

## Scenario 4 Rainy Day (CV25%)

### 1a. Shockwave - Speed Difference between Adjacent Sublinks

Hour Start	Hour End	Mean	95th %ile	Maximum	Std. Dev.
14:30	15:30	3.83	13.32	25.75	4.84
15:30	16:30	3.22	8.95	17.23	3.31
16:30	17:30	5.47	17.87	31.39	5.78
17:30	18:30	5.57	24.45	37.34	8.31
18:30	19:30	7.55	30.76	36.95	10.06
19:30	20:30	3.66	22.09	55.39	8.16
14:30	20:30	4.88	22.00	55.39	7.29
15:30	19:30	5.45	22.94	37.34	7.44

### 1b. Shockwave - Speed Difference within Sublinks

Hour Start	Hour End	Mean	95th %ile	Maximum	Std. Dev.
14:30	15:30	4.03	10.30	25.28	3.78
15:30	16:30	3.70	9.06	22.07	3.12
16:30	17:30	8.61	24.07	35.50	6.61
17:30	18:30	7.95	24.27	34.52	7.52
18:30	19:30	5.53	16.95	22.16	4.59
19:30	20:30	3.66	15.51	44.94	7.59
14:30	20:30	5.58	18.54	44.94	6.16
15:30	19:30	6.45	19.42	35.50	6.01

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

Hour Start	Hour End	Average VSQ
14:30	15:30	11.9
15:30	16:30	45.4
16:30	17:30	111.0
17:30	18:30	585.9
18:30	19:30	390.5
19:30	20:30	435.6
14:30	20:30	290.6
15:30	19:30	330.3

### 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	0.6
15:30	16:30	52.9	0.3
16:30	17:30	55.3	1.2
17:30	18:30	41.3	5.2
18:30	19:30	44.5	3.1
19:30	20:30	14.5	2.5
14:30	20:30	260.2	6.3
15:30	19:30	194.1	5.9

### 4. Speed Variance

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

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

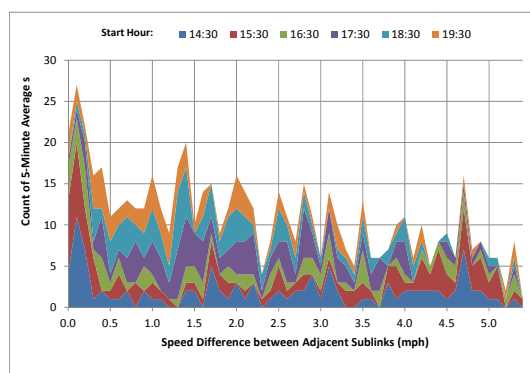
Standard deviation across simulation runs (N=10)

Hour Start	Hour End	VHT	St. Dev. VHT
14:30	15:30	973	38
15:30	16:30	981	32
16:30	17:30	1,426	38
17:30	18:30	1,957	98
18:30	19:30	1,753	13
19:30	20:30	658	58
14:30	20:30	7,749	124
15:30	19:30	6,117	102

### 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	1.28	1.11	1.24
15:30	16:30	1.23	1.11	1.20
16:30	17:30	2.66	1.25	2.32
17:30	18:30	4.82	1.34	4.02
18:30	19:30	5.35	1.13	4.42
19:30	20:30	5.09	1.06	4.17
14:30	20:30	5.14	1.20	4.26
15:30	19:30	5.18	1.24	4.29



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	425	157	457
15:30	16:30	417	157	451
16:30	17:30	385	169	436
17:30	18:30	306	165	370
18:30	19:30	356	148	403
19:30	20:30	311	40	325
14:30	20:30	457	189	498
15:30	19:30	434	191	480

### 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	4	12
15:30	16:30	47	19	50
16:30	17:30	159	33	146
17:30	18:30	1,682	216	1,448
18:30	19:30	1,777	151	1,510
19:30	20:30	2,793	303	2,780
14:30	20:30	1,051	97	879
15:30	19:30	1,092	107	912

### 9. Latent Demand and Delay

Start	End	Latent Demand (veh)	Latent Delay (veh-hr)
14:30	20:30	5,903	2,701

### 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	2,883	2,500	3,676
15:30	16:30	3,013	2,574	3,832
16:30	17:30	3,499	2,819	4,451
17:30	18:30	3,335	2,491	4,246
18:30	19:30	3,186	2,359	3,986
19:30	20:30	846	595	915
14:30	20:30	13,668	12,692	17,739
15:30	19:30	10,964	9,749	14,265