring Road (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	25.7	25.7 mph
Travel Distance (Total)	veh-mi/h	732.1	878.5 pers-mi/h
Travel Time (Total)	veh-h/h	28.5	34.1 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.64	
Travel Time Index		6.04	
Congestion Coefficient		1.55	
Demand Flows (Total)	veh/h	2701	3241 pers/h
Arrival Flows (Total)	veh/h	2657	3188 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.3	
Degree of Saturation		0.513	
Practical Spare Capacity	%	65.8	
Effective Intersection Capacity	veh/h	5181	
Control Delay (Total)	veh-h/h	5.63	6.75 pers-h/h
Control Delay (Average)	sec	7.6	7.6 sec
Control Delay (Worst Lane by MC)	sec	12.1	
Control Delay (Worst Movement by MC)	sec	39.4	39.4 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	7.6	
Idling Time (Average)	sec	4.3	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	1.3	
Average Back of Queue - Dist (Worst Lane)	ft	34.9	
Ave. Que Storage Ratio (Worst Lane)		0.04	
Effective Stops (Total)	veh/h	1059	1271 pers/h
Effective Stop Rate		0.40	0.40
Proportion Queued		0.45	0.45
Performance Index		43.2	43.2
Cost (Total)	\$/h	854.68	854.68 \$/h
Fuel Consumption (Total)	gal/h	55.2	
Carbon Dioxide (Total)	kg/h	498.2	
Hydrocarbons (Total)	kg/h	0.045	
Carbon Monoxide (Total)	kg/h	0.52	
NOx (Total)	kg/h	1.493	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 5.2% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,296,522	1,555,826 pers/y
Arrival Flows (Total)	veh/y	1,275,199	
Delay (Total)	veh-h/y	2,702	3,242 pers-h/y
Effective Stops (Total)	veh/y	508,311	609,974 pers/y
Travel Distance (Total)	veh-mi/y	351,419	421,702 pers-mi/y
Travel Time (Total)	veh-h/y	13,658	16,390 pers-h/y
Cost (Total)	\$/y	410,244	410,244 \$/y
Fuel Consumption (Total)	gal/y	26,515	
Carbon Dioxide (Total)	kg/y	239,144	
Hydrocarbons (Total)	kg/y	21	
Carbon Monoxide (Total)	kg/y	248	
NOx (Total)	kg/y	717	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_AM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / DolpinRoad (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	33.2	33.2 mph
Travel Distance (Total)	veh-mi/h	521.1	625.3 pers-mi/h
Travel Time (Total)	veh-h/h	15.7	18.8 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.83	
Travel Time Index		8.11	
Congestion Coefficient		1.20	
Demand Flows (Total)	veh/h	2495	2993 pers/h
Arrival Flows (Total)	veh/h	2444	2933 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	8.1	
Degree of Saturation		0.387	
Practical Spare Capacity	%	152.9	
Effective Intersection Capacity	veh/h	6308	
Control Delay (Total)	veh-h/h	2.11	2.53 pers-h/h
Control Delay (Average)	sec	3.1	3.1 sec
Control Delay (Worst Lane by MC)	sec	139.5	
Control Delay (Worst Movement by MC)	sec	1325.9	1325.9 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	3.1	
Idling Time (Average)	sec	2.3	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.4	
Average Back of Queue - Dist (Worst Lane)	ft	11.4	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	165	198 pers/h
Effective Stop Rate		0.07	0.07
Proportion Queued		0.07	0.07
Performance Index		18.8	18.8
Cost (Total)	\$/h	404.06	404.06 \$/h
Fuel Consumption (Total)	gal/h	21.6	
Carbon Dioxide (Total)	kg/h	194.3	
Hydrocarbons (Total)	kg/h	0.016	
Carbon Monoxide (Total)	kg/h	0.23	
NOx (Total)	kg/h	0.505	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.3 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 97.8% 71.3% 0.3%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,197,391	1,436,870 pers/y
Arrival Flows (Total)	veh/y	1,173,226	
Delay (Total)	veh-h/y	1,012	1,214 pers-h/y
Effective Stops (Total)	veh/y	79,041	94,850 pers/y
Travel Distance (Total)	veh-mi/y	250,114	300,137 pers-mi/y
Travel Time (Total)	veh-h/y	7,532	9,038 pers-h/y
Cost (Total)	\$/y	193,947	193,947 \$/y
Fuel Consumption (Total)	gal/y	10,352	
Carbon Dioxide (Total)	kg/y	93,275	
Hydrocarbons (Total)	kg/y	8	
Carbon Monoxide (Total)	kg/y	112	
NOx (Total)	kg/y	242	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_AM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62/Commerce Drive (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	24.3	24.3 mph
Travel Distance (Total)	veh-mi/h	537.8	645.4 pers-mi/h
Travel Time (Total)	veh-h/h	22.2	26.6 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.61	
Travel Time Index		5.63	
Congestion Coefficient		1.65	
Demand Flows (Total)	veh/h	2440	2928 pers/h
Arrival Flows (Total)	veh/h	2387	2865 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	8.1	
Degree of Saturation		0.549	
Practical Spare Capacity	%	54.9	
Effective Intersection Capacity	veh/h	4350	
Control Delay (Total)	veh-h/h	5.58	6.69 pers-h/h
Control Delay (Average)	sec	8.4	8.4 sec
Control Delay (Worst Lane by MC)	sec	14.3	
Control Delay (Worst Movement by MC)	sec	50.9	50.9 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	8.4	
Idling Time (Average)	sec	5.9	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	1.5	
Average Back of Queue - Dist (Worst Lane)	ft	39.5	
Ave. Que Storage Ratio (Worst Lane)		0.06	
Effective Stops (Total)	veh/h	532	638 pers/h
Effective Stop Rate		0.22	0.22
Proportion Queued		0.41	0.41
Performance Index		39.3	39.3
Cost (Total)	\$/h	657.22	657.22 \$/h
Fuel Consumption (Total)	gal/h	41.9	
Carbon Dioxide (Total)	kg/h	376.5	
Hydrocarbons (Total)	kg/h	0.033	
Carbon Monoxide (Total)	kg/h	0.37	
NOx (Total)	kg/h	1.252	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,171,304	1,405,565 pers/y
Arrival Flows (Total)	veh/y	1,145,855	
Delay (Total)	veh-h/y	2,677	3,213 pers-h/y
Effective Stops (Total)	veh/y	255,317	306,380 pers/y
Travel Distance (Total)	veh-mi/y	258,163	309,796 pers-mi/y
Travel Time (Total)	veh-h/y	10,643	12,771 pers-h/y
Cost (Total)	\$/y	315,466	315,466 \$/y
Fuel Consumption (Total)	gal/y	20,105	
Carbon Dioxide (Total)	kg/y	180,741	
Hydrocarbons (Total)	kg/y	16	
Carbon Monoxide (Total)	kg/y	180	
NOx (Total)	kg/y	601	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_AM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / Executive / Buffalo Creek (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	19.3	19.3 mph
Travel Distance (Total)	veh-mi/h	432.6	519.1 pers-mi/h
Travel Time (Total)	veh-h/h	22.5	26.9 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.48	
Travel Time Index		4.24	
Congestion Coefficient		2.08	
Demand Flows (Total)	veh/h	2457	2948 pers/h
Arrival Flows (Total)	veh/h	2397	2876 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	8.1	
Degree of Saturation		1.633	
Practical Spare Capacity	%	-51.0	
Effective Intersection Capacity	veh/h	1467	
Control Delay (Total)	veh-h/h	12.58	15.10 pers-h/h
Control Delay (Average)	sec	18.9	18.9 sec
Control Delay (Worst Lane by MC)	sec	525.3	
Control Delay (Worst Movement by MC)	sec	2991.6	2991.6 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	18.9	
Idling Time (Average)	sec	14.1	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	4.1	
Average Back of Queue - Dist (Worst Lane)	ft	109.7	
Ave. Que Storage Ratio (Worst Lane)		0.07	
Effective Stops (Total)	veh/h	362	434 pers/h
Effective Stop Rate		0.15	0.15
Proportion Queued		0.13	0.13
Performance Index		53.1	53.1
Cost (Total)	\$/h	535.80	535.80 \$/h
Fuel Consumption (Total)	gal/h	25.2	
Carbon Dioxide (Total)	kg/h	227.8	
Hydrocarbons (Total)	kg/h	0.022	
Carbon Monoxide (Total)	kg/h	0.26	
NOx (Total)	kg/h	0.616	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 97.5% 69.3% 0.0%

## Intersection Performance - Annual Values



Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,179,130	1,414,957 pers/y
Arrival Flows (Total)	veh/y	1,150,473	
Delay (Total)	veh-h/y	6,040	7,248 pers-h/y
Effective Stops (Total)	veh/y	173,775	208,530 pers/y
Travel Distance (Total)	veh-mi/y	207,658	249,189 pers-mi/y
Travel Time (Total)	veh-h/y	10,779	12,935 pers-h/y
Cost (Total)	\$/y	257,183	257,183 \$/y
Fuel Consumption (Total)	gal/y	12,119	
Carbon Dioxide (Total)	kg/y	109,326	
Hydrocarbons (Total)	kg/y	10	
Carbon Monoxide (Total)	kg/y	123	
NOx (Total)	kg/y	296	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_AM.sip9

# INTERSECTION SUMMARY

Site: 101v [US 62 / I-65 SB - Conversion (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	16.1	16.1 mph
Travel Distance (Total)	veh-mi/h	829.3	995.1 pers-mi/h
Travel Time (Total)	veh-h/h	51.7	62.0 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.40	
Travel Time Index		3.35	
Congestion Coefficient		2.49	
Demand Flows (Total)	veh/h	3424	4109 pers/h
Arrival Flows (Total)	veh/h	3409	4091 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	8.9	
Degree of Saturation		1.162	
Practical Spare Capacity	%	-26.8	
Effective Intersection Capacity	veh/h	2935	
Control Delay (Total)	veh-h/h	28.00	33.61 pers-h/h
Control Delay (Average)	sec	29.6	29.6 sec
Control Delay (Worst Lane by MC)	sec	123.9	
Control Delay (Worst Movement by MC)	sec	155.4	155.4 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	29.6	
Idling Time (Average)	sec	15.9	
Intersection Level of Service (LOS)		LOS D	
Average Back of Queue - Veh (Worst Lane)	veh	11.7	
Average Back of Queue - Dist (Worst Lane)	ft	314.2	
Ave. Que Storage Ratio (Worst Lane)		0.50	
Effective Stops (Total)	veh/h	3150	3780 pers/h
Effective Stop Rate		0.92	0.92
Proportion Queued		0.61	0.61
Performance Index		120.6	120.6
Cost (Total)	\$/h	1378.46	1378.46 \$/h
Fuel Consumption (Total)	gal/h	77.4	
Carbon Dioxide (Total)	kg/h	697.8	
Hydrocarbons (Total)	kg/h	0.069	
Carbon Monoxide (Total)	kg/h	0.72	
NOx (Total)	kg/h	2.231	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,643,478	1,972,174 pers/y
Arrival Flows (Total)	veh/y	1,636,398	
Delay (Total)	veh-h/y	13,442	16,130 pers-h/y
Effective Stops (Total)	veh/y	1,512,015	1,814,419 pers/y
Travel Distance (Total)	veh-mi/y	398,056	477,667 pers-mi/y
Travel Time (Total)	veh-h/y	24,796	29,756 pers-h/y
Cost (Total)	\$/y	661,662	661,662 \$/y
Fuel Consumption (Total)	gal/y	37,142	
Carbon Dioxide (Total)	kg/y	334,954	
Hydrocarbons (Total)	kg/y	33	
Carbon Monoxide (Total)	kg/y	344	
NOx (Total)	kg/y	1,071	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_AM.sip9

# INTERSECTION SUMMARY

 Site: 101v [US 62 / I-65 NB - Conversion (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	21.8	21.8 mph
Travel Distance (Total)	veh-mi/h	560.0	672.0 pers-mi/h
Travel Time (Total)	veh-h/h	25.7	30.8 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.54	
Travel Time Index		4.94	
Congestion Coefficient		1.84	
Demand Flows (Total)	veh/h	2217	2661 pers/h
Arrival Flows (Total)	veh/h	2209	2650 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	8.9	
Degree of Saturation		0.829	
Practical Spare Capacity	%	2.5	
Effective Intersection Capacity	veh/h	2663	
Control Delay (Total)	veh-h/h	9.23	11.07 pers-h/h
Control Delay (Average)	sec	15.0	15.0 sec
Control Delay (Worst Lane by MC)	sec	42.4	
Control Delay (Worst Movement by MC)	sec	72.3	72.3 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	15.0	
Idling Time (Average)	sec	8.0	
Intersection Level of Service (LOS)		LOS C	
Average Back of Queue - Veh (Worst Lane)	veh	2.4	
Average Back of Queue - Dist (Worst Lane)	ft	63.5	
Ave. Que Storage Ratio (Worst Lane)		0.09	
Effective Stops (Total)	veh/h	1151	1381 pers/h
Effective Stop Rate		0.52	0.52
Proportion Queued		0.42	0.42
Performance Index		40.7	40.7
Cost (Total)	\$/h	731.46	731.46 \$/h
Fuel Consumption (Total)	gal/h	44.5	
Carbon Dioxide (Total)	kg/h	401.4	
Hydrocarbons (Total)	kg/h	0.036	
Carbon Monoxide (Total)	kg/h	0.40	
NOx (Total)	kg/h	1.326	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,064,348	1,277,217 pers/y
Arrival Flows (Total)	veh/y	1,060,085	
Delay (Total)	veh-h/y	4,429	5,315 pers-h/y
Effective Stops (Total)	veh/y	552,257	662,709 pers/y
Travel Distance (Total)	veh-mi/y	268,790	322,548 pers-mi/y
Travel Time (Total)	veh-h/y	12,338	14,805 pers-h/y
Cost (Total)	\$/y	351,102	351,102 \$/y
Fuel Consumption (Total)	gal/y	21,376	
Carbon Dioxide (Total)	kg/y	192,668	
Hydrocarbons (Total)	kg/y	18	
Carbon Monoxide (Total)	kg/y	193	
NOx (Total)	kg/y	637	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / Medley Lane (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	35.8	35.8 mph
Travel Distance (Total)	veh-mi/h	140.0	168.0 pers-mi/h
Travel Time (Total)	veh-h/h	3.9	4.7 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.89	
Travel Time Index		8.82	
Congestion Coefficient		1.12	
Demand Flows (Total)	veh/h	1332	1598 pers/h
Arrival Flows (Total)	veh/h	1328	1594 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	8.9	
Degree of Saturation		0.242	
Practical Spare Capacity	%	305.5	
Effective Intersection Capacity	veh/h	5496	
Control Delay (Total)	veh-h/h	0.67	0.80 pers-h/h
Control Delay (Average)	sec	1.8	1.8 sec
Control Delay (Worst Lane by MC)	sec	40.6	
Control Delay (Worst Movement by MC)	sec	387.8	387.8 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	1.8	
Idling Time (Average)	sec	0.7	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.1	
Average Back of Queue - Dist (Worst Lane)	ft	3.7	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	27	32 pers/h
Effective Stop Rate		0.02	0.02
Proportion Queued		0.02	0.02
Performance Index		5.4	5.4
Cost (Total)	\$/h	100.44	100.44 \$/h
Fuel Consumption (Total)	gal/h	5.3	
Carbon Dioxide (Total)	kg/h	48.0	
Hydrocarbons (Total)	kg/h	0.004	
Carbon Monoxide (Total)	kg/h	0.06	
NOx (Total)	kg/h	0.125	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 92.9% 55.2% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	639,130	766,957 pers/y
Arrival Flows (Total)	veh/y	637,547	
Delay (Total)	veh-h/y	319	383 pers-h/y
Effective Stops (Total)	veh/y	12,746	15,295 pers/y
Travel Distance (Total)	veh-mi/y	67,207	80,648 pers-mi/y
Travel Time (Total)	veh-h/y	1,879	2,255 pers-h/y
Cost (Total)	\$/y	48,213	48,213 \$/y
Fuel Consumption (Total)	gal/y	2,559	
Carbon Dioxide (Total)	kg/y	23,043	
Hydrocarbons (Total)	kg/y	2	
Carbon Monoxide (Total)	kg/y	28	
NOx (Total)	kg/y	60	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / McCormack (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	32.6	32.6 mph
Travel Distance (Total)	veh-mi/h	120.4	144.4 pers-mi/h
Travel Time (Total)	veh-h/h	3.7	4.4 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.81	
Travel Time Index		7.94	
Congestion Coefficient		1.23	
Demand Flows (Total)	veh/h	1272	1526 pers/h
Arrival Flows (Total)	veh/h	1270	1524 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	8.9	
Degree of Saturation		0.239	
Practical Spare Capacity	%	275.0	
Effective Intersection Capacity	veh/h	5322	
Control Delay (Total)	veh-h/h	0.64	0.77 pers-h/h
Control Delay (Average)	sec	1.8	1.8 sec
Control Delay (Worst Lane by MC)	sec	30.3	
Control Delay (Worst Movement by MC)	sec	67.7	67.7 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	1.8	
Idling Time (Average)	sec	1.5	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.3	
Average Back of Queue - Dist (Worst Lane)	ft	7.9	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	42	51 pers/h
Effective Stop Rate		0.03	0.03
Proportion Queued		0.04	0.04
Performance Index		5.2	5.2
Cost (Total)	\$/h	94.99	94.99 \$/h
Fuel Consumption (Total)	gal/h	5.1	
Carbon Dioxide (Total)	kg/h	45.6	
Hydrocarbons (Total)	kg/h	0.004	
Carbon Monoxide (Total)	kg/h	0.05	
NOx (Total)	kg/h	0.125	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 89.1% 0.7% 0.0%

## Intersection Performance - Annual Values



Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	610,435	732,522 pers/y
Arrival Flows (Total)	veh/y	609,719	
Delay (Total)	veh-h/y	306	367 pers-h/y
Effective Stops (Total)	veh/y	20,246	24,295 pers/y
Travel Distance (Total)	veh-mi/y	57,768	69,322 pers-mi/y
Travel Time (Total)	veh-h/y	1,772	2,127 pers-h/y
Cost (Total)	\$/y	45,593	45,593 \$/y
Fuel Consumption (Total)	gal/y	2,430	
Carbon Dioxide (Total)	kg/y	21,874	
Hydrocarbons (Total)	kg/y	2	
Carbon Monoxide (Total)	kg/y	26	
NOx (Total)	kg/y	60	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_AM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / Gregory (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	36.1	36.1 mph
Travel Distance (Total)	veh-mi/h	415.6	498.7 pers-mi/h
Travel Time (Total)	veh-h/h	11.5	13.8 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.90	
Travel Time Index		8.91	
Congestion Coefficient		1.11	
Demand Flows (Total)	veh/h	1239	1487 pers/h
Arrival Flows (Total)	veh/h	1238	1485 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	8.9	
Degree of Saturation		0.475	
Practical Spare Capacity	%	106.1	
Effective Intersection Capacity	veh/h	2603	
Control Delay (Total)	veh-h/h	1.09	1.31 pers-h/h
Control Delay (Average)	sec	3.2	3.2 sec
Control Delay (Worst Lane by MC)	sec	18.7	
Control Delay (Worst Movement by MC)	sec	80.7	80.7 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	3.2	
Idling Time (Average)	sec	3.0	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.1	
Average Back of Queue - Dist (Worst Lane)	ft	1.5	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	13	15 pers/h
Effective Stop Rate		0.01	0.01
Proportion Queued		0.01	0.01
Performance Index		12.0	12.0
Cost (Total)	\$/h	286.86	286.86 \$/h
Fuel Consumption (Total)	gal/h	14.5	
Carbon Dioxide (Total)	kg/h	131.7	
Hydrocarbons (Total)	kg/h	0.010	
Carbon Monoxide (Total)	kg/h	0.16	
NOx (Total)	kg/h	0.323	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 82.6% 0.4% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	594,783	713,739 pers/y
Arrival Flows (Total)	veh/y	594,085	
Delay (Total)	veh-h/y	524	629 pers-h/y
Effective Stops (Total)	veh/y	6,032	7,238 pers/y
Travel Distance (Total)	veh-mi/y	199,497	239,396 pers-mi/y
Travel Time (Total)	veh-h/y	5,531	6,638 pers-h/y
Cost (Total)	\$/y	137,691	137,691 \$/y
Fuel Consumption (Total)	gal/y	6,975	
Carbon Dioxide (Total)	kg/y	63,216	
Hydrocarbons (Total)	kg/y	5	
Carbon Monoxide (Total)	kg/y	79	
NOx (Total)	kg/y	155	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_AM.sip9

# INTERSECTION SUMMARY

Site: 101v [US 62 / Howell Drive - Conversion (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
 Site Category: (None)  
 Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	21.9	21.9 mph
Travel Distance (Total)	veh-mi/h	200.1	240.1 pers-mi/h
Travel Time (Total)	veh-h/h	9.1	10.9 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.55	
Travel Time Index		4.98	
Congestion Coefficient		1.82	
Demand Flows (Total)	veh/h	1557	1868 pers/h
Arrival Flows (Total)	veh/h	1490	1787 pers/h
Percent Heavy Vehicles (Demand)	%	8.7	
Percent Heavy Vehicles (Arrivals)	%	9.1	
Degree of Saturation		0.572	
Practical Spare Capacity	%	48.5	
Effective Intersection Capacity	veh/h	2603	
Control Delay (Total)	veh-h/h	2.42	2.90 pers-h/h
Control Delay (Average)	sec	5.8	5.8 sec
Control Delay (Worst Lane by MC)	sec	7.0	
Control Delay (Worst Movement by MC)	sec	16.5	16.5 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	5.8	
Idling Time (Average)	sec	4.9	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	2.2	
Average Back of Queue - Dist (Worst Lane)	ft	57.8	
Ave. Que Storage Ratio (Worst Lane)		0.12	
Effective Stops (Total)	veh/h	71	85 pers/h
Effective Stop Rate		0.05	0.05
Proportion Queued		0.15	0.15
Performance Index		24.5	24.5
Cost (Total)	\$/h	276.18	276.18 \$/h
Fuel Consumption (Total)	gal/h	18.0	
Carbon Dioxide (Total)	kg/h	161.8	
Hydrocarbons (Total)	kg/h	0.015	
Carbon Monoxide (Total)	kg/h	0.16	
NOx (Total)	kg/h	0.501	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	747,130	896,557 pers/y
Arrival Flows (Total)	veh/y	714,962	
Delay (Total)	veh-h/y	1,161	1,393 pers-h/y
Effective Stops (Total)	veh/y	34,130	40,956 pers/y
Travel Distance (Total)	veh-mi/y	96,027	115,233 pers-mi/y
Travel Time (Total)	veh-h/y	4,380	5,256 pers-h/y
Cost (Total)	\$/y	132,567	132,567 \$/y
Fuel Consumption (Total)	gal/y	8,636	
Carbon Dioxide (Total)	kg/y	77,679	
Hydrocarbons (Total)	kg/y	7	
Carbon Monoxide (Total)	kg/y	76	
NOx (Total)	kg/y	240	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_PM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / Brooke Street (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	37.6	37.6 mph
Travel Distance (Total)	veh-mi/h	260.6	312.7 pers-mi/h
Travel Time (Total)	veh-h/h	6.9	8.3 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.94	
Travel Time Index		9.33	
Congestion Coefficient		1.06	
Demand Flows (Total)	veh/h	1723	2067 pers/h
Arrival Flows (Total)	veh/h	1718	2062 pers/h
Percent Heavy Vehicles (Demand)	%	8.4	
Percent Heavy Vehicles (Arrivals)	%	8.4	
Degree of Saturation		0.255	
Practical Spare Capacity	%	285.0	
Effective Intersection Capacity	veh/h	6750	
Control Delay (Total)	veh-h/h	0.48	0.58 pers-h/h
Control Delay (Average)	sec	1.0	1.0 sec
Control Delay (Worst Lane by MC)	sec	37.6	
Control Delay (Worst Movement by MC)	sec	262.9	262.9 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	1.0	
Idling Time (Average)	sec	0.7	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.1	
Average Back of Queue - Dist (Worst Lane)	ft	2.9	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	19	23 pers/h
Effective Stop Rate		0.01	0.01
Proportion Queued		0.01	0.01
Performance Index		7.6	7.6
Cost (Total)	\$/h	174.93	174.93 \$/h
Fuel Consumption (Total)	gal/h	9.1	
Carbon Dioxide (Total)	kg/h	81.9	
Hydrocarbons (Total)	kg/h	0.006	
Carbon Monoxide (Total)	kg/h	0.10	
NOx (Total)	kg/h	0.201	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 92.3% 0.9% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	826,957	992,348 pers/y
Arrival Flows (Total)	veh/y	824,751	
Delay (Total)	veh-h/y	232	278 pers-h/y
Effective Stops (Total)	veh/y	9,028	10,833 pers/y
Travel Distance (Total)	veh-mi/y	125,080	150,097 pers-mi/y
Travel Time (Total)	veh-h/y	3,327	3,992 pers-h/y
Cost (Total)	\$/y	83,968	83,968 \$/y
Fuel Consumption (Total)	gal/y	4,348	
Carbon Dioxide (Total)	kg/y	39,291	
Hydrocarbons (Total)	kg/y	3	
Carbon Monoxide (Total)	kg/y	49	
NOx (Total)	kg/y	96	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_PM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62/French Street (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	28.0	28.0 mph
Travel Distance (Total)	veh-mi/h	790.7	948.8 pers-mi/h
Travel Time (Total)	veh-h/h	28.2	33.9 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.70	
Travel Time Index		6.67	
Congestion Coefficient		1.43	
Demand Flows (Total)	veh/h	2196	2635 pers/h
Arrival Flows (Total)	veh/h	2173	2607 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.3	
Degree of Saturation		0.498	
Practical Spare Capacity	%	70.6	
Effective Intersection Capacity	veh/h	4361	
Control Delay (Total)	veh-h/h	5.34	6.40 pers-h/h
Control Delay (Average)	sec	8.8	8.8 sec
Control Delay (Worst Lane by MC)	sec	14.4	
Control Delay (Worst Movement by MC)	sec	33.7	33.7 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	8.8	
Idling Time (Average)	sec	5.6	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	1.0	
Average Back of Queue - Dist (Worst Lane)	ft	26.0	
Ave. Que Storage Ratio (Worst Lane)		0.03	
Effective Stops (Total)	veh/h	750	900 pers/h
Effective Stop Rate		0.35	0.35
Proportion Queued		0.49	0.49
Performance Index		47.0	47.0
Cost (Total)	\$/h	812.44	812.44 \$/h
Fuel Consumption (Total)	gal/h	50.1	
Carbon Dioxide (Total)	kg/h	451.1	
Hydrocarbons (Total)	kg/h	0.039	
Carbon Monoxide (Total)	kg/h	0.47	
NOx (Total)	kg/h	1.453	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values



Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,053,913	1,264,696 pers/y
Arrival Flows (Total)	veh/y	1,042,924	
Delay (Total)	veh-h/y	2,562	3,074 pers-h/y
Effective Stops (Total)	veh/y	360,021	432,026 pers/y
Travel Distance (Total)	veh-mi/y	379,538	455,446 pers-mi/y
Travel Time (Total)	veh-h/y	13,550	16,260 pers-h/y
Cost (Total)	\$/y	389,973	389,973 \$/y
Fuel Consumption (Total)	gal/y	24,055	
Carbon Dioxide (Total)	kg/y	216,513	
Hydrocarbons (Total)	kg/y	19	
Carbon Monoxide (Total)	kg/y	226	
NOx (Total)	kg/y	698	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_PM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / Main Street (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	36.6	36.6 mph
Travel Distance (Total)	veh-mi/h	642.8	771.4 pers-mi/h
Travel Time (Total)	veh-h/h	17.6	21.1 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.92	
Travel Time Index		9.06	
Congestion Coefficient		1.09	
Demand Flows (Total)	veh/h	2122	2546 pers/h
Arrival Flows (Total)	veh/h	2094	2513 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.3	
Degree of Saturation		0.387	
Practical Spare Capacity	%	148.3	
Effective Intersection Capacity	veh/h	5418	
Control Delay (Total)	veh-h/h	1.48	1.78 pers-h/h
Control Delay (Average)	sec	2.5	2.5 sec
Control Delay (Worst Lane by MC)	sec	62.6	
Control Delay (Worst Movement by MC)	sec	1684.9	1684.9 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	2.5	
Idling Time (Average)	sec	1.2	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.5	
Average Back of Queue - Dist (Worst Lane)	ft	13.6	
Ave. Que Storage Ratio (Worst Lane)		0.01	
Effective Stops (Total)	veh/h	149	179 pers/h
Effective Stop Rate		0.07	0.07
Proportion Queued		0.07	0.07
Performance Index		20.6	20.6
Cost (Total)	\$/h	448.24	448.24 \$/h
Fuel Consumption (Total)	gal/h	23.6	
Carbon Dioxide (Total)	kg/h	212.6	
Hydrocarbons (Total)	kg/h	0.017	
Carbon Monoxide (Total)	kg/h	0.26	
NOx (Total)	kg/h	0.535	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 93.6% 61.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,018,435	1,222,122 pers/y
Arrival Flows (Total)	veh/y	1,005,237	
Delay (Total)	veh-h/y	711	854 pers-h/y
Effective Stops (Total)	veh/y	71,607	85,928 pers/y
Travel Distance (Total)	veh-mi/y	308,542	370,250 pers-mi/y
Travel Time (Total)	veh-h/y	8,427	10,113 pers-h/y
Cost (Total)	\$/y	215,155	215,155 \$/y
Fuel Consumption (Total)	gal/y	11,338	
Carbon Dioxide (Total)	kg/y	102,070	
Hydrocarbons (Total)	kg/y	8	
Carbon Monoxide (Total)	kg/y	126	
NOx (Total)	kg/y	257	


