# I – 2020 RTP Priority Network Base LOS Calculations

Scenario Report

| | |
|---|---|
| Scenario: | Base 2020 |
| Command: | Base 2020 |
| Volume: | Base 2020 |
| Geometry: | Base 2020 |
| Impact Fee: | Default Impact Fee |
| Trip Generation: | pm peak |
| Trip Distribution: | dist |
| Paths: | Default Paths |
| Routes: | Default Routes |
| Configuration: | Default Configuration |





Impact Analysis Report
Level Of Service

| Intersection | Base LOS | Base Del/ Veh | Base V/ C | Future LOS | Future Del/ Veh | Future V/ C | Change in |
|---|---|---|---|---|---|---|---|
| # 1 170th/TV Highway | F | 89.3 | 1.154 | F | 89.3 | 1.154 | + 0.000 D/V |
| # 2 170th/Farmington | F | 88.3 | 1.139 | F | 88.3 | 1.139 | + 0.000 D/V |
| # 3 170th/Oak | B | 12.6 | 0.749 | B | 12.6 | 0.749 | + 0.000 D/V |
| # 5 170th/Bany | C | 33.6 | 0.713 | C | 33.6 | 0.713 | + 0.000 D/V |
| # 6 Bethany/US 26 west ramp | F | 85.9 | 1.187 | F | 85.9 | 1.187 | + 0.000 D/V |
| # 7 Bethany/US 26 east ramp | D | 53.8 | 1.010 | D | 53.8 | 1.010 | + 0.000 D/V |
| # 8 Bethany/Cornell | D | 54.3 | 1.016 | D | 54.3 | 1.016 | + 0.000 D/V |
| # 9 Cornell/US 26 east ramp | C | 23.5 | 0.857 | C | 23.5 | 0.857 | + 0.000 D/V |
| # 10 Cornell/US 26 west ramp | D | 53.2 | 1.012 | D | 53.2 | 1.012 | + 0.000 D/V |
| # 11 158th/Cornell | D | 39.2 | 0.968 | D | 39.2 | 0.968 | + 0.000 D/V |
| # 12 158th/Walker | E | 58.9 | 1.010 | E | 58.9 | 1.010 | + 0.000 D/V |
| # 13 143rd/Cornell | E | 55.3 | 0.901 | E | 55.3 | 0.901 | + 0.000 D/V |
| # 14 Murray/Cornell | F | 160.8 | 1.387 | F | 160.8 | 1.387 | + 0.000 D/V |
| # 15 Barnes/Saltzman/Cornell | F | 193.3 | 1.420 | F | 193.3 | 1.420 | + 0.000 D/V |
| # 16 Murray/US 26 west ramp | E | 65.1 | 1.104 | E | 65.1 | 1.104 | + 0.000 D/V |
| # 17 Murray/US 26 east ramps | B | 14.6 | 0.675 | B | 14.6 | 0.675 | + 0.000 D/V |
| # 18 Murray/Walker | E | 60.9 | 1.065 | E | 60.9 | 1.065 | + 0.000 D/V |
| # 19 Murray/Jenkins | E | 75.4 | 1.153 | E | 75.4 | 1.153 | + 0.000 D/V |
| # 20 Murray/Farmington | F | 103.6 | 1.161 | F | 103.6 | 1.161 | + 0.000 D/V |
| # 21 Murray/6th | C | 34.2 | 0.984 | C | 34.2 | 0.984 | + 0.000 D/V |
| # 22 Murray/Allen | F | 120.1 | 1.274 | F | 120.1 | 1.274 | + 0.000 D/V |
| # 23 Murray/Brockman/Beard | F | 98.7 | 1.194 | F | 98.7 | 1.194 | + 0.000 D/V |
| # 24 Nimbus/Scholls Ferry | E | 65.4 | 1.071 | E | 65.4 | 1.071 | + 0.000 D/V |
| # 25 Hall/Scholls Ferry | D | 40.9 | 0.746 | D | 40.9 | 0.746 | + 0.000 D/V |
| # 26 Allen/Schools Ferry | D | 50.2 | 0.950 | D | 50.2 | 0.950 | + 0.000 D/V |

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| Intersection | Base LOS | Base Del/ Veh | Base V/ C | Future LOS | Future Del/ Veh | Future V/ C | Change in |
|---|---|---|---|---|---|---|---|
| # 27 Oleson/Vermont | C | 25.4 | 0.778 | C | 25.4 | 0.778 | + 0.000 D/V |
| # 28 Oleson/Garden Home | D | 49.7 | 0.999 | D | 49.7 | 0.999 | + 0.000 D/V |
| # 29 Cedar Hills/Barnes | F | 105.6 | 1.224 | F | 105.6 | 1.224 | + 0.000 D/V |
| # 30 Cedar Hills/US 26 west ramps | C | 29.9 | 0.967 | C | 29.9 | 0.967 | + 0.000 D/V |
| # 31 Cedar Hills/US 26 east ramps | C | 29.5 | 0.903 | C | 29.5 | 0.903 | + 0.000 D/V |
| # 32 Cedar Hills/Butner | D | 40.2 | 0.952 | D | 40.2 | 0.952 | + 0.000 D/V |
| # 33 Cedar Hills/Walker | F | 134.9 | 1.337 | F | 134.9 | 1.337 | + 0.000 D/V |
| # 34 Cedar Hills/Jenkins | D | 41.8 | 0.916 | D | 41.8 | 0.916 | + 0.000 D/V |
| # 35 Cedar Hills/Hall | D | 35.5 | 0.895 | D | 35.5 | 0.895 | + 0.000 D/V |
| # 36 Cedar Hills/Canyon | D | 37.9 | 0.947 | D | 37.9 | 0.947 | + 0.000 D/V |
| # 37 Cedar Hills/Farmington | D | 53.2 | 1.077 | D | 53.2 | 1.077 | + 0.000 D/V |
| # 38 Hall/Center | C | 25.7 | 0.682 | C | 25.7 | 0.682 | + 0.000 D/V |
| # 39 Hall/Allen | D | 48.6 | 0.971 | D | 48.6 | 0.971 | + 0.000 D/V |
| # 40 Hall/Denney | E | 57.9 | 1.019 | E | 57.9 | 1.019 | + 0.000 D/V |
| # 41 Hall/Greenway | D | 49.9 | 1.010 | D | 49.9 | 1.010 | + 0.000 D/V |
| # 42 Hall/Nimbus | D | 43.9 | 0.952 | D | 43.9 | 0.952 | + 0.000 D/V |
| # 43 125th/Greenway | D | 36.5 | 0.771 | D | 36.5 | 0.771 | + 0.000 D/V |
| # 44 Western/Beaverton Hillsdale | C | 29.4 | 0.723 | C | 29.4 | 0.723 | + 0.000 D/V |
| # 45 Western/Allen | D | 37.2 | 0.922 | D | 37.2 | 0.922 | + 0.000 D/V |
| # 46 Laurelwood/Beaverton Hillsdale | E | 66.7 | 1.090 | E | 66.7 | 1.090 | + 0.000 D/V |
| # 47 Lombard/Farmington | D | 51.6 | 0.967 | D | 51.6 | 0.967 | + 0.000 D/V |
| # 48 114th/Canyon | C | 26.1 | 0.843 | C | 26.1 | 0.843 | + 0.000 D/V |
| # 49 Griffith/Beaverton Hillsdale | C | 30.8 | 0.756 | C | 30.8 | 0.756 | + 0.000 D/V |
| # 50 87th/Canyon | C | 25.0 | 0.846 | C | 25.0 | 0.846 | + 0.000 D/V |
| # 51 Garden Home/84th | D | 33.1 | 0.000 | D | 33.1 | 0.000 | + 0.000 V/C |
| # 52 Garden Home/88th | C | 23.3 | 0.000 | C | 23.3 | 0.000 | + 0.000 V/C |





| Intersection | Base LOS | Base Del/ Veh | Base V/ C | Future LOS | Future Del/ Veh | Future V/ C | Change in |
|---|---|---|---|---|---|---|---|
| # 53 158th/Jenkins | E | 78.6 | 1.102 | E | 78.6 | 1.102 | + 0.000 D/V |
| # 54 170th/Merlo | C | 27.8 | 0.722 | C | 27.8 | 0.722 | + 0.000 D/V |
| # 56 TV Highway/Murray | E | 76.0 | 1.096 | E | 76.0 | 1.096 | + 0.000 D/V |
| # 57 Farmington/Hall | C | 28.7 | 0.905 | C | 28.7 | 0.905 | + 0.000 D/V |
| # 58 Canyon/Hall | C | 25.3 | 0.836 | C | 25.3 | 0.836 | + 0.000 D/V |
| # 59 Walker/173rd | D | 36.0 | 0.862 | D | 36.0 | 0.862 | + 0.000 D/V |
| # 60 170th/Baseline | D | 43.5 | 0.953 | D | 43.5 | 0.953 | + 0.000 D/V |
| # 64 Cornell/173rd | F | 119.6 | 1.241 | F | 119.6 | 1.241 | + 0.000 D/V |
| # 66 Scholls Ferry/Cascade | C | 32.9 | 0.932 | C | 32.9 | 0.932 | + 0.000 D/V |
| # 72 Canyon/Watson | C | 22.7 | 0.842 | C | 22.7 | 0.842 | + 0.000 D/V |
| # 73 Farmington/Watson | C | 23.4 | 0.852 | C | 23.4 | 0.852 | + 0.000 D/V |
| # 76 Scholls Ferry/Denney | C | 24.7 | 0.767 | C | 24.7 | 0.767 | + 0.000 D/V |
| # 77 Farmington/Hocken | C | 22.4 | 0.745 | C | 22.4 | 0.745 | + 0.000 D/V |
| # 78 TV Highway/Hocken | D | 49.5 | 1.026 | D | 49.5 | 1.026 | + 0.000 D/V |
| # 81 158th/Blueridge | D | 40.7 | 0.987 | D | 40.7 | 0.987 | + 0.000 D/V |
| # 83 158th/Jay | C | 32.9 | 0.917 | C | 32.9 | 0.917 | + 0.000 D/V |
| # 85 TV Highway/160th | E | 73.8 | 1.136 | E | 73.8 | 1.136 | + 0.000 D/V |
| # 87 Hart/155th | B | 15.8 | 0.520 | B | 15.8 | 0.520 | + 0.000 D/V |
| # 88 Murray/Hart | D | 52.6 | 1.011 | D | 52.6 | 1.011 | + 0.000 D/V |
| # 89 Murray/Scholls Ferry | D | 54.2 | 0.974 | D | 54.2 | 0.974 | + 0.000 D/V |
| # 90 Scholls Ferry/Davies | B | 18.2 | 0.701 | B | 18.2 | 0.701 | + 0.000 D/V |
| # 92 Scholls Ferry/135th | B | 13.4 | 0.660 | B | 13.4 | 0.660 | + 0.000 D/V |
| # 93 Scholls Ferry/125th | E | 63.3 | 1.051 | E | 63.3 | 1.051 | + 0.000 D/V |
| # 94 Scholls Ferry/121st | D | 37.3 | 0.932 | D | 37.3 | 0.932 | + 0.000 D/V |
| # 95 Scholls Ferry/Conestoga | B | 12.7 | 0.779 | B | 12.7 | 0.779 | + 0.000 D/V |
| #102 Scholls Ferry/Laurelwood | F | 129.0 | 0.000 | F | 129.0 | 0.000 | + 0.000 V/C |

| Intersection | Base LOS | Del/ Veh | V/ C | Future LOS | Del/ Veh | V/ C | Change in |
|---|---|---|---|---|---|---|---|
| #103 Canyon/Lombard | D | 44.7 | 0.950 | D | 44.7 | 0.950 | + 0.000 D/V |
| #105 Canyon/117th | C | 25.9 | 0.762 | C | 25.9 | 0.762 | + 0.000 D/V |
| #114 ORE 217 SB Ramp/Canyon | C | 28.4 | 0.835 | C | 28.4 | 0.835 | + 0.000 D/V |
| #115 ORE 217 NB Ramp/Canyon | C | 28.5 | 0.811 | C | 28.5 | 0.811 | + 0.000 D/V |
| #116 ORE 217 SB Ramp/Farmington | C | 33.5 | 0.891 | C | 33.5 | 0.891 | + 0.000 D/V |
| #117 ORE 217 NB Ramp/Farmington | C | 28.5 | 0.809 | C | 28.5 | 0.809 | + 0.000 D/V |
| #118 ORE 217 SB Ramp/Allen | C | 35.0 | 0.900 | C | 35.0 | 0.900 | + 0.000 D/V |
| #119 ORE 217 NB Ramp/Allen | C | 32.4 | 0.900 | C | 32.4 | 0.900 | + 0.000 D/V |
| #120 ORE 217 SB Ramp/Denney | D | 42.7 | 0.957 | D | 42.7 | 0.957 | + 0.000 D/V |
| #121 ORE 217 NB Ramp/Denney | D | 37.0 | 0.848 | D | 37.0 | 0.848 | + 0.000 D/V |
| #122 ORE 217 SB off Ramp/Hall/Casca | E | 76.0 | 1.106 | E | 76.0 | 1.106 | + 0.000 D/V |
| #123 ORE 217 NB on Ramp/Scholls Fer | F | 148.9 | 1.429 | F | 148.9 | 1.429 | + 0.000 D/V |
| #125 ORE 217 NB off Ramp/Scholls Fe | B | 19.6 | 0.645 | B | 19.6 | 0.645 | + 0.000 D/V |
| #129 ORE 217 NB Ramp/Walker | C | 24.1 | 0.756 | C | 24.1 | 0.756 | + 0.000 D/V |
| #130 ORE 217 SB Ramp/Walker | B | 15.9 | 0.643 | B | 15.9 | 0.643 | + 0.000 D/V |
| #131 Scholls Ferry/ORE 217 SB on Ra | C | 32.3 | 0.741 | C | 32.3 | 0.741 | + 0.000 D/V |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 170th/TV Highway

