

**Research Forest Dr & Grogans Mill Road**

23 Control Traffic Signal									
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)	
Northbound	NBL	--		A				<b>11.8</b>	
	NBT	--		A					
	NBR	--		A					
Eastbound	EBL	--		A				Intersection LOS	
	EBT	--		A					
	EBR	--		A					
Southbound	SBL			A				<b>B</b>	
	SBT	234	40.5	D	0.55		200		
	SBR	169	40.5	D	0.55		200		
Westbound	WBL	323	5.8	A	0.64		90	Max Movement V/C	<b>0.64</b>
	WBT	1616	5.8	A	0.64		90		
	WBR	--		A					
Operations:						HCM2000			

20 Control Traffic Signal									
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)	
Northbound	NBL			A				<b>23.5</b>	
	NBT			A					
	NBR			A					
Eastbound	EBL			A				Intersection LOS	
	EBT	1466	18.1	B	0.45		500		
	EBR	511	20.8	C	0.51		545		
Southbound	SBL	51	40.3	D	0.67		245	<b>C</b>	
	SBT	504	40.3	D	0.67		245		
	SBR			A					
Westbound	WBL			A				Max Movement V/C	<b>0.67</b>
	WBT			A					
	WBR			A					
Operations:						HCM2000			

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53 Control Traffic Signal									
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)	
Northbound	NBL	266	31.0	C	0.82		30	<b>51.1</b>	
	NBT	667	2.6	A	0.38		30		
	NBR			A					
Eastbound	EBL			A				Intersection LOS	
	EBT			A					
	EBR			A					
Southbound	SBL			A				<b>D</b>	
	SBT	504	24.5	C	0.38		80		
	SBR	30	23.4	C	0.07		25		
Westbound	WBL	105	94.0	F	1.06		753	Max Movement V/C	<b>1.06</b>
	WBT	782	94.0	F	1.06		753		
	WBR	314	94.0	F	1.06		753		
Operations:						HCM2000			

54 Control Traffic Signal									
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)	
Northbound	NBL			A				<b>20.7</b>	
	NBT	887	23.3	C	0.55		130		
	NBR	159	20.5	C	0.32		73		
Eastbound	EBL	49	26.2	C	0.46		130	Intersection LOS	
	EBT	487	26.2	C	0.46		130		
	EBR	298	27.9	C	0.56		150		
Southbound	SBL	71	12.6	B	0.32		25	<b>C</b>	
	SBT	541	8.2	A	0.31		80		
	SBR			A					
Westbound	WBL			A				Max Movement V/C	<b>0.56</b>
	WBT			A					
	WBR			A					
Operations:						HCM2000			

21 Control Traffic Signal									
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)	
Northbound	NBL	206	28.9	C	0.64		25	<b>20.6</b>	
	NBT	269	28.9	C	0.64		350		
	NBR			A					
Eastbound	EBL			A				Intersection LOS	
	EBT			A					
	EBR			A					
Southbound	SBL			A				<b>C</b>	
	SBT			A					
	SBR			A					
Westbound	WBL			A				Max Movement V/C	<b>0.75</b>
	WBT	1722	18.5	B	0.50		680		
	WBR	219	18.5	B	0.75		680		
Operations:						HCM2000			

22 Control Traffic Signal									
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)	
Northbound	NBL			A				<b>12.1</b>	
	NBT	330	43.2	D	0.41		135		
	NBR	152	45.0	D	0.42		125		
Eastbound	EBL	148	2.0	A	0.47		25	Intersection LOS	
	EBT	1368	2.0	A	0.47		25		
	EBR			A					
Southbound	SBL			A				<b>B</b>	
	SBT			A					
	SBR			A					
Westbound	WBL			A				Max Movement V/C	<b>0.47</b>
	WBT			A					
	WBR			A					
Operations:						HCM2000			

AM Peak Hour - Total Movement Delays									
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)	
Northbound	NBL	206	77.9	E	0.64		135	<b>33.5</b>	
	NBT	124	72.1	E	0.64		350		
	NBR	152	45.0	D	0.42		125		
Eastbound	EBL	148	49.0	D	0.64		500	Intersection LOS	
	EBT	1318	20.1	C	0.47		500		
	EBR	511	20.8	C	0.51		545		
Southbound	SBL	51	82.8	F	0.67		245	<b>C</b>	
	SBT	183	80.8	F	0.67		245		
	SBR	169	40.5	D	0.55		200		
Westbound	WBL	323	64.6	E	0.67		680	Max Movement V/C	<b>0.75</b>
	WBT	1399	24.3	C	0.64		680		
	WBR	219	18.5	B	0.75		680		
Operations:						HCM2000			