1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_PM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62/ Ring Road (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	9.3	9.3 mph
Travel Distance (Total)	veh-mi/h	1067.9	1281.5 pers-mi/h
Travel Time (Total)	veh-h/h	114.8	137.7 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.23	
Travel Time Index		1.47	
Congestion Coefficient		4.30	
Demand Flows (Total)	veh/h	3832	4598 pers/h
Arrival Flows (Total)	veh/h	3783	4540 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.3	
Degree of Saturation		1.365	
Practical Spare Capacity	%	-37.7	
Effective Intersection Capacity	veh/h	2771	
Control Delay (Total)	veh-h/h	81.20	97.43 pers-h/h
Control Delay (Average)	sec	77.3	77.3 sec
Control Delay (Worst Lane by MC)	sec	203.1	
Control Delay (Worst Movement by MC)	sec	229.6	229.6 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	77.3	
Idling Time (Average)	sec	52.3	
Intersection Level of Service (LOS)		LOS F	
Average Back of Queue - Veh (Worst Lane)	veh	23.6	
Average Back of Queue - Dist (Worst Lane)	ft	628.4	
Ave. Que Storage Ratio (Worst Lane)		0.76	
Effective Stops (Total)	veh/h	6802	8162 pers/h
Effective Stop Rate		1.80	1.80
Proportion Queued		0.72	0.72
Performance Index		303.4	303.4
Cost (Total)	\$/h	2647.68	2647.68 \$/h
Fuel Consumption (Total)	gal/h	117.0	
Carbon Dioxide (Total)	kg/h	1053.4	
Hydrocarbons (Total)	kg/h	0.118	
Carbon Monoxide (Total)	kg/h	1.10	
NOx (Total)	kg/h	2.853	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 48.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,839,130	2,206,957 pers/y
Arrival Flows (Total)	veh/y	1,816,014	
Delay (Total)	veh-h/y	38,974	46,769 pers-h/y
Effective Stops (Total)	veh/y	3,264,796	3,917,755 pers/y
Travel Distance (Total)	veh-mi/y	512,609	615,131 pers-mi/y
Travel Time (Total)	veh-h/y	55,093	66,111 pers-h/y
Cost (Total)	\$/y	1,270,889	1,270,889 \$/y
Fuel Consumption (Total)	gal/y	56,173	
Carbon Dioxide (Total)	kg/y	505,647	
Hydrocarbons (Total)	kg/y	57	
Carbon Monoxide (Total)	kg/y	526	
NOx (Total)	kg/y	1,369	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_PM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / DolpinRoad (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	30.9	30.9 mph
Travel Distance (Total)	veh-mi/h	614.9	737.9 pers-mi/h
Travel Time (Total)	veh-h/h	19.9	23.9 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.77	
Travel Time Index		7.46	
Congestion Coefficient		1.30	
Demand Flows (Total)	veh/h	3364	4037 pers/h
Arrival Flows (Total)	veh/h	3070	3683 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	8.7	
Degree of Saturation		0.635	
Practical Spare Capacity	%	25.9	
Effective Intersection Capacity	veh/h	4833	
Control Delay (Total)	veh-h/h	4.97	5.97 pers-h/h
Control Delay (Average)	sec	5.8	5.8 sec
Control Delay (Worst Lane by MC)	sec	206.0	
Control Delay (Worst Movement by MC)	sec	3251.5	3251.5 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	5.8	
Idling Time (Average)	sec	3.3	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	1.0	
Average Back of Queue - Dist (Worst Lane)	ft	26.1	
Ave. Que Storage Ratio (Worst Lane)		0.02	
Effective Stops (Total)	veh/h	300	361 pers/h
Effective Stop Rate		0.10	0.10
Proportion Queued		0.09	0.09
Performance Index		28.4	28.4
Cost (Total)	\$/h	512.68	512.68 \$/h
Fuel Consumption (Total)	gal/h	27.3	
Carbon Dioxide (Total)	kg/h	246.4	
Hydrocarbons (Total)	kg/h	0.021	
Carbon Monoxide (Total)	kg/h	0.29	
NOx (Total)	kg/h	0.649	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.6 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 97.8% 69.6% 0.6%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,614,783	1,937,739 pers/y
Arrival Flows (Total)	veh/y	1,473,399	
Delay (Total)	veh-h/y	2,386	2,864 pers-h/y
Effective Stops (Total)	veh/y	144,235	173,082 pers/y
Travel Distance (Total)	veh-mi/y	295,149	354,179 pers-mi/y
Travel Time (Total)	veh-h/y	9,561	11,473 pers-h/y
Cost (Total)	\$/y	246,087	246,087 \$/y
Fuel Consumption (Total)	gal/y	13,126	
Carbon Dioxide (Total)	kg/y	118,268	
Hydrocarbons (Total)	kg/y	10	
Carbon Monoxide (Total)	kg/y	139	
NOx (Total)	kg/y	311	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_PM.sip9

# INTERSECTION SUMMARY

Site: 101 [US 62/Commerce Drive (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	20.6	20.6 mph
Travel Distance (Total)	veh-mi/h	742.0	890.4 pers-mi/h
Travel Time (Total)	veh-h/h	36.0	43.2 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.52	
Travel Time Index		4.61	
Congestion Coefficient		1.94	
Demand Flows (Total)	veh/h	3245	3893 pers/h
Arrival Flows (Total)	veh/h	2969	3563 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	8.6	
Degree of Saturation		0.932	
Practical Spare Capacity	%	-8.8	
Effective Intersection Capacity	veh/h	3184	
Control Delay (Total)	veh-h/h	13.42	16.10 pers-h/h
Control Delay (Average)	sec	16.3	16.3 sec
Control Delay (Worst Lane by MC)	sec	65.2	
Control Delay (Worst Movement by MC)	sec	105.2	105.2 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	16.3	
Idling Time (Average)	sec	11.8	
Intersection Level of Service (LOS)		LOS C	
Average Back of Queue - Veh (Worst Lane)	veh	3.1	
Average Back of Queue - Dist (Worst Lane)	ft	81.5	
Ave. Que Storage Ratio (Worst Lane)		0.07	
Effective Stops (Total)	veh/h	1225	1470 pers/h
Effective Stop Rate		0.41	0.41
Proportion Queued		0.55	0.55
Performance Index		77.8	77.8
Cost (Total)	\$/h	995.35	995.35 \$/h
Fuel Consumption (Total)	gal/h	58.5	
Carbon Dioxide (Total)	kg/h	525.9	
Hydrocarbons (Total)	kg/h	0.048	
Carbon Monoxide (Total)	kg/h	0.53	
NOx (Total)	kg/h	1.676	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values



Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,557,391	1,868,870 pers/y
Arrival Flows (Total)	veh/y	1,425,250	
Delay (Total)	veh-h/y	6,441	7,729 pers-h/y
Effective Stops (Total)	veh/y	587,829	705,395 pers/y
Travel Distance (Total)	veh-mi/y	356,169	427,403 pers-mi/y
Travel Time (Total)	veh-h/y	17,286	20,743 pers-h/y
Cost (Total)	\$/y	477,769	477,769 \$/y
Fuel Consumption (Total)	gal/y	28,077	
Carbon Dioxide (Total)	kg/y	252,453	
Hydrocarbons (Total)	kg/y	23	
Carbon Monoxide (Total)	kg/y	256	
NOx (Total)	kg/y	804	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_PM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / Executive / Buffalo Creek (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	13.4	13.4 mph
Travel Distance (Total)	veh-mi/h	477.8	573.4 pers-mi/h
Travel Time (Total)	veh-h/h	35.6	42.7 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.34	
Travel Time Index		2.62	
Congestion Coefficient		2.98	
Demand Flows (Total)	veh/h	3323	3987 pers/h
Arrival Flows (Total)	veh/h	3087	3704 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	8.5	
Degree of Saturation		3.928	
Practical Spare Capacity	%	-79.6	
Effective Intersection Capacity	veh/h	786	
Control Delay (Total)	veh-h/h	25.09	30.11 pers-h/h
Control Delay (Average)	sec	29.3	29.3 sec
Control Delay (Worst Lane by MC)	sec	1959.7	
Control Delay (Worst Movement by MC)	sec	10683.7	10683.7 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	29.3	
Idling Time (Average)	sec	25.7	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	4.6	
Average Back of Queue - Dist (Worst Lane)	ft	122.2	
Ave. Que Storage Ratio (Worst Lane)		0.08	
Effective Stops (Total)	veh/h	262	314 pers/h
Effective Stop Rate		0.08	0.08
Proportion Queued		0.08	0.08
Performance Index		68.2	68.2
Cost (Total)	\$/h	766.47	766.47 \$/h
Fuel Consumption (Total)	gal/h	29.0	
Carbon Dioxide (Total)	kg/h	261.5	
Hydrocarbons (Total)	kg/h	0.028	
Carbon Monoxide (Total)	kg/h	0.30	
NOx (Total)	kg/h	0.622	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 99.4% 75.3% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,594,956	1,913,948 pers/y
Arrival Flows (Total)	veh/y	1,481,635	
Delay (Total)	veh-h/y	12,042	14,451 pers-h/y
Effective Stops (Total)	veh/y	125,753	150,903 pers/y
Travel Distance (Total)	veh-mi/y	229,348	275,218 pers-mi/y
Travel Time (Total)	veh-h/y	17,095	20,514 pers-h/y
Cost (Total)	\$/y	367,908	367,908 \$/y
Fuel Consumption (Total)	gal/y	13,933	
Carbon Dioxide (Total)	kg/y	125,516	
Hydrocarbons (Total)	kg/y	13	
Carbon Monoxide (Total)	kg/y	145	
NOx (Total)	kg/y	299	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101v [US 62 / I-65 SB - Conversion (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	16.6	16.6 mph
Travel Distance (Total)	veh-mi/h	795.1	954.1 pers-mi/h
Travel Time (Total)	veh-h/h	48.0	57.5 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.41	
Travel Time Index		3.49	
Congestion Coefficient		2.41	
Demand Flows (Total)	veh/h	3424	4109 pers/h
Arrival Flows (Total)	veh/h	3254	3905 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	9.4	
Degree of Saturation		1.162	
Practical Spare Capacity	%	-26.8	
Effective Intersection Capacity	veh/h	2801	
Control Delay (Total)	veh-h/h	25.37	30.44 pers-h/h
Control Delay (Average)	sec	28.1	28.1 sec
Control Delay (Worst Lane by MC)	sec	123.9	
Control Delay (Worst Movement by MC)	sec	155.4	155.4 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	28.1	
Idling Time (Average)	sec	15.7	
Intersection Level of Service (LOS)		LOS D	
Average Back of Queue - Veh (Worst Lane)	veh	11.7	
Average Back of Queue - Dist (Worst Lane)	ft	314.2	
Ave. Que Storage Ratio (Worst Lane)		0.33	
Effective Stops (Total)	veh/h	2652	3182 pers/h
Effective Stop Rate		0.81	0.81
Proportion Queued		0.53	0.53
Performance Index		104.1	104.1
Cost (Total)	\$/h	1281.28	1281.28 \$/h
Fuel Consumption (Total)	gal/h	72.0	
Carbon Dioxide (Total)	kg/h	649.8	
Hydrocarbons (Total)	kg/h	0.064	
Carbon Monoxide (Total)	kg/h	0.67	
NOx (Total)	kg/h	2.054	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,643,478	1,972,174 pers/y
Arrival Flows (Total)	veh/y	1,561,820	
Delay (Total)	veh-h/y	12,176	14,611 pers-h/y
Effective Stops (Total)	veh/y	1,272,810	1,527,372 pers/y
Travel Distance (Total)	veh-mi/y	381,634	457,961 pers-mi/y
Travel Time (Total)	veh-h/y	23,019	27,623 pers-h/y
Cost (Total)	\$/y	615,012	615,012 \$/y
Fuel Consumption (Total)	gal/y	34,582	
Carbon Dioxide (Total)	kg/y	311,882	
Hydrocarbons (Total)	kg/y	31	
Carbon Monoxide (Total)	kg/y	322	
NOx (Total)	kg/y	986	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_PM.sip9

# INTERSECTION SUMMARY

Site: 101v [US 62 / I-65 NB - Conversion (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	22.7	22.7 mph
Travel Distance (Total)	veh-mi/h	531.6	637.9 pers-mi/h
Travel Time (Total)	veh-h/h	23.4	28.1 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.57	
Travel Time Index		5.20	
Congestion Coefficient		1.76	
Demand Flows (Total)	veh/h	2217	2661 pers/h
Arrival Flows (Total)	veh/h	2115	2538 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	9.3	
Degree of Saturation		0.746	
Practical Spare Capacity	%	13.9	
Effective Intersection Capacity	veh/h	2834	
Control Delay (Total)	veh-h/h	7.66	9.19 pers-h/h
Control Delay (Average)	sec	13.0	13.0 sec
Control Delay (Worst Lane by MC)	sec	30.7	
Control Delay (Worst Movement by MC)	sec	55.8	55.8 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	13.0	
Idling Time (Average)	sec	6.5	
Intersection Level of Service (LOS)		LOS B	
Average Back of Queue - Veh (Worst Lane)	veh	1.9	
Average Back of Queue - Dist (Worst Lane)	ft	51.2	
Ave. Que Storage Ratio (Worst Lane)		0.09	
Effective Stops (Total)	veh/h	1062	1274 pers/h
Effective Stop Rate		0.50	0.50
Proportion Queued		0.43	0.43
Performance Index		36.7	36.7
Cost (Total)	\$/h	678.40	678.40 \$/h
Fuel Consumption (Total)	gal/h	42.2	
Carbon Dioxide (Total)	kg/h	380.0	
Hydrocarbons (Total)	kg/h	0.034	
Carbon Monoxide (Total)	kg/h	0.38	
NOx (Total)	kg/h	1.268	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,064,348	1,277,217 pers/y
Arrival Flows (Total)	veh/y	1,015,192	
Delay (Total)	veh-h/y	3,675	4,410 pers-h/y
Effective Stops (Total)	veh/y	509,631	611,557 pers/y
Travel Distance (Total)	veh-mi/y	255,175	306,210 pers-mi/y
Travel Time (Total)	veh-h/y	11,240	13,488 pers-h/y
Cost (Total)	\$/y	325,633	325,633 \$/y
Fuel Consumption (Total)	gal/y	20,237	
Carbon Dioxide (Total)	kg/y	182,402	
Hydrocarbons (Total)	kg/y	16	
Carbon Monoxide (Total)	kg/y	183	
NOx (Total)	kg/y	608	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_PM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / Medley Lane (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	34.9	34.9 mph
Travel Distance (Total)	veh-mi/h	152.3	182.7 pers-mi/h
Travel Time (Total)	veh-h/h	4.4	5.2 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.87	
Travel Time Index		8.59	
Congestion Coefficient		1.15	
Demand Flows (Total)	veh/h	1538	1846 pers/h
Arrival Flows (Total)	veh/h	1470	1764 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	9.3	
Degree of Saturation		0.241	
Practical Spare Capacity	%	306.5	
Effective Intersection Capacity	veh/h	6097	
Control Delay (Total)	veh-h/h	1.30	1.56 pers-h/h
Control Delay (Average)	sec	3.2	3.2 sec
Control Delay (Worst Lane by MC)	sec	54.6	
Control Delay (Worst Movement by MC)	sec	936.2	936.2 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	3.2	
Idling Time (Average)	sec	0.9	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.2	
Average Back of Queue - Dist (Worst Lane)	ft	5.7	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	35	42 pers/h
Effective Stop Rate		0.02	0.02
Proportion Queued		0.03	0.03
Performance Index		6.8	6.8
Cost (Total)	\$/h	111.41	111.41 \$/h
Fuel Consumption (Total)	gal/h	5.9	
Carbon Dioxide (Total)	kg/h	52.9	
Hydrocarbons (Total)	kg/h	0.004	
Carbon Monoxide (Total)	kg/h	0.06	
NOx (Total)	kg/h	0.138	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 94.7% 50.8% 0.0%

## Intersection Performance - Annual Values



Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	738,261	885,913 pers/y
Arrival Flows (Total)	veh/y	705,657	
Delay (Total)	veh-h/y	625	750 pers-h/y
Effective Stops (Total)	veh/y	16,681	20,018 pers/y
Travel Distance (Total)	veh-mi/y	73,087	87,704 pers-mi/y
Travel Time (Total)	veh-h/y	2,092	2,511 pers-h/y
Cost (Total)	\$/y	53,477	53,477 \$/y
Fuel Consumption (Total)	gal/y	2,823	
Carbon Dioxide (Total)	kg/y	25,407	
Hydrocarbons (Total)	kg/y	2	
Carbon Monoxide (Total)	kg/y	31	
NOx (Total)	kg/y	66	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_PM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / McCormack (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	34.2	34.2 mph
Travel Distance (Total)	veh-mi/h	141.2	169.4 pers-mi/h
Travel Time (Total)	veh-h/h	4.1	4.9 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.86	
Travel Time Index		8.40	
Congestion Coefficient		1.17	
Demand Flows (Total)	veh/h	1467	1761 pers/h
Arrival Flows (Total)	veh/h	1404	1685 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	9.3	
Degree of Saturation		0.420	
Practical Spare Capacity	%	133.1	
Effective Intersection Capacity	veh/h	3340	
Control Delay (Total)	veh-h/h	0.49	0.59 pers-h/h
Control Delay (Average)	sec	1.3	1.3 sec
Control Delay (Worst Lane by MC)	sec	33.7	
Control Delay (Worst Movement by MC)	sec	85.6	85.6 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	1.3	
Idling Time (Average)	sec	1.0	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.2	
Average Back of Queue - Dist (Worst Lane)	ft	6.3	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	32	38 pers/h
Effective Stop Rate		0.02	0.02
Proportion Queued		0.02	0.02
Performance Index		5.2	5.2
Cost (Total)	\$/h	107.59	107.59 \$/h
Fuel Consumption (Total)	gal/h	5.9	
Carbon Dioxide (Total)	kg/h	52.8	
Hydrocarbons (Total)	kg/h	0.004	
Carbon Monoxide (Total)	kg/h	0.06	
NOx (Total)	kg/h	0.147	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 90.7% 0.9% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	704,348	845,217 pers/y
Arrival Flows (Total)	veh/y	674,082	
Delay (Total)	veh-h/y	234	281 pers-h/y
Effective Stops (Total)	veh/y	15,158	18,189 pers/y
Travel Distance (Total)	veh-mi/y	67,759	81,311 pers-mi/y
Travel Time (Total)	veh-h/y	1,979	2,375 pers-h/y
Cost (Total)	\$/y	51,644	51,644 \$/y
Fuel Consumption (Total)	gal/y	2,811	
Carbon Dioxide (Total)	kg/y	25,334	
Hydrocarbons (Total)	kg/y	2	
Carbon Monoxide (Total)	kg/y	30	
NOx (Total)	kg/y	70	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_PM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / Gregory (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	36.9	36.9 mph
Travel Distance (Total)	veh-mi/h	467.8	561.4 pers-mi/h
Travel Time (Total)	veh-h/h	12.7	15.2 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.92	
Travel Time Index		9.14	
Congestion Coefficient		1.08	
Demand Flows (Total)	veh/h	1402	1683 pers/h
Arrival Flows (Total)	veh/h	1345	1614 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	9.3	
Degree of Saturation		0.385	
Practical Spare Capacity	%	154.7	
Effective Intersection Capacity	veh/h	3495	
Control Delay (Total)	veh-h/h	0.88	1.06 pers-h/h
Control Delay (Average)	sec	2.4	2.4 sec
Control Delay (Worst Lane by MC)	sec	29.0	
Control Delay (Worst Movement by MC)	sec	94.2	94.2 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	2.4	
Idling Time (Average)	sec	2.1	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.2	
Average Back of Queue - Dist (Worst Lane)	ft	5.3	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	31	37 pers/h
Effective Stop Rate		0.02	0.02
Proportion Queued		0.02	0.02
Performance Index		13.7	13.7
Cost (Total)	\$/h	319.84	319.84 \$/h
Fuel Consumption (Total)	gal/h	16.6	
Carbon Dioxide (Total)	kg/h	150.6	
Hydrocarbons (Total)	kg/h	0.012	
Carbon Monoxide (Total)	kg/h	0.19	
NOx (Total)	kg/h	0.375	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 89.1% 0.8% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	673,043	807,652 pers/y
Arrival Flows (Total)	veh/y	645,485	
Delay (Total)	veh-h/y	424	508 pers-h/y
Effective Stops (Total)	veh/y	14,899	17,878 pers/y
Travel Distance (Total)	veh-mi/y	224,564	269,477 pers-mi/y
Travel Time (Total)	veh-h/y	6,085	7,302 pers-h/y
Cost (Total)	\$/y	153,525	153,525 \$/y
Fuel Consumption (Total)	gal/y	7,945	
Carbon Dioxide (Total)	kg/y	72,271	
Hydrocarbons (Total)	kg/y	6	
Carbon Monoxide (Total)	kg/y	89	
NOx (Total)	kg/y	180	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_PM.sip9

# INTERSECTION SUMMARY

Site: 101v [US 62 / Howell Drive - Conversion (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	22.9	22.9 mph
Travel Distance (Total)	veh-mi/h	181.3	217.5 pers-mi/h
Travel Time (Total)	veh-h/h	7.9	9.5 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.57	
Travel Time Index		5.24	
Congestion Coefficient		1.75	
Demand Flows (Total)	veh/h	1350	1620 pers/h
Arrival Flows (Total)	veh/h	1346	1615 pers/h
Percent Heavy Vehicles (Demand)	%	8.7	
Percent Heavy Vehicles (Arrivals)	%	8.8	
Degree of Saturation		0.341	
Practical Spare Capacity	%	149.4	
Effective Intersection Capacity	veh/h	3949	
Control Delay (Total)	veh-h/h	1.82	2.19 pers-h/h
Control Delay (Average)	sec	4.9	4.9 sec
Control Delay (Worst Lane by MC)	sec	7.4	
Control Delay (Worst Movement by MC)	sec	20.2	20.2 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	4.9	
Idling Time (Average)	sec	4.3	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	0.8	
Average Back of Queue - Dist (Worst Lane)	ft	22.6	
Ave. Que Storage Ratio (Worst Lane)		0.05	
Effective Stops (Total)	veh/h	43	51 pers/h
Effective Stop Rate		0.03	0.03
Proportion Queued		0.10	0.10
Performance Index		16.3	16.3
Cost (Total)	\$/h	243.40	243.40 \$/h
Fuel Consumption (Total)	gal/h	16.1	
Carbon Dioxide (Total)	kg/h	144.8	
Hydrocarbons (Total)	kg/h	0.013	
Carbon Monoxide (Total)	kg/h	0.14	
NOx (Total)	kg/h	0.452	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	648,000	777,600 pers/y
Arrival Flows (Total)	veh/y	645,882	
Delay (Total)	veh-h/y	875	1,050 pers-h/y
Effective Stops (Total)	veh/y	20,597	24,717 pers/y
Travel Distance (Total)	veh-mi/y	87,008	104,410 pers-mi/y
Travel Time (Total)	veh-h/y	3,804	4,564 pers-h/y
Cost (Total)	\$/y	116,831	116,831 \$/y
Fuel Consumption (Total)	gal/y	7,726	
Carbon Dioxide (Total)	kg/y	69,513	
Hydrocarbons (Total)	kg/y	6	
Carbon Monoxide (Total)	kg/y	68	
NOx (Total)	kg/y	217	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_RING RIRO AM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / Brooke Street (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	37.8	37.8 mph
Travel Distance (Total)	veh-mi/h	215.7	258.9 pers-mi/h
Travel Time (Total)	veh-h/h	5.7	6.8 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.95	
Travel Time Index		9.40	
Congestion Coefficient		1.06	
Demand Flows (Total)	veh/h	1321	1585 pers/h
Arrival Flows (Total)	veh/h	1320	1584 pers/h
Percent Heavy Vehicles (Demand)	%	8.4	
Percent Heavy Vehicles (Arrivals)	%	8.4	
Degree of Saturation		0.206	
Practical Spare Capacity	%	376.1	
Effective Intersection Capacity	veh/h	6412	
Control Delay (Total)	veh-h/h	0.31	0.37 pers-h/h
Control Delay (Average)	sec	0.8	0.8 sec
Control Delay (Worst Lane by MC)	sec	22.2	
Control Delay (Worst Movement by MC)	sec	117.2	117.2 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	0.8	
Idling Time (Average)	sec	0.6	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.1	
Average Back of Queue - Dist (Worst Lane)	ft	1.8	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	13	16 pers/h
Effective Stop Rate		0.01	0.01
Proportion Queued		0.01	0.01
Performance Index		6.1	6.1
Cost (Total)	\$/h	144.27	144.27 \$/h
Fuel Consumption (Total)	gal/h	7.5	
Carbon Dioxide (Total)	kg/h	67.8	
Hydrocarbons (Total)	kg/h	0.005	
Carbon Monoxide (Total)	kg/h	0.08	
NOx (Total)	kg/h	0.166	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 86.0% 0.6% 0.0%

## Intersection Performance - Annual Values



Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	633,913	760,696 pers/y
Arrival Flows (Total)	veh/y	633,519	
Delay (Total)	veh-h/y	149	179 pers-h/y
Effective Stops (Total)	veh/y	6,466	7,759 pers/y
Travel Distance (Total)	veh-mi/y	103,551	124,261 pers-mi/y
Travel Time (Total)	veh-h/y	2,737	3,285 pers-h/y
Cost (Total)	\$/y	69,250	69,250 \$/y
Fuel Consumption (Total)	gal/y	3,598	
Carbon Dioxide (Total)	kg/y	32,528	
Hydrocarbons (Total)	kg/y	3	
Carbon Monoxide (Total)	kg/y	41	
NOx (Total)	kg/y	80	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_RING RIRO AM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62/French Street (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	29.6	29.6 mph
Travel Distance (Total)	veh-mi/h	582.8	699.4 pers-mi/h
Travel Time (Total)	veh-h/h	19.7	23.7 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.74	
Travel Time Index		7.10	
Congestion Coefficient		1.35	
Demand Flows (Total)	veh/h	1614	1937 pers/h
Arrival Flows (Total)	veh/h	1613	1936 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.2	
Degree of Saturation		0.357	
Practical Spare Capacity	%	137.9	
Effective Intersection Capacity	veh/h	4515	
Control Delay (Total)	veh-h/h	2.90	3.48 pers-h/h
Control Delay (Average)	sec	6.5	6.5 sec
Control Delay (Worst Lane by MC)	sec	10.3	
Control Delay (Worst Movement by MC)	sec	22.8	22.8 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	6.5	
Idling Time (Average)	sec	4.2	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	0.6	
Average Back of Queue - Dist (Worst Lane)	ft	15.9	
Ave. Que Storage Ratio (Worst Lane)		0.02	
Effective Stops (Total)	veh/h	374	449 pers/h
Effective Stop Rate		0.23	0.23
Proportion Queued		0.36	0.36
Performance Index		30.2	30.2
Cost (Total)	\$/h	573.09	573.09 \$/h
Fuel Consumption (Total)	gal/h	35.7	
Carbon Dioxide (Total)	kg/h	321.5	
Hydrocarbons (Total)	kg/h	0.027	
Carbon Monoxide (Total)	kg/h	0.34	
NOx (Total)	kg/h	1.033	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	774,783	929,739 pers/y
Arrival Flows (Total)	veh/y	774,335	
Delay (Total)	veh-h/y	1,391	1,669 pers-h/y
Effective Stops (Total)	veh/y	179,497	215,396 pers/y
Travel Distance (Total)	veh-mi/y	279,761	335,713 pers-mi/y
Travel Time (Total)	veh-h/y	9,467	11,361 pers-h/y
Cost (Total)	\$/y	275,083	275,083 \$/y
Fuel Consumption (Total)	gal/y	17,152	
Carbon Dioxide (Total)	kg/y	154,318	
Hydrocarbons (Total)	kg/y	13	
Carbon Monoxide (Total)	kg/y	161	
NOx (Total)	kg/y	496	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_RING RIRO AM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62/Main Street RB (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	28.8	28.8 mph
Travel Distance (Total)	veh-mi/h	511.4	613.7 pers-mi/h
Travel Time (Total)	veh-h/h	17.8	21.3 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.72	
Travel Time Index		6.88	
Congestion Coefficient		1.39	
Demand Flows (Total)	veh/h	1696	2035 pers/h
Arrival Flows (Total)	veh/h	1695	2034 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.2	
Degree of Saturation		0.323	
Practical Spare Capacity	%	163.1	
Effective Intersection Capacity	veh/h	5246	
Control Delay (Total)	veh-h/h	2.75	3.30 pers-h/h
Control Delay (Average)	sec	5.9	5.9 sec
Control Delay (Worst Lane by MC)	sec	8.7	
Control Delay (Worst Movement by MC)	sec	20.7	20.7 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	5.9	
Idling Time (Average)	sec	4.4	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	0.7	
Average Back of Queue - Dist (Worst Lane)	ft	17.9	
Ave. Que Storage Ratio (Worst Lane)		0.02	
Effective Stops (Total)	veh/h	218	262 pers/h
Effective Stop Rate		0.13	0.13
Proportion Queued		0.25	0.25
Performance Index		26.4	26.4
Cost (Total)	\$/h	521.21	521.21 \$/h
Fuel Consumption (Total)	gal/h	32.8	
Carbon Dioxide (Total)	kg/h	295.0	
Hydrocarbons (Total)	kg/h	0.025	
Carbon Monoxide (Total)	kg/h	0.30	
NOx (Total)	kg/h	0.966	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	813,913	976,696 pers/y
Arrival Flows (Total)	veh/y	813,401	
Delay (Total)	veh-h/y	1,322	1,586 pers-h/y
Effective Stops (Total)	veh/y	104,843	125,811 pers/y
Travel Distance (Total)	veh-mi/y	245,466	294,559 pers-mi/y
Travel Time (Total)	veh-h/y	8,536	10,243 pers-h/y
Cost (Total)	\$/y	250,179	250,179 \$/y
Fuel Consumption (Total)	gal/y	15,751	
Carbon Dioxide (Total)	kg/y	141,601	
Hydrocarbons (Total)	kg/y	12	
Carbon Monoxide (Total)	kg/y	146	
NOx (Total)	kg/y	464	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_RING RIRO AM.sip9