Cycle (sec): 120 Critical Vol./Cap. (X): 1.154
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 89.3
Optimal Cycle: 180 Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Ovl | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 2 0 | 1 | 1 0 | 2 0 | 1 | 2 0 | 2 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 136 | 342 | 66 | 343 | 615 | 5 | 112 | 1911 | 222 | 521 | 1992 | 372 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 136 | 342 | 66 | 343 | 615 | 5 | 112 | 1911 | 222 | 521 | 1992 | 372 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 136 | 342 | 66 | 343 | 615 | 5 | 112 | 1911 | 222 | 521 | 1992 | 372 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 136 | 342 | 66 | 343 | 615 | 5 | 112 | 1911 | 222 | 521 | 1992 | 372 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 136 | 342 | 66 | 343 | 615 | 5 | 112 | 1911 | 222 | 521 | 1992 | 372 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.93 | 0.91 | 0.91 | 0.94 | 0.94 | 0.84 | 0.93 | 0.93 | 0.83 | 0.91 | 0.94 | 0.84 |
| Lanes: | 1.00 | 1.68 | 0.32 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 1769 | 2894 | 559 | 1787 | 3574 | 1599 | 1769 | 3538 | 1583 | 3467 | 3574 | 1599 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.12 | 0.12 | 0.19 | 0.17 | 0.00 | 0.06 | 0.54 | 0.14 | 0.15 | 0.56 | 0.23 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green/Cycle: | 0.08 | 0.10 | 0.10 | 0.17 | 0.19 | 0.19 | 0.06 | 0.47 | 0.55 | 0.13 | 0.54 | 0.70 |
| Volume/Cap: | 0.93 | 1.15 | 1.15 | 1.15 | 0.93 | 0.02 | 1.04 | 1.15 | 0.25 | 1.15 | 1.04 | 0.33 |
| Uniform Del: | 54.7 | 53.9 | 53.9 | 50.0 | 48.1 | 39.9 | 56.3 | 31.9 | 14.1 | 52.2 | 27.8 | 6.9 |
| IncremntDel: | 52.7 | 96.8 | 96.8 | 100.8 | 19.2 | 0.0 | 97.2 | 76.9 | 0.2 | 92.0 | 31.1 | 0.2 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 107.4 | 151 | 150.7 | 150.8 | 67.2 | 39.9 | 153.5 | 109 | 14.2 | 144.2 | 58.9 | 7.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 107.4 | 151 | 150.7 | 150.8 | 67.2 | 39.9 | 153.5 | 109 | 14.2 | 144.2 | 58.9 | 7.1 |
| DesignQueue: | 8 | 21 | 4 | 20 | 35 | 0 | 7 | 78 | 7 | 31 | 71 | 8 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 170th/Farmington

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap. (X): | 1.139 | | | | |
| Loss Time (sec): | 16 (Y+R = 4 sec) | Average Delay (sec/veh): | 88.3 | | | | |
| Optimal Cycle: | 180 | Level Of Service: | F | | | | |

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 | 0 | 1 0 | 1 | 0 | 1 0 | 1 | 0 | 1 0 | 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 298 | 315 | 108 | 111 | 490 | 283 | 90 | 1034 | 489 | 184 | 1403 | 175 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 298 | 315 | 108 | 111 | 490 | 283 | 90 | 1034 | 489 | 184 | 1403 | 175 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 298 | 315 | 108 | 111 | 490 | 283 | 90 | 1034 | 489 | 184 | 1403 | 175 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 298 | 315 | 108 | 111 | 490 | 283 | 90 | 1034 | 489 | 184 | 1403 | 175 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 298 | 315 | 108 | 111 | 490 | 283 | 90 | 1034 | 489 | 184 | 1403 | 175 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.93 | 0.90 | 0.90 | 0.94 | 0.89 | 0.89 | 0.92 | 0.88 | 0.88 | 0.94 | 0.92 | 0.92 |
| Lanes: | 1.00 | 1.49 | 0.51 | 1.00 | 1.27 | 0.73 | 1.00 | 1.36 | 0.64 | 1.00 | 1.78 | 0.22 |
| Final Sat.: | 1769 | 2534 | 869 | 1787 | 2141 | 1236 | 1753 | 2266 | 1071 | 1787 | 3124 | 390 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.17 | 0.12 | 0.12 | 0.06 | 0.23 | 0.23 | 0.05 | 0.46 | 0.46 | 0.10 | 0.45 | 0.45 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green/Cycle: | 0.15 | 0.23 | 0.23 | 0.12 | 0.20 | 0.20 | 0.05 | 0.40 | 0.40 | 0.09 | 0.44 | 0.44 |
| Volume/Cap: | 1.14 | 0.53 | 0.53 | 0.53 | 1.14 | 1.14 | 1.02 | 1.14 | 1.14 | 1.14 | 1.02 | 1.02 |
| Uniform Del: | 42.6 | 33.6 | 33.6 | 41.6 | 40.0 | 40.0 | 47.5 | 30.0 | 30.0 | 45.5 | 28.0 | 28.0 |
| IncremntDel: | 98.4 | 0.7 | 0.7 | 2.7 | 79.6 | 79.6 | 101.1 | 72.1 | 72.1 | 113.0 | 27.8 | 27.8 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 141.0 | 34.3 | 34.3 | 44.3 | 120 | 119.5 | 148.6 | 102 | 102.1 | 158.5 | 55.8 | 55.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 141.0 | 34.3 | 34.3 | 44.3 | 120 | 119.5 | 148.6 | 102 | 102.1 | 158.5 | 55.8 | 55.8 |
| DesignQueue: | 15 | 14 | 5 | 6 | 23 | 13 | 5 | 38 | 18 | 10 | 49 | 6 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 170th/Oak

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap. (X): | 0.749 | | | | |
| Loss Time (sec): | 0 (Y+R = 4 sec) | Average Delay (sec/veh): | 12.6 | | | | |
| Optimal Cycle: | 57 | Level Of Service: | B | | | | |

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! | 0 | 1 0 | 0 | 1 | 0 0 | 1! | 0 | 0 0 | 1! | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 21 | 417 | 14 | 136 | 1013 | 55 | 12 | 18 | 6 | 52 | 40 | 190 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 21 | 417 | 14 | 136 | 1013 | 55 | 12 | 18 | 6 | 52 | 40 | 190 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 21 | 417 | 14 | 136 | 1013 | 55 | 12 | 18 | 6 | 52 | 40 | 190 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 21 | 417 | 14 | 136 | 1013 | 55 | 12 | 18 | 6 | 52 | 40 | 190 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 21 | 417 | 14 | 136 | 1013 | 55 | 12 | 18 | 6 | 52 | 40 | 190 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.91 | 0.91 | 0.91 | 0.54 | 0.98 | 0.98 | 0.85 | 0.85 | 0.85 | 0.84 | 0.84 | 0.84 |
| Lanes: | 0.05 | 0.92 | 0.03 | 1.00 | 0.95 | 0.05 | 0.33 | 0.50 | 0.17 | 0.18 | 0.14 | 0.68 |
| Final Sat.: | 81 | 1603 | 54 | 1028 | 1770 | 96 | 541 | 811 | 270 | 295 | 227 | 1077 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.26 | 0.26 | 0.26 | 0.13 | 0.57 | 0.57 | 0.02 | 0.02 | 0.02 | 0.18 | 0.18 | 0.18 |
| Crit Moves: | | | | | **** | | | | | | **** | |
| Green/Cycle: | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 |
| Volume/Cap: | 0.34 | 0.34 | 0.34 | 0.17 | 0.75 | 0.75 | 0.09 | 0.09 | 0.09 | 0.75 | 0.75 | 0.75 |
| Uniform Del: | 3.8 | 3.8 | 3.8 | 3.2 | 6.5 | 6.5 | 29.9 | 29.9 | 29.9 | 35.5 | 35.5 | 35.5 |
| IncremntDel: | 0.2 | 0.2 | 0.2 | 0.1 | 2.2 | 2.2 | 0.1 | 0.1 | 0.1 | 8.1 | 8.1 | 8.1 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 3.9 | 3.9 | 3.9 | 3.3 | 8.7 | 8.7 | 30.0 | 30.0 | 30.0 | 43.6 | 43.6 | 43.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 3.9 | 3.9 | 3.9 | 3.3 | 8.7 | 8.7 | 30.0 | 30.0 | 30.0 | 43.6 | 43.6 | 43.6 |
| DesignQueue: | 0 | 6 | 0 | 2 | 16 | 1 | 1 | 1 | 0 | 2 | 2 | 8 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 170th/Bany

Cycle (sec): 100 Critical Vol./Cap. (X): 0.713
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 33.6
Optimal Cycle: 71 Level Of Service: C

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Protected | | | | Protected | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 | 0 | 0 | 1 0 | 1 | 0 | 0 | 1 0 | 1 | 0 | 0 | 1 0 | 1 | 0 | 0 | 1 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 60 | 167 | | 33 | 242 | 487 | | 39 | 15 | 209 | | 74 | 80 | 312 | | 181 |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Initial Bse: | 60 | 167 | | 33 | 242 | 487 | | 39 | 15 | 209 | | 74 | 80 | 312 | | 181 |
| User Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| PHF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| PHF Volume: | 60 | 167 | | 33 | 242 | 487 | | 39 | 15 | 209 | | 74 | 80 | 312 | | 181 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Reduced Vol: | 60 | 167 | | 33 | 242 | 487 | | 39 | 15 | 209 | | 74 | 80 | 312 | | 181 |
| PCE Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| MLF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Final Vol.: | 60 | 167 | | 33 | 242 | 487 | | 39 | 15 | 209 | | 74 | 80 | 312 | | 181 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 |
| Adjustment: | 0.95 | 0.98 | | 0.98 | 0.95 | 0.99 | | 0.99 | 0.92 | 0.93 | | 0.93 | 0.94 | 0.94 | | 0.94 |
| Lanes: | 1.00 | 0.83 | | 0.17 | 1.00 | 0.93 | | 0.07 | 1.00 | 0.74 | | 0.26 | 1.00 | 0.63 | | 0.37 |
| Final Sat.: | 1805 | 1547 | | 306 | 1805 | 1740 | | 139 | 1753 | 1309 | | 464 | 1787 | 1125 | | 653 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.11 | | 0.11 | 0.13 | 0.28 | | 0.28 | 0.01 | 0.16 | | 0.16 | 0.04 | 0.28 | | 0.28 |
| Crit Moves: | **** | | | | **** | | | | **** | | | | | **** | | |
| Green/Cycle: | 0.05 | 0.20 | | 0.20 | 0.24 | 0.39 | | 0.39 | 0.01 | 0.31 | | 0.31 | 0.09 | 0.39 | | 0.39 |
| Volume/Cap: | 0.71 | 0.55 | | 0.55 | 0.55 | 0.71 | | 0.71 | 0.71 | 0.51 | | 0.51 | 0.51 | 0.71 | | 0.71 |
| Uniform Del: | 47.0 | 36.2 | | 36.2 | 33.1 | 25.6 | | 25.6 | 49.2 | 28.1 | | 28.1 | 43.6 | 25.8 | | 25.8 |
| IncremntDel: | 24.9 | 1.8 | | 1.8 | 1.5 | 3.3 | | 3.3 | 75.1 | 0.8 | | 0.8 | 2.8 | 3.5 | | 3.5 |
| Delay Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Delay/Veh: | 71.9 | 38.1 | | 38.1 | 34.6 | 28.9 | | 28.9 | 124.3 | 28.9 | | 28.9 | 46.3 | 29.4 | | 29.4 |
| User DelAdj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| AdjDel/Veh: | 71.9 | 38.1 | | 38.1 | 34.6 | 28.9 | | 28.9 | 124.3 | 28.9 | | 28.9 | 46.3 | 29.4 | | 29.4 |
| DesignQueue: | 3 | 8 | | 2 | 11 | 18 | | 1 | 1 | 8 | | 3 | 4 | 11 | | 7 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Bethany/US 26 west ramp

Cycle (sec): 100 Critical Vol./Cap. (X): 1.187
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 85.9
Optimal Cycle: 180 Level Of Service: F

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Protected | | | | Protected | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 | 0 | 1 | 0 0 | 0 | 0 | 1 | 1 0 | 0 | 0 | 0 | 0 0 | 0 | 1 | 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 135 | 1014 | | 0 | 0 | 1081 | | 119 | 0 | 0 | | 0 | 0 | 292 | | 816 |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Initial Bse: | 135 | 1014 | | 0 | 0 | 1081 | | 119 | 0 | 0 | | 0 | 0 | 292 | | 816 |
| User Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| PHF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| PHF Volume: | 135 | 1014 | | 0 | 0 | 1081 | | 119 | 0 | 0 | | 0 | 0 | 292 | | 816 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Reduced Vol: | 135 | 1014 | | 0 | 0 | 1081 | | 119 | 0 | 0 | | 0 | 0 | 292 | | 816 |
| PCE Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| MLF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Final Vol.: | 135 | 1014 | | 0 | 0 | 1081 | | 119 | 0 | 0 | | 0 | 0 | 292 | | 816 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 |
| Adjustment: | 0.94 | 0.99 | | 1.00 | 1.00 | 0.92 | | 0.92 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.85 |
| Lanes: | 1.00 | 1.00 | | 0.00 | 0.00 | 1.80 | | 0.20 | 0.00 | 0.00 | | 0.00 | 0.00 | 1.00 | | 1.00 |
| Final Sat.: | 1787 | 1881 | | 0 | 0 | 3139 | | 346 | 0 | 0 | | 0 | 0 | 1900 | | 1615 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.54 | | 0.00 | 0.00 | 0.34 | | 0.34 | 0.00 | 0.00 | | 0.00 | 0.00 | 0.15 | | 0.51 |
| Crit Moves: | | **** | | | **** | | | | | | | | | | | **** |
| Green/Cycle: | 0.08 | 0.45 | | 0.00 | 0.00 | 0.37 | | 0.37 | 0.00 | 0.00 | | 0.00 | 0.00 | 0.43 | | 0.43 |
| Volume/Cap: | 0.92 | 1.19 | | 0.00 | 0.00 | 0.92 | | 0.92 | 0.00 | 0.00 | | 0.00 | 0.00 | 0.36 | | 1.19 |
| Uniform Del: | 45.6 | 27.3 | | 0.0 | 0.0 | 30.0 | | 30.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 19.5 | | 28.7 |
| IncremntDel: | 52.2 | 95.8 | | 0.0 | 0.0 | 11.2 | | 11.2 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.3 | | 98.3 |
| Delay Adj: | 1.00 | 1.00 | | 0.00 | 0.00 | 1.00 | | 1.00 | 0.00 | 0.00 | | 0.00 | 0.00 | 1.00 | | 1.00 |
| Delay/Veh: | 97.9 | 123 | | 0.0 | 0.0 | 41.2 | | 41.2 | 0.0 | 0.0 | | 0.0 | 0.0 | 19.8 | | 127.0 |
| User DelAdj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| AdjDel/Veh: | 97.9 | 123 | | 0.0 | 0.0 | 41.2 | | 41.2 | 0.0 | 0.0 | | 0.0 | 0.0 | 19.8 | | 127.0 |
| DesignQueue: | 7 | 36 | | 0 | 0 | 41 | | 5 | 0 | 0 | | 0 | 0 | 10 | | 29 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 Bethany/US 26 east ramp

Cycle (sec): 100 Critical Vol./Cap. (X): 1.010
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 53.8
Optimal Cycle: 180 Level Of Service: D