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Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL			A				<b>21.1</b>
	NBT			A				
	NBR			A				
Eastbound	EBL			A				Intersection LOS
	EBT			A				
	EBR			A				
Southbound	SBL			A				<b>C</b>
	SBT	209	38.8	D	0.49		230	
	SBR	230	38.8	D	0.49		230	
Westbound	WBL	158	17.3	B	0.74		500	Max Movement V/C
	WBT	1881	17.3	B	0.74		500	
	WBR			A				
Operations:								HCM2000

Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL	538	13.4	B	0.78		60	<b>27.2</b>
	NBT	234	42.8	D	0.77		470	
	NBR			A				
Eastbound	EBL			A				Intersection LOS
	EBT			A				
	EBR			A				
Southbound	SBL			A				<b>C</b>
	SBT			A				
	SBR			A				
Westbound	WBL	1531	26.7	C	0.57		540	Max Movement V/C
	WBT			A				
	WBR	123	26.7	C	0.57		540	
Operations:								HCM2000

PM Peak Hour - Total Movement Delays								
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL	538	61.1	E	0.78		285	<b>40.3</b>
	NBT	108	73.2	E	0.77		470	
	NBR	248	30.4	C	0.56		240	
Eastbound	EBL	131	64.8	E	0.77		500	Intersection LOS
	EBT	1264	22.0	C	0.53		500	
	EBR	304	15.6	B	0.36		290	
Southbound	SBL	62	73.1	E	0.53		230	<b>D</b>
	SBT	147	70.0	E	0.49		230	
	SBR	230	38.8	D	0.49		230	
Westbound	WBL	158	75.2	D	0.74		540	Max Movement V/C
	WBT	1373	44.0	D	0.74		540	
	WBR	123	26.7	C	0.57		540	
Operations:								HCM2000

Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL			A				<b>20.6</b>
	NBT			A				
	NBR			A				
Eastbound	EBL			A				Intersection LOS
	EBT	1395	18.9	B	0.51		500	
	EBR	304	15.6	B	0.36		290	
Southbound	SBL	62	31.2	C	0.39		135	<b>C</b>
	SBT	302	31.2	C	0.39		135	
	SBR			A				
Westbound	WBL			A				Max Movement V/C
	WBT			A				
	WBR			A				
Operations:								HCM2000

Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL			A				<b>13.3</b>
	NBT	646	30.4	C	0.65		285	
	NBR	248	30.4	C	0.56		240	
Eastbound	EBL	131	3.1	A	0.53		40	Intersection LOS
	EBT	1352	3.1	A	0.53		40	
	EBR			A				
Southbound	SBL			A				<b>B</b>
	SBT			A				
	SBR			A				
Westbound	WBL			A				Max Movement V/C
	WBT			A				
	WBR			A				
Operations:								HCM2000

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Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL	467	49.9	D	0.96		600	<b>50.7</b>
	NBT	614	1.1	A	0.30		25	
	NBR			A				
Eastbound	EBL			A				Intersection LOS
	EBT			A				
	EBR			A				
Southbound	SBL			A				<b>D</b>
	SBT	717	38.8	D	0.55		300	
	SBR	85	39.0	D	0.21		135	
Westbound	WBL	168	88.5	F	1.04		700	Max Movement V/C
	WBT	802	88.5	F	1.04		700	
	WBR	94	88.5	F	1.04		700	
Operations:								HCM2000

Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL			A				<b>32.8</b>
	NBT	1011	22.2	C	0.55		170	
	NBR	251	22.0	C	0.45		140	
Eastbound	EBL	18	42.5	D	0.74		355	Intersection LOS
	EBT	730	42.5	F	1.02		355	
	EBR	454	89.3	F	1.02		670	
Southbound	SBL	171	16.7	B	0.62		305	<b>C</b>
	SBT	708	9.1	A	0.36		100	
	SBR			A				
Westbound	WBL			A				Max Movement V/C
	WBT			A				
	WBR			A				
Operations:								HCM2000

