

1: SR 141 & Old Alabama Rd  
 Alt 3 Opening Year plus Two Years 2024 AM.syn



Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	730	455	385	1905	5	2280	730
Future Volume (vph)	730	455	385	1905	5	2280	730
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	12	12	11
Total Lost time (s)	6.2	6.2	6.2	6.8	6.8	6.6	6.6
Lane Util. Factor	0.97	1.00	0.97	0.95	1.00	0.95	1.00
Fr <sub>t</sub>	1.00	0.85	1.00	1.00	1.00	1.00	0.85
Fl <sub>t</sub> Protected	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3164	1509	3273	3374	1687	3374	1459
Fl <sub>t</sub> Permitted	0.95	1.00	0.95	1.00	0.06	1.00	1.00
Satd. Flow (perm)	3164	1509	3273	3374	99	3374	1459
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	753	469	397	1964	5	2351	753
RTOR Reduction (vph)	0	3	0	0	0	0	150
Lane Group Flow (vph)	753	466	397	1964	5	2351	603
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	7%
Turn Type	Prot	pm+ov	Prot	NA	pm+pt	NA	Perm
Protected Phases	4	1	1	6	5	2	
Permitted Phases		4			2		2
Actuated Green, G (s)	32.0	49.0	17.0	110.8	96.2	95.0	95.0
Effective Green, g (s)	30.8	46.6	15.8	110.0	93.2	94.4	94.4
Actuated g/C Ratio	0.19	0.29	0.10	0.69	0.58	0.59	0.59
Clearance Time (s)	5.0	5.0	5.0	6.0	5.0	6.0	6.0
Vehicle Extension (s)	4.0	3.0	3.0	6.0	2.0	6.0	6.0
Lane Grp Cap (vph)	609	497	323	2319	57	1990	860
v/s Ratio Prot	c0.24	c0.09	c0.12	0.58		c0.70	
v/s Ratio Perm		0.22			0.05		0.41
v/c Ratio	1.24	0.94	1.23	0.85	0.09	1.18	0.70
Uniform Delay, d <sub>1</sub>	64.6	55.3	72.1	18.7	14.7	32.8	22.9
Progression Factor	1.00	1.00	1.00	1.00	0.48	0.36	0.17
Incremental Delay, d <sub>2</sub>	120.1	25.4	127.3	4.1	0.1	83.7	1.7
Delay (s)	184.7	80.7	199.4	22.8	7.2	95.5	5.6
Level of Service	F	F	F	C	A	F	A
Approach Delay (s)	144.8			52.5		73.6	
Approach LOS	F			D		E	

Intersection Summary

HCM 2000 Control Delay	79.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.8
Intersection Capacity Utilization	110.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

2: SR 141 & Medlock Crossing Pkwy  
 Alt 3 Opening Year plus Two Years 2024 AM.syn



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations	↔	↑	↗	↔	↑	↗		↔	↑↑↑		↔	↔
Traffic Volume (vph)	85	15	510	120	60	10	10	290	2285	45	350	0
Future Volume (vph)	85	15	510	120	60	10	10	290	2285	45	350	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	12	12	8	13	10	12	11	12	12	12	12
Total Lost time (s)	5.1	5.1	5.1	5.4	5.4	5.4		6.0	6.8		5.0	6.1
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	0.91		0.86	0.95
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	1.00	0.85		1.00	1.00		1.00	1.00
Fl <sub>t</sub> Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.95	1.00		0.95	0.95
Satd. Flow (prot)	1743	1776	1509	1462	1835	1409		1631	4834		1451	1603
Fl <sub>t</sub> Permitted	0.61	1.00	1.00	0.75	1.00	1.00		0.05	1.00		0.95	0.95
Satd. Flow (perm)	1111	1776	1509	1150	1835	1409		81	4834		1451	1603
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	89	16	531	125	62	10	10	302	2380	47	365	0
RTOR Reduction (vph)	0	0	170	0	0	8	0	0	1	0	0	0
Lane Group Flow (vph)	89	16	361	125	63	2	0	312	2426	0	182	183
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	pm+pt	NA		Prot	Prot
Protected Phases	3	8			4		1	1	6		5	5
Permitted Phases	8		8	4		4	6	6				
Actuated Green, G (s)	37.0	37.0	37.0	28.0	28.0	28.0		112.0	85.4		21.6	21.6
Effective Green, g (s)	36.9	36.9	36.9	27.6	27.6	27.6		110.4	84.6		21.6	20.5
Actuated g/C Ratio	0.23	0.23	0.23	0.17	0.17	0.17		0.69	0.53		0.14	0.13
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0	6.0		5.0	5.0
Vehicle Extension (s)	3.0	5.0	5.0	3.0	3.0	3.0		3.0	6.0		3.0	3.0
Lane Grp Cap (vph)	271	409	348	198	316	243		307	2555		195	205
v/s Ratio Prot	0.01	0.01			0.03			c0.16	c0.50		0.13	0.11
v/s Ratio Perm	0.07		c0.24	0.11		0.00		c0.53				
v/c Ratio	0.33	0.04	1.04	0.63	0.20	0.01		1.02	0.95		0.93	0.89
Uniform Delay, d <sub>1</sub>	51.9	47.8	61.5	61.5	56.7	54.8		57.6	35.7		68.5	68.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.98	0.88		1.03	0.00
Incremental Delay, d <sub>2</sub>	0.7	0.1	58.2	6.4	0.3	0.0		35.3	4.1		8.1	34.9
Delay (s)	52.6	47.9	119.8	67.9	57.0	54.9		91.8	35.4		78.7	34.9
Level of Service	D	D	F	E	E	D		F	D		E	C
Approach Delay (s)		108.6			63.8				41.8			
Approach LOS		F			E				D			