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Protected | | | | Protected | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 | 0 | 0 | 1 0 | 1 | 0 | 2 | 0 0 | 0 | 1 | 0 | 1 0 | 0 | 0 | 0 | 0 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 931 | | 33 | 474 | 574 | | 0 | 160 | | 93 | 76 | 0 | | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Initial Bse: | 0 | 931 | | 33 | 474 | 574 | | 0 | 160 | | 93 | 76 | 0 | | 0 | 0 |
| User Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| PHF Volume: | 0 | 931 | | 33 | 474 | 574 | | 0 | 160 | | 93 | 76 | 0 | | 0 | 0 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| Reduced Vol: | 0 | 931 | | 33 | 474 | 574 | | 0 | 160 | | 93 | 76 | 0 | | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Final Vol.: | 0 | 931 | | 33 | 474 | 574 | | 0 | 160 | | 93 | 76 | 0 | | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 |
| Adjustment: | 1.00 | 0.99 | | 0.99 | 0.91 | 0.91 | | 1.00 | 0.86 | | 0.86 | 0.86 | 1.00 | | 1.00 | 1.00 |
| Lanes: | 0.00 | 0.97 | | 0.03 | 1.00 | 2.00 | | 0.00 | 0.97 | | 0.57 | 0.46 | 0.00 | | 0.00 | 0.00 |
| Final Sat.: | 0 | 1808 | | 64 | 1736 | 3473 | | 0 | 1590 | | 924 | 755 | 0 | | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.52 | | 0.52 | 0.27 | 0.17 | | 0.00 | 0.10 | | 0.10 | 0.10 | 0.00 | | 0.00 | 0.00 |
| Crit Moves: | | **** | | | **** | | | | | | **** | | | | | |
| Green/Cycle: | 0.00 | 0.51 | | 0.51 | 0.27 | 0.78 | | 0.00 | 0.10 | | 0.10 | 0.10 | 0.00 | | 0.00 | 0.00 |
| Volume/Cap: | 0.00 | 1.01 | | 1.01 | 1.01 | 0.21 | | 0.00 | 1.01 | | 1.01 | 1.01 | 0.00 | | 0.00 | 0.00 |
| Uniform Del: | 0.0 | 24.5 | | 24.5 | 36.5 | 2.9 | | 0.0 | 45.0 | | 45.0 | 45.0 | 0.0 | | 0.0 | 0.0 |
| IncremntDel: | 0.0 | 31.6 | | 31.6 | 44.0 | 0.0 | | 0.0 | 52.4 | | 52.4 | 52.4 | 0.0 | | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.00 | 1.00 | | 1.00 | 1.00 | 0.00 | | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 56.1 | | 56.1 | 80.5 | 2.9 | | 0.0 | 97.4 | | 97.4 | 97.4 | 0.0 | | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 56.1 | | 56.1 | 80.5 | 2.9 | | 0.0 | 97.4 | | 97.4 | 97.4 | 0.0 | | 0.0 | 0.0 |
| DesignQueue: | 0 | 29 | | 1 | 21 | 7 | | 0 | 8 | | 5 | 4 | 0 | | 0 | 0 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Bethany/Cornell

Cycle (sec): 120 Critical Vol./Cap. (X): 1.016
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 54.3
Optimal Cycle: 180 Level Of Service: D

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Split Phase | | | | Split Phase | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Ovl | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 | 0 | 0 | 1 0 | 1 | 1 | 0 | 0 1 | 1 | 0 | 1 | 1 0 | 1 | 0 | 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 34 | 36 | | 100 | 340 | 18 | | 328 | 464 | | 1354 | 14 | 48 | | 1180 | 438 |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Initial Bse: | 34 | 36 | | 100 | 340 | 18 | | 328 | 464 | | 1354 | 14 | 48 | | 1180 | 438 |
| User Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| PHF Volume: | 34 | 36 | | 100 | 340 | 18 | | 328 | 464 | | 1354 | 14 | 48 | | 1180 | 438 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| Reduced Vol: | 34 | 36 | | 100 | 340 | 18 | | 328 | 464 | | 1354 | 14 | 48 | | 1180 | 438 |
| PCE Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Final Vol.: | 34 | 36 | | 100 | 340 | 18 | | 328 | 464 | | 1354 | 14 | 48 | | 1180 | 438 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 |
| Adjustment: | 0.95 | 0.89 | | 0.89 | 0.94 | 0.94 | | 0.83 | 0.93 | | 0.93 | 0.93 | 0.94 | | 0.94 | 0.84 |
| Lanes: | 1.00 | 0.26 | | 0.74 | 1.90 | 0.10 | | 1.00 | 1.00 | | 1.98 | 0.02 | 1.00 | | 2.00 | 1.00 |
| Final Sat.: | 1805 | 448 | | 1243 | 3378 | 179 | | 1583 | 1769 | | 3498 | 36 | 1787 | | 3574 | 1599 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.08 | | 0.08 | 0.10 | 0.10 | | 0.21 | 0.26 | | 0.39 | 0.39 | 0.03 | | 0.33 | 0.27 |
| Crit Moves: | | **** | | | | | | **** | **** | | | | | | **** | |
| Green/Cycle: | 0.08 | 0.08 | | 0.08 | 0.20 | 0.20 | | 0.20 | 0.26 | | 0.55 | 0.55 | 0.04 | | 0.33 | 0.53 |
| Volume/Cap: | 0.24 | 1.02 | | 1.02 | 0.49 | 0.49 | | 1.02 | 1.02 | | 0.71 | 0.71 | 0.71 | | 1.02 | 0.52 |
| Uniform Del: | 51.8 | 55.2 | | 55.2 | 42.3 | 42.3 | | 47.8 | 44.5 | | 20.2 | 20.2 | 57.1 | | 40.5 | 18.3 |
| IncremntDel: | 0.9 | 82.0 | | 82.0 | 0.5 | 0.5 | | 54.1 | 46.1 | | 1.2 | 1.2 | 29.4 | | 30.3 | 0.6 |
| Delay Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Delay/Veh: | 52.7 | 137 | | 137.2 | 42.8 | 42.8 | | 101.8 | 90.6 | | 21.5 | 21.5 | 86.4 | | 70.8 | 18.9 |
| User DelAdj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| AdjDel/Veh: | 52.7 | 137 | | 137.2 | 42.8 | 42.8 | | 101.8 | 90.6 | | 21.5 | 21.5 | 86.4 | | 70.8 | 18.9 |
| DesignQueue: | 2 | 2 | | 6 | 19 | 1 | | 18 | 25 | | 45 | 0 | 3 | | 58 | 15 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 Cornell/US 26 east ramp

Cycle (sec): 100 Critical Vol./Cap. (X): 0.857
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 23.5
Optimal Cycle: 93 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 | 0 2 | 0 1 | 1 | 0 2 | 0 0 | 0 | 1 0 | 1 0 | 0 | 0 0 | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 1806 | 718 | 42 | 1881 | 0 | 313 | 111 | 279 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 1806 | 718 | 42 | 1881 | 0 | 313 | 111 | 279 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 1806 | 718 | 42 | 1881 | 0 | 313 | 111 | 279 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 1806 | 718 | 42 | 1881 | 0 | 313 | 111 | 279 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 1806 | 718 | 42 | 1881 | 0 | 313 | 111 | 279 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 0.93 | 0.83 | 0.94 | 0.94 | 1.00 | 0.84 | 0.84 | 0.84 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 2.00 | 1.00 | 1.00 | 2.00 | 0.00 | 0.89 | 0.32 | 0.79 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 3538 | 1583 | 1787 | 3574 | 0 | 1421 | 504 | 1267 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.51 | 0.45 | 0.02 | 0.53 | 0.00 | 0.22 | 0.22 | 0.22 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | **** | | | **** | | | | | |
| Green/Cycle: | 0.00 | 0.60 | 0.60 | 0.03 | 0.62 | 0.00 | 0.26 | 0.26 | 0.26 | 0.00 | 0.00 | 0.00 |
| Volume/Cap: | 0.00 | 0.86 | 0.76 | 0.86 | 0.84 | 0.00 | 0.86 | 0.86 | 0.86 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 0.0 | 16.7 | 15.0 | 48.4 | 15.0 | 0.0 | 35.4 | 35.4 | 35.4 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 0.0 | 3.7 | 3.7 | 77.2 | 3.2 | 0.0 | 8.9 | 8.9 | 8.9 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 20.4 | 18.7 | 125.7 | 18.2 | 0.0 | 44.3 | 44.3 | 44.3 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 20.4 | 18.7 | 125.7 | 18.2 | 0.0 | 44.3 | 44.3 | 44.3 | 0.0 | 0.0 | 0.0 |
| DesignQueue: | 0 | 46 | 18 | 2 | 45 | 0 | 14 | 5 | 12 | 0 | 0 | 0 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Cornell/US 26 west ramp

Cycle (sec): 100 Critical Vol./Cap. (X): 1.012
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 53.2
Optimal Cycle: 180 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Ignore | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 | 0 2 | 0 0 | 0 | 0 2 | 1 0 | 0 | 0 0 | 0 0 | 1 | 1 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 312 | 1595 | 0 | 0 | 782 | 313 | 0 | 0 | 0 | 1003 | 404 | 390 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 312 | 1595 | 0 | 0 | 782 | 313 | 0 | 0 | 0 | 1003 | 404 | 390 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Volume: | 312 | 1595 | 0 | 0 | 782 | 313 | 0 | 0 | 0 | 1003 | 404 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 312 | 1595 | 0 | 0 | 782 | 313 | 0 | 0 | 0 | 1003 | 404 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Final Vol.: | 312 | 1595 | 0 | 0 | 782 | 313 | 0 | 0 | 0 | 1003 | 404 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.94 | 0.94 | 1.00 | 1.00 | 0.85 | 0.85 | 1.00 | 1.00 | 1.00 | 0.83 | 0.83 | 1.00 |
| Lanes: | 1.00 | 2.00 | 0.00 | 0.00 | 2.14 | 0.86 | 0.00 | 0.00 | 0.00 | 1.43 | 0.57 | 1.00 |
| Final Sat.: | 1787 | 3574 | 0 | 0 | 3474 | 1391 | 0 | 0 | 0 | 2257 | 909 | 1900 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.17 | 0.45 | 0.00 | 0.00 | 0.23 | 0.23 | 0.00 | 0.00 | 0.00 | 0.44 | 0.44 | 0.00 |
| Crit Moves: | | **** | | **** | | | | | | **** | | |
| Green/Cycle: | 0.19 | 0.44 | 0.00 | 0.00 | 0.25 | 0.25 | 0.00 | 0.00 | 0.00 | 0.44 | 0.44 | 0.00 |
| Volume/Cap: | 0.91 | 1.01 | 0.00 | 0.00 | 0.91 | 0.91 | 0.00 | 0.00 | 0.00 | 1.01 | 1.01 | 0.00 |
| Uniform Del: | 39.5 | 28.0 | 0.0 | 0.0 | 36.5 | 36.5 | 0.0 | 0.0 | 0.0 | 28.0 | 28.0 | 0.0 |
| IncremntDel: | 26.5 | 25.7 | 0.0 | 0.0 | 9.9 | 9.9 | 0.0 | 0.0 | 0.0 | 27.2 | 27.2 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh: | 66.0 | 53.7 | 0.0 | 0.0 | 46.4 | 46.4 | 0.0 | 0.0 | 0.0 | 55.2 | 55.2 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 66.0 | 53.7 | 0.0 | 0.0 | 46.4 | 46.4 | 0.0 | 0.0 | 0.0 | 55.2 | 55.2 | 0.0 |
| DesignQueue: | 15 | 56 | 0 | 0 | 34 | 14 | 0 | 0 | 0 | 35 | 14 | 0 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #11 158th/Cornell

Cycle (sec): 90 Critical Vol./Cap. (X): 0.968
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 39.2
Optimal Cycle: 142 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Protected | | | Protected | | |
| Rights: | | Ovl | | | Include | | | Include | | | Include | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 2 0 | 0 0 | 2 | 0 0 | 0 0 | 0 | 0 0 | 2 0 | 2 | 2 0 | 2 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 746 | 0 | 1579 | 0 | 0 | 0 | 0 | 963 | 753 | 1018 | 828 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 746 | 0 | 1579 | 0 | 0 | 0 | 0 | 963 | 753 | 1018 | 828 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 746 | 0 | 1579 | 0 | 0 | 0 | 0 | 963 | 753 | 1018 | 828 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 746 | 0 | 1579 | 0 | 0 | 0 | 0 | 963 | 753 | 1018 | 828 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 746 | 0 | 1579 | 0 | 0 | 0 | 0 | 963 | 753 | 1018 | 828 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.90 | 1.00 | 0.73 | 1.00 | 1.00 | 1.00 | 1.00 | 0.93 | 0.73 | 0.90 | 0.93 | 1.00 |
| Lanes: | 2.00 | 0.00 | 2.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 2.00 | 2.00 | 2.00 | 0.00 |
| Final Sat.: | 3432 | 0 | 2786 | 0 | 0 | 0 | 0 | 3538 | 2786 | 3432 | 3538 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.22 | 0.00 | 0.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.27 | 0.27 | 0.30 | 0.23 | 0.00 |
| Crit Moves: | | | **** | | | | | **** | | **** | | |
| Green/Cycle: | 0.28 | 0.00 | 0.59 | 0.00 | 0.00 | 0.00 | 0.00 | 0.28 | 0.28 | 0.31 | 0.59 | 0.00 |
| Volume/Cap: | 0.78 | 0.00 | 0.97 | 0.00 | 0.00 | 0.00 | 0.00 | 0.97 | 0.96 | 0.97 | 0.40 | 0.00 |
| Uniform Del: | 29.9 | 0.0 | 17.8 | 0.0 | 0.0 | 0.0 | 0.0 | 31.9 | 31.9 | 30.8 | 10.0 | 0.0 |
| IncremntDel: | 4.1 | 0.0 | 15.4 | 0.0 | 0.0 | 0.0 | 0.0 | 21.1 | 23.1 | 20.4 | 0.1 | 0.0 |
| Delay Adj: | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh: | 34.0 | 0.0 | 33.2 | 0.0 | 0.0 | 0.0 | 0.0 | 53.1 | 54.9 | 51.2 | 10.1 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 34.0 | 0.0 | 33.2 | 0.0 | 0.0 | 0.0 | 0.0 | 53.1 | 54.9 | 51.2 | 10.1 | 0.0 |
| DesignQueue: | 28 | 0 | 37 | 0 | 0 | 0 | 0 | 37 | 29 | 38 | 18 | 0 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 158th/Walker

Cycle (sec): 120 Critical Vol./Cap. (X): 1.010
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 58.9
Optimal Cycle: 180 Level Of Service: E