# INTERSECTION SUMMARY

 Site: 101v [US 62 / Ring Road RIRO (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	33.3	33.3 mph
Travel Distance (Total)	veh-mi/h	801.9	962.3 pers-mi/h
Travel Time (Total)	veh-h/h	24.1	28.9 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.83	
Travel Time Index		8.15	
Congestion Coefficient		1.20	
Demand Flows (Total)	veh/h	3397	4076 pers/h
Arrival Flows (Total)	veh/h	3393	4072 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.2	
Degree of Saturation		0.577	
Practical Spare Capacity	%	38.7	
Effective Intersection Capacity	veh/h	5883	
Control Delay (Total)	veh-h/h	1.61	1.94 pers-h/h
Control Delay (Average)	sec	1.7	1.7 sec
Control Delay (Worst Lane by MC)	sec	17.1	
Control Delay (Worst Movement by MC)	sec	60.9	60.9 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	1.7	
Idling Time (Average)	sec	0.2	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.2	
Average Back of Queue - Dist (Worst Lane)	ft	4.5	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	25	30 pers/h
Effective Stop Rate		0.01	0.01
Proportion Queued		0.01	0.01
Performance Index		22.1	22.1
Cost (Total)	\$/h	696.34	696.34 \$/h
Fuel Consumption (Total)	gal/h	43.2	
Carbon Dioxide (Total)	kg/h	390.6	
Hydrocarbons (Total)	kg/h	0.032	
Carbon Monoxide (Total)	kg/h	0.43	
NOx (Total)	kg/h	1.208	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 77.5% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,630,435	1,956,522 pers/y
Arrival Flows (Total)	veh/y	1,628,704	
Delay (Total)	veh-h/y	774	929 pers-h/y
Effective Stops (Total)	veh/y	11,803	14,163 pers/y
Travel Distance (Total)	veh-mi/y	384,901	461,882 pers-mi/y
Travel Time (Total)	veh-h/y	11,545	13,854 pers-h/y
Cost (Total)	\$/y	334,243	334,243 \$/y
Fuel Consumption (Total)	gal/y	20,756	
Carbon Dioxide (Total)	kg/y	187,470	
Hydrocarbons (Total)	kg/y	15	
Carbon Monoxide (Total)	kg/y	206	
NOx (Total)	kg/y	580	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_RING RIRO AM.sip9

# INTERSECTION SUMMARY

Site: 101v [US 62 / DolpinRoad - Conversion (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
 Site Category: (None)  
 Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	24.9	24.9 mph
Travel Distance (Total)	veh-mi/h	579.0	694.8 pers-mi/h
Travel Time (Total)	veh-h/h	23.2	27.9 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.62	
Travel Time Index		5.82	
Congestion Coefficient		1.60	
Demand Flows (Total)	veh/h	2495	2993 pers/h
Arrival Flows (Total)	veh/h	2490	2989 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	7.9	
Degree of Saturation		0.574	
Practical Spare Capacity	%	48.0	
Effective Intersection Capacity	veh/h	4335	
Control Delay (Total)	veh-h/h	5.37	6.45 pers-h/h
Control Delay (Average)	sec	7.8	7.8 sec
Control Delay (Worst Lane by MC)	sec	13.7	
Control Delay (Worst Movement by MC)	sec	22.4	22.4 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	7.8	
Idling Time (Average)	sec	5.9	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	1.7	
Average Back of Queue - Dist (Worst Lane)	ft	44.5	
Ave. Que Storage Ratio (Worst Lane)		0.06	
Effective Stops (Total)	veh/h	386	463 pers/h
Effective Stop Rate		0.16	0.16
Proportion Queued		0.30	0.30
Performance Index		36.2	36.2
Cost (Total)	\$/h	697.17	697.17 \$/h
Fuel Consumption (Total)	gal/h	45.1	
Carbon Dioxide (Total)	kg/h	405.3	
Hydrocarbons (Total)	kg/h	0.037	
Carbon Monoxide (Total)	kg/h	0.43	
NOx (Total)	kg/h	1.179	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values



Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,197,391	1,436,870 pers/y
Arrival Flows (Total)	veh/y	1,195,438	
Delay (Total)	veh-h/y	2,579	3,095 pers-h/y
Effective Stops (Total)	veh/y	185,360	222,432 pers/y
Travel Distance (Total)	veh-mi/y	277,922	333,507 pers-mi/y
Travel Time (Total)	veh-h/y	11,140	13,368 pers-h/y
Cost (Total)	\$/y	334,640	334,640 \$/y
Fuel Consumption (Total)	gal/y	21,630	
Carbon Dioxide (Total)	kg/y	194,565	
Hydrocarbons (Total)	kg/y	18	
Carbon Monoxide (Total)	kg/y	205	
NOx (Total)	kg/y	566	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_RING RIRO AM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62/Commerce Drive (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	24.0	24.0 mph
Travel Distance (Total)	veh-mi/h	545.6	654.7 pers-mi/h
Travel Time (Total)	veh-h/h	22.7	27.3 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.60	
Travel Time Index		5.56	
Congestion Coefficient		1.67	
Demand Flows (Total)	veh/h	2440	2928 pers/h
Arrival Flows (Total)	veh/h	2436	2923 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	7.9	
Degree of Saturation		0.570	
Practical Spare Capacity	%	49.1	
Effective Intersection Capacity	veh/h	4273	
Control Delay (Total)	veh-h/h	5.87	7.04 pers-h/h
Control Delay (Average)	sec	8.7	8.7 sec
Control Delay (Worst Lane by MC)	sec	15.2	
Control Delay (Worst Movement by MC)	sec	55.2	55.2 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	8.7	
Idling Time (Average)	sec	6.1	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	1.6	
Average Back of Queue - Dist (Worst Lane)	ft	42.6	
Ave. Que Storage Ratio (Worst Lane)		0.07	
Effective Stops (Total)	veh/h	558	669 pers/h
Effective Stop Rate		0.23	0.23
Proportion Queued		0.42	0.42
Performance Index		40.6	40.6
Cost (Total)	\$/h	672.67	672.67 \$/h
Fuel Consumption (Total)	gal/h	42.8	
Carbon Dioxide (Total)	kg/h	385.0	
Hydrocarbons (Total)	kg/h	0.034	
Carbon Monoxide (Total)	kg/h	0.38	
NOx (Total)	kg/h	1.283	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,171,304	1,405,565 pers/y
Arrival Flows (Total)	veh/y	1,169,248	
Delay (Total)	veh-h/y	2,817	3,380 pers-h/y
Effective Stops (Total)	veh/y	267,617	321,141 pers/y
Travel Distance (Total)	veh-mi/y	261,878	314,253 pers-mi/y
Travel Time (Total)	veh-h/y	10,904	13,085 pers-h/y
Cost (Total)	\$/y	322,882	322,882 \$/y
Fuel Consumption (Total)	gal/y	20,555	
Carbon Dioxide (Total)	kg/y	184,779	
Hydrocarbons (Total)	kg/y	16	
Carbon Monoxide (Total)	kg/y	184	
NOx (Total)	kg/y	616	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / Executive / Buffalo Creek (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	19.2	19.2 mph
Travel Distance (Total)	veh-mi/h	441.1	529.3 pers-mi/h
Travel Time (Total)	veh-h/h	23.0	27.6 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.48	
Travel Time Index		4.22	
Congestion Coefficient		2.08	
Demand Flows (Total)	veh/h	2457	2948 pers/h
Arrival Flows (Total)	veh/h	2457	2948 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	7.9	
Degree of Saturation		1.650	
Practical Spare Capacity	%	-51.5	
Effective Intersection Capacity	veh/h	1489	
Control Delay (Total)	veh-h/h	13.10	15.72 pers-h/h
Control Delay (Average)	sec	19.2	19.2 sec
Control Delay (Worst Lane by MC)	sec	537.8	
Control Delay (Worst Movement by MC)	sec	2973.2	2973.2 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	19.2	
Idling Time (Average)	sec	14.2	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	4.3	
Average Back of Queue - Dist (Worst Lane)	ft	113.8	
Ave. Que Storage Ratio (Worst Lane)		0.07	
Effective Stops (Total)	veh/h	369	443 pers/h
Effective Stop Rate		0.15	0.15
Proportion Queued		0.13	0.13
Performance Index		54.9	54.9
Cost (Total)	\$/h	547.29	547.29 \$/h
Fuel Consumption (Total)	gal/h	25.7	
Carbon Dioxide (Total)	kg/h	232.2	
Hydrocarbons (Total)	kg/h	0.022	
Carbon Monoxide (Total)	kg/h	0.26	
NOx (Total)	kg/h	0.627	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 97.7% 70.9% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,179,130	1,414,957 pers/y
Arrival Flows (Total)	veh/y	1,179,130	
Delay (Total)	veh-h/y	6,289	7,547 pers-h/y
Effective Stops (Total)	veh/y	177,215	212,658 pers/y
Travel Distance (Total)	veh-mi/y	211,710	254,052 pers-mi/y
Travel Time (Total)	veh-h/y	11,023	13,227 pers-h/y
Cost (Total)	\$/y	262,700	262,700 \$/y
Fuel Consumption (Total)	gal/y	12,353	
Carbon Dioxide (Total)	kg/y	111,447	
Hydrocarbons (Total)	kg/y	11	
Carbon Monoxide (Total)	kg/y	126	
NOx (Total)	kg/y	301	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

Site: 101v [US 62 / I-65 SB - Conversion (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	25.7	25.7 mph
Travel Distance (Total)	veh-mi/h	563.0	675.6 pers-mi/h
Travel Time (Total)	veh-h/h	21.9	26.3 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.64	
Travel Time Index		6.03	
Congestion Coefficient		1.56	
Demand Flows (Total)	veh/h	2391	2870 pers/h
Arrival Flows (Total)	veh/h	2376	2852 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	9.0	
Degree of Saturation		0.744	
Practical Spare Capacity	%	14.2	
Effective Intersection Capacity	veh/h	3194	
Control Delay (Total)	veh-h/h	6.36	7.63 pers-h/h
Control Delay (Average)	sec	9.6	9.6 sec
Control Delay (Worst Lane by MC)	sec	33.0	
Control Delay (Worst Movement by MC)	sec	61.6	61.6 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	9.6	
Idling Time (Average)	sec	4.8	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	1.7	
Average Back of Queue - Dist (Worst Lane)	ft	46.7	
Ave. Que Storage Ratio (Worst Lane)		0.05	
Effective Stops (Total)	veh/h	580	696 pers/h
Effective Stop Rate		0.24	0.24
Proportion Queued		0.27	0.27
Performance Index		30.4	30.4
Cost (Total)	\$/h	667.24	667.24 \$/h
Fuel Consumption (Total)	gal/h	43.7	
Carbon Dioxide (Total)	kg/h	394.4	
Hydrocarbons (Total)	kg/h	0.036	
Carbon Monoxide (Total)	kg/h	0.41	
NOx (Total)	kg/h	1.202	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,147,826	1,377,391 pers/y
Arrival Flows (Total)	veh/y	1,140,630	
Delay (Total)	veh-h/y	3,053	3,664 pers-h/y
Effective Stops (Total)	veh/y	278,292	333,950 pers/y
Travel Distance (Total)	veh-mi/y	270,233	324,279 pers-mi/y
Travel Time (Total)	veh-h/y	10,518	12,622 pers-h/y
Cost (Total)	\$/y	320,273	320,273 \$/y
Fuel Consumption (Total)	gal/y	20,994	
Carbon Dioxide (Total)	kg/y	189,307	
Hydrocarbons (Total)	kg/y	17	
Carbon Monoxide (Total)	kg/y	198	
NOx (Total)	kg/y	577	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_RING RIRO AM.sip9

# INTERSECTION SUMMARY

Site: 101v [US 62 / I-65 NB - Conversion (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	22.5	22.5 mph
Travel Distance (Total)	veh-mi/h	498.4	598.0 pers-mi/h
Travel Time (Total)	veh-h/h	22.1	26.6 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.56	
Travel Time Index		5.14	
Congestion Coefficient		1.78	
Demand Flows (Total)	veh/h	1957	2348 pers/h
Arrival Flows (Total)	veh/h	1947	2336 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	8.9	
Degree of Saturation		0.670	
Practical Spare Capacity	%	26.8	
Effective Intersection Capacity	veh/h	2905	
Control Delay (Total)	veh-h/h	6.79	8.15 pers-h/h
Control Delay (Average)	sec	12.6	12.6 sec
Control Delay (Worst Lane by MC)	sec	19.5	
Control Delay (Worst Movement by MC)	sec	33.6	33.6 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	12.6	
Idling Time (Average)	sec	6.1	
Intersection Level of Service (LOS)		LOS B	
Average Back of Queue - Veh (Worst Lane)	veh	2.0	
Average Back of Queue - Dist (Worst Lane)	ft	54.7	
Ave. Que Storage Ratio (Worst Lane)		0.13	
Effective Stops (Total)	veh/h	1142	1370 pers/h
Effective Stop Rate		0.59	0.59
Proportion Queued		0.53	0.53
Performance Index		36.6	36.6
Cost (Total)	\$/h	645.78	645.78 \$/h
Fuel Consumption (Total)	gal/h	40.5	
Carbon Dioxide (Total)	kg/h	364.7	
Hydrocarbons (Total)	kg/h	0.033	
Carbon Monoxide (Total)	kg/h	0.36	
NOx (Total)	kg/h	1.246	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values



Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	939,131	1,126,957 pers/y
Arrival Flows (Total)	veh/y	934,333	
Delay (Total)	veh-h/y	3,259	3,911 pers-h/y
Effective Stops (Total)	veh/y	548,109	657,730 pers/y
Travel Distance (Total)	veh-mi/y	239,216	287,059 pers-mi/y
Travel Time (Total)	veh-h/y	10,622	12,746 pers-h/y
Cost (Total)	\$/y	309,973	309,973 \$/y
Fuel Consumption (Total)	gal/y	19,421	
Carbon Dioxide (Total)	kg/y	175,079	
Hydrocarbons (Total)	kg/y	16	
Carbon Monoxide (Total)	kg/y	175	
NOx (Total)	kg/y	598	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_RING RIRO AM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / Medley Lane (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	35.8	35.8 mph
Travel Distance (Total)	veh-mi/h	139.9	167.9 pers-mi/h
Travel Time (Total)	veh-h/h	3.9	4.7 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.89	
Travel Time Index		8.82	
Congestion Coefficient		1.12	
Demand Flows (Total)	veh/h	1332	1598 pers/h
Arrival Flows (Total)	veh/h	1327	1592 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	8.9	
Degree of Saturation		0.242	
Practical Spare Capacity	%	305.5	
Effective Intersection Capacity	veh/h	5490	
Control Delay (Total)	veh-h/h	0.66	0.80 pers-h/h
Control Delay (Average)	sec	1.8	1.8 sec
Control Delay (Worst Lane by MC)	sec	40.5	
Control Delay (Worst Movement by MC)	sec	386.4	386.4 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	1.8	
Idling Time (Average)	sec	0.7	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.1	
Average Back of Queue - Dist (Worst Lane)	ft	3.7	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	27	32 pers/h
Effective Stop Rate		0.02	0.02
Proportion Queued		0.02	0.02
Performance Index		5.4	5.4
Cost (Total)	\$/h	100.35	100.35 \$/h
Fuel Consumption (Total)	gal/h	5.3	
Carbon Dioxide (Total)	kg/h	48.0	
Hydrocarbons (Total)	kg/h	0.004	
Carbon Monoxide (Total)	kg/h	0.06	
NOx (Total)	kg/h	0.125	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 92.9% 55.2% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	639,130	766,957 pers/y
Arrival Flows (Total)	veh/y	636,934	
Delay (Total)	veh-h/y	318	382 pers-h/y
Effective Stops (Total)	veh/y	12,728	15,274 pers/y
Travel Distance (Total)	veh-mi/y	67,146	80,576 pers-mi/y
Travel Time (Total)	veh-h/y	1,877	2,253 pers-h/y
Cost (Total)	\$/y	48,166	48,166 \$/y
Fuel Consumption (Total)	gal/y	2,557	
Carbon Dioxide (Total)	kg/y	23,023	
Hydrocarbons (Total)	kg/y	2	
Carbon Monoxide (Total)	kg/y	28	
NOx (Total)	kg/y	60	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_RING RIRO AM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / McCormack (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	32.6	32.6 mph
Travel Distance (Total)	veh-mi/h	120.1	144.1 pers-mi/h
Travel Time (Total)	veh-h/h	3.7	4.4 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.81	
Travel Time Index		7.94	
Congestion Coefficient		1.23	
Demand Flows (Total)	veh/h	1272	1526 pers/h
Arrival Flows (Total)	veh/h	1268	1521 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	8.9	
Degree of Saturation		0.239	
Practical Spare Capacity	%	276.4	
Effective Intersection Capacity	veh/h	5313	
Control Delay (Total)	veh-h/h	0.64	0.76 pers-h/h
Control Delay (Average)	sec	1.8	1.8 sec
Control Delay (Worst Lane by MC)	sec	30.2	
Control Delay (Worst Movement by MC)	sec	67.5	67.5 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	1.8	
Idling Time (Average)	sec	1.5	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.3	
Average Back of Queue - Dist (Worst Lane)	ft	7.9	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	42	51 pers/h
Effective Stop Rate		0.03	0.03
Proportion Queued		0.04	0.04
Performance Index		5.2	5.2
Cost (Total)	\$/h	94.81	94.81 \$/h
Fuel Consumption (Total)	gal/h	5.1	
Carbon Dioxide (Total)	kg/h	45.5	
Hydrocarbons (Total)	kg/h	0.004	
Carbon Monoxide (Total)	kg/h	0.05	
NOx (Total)	kg/h	0.124	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 89.0% 0.7% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	610,435	732,522 pers/y
Arrival Flows (Total)	veh/y	608,593	
Delay (Total)	veh-h/y	305	366 pers-h/y
Effective Stops (Total)	veh/y	20,201	24,241 pers/y
Travel Distance (Total)	veh-mi/y	57,657	69,188 pers-mi/y
Travel Time (Total)	veh-h/y	1,769	2,123 pers-h/y
Cost (Total)	\$/y	45,507	45,507 \$/y
Fuel Consumption (Total)	gal/y	2,426	
Carbon Dioxide (Total)	kg/y	21,835	
Hydrocarbons (Total)	kg/y	2	
Carbon Monoxide (Total)	kg/y	26	
NOx (Total)	kg/y	60	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_RING RIRO AM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / Gregory (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	35.3	35.3 mph
Travel Distance (Total)	veh-mi/h	423.2	507.8 pers-mi/h
Travel Time (Total)	veh-h/h	12.0	14.4 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.88	
Travel Time Index		8.69	
Congestion Coefficient		1.13	
Demand Flows (Total)	veh/h	1266	1520 pers/h
Arrival Flows (Total)	veh/h	1263	1515 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	8.9	
Degree of Saturation		0.475	
Practical Spare Capacity	%	106.1	
Effective Intersection Capacity	veh/h	2656	
Control Delay (Total)	veh-h/h	1.33	1.60 pers-h/h
Control Delay (Average)	sec	3.8	3.8 sec
Control Delay (Worst Lane by MC)	sec	27.8	
Control Delay (Worst Movement by MC)	sec	68.0	68.0 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	3.8	
Idling Time (Average)	sec	3.6	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.3	
Average Back of Queue - Dist (Worst Lane)	ft	7.1	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	37	45 pers/h
Effective Stop Rate		0.03	0.03
Proportion Queued		0.03	0.03
Performance Index		13.4	13.4
Cost (Total)	\$/h	298.63	298.63 \$/h
Fuel Consumption (Total)	gal/h	15.1	
Carbon Dioxide (Total)	kg/h	137.1	
Hydrocarbons (Total)	kg/h	0.011	
Carbon Monoxide (Total)	kg/h	0.17	
NOx (Total)	kg/h	0.338	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 88.1% 0.4% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	607,826	729,391 pers/y
Arrival Flows (Total)	veh/y	606,034	
Delay (Total)	veh-h/y	639	767 pers-h/y
Effective Stops (Total)	veh/y	17,999	21,598 pers/y
Travel Distance (Total)	veh-mi/y	203,124	243,749 pers-mi/y
Travel Time (Total)	veh-h/y	5,758	6,909 pers-h/y
Cost (Total)	\$/y	143,341	143,341 \$/y
Fuel Consumption (Total)	gal/y	7,262	
Carbon Dioxide (Total)	kg/y	65,796	
Hydrocarbons (Total)	kg/y	5	
Carbon Monoxide (Total)	kg/y	82	
NOx (Total)	kg/y	162	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_RING RIRO AM.sip9

# INTERSECTION SUMMARY

Site: 101v [US 62 / Howell Drive - Conversion (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
 Site Category: (None)  
 Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	21.8	21.8 mph
Travel Distance (Total)	veh-mi/h	204.5	245.4 pers-mi/h
Travel Time (Total)	veh-h/h	9.4	11.3 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.54	
Travel Time Index		4.94	
Congestion Coefficient		1.84	
Demand Flows (Total)	veh/h	1557	1868 pers/h
Arrival Flows (Total)	veh/h	1522	1827 pers/h
Percent Heavy Vehicles (Demand)	%	8.7	
Percent Heavy Vehicles (Arrivals)	%	8.9	
Degree of Saturation		0.597	
Practical Spare Capacity	%	42.4	
Effective Intersection Capacity	veh/h	2550	
Control Delay (Total)	veh-h/h	2.54	3.04 pers-h/h
Control Delay (Average)	sec	6.0	6.0 sec
Control Delay (Worst Lane by MC)	sec	7.2	
Control Delay (Worst Movement by MC)	sec	17.4	17.4 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	6.0	
Idling Time (Average)	sec	5.0	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	2.4	
Average Back of Queue - Dist (Worst Lane)	ft	63.9	
Ave. Que Storage Ratio (Worst Lane)		0.13	
Effective Stops (Total)	veh/h	74	89 pers/h
Effective Stop Rate		0.05	0.05
Proportion Queued		0.16	0.16
Performance Index		26.1	26.1
Cost (Total)	\$/h	283.46	283.46 \$/h
Fuel Consumption (Total)	gal/h	18.4	
Carbon Dioxide (Total)	kg/h	165.7	
Hydrocarbons (Total)	kg/h	0.015	
Carbon Monoxide (Total)	kg/h	0.16	
NOx (Total)	kg/h	0.513	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values



Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	747,130	896,557 pers/y
Arrival Flows (Total)	veh/y	730,737	
Delay (Total)	veh-h/y	1,217	1,461 pers-h/y
Effective Stops (Total)	veh/y	35,584	42,701 pers/y
Travel Distance (Total)	veh-mi/y	98,153	117,784 pers-mi/y
Travel Time (Total)	veh-h/y	4,506	5,407 pers-h/y
Cost (Total)	\$/y	136,059	136,059 \$/y
Fuel Consumption (Total)	gal/y	8,842	
Carbon Dioxide (Total)	kg/y	79,530	
Hydrocarbons (Total)	kg/y	7	
Carbon Monoxide (Total)	kg/y	78	
NOx (Total)	kg/y	246	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / Brooke Street (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	37.6	37.6 mph
Travel Distance (Total)	veh-mi/h	258.6	310.3 pers-mi/h
Travel Time (Total)	veh-h/h	6.9	8.2 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.94	
Travel Time Index		9.34	
Congestion Coefficient		1.06	
Demand Flows (Total)	veh/h	1723	2067 pers/h
Arrival Flows (Total)	veh/h	1710	2051 pers/h
Percent Heavy Vehicles (Demand)	%	8.4	
Percent Heavy Vehicles (Arrivals)	%	8.5	
Degree of Saturation		0.255	
Practical Spare Capacity	%	285.0	
Effective Intersection Capacity	veh/h	6716	
Control Delay (Total)	veh-h/h	0.47	0.57 pers-h/h
Control Delay (Average)	sec	1.0	1.0 sec
Control Delay (Worst Lane by MC)	sec	37.2	
Control Delay (Worst Movement by MC)	sec	258.1	258.1 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	1.0	
Idling Time (Average)	sec	0.7	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.1	
Average Back of Queue - Dist (Worst Lane)	ft	2.9	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	19	22 pers/h
Effective Stop Rate		0.01	0.01
Proportion Queued		0.01	0.01
Performance Index		7.6	7.6
Cost (Total)	\$/h	173.54	173.54 \$/h
Fuel Consumption (Total)	gal/h	9.0	
Carbon Dioxide (Total)	kg/h	81.2	
Hydrocarbons (Total)	kg/h	0.006	
Carbon Monoxide (Total)	kg/h	0.10	
NOx (Total)	kg/h	0.199	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 92.2% 0.9% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	826,957	992,348 pers/y
Arrival Flows (Total)	veh/y	820,595	
Delay (Total)	veh-h/y	228	273 pers-h/y
Effective Stops (Total)	veh/y	8,956	10,747 pers/y
Travel Distance (Total)	veh-mi/y	124,113	148,935 pers-mi/y
Travel Time (Total)	veh-h/y	3,299	3,959 pers-h/y
Cost (Total)	\$/y	83,301	83,301 \$/y
Fuel Consumption (Total)	gal/y	4,315	
Carbon Dioxide (Total)	kg/y	38,994	
Hydrocarbons (Total)	kg/y	3	
Carbon Monoxide (Total)	kg/y	49	
NOx (Total)	kg/y	96	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_RING RIRO PM.sip9

# INTERSECTION SUMMARY

Site: 101 [US 62/French Street (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	28.0	28.0 mph
Travel Distance (Total)	veh-mi/h	788.2	945.8 pers-mi/h
Travel Time (Total)	veh-h/h	28.1	33.8 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.70	
Travel Time Index		6.67	
Congestion Coefficient		1.43	
Demand Flows (Total)	veh/h	2196	2635 pers/h
Arrival Flows (Total)	veh/h	2168	2601 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.3	
Degree of Saturation		0.496	
Practical Spare Capacity	%	71.4	
Effective Intersection Capacity	veh/h	4371	
Control Delay (Total)	veh-h/h	5.31	6.37 pers-h/h
Control Delay (Average)	sec	8.8	8.8 sec
Control Delay (Worst Lane by MC)	sec	14.3	
Control Delay (Worst Movement by MC)	sec	33.7	33.7 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	8.8	
Idling Time (Average)	sec	5.6	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	1.0	
Average Back of Queue - Dist (Worst Lane)	ft	25.9	
Ave. Que Storage Ratio (Worst Lane)		0.03	
Effective Stops (Total)	veh/h	747	897 pers/h
Effective Stop Rate		0.34	0.34
Proportion Queued		0.49	0.49
Performance Index		46.9	46.9
Cost (Total)	\$/h	809.87	809.87 \$/h
Fuel Consumption (Total)	gal/h	50.0	
Carbon Dioxide (Total)	kg/h	449.8	
Hydrocarbons (Total)	kg/h	0.038	
Carbon Monoxide (Total)	kg/h	0.47	
NOx (Total)	kg/h	1.449	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,053,913	1,264,696 pers/y
Arrival Flows (Total)	veh/y	1,040,422	
Delay (Total)	veh-h/y	2,549	3,058 pers-h/y
Effective Stops (Total)	veh/y	358,726	430,471 pers/y
Travel Distance (Total)	veh-mi/y	378,334	454,001 pers-mi/y
Travel Time (Total)	veh-h/y	13,503	16,204 pers-h/y
Cost (Total)	\$/y	388,737	388,737 \$/y
Fuel Consumption (Total)	gal/y	23,985	
Carbon Dioxide (Total)	kg/y	215,891	
Hydrocarbons (Total)	kg/y	18	
Carbon Monoxide (Total)	kg/y	226	
NOx (Total)	kg/y	696	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_RING RIRO PM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62/Main Street RB (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	27.2	27.2 mph
Travel Distance (Total)	veh-mi/h	712.5	855.1 pers-mi/h
Travel Time (Total)	veh-h/h	26.2	31.4 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.68	
Travel Time Index		6.46	
Congestion Coefficient		1.47	
Demand Flows (Total)	veh/h	2337	2804 pers/h
Arrival Flows (Total)	veh/h	2303	2763 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.3	
Degree of Saturation		0.470	
Practical Spare Capacity	%	80.8	
Effective Intersection Capacity	veh/h	4897	
Control Delay (Total)	veh-h/h	5.20	6.24 pers-h/h
Control Delay (Average)	sec	8.1	8.1 sec
Control Delay (Worst Lane by MC)	sec	16.4	
Control Delay (Worst Movement by MC)	sec	39.6	39.6 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	8.1	
Idling Time (Average)	sec	5.8	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	1.1	
Average Back of Queue - Dist (Worst Lane)	ft	28.3	
Ave. Que Storage Ratio (Worst Lane)		0.03	
Effective Stops (Total)	veh/h	497	596 pers/h
Effective Stop Rate		0.22	0.22
Proportion Queued		0.35	0.35
Performance Index		42.6	42.6
Cost (Total)	\$/h	753.03	753.03 \$/h
Fuel Consumption (Total)	gal/h	46.5	
Carbon Dioxide (Total)	kg/h	417.8	
Hydrocarbons (Total)	kg/h	0.036	
Carbon Monoxide (Total)	kg/h	0.43	
NOx (Total)	kg/h	1.361	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,121,739	1,346,087 pers/y
Arrival Flows (Total)	veh/y	1,105,371	
Delay (Total)	veh-h/y	2,495	2,994 pers-h/y
Effective Stops (Total)	veh/y	238,355	286,026 pers/y
Travel Distance (Total)	veh-mi/y	342,022	410,427 pers-mi/y
Travel Time (Total)	veh-h/y	12,554	15,065 pers-h/y
Cost (Total)	\$/y	361,457	361,457 \$/y
Fuel Consumption (Total)	gal/y	22,305	
Carbon Dioxide (Total)	kg/y	200,525	
Hydrocarbons (Total)	kg/y	17	
Carbon Monoxide (Total)	kg/y	207	
NOx (Total)	kg/y	653	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_RING RIRO PM.sip9

