

Scenario 3 60-Minute Incident (CV50%)

1a. Shockwave - Speed Difference between Adjacent Sublinks

Hour Start	Hour End	Mean	95th %ile	Maximum	Std. Dev.
14:30	15:30	3.19	7.77	12.82	2.77
15:30	16:30	4.76	22.42	33.72	6.60
16:30	17:30	5.69	15.48	23.37	5.65
17:30	18:30	7.21	24.98	29.76	7.19
18:30	19:30	5.99	21.60	37.49	6.99
19:30	20:30	4.41	23.14	50.44	8.43
14:30	20:30	5.21	19.69	50.44	6.73
15:30	19:30	5.91	20.94	37.49	6.68

1b. Shockwave - Speed Difference within Sublinks

Hour Start	Hour End	Mean	95th %ile	Maximum	Std. Dev.
14:30	15:30	3.89	8.17	23.73	2.76
15:30	16:30	4.82	14.19	33.30	4.86
16:30	17:30	6.97	15.19	25.63	4.33
17:30	18:30	5.80	13.96	25.15	4.09
18:30	19:30	4.23	10.62	19.85	3.33
19:30	20:30	4.42	30.11	48.82	9.58
14:30	20:30	5.02	14.13	48.82	5.47
15:30	19:30	5.45	14.16	33.30	4.32

2. Queues - Average Connected Vehicle Seconds in Queue (sec/veh)

Hour Start	Hour End	Average VSQ
14:30	15:30	11.7
15:30	16:30	75.6
16:30	17:30	121.9
17:30	18:30	149.5
18:30	19:30	140.6
19:30	20:30	270.1
14:30	20:30	123.0
15:30	19:30	138.8

3. Throughput - Vehicle Miles Traveled (VMT)

Standard deviation across simulation runs (N=10)

Hour Start	Hour End	1000's VMT	St. Dev. (1000's VMT)	
14:30	15:30	51.6	0.0	FALSE
15:30	16:30	51.5	0.0	FALSE
16:30	17:30	58.5	0.0	FALSE
17:30	18:30	58.3	0.0	FALSE
18:30	19:30	46.9	0.0	FALSE
19:30	20:30	7.1	0.0	FALSE
14:30	20:30	273.9	0.0	FALSE
15:30	19:30	215.2	0.0	FALSE

4. Speed Variance

See Performance Measure #1: Shockwave - Speed Difference between Adjacent Sublinks

5. Average Travel Time - Vehicle Hours Traveled (VHT)

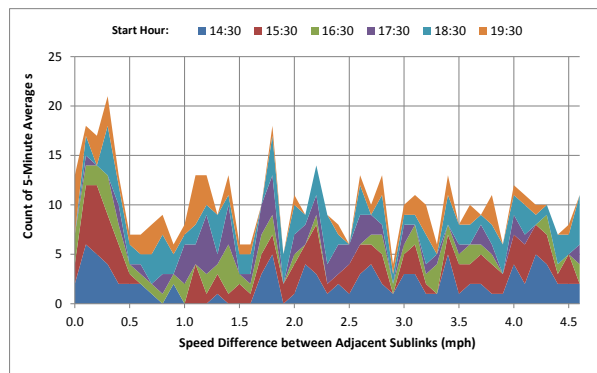
Standard deviation across simulation runs (N=10)

Hour Start	Hour End	VHT	St. Dev. VHT
14:30	15:30	973	60
15:30	16:30	1,172	80
16:30	17:30	1,680	157
17:30	18:30	1,969	157
18:30	19:30	1,321	271
19:30	20:30	655	95
14:30	20:30	7,769	613
15:30	19:30	6,141	572

6. Reliability Measure - 95th Percentile Travel Time Index (TTI)

Free flow speed assumed to be 65 mph

Hour Start	Hour End	95th %ile TTI (Part 1)	95th %ile TTI (Part 2)	95th %ile TTI (Combined)
14:30	15:30	1.35	1.10	1.29
15:30	16:30	2.00	1.12	1.80
16:30	17:30	2.46	1.17	2.18
17:30	18:30	2.68	1.16	2.35
18:30	19:30	2.55	1.13	2.23
19:30	20:30	2.28	1.06	1.98
14:30	20:30	2.63	1.15	2.30
15:30	19:30	2.65	1.16	2.32



For clarity purposes, zero speed differences are not plotted.

7. Number of Lane Changes per 1,000 Connected Vehicles

Averages are not additive across parts or hours

Hour Start	Hour End	Lane Changes (Part 1)	Lane Changes (Part 2)	Lane Changes (Combined)
14:30	15:30	410	140	430
15:30	16:30	401	135	426
16:30	17:30	393	165	442
17:30	18:30	391	163	442
18:30	19:30	402	140	424
19:30	20:30	286	45	286
14:30	20:30	461	171	492
15:30	19:30	454	174	490

8. Number of Stops per Connected Vehicle

Averages are not additive across parts or hours

Hour Start	Hour End	Number Stops (Part 1)	Number Stops (Part 2)	Number Stops (Combined)
14:30	15:30	12	5	13
15:30	16:30	107	32	105
16:30	17:30	234	56	222
17:30	18:30	354	75	332
18:30	19:30	464	48	395
19:30	20:30	1,611	142	1,488
14:30	20:30	322	50	287
15:30	19:30	330	57	297

9. Latent Demand and Delay

Start	End	Latent Demand (veh)	Latent Delay (veh-hr)
14:30	20:30	1,278	646

Number of Connected Vehicles

Totals do not match sum of hourly as some vehicles reported for more than one hour or part

Start	End	Part 1 Vehicles	Part 2 Vehicles	Number Vehicles
14:30	15:30	5,729	4,955	7,316
15:30	16:30	6,139	5,061	7,732
16:30	17:30	7,469	6,109	9,420
17:30	18:30	7,465	6,086	9,354
18:30	19:30	5,773	4,797	7,380
19:30	20:30	904	730	1,048
14:30	20:30	28,751	26,325	36,907
15:30	19:30	23,421	20,949	30,029