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Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL			A				<b>14.3</b>
	NBT			A				
	NBR			A				
Eastbound	EBL			A				Intersection LOS
	EBT			A				
	EBR			A				
Southbound	SBL			A				<b>B</b>
	SBT	331	39.8	D	0.65		280	
	SBR	218	39.8	D	0.65		280	
Westbound	WBL			A				Max Movement V/C
	WBT	416	8.3	A	0.80		120	
	WBR	1881	8.3	A	0.80		120	
Operations:								HCM2000

Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL	265	4.9	A	0.56		25	<b>27.2</b>
	NBT	380	52.1	D	0.91		530	
	NBR			A				
Eastbound	EBL			A				Intersection LOS
	EBT			A				
	EBR			A				
Southbound	SBL			A				<b>C</b>
	SBT			A				
	SBR			A				
Westbound	WBL	2004	25.1	C	0.80		795	Max Movement V/C
	WBT			A				
	WBR	282	25.1	C	0.80		795	
Operations:								HCM2000

		AM Peak Hour - Total Movement Delays						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL	265	57.2	E	0.90		260	<b>38.4</b>
	NBT	201	96.1	F	0.91		530	
	NBR	196	44.3	D	0.47		245	
Eastbound	EBL	191	77.7	E	0.91		565	Intersection LOS
	EBT	1515	25.6	C	0.82		555	
	EBR	658	29.2	C	0.82		675	
Southbound	SBL	66	82.0	F	0.65		360	<b>D</b>
	SBT	265	79.2	E	0.69		360	
	SBR	218	39.8	D	0.65		280	
Westbound	WBL	0	64.5	E	0.80		795	Max Movement V/C
	WBT	2004	33.4	C	0.80		795	
	WBR	282	25.1	C	0.80		795	
Operations:								HCM2000

Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL			A				<b>28.3</b>
	NBT			A				
	NBR			A				
Eastbound	EBL			A				Intersection LOS
	EBT	1706	22.8	C	0.82		555	
	EBR	658	29.2	C	0.82		675	
Southbound	SBL	66	39.4	D	0.56		360	<b>C</b>
	SBT	712	39.4	D	0.69		360	
	SBR			A				
Westbound	WBL			A				Max Movement V/C
	WBT			A				
	WBR			A				
Operations:								HCM2000

Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL			A				<b>14.0</b>
	NBT	466	44.0	D	0.50		260	
	NBR	196	44.3	D	0.47		245	
Eastbound	EBL	191	2.8	A	0.59		30	Intersection LOS
	EBT	1592	2.8	A	0.59		30	
	EBR			A				
Southbound	SBL			A				<b>B</b>
	SBT			A				
	SBR			A				
Westbound	WBL			A				Max Movement V/C
	WBT			A				
	WBR			A				
Operations:								HCM2000

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Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL	395	95.6	F	1.12		400	<b>171.4</b>
	NBT	942	3.5	A	0.54		40	
	NBR			A				
Eastbound	EBL			A				Intersection LOS
	EBT			A				
	EBR			A				
Southbound	SBL			A				<b>F</b>
	SBT	712	30.8	C	0.58		175	
	SBR	45	25.0	C	0.12		35	
Westbound	WBL	156	300.0	F	1.63		1360	Max Movement V/C
	WBT	1218	300.0	F	1.63		1360	
	WBR	466	300.0	F	1.63		1360	
Operations:								HCM2000

Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL			A				<b>32.6</b>
	NBT	1253	45.7	D	0.92		495	
	NBR	235	33.9	C	0.56		210	
Eastbound	EBL	73	32.1	C	0.71		280	Intersection LOS
	EBT	759	32.1	C	0.71		280	
	EBR	443	43.2	D	0.84		530	
Southbound	SBL	105	5.5	A	0.33		25	<b>C</b>
	SBT	764	8.8	A	0.44		100	
	SBR			A				
Westbound	WBL			A				Max Movement V/C
	WBT			A				
	WBR			A				
Operations:								HCM2000