# INTERSECTION SUMMARY

 Site: 101v [US 62 / Ring Road RIRO (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	33.4	33.4 mph
Travel Distance (Total)	veh-mi/h	781.4	937.7 pers-mi/h
Travel Time (Total)	veh-h/h	23.4	28.1 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.83	
Travel Time Index		8.16	
Congestion Coefficient		1.20	
Demand Flows (Total)	veh/h	3397	4076 pers/h
Arrival Flows (Total)	veh/h	3311	3973 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.4	
Degree of Saturation		0.577	
Practical Spare Capacity	%	38.7	
Effective Intersection Capacity	veh/h	5741	
Control Delay (Total)	veh-h/h	1.61	1.93 pers-h/h
Control Delay (Average)	sec	1.7	1.7 sec
Control Delay (Worst Lane by MC)	sec	17.1	
Control Delay (Worst Movement by MC)	sec	60.9	60.9 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	1.7	
Idling Time (Average)	sec	0.2	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.2	
Average Back of Queue - Dist (Worst Lane)	ft	4.5	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	25	30 pers/h
Effective Stop Rate		0.01	0.01
Proportion Queued		0.01	0.01
Performance Index		21.6	21.6
Cost (Total)	\$/h	678.00	678.00 \$/h
Fuel Consumption (Total)	gal/h	42.1	
Carbon Dioxide (Total)	kg/h	380.3	
Hydrocarbons (Total)	kg/h	0.031	
Carbon Monoxide (Total)	kg/h	0.42	
NOx (Total)	kg/h	1.176	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 77.5% 0.0% 0.0%

## Intersection Performance - Annual Values



Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,630,435	1,956,522 pers/y
Arrival Flows (Total)	veh/y	1,589,381	
Delay (Total)	veh-h/y	773	927 pers-h/y
Effective Stops (Total)	veh/y	11,803	14,163 pers/y
Travel Distance (Total)	veh-mi/y	375,081	450,097 pers-mi/y
Travel Time (Total)	veh-h/y	11,239	13,486 pers-h/y
Cost (Total)	\$/y	325,441	325,441 \$/y
Fuel Consumption (Total)	gal/y	20,214	
Carbon Dioxide (Total)	kg/y	182,554	
Hydrocarbons (Total)	kg/y	15	
Carbon Monoxide (Total)	kg/y	201	
NOx (Total)	kg/y	565	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101v [US 62 / DolpinRoad - Conversion (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	23.2	23.2 mph
Travel Distance (Total)	veh-mi/h	709.3	851.2 pers-mi/h
Travel Time (Total)	veh-h/h	30.6	36.7 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.58	
Travel Time Index		5.32	
Congestion Coefficient		1.73	
Demand Flows (Total)	veh/h	3451	4141 pers/h
Arrival Flows (Total)	veh/h	3351	4022 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	8.1	
Degree of Saturation		0.676	
Practical Spare Capacity	%	25.7	
Effective Intersection Capacity	veh/h	4958	
Control Delay (Total)	veh-h/h	8.35	10.02 pers-h/h
Control Delay (Average)	sec	9.0	9.0 sec
Control Delay (Worst Lane by MC)	sec	20.7	
Control Delay (Worst Movement by MC)	sec	41.9	41.9 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	9.0	
Idling Time (Average)	sec	7.0	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	3.0	
Average Back of Queue - Dist (Worst Lane)	ft	79.9	
Ave. Que Storage Ratio (Worst Lane)		0.20	
Effective Stops (Total)	veh/h	617	740 pers/h
Effective Stop Rate		0.18	0.18
Proportion Queued		0.32	0.32
Performance Index		53.2	53.2
Cost (Total)	\$/h	914.19	914.19 \$/h
Fuel Consumption (Total)	gal/h	58.7	
Carbon Dioxide (Total)	kg/h	528.2	
Hydrocarbons (Total)	kg/h	0.048	
Carbon Monoxide (Total)	kg/h	0.54	
NOx (Total)	kg/h	1.624	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,656,522	1,987,826 pers/y
Arrival Flows (Total)	veh/y	1,608,711	
Delay (Total)	veh-h/y	4,010	4,812 pers-h/y
Effective Stops (Total)	veh/y	296,080	355,296 pers/y
Travel Distance (Total)	veh-mi/y	340,473	408,568 pers-mi/y
Travel Time (Total)	veh-h/y	14,696	17,635 pers-h/y
Cost (Total)	\$/y	438,813	438,813 \$/y
Fuel Consumption (Total)	gal/y	28,187	
Carbon Dioxide (Total)	kg/y	253,535	
Hydrocarbons (Total)	kg/y	23	
Carbon Monoxide (Total)	kg/y	260	
NOx (Total)	kg/y	779	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

Site: 101 [US 62/Commerce Drive (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	17.8	17.8 mph
Travel Distance (Total)	veh-mi/h	803.6	964.3 pers-mi/h
Travel Time (Total)	veh-h/h	45.0	54.0 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.45	
Travel Time Index		3.85	
Congestion Coefficient		2.24	
Demand Flows (Total)	veh/h	3245	3893 pers/h
Arrival Flows (Total)	veh/h	3161	3794 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	8.1	
Degree of Saturation		1.132	
Practical Spare Capacity	%	-24.9	
Effective Intersection Capacity	veh/h	2793	
Control Delay (Total)	veh-h/h	20.65	24.78 pers-h/h
Control Delay (Average)	sec	23.5	23.5 sec
Control Delay (Worst Lane by MC)	sec	129.3	
Control Delay (Worst Movement by MC)	sec	183.5	183.5 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	23.5	
Idling Time (Average)	sec	17.2	
Intersection Level of Service (LOS)		LOS C	
Average Back of Queue - Veh (Worst Lane)	veh	7.2	
Average Back of Queue - Dist (Worst Lane)	ft	190.5	
Ave. Que Storage Ratio (Worst Lane)		0.15	
Effective Stops (Total)	veh/h	1568	1882 pers/h
Effective Stop Rate		0.50	0.50
Proportion Queued		0.59	0.59
Performance Index		117.2	117.2
Cost (Total)	\$/h	1185.69	1185.69 \$/h
Fuel Consumption (Total)	gal/h	65.4	
Carbon Dioxide (Total)	kg/h	587.7	
Hydrocarbons (Total)	kg/h	0.056	
Carbon Monoxide (Total)	kg/h	0.60	
NOx (Total)	kg/h	1.834	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.1 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 2.8% 0.1%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,557,391	1,868,870 pers/y
Arrival Flows (Total)	veh/y	1,517,491	
Delay (Total)	veh-h/y	9,913	11,896 pers-h/y
Effective Stops (Total)	veh/y	752,836	903,403 pers/y
Travel Distance (Total)	veh-mi/y	385,717	462,860 pers-mi/y
Travel Time (Total)	veh-h/y	21,612	25,934 pers-h/y
Cost (Total)	\$/y	569,132	569,132 \$/y
Fuel Consumption (Total)	gal/y	31,372	
Carbon Dioxide (Total)	kg/y	282,078	
Hydrocarbons (Total)	kg/y	27	
Carbon Monoxide (Total)	kg/y	288	
NOx (Total)	kg/y	880	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / Executive / Buffalo Creek (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	3.1	3.1 mph
Travel Distance (Total)	veh-mi/h	525.8	631.0 pers-mi/h
Travel Time (Total)	veh-h/h	172.4	206.8 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.08	
Travel Time Index		0.00	
Congestion Coefficient		10.00	
Demand Flows (Total)	veh/h	3109	3730 pers/h
Arrival Flows (Total)	veh/h	3035	3642 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	8.1	
Degree of Saturation		9.201	
Practical Spare Capacity	%	-91.3	
Effective Intersection Capacity	veh/h	330	
Control Delay (Total)	veh-h/h	169.93	203.91 pers-h/h
Control Delay (Average)	sec	201.6	201.6 sec
Control Delay (Worst Lane by MC)	sec	4140.7	
Control Delay (Worst Movement by MC)	sec	5860.7	5860.7 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	201.6	
Idling Time (Average)	sec	185.9	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	16.1	
Average Back of Queue - Dist (Worst Lane)	ft	428.1	
Ave. Que Storage Ratio (Worst Lane)		0.27	
Effective Stops (Total)	veh/h	464	557 pers/h
Effective Stop Rate		0.15	0.15
Proportion Queued		0.13	0.13
Performance Index		284.7	284.7
Cost (Total)	\$/h	3244.11	3244.11 \$/h
Fuel Consumption (Total)	gal/h	78.9	
Carbon Dioxide (Total)	kg/h	709.7	
Hydrocarbons (Total)	kg/h	0.105	
Carbon Monoxide (Total)	kg/h	0.81	
NOx (Total)	kg/h	1.247	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 99.0% 72.1% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,492,174	1,790,609 pers/y
Arrival Flows (Total)	veh/y	1,456,828	
Delay (Total)	veh-h/y	81,566	97,879 pers-h/y
Effective Stops (Total)	veh/y	222,828	267,394 pers/y
Travel Distance (Total)	veh-mi/y	252,398	302,877 pers-mi/y
Travel Time (Total)	veh-h/y	82,737	99,284 pers-h/y
Cost (Total)	\$/y	1,557,172	1,557,172 \$/y
Fuel Consumption (Total)	gal/y	37,875	
Carbon Dioxide (Total)	kg/y	340,656	
Hydrocarbons (Total)	kg/y	51	
Carbon Monoxide (Total)	kg/y	387	
NOx (Total)	kg/y	599	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_RING RIRO PM.sip9

# INTERSECTION SUMMARY

Site: 101v [US 62 / I-65 SB - Conversion (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	16.3	16.3 mph
Travel Distance (Total)	veh-mi/h	813.4	976.1 pers-mi/h
Travel Time (Total)	veh-h/h	49.8	59.8 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.41	
Travel Time Index		3.43	
Congestion Coefficient		2.45	
Demand Flows (Total)	veh/h	3424	4109 pers/h
Arrival Flows (Total)	veh/h	3337	4005 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	9.1	
Degree of Saturation		1.162	
Practical Spare Capacity	%	-26.8	
Effective Intersection Capacity	veh/h	2873	
Control Delay (Total)	veh-h/h	26.64	31.97 pers-h/h
Control Delay (Average)	sec	28.7	28.7 sec
Control Delay (Worst Lane by MC)	sec	123.9	
Control Delay (Worst Movement by MC)	sec	155.4	155.4 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	28.7	
Idling Time (Average)	sec	15.7	
Intersection Level of Service (LOS)		LOS D	
Average Back of Queue - Veh (Worst Lane)	veh	11.7	
Average Back of Queue - Dist (Worst Lane)	ft	314.2	
Ave. Que Storage Ratio (Worst Lane)		0.41	
Effective Stops (Total)	veh/h	2895	3474 pers/h
Effective Stop Rate		0.87	0.87
Proportion Queued		0.57	0.57
Performance Index		112.2	112.2
Cost (Total)	\$/h	1330.22	1330.22 \$/h
Fuel Consumption (Total)	gal/h	74.8	
Carbon Dioxide (Total)	kg/h	674.4	
Hydrocarbons (Total)	kg/h	0.066	
Carbon Monoxide (Total)	kg/h	0.69	
NOx (Total)	kg/h	2.145	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values



Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,643,478	1,972,174 pers/y
Arrival Flows (Total)	veh/y	1,601,864	
Delay (Total)	veh-h/y	12,786	15,343 pers-h/y
Effective Stops (Total)	veh/y	1,389,794	1,667,753 pers/y
Travel Distance (Total)	veh-mi/y	390,452	468,542 pers-mi/y
Travel Time (Total)	veh-h/y	23,904	28,685 pers-h/y
Cost (Total)	\$/y	638,507	638,507 \$/y
Fuel Consumption (Total)	gal/y	35,892	
Carbon Dioxide (Total)	kg/y	323,696	
Hydrocarbons (Total)	kg/y	32	
Carbon Monoxide (Total)	kg/y	333	
NOx (Total)	kg/y	1,030	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_RING RIRO PM.sip9

# INTERSECTION SUMMARY

Site: 101v [US 62 / I-65 NB - Conversion (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	22.3	22.3 mph
Travel Distance (Total)	veh-mi/h	546.8	656.2 pers-mi/h
Travel Time (Total)	veh-h/h	24.6	29.5 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.56	
Travel Time Index		5.07	
Congestion Coefficient		1.80	
Demand Flows (Total)	veh/h	2217	2661 pers/h
Arrival Flows (Total)	veh/h	2165	2598 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	9.1	
Degree of Saturation		0.790	
Practical Spare Capacity	%	7.6	
Effective Intersection Capacity	veh/h	2741	
Control Delay (Total)	veh-h/h	8.43	10.11 pers-h/h
Control Delay (Average)	sec	14.0	14.0 sec
Control Delay (Worst Lane by MC)	sec	36.3	
Control Delay (Worst Movement by MC)	sec	63.9	63.9 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	14.0	
Idling Time (Average)	sec	7.2	
Intersection Level of Service (LOS)		LOS B	
Average Back of Queue - Veh (Worst Lane)	veh	2.1	
Average Back of Queue - Dist (Worst Lane)	ft	57.0	
Ave. Que Storage Ratio (Worst Lane)		0.09	
Effective Stops (Total)	veh/h	1107	1328 pers/h
Effective Stop Rate		0.51	0.51
Proportion Queued		0.42	0.42
Performance Index		38.7	38.7
Cost (Total)	\$/h	705.64	705.64 \$/h
Fuel Consumption (Total)	gal/h	43.4	
Carbon Dioxide (Total)	kg/h	391.3	
Hydrocarbons (Total)	kg/h	0.035	
Carbon Monoxide (Total)	kg/h	0.39	
NOx (Total)	kg/h	1.299	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,064,348	1,277,217 pers/y
Arrival Flows (Total)	veh/y	1,039,297	
Delay (Total)	veh-h/y	4,046	4,855 pers-h/y
Effective Stops (Total)	veh/y	531,324	637,589 pers/y
Travel Distance (Total)	veh-mi/y	262,485	314,983 pers-mi/y
Travel Time (Total)	veh-h/y	11,796	14,155 pers-h/y
Cost (Total)	\$/y	338,707	338,707 \$/y
Fuel Consumption (Total)	gal/y	20,837	
Carbon Dioxide (Total)	kg/y	187,814	
Hydrocarbons (Total)	kg/y	17	
Carbon Monoxide (Total)	kg/y	188	
NOx (Total)	kg/y	624	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_RING RIRO PM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / Medley Lane (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	34.8	34.8 mph
Travel Distance (Total)	veh-mi/h	155.3	186.4 pers-mi/h
Travel Time (Total)	veh-h/h	4.5	5.4 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.87	
Travel Time Index		8.56	
Congestion Coefficient		1.15	
Demand Flows (Total)	veh/h	1538	1846 pers/h
Arrival Flows (Total)	veh/h	1503	1804 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	9.1	
Degree of Saturation		0.252	
Practical Spare Capacity	%	289.2	
Effective Intersection Capacity	veh/h	5971	
Control Delay (Total)	veh-h/h	1.41	1.69 pers-h/h
Control Delay (Average)	sec	3.4	3.4 sec
Control Delay (Worst Lane by MC)	sec	58.5	
Control Delay (Worst Movement by MC)	sec	1035.3	1035.3 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	3.4	
Idling Time (Average)	sec	1.0	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.2	
Average Back of Queue - Dist (Worst Lane)	ft	6.0	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	35	42 pers/h
Effective Stop Rate		0.02	0.02
Proportion Queued		0.03	0.03
Performance Index		7.1	7.1
Cost (Total)	\$/h	113.82	113.82 \$/h
Fuel Consumption (Total)	gal/h	6.0	
Carbon Dioxide (Total)	kg/h	53.9	
Hydrocarbons (Total)	kg/h	0.004	
Carbon Monoxide (Total)	kg/h	0.07	
NOx (Total)	kg/h	0.140	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 95.1% 52.3% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	738,261	885,913 pers/y
Arrival Flows (Total)	veh/y	721,646	
Delay (Total)	veh-h/y	676	811 pers-h/y
Effective Stops (Total)	veh/y	16,978	20,374 pers/y
Travel Distance (Total)	veh-mi/y	74,548	89,458 pers-mi/y
Travel Time (Total)	veh-h/y	2,141	2,569 pers-h/y
Cost (Total)	\$/y	54,633	54,633 \$/y
Fuel Consumption (Total)	gal/y	2,877	
Carbon Dioxide (Total)	kg/y	25,892	
Hydrocarbons (Total)	kg/y	2	
Carbon Monoxide (Total)	kg/y	32	
NOx (Total)	kg/y	67	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / McCormack (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	34.2	34.2 mph
Travel Distance (Total)	veh-mi/h	144.6	173.5 pers-mi/h
Travel Time (Total)	veh-h/h	4.2	5.1 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.85	
Travel Time Index		8.39	
Congestion Coefficient		1.17	
Demand Flows (Total)	veh/h	1467	1761 pers/h
Arrival Flows (Total)	veh/h	1435	1722 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	9.1	
Degree of Saturation		0.438	
Practical Spare Capacity	%	123.6	
Effective Intersection Capacity	veh/h	3275	
Control Delay (Total)	veh-h/h	0.51	0.61 pers-h/h
Control Delay (Average)	sec	1.3	1.3 sec
Control Delay (Worst Lane by MC)	sec	35.4	
Control Delay (Worst Movement by MC)	sec	90.5	90.5 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	1.3	
Idling Time (Average)	sec	1.0	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.2	
Average Back of Queue - Dist (Worst Lane)	ft	6.6	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	32	39 pers/h
Effective Stop Rate		0.02	0.02
Proportion Queued		0.02	0.02
Performance Index		5.4	5.4
Cost (Total)	\$/h	110.25	110.25 \$/h
Fuel Consumption (Total)	gal/h	6.0	
Carbon Dioxide (Total)	kg/h	54.0	
Hydrocarbons (Total)	kg/h	0.004	
Carbon Monoxide (Total)	kg/h	0.06	
NOx (Total)	kg/h	0.150	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 91.1% 0.9% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	704,348	845,217 pers/y
Arrival Flows (Total)	veh/y	688,940	
Delay (Total)	veh-h/y	243	292 pers-h/y
Effective Stops (Total)	veh/y	15,449	18,539 pers/y
Travel Distance (Total)	veh-mi/y	69,395	83,274 pers-mi/y
Travel Time (Total)	veh-h/y	2,029	2,435 pers-h/y
Cost (Total)	\$/y	52,919	52,919 \$/y
Fuel Consumption (Total)	gal/y	2,877	
Carbon Dioxide (Total)	kg/y	25,934	
Hydrocarbons (Total)	kg/y	2	
Carbon Monoxide (Total)	kg/y	31	
NOx (Total)	kg/y	72	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / Gregory (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	37.0	37.0 mph
Travel Distance (Total)	veh-mi/h	488.3	585.9 pers-mi/h
Travel Time (Total)	veh-h/h	13.2	15.8 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.92	
Travel Time Index		9.16	
Congestion Coefficient		1.08	
Demand Flows (Total)	veh/h	1418	1702 pers/h
Arrival Flows (Total)	veh/h	1388	1666 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	9.1	
Degree of Saturation		0.415	
Practical Spare Capacity	%	136.1	
Effective Intersection Capacity	veh/h	3345	
Control Delay (Total)	veh-h/h	0.84	1.01 pers-h/h
Control Delay (Average)	sec	2.2	2.2 sec
Control Delay (Worst Lane by MC)	sec	21.7	
Control Delay (Worst Movement by MC)	sec	104.0	104.0 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	2.2	
Idling Time (Average)	sec	1.9	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.2	
Average Back of Queue - Dist (Worst Lane)	ft	4.0	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	29	35 pers/h
Effective Stop Rate		0.02	0.02
Proportion Queued		0.02	0.02
Performance Index		14.0	14.0
Cost (Total)	\$/h	335.11	335.11 \$/h
Fuel Consumption (Total)	gal/h	17.5	
Carbon Dioxide (Total)	kg/h	159.3	
Hydrocarbons (Total)	kg/h	0.012	
Carbon Monoxide (Total)	kg/h	0.19	
NOx (Total)	kg/h	0.404	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 84.4% 0.9% 0.0%

## Intersection Performance - Annual Values



Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	680,870	817,043 pers/y
Arrival Flows (Total)	veh/y	666,418	
Delay (Total)	veh-h/y	405	486 pers-h/y
Effective Stops (Total)	veh/y	14,094	16,912 pers/y
Travel Distance (Total)	veh-mi/y	234,366	281,240 pers-mi/y
Travel Time (Total)	veh-h/y	6,337	7,605 pers-h/y
Cost (Total)	\$/y	160,855	160,855 \$/y
Fuel Consumption (Total)	gal/y	8,402	
Carbon Dioxide (Total)	kg/y	76,450	
Hydrocarbons (Total)	kg/y	6	
Carbon Monoxide (Total)	kg/y	94	
NOx (Total)	kg/y	194	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_RING RIRO PM.sip9

# INTERSECTION SUMMARY

Site: 101v [US 62 / Howell Drive - Conversion (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	21.7	21.7 mph
Travel Distance (Total)	veh-mi/h	208.4	250.1 pers-mi/h
Travel Time (Total)	veh-h/h	9.6	11.5 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.54	
Travel Time Index		4.90	
Congestion Coefficient		1.85	
Demand Flows (Total)	veh/h	1557	1868 pers/h
Arrival Flows (Total)	veh/h	1551	1862 pers/h
Percent Heavy Vehicles (Demand)	%	8.7	
Percent Heavy Vehicles (Arrivals)	%	8.7	
Degree of Saturation		0.619	
Practical Spare Capacity	%	37.4	
Effective Intersection Capacity	veh/h	2507	
Control Delay (Total)	veh-h/h	2.64	3.17 pers-h/h
Control Delay (Average)	sec	6.1	6.1 sec
Control Delay (Worst Lane by MC)	sec	7.4	
Control Delay (Worst Movement by MC)	sec	18.1	18.1 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	6.1	
Idling Time (Average)	sec	5.1	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	2.6	
Average Back of Queue - Dist (Worst Lane)	ft	69.9	
Ave. Que Storage Ratio (Worst Lane)		0.14	
Effective Stops (Total)	veh/h	77	92 pers/h
Effective Stop Rate		0.05	0.05
Proportion Queued		0.16	0.16
Performance Index		27.7	27.7
Cost (Total)	\$/h	289.98	289.98 \$/h
Fuel Consumption (Total)	gal/h	18.8	
Carbon Dioxide (Total)	kg/h	169.1	
Hydrocarbons (Total)	kg/h	0.016	
Carbon Monoxide (Total)	kg/h	0.17	
NOx (Total)	kg/h	0.523	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	747,130	896,557 pers/y
Arrival Flows (Total)	veh/y	744,675	
Delay (Total)	veh-h/y	1,269	1,523 pers-h/y
Effective Stops (Total)	veh/y	36,980	44,376 pers/y
Travel Distance (Total)	veh-mi/y	100,032	120,038 pers-mi/y
Travel Time (Total)	veh-h/y	4,620	5,544 pers-h/y
Cost (Total)	\$/y	139,192	139,192 \$/y
Fuel Consumption (Total)	gal/y	9,026	
Carbon Dioxide (Total)	kg/y	81,179	
Hydrocarbons (Total)	kg/y	8	
Carbon Monoxide (Total)	kg/y	80	
NOx (Total)	kg/y	251	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor Ring Signalized\_AM.sip9

# NETWORK LAYOUT

Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Network  
 Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	CCG ID	Site Name
STOP 101	NA	US 62 / Brooke Street
101	NA	US 62/French Street
101	NA	US 62/Main Street RB
101	NA	US 62 / Ring Road Signalized
101v	NA	US 62 / DolpinRoad - Conversion
101	NA	US 62/Commerce Drive
STOP 101	NA	US 62 / Executive / Buffalo Creek
101v	NA	US 62 / I-65 SB - Conversion
101v	NA	US 62 / I-65 NB - Conversion
STOP 101	NA	US 62 / Medley Lane
STOP 101	NA	US 62 / McCormack
STOP 101	NA	US 62 / Gregory
101v	NA	US 62 / Howell Drive - Conversion

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / Brooke Street (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	37.8	37.8 mph
Travel Distance (Total)	veh-mi/h	214.5	257.4 pers-mi/h
Travel Time (Total)	veh-h/h	5.7	6.8 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.95	
Travel Time Index		9.40	
Congestion Coefficient		1.06	
Demand Flows (Total)	veh/h	1321	1585 pers/h
Arrival Flows (Total)	veh/h	1314	1577 pers/h
Percent Heavy Vehicles (Demand)	%	8.4	
Percent Heavy Vehicles (Arrivals)	%	8.4	
Degree of Saturation		0.204	
Practical Spare Capacity	%	379.7	
Effective Intersection Capacity	veh/h	6435	
Control Delay (Total)	veh-h/h	0.31	0.37 pers-h/h
Control Delay (Average)	sec	0.8	0.8 sec
Control Delay (Worst Lane by MC)	sec	22.0	
Control Delay (Worst Movement by MC)	sec	115.9	115.9 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	0.8	
Idling Time (Average)	sec	0.6	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.1	
Average Back of Queue - Dist (Worst Lane)	ft	1.8	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	13	16 pers/h
Effective Stop Rate		0.01	0.01
Proportion Queued		0.01	0.01
Performance Index		6.1	6.1
Cost (Total)	\$/h	143.42	143.42 \$/h
Fuel Consumption (Total)	gal/h	7.5	
Carbon Dioxide (Total)	kg/h	67.4	
Hydrocarbons (Total)	kg/h	0.005	
Carbon Monoxide (Total)	kg/h	0.08	
NOx (Total)	kg/h	0.165	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 85.9% 0.6% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	633,913	760,696 pers/y
Arrival Flows (Total)	veh/y	630,938	
Delay (Total)	veh-h/y	147	177 pers-h/y
Effective Stops (Total)	veh/y	6,429	7,715 pers/y
Travel Distance (Total)	veh-mi/y	102,949	123,539 pers-mi/y
Travel Time (Total)	veh-h/y	2,721	3,265 pers-h/y
Cost (Total)	\$/y	68,842	68,842 \$/y
Fuel Consumption (Total)	gal/y	3,578	
Carbon Dioxide (Total)	kg/y	32,343	
Hydrocarbons (Total)	kg/y	3	
Carbon Monoxide (Total)	kg/y	40	
NOx (Total)	kg/y	79	