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Permit+Prot | | | Permit+Prot | | |
| Rights: | | Include | | | Include | | | Include | | | Ovl | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 2 0 | 2 0 | 1 | 2 0 | 1 1 | 0 | 1 0 | 2 0 | 1 | 1 0 | 2 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 242 | 1189 | 154 | 561 | 1062 | 126 | 95 | 1150 | 151 | 121 | 934 | 367 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 242 | 1189 | 154 | 561 | 1062 | 126 | 95 | 1150 | 151 | 121 | 934 | 367 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 242 | 1189 | 154 | 561 | 1062 | 126 | 95 | 1150 | 151 | 121 | 934 | 367 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 242 | 1189 | 154 | 561 | 1062 | 126 | 95 | 1150 | 151 | 121 | 934 | 367 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 242 | 1189 | 154 | 561 | 1062 | 126 | 95 | 1150 | 151 | 121 | 934 | 367 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.90 | 0.93 | 0.83 | 0.90 | 0.92 | 0.92 | 0.32 | 0.93 | 0.82 | 0.32 | 0.93 | 0.83 |
| Lanes: | 2.00 | 2.00 | 1.00 | 2.00 | 1.79 | 0.21 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 3432 | 3538 | 1583 | 3432 | 3112 | 369 | 600 | 3538 | 1566 | 605 | 3538 | 1577 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.34 | 0.10 | 0.16 | 0.34 | 0.34 | 0.16 | 0.33 | 0.10 | 0.20 | 0.26 | 0.23 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green/Cycle: | 0.08 | 0.33 | 0.33 | 0.16 | 0.40 | 0.40 | 0.42 | 0.32 | 0.32 | 0.43 | 0.32 | 0.48 |
| Volume/Cap: | 0.85 | 1.03 | 0.30 | 1.03 | 0.85 | 0.85 | 0.37 | 1.03 | 0.31 | 0.47 | 0.83 | 0.49 |
| Uniform Del: | 54.3 | 40.4 | 30.2 | 50.5 | 32.6 | 32.6 | 43.9 | 41.1 | 31.1 | 47.7 | 38.0 | 21.5 |
| IncremntDel: | 20.7 | 34.6 | 0.3 | 46.6 | 5.1 | 5.1 | 0.9 | 35.0 | 0.4 | 1.3 | 5.4 | 0.5 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 75.0 | 75.0 | 30.5 | 97.1 | 37.7 | 37.7 | 44.8 | 76.1 | 31.5 | 49.1 | 43.4 | 22.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 75.0 | 75.0 | 30.5 | 97.1 | 37.7 | 37.7 | 44.8 | 76.1 | 31.5 | 49.1 | 43.4 | 22.0 |
| DesignQueue: | 15 | 58 | 7 | 33 | 46 | 5 | 6 | 57 | 7 | 7 | 45 | 14 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #13 143rd/Cornell

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap. (X): | 0.901 |
| Loss Time (sec): | 8 (Y+R = 4 sec) | Average Delay (sec/veh): | 55.3 |
| Optimal Cycle: | 180 | Level Of Service: | E |

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Prot+Permit | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 0 | 0 0 | 1 0 | 0 | 0 1 | 1 0 | 1 | 0 0 | 0 0 | 1 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 487 | 0 | 273 | 415 | 1008 | 0 | 0 | 655 | 851 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 487 | 0 | 273 | 415 | 1008 | 0 | 0 | 655 | 851 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 487 | 0 | 273 | 415 | 1008 | 0 | 0 | 655 | 851 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 487 | 0 | 273 | 415 | 1008 | 0 | 0 | 655 | 851 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 0 | 0 | 487 | 0 | 273 | 415 | 1008 | 0 | 0 | 655 | 851 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 0.93 | 1.00 | 0.83 | 0.39 | 0.99 | 1.00 | 1.00 | 0.99 | 0.84 |
| Lanes: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Final Sat.: | 0 | 0 | 0 | 1769 | 0 | 1583 | 735 | 1881 | 0 | 0 | 1881 | 1587 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.28 | 0.00 | 0.17 | 0.56 | 0.54 | 0.00 | 0.00 | 0.35 | 0.54 |
| Crit Moves: | | | | **** | | | **** | | | | | **** |
| Green/Cycle: | 0.00 | 0.00 | 0.00 | 0.24 | 0.00 | 0.24 | 0.68 | 0.68 | 0.00 | 0.00 | 0.47 | 0.47 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 1.13 | 0.00 | 0.71 | 0.83 | 0.79 | 0.00 | 0.00 | 0.74 | 1.14 |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 37.9 | 0.0 | 34.6 | 22.2 | 11.2 | 0.0 | 0.0 | 21.4 | 26.4 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 85.1 | 0.0 | 6.1 | 11.6 | 3.5 | 0.0 | 0.0 | 3.3 | 77.1 |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 123.0 | 0.0 | 40.7 | 33.7 | 14.7 | 0.0 | 0.0 | 24.7 | 103.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 123.0 | 0.0 | 40.7 | 33.7 | 14.7 | 0.0 | 0.0 | 24.7 | 103.5 |
| DesignQueue: | 0 | 0 | 0 | 22 | 0 | 12 | 19 | 21 | 0 | 0 | 21 | 28 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #14 Murray/Cornell

| | | | |
|---|---|---|---|
| Cycle (sec): | 120 | Critical Vol./Cap. (X): | 1.387 |
| Loss Time (sec): | 16 (Y+R = 4 sec) | Average Delay (sec/veh): | 160.8 |
| Optimal Cycle: | 180 | Level Of Service: | F |

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Ovl | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 | 0 1 | 1 0 | 0 | 1 0 | 1 | 0 | 1 0 | 1 0 | 0 | 1 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 628 | 352 | 663 | 125 | 167 | 26 | 215 | 840 | 400 | 464 | 555 | 77 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 628 | 352 | 663 | 125 | 167 | 26 | 215 | 840 | 400 | 464 | 555 | 77 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 628 | 352 | 663 | 125 | 167 | 26 | 215 | 840 | 400 | 464 | 555 | 77 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 628 | 352 | 663 | 125 | 167 | 26 | 215 | 840 | 400 | 464 | 555 | 77 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 628 | 352 | 663 | 125 | 167 | 26 | 215 | 840 | 400 | 464 | 555 | 77 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.97 | 0.83 | 0.93 | 0.96 | 0.96 | 0.94 | 0.99 | 0.84 | 0.93 | 0.96 | 0.96 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 0.87 | 0.13 | 1.00 | 1.00 | 1.00 | 1.00 | 0.88 | 0.12 |
| Final Sat.: | 1753 | 1845 | 1568 | 1769 | 1579 | 246 | 1787 | 1881 | 1599 | 1769 | 1606 | 223 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.36 | 0.19 | 0.42 | 0.07 | 0.11 | 0.11 | 0.12 | 0.45 | 0.25 | 0.26 | 0.35 | 0.35 |
| Crit Moves: | | | | **** | **** | | | **** | | **** | | |
| Green/Cycle: | 0.27 | 0.30 | 0.30 | 0.05 | 0.08 | 0.08 | 0.13 | 0.32 | 0.60 | 0.19 | 0.38 | 0.38 |
| Volume/Cap: | 1.30 | 0.63 | 1.39 | 1.39 | 1.30 | 1.30 | 0.91 | 1.39 | 0.42 | 1.39 | 0.91 | 0.91 |
| Uniform Del: | 43.5 | 35.8 | 41.7 | 56.9 | 55.1 | 55.1 | 51.4 | 40.7 | 13.0 | 48.7 | 35.4 | 35.4 |
| IncremntDel: | 151.6 | 2.2 | 186.9 | 228.8 | 177 | 177.4 | 35.7 | 184 | 0.3 | 191.8 | 16.4 | 16.4 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 195.1 | 38.1 | 228.6 | 285.7 | 233 | 232.5 | 87.1 | 225 | 13.3 | 240.5 | 51.7 | 51.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 195.1 | 38.1 | 228.6 | 285.7 | 233 | 232.5 | 87.1 | 225 | 13.3 | 240.5 | 51.7 | 51.7 |
| DesignQueue: | 33 | 17 | 34 | 8 | 11 | 2 | 13 | 43 | 11 | 27 | 25 | 3 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #15 Barnes/Saltzman/Cornell

Cycle (sec): 100 Critical Vol./Cap. (X): 1.420
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 193.3
Optimal Cycle: 180 Level Of Service: F

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Protected | | | | Protected | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 | 0 | 1 | 0 1 | 1 | 0 | 0 | 1 0 | 1 | 0 | 1 | 0 1 | 1 | 0 | 1 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 362 | 791 | | 38 | 328 | 537 | | 210 | 184 | 1029 | | 67 | 34 | 638 | | 302 |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Initial Bse: | 362 | 791 | | 38 | 328 | 537 | | 210 | 184 | 1029 | | 67 | 34 | 638 | | 302 |
| User Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| PHF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| PHF Volume: | 362 | 791 | | 38 | 328 | 537 | | 210 | 184 | 1029 | | 67 | 34 | 638 | | 302 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Reduced Vol: | 362 | 791 | | 38 | 328 | 537 | | 210 | 184 | 1029 | | 67 | 34 | 638 | | 302 |
| PCE Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| MLF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Final Vol.: | 362 | 791 | | 38 | 328 | 537 | | 210 | 184 | 1029 | | 67 | 34 | 638 | | 302 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 |
| Adjustment: | 0.94 | 0.99 | | 0.84 | 0.93 | 0.94 | | 0.94 | 0.93 | 0.98 | | 0.83 | 0.93 | 0.98 | | 0.83 |
| Lanes: | 1.00 | 1.00 | | 1.00 | 1.00 | 0.72 | | 0.28 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Final Sat.: | 1787 | 1881 | | 1599 | 1769 | 1282 | | 501 | 1769 | 1862 | | 1583 | 1769 | 1862 | | 1583 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.20 | 0.42 | | 0.02 | 0.19 | 0.42 | | 0.42 | 0.10 | 0.55 | | 0.04 | 0.02 | 0.34 | | 0.19 |
| Crit Moves: | **** | | | | | **** | | | | **** | | | **** | | | |
| Green/Cycle: | 0.14 | 0.30 | | 0.30 | 0.13 | 0.29 | | 0.29 | 0.09 | 0.39 | | 0.39 | 0.01 | 0.31 | | 0.31 |
| Volume/Cap: | 1.42 | 1.39 | | 0.08 | 1.39 | 1.42 | | 1.42 | 1.11 | 1.42 | | 0.11 | 1.42 | 1.11 | | 0.62 |
| Uniform Del: | 42.9 | 34.8 | | 24.8 | 43.3 | 35.3 | | 35.3 | 45.3 | 30.5 | | 19.5 | 49.3 | 34.6 | | 29.5 |
| IncremntDel: | 210.6 | 184 | | 0.1 | 197.4 | 200 | | 200.1 | 102.3 | 197 | | 0.1 | 333.4 | 71.2 | | 2.4 |
| Delay Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Delay/Veh: | 253.5 | 219 | | 24.9 | 240.7 | 235 | | 235.4 | 147.6 | 228 | | 19.6 | 382.7 | 106 | | 31.9 |
| User DelAdj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| AdjDel/Veh: | 253.5 | 219 | | 24.9 | 240.7 | 235 | | 235.4 | 147.6 | 228 | | 19.6 | 382.7 | 106 | | 31.9 |
| DesignQueue: | 18 | 34 | | 1 | 17 | 23 | | 9 | 10 | 41 | | 2 | 2 | 27 | | 12 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #16 Murray/US 26 west ramp

Cycle (sec): 100 Critical Vol./Cap. (X): 1.104
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 65.1
Optimal Cycle: 180 Level Of Service: E

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Protected | | | | Permitted | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Ignore | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 | 0 | 2 | 0 0 | 0 | 0 | 2 | 0 1 | 0 | 0 | 0 | 0 0 | 1 | 1 | 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 324 | 1191 | | 0 | 0 | 1153 | | 147 | 0 | 0 | | 0 | 590 | 0 | | 813 |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Initial Bse: | 324 | 1191 | | 0 | 0 | 1153 | | 147 | 0 | 0 | | 0 | 590 | 0 | | 813 |
| User Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| PHF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| PHF Volume: | 324 | 1191 | | 0 | 0 | 1153 | | 0 | 0 | 0 | | 0 | 590 | 0 | | 813 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Reduced Vol: | 324 | 1191 | | 0 | 0 | 1153 | | 0 | 0 | 0 | | 0 | 590 | 0 | | 813 |
| PCE Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| MLF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Final Vol.: | 324 | 1191 | | 0 | 0 | 1153 | | 0 | 0 | 0 | | 0 | 590 | 0 | | 813 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 |
| Adjustment: | 0.94 | 0.94 | | 1.00 | 1.00 | 0.93 | | 1.00 | 1.00 | 1.00 | | 1.00 | 0.94 | 1.00 | | 0.84 |
| Lanes: | 1.00 | 2.00 | | 0.00 | 0.00 | 2.00 | | 1.00 | 0.00 | 0.00 | | 0.00 | 2.00 | 0.00 | | 1.00 |
| Final Sat.: | 1787 | 3574 | | 0 | 0 | 3538 | | 1900 | 0 | 0 | | 0 | 3581 | 0 | | 1599 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.18 | 0.33 | | 0.00 | 0.00 | 0.33 | | 0.00 | 0.00 | 0.00 | | 0.00 | 0.16 | 0.00 | | 0.51 |
| Crit Moves: | **** | | | | | **** | | | | | | | | | | **** |
| Green/Cycle: | 0.16 | 0.46 | | 0.00 | 0.00 | 0.30 | | 0.00 | 0.00 | 0.00 | | 0.00 | 0.46 | 0.00 | | 0.46 |
| Volume/Cap: | 1.10 | 0.73 | | 0.00 | 0.00 | 1.10 | | 0.00 | 0.00 | 0.00 | | 0.00 | 0.36 | 0.00 | | 1.10 |
| Uniform Del: | 41.8 | 21.9 | | 0.0 | 0.0 | 35.2 | | 0.0 | 0.0 | 0.0 | | 0.0 | 17.4 | 0.0 | | 27.0 |
| IncremntDel: | 83.4 | 1.6 | | 0.0 | 0.0 | 60.9 | | 0.0 | 0.0 | 0.0 | | 0.0 | 0.1 | 0.0 | | 65.4 |
| Delay Adj: | 1.00 | 1.00 | | 0.00 | 0.00 | 1.00 | | 0.00 | 0.00 | 0.00 | | 0.00 | 1.00 | 0.00 | | 1.00 |
| Delay/Veh: | 125.2 | 23.6 | | 0.0 | 0.0 | 96.1 | | 0.0 | 0.0 | 0.0 | | 0.0 | 17.6 | 0.0 | | 92.3 |
| User DelAdj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| AdjDel/Veh: | 125.2 | 23.6 | | 0.0 | 0.0 | 96.1 | | 0.0 | 0.0 | 0.0 | | 0.0 | 17.6 | 0.0 | | 92.3 |
| DesignQueue: | 16 | 39 | | 0 | 0 | 49 | | 0 | 0 | 0 | | 0 | 18 | 0 | | 27 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #17 Murray/US 26 east ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.675
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 14.6
Optimal Cycle: 45 Level Of Service: B

