



CLARK NEXSEN

NC 54 Multimodal Analysis - Town of Chapel Hill Section									
Delay Summary (Burning Tree Dr & W. Barbee Chapel Rd as Synchronized Streets)									
Movement	AM Peak-Hour Delay (seconds)			Mid-Day Peak-Hour Delay (seconds)*			PM Peak-Hour Delay (seconds)		
	Existing (2016)	Future No Build (2030)	Future Build (2030)	Existing (2016)	Future No Build (2030)	Future Build (2030)	Existing (2016)	Future No Build (2030)	Future Build (2030)
NC-54 & Hamilton Road (Signalized)									
EBT -	21	24	26	12	12	12	20	19	19
WBT -	15	44	45	3	20	23	16	54	55
NBL -	82	118	123	87	71	71	77	80	80
NC-54 & Environ/Rogerson Dr (Signalized)									
EBT -	1	1	1	0	2	3	2	2	5
WBT -	0	2	2	0	1	1	0	2	4
NBR -	27	64	69	12	54	54	7	64	64
NC-54 & Burning Tree Dr (Signalized)									
EBT -	45	19	14	6	6	6	9	6	3
WBT -	9	7	5	1	6	3	9	3	3
NBT -	87	56	0	87	52	0	211	58	0
NC-54 & W Barbee Chapel Rd/Business Park Driveway (Signalized)									
EBT -	9	15	12	4	5	6	11	6	7
WBT -	10	12	21	20	16	18	18	24	18
NBL -	92	75	0	205	123	0	253	219	0
NC-54 & Meadowmont Lane (Signalized)									
EBT -	20	26	25	14	22	23	35	33	33
WBT -	12	30	23	7	8	10	12	12	32
NBL -	64	47	47	72	50	50	65	48	48
NC-54 & East Barbee Chapel Road (Signalized)									
EBT -	21	119	89	6	25	15	11	20	15
WBT -	25	28	31	21	21	21	32	40	40
SBL -	171	141	105	66	49	49	114	55	55

Reported delays represent seconds per vehicle delay rounded to the nearest whole second, with the overall intersection delay representing a weighted average of total intersection delay.

*Note: Mid-day peak hour analysis studied the 1:00-2:00 PM time period at each study intersection.

NC 54 Multimodal Analysis - Town of Chapel Hill Section										
Delay Summary (Burning Tree Dr & W. Barbee Chapel Rd as Synchronized Streets)										
Condition	AM Peak-Hour Delay (Sec)	2030 Volumes	Mid-Day Peak-Hour Delay (Sec)	2030 Volumes	PM Peak-Hour Delay (Sec)	2030 Volumes	95th/Max Queue (ft)			
NC-54 & Hamilton Road (Signalized)										
Future (2030) Traffic Build	Overall -	43	Overall -	25	Overall -	39				
	EBL -	116	278	EBL -	37	276	EBL -	60	268	524
	EBT -	26	1942	EBT -	12	1451	EBT -	19	2297	
	EBR -		116	EBR -		41	EBR -		61	
	WBL -	37	49	WBL -	20	74	WBL -	36	104	374
	WBT -	45	2410	WBT -	23	1503	WBT -	55	2224	
	WBR -	18	274	WBR -	42	252	WBR -	23	280	529
	NBL -	123	135	NBL -	71	130	NBL -	80	170	261
	NBT -	39	32	NBT -	37	13	NBT -	43	29	
	NBR -	44	102	NBR -	42	92	NBR -	50	117	165
	SBL -	42	113	SBL -	47	118	SBL -	55	187	202
	SBT -	43	88	SBT -	41	84	SBT -	46	123	
	SBR -	43	88	SBR -	47	95	SBR -	51	135	209
NC-54 & Environ/Rogerson Dr (Signalized)										
Future (2030) Traffic Build	Overall -	9	Overall -	3	Overall -	6				
	EBL -		0	EBL -		0	EBL -		0	
	EBT -	1	2077	EBT -	3	1554	EBT -	5	2435	
	EBR -	0	62	EBR -	1	46	EBR -	3	36	175
	WBL -	273	126	WBL -	5	76	WBL -	39	97	354
	WBT -	2	2229	WBT -	1	1612	WBT -	4	2317	
	WBR -		0	WBR -		0	WBR -		1	
	NBL -		0	NBL -		0	NBL -		0	
	NBT -		0	NBT -		0	NBT -		0	
	NBR -	69	20	NBR -	54	78	NBR -	64	79	276
	SBL -		0	SBL -		0	SBL -		0	
	SBT -		0	SBT -		0	SBT -		0	
	SBR -	0	6	SBR -		0	SBR -	0	5	27
NC-54 & Burning Tree Dr (Signalized)										
Future (2030) Traffic Build	Overall -	12	Overall -	7	Overall -	10				
	EBL -	38	21	EBL -	12	62	EBL -	20	51	299
	EBT -	14	2030	EBT -	6	1562	EBT -	3	2512	
	EBR -		70	EBR -		45	EBR -		45	
	WBL -	20	183	WBL -	13	127	WBL -	58	213	463
	WBT -	5	2491	WBT -	3	1612	WBT -	3	2407	
	WBR -		22	WBR -		19	WBR -		62	
	NBL -		0	NBL -		0	NBL -		0	
	NBT -		0	NBT -		0	NBT -		0	
	NBR -	55	206	NBR -	44	164	NBR -	81	251	307
	SBL -		0	SBL -		0	SBL -		0	
	SBT -		0	SBT -		0	SBT -		0	
	SBR -	68	94	SBR -	53	65	SBR -	62	93	136