1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62/French Street (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	30.0	30.0 mph
Travel Distance (Total)	veh-mi/h	959.9	1151.8 pers-mi/h
Travel Time (Total)	veh-h/h	32.0	38.4 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.75	
Travel Time Index		7.23	
Congestion Coefficient		1.33	
Demand Flows (Total)	veh/h	2168	2602 pers/h
Arrival Flows (Total)	veh/h	2156	2587 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.2	
Degree of Saturation		0.530	
Practical Spare Capacity	%	60.4	
Effective Intersection Capacity	veh/h	4068	
Control Delay (Total)	veh-h/h	4.82	5.78 pers-h/h
Control Delay (Average)	sec	8.0	8.0 sec
Control Delay (Worst Lane by MC)	sec	10.8	
Control Delay (Worst Movement by MC)	sec	24.1	24.1 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	8.0	
Idling Time (Average)	sec	5.7	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	1.5	
Average Back of Queue - Dist (Worst Lane)	ft	39.0	
Ave. Que Storage Ratio (Worst Lane)		0.02	
Effective Stops (Total)	veh/h	495	594 pers/h
Effective Stop Rate		0.23	0.23
Proportion Queued		0.40	0.40
Performance Index		47.5	47.5
Cost (Total)	\$/h	903.05	903.05 \$/h
Fuel Consumption (Total)	gal/h	54.5	
Carbon Dioxide (Total)	kg/h	491.3	
Hydrocarbons (Total)	kg/h	0.041	
Carbon Monoxide (Total)	kg/h	0.53	
NOx (Total)	kg/h	1.537	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,040,870	1,249,044 pers/y
Arrival Flows (Total)	veh/y	1,034,968	
Delay (Total)	veh-h/y	2,313	2,776 pers-h/y
Effective Stops (Total)	veh/y	237,502	285,002 pers/y
Travel Distance (Total)	veh-mi/y	460,734	552,881 pers-mi/y
Travel Time (Total)	veh-h/y	15,345	18,415 pers-h/y
Cost (Total)	\$/y	433,465	433,465 \$/y
Fuel Consumption (Total)	gal/y	26,159	
Carbon Dioxide (Total)	kg/y	235,818	
Hydrocarbons (Total)	kg/y	20	
Carbon Monoxide (Total)	kg/y	253	
NOx (Total)	kg/y	738	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62/Main Street RB (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	29.3	29.3 mph
Travel Distance (Total)	veh-mi/h	746.9	896.3 pers-mi/h
Travel Time (Total)	veh-h/h	25.5	30.6 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.73	
Travel Time Index		7.04	
Congestion Coefficient		1.36	
Demand Flows (Total)	veh/h	2168	2602 pers/h
Arrival Flows (Total)	veh/h	2145	2574 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.3	
Degree of Saturation		0.499	
Practical Spare Capacity	%	70.2	
Effective Intersection Capacity	veh/h	4295	
Control Delay (Total)	veh-h/h	3.92	4.70 pers-h/h
Control Delay (Average)	sec	6.6	6.6 sec
Control Delay (Worst Lane by MC)	sec	8.7	
Control Delay (Worst Movement by MC)	sec	20.7	20.7 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	6.6	
Idling Time (Average)	sec	5.4	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	1.4	
Average Back of Queue - Dist (Worst Lane)	ft	37.0	
Ave. Que Storage Ratio (Worst Lane)		0.04	
Effective Stops (Total)	veh/h	182	219 pers/h
Effective Stop Rate		0.09	0.09
Proportion Queued		0.20	0.20
Performance Index		37.0	37.0
Cost (Total)	\$/h	731.97	731.97 \$/h
Fuel Consumption (Total)	gal/h	45.1	
Carbon Dioxide (Total)	kg/h	406.5	
Hydrocarbons (Total)	kg/h	0.034	
Carbon Monoxide (Total)	kg/h	0.43	
NOx (Total)	kg/h	1.310	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 1.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 1.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,040,870	1,249,044 pers/y
Arrival Flows (Total)	veh/y	1,029,663	
Delay (Total)	veh-h/y	1,880	2,255 pers-h/y
Effective Stops (Total)	veh/y	87,524	105,029 pers/y
Travel Distance (Total)	veh-mi/y	358,513	430,216 pers-mi/y
Travel Time (Total)	veh-h/y	12,223	14,668 pers-h/y
Cost (Total)	\$/y	351,345	351,345 \$/y
Fuel Consumption (Total)	gal/y	21,641	
Carbon Dioxide (Total)	kg/y	195,126	
Hydrocarbons (Total)	kg/y	16	
Carbon Monoxide (Total)	kg/y	205	
NOx (Total)	kg/y	629	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor Ring Signalized\_AM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / Ring Road Signalized (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site

Site Category: (None)

Signals - EQUISAT (Pretimed) Isolated Cycle Time = 150 seconds (Site Practical Cycle Time)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	11.7	11.7 mph
Travel Distance (Total)	veh-mi/h	688.9	826.7 pers-mi/h
Travel Time (Total)	veh-h/h	59.0	70.8 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.29	
Travel Time Index		2.13	
Congestion Coefficient		3.43	
Demand Flows (Total)	veh/h	2701	3241 pers/h
Arrival Flows (Total)	veh/h	2657	3188 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.3	
Degree of Saturation		1.041	
Practical Spare Capacity	%	-13.5	
Effective Intersection Capacity	veh/h	2553	
Control Delay (Total)	veh-h/h	47.97	57.57 pers-h/h
Control Delay (Average)	sec	65.0	65.0 sec
Control Delay (Worst Lane by MC)	sec	142.6	
Control Delay (Worst Movement by MC)	sec	142.6	142.6 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	65.0	
Idling Time (Average)	sec	47.9	
Intersection Level of Service (LOS)		LOS E	
Average Back of Queue - Veh (Worst Lane)	veh	25.0	
Average Back of Queue - Dist (Worst Lane)	ft	665.8	
Ave. Que Storage Ratio (Worst Lane)		1.00	
Effective Stops (Total)	veh/h	2242	2690 pers/h
Effective Stop Rate		0.84	0.84
Proportion Queued		0.88	0.88
Performance Index		261.2	261.2
Cost (Total)	\$/h	1400.47	1400.47 \$/h
Fuel Consumption (Total)	gal/h	65.3	
Carbon Dioxide (Total)	kg/h	588.9	
Hydrocarbons (Total)	kg/h	0.062	
Carbon Monoxide (Total)	kg/h	0.62	
NOx (Total)	kg/h	1.718	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Delay Model: HCM Delay Formula (Stoptline Delay: Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 2.6 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Main (Timing-Capacity) Iterations: 6.9% 3.9% 2.6%

Intersection Performance - Annual Values			
Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,296,522	1,555,826 pers/y

Arrival Flows (Total)	veh/y	1,275,247	
Delay (Total)	veh-h/y	23,027	27,633 pers-h/y
Effective Stops (Total)	veh/y	1,075,953	1,291,143 pers/y
Travel Distance (Total)	veh-mi/y	330,686	396,823 pers-mi/y
Travel Time (Total)	veh-h/y	28,329	33,995 pers-h/y
Cost (Total)	\$/y	672,226	672,226 \$/y
Fuel Consumption (Total)	gal/y	31,362	
Carbon Dioxide (Total)	kg/y	282,688	
Hydrocarbons (Total)	kg/y	30	
Carbon Monoxide (Total)	kg/y	298	
NOx (Total)	kg/y	825	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

Site: 101v [US 62 / DolpinRoad - Conversion (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	13.9	13.9 mph
Travel Distance (Total)	veh-mi/h	563.0	675.7 pers-mi/h
Travel Time (Total)	veh-h/h	40.5	48.6 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.35	
Travel Time Index		2.75	
Congestion Coefficient		2.88	
Demand Flows (Total)	veh/h	2495	2993 pers/h
Arrival Flows (Total)	veh/h	2428	2913 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	8.1	
Degree of Saturation		1.013	
Practical Spare Capacity	%	-16.1	
Effective Intersection Capacity	veh/h	2397	
Control Delay (Total)	veh-h/h	23.13	27.76 pers-h/h
Control Delay (Average)	sec	34.3	34.3 sec
Control Delay (Worst Lane by MC)	sec	60.3	
Control Delay (Worst Movement by MC)	sec	62.8	62.8 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	34.3	
Idling Time (Average)	sec	24.4	
Intersection Level of Service (LOS)		LOS D	
Average Back of Queue - Veh (Worst Lane)	veh	17.4	
Average Back of Queue - Dist (Worst Lane)	ft	462.6	
Ave. Que Storage Ratio (Worst Lane)		0.37	
Effective Stops (Total)	veh/h	2531	3038 pers/h
Effective Stop Rate		1.04	1.04
Proportion Queued		0.60	0.60
Performance Index		150.4	150.4
Cost (Total)	\$/h	1052.68	1052.68 \$/h
Fuel Consumption (Total)	gal/h	57.0	
Carbon Dioxide (Total)	kg/h	512.4	
Hydrocarbons (Total)	kg/h	0.052	
Carbon Monoxide (Total)	kg/h	0.52	
NOx (Total)	kg/h	1.528	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.7 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 50.0% 0.7%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,197,391	1,436,870 pers/y
Arrival Flows (Total)	veh/y	1,165,259	
Delay (Total)	veh-h/y	11,103	13,323 pers-h/y
Effective Stops (Total)	veh/y	1,215,060	1,458,072 pers/y
Travel Distance (Total)	veh-mi/y	270,263	324,316 pers-mi/y
Travel Time (Total)	veh-h/y	19,433	23,319 pers-h/y
Cost (Total)	\$/y	505,288	505,288 \$/y
Fuel Consumption (Total)	gal/y	27,355	
Carbon Dioxide (Total)	kg/y	245,969	
Hydrocarbons (Total)	kg/y	25	
Carbon Monoxide (Total)	kg/y	249	
NOx (Total)	kg/y	734	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

Site: 101 [US 62/Commerce Drive (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	24.3	24.3 mph
Travel Distance (Total)	veh-mi/h	533.5	640.2 pers-mi/h
Travel Time (Total)	veh-h/h	22.0	26.4 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.61	
Travel Time Index		5.63	
Congestion Coefficient		1.65	
Demand Flows (Total)	veh/h	2440	2928 pers/h
Arrival Flows (Total)	veh/h	2373	2847 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	8.1	
Degree of Saturation		0.549	
Practical Spare Capacity	%	54.9	
Effective Intersection Capacity	veh/h	4325	
Control Delay (Total)	veh-h/h	5.52	6.63 pers-h/h
Control Delay (Average)	sec	8.4	8.4 sec
Control Delay (Worst Lane by MC)	sec	14.3	
Control Delay (Worst Movement by MC)	sec	51.0	51.0 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	8.4	
Idling Time (Average)	sec	5.8	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	1.5	
Average Back of Queue - Dist (Worst Lane)	ft	39.5	
Ave. Que Storage Ratio (Worst Lane)		0.06	
Effective Stops (Total)	veh/h	527	633 pers/h
Effective Stop Rate		0.22	0.22
Proportion Queued		0.40	0.40
Performance Index		38.9	38.9
Cost (Total)	\$/h	652.26	652.26 \$/h
Fuel Consumption (Total)	gal/h	41.6	
Carbon Dioxide (Total)	kg/h	374.0	
Hydrocarbons (Total)	kg/h	0.033	
Carbon Monoxide (Total)	kg/h	0.37	
NOx (Total)	kg/h	1.244	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,171,304	1,405,565 pers/y
Arrival Flows (Total)	veh/y	1,138,872	
Delay (Total)	veh-h/y	2,651	3,182 pers-h/y
Effective Stops (Total)	veh/y	253,122	303,746 pers/y
Travel Distance (Total)	veh-mi/y	256,074	307,288 pers-mi/y
Travel Time (Total)	veh-h/y	10,556	12,667 pers-h/y
Cost (Total)	\$/y	313,086	313,086 \$/y
Fuel Consumption (Total)	gal/y	19,967	
Carbon Dioxide (Total)	kg/y	179,498	
Hydrocarbons (Total)	kg/y	16	
Carbon Monoxide (Total)	kg/y	179	
NOx (Total)	kg/y	597	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / Executive / Buffalo Creek (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	19.5	19.5 mph
Travel Distance (Total)	veh-mi/h	430.1	516.1 pers-mi/h
Travel Time (Total)	veh-h/h	22.0	26.4 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.49	
Travel Time Index		4.32	
Congestion Coefficient		2.05	
Demand Flows (Total)	veh/h	2457	2948 pers/h
Arrival Flows (Total)	veh/h	2384	2861 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	8.1	
Degree of Saturation		1.591	
Practical Spare Capacity	%	-49.7	
Effective Intersection Capacity	veh/h	1499	
Control Delay (Total)	veh-h/h	12.16	14.59 pers-h/h
Control Delay (Average)	sec	18.4	18.4 sec
Control Delay (Worst Lane by MC)	sec	503.5	
Control Delay (Worst Movement by MC)	sec	2974.3	2974.3 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	18.4	
Idling Time (Average)	sec	13.7	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	4.0	
Average Back of Queue - Dist (Worst Lane)	ft	107.2	
Ave. Que Storage Ratio (Worst Lane)		0.07	
Effective Stops (Total)	veh/h	359	431 pers/h
Effective Stop Rate		0.15	0.15
Proportion Queued		0.13	0.13
Performance Index		52.0	52.0
Cost (Total)	\$/h	527.15	527.15 \$/h
Fuel Consumption (Total)	gal/h	25.0	
Carbon Dioxide (Total)	kg/h	225.6	
Hydrocarbons (Total)	kg/h	0.021	
Carbon Monoxide (Total)	kg/h	0.25	
NOx (Total)	kg/h	0.611	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 97.4% 69.3% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,179,130	1,414,957 pers/y
Arrival Flows (Total)	veh/y	1,144,394	
Delay (Total)	veh-h/y	5,835	7,002 pers-h/y
Effective Stops (Total)	veh/y	172,359	206,831 pers/y
Travel Distance (Total)	veh-mi/y	206,453	247,744 pers-mi/y
Travel Time (Total)	veh-h/y	10,567	12,680 pers-h/y
Cost (Total)	\$/y	253,030	253,030 \$/y
Fuel Consumption (Total)	gal/y	12,001	
Carbon Dioxide (Total)	kg/y	108,268	
Hydrocarbons (Total)	kg/y	10	
Carbon Monoxide (Total)	kg/y	122	
NOx (Total)	kg/y	293	


1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101v [US 62 / I-65 SB - Conversion (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	16.1	16.1 mph
Travel Distance (Total)	veh-mi/h	827.3	992.8 pers-mi/h
Travel Time (Total)	veh-h/h	51.4	61.7 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.40	
Travel Time Index		3.36	
Congestion Coefficient		2.49	
Demand Flows (Total)	veh/h	3424	4109 pers/h
Arrival Flows (Total)	veh/h	3400	4080 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	9.0	
Degree of Saturation		1.162	
Practical Spare Capacity	%	-26.8	
Effective Intersection Capacity	veh/h	2927	
Control Delay (Total)	veh-h/h	27.82	33.38 pers-h/h
Control Delay (Average)	sec	29.5	29.5 sec
Control Delay (Worst Lane by MC)	sec	123.9	
Control Delay (Worst Movement by MC)	sec	155.4	155.4 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	29.5	
Idling Time (Average)	sec	15.9	
Intersection Level of Service (LOS)		LOS D	
Average Back of Queue - Veh (Worst Lane)	veh	11.7	
Average Back of Queue - Dist (Worst Lane)	ft	314.2	
Ave. Que Storage Ratio (Worst Lane)		0.49	
Effective Stops (Total)	veh/h	3116	3739 pers/h
Effective Stop Rate		0.92	0.92
Proportion Queued		0.61	0.61
Performance Index		119.5	119.5
Cost (Total)	\$/h	1372.06	1372.06 \$/h
Fuel Consumption (Total)	gal/h	77.0	
Carbon Dioxide (Total)	kg/h	694.7	
Hydrocarbons (Total)	kg/h	0.068	
Carbon Monoxide (Total)	kg/h	0.71	
NOx (Total)	kg/h	2.220	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,643,478	1,972,174 pers/y
Arrival Flows (Total)	veh/y	1,632,090	
Delay (Total)	veh-h/y	13,352	16,023 pers-h/y
Effective Stops (Total)	veh/y	1,495,486	1,794,583 pers/y
Travel Distance (Total)	veh-mi/y	397,107	476,529 pers-mi/y
Travel Time (Total)	veh-h/y	24,677	29,612 pers-h/y
Cost (Total)	\$/y	658,590	658,590 \$/y
Fuel Consumption (Total)	gal/y	36,978	
Carbon Dioxide (Total)	kg/y	333,479	
Hydrocarbons (Total)	kg/y	33	
Carbon Monoxide (Total)	kg/y	342	
NOx (Total)	kg/y	1,065	


1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101v [US 62 / I-65 NB - Conversion (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	21.8	21.8 mph
Travel Distance (Total)	veh-mi/h	558.3	670.0 pers-mi/h
Travel Time (Total)	veh-h/h	25.6	30.7 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.55	
Travel Time Index		4.96	
Congestion Coefficient		1.83	
Demand Flows (Total)	veh/h	2217	2661 pers/h
Arrival Flows (Total)	veh/h	2203	2644 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	9.0	
Degree of Saturation		0.824	
Practical Spare Capacity	%	3.1	
Effective Intersection Capacity	veh/h	2672	
Control Delay (Total)	veh-h/h	9.12	10.94 pers-h/h
Control Delay (Average)	sec	14.9	14.9 sec
Control Delay (Worst Lane by MC)	sec	41.5	
Control Delay (Worst Movement by MC)	sec	71.2	71.2 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	14.9	
Idling Time (Average)	sec	7.9	
Intersection Level of Service (LOS)		LOS B	
Average Back of Queue - Veh (Worst Lane)	veh	2.3	
Average Back of Queue - Dist (Worst Lane)	ft	62.6	
Ave. Que Storage Ratio (Worst Lane)		0.09	
Effective Stops (Total)	veh/h	1145	1374 pers/h
Effective Stop Rate		0.52	0.52
Proportion Queued		0.42	0.42
Performance Index		40.5	40.5
Cost (Total)	\$/h	728.10	728.10 \$/h
Fuel Consumption (Total)	gal/h	44.4	
Carbon Dioxide (Total)	kg/h	400.1	
Hydrocarbons (Total)	kg/h	0.036	
Carbon Monoxide (Total)	kg/h	0.40	
NOx (Total)	kg/h	1.323	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,064,348	1,277,217 pers/y
Arrival Flows (Total)	veh/y	1,057,492	
Delay (Total)	veh-h/y	4,377	5,252 pers-h/y
Effective Stops (Total)	veh/y	549,495	659,394 pers/y
Travel Distance (Total)	veh-mi/y	268,003	321,604 pers-mi/y
Travel Time (Total)	veh-h/y	12,266	14,719 pers-h/y
Cost (Total)	\$/y	349,487	349,487 \$/y
Fuel Consumption (Total)	gal/y	21,307	
Carbon Dioxide (Total)	kg/y	192,048	
Hydrocarbons (Total)	kg/y	17	
Carbon Monoxide (Total)	kg/y	193	
NOx (Total)	kg/y	635	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / Medley Lane (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	35.8	35.8 mph
Travel Distance (Total)	veh-mi/h	139.8	167.8 pers-mi/h
Travel Time (Total)	veh-h/h	3.9	4.7 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.89	
Travel Time Index		8.82	
Congestion Coefficient		1.12	
Demand Flows (Total)	veh/h	1332	1598 pers/h
Arrival Flows (Total)	veh/h	1326	1591 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	8.9	
Degree of Saturation		0.242	
Practical Spare Capacity	%	305.5	
Effective Intersection Capacity	veh/h	5487	
Control Delay (Total)	veh-h/h	0.66	0.79 pers-h/h
Control Delay (Average)	sec	1.8	1.8 sec
Control Delay (Worst Lane by MC)	sec	40.5	
Control Delay (Worst Movement by MC)	sec	385.7	385.7 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	1.8	
Idling Time (Average)	sec	0.7	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.1	
Average Back of Queue - Dist (Worst Lane)	ft	3.7	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	26	32 pers/h
Effective Stop Rate		0.02	0.02
Proportion Queued		0.02	0.02
Performance Index		5.4	5.4
Cost (Total)	\$/h	100.29	100.29 \$/h
Fuel Consumption (Total)	gal/h	5.3	
Carbon Dioxide (Total)	kg/h	47.9	
Hydrocarbons (Total)	kg/h	0.004	
Carbon Monoxide (Total)	kg/h	0.06	
NOx (Total)	kg/h	0.125	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 92.9% 55.2% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	639,130	766,957 pers/y
Arrival Flows (Total)	veh/y	636,584	
Delay (Total)	veh-h/y	318	381 pers-h/y
Effective Stops (Total)	veh/y	12,718	15,262 pers/y
Travel Distance (Total)	veh-mi/y	67,112	80,534 pers-mi/y
Travel Time (Total)	veh-h/y	1,876	2,252 pers-h/y
Cost (Total)	\$/y	48,140	48,140 \$/y
Fuel Consumption (Total)	gal/y	2,556	
Carbon Dioxide (Total)	kg/y	23,011	
Hydrocarbons (Total)	kg/y	2	
Carbon Monoxide (Total)	kg/y	28	
NOx (Total)	kg/y	60	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / McCormack (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	32.6	32.6 mph
Travel Distance (Total)	veh-mi/h	120.3	144.3 pers-mi/h
Travel Time (Total)	veh-h/h	3.7	4.4 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.81	
Travel Time Index		7.94	
Congestion Coefficient		1.23	
Demand Flows (Total)	veh/h	1272	1526 pers/h
Arrival Flows (Total)	veh/h	1269	1523 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	8.9	
Degree of Saturation		0.239	
Practical Spare Capacity	%	275.6	
Effective Intersection Capacity	veh/h	5318	
Control Delay (Total)	veh-h/h	0.64	0.76 pers-h/h
Control Delay (Average)	sec	1.8	1.8 sec
Control Delay (Worst Lane by MC)	sec	30.3	
Control Delay (Worst Movement by MC)	sec	67.6	67.6 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	1.8	
Idling Time (Average)	sec	1.5	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.3	
Average Back of Queue - Dist (Worst Lane)	ft	7.9	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	42	51 pers/h
Effective Stop Rate		0.03	0.03
Proportion Queued		0.04	0.04
Performance Index		5.2	5.2
Cost (Total)	\$/h	94.91	94.91 \$/h
Fuel Consumption (Total)	gal/h	5.1	
Carbon Dioxide (Total)	kg/h	45.5	
Hydrocarbons (Total)	kg/h	0.004	
Carbon Monoxide (Total)	kg/h	0.05	
NOx (Total)	kg/h	0.124	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 89.1% 0.7% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	610,435	732,522 pers/y
Arrival Flows (Total)	veh/y	609,260	
Delay (Total)	veh-h/y	306	367 pers-h/y
Effective Stops (Total)	veh/y	20,228	24,273 pers/y
Travel Distance (Total)	veh-mi/y	57,723	69,267 pers-mi/y
Travel Time (Total)	veh-h/y	1,771	2,125 pers-h/y
Cost (Total)	\$/y	45,558	45,558 \$/y
Fuel Consumption (Total)	gal/y	2,428	
Carbon Dioxide (Total)	kg/y	21,858	
Hydrocarbons (Total)	kg/y	2	
Carbon Monoxide (Total)	kg/y	26	
NOx (Total)	kg/y	60	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / Gregory (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	36.1	36.1 mph
Travel Distance (Total)	veh-mi/h	415.3	498.3 pers-mi/h
Travel Time (Total)	veh-h/h	11.5	13.8 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.90	
Travel Time Index		8.91	
Congestion Coefficient		1.11	
Demand Flows (Total)	veh/h	1239	1487 pers/h
Arrival Flows (Total)	veh/h	1237	1484 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	8.9	
Degree of Saturation		0.475	
Practical Spare Capacity	%	106.1	
Effective Intersection Capacity	veh/h	2602	
Control Delay (Total)	veh-h/h	1.09	1.31 pers-h/h
Control Delay (Average)	sec	3.2	3.2 sec
Control Delay (Worst Lane by MC)	sec	18.7	
Control Delay (Worst Movement by MC)	sec	80.6	80.6 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	3.2	
Idling Time (Average)	sec	3.0	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.1	
Average Back of Queue - Dist (Worst Lane)	ft	1.5	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	13	15 pers/h
Effective Stop Rate		0.01	0.01
Proportion Queued		0.01	0.01
Performance Index		12.0	12.0
Cost (Total)	\$/h	286.63	286.63 \$/h
Fuel Consumption (Total)	gal/h	14.5	
Carbon Dioxide (Total)	kg/h	131.6	
Hydrocarbons (Total)	kg/h	0.010	
Carbon Monoxide (Total)	kg/h	0.16	
NOx (Total)	kg/h	0.323	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 82.6% 0.4% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	594,783	713,739 pers/y
Arrival Flows (Total)	veh/y	593,639	
Delay (Total)	veh-h/y	524	629 pers-h/y
Effective Stops (Total)	veh/y	6,023	7,228 pers/y
Travel Distance (Total)	veh-mi/y	199,326	239,191 pers-mi/y
Travel Time (Total)	veh-h/y	5,527	6,632 pers-h/y
Cost (Total)	\$/y	137,580	137,580 \$/y
Fuel Consumption (Total)	gal/y	6,969	
Carbon Dioxide (Total)	kg/y	63,163	
Hydrocarbons (Total)	kg/y	5	
Carbon Monoxide (Total)	kg/y	79	
NOx (Total)	kg/y	155	


1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / Ring Road Signalized (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site

Site Category: (None)

Signals - EQUISAT (Pretimed) Isolated Cycle Time = 150 seconds (Site Practical Cycle Time)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	4.8	4.8 mph
Travel Distance (Total)	veh-mi/h	960.0	1152.0 pers-mi/h
Travel Time (Total)	veh-h/h	199.4	239.3 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.12	
Travel Time Index		0.23	
Congestion Coefficient		8.31	
Demand Flows (Total)	veh/h	3657	4388 pers/h
Arrival Flows (Total)	veh/h	3608	4330 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.3	
Degree of Saturation		1.408	
Practical Spare Capacity	%	-36.1	
Effective Intersection Capacity	veh/h	2564	
Control Delay (Total)	veh-h/h	190.01	228.02 pers-h/h
Control Delay (Average)	sec	189.6	189.6 sec
Control Delay (Worst Lane by MC)	sec	293.8	
Control Delay (Worst Movement by MC)	sec	293.8	293.8 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	189.6	
Idling Time (Average)	sec	164.4	
Intersection Level of Service (LOS)		LOS F	
Average Back of Queue - Veh (Worst Lane)	veh	63.0	
Average Back of Queue - Dist (Worst Lane)	ft	1677.7	
Ave. Que Storage Ratio (Worst Lane)		1.00	
Effective Stops (Total)	veh/h	4691	5629 pers/h
Effective Stop Rate		1.30	1.30
Proportion Queued		0.99	0.99
Performance Index		596.7	596.7
Cost (Total)	\$/h	4116.64	4116.64 \$/h
Fuel Consumption (Total)	gal/h	139.3	
Carbon Dioxide (Total)	kg/h	1254.0	
Hydrocarbons (Total)	kg/h	0.160	
Carbon Monoxide (Total)	kg/h	1.32	
NOx (Total)	kg/h	3.078	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Delay Model: HCM Delay Formula (Stoptime Delay: Geometric Delay is not included).