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Permitted | | | | Protected | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Ignore | | | | Ignore | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 0 | 0 | 2 | 0 1 | 1 | 0 | 2 | 0 0 | 0 | 1 | 0 | 0 1 | 0 | 0 | 0 | 0 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 1402 | 421 | | 218 | 1544 | 0 | | 130 | 0 | 152 | | 0 | 0 | 0 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 0 | 1402 | 421 | | 218 | 1544 | 0 | | 130 | 0 | 152 | | 0 | 0 | 0 | |
| User Adj: | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 0 | 1402 | 0 | | 218 | 1544 | 0 | | 130 | 0 | 152 | | 0 | 0 | 0 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 0 | 1402 | 0 | | 218 | 1544 | 0 | | 130 | 0 | 152 | | 0 | 0 | 0 | |
| PCE Adj: | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 0 | 1402 | 0 | | 218 | 1544 | 0 | | 130 | 0 | 152 | | 0 | 0 | 0 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 1.00 | 0.92 | 1.00 | | 0.92 | 0.92 | 1.00 | | 0.92 | 1.00 | 0.83 | | 1.00 | 1.00 | 1.00 | |
| Lanes: | 0.00 | 2.00 | 1.00 | | 1.00 | 2.00 | 0.00 | | 1.00 | 0.00 | 1.00 | | 0.00 | 0.00 | 0.00 | |
| Final Sat.: | 0 | 3505 | 1900 | | 1753 | 3505 | 0 | | 1756 | 0 | 1568 | | 0 | 0 | 0 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.40 | 0.00 | | 0.12 | 0.44 | 0.00 | | 0.07 | 0.00 | 0.10 | | 0.00 | 0.00 | 0.00 | |
| Crit Moves: | | **** | | | **** | | | | | | **** | | | | | |
| Green/Cycle: | 0.00 | 0.59 | 0.00 | | 0.18 | 0.78 | 0.00 | | 0.14 | 0.00 | 0.14 | | 0.00 | 0.00 | 0.00 | |
| Volume/Cap: | 0.00 | 0.68 | 0.00 | | 0.68 | 0.57 | 0.00 | | 0.52 | 0.00 | 0.68 | | 0.00 | 0.00 | 0.00 | |
| Uniform Del: | 0.0 | 13.9 | 0.0 | | 38.0 | 4.5 | 0.0 | | 39.6 | 0.0 | 40.6 | | 0.0 | 0.0 | 0.0 | |
| IncremntDel: | 0.0 | 0.9 | 0.0 | | 5.6 | 0.3 | 0.0 | | 1.9 | 0.0 | 7.9 | | 0.0 | 0.0 | 0.0 | |
| Delay Adj: | 0.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 0.00 | | 1.00 | 0.00 | 1.00 | | 0.00 | 0.00 | 0.00 | |
| Delay/Veh: | 0.0 | 14.7 | 0.0 | | 43.6 | 4.7 | 0.0 | | 41.5 | 0.0 | 48.5 | | 0.0 | 0.0 | 0.0 | |
| User DelAdj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| AdjDel/Veh: | 0.0 | 14.7 | 0.0 | | 43.6 | 4.7 | 0.0 | | 41.5 | 0.0 | 48.5 | | 0.0 | 0.0 | 0.0 | |
| DesignQueue: | 0 | 35 | 0 | | 10 | 21 | 0 | | 6 | 0 | 7 | | 0 | 0 | 0 | |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #18 Murray/Walker

Cycle (sec): 100 Critical Vol./Cap. (X): 1.065
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 60.9
Optimal Cycle: 180 Level Of Service: E

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Protected | | | | Protected | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 2 | 0 | 2 | 0 1 | 2 | 0 | 2 | 0 1 | 2 | 0 | 2 | 0 1 | 2 | 0 | 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 173 | 1467 | 324 | | 109 | 1092 | 180 | | 335 | 1404 | 323 | | 176 | 1099 | 193 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 173 | 1467 | 324 | | 109 | 1092 | 180 | | 335 | 1404 | 323 | | 176 | 1099 | 193 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 173 | 1467 | 324 | | 109 | 1092 | 180 | | 335 | 1404 | 323 | | 176 | 1099 | 193 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 173 | 1467 | 324 | | 109 | 1092 | 180 | | 335 | 1404 | 323 | | 176 | 1099 | 193 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 173 | 1467 | 324 | | 109 | 1092 | 180 | | 335 | 1404 | 323 | | 176 | 1099 | 193 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 0.90 | 0.93 | 0.83 | | 0.89 | 0.92 | 0.83 | | 0.90 | 0.93 | 0.83 | | 0.91 | 0.94 | 0.84 | |
| Lanes: | 2.00 | 2.00 | 1.00 | | 2.00 | 2.00 | 1.00 | | 2.00 | 2.00 | 1.00 | | 2.00 | 2.00 | 1.00 | |
| Final Sat.: | 3432 | 3538 | 1583 | | 3400 | 3505 | 1568 | | 3432 | 3538 | 1583 | | 3467 | 3574 | 1599 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.41 | 0.20 | | 0.03 | 0.31 | 0.11 | | 0.10 | 0.40 | 0.20 | | 0.05 | 0.31 | 0.12 | |
| Crit Moves: | | **** | | | **** | | | | | **** | | | **** | | | |
| Green/Cycle: | 0.06 | 0.39 | 0.39 | | 0.03 | 0.36 | 0.36 | | 0.10 | 0.37 | 0.37 | | 0.05 | 0.32 | 0.32 | |
| Volume/Cap: | 0.86 | 1.06 | 0.53 | | 1.06 | 0.86 | 0.32 | | 0.96 | 1.06 | 0.55 | | 1.06 | 0.96 | 0.38 | |
| Uniform Del: | 46.7 | 30.5 | 23.4 | | 48.5 | 29.6 | 23.1 | | 44.8 | 31.4 | 24.7 | | 47.6 | 33.5 | 26.4 | |
| IncremntDel: | 29.7 | 43.5 | 0.8 | | 107.5 | 6.3 | 0.3 | | 38.5 | 44.0 | 1.1 | | 88.2 | 18.5 | 0.5 | |
| Delay Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Delay/Veh: | 76.4 | 74.0 | 24.3 | | 156.0 | 36.0 | 23.4 | | 83.3 | 75.3 | 25.8 | | 135.9 | 52.0 | 26.8 | |
| User DelAdj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| AdjDel/Veh: | 76.4 | 74.0 | 24.3 | | 156.0 | 36.0 | 23.4 | | 83.3 | 75.3 | 25.8 | | 135.9 | 52.0 | 26.8 | |
| DesignQueue: | 9 | 55 | 12 | | 6 | 42 | 7 | | 17 | 54 | 12 | | 9 | 45 | 8 | |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Murray/Jenkins

Cycle (sec): 100 Critical Vol./Cap. (X): 1.153
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 75.4
Optimal Cycle: 180 Level Of Service: E

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Ovl | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 2 | 0 2 | 0 1 | 2 | 0 2 | 0 1 | 1 | 0 2 | 0 1 | 1 | 0 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 673 | 913 | 108 | 191 | 968 | 359 | 170 | 693 | 1008 | 87 | 562 | 102 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 673 | 913 | 108 | 191 | 968 | 359 | 170 | 693 | 1008 | 87 | 562 | 102 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 673 | 913 | 108 | 191 | 968 | 359 | 170 | 693 | 1008 | 87 | 562 | 102 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 673 | 913 | 108 | 191 | 968 | 359 | 170 | 693 | 1008 | 87 | 562 | 102 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 673 | 913 | 108 | 191 | 968 | 359 | 170 | 693 | 1008 | 87 | 562 | 102 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.89 | 0.92 | 0.83 | 0.89 | 0.92 | 0.83 | 0.92 | 0.92 | 0.83 | 0.93 | 0.93 | 0.83 |
| Lanes: | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 3400 | 3505 | 1568 | 3400 | 3505 | 1568 | 1753 | 3505 | 1568 | 1769 | 3538 | 1583 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.20 | 0.26 | 0.07 | 0.06 | 0.28 | 0.23 | 0.10 | 0.20 | 0.64 | 0.05 | 0.16 | 0.06 |
| Crit Moves: | **** | | | | **** | | | | **** | **** | | |
| Green/Cycle: | 0.17 | 0.34 | 0.34 | 0.07 | 0.24 | 0.24 | 0.16 | 0.39 | 0.56 | 0.04 | 0.27 | 0.27 |
| Volume/Cap: | 1.15 | 0.77 | 0.20 | 0.77 | 1.15 | 0.96 | 0.60 | 0.51 | 1.15 | 1.15 | 0.60 | 0.24 |
| Uniform Del: | 41.4 | 29.6 | 23.5 | 45.5 | 38.0 | 37.5 | 38.8 | 23.5 | 22.1 | 47.9 | 32.0 | 28.8 |
| IncremntDel: | 87.0 | 3.1 | 0.2 | 13.7 | 82.2 | 34.8 | 3.4 | 0.3 | 81.7 | 150.7 | 1.1 | 0.3 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 128.4 | 32.7 | 23.7 | 59.2 | 120 | 72.3 | 42.3 | 23.8 | 103.8 | 198.6 | 33.1 | 29.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 128.4 | 32.7 | 23.7 | 59.2 | 120 | 72.3 | 42.3 | 23.8 | 103.8 | 198.6 | 33.1 | 29.1 |
| DesignQueue: | 32 | 36 | 4 | 10 | 44 | 16 | 8 | 25 | 29 | 5 | 24 | 4 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Murray/Farmington

Cycle (sec): 160 Critical Vol./Cap. (X): 1.161
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 103.6
Optimal Cycle: 180 Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 2 | 0 1 | 1 0 | 2 | 0 2 | 0 1 | 2 | 0 2 | 0 1 | 2 | 0 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 338 | 1253 | 318 | 230 | 1851 | 473 | 147 | 944 | 418 | 327 | 1363 | 153 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 338 | 1253 | 318 | 230 | 1851 | 473 | 147 | 944 | 418 | 327 | 1363 | 153 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 338 | 1253 | 318 | 230 | 1851 | 473 | 147 | 944 | 418 | 327 | 1363 | 153 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 338 | 1253 | 318 | 230 | 1851 | 473 | 147 | 944 | 418 | 327 | 1363 | 153 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 338 | 1253 | 318 | 230 | 1851 | 473 | 147 | 944 | 418 | 327 | 1363 | 153 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.90 | 0.90 | 0.90 | 0.91 | 0.94 | 0.84 | 0.90 | 0.93 | 0.83 | 0.90 | 0.93 | 0.83 |
| Lanes: | 2.00 | 1.60 | 0.40 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3432 | 2737 | 695 | 3467 | 3574 | 1599 | 3432 | 3538 | 1583 | 3432 | 3538 | 1583 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.10 | 0.46 | 0.46 | 0.07 | 0.52 | 0.30 | 0.04 | 0.27 | 0.26 | 0.10 | 0.39 | 0.10 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green/Cycle: | 0.08 | 0.46 | 0.46 | 0.07 | 0.45 | 0.45 | 0.04 | 0.27 | 0.27 | 0.10 | 0.33 | 0.33 |
| Volume/Cap: | 1.16 | 0.99 | 0.99 | 0.99 | 1.16 | 0.66 | 1.16 | 0.98 | 0.97 | 0.98 | 1.16 | 0.29 |
| Uniform Del: | 73.2 | 42.4 | 42.4 | 74.6 | 44.3 | 34.8 | 77.0 | 57.9 | 57.6 | 72.1 | 53.4 | 39.5 |
| IncremntDel: | 103.5 | 19.4 | 19.4 | 55.1 | 79.7 | 2.3 | 129.6 | 24.5 | 35.9 | 44.2 | 82.0 | 0.3 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 176.7 | 61.8 | 61.8 | 129.6 | 124 | 37.2 | 206.6 | 82.4 | 93.5 | 116.3 | 135 | 39.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 176.7 | 61.8 | 61.8 | 129.6 | 124 | 37.2 | 206.6 | 82.4 | 93.5 | 116.3 | 135 | 39.8 |
| DesignQueue: | 28 | 67 | 17 | 19 | 105 | 25 | 13 | 65 | 29 | 27 | 89 | 9 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #21 Murray/6th

Cycle (sec): 120 Critical Vol./Cap. (X): 0.984
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 34.2
Optimal Cycle: 180 Level Of Service: C

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Protected | | | | Protected | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 | 1 | 1 0 | 1 | 0 | 1 | 1 0 | 1 | 0 | 0 | 1 0 | 1 | 0 | 0 | 1 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 172 | 1772 | 42 | | 93 | 2323 | 21 | | 2 | 11 | 50 | | 67 | 57 | 100 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 172 | 1772 | 42 | | 93 | 2323 | 21 | | 2 | 11 | 50 | | 67 | 57 | 100 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 172 | 1772 | 42 | | 93 | 2323 | 21 | | 2 | 11 | 50 | | 67 | 57 | 100 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 172 | 1772 | 42 | | 93 | 2323 | 21 | | 2 | 11 | 50 | | 67 | 57 | 100 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 172 | 1772 | 42 | | 93 | 2323 | 21 | | 2 | 11 | 50 | | 67 | 57 | 100 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 0.93 | 0.93 | 0.93 | | 0.93 | 0.93 | 0.93 | | 0.93 | 0.86 | 0.86 | | 0.95 | 0.90 | 0.90 | |
| Lanes: | 1.00 | 1.95 | 0.05 | | 1.00 | 1.98 | 0.02 | | 1.00 | 0.18 | 0.82 | | 1.00 | 0.36 | 0.64 | |
| Final Sat.: | 1769 | 3439 | 82 | | 1769 | 3503 | 32 | | 1769 | 294 | 1339 | | 1805 | 624 | 1094 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.10 | 0.52 | 0.52 | | 0.05 | 0.66 | 0.66 | | 0.00 | 0.04 | 0.04 | | 0.04 | 0.09 | 0.09 | |
| Crit Moves: | **** | | | | | **** | | | **** | | | | | **** | | |
| Green/Cycle: | 0.10 | 0.70 | 0.70 | | 0.07 | 0.67 | 0.67 | | 0.00 | 0.05 | 0.05 | | 0.05 | 0.09 | 0.09 | |
| Volume/Cap: | 0.98 | 0.74 | 0.74 | | 0.74 | 0.98 | 0.98 | | 0.98 | 0.79 | 0.79 | | 0.79 | 0.98 | 0.98 | |
| Uniform Del: | 54.0 | 11.1 | 11.1 | | 54.6 | 19.0 | 19.0 | | 59.9 | 56.6 | 56.6 | | 56.6 | 54.3 | 54.3 | |
| IncremntDel: | 63.2 | 1.2 | 1.2 | | 19.9 | 14.9 | 14.9 | | 614.9 | 41.3 | 41.3 | | 38.4 | 66.3 | 66.3 | |
| Delay Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Delay/Veh: | 117.2 | 12.2 | 12.2 | | 74.5 | 33.8 | 33.8 | | 674.8 | 97.9 | 97.9 | | 95.1 | 121 | 120.7 | |
| User DelAdj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| AdjDel/Veh: | 117.2 | 12.2 | 12.2 | | 74.5 | 33.8 | 33.8 | | 674.8 | 97.9 | 97.9 | | 95.1 | 121 | 120.7 | |
| DesignQueue: | 11 | 40 | 1 | | 6 | 60 | 1 | | 0 | 1 | 3 | | 4 | 4 | 6 | |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #22 Murray/Allen