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Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL			A				<b>27.2</b>
	NBT			A				
	NBR			A				
Eastbound	EBL			A				Intersection LOS
	EBT			A				
	EBR			A				
Southbound	SBL			A				<b>C</b>
	SBT	295	39.4	D	0.62		320	
	SBR	296	39.4	D	0.62		320	
Westbound	WBL	204	24.2	C	<b>0.90</b>		780	Max Movement V/C
	WBT	2180	24.2	C	<b>0.90</b>		780	
	WBR			A				
Operations:								HCM2000

Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL	693	26.8	C	<b>0.96</b>		615	<b>33.3</b>
	NBT	331	50.6	D	<b>0.95</b>		665	
	NBR			A				
Eastbound	EBL			A				Intersection LOS
	EBT			A				
	EBR			A				
Southbound	SBL			A				<b>C</b>
	SBT			A				
	SBR			A				
Westbound	WBL	1782	30.4	C	0.69		625	Max Movement V/C
	WBT			A				
	WBR	158	30.4	C	0.69		625	
Operations:								HCM2000

		PM Peak Hour - Total Movement Delays						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL	693	96.4	F	<b>0.96</b>		615	<b>51.9</b>
	NBT	220	96.0	F	<b>0.95</b>		665	
	NBR	320	39.5	D	0.68		315	
Eastbound	EBL	169	77.6	E	<b>0.95</b>		665	Intersection LOS
	EBT	1455	27.0	C	0.64		570	
	EBR	392	20.7	C	0.48		420	
Southbound	SBL	80	70.0	E	0.64		320	<b>D</b>
	SBT	215	66.3	E	0.62		320	
	SBR	296	39.4	D	0.62		320	
Westbound	WBL	204	81.5	F	<b>0.90</b>		780	Max Movement V/C
	WBT	1578	54.6	D	<b>0.90</b>		780	
	WBR	158	30.4	C	0.69		625	
Operations:								HCM2000

Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL			A				<b>23.7</b>
	NBT			A				
	NBR			A				
Eastbound	EBL			A				Intersection LOS
	EBT	1624	23.3	C	0.62		570	
	EBR	392	20.7	C	0.48		420	
Southbound	SBL	80	26.9	C	0.50		165	<b>C</b>
	SBT	427	26.9	C	0.50		165	
	SBR			A				
Westbound	WBL			A				Max Movement V/C
	WBT			A				
	WBR			A				
Operations:								HCM2000

Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL			A				<b>20.3</b>
	NBT	913	45.4	D	<b>0.86</b>		420	
	NBR	320	39.5	D	0.68		315	
Eastbound	EBL	169	3.7	A	0.64		50	Intersection LOS
	EBT	1574	3.7	A	0.64		50	
	EBR			A				
Southbound	SBL			A				<b>C</b>
	SBT			A				
	SBR			A				
Westbound	WBL			A				Max Movement V/C
	WBT			A				
	WBR			A			25	
Operations:								HCM2000

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Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL	694	219.2	F	1.42		980	<b>171.2</b>
	NBT	868	1.3	A	0.43		25	
	NBR			A				
Eastbound	EBL			A				Intersection LOS
	EBT			A				
	EBR			A				
Southbound	SBL			A				<b>F</b>
	SBT	1013	46.4	D	0.78		405	
	SBR	126	40.8	D	0.31		180	
Westbound	WBL	250	300.0	F	1.60		1290	Max Movement V/C
	WBT	1250	300.0	F	1.60		1290	
	WBR	140	300.0	F	1.60		1290	
Operations:								HCM2000

Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL			A				<b>91.9</b>
	NBT	1429	24.1	C	0.68		290	
	NBR	373	23.8	C	0.58		230	
Eastbound	EBL	27	125.4	F	1.18		820	Intersection LOS
	EBT	1137	125.4	F	1.18		820	
	EBR	674	287.8	F	1.51		1135	
Southbound	SBL	254	222.2	F	1.42		415	<b>F</b>
	SBT	1000	10.0	A	0.51		149	
	SBR			A				
Westbound	WBL			A				Max Movement V/C
	WBT			A				
	WBR			A			<b>1.51</b>	
Operations:								HCM2000