Queue Model: HCM Queue Formula.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Main (Timing-Capacity) Iterations: 7.4% 3.2% 0.0%

Intersection Performance - Annual Values			
Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,755,130	2,106,157 pers/y

Arrival Flows (Total)	veh/y	1,732,042	
Delay (Total)	veh-h/y	91,207	109,448 pers-h/y
Effective Stops (Total)	veh/y	2,251,654	2,701,986 pers/y
Travel Distance (Total)	veh-mi/y	460,802	552,962 pers-mi/y
Travel Time (Total)	veh-h/y	95,731	114,877 pers-h/y
Cost (Total)	\$/y	1,975,989	1,975,989 \$/y
Fuel Consumption (Total)	gal/y	66,874	
Carbon Dioxide (Total)	kg/y	601,901	
Hydrocarbons (Total)	kg/y	77	
Carbon Monoxide (Total)	kg/y	633	
NOx (Total)	kg/y	1,477	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / Brooke Street (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	37.8	37.8 mph
Travel Distance (Total)	veh-mi/h	238.8	286.6 pers-mi/h
Travel Time (Total)	veh-h/h	6.3	7.6 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.94	
Travel Time Index		9.38	
Congestion Coefficient		1.06	
Demand Flows (Total)	veh/h	1723	2067 pers/h
Arrival Flows (Total)	veh/h	1625	1950 pers/h
Percent Heavy Vehicles (Demand)	%	8.4	
Percent Heavy Vehicles (Arrivals)	%	8.9	
Degree of Saturation		0.255	
Practical Spare Capacity	%	285.0	
Effective Intersection Capacity	veh/h	6383	
Control Delay (Total)	veh-h/h	0.40	0.48 pers-h/h
Control Delay (Average)	sec	0.9	0.9 sec
Control Delay (Worst Lane by MC)	sec	33.1	
Control Delay (Worst Movement by MC)	sec	215.3	215.3 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	0.9	
Idling Time (Average)	sec	0.6	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.1	
Average Back of Queue - Dist (Worst Lane)	ft	2.6	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	17	21 pers/h
Effective Stop Rate		0.01	0.01
Proportion Queued		0.01	0.01
Performance Index		7.0	7.0
Cost (Total)	\$/h	159.98	159.98 \$/h
Fuel Consumption (Total)	gal/h	8.3	
Carbon Dioxide (Total)	kg/h	75.2	
Hydrocarbons (Total)	kg/h	0.006	
Carbon Monoxide (Total)	kg/h	0.09	
NOx (Total)	kg/h	0.185	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 91.2% 0.9% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	826,957	992,348 pers/y
Arrival Flows (Total)	veh/y	779,915	
Delay (Total)	veh-h/y	192	230 pers-h/y
Effective Stops (Total)	veh/y	8,257	9,909 pers/y
Travel Distance (Total)	veh-mi/y	114,641	137,569 pers-mi/y
Travel Time (Total)	veh-h/y	3,035	3,641 pers-h/y
Cost (Total)	\$/y	76,793	76,793 \$/y
Fuel Consumption (Total)	gal/y	3,992	
Carbon Dioxide (Total)	kg/y	36,072	
Hydrocarbons (Total)	kg/y	3	
Carbon Monoxide (Total)	kg/y	45	
NOx (Total)	kg/y	89	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62/French Street (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	28.1	28.1 mph
Travel Distance (Total)	veh-mi/h	743.2	891.9 pers-mi/h
Travel Time (Total)	veh-h/h	26.4	31.7 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.70	
Travel Time Index		6.70	
Congestion Coefficient		1.42	
Demand Flows (Total)	veh/h	2196	2635 pers/h
Arrival Flows (Total)	veh/h	2074	2489 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.7	
Degree of Saturation		0.456	
Practical Spare Capacity	%	86.3	
Effective Intersection Capacity	veh/h	4546	
Control Delay (Total)	veh-h/h	4.85	5.82 pers-h/h
Control Delay (Average)	sec	8.4	8.4 sec
Control Delay (Worst Lane by MC)	sec	12.4	
Control Delay (Worst Movement by MC)	sec	33.7	33.7 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	8.4	
Idling Time (Average)	sec	5.3	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	0.9	
Average Back of Queue - Dist (Worst Lane)	ft	24.7	
Ave. Que Storage Ratio (Worst Lane)		0.03	
Effective Stops (Total)	veh/h	700	840 pers/h
Effective Stop Rate		0.34	0.34
Proportion Queued		0.48	0.48
Performance Index		43.7	43.7
Cost (Total)	\$/h	764.20	764.20 \$/h
Fuel Consumption (Total)	gal/h	47.4	
Carbon Dioxide (Total)	kg/h	426.5	
Hydrocarbons (Total)	kg/h	0.036	
Carbon Monoxide (Total)	kg/h	0.44	
NOx (Total)	kg/h	1.379	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,053,913	1,264,696 pers/y
Arrival Flows (Total)	veh/y	995,586	
Delay (Total)	veh-h/y	2,329	2,795 pers-h/y
Effective Stops (Total)	veh/y	335,874	403,048 pers/y
Travel Distance (Total)	veh-mi/y	356,756	428,107 pers-mi/y
Travel Time (Total)	veh-h/y	12,687	15,225 pers-h/y
Cost (Total)	\$/y	366,814	366,814 \$/y
Fuel Consumption (Total)	gal/y	22,743	
Carbon Dioxide (Total)	kg/y	204,707	
Hydrocarbons (Total)	kg/y	17	
Carbon Monoxide (Total)	kg/y	213	
NOx (Total)	kg/y	662	

1 Hours per Year: 480 (Network)

# INTERSECTION SUMMARY

 Site: 101 [US 62 / Main Street (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	36.7	36.7 mph
Travel Distance (Total)	veh-mi/h	617.3	740.8 pers-mi/h
Travel Time (Total)	veh-h/h	16.8	20.2 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.92	
Travel Time Index		9.09	
Congestion Coefficient		1.09	
Demand Flows (Total)	veh/h	2122	2546 pers/h
Arrival Flows (Total)	veh/h	1976	2371 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.8	
Degree of Saturation		0.374	
Practical Spare Capacity	%	114.0	
Effective Intersection Capacity	veh/h	5286	
Control Delay (Total)	veh-h/h	1.26	1.51 pers-h/h
Control Delay (Average)	sec	2.3	2.3 sec
Control Delay (Worst Lane by MC)	sec	66.3	
Control Delay (Worst Movement by MC)	sec	1225.4	1225.4 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	2.3	
Idling Time (Average)	sec	1.2	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	2.9	
Average Back of Queue - Dist (Worst Lane)	ft	78.5	
Ave. Que Storage Ratio (Worst Lane)		0.04	
Effective Stops (Total)	veh/h	131	157 pers/h
Effective Stop Rate		0.07	0.07
Proportion Queued		0.06	0.06
Performance Index		28.7	28.7
Cost (Total)	\$/h	428.41	428.41 \$/h
Fuel Consumption (Total)	gal/h	22.5	
Carbon Dioxide (Total)	kg/h	202.8	
Hydrocarbons (Total)	kg/h	0.016	
Carbon Monoxide (Total)	kg/h	0.25	
NOx (Total)	kg/h	0.507	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 92.6% 61.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,018,435	1,222,122 pers/y
Arrival Flows (Total)	veh/y	948,374	
Delay (Total)	veh-h/y	605	726 pers-h/y
Effective Stops (Total)	veh/y	62,859	75,430 pers/y
Travel Distance (Total)	veh-mi/y	296,304	355,565 pers-mi/y
Travel Time (Total)	veh-h/y	8,065	9,678 pers-h/y
Cost (Total)	\$/y	205,638	205,638 \$/y
Fuel Consumption (Total)	gal/y	10,815	
Carbon Dioxide (Total)	kg/y	97,354	
Hydrocarbons (Total)	kg/y	8	
Carbon Monoxide (Total)	kg/y	120	
NOx (Total)	kg/y	244	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor Ring Signalized\_PM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / DolpinRoad (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	29.3	29.3 mph
Travel Distance (Total)	veh-mi/h	601.0	721.1 pers-mi/h
Travel Time (Total)	veh-h/h	20.5	24.6 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.73	
Travel Time Index		7.03	
Congestion Coefficient		1.36	
Demand Flows (Total)	veh/h	3364	4037 pers/h
Arrival Flows (Total)	veh/h	2946	3535 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	9.0	
Degree of Saturation		0.722	
Practical Spare Capacity	%	10.7	
Effective Intersection Capacity	veh/h	4078	
Control Delay (Total)	veh-h/h	5.66	6.80 pers-h/h
Control Delay (Average)	sec	6.9	6.9 sec
Control Delay (Worst Lane by MC)	sec	162.5	
Control Delay (Worst Movement by MC)	sec	3212.1	3212.1 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	6.9	
Idling Time (Average)	sec	4.4	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	21.5	
Average Back of Queue - Dist (Worst Lane)	ft	572.3	
Ave. Que Storage Ratio (Worst Lane)		0.46	
Effective Stops (Total)	veh/h	362	434 pers/h
Effective Stop Rate		0.12	0.12
Proportion Queued		0.11	0.11
Performance Index		149.4	149.4
Cost (Total)	\$/h	520.14	520.14 \$/h
Fuel Consumption (Total)	gal/h	27.2	
Carbon Dioxide (Total)	kg/h	244.6	
Hydrocarbons (Total)	kg/h	0.021	
Carbon Monoxide (Total)	kg/h	0.29	
NOx (Total)	kg/h	0.640	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.5 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 97.4% 69.6% 0.5%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,614,783	1,937,739 pers/y
Arrival Flows (Total)	veh/y	1,413,960	
Delay (Total)	veh-h/y	2,719	3,262 pers-h/y
Effective Stops (Total)	veh/y	173,654	208,385 pers/y
Travel Distance (Total)	veh-mi/y	288,457	346,148 pers-mi/y
Travel Time (Total)	veh-h/y	9,840	11,808 pers-h/y
Cost (Total)	\$/y	249,668	249,668 \$/y
Fuel Consumption (Total)	gal/y	13,033	
Carbon Dioxide (Total)	kg/y	117,420	
Hydrocarbons (Total)	kg/y	10	
Carbon Monoxide (Total)	kg/y	138	
NOx (Total)	kg/y	307	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor Ring Signalized\_PM.sip9

# INTERSECTION SUMMARY

Site: 101 [US 62/Commerce Drive (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	21.8	21.8 mph
Travel Distance (Total)	veh-mi/h	708.1	849.7 pers-mi/h
Travel Time (Total)	veh-h/h	32.5	39.0 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.54	
Travel Time Index		4.94	
Congestion Coefficient		1.84	
Demand Flows (Total)	veh/h	3245	3893 pers/h
Arrival Flows (Total)	veh/h	2858	3429 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	9.0	
Degree of Saturation		0.839	
Practical Spare Capacity	%	1.3	
Effective Intersection Capacity	veh/h	3406	
Control Delay (Total)	veh-h/h	10.92	13.11 pers-h/h
Control Delay (Average)	sec	13.8	13.8 sec
Control Delay (Worst Lane by MC)	sec	45.2	
Control Delay (Worst Movement by MC)	sec	78.8	78.8 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	13.8	
Idling Time (Average)	sec	9.8	
Intersection Level of Service (LOS)		LOS B	
Average Back of Queue - Veh (Worst Lane)	veh	2.2	
Average Back of Queue - Dist (Worst Lane)	ft	59.5	
Ave. Que Storage Ratio (Worst Lane)		0.06	
Effective Stops (Total)	veh/h	1094	1313 pers/h
Effective Stop Rate		0.38	0.38
Proportion Queued		0.53	0.53
Performance Index		66.9	66.9
Cost (Total)	\$/h	917.08	917.08 \$/h
Fuel Consumption (Total)	gal/h	55.2	
Carbon Dioxide (Total)	kg/h	496.5	
Hydrocarbons (Total)	kg/h	0.045	
Carbon Monoxide (Total)	kg/h	0.50	
NOx (Total)	kg/h	1.595	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Sieglösch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,557,391	1,868,870 pers/y
Arrival Flows (Total)	veh/y	1,371,671	
Delay (Total)	veh-h/y	5,243	6,291 pers-h/y
Effective Stops (Total)	veh/y	525,031	630,037 pers/y
Travel Distance (Total)	veh-mi/y	339,871	407,845 pers-mi/y
Travel Time (Total)	veh-h/y	15,613	18,735 pers-h/y
Cost (Total)	\$/y	440,196	440,196 \$/y
Fuel Consumption (Total)	gal/y	26,506	
Carbon Dioxide (Total)	kg/y	238,333	
Hydrocarbons (Total)	kg/y	22	
Carbon Monoxide (Total)	kg/y	241	
NOx (Total)	kg/y	766	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / Executive / Buffalo Creek (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	13.3	13.3 mph
Travel Distance (Total)	veh-mi/h	463.5	556.2 pers-mi/h
Travel Time (Total)	veh-h/h	34.9	41.8 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.33	
Travel Time Index		2.58	
Congestion Coefficient		3.01	
Demand Flows (Total)	veh/h	3323	3987 pers/h
Arrival Flows (Total)	veh/h	2994	3593 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	8.8	
Degree of Saturation		3.881	
Practical Spare Capacity	%	-79.4	
Effective Intersection Capacity	veh/h	771	
Control Delay (Total)	veh-h/h	24.66	29.59 pers-h/h
Control Delay (Average)	sec	29.6	29.6 sec
Control Delay (Worst Lane by MC)	sec	1930.6	
Control Delay (Worst Movement by MC)	sec	7662.4	7662.4 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	29.6	
Idling Time (Average)	sec	26.1	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	4.6	
Average Back of Queue - Dist (Worst Lane)	ft	122.2	
Ave. Que Storage Ratio (Worst Lane)		0.08	
Effective Stops (Total)	veh/h	252	303 pers/h
Effective Stop Rate		0.08	0.08
Proportion Queued		0.08	0.08
Performance Index		67.3	67.3
Cost (Total)	\$/h	749.71	749.71 \$/h
Fuel Consumption (Total)	gal/h	28.3	
Carbon Dioxide (Total)	kg/h	255.2	
Hydrocarbons (Total)	kg/h	0.027	
Carbon Monoxide (Total)	kg/h	0.29	
NOx (Total)	kg/h	0.607	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 99.4% 73.2% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,594,957	1,913,948 pers/y
Arrival Flows (Total)	veh/y	1,437,165	
Delay (Total)	veh-h/y	11,836	14,204 pers-h/y
Effective Stops (Total)	veh/y	121,141	145,370 pers/y
Travel Distance (Total)	veh-mi/y	222,468	266,962 pers-mi/y
Travel Time (Total)	veh-h/y	16,735	20,083 pers-h/y
Cost (Total)	\$/y	359,861	359,861 \$/y
Fuel Consumption (Total)	gal/y	13,599	
Carbon Dioxide (Total)	kg/y	122,503	
Hydrocarbons (Total)	kg/y	13	
Carbon Monoxide (Total)	kg/y	141	
NOx (Total)	kg/y	291	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

Site: 101v [US 62 / I-65 SB - Conversion (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	16.8	16.8 mph
Travel Distance (Total)	veh-mi/h	776.9	932.3 pers-mi/h
Travel Time (Total)	veh-h/h	46.4	55.7 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.42	
Travel Time Index		3.54	
Congestion Coefficient		2.39	
Demand Flows (Total)	veh/h	3424	4109 pers/h
Arrival Flows (Total)	veh/h	3171	3806 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	9.6	
Degree of Saturation		1.162	
Practical Spare Capacity	%	-26.8	
Effective Intersection Capacity	veh/h	2730	
Control Delay (Total)	veh-h/h	24.36	29.23 pers-h/h
Control Delay (Average)	sec	27.6	27.6 sec
Control Delay (Worst Lane by MC)	sec	123.9	
Control Delay (Worst Movement by MC)	sec	155.4	155.4 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	27.6	
Idling Time (Average)	sec	15.8	
Intersection Level of Service (LOS)		LOS D	
Average Back of Queue - Veh (Worst Lane)	veh	11.7	
Average Back of Queue - Dist (Worst Lane)	ft	314.2	
Ave. Que Storage Ratio (Worst Lane)		0.27	
Effective Stops (Total)	veh/h	2454	2945 pers/h
Effective Stop Rate		0.77	0.77
Proportion Queued		0.50	0.50
Performance Index		97.6	97.6
Cost (Total)	\$/h	1238.69	1238.69 \$/h
Fuel Consumption (Total)	gal/h	69.6	
Carbon Dioxide (Total)	kg/h	627.8	
Hydrocarbons (Total)	kg/h	0.061	
Carbon Monoxide (Total)	kg/h	0.65	
NOx (Total)	kg/h	1.973	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,643,478	1,972,174 pers/y
Arrival Flows (Total)	veh/y	1,522,298	
Delay (Total)	veh-h/y	11,691	14,030 pers-h/y
Effective Stops (Total)	veh/y	1,177,846	1,413,416 pers/y
Travel Distance (Total)	veh-mi/y	372,931	447,517 pers-mi/y
Travel Time (Total)	veh-h/y	22,264	26,717 pers-h/y
Cost (Total)	\$/y	594,572	594,572 \$/y
Fuel Consumption (Total)	gal/y	33,412	
Carbon Dioxide (Total)	kg/y	301,338	
Hydrocarbons (Total)	kg/y	29	
Carbon Monoxide (Total)	kg/y	312	
NOx (Total)	kg/y	947	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

Site: 101v [US 62 / I-65 NB - Conversion (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	23.1	23.1 mph
Travel Distance (Total)	veh-mi/h	516.6	619.9 pers-mi/h
Travel Time (Total)	veh-h/h	22.4	26.9 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.58	
Travel Time Index		5.30	
Congestion Coefficient		1.73	
Demand Flows (Total)	veh/h	2217	2661 pers/h
Arrival Flows (Total)	veh/h	2065	2479 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	9.6	
Degree of Saturation		0.706	
Practical Spare Capacity	%	20.4	
Effective Intersection Capacity	veh/h	2926	
Control Delay (Total)	veh-h/h	7.02	8.42 pers-h/h
Control Delay (Average)	sec	12.2	12.2 sec
Control Delay (Worst Lane by MC)	sec	26.5	
Control Delay (Worst Movement by MC)	sec	49.3	49.3 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	12.2	
Idling Time (Average)	sec	5.9	
Intersection Level of Service (LOS)		LOS B	
Average Back of Queue - Veh (Worst Lane)	veh	1.7	
Average Back of Queue - Dist (Worst Lane)	ft	46.8	
Ave. Que Storage Ratio (Worst Lane)		0.08	
Effective Stops (Total)	veh/h	1021	1225 pers/h
Effective Stop Rate		0.49	0.49
Proportion Queued		0.43	0.43
Performance Index		35.0	35.0
Cost (Total)	\$/h	653.99	653.99 \$/h
Fuel Consumption (Total)	gal/h	41.0	
Carbon Dioxide (Total)	kg/h	369.6	
Hydrocarbons (Total)	kg/h	0.033	
Carbon Monoxide (Total)	kg/h	0.37	
NOx (Total)	kg/h	1.238	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,064,348	1,277,217 pers/y
Arrival Flows (Total)	veh/y	991,401	
Delay (Total)	veh-h/y	3,369	4,042 pers-h/y
Effective Stops (Total)	veh/y	489,900	587,880 pers/y
Travel Distance (Total)	veh-mi/y	247,960	297,552 pers-mi/y
Travel Time (Total)	veh-h/y	10,751	12,901 pers-h/y
Cost (Total)	\$/y	313,914	313,914 \$/y
Fuel Consumption (Total)	gal/y	19,681	
Carbon Dioxide (Total)	kg/y	177,387	
Hydrocarbons (Total)	kg/y	16	
Carbon Monoxide (Total)	kg/y	177	
NOx (Total)	kg/y	594	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / Medley Lane (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	35.0	35.0 mph
Travel Distance (Total)	veh-mi/h	149.3	179.1 pers-mi/h
Travel Time (Total)	veh-h/h	4.3	5.1 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.88	
Travel Time Index		8.62	
Congestion Coefficient		1.14	
Demand Flows (Total)	veh/h	1538	1846 pers/h
Arrival Flows (Total)	veh/h	1437	1725 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	9.5	
Degree of Saturation		0.231	
Practical Spare Capacity	%	325.0	
Effective Intersection Capacity	veh/h	6233	
Control Delay (Total)	veh-h/h	1.21	1.45 pers-h/h
Control Delay (Average)	sec	3.0	3.0 sec
Control Delay (Worst Lane by MC)	sec	51.0	
Control Delay (Worst Movement by MC)	sec	847.4	847.4 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	3.0	
Idling Time (Average)	sec	0.9	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.2	
Average Back of Queue - Dist (Worst Lane)	ft	5.5	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	34	41 pers/h
Effective Stop Rate		0.02	0.02
Proportion Queued		0.03	0.03
Performance Index		6.6	6.6
Cost (Total)	\$/h	109.07	109.07 \$/h
Fuel Consumption (Total)	gal/h	5.8	
Carbon Dioxide (Total)	kg/h	51.9	
Hydrocarbons (Total)	kg/h	0.004	
Carbon Monoxide (Total)	kg/h	0.06	
NOx (Total)	kg/h	0.135	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 94.4% 49.4% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	738,261	885,913 pers/y
Arrival Flows (Total)	veh/y	689,878	
Delay (Total)	veh-h/y	579	695 pers-h/y
Effective Stops (Total)	veh/y	16,387	19,664 pers/y
Travel Distance (Total)	veh-mi/y	71,645	85,974 pers-mi/y
Travel Time (Total)	veh-h/y	2,045	2,454 pers-h/y
Cost (Total)	\$/y	52,355	52,355 \$/y
Fuel Consumption (Total)	gal/y	2,770	
Carbon Dioxide (Total)	kg/y	24,933	
Hydrocarbons (Total)	kg/y	2	
Carbon Monoxide (Total)	kg/y	30	
NOx (Total)	kg/y	65	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor Ring Signalized\_PM.sip9



# INTERSECTION SUMMARY

 Site: 101 [US 62 / McCormack (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	34.3	34.3 mph
Travel Distance (Total)	veh-mi/h	137.8	165.4 pers-mi/h
Travel Time (Total)	veh-h/h	4.0	4.8 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.86	
Travel Time Index		8.41	
Congestion Coefficient		1.17	
Demand Flows (Total)	veh/h	1467	1761 pers/h
Arrival Flows (Total)	veh/h	1374	1649 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	9.5	
Degree of Saturation		0.403	
Practical Spare Capacity	%	143.3	
Effective Intersection Capacity	veh/h	3410	
Control Delay (Total)	veh-h/h	0.47	0.56 pers-h/h
Control Delay (Average)	sec	1.2	1.2 sec
Control Delay (Worst Lane by MC)	sec	32.2	
Control Delay (Worst Movement by MC)	sec	81.1	81.1 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	1.2	
Idling Time (Average)	sec	1.0	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.2	
Average Back of Queue - Dist (Worst Lane)	ft	6.0	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	31	37 pers/h
Effective Stop Rate		0.02	0.02
Proportion Queued		0.02	0.02
Performance Index		5.1	5.1
Cost (Total)	\$/h	104.99	104.99 \$/h
Fuel Consumption (Total)	gal/h	5.7	
Carbon Dioxide (Total)	kg/h	51.6	
Hydrocarbons (Total)	kg/h	0.004	
Carbon Monoxide (Total)	kg/h	0.06	
NOx (Total)	kg/h	0.143	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 90.2% 0.9% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	704,348	845,217 pers/y
Arrival Flows (Total)	veh/y	659,435	
Delay (Total)	veh-h/y	226	271 pers-h/y
Effective Stops (Total)	veh/y	14,863	17,835 pers/y
Travel Distance (Total)	veh-mi/y	66,147	79,376 pers-mi/y
Travel Time (Total)	veh-h/y	1,930	2,316 pers-h/y
Cost (Total)	\$/y	50,397	50,397 \$/y
Fuel Consumption (Total)	gal/y	2,745	
Carbon Dioxide (Total)	kg/y	24,746	
Hydrocarbons (Total)	kg/y	2	
Carbon Monoxide (Total)	kg/y	29	
NOx (Total)	kg/y	69	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor Ring Signalized\_PM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / Gregory (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	36.9	36.9 mph
Travel Distance (Total)	veh-mi/h	457.2	548.7 pers-mi/h
Travel Time (Total)	veh-h/h	12.4	14.9 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.92	
Travel Time Index		9.13	
Congestion Coefficient		1.08	
Demand Flows (Total)	veh/h	1402	1683 pers/h
Arrival Flows (Total)	veh/h	1317	1580 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	9.5	
Degree of Saturation		0.377	
Practical Spare Capacity	%	160.0	
Effective Intersection Capacity	veh/h	3494	
Control Delay (Total)	veh-h/h	0.87	1.04 pers-h/h
Control Delay (Average)	sec	2.4	2.4 sec
Control Delay (Worst Lane by MC)	sec	27.9	
Control Delay (Worst Movement by MC)	sec	90.0	90.0 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	2.4	
Idling Time (Average)	sec	2.1	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.2	
Average Back of Queue - Dist (Worst Lane)	ft	5.1	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	31	37 pers/h
Effective Stop Rate		0.02	0.02
Proportion Queued		0.02	0.02
Performance Index		13.4	13.4
Cost (Total)	\$/h	312.79	312.79 \$/h
Fuel Consumption (Total)	gal/h	16.2	
Carbon Dioxide (Total)	kg/h	147.2	
Hydrocarbons (Total)	kg/h	0.011	
Carbon Monoxide (Total)	kg/h	0.18	
NOx (Total)	kg/h	0.368	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 88.7% 0.8% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	673,043	807,652 pers/y
Arrival Flows (Total)	veh/y	632,148	
Delay (Total)	veh-h/y	417	500 pers-h/y
Effective Stops (Total)	veh/y	14,648	17,577 pers/y
Travel Distance (Total)	veh-mi/y	219,473	263,367 pers-mi/y
Travel Time (Total)	veh-h/y	5,950	7,140 pers-h/y
Cost (Total)	\$/y	150,140	150,140 \$/y
Fuel Consumption (Total)	gal/y	7,771	
Carbon Dioxide (Total)	kg/y	70,676	
Hydrocarbons (Total)	kg/y	5	
Carbon Monoxide (Total)	kg/y	87	
NOx (Total)	kg/y	176	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

Site: 101v [US 62 / Howell Drive - Conversion (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	22.1	22.1 mph
Travel Distance (Total)	veh-mi/h	195.7	234.8 pers-mi/h
Travel Time (Total)	veh-h/h	8.9	10.6 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.55	
Travel Time Index		5.02	
Congestion Coefficient		1.81	
Demand Flows (Total)	veh/h	1557	1868 pers/h
Arrival Flows (Total)	veh/h	1457	1748 pers/h
Percent Heavy Vehicles (Demand)	%	8.7	
Percent Heavy Vehicles (Arrivals)	%	9.3	
Degree of Saturation		0.548	
Practical Spare Capacity	%	55.2	
Effective Intersection Capacity	veh/h	2660	
Control Delay (Total)	veh-h/h	2.31	2.77 pers-h/h
Control Delay (Average)	sec	5.7	5.7 sec
Control Delay (Worst Lane by MC)	sec	6.8	
Control Delay (Worst Movement by MC)	sec	15.7	15.7 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	5.7	
Idling Time (Average)	sec	4.8	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	2.0	
Average Back of Queue - Dist (Worst Lane)	ft	52.5	
Ave. Que Storage Ratio (Worst Lane)		0.11	
Effective Stops (Total)	veh/h	68	82 pers/h
Effective Stop Rate		0.05	0.05
Proportion Queued		0.15	0.15
Performance Index		23.1	23.1
Cost (Total)	\$/h	269.14	269.14 \$/h
Fuel Consumption (Total)	gal/h	17.6	
Carbon Dioxide (Total)	kg/h	158.1	
Hydrocarbons (Total)	kg/h	0.015	
Carbon Monoxide (Total)	kg/h	0.15	
NOx (Total)	kg/h	0.490	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	747,130	896,557 pers/y
Arrival Flows (Total)	veh/y	699,392	
Delay (Total)	veh-h/y	1,108	1,329 pers-h/y
Effective Stops (Total)	veh/y	32,806	39,367 pers/y
Travel Distance (Total)	veh-mi/y	93,929	112,714 pers-mi/y
Travel Time (Total)	veh-h/y	4,258	5,110 pers-h/y
Cost (Total)	\$/y	129,188	129,188 \$/y
Fuel Consumption (Total)	gal/y	8,437	
Carbon Dioxide (Total)	kg/y	75,886	
Hydrocarbons (Total)	kg/y	7	
Carbon Monoxide (Total)	kg/y	74	
NOx (Total)	kg/y	235	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