Cycle (sec): 120 Critical Vol./Cap. (X): 1.274
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 120.1
Optimal Cycle: 180 Level Of Service: F

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Protected | | | | Protected | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Ovl | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 | 2 | 0 1 | 2 | 0 | 2 | 0 1 | 1 | 0 | 1 | 0 1 | 1 | 0 | 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 132 | 1237 | 295 | | 491 | 1784 | 120 | | 136 | 245 | 45 | | 417 | 500 | 636 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 132 | 1237 | 295 | | 491 | 1784 | 120 | | 136 | 245 | 45 | | 417 | 500 | 636 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 132 | 1237 | 295 | | 491 | 1784 | 120 | | 136 | 245 | 45 | | 417 | 500 | 636 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 132 | 1237 | 295 | | 491 | 1784 | 120 | | 136 | 245 | 45 | | 417 | 500 | 636 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 132 | 1237 | 295 | | 491 | 1784 | 120 | | 136 | 245 | 45 | | 417 | 500 | 636 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 0.92 | 0.92 | 0.83 | | 0.91 | 0.94 | 0.84 | | 0.93 | 0.98 | 0.83 | | 0.94 | 0.94 | 0.84 | |
| Lanes: | 1.00 | 2.00 | 1.00 | | 2.00 | 2.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 2.00 | 1.00 | |
| Final Sat.: | 1753 | 3505 | 1568 | | 3467 | 3574 | 1599 | | 1769 | 1862 | 1583 | | 1787 | 3574 | 1599 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.35 | 0.19 | | 0.14 | 0.50 | 0.08 | | 0.08 | 0.13 | 0.03 | | 0.23 | 0.14 | 0.40 | |
| Crit Moves: | **** | | | | | **** | | | | **** | | | | | **** | |
| Green/Cycle: | 0.06 | 0.32 | 0.63 | | 0.13 | 0.39 | 0.39 | | 0.10 | 0.10 | 0.10 | | 0.31 | 0.31 | 0.31 | |
| Volume/Cap: | 1.27 | 1.10 | 0.30 | | 1.10 | 1.27 | 0.19 | | 0.74 | 1.27 | 0.28 | | 0.75 | 0.45 | 1.27 | |
| Uniform Del: | 56.5 | 40.7 | 9.9 | | 52.2 | 36.5 | 24.0 | | 52.3 | 53.8 | 49.7 | | 37.0 | 33.0 | 41.3 | |
| IncremntDel: | 178.8 | 57.2 | 0.2 | | 71.2 | 129 | 0.1 | | 15.2 | 157 | 0.9 | | 5.5 | 0.3 | 138.1 | |
| Delay Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Delay/Veh: | 235.3 | 97.8 | 10.1 | | 123.5 | 165 | 24.1 | | 67.5 | 211 | 50.6 | | 42.5 | 33.3 | 179.4 | |
| User DelAdj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| AdjDel/Veh: | 235.3 | 97.8 | 10.1 | | 123.5 | 165 | 24.1 | | 67.5 | 211 | 50.6 | | 42.5 | 33.3 | 179.4 | |
| DesignQueue: | 8 | 61 | 8 | | 30 | 83 | 5 | | 8 | 15 | 3 | | 20 | 24 | 32 | |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #23 Murray/Brockman/Beard

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap. (X): | 1.194 |
| Loss Time (sec): | 16 (Y+R = 4 sec) | Average Delay (sec/veh): | 98.7 |
| Optimal Cycle: | 180 | Level Of Service: | F |

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 | 1 0 | 1 0 | 1 | 1 0 | 1 0 | 0 | 1 0 | 1 0 | 0 | 1 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 130 | 1332 | 75 | 213 | 1758 | 198 | 100 | 172 | 72 | 168 | 437 | 128 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 130 | 1332 | 75 | 213 | 1758 | 198 | 100 | 172 | 72 | 168 | 437 | 128 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 130 | 1332 | 75 | 213 | 1758 | 198 | 100 | 172 | 72 | 168 | 437 | 128 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 130 | 1332 | 75 | 213 | 1758 | 198 | 100 | 172 | 72 | 168 | 437 | 128 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 130 | 1332 | 75 | 213 | 1758 | 198 | 100 | 172 | 72 | 168 | 437 | 128 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.93 | 0.92 | 0.92 | 0.93 | 0.92 | 0.92 | 0.92 | 0.93 | 0.93 | 0.94 | 0.96 | 0.96 |
| Lanes: | 1.00 | 1.89 | 0.11 | 1.00 | 1.80 | 0.20 | 1.00 | 0.70 | 0.30 | 1.00 | 0.77 | 0.23 |
| Final Sat.: | 1769 | 3322 | 187 | 1769 | 3132 | 353 | 1753 | 1243 | 520 | 1787 | 1405 | 412 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.40 | 0.40 | 0.12 | 0.56 | 0.56 | 0.06 | 0.14 | 0.14 | 0.09 | 0.31 | 0.31 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green/Cycle: | 0.06 | 0.41 | 0.41 | 0.12 | 0.47 | 0.47 | 0.05 | 0.18 | 0.18 | 0.12 | 0.26 | 0.26 |
| Volume/Cap: | 1.19 | 0.98 | 0.98 | 0.98 | 1.19 | 1.19 | 1.19 | 0.75 | 0.75 | 0.75 | 1.19 | 1.19 |
| Uniform Del: | 46.9 | 29.2 | 29.2 | 43.7 | 26.5 | 26.5 | 47.6 | 38.7 | 38.7 | 42.3 | 37.0 | 37.0 |
| IncremntDel: | 147.4 | 19.2 | 19.2 | 55.3 | 93.5 | 93.5 | 159.6 | 9.6 | 9.6 | 13.6 | 106 | 106.4 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 194.4 | 48.3 | 48.3 | 99.0 | 120 | 120.0 | 207.2 | 48.3 | 48.3 | 55.8 | 143 | 143.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 194.4 | 48.3 | 48.3 | 99.0 | 120 | 120.0 | 207.2 | 48.3 | 48.3 | 55.8 | 143 | 143.4 |
| DesignQueue: | 7 | 48 | 3 | 11 | 60 | 7 | 5 | 8 | 3 | 8 | 19 | 6 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #24 Nimbus/Scholls Ferry

| | | | |
|---|---|---|---|
| Cycle (sec): | 120 | Critical Vol./Cap. (X): | 1.071 |
| Loss Time (sec): | 16 (Y+R = 4 sec) | Average Delay (sec/veh): | 65.4 |
| Optimal Cycle: | 180 | Level Of Service: | E |

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Protected | | | Protected | | |
| Rights: | Ovl | | | Ovl | | | Ovl | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 | 0 1 | 2 0 | 0 | 1 1 | 1 0 | 2 | 0 1 | 1 0 | 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 489 | 32 | 219 | 396 | 46 | 440 | 133 | 1548 | 140 | 15 | 1537 | 32 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 489 | 32 | 219 | 396 | 46 | 440 | 133 | 1548 | 140 | 15 | 1537 | 32 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 489 | 32 | 219 | 396 | 46 | 440 | 133 | 1548 | 140 | 15 | 1537 | 32 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 489 | 32 | 219 | 396 | 46 | 440 | 133 | 1548 | 140 | 15 | 1537 | 32 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 489 | 32 | 219 | 396 | 46 | 440 | 133 | 1548 | 140 | 15 | 1537 | 32 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.94 | 0.99 | 0.84 | 0.91 | 0.86 | 0.86 | 0.93 | 0.93 | 0.83 | 0.94 | 0.94 | 0.84 |
| Lanes: | 1.00 | 1.00 | 1.00 | 2.00 | 0.19 | 1.81 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1787 | 1881 | 1599 | 3467 | 308 | 2943 | 1769 | 3538 | 1583 | 1787 | 3574 | 1592 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.27 | 0.02 | 0.14 | 0.11 | 0.15 | 0.15 | 0.08 | 0.44 | 0.09 | 0.01 | 0.43 | 0.02 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green/Cycle: | 0.26 | 0.26 | 0.26 | 0.14 | 0.14 | 0.21 | 0.07 | 0.46 | 0.72 | 0.01 | 0.40 | 0.54 |
| Volume/Cap: | 1.07 | 0.07 | 0.52 | 0.82 | 1.07 | 0.71 | 1.07 | 0.95 | 0.12 | 0.95 | 1.07 | 0.04 |
| Uniform Del: | 44.7 | 33.8 | 37.6 | 50.1 | 51.6 | 44.1 | 55.8 | 30.8 | 5.2 | 59.4 | 35.9 | 12.9 |
| IncremntDel: | 62.5 | 0.1 | 1.1 | 10.5 | 62.6 | 3.6 | 101.2 | 11.8 | 0.0 | 198.0 | 45.4 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 107.2 | 33.9 | 38.8 | 60.7 | 114 | 47.6 | 156.9 | 42.6 | 5.3 | 257.5 | 81.3 | 12.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 107.2 | 33.9 | 38.8 | 60.7 | 114 | 47.6 | 156.9 | 42.6 | 5.3 | 257.5 | 81.3 | 12.9 |
| DesignQueue: | 26 | 2 | 11 | 23 | 3 | 24 | 8 | 62 | 3 | 1 | 69 | 1 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #25 Hall/Scholls Ferry

Cycle (sec): 120 Critical Vol./Cap. (X): 0.746
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 40.9
Optimal Cycle: 80 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 2 | 0 2 | 0 1 | 2 | 0 2 | 0 1 | 2 | 0 2 | 0 1 | 2 | 0 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 478 | 601 | 315 | 339 | 560 | 7 | 97 | 942 | 356 | 292 | 851 | 322 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 478 | 601 | 315 | 339 | 560 | 7 | 97 | 942 | 356 | 292 | 851 | 322 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 478 | 601 | 315 | 339 | 560 | 7 | 97 | 942 | 356 | 292 | 851 | 322 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 478 | 601 | 315 | 339 | 560 | 7 | 97 | 942 | 356 | 292 | 851 | 322 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 478 | 601 | 315 | 339 | 560 | 7 | 97 | 942 | 356 | 292 | 851 | 322 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.91 | 0.94 | 0.84 | 0.90 | 0.93 | 0.83 | 0.90 | 0.93 | 0.83 | 0.91 | 0.94 | 0.82 |
| Lanes: | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3467 | 3574 | 1599 | 3432 | 3538 | 1570 | 3432 | 3538 | 1583 | 3467 | 3574 | 1560 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.14 | 0.17 | 0.20 | 0.10 | 0.16 | 0.00 | 0.03 | 0.27 | 0.22 | 0.08 | 0.24 | 0.21 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green/Cycle: | 0.18 | 0.26 | 0.26 | 0.13 | 0.21 | 0.21 | 0.05 | 0.36 | 0.36 | 0.11 | 0.42 | 0.42 |
| Volume/Cap: | 0.75 | 0.64 | 0.75 | 0.75 | 0.75 | 0.02 | 0.57 | 0.75 | 0.63 | 0.75 | 0.57 | 0.49 |
| Uniform Del: | 46.3 | 39.0 | 40.4 | 50.1 | 44.2 | 37.4 | 55.7 | 33.8 | 32.0 | 51.6 | 26.5 | 25.4 |
| IncremntDel: | 4.8 | 1.4 | 7.1 | 6.6 | 4.1 | 0.0 | 4.4 | 2.5 | 2.3 | 7.7 | 0.5 | 0.6 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 51.0 | 40.5 | 47.5 | 56.7 | 48.4 | 37.4 | 60.2 | 36.3 | 34.3 | 59.2 | 27.0 | 26.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 51.0 | 40.5 | 47.5 | 56.7 | 48.4 | 37.4 | 60.2 | 36.3 | 34.3 | 59.2 | 27.0 | 26.0 |
| DesignQueue: | 27 | 31 | 16 | 20 | 31 | 0 | 6 | 43 | 16 | 18 | 35 | 13 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #26 Allen/Schools Ferry

Cycle (sec): 120 Critical Vol./Cap. (X): 0.950
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 50.2
Optimal Cycle: 180 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permit+Prot | | | Permit+Prot | | | Permit+Prot | | | Permit+Prot | | |
| Rights: | Include | | | Ovl | | | Ovl | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 | 0 1 | 0 1 | 1 | 0 1 | 0 1 | 1 | 0 1 | 1 0 | 1 | 0 1 | 1 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 165 | 658 | 128 | 46 | 628 | 165 | 286 | 703 | 428 | 182 | 401 | 34 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 165 | 658 | 128 | 46 | 628 | 165 | 286 | 703 | 428 | 182 | 401 | 34 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 165 | 658 | 128 | 46 | 628 | 165 | 286 | 703 | 428 | 182 | 401 | 34 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 165 | 658 | 128 | 46 | 628 | 165 | 286 | 703 | 428 | 182 | 401 | 34 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 165 | 658 | 128 | 46 | 628 | 165 | 286 | 703 | 428 | 182 | 401 | 34 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.34 | 0.98 | 0.82 | 0.25 | 0.98 | 0.82 | 0.68 | 0.89 | 0.88 | 0.50 | 0.92 | 0.92 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.24 | 0.76 | 1.00 | 1.84 | 0.16 |
| Final Sat.: | 644 | 1862 | 1566 | 470 | 1862 | 1566 | 1293 | 2093 | 1274 | 954 | 3221 | 273 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.26 | 0.35 | 0.08 | 0.10 | 0.34 | 0.11 | 0.22 | 0.34 | 0.34 | 0.19 | 0.12 | 0.12 |
| Crit Moves: | **** | | | | **** | | | **** | | | **** | |
| Green/Cycle: | 0.47 | 0.40 | 0.40 | 0.41 | 0.34 | 0.58 | 0.48 | 0.33 | 0.43 | 0.34 | 0.19 | 0.22 |
| Volume/Cap: | 0.54 | 0.88 | 0.20 | 0.24 | 1.00 | 0.18 | 0.46 | 1.00 | 0.79 | 0.57 | 0.65 | 0.57 |
| Uniform Del: | 45.6 | 33.4 | 23.5 | 49.1 | 39.8 | 11.7 | 28.9 | 39.9 | 29.6 | 45.5 | 44.9 | 41.7 |
| IncremntDel: | 2.0 | 12.2 | 0.2 | 0.6 | 36.7 | 0.1 | 0.5 | 27.6 | 2.9 | 2.3 | 2.3 | 1.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 47.6 | 45.6 | 23.7 | 49.8 | 76.6 | 11.8 | 29.4 | 67.5 | 32.5 | 47.8 | 47.2 | 42.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 47.6 | 45.6 | 23.7 | 49.8 | 76.6 | 11.8 | 29.4 | 67.5 | 32.5 | 47.8 | 47.2 | 42.7 |
| DesignQueue: | 10 | 29 | 5 | 3 | 30 | 5 | 14 | 34 | 18 | 11 | 22 | 2 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #27 Oleson/Vermont