NC-54 & W Barbee Chapel Rd/Business Park Driveway (Signalized)										
Future (2030) Traffic Build	Overall -	20		Overall -	16		Overall -	19		
	EBL -	56	257	EBL -	23	233	EBL -	54	248	501
	EBT -	12	2354	EBT -	6	1594	EBT -	7	2581	
	EBR -	12	95	EBR -	13	51	EBR -	5	31	250
	WBL -	37	99	WBL -	3	41	WBL -	9	6	184
	WBT -	21	2622	WBT -	18	1702	WBT -	18	2424	
	WBR -	8	44	WBR -	70	48	WBR -	8	24	225
	NBL -	0	0	NBL -	0	0	NBL -	0	0	
	NBT -	0	0	NBT -	0	0	NBT -	0	0	
	NBR -	65	22	NBR -	51	74	NBR -	59	145	218
	SBL -	0	0	SBL -	0	0	SBL -	0	0	
	SBT -	0	0	SBT -	0	0	SBT -	0	0	
SBR -	68	126	SBR -	52	205	SBR -	109	229	454	
NC-54 & Meadowmont Lane (Signalized)										
Future (2030) Traffic Build	Overall -	27		Overall -	20		Overall -	34		
	EBL -	47	164	EBL -	39	172	EBL -	47	253	180
	EBT -	25	1505	EBT -	23	1280	EBT -	33	2117	
	EBR -	11	182	EBR -	11	62	EBR -	6	75	350
	WBL -	42	560	WBL -	32	62	WBL -	45	55	442
	WBT -	23	2441	WBT -	10	1374	WBT -	32	1964	
	WBR -	6	174	WBR -	2	127	WBR -	26	113	445
	NBL -	47	95	NBL -	50	31	NBL -	48	143	168
	NBT -	47	6	NBT -	49	18	NBT -	75	28	
	NBR -	24	40	NBR -	35	71	NBR -	33	450	303
	SBL -	47	76	SBL -	49	152	SBL -	52	219	286
	SBT -	47	36	SBT -	47	26	SBT -	46	18	
SBR -	35	132	SBR -	33	187	SBR -	33	227	198	
NC-54 & East Barbee Chapel Road (Signalized)										
Future (2030) Traffic Build	Overall -	66		Overall -	20		Overall -	30		
	EBL -	21	15	EBL -	6	45	EBL -	42	132	374
	EBT -	89	2255	EBT -	15	1210	EBT -	15	1757	
	EBR -	14	221	EBR -	2	106	EBR -	1	205	459
	WBL -	62	6	WBL -	24	6	WBL -	39	22	474
	WBT -	31	1551	WBT -	21	1283	WBT -	40	2074	
	WBR -	5	186	WBR -	7	209	WBR -	21	842	287
	NBL -	93	162	NBL -	51	82	NBL -	62	125	330
	NBT -	85	44	NBT -	50	46	NBT -	87	118	
	NBR -		16	NBR -		10	NBR -		26	
	SBL -	105	677	SBL -	49	207	SBL -	55	283	739
	SBT -	97	99	SBT -	48	44	SBT -	53	68	
SBR -		87	SBR -		53	SBR -		30		