Intersection Summary		
HCM 2000 Control Delay	51.0	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	1.08	D
Actuated Cycle Length (s)	160.0	Sum of lost time (s)
Intersection Capacity Utilization	118.8%	23.4
Analysis Period (min)	15	ICU Level of Service
		H

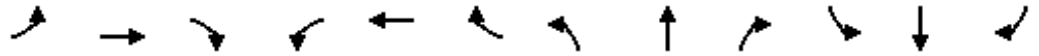
c Critical Lane Group

2: SR 141 & Medlock Crossing Pkwy  
 Alt 3 Opening Year plus Two Years 2024 AM.syn



Movement	SBT	SBR
Lane Configurations	↑↑↑	↔
Traffic Volume (vph)	2185	115
Future Volume (vph)	2185	115
Ideal Flow (vphpl)	1900	1900
Lane Width	12	11
Total Lost time (s)	6.5	
Lane Util. Factor	0.91	
Frt	0.99	
Flt Protected	1.00	
Satd. Flow (prot)	4811	
Flt Permitted	1.00	
Satd. Flow (perm)	4811	
Peak-hour factor, PHF	0.96	0.96
Adj. Flow (vph)	2276	120
RTOR Reduction (vph)	4	0
Lane Group Flow (vph)	2392	0
Heavy Vehicles (%)	7%	7%
Turn Type	NA	
Protected Phases	2	
Permitted Phases		
Actuated Green, G (s)	80.0	
Effective Green, g (s)	79.5	
Actuated g/C Ratio	0.50	
Clearance Time (s)	6.0	
Vehicle Extension (s)	6.0	
Lane Grp Cap (vph)	2390	
v/s Ratio Prot	0.50	
v/s Ratio Perm		
v/c Ratio	1.00	
Uniform Delay, d1	40.2	
Progression Factor	0.95	
Incremental Delay, d2	5.8	
Delay (s)	44.2	
Level of Service	D	
Approach Delay (s)	45.9	
Approach LOS	D	
<b>Intersection Summary</b>		

3: SR 141 & State Bridge Rd  
 Alt 3 Opening Year plus Two Years 2024 AM.syn



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑↑		↑↑	↑↑		↑↑	↑↑		↑↑	↑↑
Traffic Volume (vph)	0	1015	675	0	1540	850	0	1765	920	0	2065	380
Future Volume (vph)	0	1015	675	0	1540	850	0	1765	920	0	2065	380
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	12	12	11	12	11	12	12	11
Total Lost time (s)		7.1	7.1		7.3	7.3		6.4	6.4		7.0	7.0
Lane Util. Factor		0.95	0.88		0.95	0.88		0.95	0.88		0.95	1.00
Fr <sub>t</sub>		1.00	0.85		1.00	0.85		1.00	0.85		1.00	0.85
Fl <sub>t</sub> Protected		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)		3374	2656		3374	2656		3374	2568		3374	1459
Fl <sub>t</sub> Permitted		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)		3374	2656		3374	2656		3374	2568		3374	1459
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1046	696	0	1588	876	0	1820	948	0	2129	392
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	12
Lane Group Flow (vph)	0	1046	696	0	1588	876	0	1820	948	0	2129	380
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Turn Type		NA	Perm		NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			6			2	
Permitted Phases			4			8			6			2
Actuated Green, G (s)		62.2	62.2		62.2	62.2		84.1	84.1		84.1	84.1
Effective Green, g (s)		61.9	61.9		61.7	61.7		84.6	84.6		84.0	84.0
Actuated g/C Ratio		0.39	0.39		0.39	0.39		0.53	0.53		0.52	0.52
Clearance Time (s)		6.8	6.8		6.8	6.8		6.9	6.9		6.9	6.9
Vehicle Extension (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
Lane Grp Cap (vph)		1305	1027		1301	1024		1784	1357		1771	765
v/s Ratio Prot		0.31			c0.47			0.54			c0.63	
v/s Ratio Perm			0.26			0.33			0.37			0.26
v/c Ratio		0.80	0.68		1.22	0.86		1.02	0.70		1.20	0.50
Uniform Delay, d <sub>1</sub>		43.6	40.8		49.1	45.1		37.7	28.2		38.0	24.4
Progression Factor		0.33	1.29		0.78	0.79		0.16	0.54		0.60	1.80
Incremental Delay, d <sub>2</sub>		3.4	1.4		106.2	7.5		18.5	1.2		93.6	0.9
Delay (s)		18.0	54.1		144.5	43.1		24.5	16.5		116.5	44.7
Level of Service		B	D		F	D		C	B		F	D
Approach Delay (s)		32.4			108.5			21.7			105.3	
Approach LOS		C			F			C			F	

Intersection Summary

HCM 2000 Control Delay	68.4	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	14.3
Intersection Capacity Utilization	111.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group