Cycle (sec): 100 Critical Vol./Cap. (X): 0.778
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 25.4
Optimal Cycle: 72 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Prot+Permit | | | Prot+Permit | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 0 1 | 0 | 1 0 | 0 1 | 0 | 1 0 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 18 | 344 | 252 | 179 | 440 | 20 | 13 | 6 | 20 | 339 | 17 | 171 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 18 | 344 | 252 | 179 | 440 | 20 | 13 | 6 | 20 | 339 | 17 | 171 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 18 | 344 | 252 | 179 | 440 | 20 | 13 | 6 | 20 | 339 | 17 | 171 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 18 | 344 | 252 | 179 | 440 | 20 | 13 | 6 | 20 | 339 | 17 | 171 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 18 | 344 | 252 | 179 | 440 | 20 | 13 | 6 | 20 | 339 | 17 | 171 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.39 | 0.92 | 0.92 | 0.34 | 0.97 | 0.97 | 0.54 | 0.87 | 0.87 | 0.74 | 0.85 | 0.85 |
| Lanes: | 1.00 | 0.58 | 0.42 | 1.00 | 0.96 | 0.04 | 1.00 | 0.23 | 0.77 | 1.00 | 0.09 | 0.91 |
| Final Sat.: | 732 | 1006 | 737 | 646 | 1770 | 80 | 1017 | 380 | 1266 | 1403 | 146 | 1465 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.34 | 0.34 | 0.28 | 0.25 | 0.25 | 0.01 | 0.02 | 0.02 | 0.24 | 0.12 | 0.12 |
| Crit Moves: | | **** | | **** | | | | | | **** | | |
| Green/Cycle: | 0.46 | 0.44 | 0.44 | 0.61 | 0.55 | 0.55 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 |
| Volume/Cap: | 0.05 | 0.78 | 0.78 | 0.45 | 0.45 | 0.45 | 0.04 | 0.05 | 0.05 | 0.78 | 0.38 | 0.38 |
| Uniform Del: | 15.3 | 23.9 | 23.9 | 13.4 | 13.7 | 13.7 | 24.1 | 24.1 | 24.1 | 31.3 | 26.9 | 26.9 |
| IncremntDel: | 0.1 | 5.1 | 5.1 | 0.8 | 0.3 | 0.3 | 0.1 | 0.0 | 0.0 | 8.7 | 0.5 | 0.5 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 15.4 | 29.0 | 29.0 | 14.3 | 14.0 | 14.0 | 24.1 | 24.2 | 24.2 | 40.0 | 27.4 | 27.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 15.4 | 29.0 | 29.0 | 14.3 | 14.0 | 14.0 | 24.1 | 24.2 | 24.2 | 40.0 | 27.4 | 27.4 |
| DesignQueue: | 1 | 12 | 9 | 9 | 12 | 1 | 0 | 0 | 1 | 14 | 1 | 7 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #28 Oleson/Garden Home

Cycle (sec): 100 Critical Vol./Cap. (X): 0.999
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 49.7
Optimal Cycle: 177 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 0 | 1 | 1 0 | 0 1 | 0 | 1 0 | 1 0 | 1 | 1 0 | 0 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 219 | 398 | 198 | 147 | 488 | 146 | 138 | 479 | 325 | 200 | 343 | 120 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 219 | 398 | 198 | 147 | 488 | 146 | 138 | 479 | 325 | 200 | 343 | 120 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 219 | 398 | 198 | 147 | 488 | 146 | 138 | 479 | 325 | 200 | 343 | 120 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 219 | 398 | 198 | 147 | 488 | 146 | 138 | 479 | 325 | 200 | 343 | 120 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 219 | 398 | 198 | 147 | 488 | 146 | 138 | 479 | 325 | 200 | 343 | 120 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.34 | 0.99 | 0.81 | 0.43 | 0.96 | 0.95 | 0.35 | 0.99 | 0.82 | 0.35 | 0.94 | 0.94 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 0.77 | 0.23 | 1.00 | 1.00 | 1.00 | 1.00 | 0.74 | 0.26 |
| Final Sat.: | 639 | 1881 | 1542 | 826 | 1397 | 418 | 667 | 1881 | 1558 | 674 | 1324 | 463 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.34 | 0.21 | 0.13 | 0.18 | 0.35 | 0.35 | 0.21 | 0.25 | 0.21 | 0.30 | 0.26 | 0.26 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green/Cycle: | 0.46 | 0.34 | 0.34 | 0.51 | 0.35 | 0.35 | 0.34 | 0.25 | 0.25 | 0.41 | 0.28 | 0.28 |
| Volume/Cap: | 0.74 | 0.62 | 0.38 | 0.35 | 1.00 | 1.00 | 0.61 | 1.00 | 0.82 | 0.73 | 0.91 | 0.91 |
| Uniform Del: | 22.0 | 27.7 | 25.0 | 15.3 | 32.5 | 32.5 | 26.1 | 37.3 | 35.1 | 23.7 | 34.7 | 34.7 |
| IncremntDel: | 9.7 | 1.9 | 0.5 | 0.5 | 35.6 | 35.6 | 4.8 | 41.0 | 12.6 | 9.4 | 21.2 | 21.2 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 31.7 | 29.6 | 25.5 | 15.8 | 68.1 | 68.1 | 30.9 | 78.2 | 47.7 | 33.1 | 55.8 | 55.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 31.7 | 29.6 | 25.5 | 15.8 | 68.1 | 68.1 | 30.9 | 78.2 | 47.7 | 33.1 | 55.8 | 55.8 |
| DesignQueue: | 11 | 15 | 7 | 7 | 19 | 6 | 7 | 21 | 14 | 10 | 15 | 5 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #29 Cedar Hills/Barnes

Cycle (sec): 140 Critical Vol./Cap. (X): 1.224
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 105.6
Optimal Cycle: 180 Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Ovl | | | Include | | | Ovl | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 | 0 1 | 0 1 | 1 | 0 0 | 1 0 | 1 | 0 2 | 0 1 | 2 | 0 1 | 1 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 726 | 551 | 765 | 272 | 321 | 13 | 28 | 807 | 552 | 884 | 778 | 381 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 726 | 551 | 765 | 272 | 321 | 13 | 28 | 807 | 552 | 884 | 778 | 381 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 726 | 551 | 765 | 272 | 321 | 13 | 28 | 807 | 552 | 884 | 778 | 381 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 726 | 551 | 765 | 272 | 321 | 13 | 28 | 807 | 552 | 884 | 778 | 381 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 726 | 551 | 765 | 272 | 321 | 13 | 28 | 807 | 552 | 884 | 778 | 381 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.93 | 0.98 | 0.83 | 0.91 | 0.96 | 0.96 | 0.91 | 0.91 | 0.82 | 0.90 | 0.89 | 0.89 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 0.96 | 0.04 | 1.00 | 2.00 | 1.00 | 2.00 | 1.34 | 0.66 |
| Final Sat.: | 1769 | 1862 | 1583 | 1736 | 1746 | 71 | 1736 | 3473 | 1554 | 3432 | 2258 | 1106 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.41 | 0.30 | 0.48 | 0.16 | 0.18 | 0.18 | 0.02 | 0.23 | 0.36 | 0.26 | 0.34 | 0.34 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green/Cycle: | 0.34 | 0.32 | 0.53 | 0.17 | 0.15 | 0.15 | 0.02 | 0.19 | 0.53 | 0.21 | 0.38 | 0.38 |
| Volume/Cap: | 1.22 | 0.93 | 0.92 | 0.93 | 1.22 | 1.22 | 0.90 | 1.22 | 0.68 | 1.22 | 0.90 | 0.90 |
| Uniform Del: | 46.5 | 46.3 | 30.2 | 57.5 | 59.5 | 59.5 | 68.6 | 56.7 | 24.5 | 55.3 | 40.7 | 40.7 |
| IncremntDel: | 115.4 | 21.8 | 14.6 | 35.2 | 129 | 129.0 | 120.0 | 114 | 2.3 | 113.0 | 8.9 | 8.9 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 161.9 | 68.1 | 44.8 | 92.6 | 189 | 188.5 | 188.7 | 171 | 26.8 | 168.3 | 49.7 | 49.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 161.9 | 68.1 | 44.8 | 92.6 | 189 | 188.5 | 188.7 | 171 | 26.8 | 168.3 | 49.7 | 49.7 |
| DesignQueue: | 42 | 32 | 31 | 18 | 22 | 1 | 2 | 54 | 22 | 58 | 41 | 20 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #30 Cedar Hills/US 26 west ramps

Cycle (sec): 60 Critical Vol./Cap. (X): 0.967
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 29.9
Optimal Cycle: 106 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Ignore | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 | 0 2 | 0 0 | 0 | 0 2 | 0 2 | 0 | 0 0 | 0 0 | 2 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 1440 | 0 | 0 | 1495 | 0 | 0 | 0 | 0 | 281 | 0 | 657 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 1440 | 0 | 0 | 1495 | 0 | 0 | 0 | 0 | 281 | 0 | 657 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 1440 | 0 | 0 | 1495 | 0 | 0 | 0 | 0 | 281 | 0 | 657 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 1440 | 0 | 0 | 1495 | 0 | 0 | 0 | 0 | 281 | 0 | 657 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 1440 | 0 | 0 | 1495 | 0 | 0 | 0 | 0 | 281 | 0 | 657 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 0.94 | 1.00 | 1.00 | 0.93 | 0.88 | 1.00 | 1.00 | 1.00 | 0.90 | 1.00 | 0.83 |
| Lanes: | 0.00 | 2.00 | 0.00 | 0.00 | 2.00 | 2.00 | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 1.00 |
| Final Sat.: | 0 | 3574 | 0 | 0 | 3538 | 3344 | 0 | 0 | 0 | 3432 | 0 | 1583 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.40 | 0.00 | 0.00 | 0.42 | 0.00 | 0.00 | 0.00 | 0.00 | 0.08 | 0.00 | 0.42 |
| Crit Moves: | | | | | **** | | | | | | | **** |
| Green/Cycle: | 0.00 | 0.44 | 0.00 | 0.00 | 0.44 | 0.00 | 0.00 | 0.00 | 0.00 | 0.43 | 0.00 | 0.43 |
| Volume/Cap: | 0.00 | 0.92 | 0.00 | 0.00 | 0.97 | 0.00 | 0.00 | 0.00 | 0.00 | 0.19 | 0.00 | 0.97 |
| Uniform Del: | 0.0 | 15.9 | 0.0 | 0.0 | 16.5 | 0.0 | 0.0 | 0.0 | 0.0 | 10.6 | 0.0 | 16.7 |
| IncremntDel: | 0.0 | 9.4 | 0.0 | 0.0 | 15.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 26.3 |
| Delay Adj: | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 0.0 | 25.3 | 0.0 | 0.0 | 32.1 | 0.0 | 0.0 | 0.0 | 0.0 | 10.7 | 0.0 | 43.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 25.3 | 0.0 | 0.0 | 32.1 | 0.0 | 0.0 | 0.0 | 0.0 | 10.7 | 0.0 | 43.0 |
| DesignQueue: | 0 | 30 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 5 | 0 | 14 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #31 Cedar Hills/US 26 east ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.903
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 29.5
Optimal Cycle: 111 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 | 0 2 | 0 1 | 1 | 0 2 | 0 0 | 0 | 0 1! | 0 0 | 0 | 0 0 | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 1429 | 380 | 288 | 1406 | 0 | 228 | 0 | 102 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 1429 | 380 | 288 | 1406 | 0 | 228 | 0 | 102 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 1429 | 380 | 288 | 1406 | 0 | 228 | 0 | 102 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 1429 | 380 | 288 | 1406 | 0 | 228 | 0 | 102 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 1429 | 380 | 288 | 1406 | 0 | 228 | 0 | 102 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 0.94 | 0.84 | 0.94 | 0.94 | 1.00 | 0.74 | 1.00 | 0.74 | 1.00 | 1.00 | 1.00 |
| Lanes: | 0.00 | 2.00 | 1.00 | 1.00 | 2.00 | 0.00 | 0.69 | 0.00 | 0.31 | 0.00 | 0.00 | 0.00 |
| Final Sat.: | 0 | 3574 | 1599 | 1787 | 3574 | 0 | 975 | 0 | 436 | 0 | 0 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.40 | 0.24 | 0.16 | 0.39 | 0.00 | 0.23 | 0.00 | 0.23 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | | **** | | **** | | | **** | | | | | |
| Green/Cycle: | 0.00 | 0.44 | 0.44 | 0.18 | 0.62 | 0.00 | 0.26 | 0.00 | 0.26 | 0.00 | 0.00 | 0.00 |
| Volume/Cap: | 0.00 | 0.90 | 0.54 | 0.90 | 0.63 | 0.00 | 0.90 | 0.00 | 0.90 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 0.0 | 25.9 | 20.4 | 40.2 | 11.8 | 0.0 | 35.8 | 0.0 | 35.8 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 0.0 | 7.6 | 0.8 | 27.4 | 0.6 | 0.0 | 24.8 | 0.0 | 24.8 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 0.0 | 33.5 | 21.2 | 67.6 | 12.4 | 0.0 | 60.6 | 0.0 | 60.6 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 33.5 | 21.2 | 67.6 | 12.4 | 0.0 | 60.6 | 0.0 | 60.6 | 0.0 | 0.0 | 0.0 |
| DesignQueue: | 0 | 49 | 12 | 14 | 33 | 0 | 10 | 0 | 4 | 0 | 0 | 0 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #32 Cedar Hills/Butner