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Delay Summary			
Condition	AM Peak-Hour Delay (seconds)	Mid-Day Peak-Hour Delay (seconds)*	PM Peak-Hour Delay (seconds)
NC-54 & Hamilton Road (Signalized)			
Future (2030) Traffic No Build	EBT - 24	EBT - 12	EBT - 19
	WBT - 44	WBT - 20	WBT - 54
	NBL - 118	NBL - 71	NBL - 80
NC-54 & Environ/Rogerson Dr (Signalized)			
Future (2030) Traffic No Build	EBT - 1	EBT - 2	EBT - 2
	WBT - 2	WBT - 1	WBT - 2
	NBR - 64	NBR - 54	EBL - 0
NC-54 & Burning Tree Dr (Signalized)			
Future (2030) Traffic No Build	EBT - 19	EBT - 6	EBT - 6
	WBT - 7	WBT - 6	WBT - 3
	NBT - 56	NBT - 52	WBL - 58
NC-54 & W Barbee Chapel Rd/Business Park Driveway (Signalized)			
Future (2030) Traffic No Build	EBT - 15	EBT - 5	EBT - 6
	WBT - 12	WBT - 16	WBT - 24
	NBL - 75	NBL - 123	NBL - 219
NC-54 & Meadowmont Lane (Signalized)			
Future (2030) Traffic No Build	EBT - 26	EBT - 22	EBT - 33
	WBT - 30	WBT - 8	WBT - 12
	NBL - 47	EBL - 52	NBT - 75
NC-54 & East Barbee Chapel Road (Signalized)			
Future (2030) Traffic No Build	EBT - 119	EBT - 25	EBT - 20
	WBT - 28	WBT - 21	WBT - 40
	SBL - 141	SBL - 49	SBL - 55

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Delay Summary						
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NC-54 & Hamilton Road (Signalized)						
Future (2030) Traffic No Build	Overall -	41	Overall -	22	Overall -	39
	EBL -	107	EBL -	37	EBL -	60
	EBT -	24	EBT -	12	EBT -	19
	EBR -		EBR -		EBR -	
	WBL -	30	WBL -	13	WBL -	36
	WBT -	44	WBT -	20	WBT -	54
	WBR -	9	WBR -	23	WBR -	20
	NBL -	118	NBL -	71	NBL -	80
	NBT -	36	NBT -	37	NBT -	43
	NBR -	42	NBR -	42	NBR -	50
	SBL -	39	SBL -	47	SBL -	55
	SBT -	40	SBT -	41	SBT -	46
	SBR -	40	SBR -	47	SBR -	51
NC-54 & Environ/Rogerson Dr (Signalized)						
Future (2030) Traffic No Build	Overall -	3	Overall -	3	Overall -	3
	EBL -		EBL -		EBL -	
	EBT -	1	EBT -	2	EBT -	2
	EBR -	0	EBR -	1	EBR -	0
	WBL -	70	WBL -	2	WBL -	22
	WBT -	2	WBT -	1	WBT -	2
	WBR -		WBR -		WBR -	
	NBL -		NBL -		NBL -	
	NBT -		NBT -		NBT -	
	NBR -	64	NBR -	54	NBR -	64
	SBL -		SBL -		SBL -	
	SBT -		SBT -		SBT -	
	SBR -	0	SBR -		SBR -	0
NC-54 & Burning Tree Dr (Signalized)						
Future (2030) Traffic No Build	Overall -	14	Overall -	7	Overall -	8
	EBL -	28	EBL -	9	EBL -	28
	EBT -	19	EBT -	6	EBT -	6
	EBR -		EBR -		EBR -	
	WBL -	28	WBL -	11	WBL -	58
	WBT -	7	WBT -	6	WBT -	3
	WBR -		WBR -		WBR -	
	NBL -		NBL -		NBL -	
	NBT -	56	NBT -	52	NBT -	58
	NBR -	44	NBR -	42	NBR -	50
	SBL -		SBL -		SBL -	
	SBT -	62	SBT -	49	SBT -	65
	SBR -		SBR -		SBR -	

