

Rainy Day with 60-Minute Incident (CV0%)

1a. Shockwave - Speed Difference between Adjacent Sublinks

| Hour Start | Hour End | Mean | 95th %ile | Maximum | Std. Dev. |
|------------|----------|-------|-----------|---------|-----------|
| 14:30 | 15:30 | 3.50 | 18.92 | 43.95 | 8.50 |
| 15:30 | 16:30 | 7.74 | 40.95 | 47.24 | 13.12 |
| 16:30 | 17:30 | 10.85 | 40.10 | 47.19 | 13.94 |
| 17:30 | 18:30 | 10.45 | 41.84 | 48.97 | 14.20 |
| 18:30 | 19:30 | 11.01 | 39.53 | 42.79 | 13.93 |
| 19:30 | 20:30 | 3.19 | 22.14 | 48.68 | 8.49 |
| 14:30 | 20:30 | 7.79 | 39.53 | 48.97 | 12.74 |
| 15:30 | 19:30 | 10.01 | 41.02 | 48.97 | 13.84 |

1b. Shockwave - Speed Difference within Sublinks

| Hour Start | Hour End | Mean | 95th %ile | Maximum | Std. Dev. |
|------------|----------|-------|-----------|---------|-----------|
| 14:30 | 15:30 | 2.59 | 13.38 | 24.82 | 4.56 |
| 15:30 | 16:30 | 6.01 | 35.59 | 41.63 | 10.11 |
| 16:30 | 17:30 | 11.89 | 33.76 | 43.18 | 11.27 |
| 17:30 | 18:30 | 8.10 | 27.84 | 45.96 | 9.19 |
| 18:30 | 19:30 | 5.94 | 22.86 | 32.80 | 6.57 |
| 19:30 | 20:30 | 4.65 | 27.47 | 47.29 | 9.64 |
| 14:30 | 20:30 | 6.53 | 29.81 | 47.29 | 9.34 |
| 15:30 | 19:30 | 7.98 | 31.94 | 45.96 | 9.66 |

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

| Hour Start | Hour End | Average VSQ |
|------------|----------|-------------|
| 14:30 | 15:30 | 12.5 |
| 15:30 | 16:30 | 119.7 |
| 16:30 | 17:30 | 296.3 |
| 17:30 | 18:30 | 670.0 |
| 18:30 | 19:30 | 346.6 |
| 19:30 | 20:30 | 277.0 |
| 14:30 | 20:30 | 363.2 |
| 15:30 | 19:30 | 435.8 |

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 | 51.3 | 0.3 |
| 15:30 | 16:30 | 50.1 | 1.1 |
| 16:30 | 17:30 | 48.7 | 3.4 |
| 17:30 | 18:30 | 39.9 | 6.1 |
| 18:30 | 19:30 | 48.0 | 3.6 |
| 19:30 | 20:30 | 11.9 | 3.3 |
| 14:30 | 20:30 | 249.9 | 7.3 |
| 15:30 | 19:30 | 186.7 | 9.1 |

4. Speed Variance

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

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

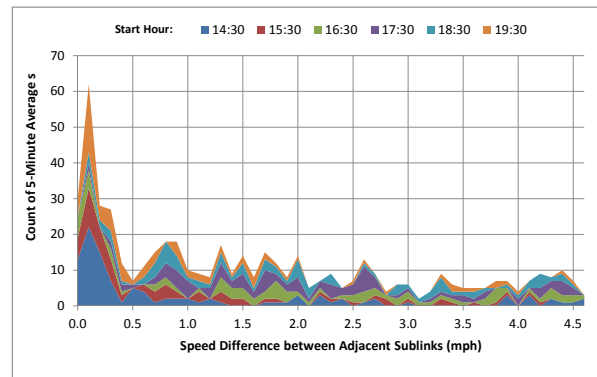
Standard deviation across simulation runs (N=10)

| Hour Start | Hour End | VHT | St. Dev. VHT |
|------------|----------|-------|--------------|
| 14:30 | 15:30 | 898 | 35 |
| 15:30 | 16:30 | 1,198 | 97 |
| 16:30 | 17:30 | 1,744 | 131 |
| 17:30 | 18:30 | 1,946 | 119 |
| 18:30 | 19:30 | 1,600 | 104 |
| 19:30 | 20:30 | 548 | 79 |
| 14:30 | 20:30 | 7,934 | 305 |
| 15:30 | 19:30 | 6,488 | 294 |

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 | 1.16 | 1.11 | 1.15 |
| 15:30 | 16:30 | 2.18 | 1.12 | 1.95 |
| 16:30 | 17:30 | 3.18 | 1.29 | 2.71 |
| 17:30 | 18:30 | 5.71 | 1.34 | 4.71 |
| 18:30 | 19:30 | 5.68 | 1.11 | 4.68 |
| 19:30 | 20:30 | 3.35 | 1.06 | 2.85 |
| 14:30 | 20:30 | 5.52 | 1.19 | 4.56 |
| 15:30 | 19:30 | 5.61 | 1.22 | 4.63 |



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 | 402 | 157 | 436 |
| 15:30 | 16:30 | 367 | 143 | 406 |
| 16:30 | 17:30 | 332 | 161 | 392 |
| 17:30 | 18:30 | 298 | 174 | 370 |
| 18:30 | 19:30 | 382 | 144 | 421 |
| 19:30 | 20:30 | 318 | 31 | 314 |
| 14:30 | 20:30 | 444 | 191 | 486 |
| 15:30 | 19:30 | 428 | 195 | 476 |

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 | 11 | 5 | 12 |
| 15:30 | 16:30 | 205 | 37 | 187 |
| 16:30 | 17:30 | 767 | 101 | 667 |
| 17:30 | 18:30 | 2,688 | 279 | 2,266 |
| 18:30 | 19:30 | 1,646 | 147 | 1,406 |
| 19:30 | 20:30 | 1,619 | 150 | 1,553 |
| 14:30 | 20:30 | 1,410 | 121 | 1,167 |
| 15:30 | 19:30 | 1,662 | 148 | 1,371 |

9. Latent Demand and Delay

| Start | End | Latent Demand (veh) | Latent Delay (veh-hr) |
|-------|-------|---------------------|-----------------------|
| 14:30 | 20:30 | 7,519 | 3,575 |

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 | 2,273 | 1,963 | 2,915 |
| 15:30 | 16:30 | 2,414 | 1,971 | 3,034 |
| 16:30 | 17:30 | 2,897 | 2,122 | 3,653 |
| 17:30 | 18:30 | 2,639 | 1,965 | 3,372 |
| 18:30 | 19:30 | 2,561 | 1,977 | 3,204 |
| 19:30 | 20:30 | 540 | 387 | 600 |
| 14:30 | 20:30 | 10,583 | 9,826 | 13,817 |
| 15:30 | 19:30 | 8,440 | 7,595 | 11,050 |