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Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL			A				<b>16.0</b>
	NBT			A				
	NBR			A				
Eastbound	EBL			A				Intersection LOS
	EBT			A				
	EBR			A				
Southbound	SBL			A				<b>B</b>
	SBT	379	41.5	D	0.72		320	
	SBR	247	41.5	D	0.72		320	
Westbound	WBL	471	9.8	A	<b>0.90</b>		325	Max Movement V/C
	WBT	2098	9.8	A	<b>0.90</b>		325	
	WBR			A				
Operations:								HCM2000

Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL	301	5.0	A	0.63		25	<b>33.7</b>
	NBT	436	76.0	E	0.29		650	
	NBR			A				
Eastbound	EBL			A				Intersection LOS
	EBT			A				
	EBR			A				
Southbound	SBL			A				<b>C</b>
	SBT			A				
	SBR			A				
Westbound	WBL	2235	29.1	C	<b>0.90</b>		900	Max Movement V/C
	WBT			A				
	WBR	320	29.1	C	<b>0.90</b>		900	
Operations:								HCM2000

AM Peak Hour - Total Movement Delays								
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL	301	51.7	D	<b>0.90</b>		305	<b>47.1</b>
	NBT	234	112.9	F	0.56		650	
	NBR	222	37.1	D	0.52		280	
Eastbound	EBL	216	106.9	F	0.67		650	Intersection LOS
	EBT	1687	30.9	C	0.67		605	
	EBR	746	34.7	C	0.79		675	
Southbound	SBL	74	87.6	F	<b>0.92</b>		460	<b>D</b>
	SBT	305	84.3	F	<b>0.92</b>		460	
	SBR	247	41.5	D	0.72		320	
Westbound	WBL	471	81.7	F	<b>0.92</b>		900	Max Movement V/C
	WBT	1764	38.9	D	<b>0.90</b>		900	
	WBR	320	29.1	C	<b>0.90</b>		900	
Operations:								HCM2000

Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL			A				<b>32.9</b>
	NBT			A				
	NBR			A				
Eastbound	EBL			A				Intersection LOS
	EBT	1903	27.6	C	0.63		605	
	EBR	746	34.7	C	0.79		675	
Southbound	SBL	74	42.8	D	<b>0.92</b>		460	<b>C</b>
	SBT	816	42.8	D	<b>0.92</b>		460	
	SBR			A				
Westbound	WBL			A				Max Movement V/C
	WBT			A				
	WBR			A				
Operations:								HCM2000

Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL			A				<b>12.6</b>
	NBT	535	36.9	D	0.56		305	
	NBR	222	37.1	D	0.52		280	
Eastbound	EBL	216	3.3	A	0.67		30	Intersection LOS
	EBT	1776	3.3	A	0.67		30	
	EBR			A				
Southbound	SBL			A				<b>B</b>
	SBT			A				
	SBR			A				
Westbound	WBL			A				Max Movement V/C
	WBT			A				
	WBR			A				
Operations:								HCM2000

**Lake Woodlands Dr & Grogans Mill Road**

Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL	435	136.0	F	1.24		350	<b>204.6</b>
	NBT	1081	5.0	A	0.62		35	
	NBR			A				
Eastbound	EBL			A				Intersection LOS
	EBT			A				
	EBR			A				
Southbound	SBL			A				<b>F</b>
	SBT	816	50.0	D	0.66		250	
	SBR	49	49.2	D	0.13		50	
Westbound	WBL	172	300.0	F	1.75		1085	Max Movement V/C
	WBT	1291	300.0	F	1.75		1085	
	WBR	514	300.0	F	1.75		300	
Operations:								HCM2000

Control		Traffic Signal						
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)
Northbound	NBL			A				<b>57.6</b>
	NBT	1437	104.9	F	1.12		615	
	NBR	238	48.0	D	0.65		215	
Eastbound	EBL	80	37.2	D	0.75		395	Intersection LOS
	EBT	804	37.2	D	0.75		395	
	EBR	487	56.0	E	<b>0.92</b>		600	
Southbound	SBL	116	8.4	A	0.34		25	<b>E</b>
	SBT	876	11.0	B	0.51		115	
	SBR			A				
Westbound	WBL			A				Max Movement V/C
	WBT			A				
	WBR			A				
Operations:								HCM2000

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**Research Forest Dr & Grogans Mill Road**