NC-54 & W Barbee Chapel Rd/Business Park Driveway (Signalized)									
Future (2030) Traffic No Build	Overall -	18		Overall -	12		Overall -	18	
	EBL -	114	224	EBL -	24	185	EBL -	40	187
	EBT -	15	2349	EBT -	5	1572	EBT -	6	2550
	EBR -	14	86	EBR -	18	43	EBR -	0	30
	WBL -	36	99	WBL -	6	41	WBL -	16	6
	WBT -	12	2605	WBT -	16	1670	WBT -	24	2338
	WBR -	4	41	WBR -	7	36	WBR -	11	16
	NBL -	75	17	NBL -	123	32	NBL -	219	86
	NBT -	59	3	NBT -	44	12	NBT -	44	8
	NBR -		2	NBR -		30	NBR -		51
	SBL -	60	5	SBL -	46	22	SBL -	45	31
	SBT -	61	9	SBT -	45	8	SBT -	45	1
SBR -		112	SBR -		175	SBR -		197	
NC-54 & Meadowmont Lane (Signalized)									
Future (2030) Traffic No Build	Overall -	31		Overall -	20		Overall -	27	
	EBL -	47	144	EBL -	52	128	EBL -	53	159
	EBT -	26	1505	EBT -	22	1280	EBT -	33	2117
	EBR -	11	182	EBR -	20	62	EBR -	6	75
	WBL -	51	560	WBL -	33	62	WBL -	32	55
	WBT -	30	2441	WBT -	8	1374	WBT -	12	1964
	WBR -	6	174	WBR -	2	127	WBR -	15	113
	NBL -	47	95	NBL -	50	31	NBL -	48	143
	NBT -	47	6	NBT -	49	18	NBT -	75	28
	NBR -	24	40	NBR -	35	71	NBR -	33	450
	SBL -	47	76	SBL -	49	152	SBL -	52	219
	SBT -	47	36	SBT -	47	26	SBT -	46	18
SBR -	35	132	SBR -	35	187	SBR -	38	227	
NC-54 & East Barbee Chapel Road (Signalized)									
Future (2030) Traffic No Build	Overall -	83		Overall -	24		Overall -	32	
	EBL -	19	15	EBL -	6	45	EBL -	48	132
	EBT -	119	2261	EBT -	25	1231	EBT -	20	1757
	EBR -	16	264	EBR -	24	127	EBR -	15	205
	WBL -	57	49	WBL -	30	27	WBL -	39	22
	WBT -	28	1551	WBT -	21	1304	WBT -	40	2074
	WBR -	5	186	WBR -	7	209	WBR -	21	842
	NBL -	93	162	NBL -	51	82	NBL -	62	125
	NBT -	85	44	NBT -	51	46	NBT -	87	118
	NBR -		16	NBR -		10	NBR -		26
	SBL -	141	677	SBL -	49	207	SBL -	55	283
	SBT -	130	99	SBT -	48	44	SBT -	53	68
SBR -		87	SBR -		53	SBR -		30	