Site: 101v [US 62 / Howell Drive - Conversion (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	21.6	21.6 mph
Travel Distance (Total)	veh-mi/h	208.7	250.4 pers-mi/h
Travel Time (Total)	veh-h/h	9.6	11.6 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.54	
Travel Time Index		4.90	
Congestion Coefficient		1.85	
Demand Flows (Total)	veh/h	1557	1868 pers/h
Arrival Flows (Total)	veh/h	1553	1864 pers/h
Percent Heavy Vehicles (Demand)	%	8.7	
Percent Heavy Vehicles (Arrivals)	%	8.7	
Degree of Saturation		0.620	
Practical Spare Capacity	%	37.0	
Effective Intersection Capacity	veh/h	2504	
Control Delay (Total)	veh-h/h	2.65	3.18 pers-h/h
Control Delay (Average)	sec	6.1	6.1 sec
Control Delay (Worst Lane by MC)	sec	7.4	
Control Delay (Worst Movement by MC)	sec	18.2	18.2 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	6.1	
Idling Time (Average)	sec	5.1	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	2.6	
Average Back of Queue - Dist (Worst Lane)	ft	70.3	
Ave. Que Storage Ratio (Worst Lane)		0.14	
Effective Stops (Total)	veh/h	77	93 pers/h
Effective Stop Rate		0.05	0.05
Proportion Queued		0.16	0.16
Performance Index		27.8	27.8
Cost (Total)	\$/h	290.42	290.42 \$/h
Fuel Consumption (Total)	gal/h	18.8	
Carbon Dioxide (Total)	kg/h	169.4	
Hydrocarbons (Total)	kg/h	0.016	
Carbon Monoxide (Total)	kg/h	0.17	
NOx (Total)	kg/h	0.524	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	747,130	896,557 pers/y
Arrival Flows (Total)	veh/y	745,604	
Delay (Total)	veh-h/y	1,273	1,527 pers-h/y
Effective Stops (Total)	veh/y	37,077	44,492 pers/y
Travel Distance (Total)	veh-mi/y	100,157	120,189 pers-mi/y
Travel Time (Total)	veh-h/y	4,627	5,553 pers-h/y
Cost (Total)	\$/y	139,403	139,403 \$/y
Fuel Consumption (Total)	gal/y	9,038	
Carbon Dioxide (Total)	kg/y	81,290	
Hydrocarbons (Total)	kg/y	8	
Carbon Monoxide (Total)	kg/y	80	
NOx (Total)	kg/y	251	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / Brooke Street (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	37.8	37.8 mph
Travel Distance (Total)	veh-mi/h	213.5	256.2 pers-mi/h
Travel Time (Total)	veh-h/h	5.6	6.8 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.95	
Travel Time Index		9.40	
Congestion Coefficient		1.06	
Demand Flows (Total)	veh/h	1321	1585 pers/h
Arrival Flows (Total)	veh/h	1310	1572 pers/h
Percent Heavy Vehicles (Demand)	%	8.4	
Percent Heavy Vehicles (Arrivals)	%	8.5	
Degree of Saturation		0.203	
Practical Spare Capacity	%	382.5	
Effective Intersection Capacity	veh/h	6452	
Control Delay (Total)	veh-h/h	0.30	0.37 pers-h/h
Control Delay (Average)	sec	0.8	0.8 sec
Control Delay (Worst Lane by MC)	sec	21.9	
Control Delay (Worst Movement by MC)	sec	115.0	115.0 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	0.8	
Idling Time (Average)	sec	0.6	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.1	
Average Back of Queue - Dist (Worst Lane)	ft	1.8	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	13	16 pers/h
Effective Stop Rate		0.01	0.01
Proportion Queued		0.01	0.01
Performance Index		6.1	6.1
Cost (Total)	\$/h	142.77	142.77 \$/h
Fuel Consumption (Total)	gal/h	7.4	
Carbon Dioxide (Total)	kg/h	67.1	
Hydrocarbons (Total)	kg/h	0.005	
Carbon Monoxide (Total)	kg/h	0.08	
NOx (Total)	kg/h	0.164	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 85.8% 0.6% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	633,913	760,696 pers/y
Arrival Flows (Total)	veh/y	628,969	
Delay (Total)	veh-h/y	146	175 pers-h/y
Effective Stops (Total)	veh/y	6,401	7,681 pers/y
Travel Distance (Total)	veh-mi/y	102,491	122,989 pers-mi/y
Travel Time (Total)	veh-h/y	2,708	3,250 pers-h/y
Cost (Total)	\$/y	68,531	68,531 \$/y
Fuel Consumption (Total)	gal/y	3,562	
Carbon Dioxide (Total)	kg/y	32,203	
Hydrocarbons (Total)	kg/y	2	
Carbon Monoxide (Total)	kg/y	40	
NOx (Total)	kg/y	79	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_3-leg commerceAM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62/French Street (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	30.0	30.0 mph
Travel Distance (Total)	veh-mi/h	955.3	1146.4 pers-mi/h
Travel Time (Total)	veh-h/h	31.8	38.2 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.75	
Travel Time Index		7.23	
Congestion Coefficient		1.33	
Demand Flows (Total)	veh/h	2168	2602 pers/h
Arrival Flows (Total)	veh/h	2148	2578 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.3	
Degree of Saturation		0.527	
Practical Spare Capacity	%	61.4	
Effective Intersection Capacity	veh/h	4079	
Control Delay (Total)	veh-h/h	4.78	5.73 pers-h/h
Control Delay (Average)	sec	8.0	8.0 sec
Control Delay (Worst Lane by MC)	sec	10.7	
Control Delay (Worst Movement by MC)	sec	23.9	23.9 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	8.0	
Idling Time (Average)	sec	5.6	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	1.4	
Average Back of Queue - Dist (Worst Lane)	ft	38.5	
Ave. Que Storage Ratio (Worst Lane)		0.02	
Effective Stops (Total)	veh/h	491	590 pers/h
Effective Stop Rate		0.23	0.23
Proportion Queued		0.40	0.40
Performance Index		47.2	47.2
Cost (Total)	\$/h	898.57	898.57 \$/h
Fuel Consumption (Total)	gal/h	54.2	
Carbon Dioxide (Total)	kg/h	489.0	
Hydrocarbons (Total)	kg/h	0.041	
Carbon Monoxide (Total)	kg/h	0.52	
NOx (Total)	kg/h	1.531	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,040,870	1,249,044 pers/y
Arrival Flows (Total)	veh/y	1,031,059	
Delay (Total)	veh-h/y	2,292	2,751 pers-h/y
Effective Stops (Total)	veh/y	235,899	283,078 pers/y
Travel Distance (Total)	veh-mi/y	458,546	550,255 pers-mi/y
Travel Time (Total)	veh-h/y	15,264	18,317 pers-h/y
Cost (Total)	\$/y	431,315	431,315 \$/y
Fuel Consumption (Total)	gal/y	26,039	
Carbon Dioxide (Total)	kg/y	234,738	
Hydrocarbons (Total)	kg/y	20	
Carbon Monoxide (Total)	kg/y	252	
NOx (Total)	kg/y	735	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_3-leg commerceAM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / Main Street (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	35.9	35.9 mph
Travel Distance (Total)	veh-mi/h	483.0	579.6 pers-mi/h
Travel Time (Total)	veh-h/h	13.5	16.1 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.90	
Travel Time Index		8.86	
Congestion Coefficient		1.11	
Demand Flows (Total)	veh/h	1647	1976 pers/h
Arrival Flows (Total)	veh/h	1624	1948 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.3	
Degree of Saturation		0.304	
Practical Spare Capacity	%	162.8	
Effective Intersection Capacity	veh/h	5335	
Control Delay (Total)	veh-h/h	1.14	1.37 pers-h/h
Control Delay (Average)	sec	2.5	2.5 sec
Control Delay (Worst Lane by MC)	sec	14.9	
Control Delay (Worst Movement by MC)	sec	805.3	805.3 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	2.5	
Idling Time (Average)	sec	1.4	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.7	
Average Back of Queue - Dist (Worst Lane)	ft	18.2	
Ave. Que Storage Ratio (Worst Lane)		0.01	
Effective Stops (Total)	veh/h	130	156 pers/h
Effective Stop Rate		0.08	0.08
Proportion Queued		0.09	0.09
Performance Index		17.0	17.0
Cost (Total)	\$/h	349.92	349.92 \$/h
Fuel Consumption (Total)	gal/h	19.0	
Carbon Dioxide (Total)	kg/h	170.5	
Hydrocarbons (Total)	kg/h	0.014	
Carbon Monoxide (Total)	kg/h	0.21	
NOx (Total)	kg/h	0.444	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 65.3% 47.7% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	790,435	948,522 pers/y
Arrival Flows (Total)	veh/y	779,354	
Delay (Total)	veh-h/y	546	656 pers-h/y
Effective Stops (Total)	veh/y	62,333	74,799 pers/y
Travel Distance (Total)	veh-mi/y	231,846	278,215 pers-mi/y
Travel Time (Total)	veh-h/y	6,457	7,749 pers-h/y
Cost (Total)	\$/y	167,962	167,962 \$/y
Fuel Consumption (Total)	gal/y	9,098	
Carbon Dioxide (Total)	kg/y	81,851	
Hydrocarbons (Total)	kg/y	7	
Carbon Monoxide (Total)	kg/y	99	
NOx (Total)	kg/y	213	


1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62/ Ring Road (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	25.7	25.7 mph
Travel Distance (Total)	veh-mi/h	732.1	878.5 pers-mi/h
Travel Time (Total)	veh-h/h	28.5	34.1 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.64	
Travel Time Index		6.04	
Congestion Coefficient		1.55	
Demand Flows (Total)	veh/h	2701	3241 pers/h
Arrival Flows (Total)	veh/h	2657	3188 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.3	
Degree of Saturation		0.513	
Practical Spare Capacity	%	65.8	
Effective Intersection Capacity	veh/h	5181	
Control Delay (Total)	veh-h/h	5.63	6.75 pers-h/h
Control Delay (Average)	sec	7.6	7.6 sec
Control Delay (Worst Lane by MC)	sec	12.1	
Control Delay (Worst Movement by MC)	sec	39.4	39.4 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	7.6	
Idling Time (Average)	sec	4.3	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	1.3	
Average Back of Queue - Dist (Worst Lane)	ft	34.9	
Ave. Que Storage Ratio (Worst Lane)		0.04	
Effective Stops (Total)	veh/h	1059	1271 pers/h
Effective Stop Rate		0.40	0.40
Proportion Queued		0.45	0.45
Performance Index		43.2	43.2
Cost (Total)	\$/h	854.68	854.68 \$/h
Fuel Consumption (Total)	gal/h	55.2	
Carbon Dioxide (Total)	kg/h	498.2	
Hydrocarbons (Total)	kg/h	0.045	
Carbon Monoxide (Total)	kg/h	0.52	
NOx (Total)	kg/h	1.493	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 5.2% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,296,522	1,555,826 pers/y
Arrival Flows (Total)	veh/y	1,275,199	
Delay (Total)	veh-h/y	2,702	3,242 pers-h/y
Effective Stops (Total)	veh/y	508,311	609,974 pers/y
Travel Distance (Total)	veh-mi/y	351,419	421,702 pers-mi/y
Travel Time (Total)	veh-h/y	13,658	16,390 pers-h/y
Cost (Total)	\$/y	410,244	410,244 \$/y
Fuel Consumption (Total)	gal/y	26,515	
Carbon Dioxide (Total)	kg/y	239,144	
Hydrocarbons (Total)	kg/y	21	
Carbon Monoxide (Total)	kg/y	248	
NOx (Total)	kg/y	717	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / DolpinRoad (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	33.2	33.2 mph
Travel Distance (Total)	veh-mi/h	521.1	625.3 pers-mi/h
Travel Time (Total)	veh-h/h	15.7	18.8 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.83	
Travel Time Index		8.11	
Congestion Coefficient		1.20	
Demand Flows (Total)	veh/h	2495	2993 pers/h
Arrival Flows (Total)	veh/h	2444	2933 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	8.1	
Degree of Saturation		0.387	
Practical Spare Capacity	%	152.9	
Effective Intersection Capacity	veh/h	6308	
Control Delay (Total)	veh-h/h	2.11	2.53 pers-h/h
Control Delay (Average)	sec	3.1	3.1 sec
Control Delay (Worst Lane by MC)	sec	139.5	
Control Delay (Worst Movement by MC)	sec	1325.9	1325.9 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	3.1	
Idling Time (Average)	sec	2.3	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.4	
Average Back of Queue - Dist (Worst Lane)	ft	11.4	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	165	198 pers/h
Effective Stop Rate		0.07	0.07
Proportion Queued		0.07	0.07
Performance Index		18.8	18.8
Cost (Total)	\$/h	404.06	404.06 \$/h
Fuel Consumption (Total)	gal/h	21.6	
Carbon Dioxide (Total)	kg/h	194.3	
Hydrocarbons (Total)	kg/h	0.016	
Carbon Monoxide (Total)	kg/h	0.23	
NOx (Total)	kg/h	0.505	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.3 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 97.8% 71.3% 0.3%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,197,391	1,436,870 pers/y
Arrival Flows (Total)	veh/y	1,173,226	
Delay (Total)	veh-h/y	1,012	1,214 pers-h/y
Effective Stops (Total)	veh/y	79,041	94,850 pers/y
Travel Distance (Total)	veh-mi/y	250,114	300,137 pers-mi/y
Travel Time (Total)	veh-h/y	7,532	9,038 pers-h/y
Cost (Total)	\$/y	193,947	193,947 \$/y
Fuel Consumption (Total)	gal/y	10,352	
Carbon Dioxide (Total)	kg/y	93,275	
Hydrocarbons (Total)	kg/y	8	
Carbon Monoxide (Total)	kg/y	112	
NOx (Total)	kg/y	242	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

Site: 101 [US 62/Commerce Drive (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	24.3	24.3 mph
Travel Distance (Total)	veh-mi/h	537.8	645.4 pers-mi/h
Travel Time (Total)	veh-h/h	22.2	26.6 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.61	
Travel Time Index		5.63	
Congestion Coefficient		1.65	
Demand Flows (Total)	veh/h	2440	2928 pers/h
Arrival Flows (Total)	veh/h	2387	2865 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	8.1	
Degree of Saturation		0.549	
Practical Spare Capacity	%	54.9	
Effective Intersection Capacity	veh/h	4350	
Control Delay (Total)	veh-h/h	5.58	6.69 pers-h/h
Control Delay (Average)	sec	8.4	8.4 sec
Control Delay (Worst Lane by MC)	sec	14.3	
Control Delay (Worst Movement by MC)	sec	50.9	50.9 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	8.4	
Idling Time (Average)	sec	5.9	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	1.5	
Average Back of Queue - Dist (Worst Lane)	ft	39.5	
Ave. Que Storage Ratio (Worst Lane)		0.06	
Effective Stops (Total)	veh/h	532	638 pers/h
Effective Stop Rate		0.22	0.22
Proportion Queued		0.41	0.41
Performance Index		39.3	39.3
Cost (Total)	\$/h	657.22	657.22 \$/h
Fuel Consumption (Total)	gal/h	41.9	
Carbon Dioxide (Total)	kg/h	376.5	
Hydrocarbons (Total)	kg/h	0.033	
Carbon Monoxide (Total)	kg/h	0.37	
NOx (Total)	kg/h	1.252	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,171,304	1,405,565 pers/y
Arrival Flows (Total)	veh/y	1,145,855	
Delay (Total)	veh-h/y	2,677	3,213 pers-h/y
Effective Stops (Total)	veh/y	255,317	306,380 pers/y
Travel Distance (Total)	veh-mi/y	258,163	309,796 pers-mi/y
Travel Time (Total)	veh-h/y	10,643	12,771 pers-h/y
Cost (Total)	\$/y	315,466	315,466 \$/y
Fuel Consumption (Total)	gal/y	20,105	
Carbon Dioxide (Total)	kg/y	180,741	
Hydrocarbons (Total)	kg/y	16	
Carbon Monoxide (Total)	kg/y	180	
NOx (Total)	kg/y	601	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / Executive / Buffalo Creek (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	19.3	19.3 mph
Travel Distance (Total)	veh-mi/h	432.6	519.1 pers-mi/h
Travel Time (Total)	veh-h/h	22.5	26.9 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.48	
Travel Time Index		4.24	
Congestion Coefficient		2.08	
Demand Flows (Total)	veh/h	2457	2948 pers/h
Arrival Flows (Total)	veh/h	2397	2876 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	8.1	
Degree of Saturation		1.633	
Practical Spare Capacity	%	-51.0	
Effective Intersection Capacity	veh/h	1467	
Control Delay (Total)	veh-h/h	12.58	15.10 pers-h/h
Control Delay (Average)	sec	18.9	18.9 sec
Control Delay (Worst Lane by MC)	sec	525.3	
Control Delay (Worst Movement by MC)	sec	2991.6	2991.6 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	18.9	
Idling Time (Average)	sec	14.1	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	4.1	
Average Back of Queue - Dist (Worst Lane)	ft	109.7	
Ave. Que Storage Ratio (Worst Lane)		0.07	
Effective Stops (Total)	veh/h	362	434 pers/h
Effective Stop Rate		0.15	0.15
Proportion Queued		0.13	0.13
Performance Index		53.1	53.1
Cost (Total)	\$/h	535.80	535.80 \$/h
Fuel Consumption (Total)	gal/h	25.2	
Carbon Dioxide (Total)	kg/h	227.8	
Hydrocarbons (Total)	kg/h	0.022	
Carbon Monoxide (Total)	kg/h	0.26	
NOx (Total)	kg/h	0.616	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 97.5% 69.3% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,179,130	1,414,957 pers/y
Arrival Flows (Total)	veh/y	1,150,473	
Delay (Total)	veh-h/y	6,040	7,248 pers-h/y
Effective Stops (Total)	veh/y	173,775	208,530 pers/y
Travel Distance (Total)	veh-mi/y	207,658	249,189 pers-mi/y
Travel Time (Total)	veh-h/y	10,779	12,935 pers-h/y
Cost (Total)	\$/y	257,183	257,183 \$/y
Fuel Consumption (Total)	gal/y	12,119	
Carbon Dioxide (Total)	kg/y	109,326	
Hydrocarbons (Total)	kg/y	10	
Carbon Monoxide (Total)	kg/y	123	
NOx (Total)	kg/y	296	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_3-leg commerceAM.sip9

# INTERSECTION SUMMARY

Site: 101v [US 62 / I-65 SB - Conversion (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	16.1	16.1 mph
Travel Distance (Total)	veh-mi/h	829.3	995.1 pers-mi/h
Travel Time (Total)	veh-h/h	51.7	62.0 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.40	
Travel Time Index		3.35	
Congestion Coefficient		2.49	
Demand Flows (Total)	veh/h	3424	4109 pers/h
Arrival Flows (Total)	veh/h	3409	4091 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	8.9	
Degree of Saturation		1.162	
Practical Spare Capacity	%	-26.8	
Effective Intersection Capacity	veh/h	2935	
Control Delay (Total)	veh-h/h	28.00	33.61 pers-h/h
Control Delay (Average)	sec	29.6	29.6 sec
Control Delay (Worst Lane by MC)	sec	123.9	
Control Delay (Worst Movement by MC)	sec	155.4	155.4 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	29.6	
Idling Time (Average)	sec	15.9	
Intersection Level of Service (LOS)		LOS D	
Average Back of Queue - Veh (Worst Lane)	veh	11.7	
Average Back of Queue - Dist (Worst Lane)	ft	314.2	
Ave. Que Storage Ratio (Worst Lane)		0.50	
Effective Stops (Total)	veh/h	3150	3780 pers/h
Effective Stop Rate		0.92	0.92
Proportion Queued		0.61	0.61
Performance Index		120.6	120.6
Cost (Total)	\$/h	1378.46	1378.46 \$/h
Fuel Consumption (Total)	gal/h	77.4	
Carbon Dioxide (Total)	kg/h	697.8	
Hydrocarbons (Total)	kg/h	0.069	
Carbon Monoxide (Total)	kg/h	0.72	
NOx (Total)	kg/h	2.231	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,643,478	1,972,174 pers/y
Arrival Flows (Total)	veh/y	1,636,398	
Delay (Total)	veh-h/y	13,442	16,130 pers-h/y
Effective Stops (Total)	veh/y	1,512,015	1,814,419 pers/y
Travel Distance (Total)	veh-mi/y	398,056	477,667 pers-mi/y
Travel Time (Total)	veh-h/y	24,796	29,756 pers-h/y
Cost (Total)	\$/y	661,662	661,662 \$/y
Fuel Consumption (Total)	gal/y	37,142	
Carbon Dioxide (Total)	kg/y	334,954	
Hydrocarbons (Total)	kg/y	33	
Carbon Monoxide (Total)	kg/y	344	
NOx (Total)	kg/y	1,071	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_3-leg commerceAM.sip9



# INTERSECTION SUMMARY

 Site: 101v [US 62 / I-65 NB - Conversion (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	21.8	21.8 mph
Travel Distance (Total)	veh-mi/h	560.0	672.0 pers-mi/h
Travel Time (Total)	veh-h/h	25.7	30.8 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.54	
Travel Time Index		4.94	
Congestion Coefficient		1.84	
Demand Flows (Total)	veh/h	2217	2661 pers/h
Arrival Flows (Total)	veh/h	2209	2650 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	8.9	
Degree of Saturation		0.829	
Practical Spare Capacity	%	2.5	
Effective Intersection Capacity	veh/h	2663	
Control Delay (Total)	veh-h/h	9.23	11.07 pers-h/h
Control Delay (Average)	sec	15.0	15.0 sec
Control Delay (Worst Lane by MC)	sec	42.4	
Control Delay (Worst Movement by MC)	sec	72.3	72.3 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	15.0	
Idling Time (Average)	sec	8.0	
Intersection Level of Service (LOS)		LOS C	
Average Back of Queue - Veh (Worst Lane)	veh	2.4	
Average Back of Queue - Dist (Worst Lane)	ft	63.5	
Ave. Que Storage Ratio (Worst Lane)		0.09	
Effective Stops (Total)	veh/h	1151	1381 pers/h
Effective Stop Rate		0.52	0.52
Proportion Queued		0.42	0.42
Performance Index		40.7	40.7
Cost (Total)	\$/h	731.46	731.46 \$/h
Fuel Consumption (Total)	gal/h	44.5	
Carbon Dioxide (Total)	kg/h	401.4	
Hydrocarbons (Total)	kg/h	0.036	
Carbon Monoxide (Total)	kg/h	0.40	
NOx (Total)	kg/h	1.326	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,064,348	1,277,217 pers/y
Arrival Flows (Total)	veh/y	1,060,085	
Delay (Total)	veh-h/y	4,429	5,315 pers-h/y
Effective Stops (Total)	veh/y	552,257	662,709 pers/y
Travel Distance (Total)	veh-mi/y	268,790	322,548 pers-mi/y
Travel Time (Total)	veh-h/y	12,338	14,805 pers-h/y
Cost (Total)	\$/y	351,102	351,102 \$/y
Fuel Consumption (Total)	gal/y	21,376	
Carbon Dioxide (Total)	kg/y	192,668	
Hydrocarbons (Total)	kg/y	18	
Carbon Monoxide (Total)	kg/y	193	
NOx (Total)	kg/y	637	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / Medley Lane (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	35.8	35.8 mph
Travel Distance (Total)	veh-mi/h	140.0	168.0 pers-mi/h
Travel Time (Total)	veh-h/h	3.9	4.7 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.89	
Travel Time Index		8.82	
Congestion Coefficient		1.12	
Demand Flows (Total)	veh/h	1332	1598 pers/h
Arrival Flows (Total)	veh/h	1328	1594 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	8.9	
Degree of Saturation		0.242	
Practical Spare Capacity	%	305.5	
Effective Intersection Capacity	veh/h	5496	
Control Delay (Total)	veh-h/h	0.67	0.80 pers-h/h
Control Delay (Average)	sec	1.8	1.8 sec
Control Delay (Worst Lane by MC)	sec	40.6	
Control Delay (Worst Movement by MC)	sec	387.8	387.8 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	1.8	
Idling Time (Average)	sec	0.7	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.1	
Average Back of Queue - Dist (Worst Lane)	ft	3.7	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	27	32 pers/h
Effective Stop Rate		0.02	0.02
Proportion Queued		0.02	0.02
Performance Index		5.4	5.4
Cost (Total)	\$/h	100.44	100.44 \$/h
Fuel Consumption (Total)	gal/h	5.3	
Carbon Dioxide (Total)	kg/h	48.0	
Hydrocarbons (Total)	kg/h	0.004	
Carbon Monoxide (Total)	kg/h	0.06	
NOx (Total)	kg/h	0.125	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 92.9% 55.2% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	639,130	766,957 pers/y
Arrival Flows (Total)	veh/y	637,547	
Delay (Total)	veh-h/y	319	383 pers-h/y
Effective Stops (Total)	veh/y	12,746	15,295 pers/y
Travel Distance (Total)	veh-mi/y	67,207	80,648 pers-mi/y
Travel Time (Total)	veh-h/y	1,879	2,255 pers-h/y
Cost (Total)	\$/y	48,213	48,213 \$/y
Fuel Consumption (Total)	gal/y	2,559	
Carbon Dioxide (Total)	kg/y	23,043	
Hydrocarbons (Total)	kg/y	2	
Carbon Monoxide (Total)	kg/y	28	
NOx (Total)	kg/y	60	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / McCormack (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	32.6	32.6 mph
Travel Distance (Total)	veh-mi/h	120.4	144.4 pers-mi/h
Travel Time (Total)	veh-h/h	3.7	4.4 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.81	
Travel Time Index		7.94	
Congestion Coefficient		1.23	
Demand Flows (Total)	veh/h	1272	1526 pers/h
Arrival Flows (Total)	veh/h	1270	1524 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	8.9	
Degree of Saturation		0.239	
Practical Spare Capacity	%	275.0	
Effective Intersection Capacity	veh/h	5322	
Control Delay (Total)	veh-h/h	0.64	0.77 pers-h/h
Control Delay (Average)	sec	1.8	1.8 sec
Control Delay (Worst Lane by MC)	sec	30.3	
Control Delay (Worst Movement by MC)	sec	67.7	67.7 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	1.8	
Idling Time (Average)	sec	1.5	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.3	
Average Back of Queue - Dist (Worst Lane)	ft	7.9	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	42	51 pers/h
Effective Stop Rate		0.03	0.03
Proportion Queued		0.04	0.04
Performance Index		5.2	5.2
Cost (Total)	\$/h	94.99	94.99 \$/h
Fuel Consumption (Total)	gal/h	5.1	
Carbon Dioxide (Total)	kg/h	45.6	
Hydrocarbons (Total)	kg/h	0.004	
Carbon Monoxide (Total)	kg/h	0.05	
NOx (Total)	kg/h	0.125	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 89.1% 0.7% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	610,435	732,522 pers/y
Arrival Flows (Total)	veh/y	609,719	
Delay (Total)	veh-h/y	306	367 pers-h/y
Effective Stops (Total)	veh/y	20,246	24,295 pers/y
Travel Distance (Total)	veh-mi/y	57,768	69,322 pers-mi/y
Travel Time (Total)	veh-h/y	1,772	2,127 pers-h/y
Cost (Total)	\$/y	45,593	45,593 \$/y
Fuel Consumption (Total)	gal/y	2,430	
Carbon Dioxide (Total)	kg/y	21,874	
Hydrocarbons (Total)	kg/y	2	
Carbon Monoxide (Total)	kg/y	26	
NOx (Total)	kg/y	60	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / Gregory (Site Folder: US 62 Roundabout Corridor AM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (AM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	36.1	36.1 mph
Travel Distance (Total)	veh-mi/h	415.6	498.7 pers-mi/h
Travel Time (Total)	veh-h/h	11.5	13.8 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.90	
Travel Time Index		8.91	
Congestion Coefficient		1.11	
Demand Flows (Total)	veh/h	1239	1487 pers/h
Arrival Flows (Total)	veh/h	1238	1485 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	8.9	
Degree of Saturation		0.475	
Practical Spare Capacity	%	106.1	
Effective Intersection Capacity	veh/h	2603	
Control Delay (Total)	veh-h/h	1.09	1.31 pers-h/h
Control Delay (Average)	sec	3.2	3.2 sec
Control Delay (Worst Lane by MC)	sec	18.7	
Control Delay (Worst Movement by MC)	sec	80.7	80.7 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	3.2	
Idling Time (Average)	sec	3.0	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.1	
Average Back of Queue - Dist (Worst Lane)	ft	1.5	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	13	15 pers/h
Effective Stop Rate		0.01	0.01
Proportion Queued		0.01	0.01
Performance Index		12.0	12.0
Cost (Total)	\$/h	286.86	286.86 \$/h
Fuel Consumption (Total)	gal/h	14.5	
Carbon Dioxide (Total)	kg/h	131.7	
Hydrocarbons (Total)	kg/h	0.010	
Carbon Monoxide (Total)	kg/h	0.16	
NOx (Total)	kg/h	0.323	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 82.6% 0.4% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	594,783	713,739 pers/y
Arrival Flows (Total)	veh/y	594,085	
Delay (Total)	veh-h/y	524	629 pers-h/y
Effective Stops (Total)	veh/y	6,032	7,238 pers/y
Travel Distance (Total)	veh-mi/y	199,497	239,396 pers-mi/y
Travel Time (Total)	veh-h/y	5,531	6,638 pers-h/y
Cost (Total)	\$/y	137,691	137,691 \$/y
Fuel Consumption (Total)	gal/y	6,975	
Carbon Dioxide (Total)	kg/y	63,216	
Hydrocarbons (Total)	kg/y	5	
Carbon Monoxide (Total)	kg/y	79	
NOx (Total)	kg/y	155	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101v [US 62 / Howell Drive - Conversion (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	21.9	21.9 mph
Travel Distance (Total)	veh-mi/h	200.0	240.1 pers-mi/h
Travel Time (Total)	veh-h/h	9.1	10.9 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.55	
Travel Time Index		4.98	
Congestion Coefficient		1.82	
Demand Flows (Total)	veh/h	1557	1868 pers/h
Arrival Flows (Total)	veh/h	1489	1787 pers/h
Percent Heavy Vehicles (Demand)	%	8.7	
Percent Heavy Vehicles (Arrivals)	%	9.1	
Degree of Saturation		0.572	
Practical Spare Capacity	%	48.6	
Effective Intersection Capacity	veh/h	2603	
Control Delay (Total)	veh-h/h	2.42	2.90 pers-h/h
Control Delay (Average)	sec	5.8	5.8 sec
Control Delay (Worst Lane by MC)	sec	7.0	
Control Delay (Worst Movement by MC)	sec	16.5	16.5 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	5.8	
Idling Time (Average)	sec	4.9	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	2.2	
Average Back of Queue - Dist (Worst Lane)	ft	57.8	
Ave. Que Storage Ratio (Worst Lane)		0.12	
Effective Stops (Total)	veh/h	71	85 pers/h
Effective Stop Rate		0.05	0.05
Proportion Queued		0.15	0.15
Performance Index		24.5	24.5
Cost (Total)	\$/h	276.17	276.17 \$/h
Fuel Consumption (Total)	gal/h	18.0	
Carbon Dioxide (Total)	kg/h	161.8	
Hydrocarbons (Total)	kg/h	0.015	
Carbon Monoxide (Total)	kg/h	0.16	
NOx (Total)	kg/h	0.501	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	747,130	896,557 pers/y
Arrival Flows (Total)	veh/y	714,936	
Delay (Total)	veh-h/y	1,161	1,393 pers-h/y
Effective Stops (Total)	veh/y	34,128	40,953 pers/y
Travel Distance (Total)	veh-mi/y	96,024	115,228 pers-mi/y
Travel Time (Total)	veh-h/y	4,380	5,256 pers-h/y
Cost (Total)	\$/y	132,561	132,561 \$/y
Fuel Consumption (Total)	gal/y	8,636	
Carbon Dioxide (Total)	kg/y	77,676	
Hydrocarbons (Total)	kg/y	7	
Carbon Monoxide (Total)	kg/y	76	
NOx (Total)	kg/y	240	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_no buff ext\_PM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / Brooke Street (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	37.6	37.6 mph
Travel Distance (Total)	veh-mi/h	260.8	312.9 pers-mi/h
Travel Time (Total)	veh-h/h	6.9	8.3 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.94	
Travel Time Index		9.33	
Congestion Coefficient		1.06	
Demand Flows (Total)	veh/h	1723	2067 pers/h
Arrival Flows (Total)	veh/h	1719	2063 pers/h
Percent Heavy Vehicles (Demand)	%	8.4	
Percent Heavy Vehicles (Arrivals)	%	8.4	
Degree of Saturation		0.255	
Practical Spare Capacity	%	285.0	
Effective Intersection Capacity	veh/h	6753	
Control Delay (Total)	veh-h/h	0.48	0.58 pers-h/h
Control Delay (Average)	sec	1.0	1.0 sec
Control Delay (Worst Lane by MC)	sec	37.7	
Control Delay (Worst Movement by MC)	sec	263.3	263.3 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	1.0	
Idling Time (Average)	sec	0.7	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.1	
Average Back of Queue - Dist (Worst Lane)	ft	2.9	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	19	23 pers/h
Effective Stop Rate		0.01	0.01
Proportion Queued		0.01	0.01
Performance Index		7.7	7.7
Cost (Total)	\$/h	175.05	175.05 \$/h
Fuel Consumption (Total)	gal/h	9.1	
Carbon Dioxide (Total)	kg/h	81.9	
Hydrocarbons (Total)	kg/h	0.006	
Carbon Monoxide (Total)	kg/h	0.10	
NOx (Total)	kg/h	0.201	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 92.4% 0.9% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	826,957	992,348 pers/y
Arrival Flows (Total)	veh/y	825,098	
Delay (Total)	veh-h/y	232	278 pers-h/y
Effective Stops (Total)	veh/y	9,034	10,841 pers/y
Travel Distance (Total)	veh-mi/y	125,161	150,193 pers-mi/y
Travel Time (Total)	veh-h/y	3,329	3,995 pers-h/y
Cost (Total)	\$/y	84,024	84,024 \$/y
Fuel Consumption (Total)	gal/y	4,351	
Carbon Dioxide (Total)	kg/y	39,315	
Hydrocarbons (Total)	kg/y	3	
Carbon Monoxide (Total)	kg/y	49	
NOx (Total)	kg/y	96	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_no buff ext\_PM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62/French Street (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	28.0	28.0 mph
Travel Distance (Total)	veh-mi/h	792.4	950.9 pers-mi/h
Travel Time (Total)	veh-h/h	28.3	34.0 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.70	
Travel Time Index		6.67	
Congestion Coefficient		1.43	
Demand Flows (Total)	veh/h	2196	2635 pers/h
Arrival Flows (Total)	veh/h	2176	2612 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.3	
Degree of Saturation		0.500	
Practical Spare Capacity	%	70.1	
Effective Intersection Capacity	veh/h	4354	
Control Delay (Total)	veh-h/h	5.36	6.43 pers-h/h
Control Delay (Average)	sec	8.9	8.9 sec
Control Delay (Worst Lane by MC)	sec	14.5	
Control Delay (Worst Movement by MC)	sec	33.7	33.7 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	8.9	
Idling Time (Average)	sec	5.6	
Intersection Level of Service (LOS)		LOS A	
Average Back of Queue - Veh (Worst Lane)	veh	1.0	
Average Back of Queue - Dist (Worst Lane)	ft	26.1	
Ave. Que Storage Ratio (Worst Lane)		0.03	
Effective Stops (Total)	veh/h	752	902 pers/h
Effective Stop Rate		0.35	0.35
Proportion Queued		0.49	0.49
Performance Index		47.2	47.2
Cost (Total)	\$/h	814.22	814.22 \$/h
Fuel Consumption (Total)	gal/h	50.2	
Carbon Dioxide (Total)	kg/h	452.0	
Hydrocarbons (Total)	kg/h	0.039	
Carbon Monoxide (Total)	kg/h	0.47	
NOx (Total)	kg/h	1.456	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,053,913	1,264,696 pers/y
Arrival Flows (Total)	veh/y	1,044,651	
Delay (Total)	veh-h/y	2,571	3,085 pers-h/y
Effective Stops (Total)	veh/y	360,917	433,100 pers/y
Travel Distance (Total)	veh-mi/y	380,369	456,443 pers-mi/y
Travel Time (Total)	veh-h/y	13,582	16,298 pers-h/y
Cost (Total)	\$/y	390,828	390,828 \$/y
Fuel Consumption (Total)	gal/y	24,102	
Carbon Dioxide (Total)	kg/y	216,942	
Hydrocarbons (Total)	kg/y	19	
Carbon Monoxide (Total)	kg/y	227	
NOx (Total)	kg/y	699	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / Main Street (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	36.6	36.6 mph
Travel Distance (Total)	veh-mi/h	643.7	772.5 pers-mi/h
Travel Time (Total)	veh-h/h	17.6	21.1 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.91	
Travel Time Index		9.06	
Congestion Coefficient		1.09	
Demand Flows (Total)	veh/h	2122	2546 pers/h
Arrival Flows (Total)	veh/h	2099	2518 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.3	
Degree of Saturation		0.387	
Practical Spare Capacity	%	146.5	
Effective Intersection Capacity	veh/h	5427	
Control Delay (Total)	veh-h/h	1.49	1.79 pers-h/h
Control Delay (Average)	sec	2.6	2.6 sec
Control Delay (Worst Lane by MC)	sec	63.1	
Control Delay (Worst Movement by MC)	sec	1703.3	1703.3 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	2.6	
Idling Time (Average)	sec	1.2	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.5	
Average Back of Queue - Dist (Worst Lane)	ft	13.7	
Ave. Que Storage Ratio (Worst Lane)		0.01	
Effective Stops (Total)	veh/h	150	180 pers/h
Effective Stop Rate		0.07	0.07
Proportion Queued		0.07	0.07
Performance Index		20.7	20.7
Cost (Total)	\$/h	449.04	449.04 \$/h
Fuel Consumption (Total)	gal/h	23.7	
Carbon Dioxide (Total)	kg/h	213.0	
Hydrocarbons (Total)	kg/h	0.017	
Carbon Monoxide (Total)	kg/h	0.26	
NOx (Total)	kg/h	0.536	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 93.7% 61.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,018,435	1,222,122 pers/y
Arrival Flows (Total)	veh/y	1,007,311	
Delay (Total)	veh-h/y	717	861 pers-h/y
Effective Stops (Total)	veh/y	71,957	86,349 pers/y
Travel Distance (Total)	veh-mi/y	308,988	370,786 pers-mi/y
Travel Time (Total)	veh-h/y	8,443	10,131 pers-h/y
Cost (Total)	\$/y	215,539	215,539 \$/y
Fuel Consumption (Total)	gal/y	11,357	
Carbon Dioxide (Total)	kg/y	102,248	
Hydrocarbons (Total)	kg/y	8	
Carbon Monoxide (Total)	kg/y	126	
NOx (Total)	kg/y	257	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62/ Ring Road (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

 Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	9.3	9.3 mph
Travel Distance (Total)	veh-mi/h	1069.7	1283.6 pers-mi/h
Travel Time (Total)	veh-h/h	115.1	138.2 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.23	
Travel Time Index		1.47	
Congestion Coefficient		4.31	
Demand Flows (Total)	veh/h	3832	4598 pers/h
Arrival Flows (Total)	veh/h	3791	4549 pers/h
Percent Heavy Vehicles (Demand)	%	8.2	
Percent Heavy Vehicles (Arrivals)	%	8.3	
Degree of Saturation		1.366	
Practical Spare Capacity	%	-37.8	
Effective Intersection Capacity	veh/h	2776	
Control Delay (Total)	veh-h/h	81.49	97.79 pers-h/h
Control Delay (Average)	sec	77.4	77.4 sec
Control Delay (Worst Lane by MC)	sec	203.3	
Control Delay (Worst Movement by MC)	sec	229.8	229.8 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	77.4	
Idling Time (Average)	sec	52.4	
Intersection Level of Service (LOS)		LOS F	
Average Back of Queue - Veh (Worst Lane)	veh	23.6	
Average Back of Queue - Dist (Worst Lane)	ft	628.8	
Ave. Que Storage Ratio (Worst Lane)		0.76	
Effective Stops (Total)	veh/h	6820	8184 pers/h
Effective Stop Rate		1.80	1.80
Proportion Queued		0.72	0.72
Performance Index		304.2	304.2
Cost (Total)	\$/h	2655.10	2655.10 \$/h
Fuel Consumption (Total)	gal/h	117.3	
Carbon Dioxide (Total)	kg/h	1055.8	
Hydrocarbons (Total)	kg/h	0.118	
Carbon Monoxide (Total)	kg/h	1.10	
NOx (Total)	kg/h	2.859	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 48.1% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,839,131	2,206,957 pers/y
Arrival Flows (Total)	veh/y	1,819,647	
Delay (Total)	veh-h/y	39,117	46,940 pers-h/y
Effective Stops (Total)	veh/y	3,273,718	3,928,462 pers/y
Travel Distance (Total)	veh-mi/y	513,444	616,132 pers-mi/y
Travel Time (Total)	veh-h/y	55,262	66,314 pers-h/y
Cost (Total)	\$/y	1,274,447	1,274,447 \$/y
Fuel Consumption (Total)	gal/y	56,301	
Carbon Dioxide (Total)	kg/y	506,796	
Hydrocarbons (Total)	kg/y	57	
Carbon Monoxide (Total)	kg/y	527	
NOx (Total)	kg/y	1,372	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / DolpinRoad (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	30.8	30.8 mph
Travel Distance (Total)	veh-mi/h	617.4	740.9 pers-mi/h
Travel Time (Total)	veh-h/h	20.0	24.0 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.77	
Travel Time Index		7.45	
Congestion Coefficient		1.30	
Demand Flows (Total)	veh/h	3364	4037 pers/h
Arrival Flows (Total)	veh/h	3078	3694 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	8.6	
Degree of Saturation		0.642	
Practical Spare Capacity	%	24.5	
Effective Intersection Capacity	veh/h	4792	
Control Delay (Total)	veh-h/h	5.03	6.04 pers-h/h
Control Delay (Average)	sec	5.9	5.9 sec
Control Delay (Worst Lane by MC)	sec	209.5	
Control Delay (Worst Movement by MC)	sec	3256.2	3256.2 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	5.9	
Idling Time (Average)	sec	3.3	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	1.0	
Average Back of Queue - Dist (Worst Lane)	ft	26.2	
Ave. Que Storage Ratio (Worst Lane)		0.02	
Effective Stops (Total)	veh/h	302	363 pers/h
Effective Stop Rate		0.10	0.10
Proportion Queued		0.09	0.09
Performance Index		28.6	28.6
Cost (Total)	\$/h	515.18	515.18 \$/h
Fuel Consumption (Total)	gal/h	27.5	
Carbon Dioxide (Total)	kg/h	247.4	
Hydrocarbons (Total)	kg/h	0.021	
Carbon Monoxide (Total)	kg/h	0.29	
NOx (Total)	kg/h	0.651	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.6 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 97.8% 69.9% 0.6%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,614,783	1,937,739 pers/y
Arrival Flows (Total)	veh/y	1,477,583	
Delay (Total)	veh-h/y	2,417	2,900 pers-h/y
Effective Stops (Total)	veh/y	145,028	174,033 pers/y
Travel Distance (Total)	veh-mi/y	296,376	355,651 pers-mi/y
Travel Time (Total)	veh-h/y	9,612	11,535 pers-h/y
Cost (Total)	\$/y	247,286	247,286 \$/y
Fuel Consumption (Total)	gal/y	13,180	
Carbon Dioxide (Total)	kg/y	118,753	
Hydrocarbons (Total)	kg/y	10	
Carbon Monoxide (Total)	kg/y	140	
NOx (Total)	kg/y	312	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_no buff ext\_PM.sip9

# INTERSECTION SUMMARY

Site: 101 [US 62/Commerce Drive (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	20.6	20.6 mph
Travel Distance (Total)	veh-mi/h	743.5	892.2 pers-mi/h
Travel Time (Total)	veh-h/h	36.1	43.3 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.51	
Travel Time Index		4.61	
Congestion Coefficient		1.94	
Demand Flows (Total)	veh/h	3245	3893 pers/h
Arrival Flows (Total)	veh/h	2979	3574 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	8.6	
Degree of Saturation		0.932	
Practical Spare Capacity	%	-8.8	
Effective Intersection Capacity	veh/h	3195	
Control Delay (Total)	veh-h/h	13.48	16.17 pers-h/h
Control Delay (Average)	sec	16.3	16.3 sec
Control Delay (Worst Lane by MC)	sec	65.1	
Control Delay (Worst Movement by MC)	sec	105.1	105.1 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	16.3	
Idling Time (Average)	sec	11.7	
Intersection Level of Service (LOS)		LOS C	
Average Back of Queue - Veh (Worst Lane)	veh	3.1	
Average Back of Queue - Dist (Worst Lane)	ft	81.4	
Ave. Que Storage Ratio (Worst Lane)		0.07	
Effective Stops (Total)	veh/h	1237	1484 pers/h
Effective Stop Rate		0.42	0.42
Proportion Queued		0.56	0.56
Performance Index		78.3	78.3
Cost (Total)	\$/h	998.57	998.57 \$/h
Fuel Consumption (Total)	gal/h	58.7	
Carbon Dioxide (Total)	kg/h	527.8	
Hydrocarbons (Total)	kg/h	0.048	
Carbon Monoxide (Total)	kg/h	0.54	
NOx (Total)	kg/h	1.683	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,557,391	1,868,870 pers/y
Arrival Flows (Total)	veh/y	1,429,758	
Delay (Total)	veh-h/y	6,469	7,763 pers-h/y
Effective Stops (Total)	veh/y	593,681	712,418 pers/y
Travel Distance (Total)	veh-mi/y	356,895	428,274 pers-mi/y
Travel Time (Total)	veh-h/y	17,338	20,805 pers-h/y
Cost (Total)	\$/y	479,315	479,315 \$/y
Fuel Consumption (Total)	gal/y	28,176	
Carbon Dioxide (Total)	kg/y	253,343	
Hydrocarbons (Total)	kg/y	23	
Carbon Monoxide (Total)	kg/y	257	
NOx (Total)	kg/y	808	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_no buff ext\_PM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / Executive / Buffalo Creek (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	13.8	13.8 mph
Travel Distance (Total)	veh-mi/h	552.6	663.1 pers-mi/h
Travel Time (Total)	veh-h/h	39.9	47.9 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.35	
Travel Time Index		2.73	
Congestion Coefficient		2.89	
Demand Flows (Total)	veh/h	3562	4274 pers/h
Arrival Flows (Total)	veh/h	3326	3991 pers/h
Percent Heavy Vehicles (Demand)	%	7.9	
Percent Heavy Vehicles (Arrivals)	%	8.5	
Degree of Saturation		3.928	
Practical Spare Capacity	%	-79.6	
Effective Intersection Capacity	veh/h	847	
Control Delay (Total)	veh-h/h	27.13	32.55 pers-h/h
Control Delay (Average)	sec	29.4	29.4 sec
Control Delay (Worst Lane by MC)	sec	1963.6	
Control Delay (Worst Movement by MC)	sec	10681.6	10681.6 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	29.4	
Idling Time (Average)	sec	25.0	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	4.6	
Average Back of Queue - Dist (Worst Lane)	ft	121.6	
Ave. Que Storage Ratio (Worst Lane)		0.08	
Effective Stops (Total)	veh/h	633	759 pers/h
Effective Stop Rate		0.19	0.19
Proportion Queued		0.15	0.15
Performance Index		80.9	80.9
Cost (Total)	\$/h	878.34	878.34 \$/h
Fuel Consumption (Total)	gal/h	35.1	
Carbon Dioxide (Total)	kg/h	315.6	
Hydrocarbons (Total)	kg/h	0.033	
Carbon Monoxide (Total)	kg/h	0.36	
NOx (Total)	kg/h	0.779	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 99.4% 75.3% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,709,739	2,051,687 pers/y
Arrival Flows (Total)	veh/y	1,596,345	
Delay (Total)	veh-h/y	13,021	15,625 pers-h/y
Effective Stops (Total)	veh/y	303,725	364,470 pers/y
Travel Distance (Total)	veh-mi/y	265,240	318,288 pers-mi/y
Travel Time (Total)	veh-h/y	19,167	23,000 pers-h/y
Cost (Total)	\$/y	421,601	421,601 \$/y
Fuel Consumption (Total)	gal/y	16,825	
Carbon Dioxide (Total)	kg/y	151,486	
Hydrocarbons (Total)	kg/y	16	
Carbon Monoxide (Total)	kg/y	172	
NOx (Total)	kg/y	374	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

Site: 101v [US 62 / I-65 SB - Conversion (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	16.6	16.6 mph
Travel Distance (Total)	veh-mi/h	795.0	954.0 pers-mi/h
Travel Time (Total)	veh-h/h	48.0	57.5 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.41	
Travel Time Index		3.49	
Congestion Coefficient		2.41	
Demand Flows (Total)	veh/h	3424	4109 pers/h
Arrival Flows (Total)	veh/h	3254	3904 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	9.4	
Degree of Saturation		1.162	
Practical Spare Capacity	%	-26.8	
Effective Intersection Capacity	veh/h	2801	
Control Delay (Total)	veh-h/h	25.36	30.44 pers-h/h
Control Delay (Average)	sec	28.1	28.1 sec
Control Delay (Worst Lane by MC)	sec	123.9	
Control Delay (Worst Movement by MC)	sec	155.4	155.4 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	28.1	
Idling Time (Average)	sec	15.7	
Intersection Level of Service (LOS)		LOS D	
Average Back of Queue - Veh (Worst Lane)	veh	11.7	
Average Back of Queue - Dist (Worst Lane)	ft	314.2	
Ave. Que Storage Ratio (Worst Lane)		0.33	
Effective Stops (Total)	veh/h	2651	3182 pers/h
Effective Stop Rate		0.81	0.81
Proportion Queued		0.53	0.53
Performance Index		104.1	104.1
Cost (Total)	\$/h	1281.20	1281.20 \$/h
Fuel Consumption (Total)	gal/h	72.0	
Carbon Dioxide (Total)	kg/h	649.7	
Hydrocarbons (Total)	kg/h	0.064	
Carbon Monoxide (Total)	kg/h	0.67	
NOx (Total)	kg/h	2.054	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,643,478	1,972,174 pers/y
Arrival Flows (Total)	veh/y	1,561,756	
Delay (Total)	veh-h/y	12,175	14,610 pers-h/y
Effective Stops (Total)	veh/y	1,272,639	1,527,167 pers/y
Travel Distance (Total)	veh-mi/y	381,619	457,943 pers-mi/y
Travel Time (Total)	veh-h/y	23,018	27,622 pers-h/y
Cost (Total)	\$/y	614,977	614,977 \$/y
Fuel Consumption (Total)	gal/y	34,580	
Carbon Dioxide (Total)	kg/y	311,864	
Hydrocarbons (Total)	kg/y	31	
Carbon Monoxide (Total)	kg/y	322	
NOx (Total)	kg/y	986	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

Site: 101v [US 62 / I-65 NB - Conversion (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Roundabout

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	22.7	22.7 mph
Travel Distance (Total)	veh-mi/h	531.6	637.9 pers-mi/h
Travel Time (Total)	veh-h/h	23.4	28.1 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.57	
Travel Time Index		5.20	
Congestion Coefficient		1.76	
Demand Flows (Total)	veh/h	2217	2661 pers/h
Arrival Flows (Total)	veh/h	2115	2538 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	9.3	
Degree of Saturation		0.746	
Practical Spare Capacity	%	13.9	
Effective Intersection Capacity	veh/h	2834	
Control Delay (Total)	veh-h/h	7.65	9.19 pers-h/h
Control Delay (Average)	sec	13.0	13.0 sec
Control Delay (Worst Lane by MC)	sec	30.7	
Control Delay (Worst Movement by MC)	sec	55.8	55.8 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	13.0	
Idling Time (Average)	sec	6.5	
Intersection Level of Service (LOS)		LOS B	
Average Back of Queue - Veh (Worst Lane)	veh	1.9	
Average Back of Queue - Dist (Worst Lane)	ft	51.2	
Ave. Que Storage Ratio (Worst Lane)		0.09	
Effective Stops (Total)	veh/h	1062	1274 pers/h
Effective Stop Rate		0.50	0.50
Proportion Queued		0.43	0.43
Performance Index		36.7	36.7
Cost (Total)	\$/h	678.36	678.36 \$/h
Fuel Consumption (Total)	gal/h	42.2	
Carbon Dioxide (Total)	kg/h	380.0	
Hydrocarbons (Total)	kg/h	0.034	
Carbon Monoxide (Total)	kg/h	0.38	
NOx (Total)	kg/h	1.268	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Roundabout LOS Method: Same as Sign Control.

Intersection LOS value for Vehicles is based on average delay for all vehicle movements.

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0% 0.0% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	1,064,348	1,277,217 pers/y
Arrival Flows (Total)	veh/y	1,015,153	
Delay (Total)	veh-h/y	3,674	4,409 pers-h/y
Effective Stops (Total)	veh/y	509,597	611,517 pers/y
Travel Distance (Total)	veh-mi/y	255,163	306,196 pers-mi/y
Travel Time (Total)	veh-h/y	11,239	13,487 pers-h/y
Cost (Total)	\$/y	325,613	325,613 \$/y
Fuel Consumption (Total)	gal/y	20,236	
Carbon Dioxide (Total)	kg/y	182,394	
Hydrocarbons (Total)	kg/y	16	
Carbon Monoxide (Total)	kg/y	183	
NOx (Total)	kg/y	608	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / Medley Lane (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	34.9	34.9 mph
Travel Distance (Total)	veh-mi/h	152.3	182.7 pers-mi/h
Travel Time (Total)	veh-h/h	4.4	5.2 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.87	
Travel Time Index		8.59	
Congestion Coefficient		1.15	
Demand Flows (Total)	veh/h	1538	1846 pers/h
Arrival Flows (Total)	veh/h	1470	1764 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	9.3	
Degree of Saturation		0.241	
Practical Spare Capacity	%	306.5	
Effective Intersection Capacity	veh/h	6098	
Control Delay (Total)	veh-h/h	1.30	1.56 pers-h/h
Control Delay (Average)	sec	3.2	3.2 sec
Control Delay (Worst Lane by MC)	sec	54.5	
Control Delay (Worst Movement by MC)	sec	936.1	936.1 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	3.2	
Idling Time (Average)	sec	0.9	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.2	
Average Back of Queue - Dist (Worst Lane)	ft	5.7	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	35	42 pers/h
Effective Stop Rate		0.02	0.02
Proportion Queued		0.03	0.03
Performance Index		6.8	6.8
Cost (Total)	\$/h	111.41	111.41 \$/h
Fuel Consumption (Total)	gal/h	5.9	
Carbon Dioxide (Total)	kg/h	52.9	
Hydrocarbons (Total)	kg/h	0.004	
Carbon Monoxide (Total)	kg/h	0.06	
NOx (Total)	kg/h	0.138	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 94.7% 50.8% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	738,261	885,913 pers/y
Arrival Flows (Total)	veh/y	705,632	
Delay (Total)	veh-h/y	625	750 pers-h/y
Effective Stops (Total)	veh/y	16,681	20,017 pers/y
Travel Distance (Total)	veh-mi/y	73,085	87,702 pers-mi/y
Travel Time (Total)	veh-h/y	2,092	2,511 pers-h/y
Cost (Total)	\$/y	53,475	53,475 \$/y
Fuel Consumption (Total)	gal/y	2,823	
Carbon Dioxide (Total)	kg/y	25,406	
Hydrocarbons (Total)	kg/y	2	
Carbon Monoxide (Total)	kg/y	31	
NOx (Total)	kg/y	66	

1 Hours per Year: 480 (Network)

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Project: C:\Users\garrisonbj\Documents\Sidra\US 62 Roundabout Corridor\_no buff ext\_PM.sip9

# INTERSECTION SUMMARY

 Site: 101 [US 62 / McCormack (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	34.2	34.2 mph
Travel Distance (Total)	veh-mi/h	141.2	169.4 pers-mi/h
Travel Time (Total)	veh-h/h	4.1	4.9 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.86	
Travel Time Index		8.40	
Congestion Coefficient		1.17	
Demand Flows (Total)	veh/h	1467	1761 pers/h
Arrival Flows (Total)	veh/h	1404	1685 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	9.3	
Degree of Saturation		0.420	
Practical Spare Capacity	%	133.1	
Effective Intersection Capacity	veh/h	3340	
Control Delay (Total)	veh-h/h	0.49	0.59 pers-h/h
Control Delay (Average)	sec	1.3	1.3 sec
Control Delay (Worst Lane by MC)	sec	33.7	
Control Delay (Worst Movement by MC)	sec	85.6	85.6 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	1.3	
Idling Time (Average)	sec	1.0	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.2	
Average Back of Queue - Dist (Worst Lane)	ft	6.3	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	32	38 pers/h
Effective Stop Rate		0.02	0.02
Proportion Queued		0.02	0.02
Performance Index		5.2	5.2
Cost (Total)	\$/h	107.59	107.59 \$/h
Fuel Consumption (Total)	gal/h	5.9	
Carbon Dioxide (Total)	kg/h	52.8	
Hydrocarbons (Total)	kg/h	0.004	
Carbon Monoxide (Total)	kg/h	0.06	
NOx (Total)	kg/h	0.147	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 90.7% 0.9% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	704,348	845,217 pers/y
Arrival Flows (Total)	veh/y	674,058	
Delay (Total)	veh-h/y	234	281 pers-h/y
Effective Stops (Total)	veh/y	15,157	18,189 pers/y
Travel Distance (Total)	veh-mi/y	67,757	81,308 pers-mi/y
Travel Time (Total)	veh-h/y	1,979	2,375 pers-h/y
Cost (Total)	\$/y	51,642	51,642 \$/y
Fuel Consumption (Total)	gal/y	2,811	
Carbon Dioxide (Total)	kg/y	25,333	
Hydrocarbons (Total)	kg/y	2	
Carbon Monoxide (Total)	kg/y	30	
NOx (Total)	kg/y	70	

1 Hours per Year: 480 (Network)

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# INTERSECTION SUMMARY

 Site: 101 [US 62 / Gregory (Site Folder: US 62 Roundabout Corridor PM)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

■ Network: N101 [US 62 Roundabout Corridor (PM) (Network Folder: General)]

New Site  
Site Category: (None)  
Stop (Two-Way)

Intersection Performance - Hourly Values			
Performance Measure	Vehicles:	All MCs	Persons
Travel Speed (Average)	mph	36.9	36.9 mph
Travel Distance (Total)	veh-mi/h	467.8	561.4 pers-mi/h
Travel Time (Total)	veh-h/h	12.7	15.2 pers-h/h
Desired Speed	mph	40.0	
Speed Efficiency		0.92	
Travel Time Index		9.14	
Congestion Coefficient		1.08	
Demand Flows (Total)	veh/h	1402	1683 pers/h
Arrival Flows (Total)	veh/h	1345	1614 pers/h
Percent Heavy Vehicles (Demand)	%	8.9	
Percent Heavy Vehicles (Arrivals)	%	9.3	
Degree of Saturation		0.385	
Practical Spare Capacity	%	154.8	
Effective Intersection Capacity	veh/h	3496	
Control Delay (Total)	veh-h/h	0.88	1.06 pers-h/h
Control Delay (Average)	sec	2.4	2.4 sec
Control Delay (Worst Lane by MC)	sec	29.0	
Control Delay (Worst Movement by MC)	sec	94.2	94.2 sec
Geometric Delay (Average)	sec	0.0	
Stop-Line Delay (Average)	sec	2.4	
Idling Time (Average)	sec	2.1	
Intersection Level of Service (LOS)		NA	
Average Back of Queue - Veh (Worst Lane)	veh	0.2	
Average Back of Queue - Dist (Worst Lane)	ft	5.3	
Ave. Que Storage Ratio (Worst Lane)		0.00	
Effective Stops (Total)	veh/h	31	37 pers/h
Effective Stop Rate		0.02	0.02
Proportion Queued		0.02	0.02
Performance Index		13.7	13.7
Cost (Total)	\$/h	319.83	319.83 \$/h
Fuel Consumption (Total)	gal/h	16.6	
Carbon Dioxide (Total)	kg/h	150.6	
Hydrocarbons (Total)	kg/h	0.012	
Carbon Monoxide (Total)	kg/h	0.19	
NOx (Total)	kg/h	0.375	

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard (HCM).

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand effects.

In Network analysis, Arrival Flows will be reduced if Upstream Capacity Constraint exists.

Gap-Acceptance Capacity Formula: Traditional M1.

Site Model Variability Index (Average value of largest changes in Lane Degrees of Saturation from the third to the last Main (Timing-Capacity) Iterations): 0.0 %

Number of Iterations: 3 (Maximum: 10)

Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 89.1% 0.8% 0.0%

## Intersection Performance - Annual Values

Performance Measure	Vehicles:	All MCs	Persons
Demand Flows (Total)	veh/y	673,043	807,652 pers/y
Arrival Flows (Total)	veh/y	645,463	
Delay (Total)	veh-h/y	424	508 pers-h/y
Effective Stops (Total)	veh/y	14,898	17,878 pers/y
Travel Distance (Total)	veh-mi/y	224,556	269,467 pers-mi/y
Travel Time (Total)	veh-h/y	6,085	7,302 pers-h/y
Cost (Total)	\$/y	153,520	153,520 \$/y
Fuel Consumption (Total)	gal/y	7,944	
Carbon Dioxide (Total)	kg/y	72,268	
Hydrocarbons (Total)	kg/y	6	
Carbon Monoxide (Total)	kg/y	89	
NOx (Total)	kg/y	180	

1 Hours per Year: 480 (Network)

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