23 Control Traffic Signal									
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)	
Northbound	NBL			A				37.2	
	NBT			A					
	NBR			A					
Eastbound	EBL			A				Intersection LOS	
	EBT			A					
	EBR			A					
Southbound	SBL			A				D	
	SBT	339	41.9	D	0.70		375		
	SBR	336	41.9	D	0.70		375		
Westbound	WBL	231	36.0	D	1.00		810	Max Movement V/C	1.00
	WBT	2442	36.0	D	1.00		810		
	WBR			A					
Operations: HCM2000									

20 Control Traffic Signal									
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)	
Northbound	NBL			A				23.8	
	NBT			A					
	NBR			A					
Eastbound	EBL			A				Intersection LOS	
	EBT	1811	23.9	C	0.69		615		
	EBR	444	20.2	C	0.55		420		
Southbound	SBL			A				C	
	SBT	90	26.1	C	0.58		180		
	SBR	489	26.1	C	0.58		180		
Westbound	WBL			A				Max Movement V/C	0.69
	WBT			A					
	WBR			A					
Operations: HCM2000									

**Lake Woodlands Dr & Grogans Mill Road**

53 Control Traffic Signal									
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)	
Northbound	NBL	764	289.8	F	1.56		1150	198.8	
	NBT	995	1.1	A	0.49		25		
	NBR			A					
Eastbound	EBL			A				Intersection LOS	
	EBT			A					
	EBR			A					
Southbound	SBL	0		A				F	
	SBT	1162	62.4	E	0.89		450		
	SBR	139	46.8	D	0.34		195		
Westbound	WBL	275	300.0	F	1.72		920	Max Movement V/C	1.72
	WBT	1324	300.0	F	1.72		920		
	WBR	154	300.0	F	1.72		920		
Operations: HCM2000									

54 Control Traffic Signal									
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)	
Northbound	NBL			A				111.7	
	NBT	1638	25.9	C	0.77		270		
	NBR	411	24.9	C	0.53		235		
Eastbound	EBL	29	153.1	F	1.22		840	Intersection LOS	
	EBT	1205	153.1	F	1.22		840		
	EBR	743	300.0	F	1.67		1193		
Southbound	SBL	280	300.0	F	1.64		400	F	
	SBT	1147	13.0	B	0.58		190		
	SBR			A					
Westbound	WBL			A				Max Movement V/C	1.67
	WBT			A					
	WBR			A					
Operations: HCM2000									

21 Control Traffic Signal									
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)	
Northbound	NBL	785	59.5	F	1.09		600	44.1	
	NBT	379	86.3	F	1.09		730		
	NBR			A					
Eastbound	EBL			A				Intersection LOS	
	EBT			A					
	EBR			A					
Southbound	SBL			A				D	
	SBT			A					
	SBR			A					
Westbound	WBL			A				Max Movement V/C	1.09
	WBT	1967	28.5	C	0.77		690		
	WBR	179	28.5	C	0.77		690		
Operations: HCM2000									

22 Control Traffic Signal									
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)	
Northbound	NBL			A				34.6	
	NBT	1047	82.0	F	0.99		700		
	NBR	362	61.4	E	0.76		475		
Eastbound	EBL	191	4.1	A	0.72		60	Intersection LOS	
	EBT	1755	4.1	A					
	EBR			A					
Southbound	SBL			A				C	
	SBT			A					
	SBR			A					
Westbound	WBL			A				Max Movement V/C	0.99
	WBT			A					
	WBR			A					
Operations: HCM2000									

AM Peak Hour - Total Movement Delays									
Approach	Movement	Volume	Delay (s)	LOS	V/C	Queue (veh)	95th Queue (ft)	Intersection Delay (s)	
Northbound	NBL	785	177.5	F	1.09		700	70.5	
	NBT	262	168.3	F	1.09		730		
	NBR	362	61.4	E	0.76		475		
Eastbound	EBL	191	114.3	F	1.09		730	Intersection LOS	
	EBT	1620	28.0	C	0.69		615		
	EBR	444	20.2	C	0.55		420		
Southbound	SBL	90	72.1	E	0.70		375	E	
	SBT	249	68.0	E	0.70		375		
	SBR	336	41.9	D	0.70		375		
Westbound	WBL	231	90.6	F	1.00		810	Max Movement V/C	1.09
	WBT	1756	64.5	E	1.00		810		
	WBR	179	28.5	C	0.77		690		
Operations: HCM2000									

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