Cycle (sec): 100 Critical Vol./Cap. (X): 0.952
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 40.2
Optimal Cycle: 142 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 | 0 2 | 0 1 | 1 | 0 1 | 1 0 | 0 | 0 1! | 0 0 | 0 | 0 1! | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 54 | 1428 | 36 | 37 | 1287 | 198 | 202 | 160 | 54 | 24 | 81 | 154 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 54 | 1428 | 36 | 37 | 1287 | 198 | 202 | 160 | 54 | 24 | 81 | 154 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 54 | 1428 | 36 | 37 | 1287 | 198 | 202 | 160 | 54 | 24 | 81 | 154 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 54 | 1428 | 36 | 37 | 1287 | 198 | 202 | 160 | 54 | 24 | 81 | 154 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 54 | 1428 | 36 | 37 | 1287 | 198 | 202 | 160 | 54 | 24 | 81 | 154 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.94 | 0.94 | 0.84 | 0.94 | 0.92 | 0.92 | 0.63 | 0.63 | 0.63 | 0.85 | 0.85 | 0.85 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 1.73 | 0.27 | 0.49 | 0.38 | 0.13 | 0.09 | 0.31 | 0.60 |
| Final Sat.: | 1787 | 3574 | 1599 | 1787 | 3035 | 467 | 585 | 463 | 156 | 150 | 505 | 961 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.03 | 0.40 | 0.02 | 0.02 | 0.42 | 0.42 | 0.35 | 0.35 | 0.35 | 0.16 | 0.16 | 0.16 |
| Crit Moves: | **** | | | | **** | | | **** | | | | |
| Green/Cycle: | 0.03 | 0.45 | 0.45 | 0.02 | 0.45 | 0.45 | 0.36 | 0.36 | 0.36 | 0.36 | 0.36 | 0.36 |
| Volume/Cap: | 0.95 | 0.88 | 0.05 | 0.88 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.44 | 0.44 | 0.44 |
| Uniform Del: | 48.3 | 24.9 | 15.3 | 48.7 | 26.7 | 26.7 | 31.0 | 31.0 | 31.0 | 24.2 | 24.2 | 24.2 |
| IncremntDel: | 101.7 | 6.0 | 0.0 | 93.4 | 13.1 | 13.1 | 30.9 | 30.9 | 30.9 | 0.5 | 0.5 | 0.5 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 150.0 | 30.8 | 15.3 | 142.1 | 39.8 | 39.8 | 61.9 | 61.9 | 61.9 | 24.7 | 24.7 | 24.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 150.0 | 30.8 | 15.3 | 142.1 | 39.8 | 39.8 | 61.9 | 61.9 | 61.9 | 24.7 | 24.7 | 24.7 |
| DesignQueue: | 3 | 48 | 1 | 2 | 44 | 7 | 8 | 6 | 2 | 1 | 3 | 6 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #33 Cedar Hills/Walker

Cycle (sec): 100 Critical Vol./Cap. (X): 1.337
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 134.9
Optimal Cycle: 180 Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 2 | 0 2 | 0 1 | 1 | 0 1 | 1 0 | 2 | 0 1 | 0 1 | 2 | 0 1 | 1 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 326 | 1322 | 440 | 149 | 1021 | 89 | 208 | 1115 | 328 | 267 | 925 | 136 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 326 | 1322 | 440 | 149 | 1021 | 89 | 208 | 1115 | 328 | 267 | 925 | 136 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 326 | 1322 | 440 | 149 | 1021 | 89 | 208 | 1115 | 328 | 267 | 925 | 136 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 326 | 1322 | 440 | 149 | 1021 | 89 | 208 | 1115 | 328 | 267 | 925 | 136 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 326 | 1322 | 440 | 149 | 1021 | 89 | 208 | 1115 | 328 | 267 | 925 | 136 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.91 | 0.94 | 0.84 | 0.94 | 0.93 | 0.93 | 0.91 | 0.99 | 0.84 | 0.91 | 0.92 | 0.92 |
| Lanes: | 2.00 | 2.00 | 1.00 | 1.00 | 1.84 | 0.16 | 2.00 | 1.00 | 1.00 | 2.00 | 1.74 | 0.26 |
| Final Sat.: | 3467 | 3574 | 1599 | 1787 | 3248 | 283 | 3467 | 1881 | 1599 | 3467 | 3050 | 449 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.37 | 0.28 | 0.08 | 0.31 | 0.31 | 0.06 | 0.59 | 0.21 | 0.08 | 0.30 | 0.30 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green/Cycle: | 0.08 | 0.28 | 0.28 | 0.06 | 0.26 | 0.26 | 0.08 | 0.44 | 0.44 | 0.06 | 0.42 | 0.42 |
| Volume/Cap: | 1.20 | 1.34 | 0.99 | 1.34 | 1.20 | 1.20 | 0.73 | 1.34 | 0.46 | 1.34 | 0.73 | 0.73 |
| Uniform Del: | 46.1 | 36.2 | 36.1 | 46.9 | 37.0 | 37.0 | 44.8 | 27.8 | 19.5 | 47.1 | 24.3 | 24.3 |
| IncremntDel: | 121.7 | 159 | 41.3 | 200.2 | 102 | 102.4 | 8.9 | 160 | 0.5 | 181.5 | 1.8 | 1.8 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 167.8 | 195 | 77.4 | 247.1 | 139 | 139.4 | 53.6 | 188 | 20.0 | 228.6 | 26.1 | 26.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 167.8 | 195 | 77.4 | 247.1 | 139 | 139.4 | 53.6 | 188 | 20.0 | 228.6 | 26.1 | 26.1 |
| DesignQueue: | 17 | 58 | 19 | 8 | 45 | 4 | 11 | 41 | 11 | 14 | 32 | 5 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #34 Cedar Hills/Jenkins

Cycle (sec): 120 Critical Vol./Cap. (X): 0.916
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 41.8
Optimal Cycle: 138 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 | 0 1 | 1 0 | 1 | 0 2 | 0 1 | 2 | 0 0 | 1 1 | 0 | 0 1! | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 327 | 1042 | 16 | 6 | 1204 | 292 | 894 | 7 | 503 | 10 | 11 | 7 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 327 | 1042 | 16 | 6 | 1204 | 292 | 894 | 7 | 503 | 10 | 11 | 7 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 327 | 1042 | 16 | 6 | 1204 | 292 | 894 | 7 | 503 | 10 | 11 | 7 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 327 | 1042 | 16 | 6 | 1204 | 292 | 894 | 7 | 503 | 10 | 11 | 7 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 327 | 1042 | 16 | 6 | 1204 | 292 | 894 | 7 | 503 | 10 | 11 | 7 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.94 | 0.93 | 0.93 | 0.94 | 0.94 | 0.84 | 0.91 | 0.84 | 0.84 | 0.93 | 0.93 | 0.93 |
| Lanes: | 1.00 | 1.97 | 0.03 | 1.00 | 2.00 | 1.00 | 2.00 | 0.03 | 1.97 | 0.36 | 0.39 | 0.25 |
| Final Sat.: | 1787 | 3478 | 53 | 1787 | 3574 | 1599 | 3467 | 44 | 3161 | 631 | 694 | 442 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.18 | 0.30 | 0.30 | 0.00 | 0.34 | 0.18 | 0.26 | 0.16 | 0.16 | 0.02 | 0.02 | 0.02 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green/Cycle: | 0.20 | 0.56 | 0.56 | 0.01 | 0.37 | 0.37 | 0.28 | 0.28 | 0.28 | 0.02 | 0.02 | 0.02 |
| Volume/Cap: | 0.92 | 0.53 | 0.53 | 0.53 | 0.92 | 0.50 | 0.92 | 0.56 | 0.56 | 0.92 | 0.92 | 0.92 |
| Uniform Del: | 47.0 | 16.5 | 16.5 | 59.4 | 36.2 | 29.3 | 41.7 | 36.8 | 36.8 | 58.9 | 58.9 | 58.9 |
| IncremntDel: | 27.5 | 0.3 | 0.3 | 41.8 | 10.2 | 0.7 | 12.9 | 0.8 | 0.8 | 127.1 | 127 | 127.1 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 74.5 | 16.8 | 16.8 | 101.3 | 46.3 | 30.0 | 54.6 | 37.7 | 37.7 | 186.0 | 186 | 186.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 74.5 | 16.8 | 16.8 | 101.3 | 46.3 | 30.0 | 54.6 | 37.7 | 37.7 | 186.0 | 186 | 186.0 |
| DesignQueue: | 18 | 33 | 1 | 0 | 55 | 13 | 46 | 0 | 25 | 1 | 1 | 0 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #35 Cedar Hills/Hall

Cycle (sec): 100 Critical Vol./Cap. (X): 0.895
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 35.5
Optimal Cycle: 114 Level Of Service: D

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Protected | | | | Protected | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Ovl | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 | 2 | 0 1 | 1 | 0 | 1 | 1 0 | 1 | 0 | 1 | 1 0 | 1 | 0 | 1 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 101 | 675 | | 73 | 784 | 1055 | | 49 | 88 | | 90 | 110 | 81 | | 137 | 748 |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Initial Bse: | 101 | 675 | | 73 | 784 | 1055 | | 49 | 88 | | 90 | 110 | 81 | | 137 | 748 |
| User Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| PHF Volume: | 101 | 675 | | 73 | 784 | 1055 | | 49 | 88 | | 90 | 110 | 81 | | 137 | 748 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 |
| Reduced Vol: | 101 | 675 | | 73 | 784 | 1055 | | 49 | 88 | | 90 | 110 | 81 | | 137 | 748 |
| PCE Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Final Vol.: | 101 | 675 | | 73 | 784 | 1055 | | 49 | 88 | | 90 | 110 | 81 | | 137 | 748 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 |
| Adjustment: | 0.93 | 0.93 | | 0.83 | 0.94 | 0.93 | | 0.93 | 0.94 | | 0.94 | 0.80 | 0.94 | | 0.99 | 0.83 |
| Lanes: | 1.00 | 2.00 | | 1.00 | 1.00 | 1.91 | | 0.09 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Final Sat.: | 1769 | 3538 | | 1570 | 1787 | 3371 | | 157 | 1787 | | 1787 | 1519 | 1787 | | 1881 | 1580 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.19 | | 0.05 | 0.44 | 0.31 | | 0.31 | 0.05 | | 0.05 | 0.07 | 0.05 | | 0.07 | 0.47 |
| Crit Moves: | | **** | | | **** | | | | **** | | | | | | **** | |
| Green/Cycle: | 0.11 | 0.21 | | 0.21 | 0.49 | 0.60 | | 0.60 | 0.06 | | 0.08 | 0.08 | 0.05 | | 0.08 | 0.57 |
| Volume/Cap: | 0.53 | 0.89 | | 0.22 | 0.89 | 0.53 | | 0.53 | 0.89 | | 0.60 | 0.86 | 0.86 | | 0.89 | 0.83 |
| Uniform Del: | 42.1 | 38.2 | | 32.5 | 23.1 | 11.9 | | 11.9 | 47.0 | | 44.2 | 45.2 | 47.0 | | 45.5 | 17.4 |
| IncremntDel: | 2.7 | 13.2 | | 0.3 | 11.7 | 0.2 | | 0.2 | 58.1 | | 3.0 | 26.7 | 51.4 | | 43.4 | 6.4 |
| Delay Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| Delay/Veh: | 44.8 | 51.4 | | 32.8 | 34.8 | 12.2 | | 12.2 | 105.1 | | 47.2 | 71.9 | 98.5 | | 88.9 | 23.9 |
| User DelAdj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 |
| AdjDel/Veh: | 44.8 | 51.4 | | 32.8 | 34.8 | 12.2 | | 12.2 | 105.1 | | 47.2 | 71.9 | 98.5 | | 88.9 | 23.9 |
| DesignQueue: | 5 | 31 | | 3 | 25 | 26 | | 1 | 5 | | 5 | 6 | 4 | | 7 | 20 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #36 Cedar Hills/Canyon

Cycle (sec): 100 Critical Vol./Cap. (X): 0.947
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 37.9
Optimal Cycle: 139 Level Of Service: D

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Protected | | | | Protected | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Ovl | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 2 | 0 | 1 | 1 0 | 1 | 0 | 2 | 0 1 | 1 | 0 | 2 | 0 1 | 1 | 0 | 2 | 1 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 205 | 636 | | 225 | 246 | 766 | | 218 | 0 | 1436 | | 113 | 0 | 1392 | | 89 |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Initial Bse: | 205 | 636 | | 225 | 246 | 766 | | 218 | 0 | 1436 | | 113 | 0 | 1392 | | 89 |
| User Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| PHF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| PHF Volume: | 205 | 636 | | 225 | 246 | 766 | | 218 | 0 | 1436 | | 113 | 0 | 1392 | | 89 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Reduced Vol: | 205 | 636 | | 225 | 246 | 766 | | 218 | 0 | 1436 | | 113 | 0 | 1392 | | 89 |
| PCE Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| MLF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Final Vol.: | 205 | 636 | | 225 | 246 | 766 | | 218 | 0 | 1436 | | 113 | 0 | 1392 | | 89 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 |
| Adjustment: | 0.91 | 0.90 | | 0.90 | 0.93 | 0.93 | | 0.83 | 1.00 | 0.93 | | 0.83 | 1.00 | 0.88 | | 0.88 |
| Lanes: | 2.00 | 1.48 | | 0.52 | 1.00 | 2.00 | | 1.00 | 1.00 | 2.00 | | 1.00 | 1.00 | 2.82 | | 0.18 |
| Final Sat.: | 3467 | 2537 | | 898 | 1769 | 3538 | | 1583 | 1900 | 3538 | | 1583 | 1900 | 4691 | | 300 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.25 | | 0.25 | 0.14 | 0.22 | | 0.14 | 0.00 | 0.41 | | 0.07 | 0.00 | 0.30 | | 0.30 |
| Crit Moves: | | **** | | | **** | | | | | **** | | | **** | | | |
| Green/Cycle: | 0.09 | 0.26 | | 0.26 | 0.15 | 0.32 | | 0.32 | 0.00 | 0.43 | | 0.43 | 0.00 | 0.43 | | 0.58 |
| Volume/Cap: | 0.67 | 0.95 | | 0.95 | 0.95 | 0.67 | | 0.43 | 0.00 | 0.95 | | 0.17 | 0.00 | 0.69 | | 0.52 |
| Uniform Del: | 44.2 | 36.1 | | 36.1 | 42.3 | 29.2 | | 26.6 | 0.0 | 27.5 | | 17.6 | 0.0 | 23.2 | | 12.8 |
| IncremntDel: | 5.7 | 18.4 | | 18.4 | 41.5 | 1.6 | | 0.6 | 0.0 | 12.7 | | 0.1 | 0.0 | 1.0 | | 0.2 |
| Delay Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 0.00 | 1.00 | | 1.00 | 0.00 | 1.00 | | 1.00 |
| Delay/Veh: | 49.8 | 54.4 | | 54.4 | 83.7 | 30.8 | | 27.1 | 0.0 | 40.2 | | 17.7 | 0.0 | 24.2 | | 13.0 |
| User DelAdj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| AdjDel/Veh: | 49.8 | 54.4 | | 54.4 | 83.7 | 30.8 | | 27.1 | 0.0 | 40.2 | | 17.7 | 0.0 | 24.2 | | 13.0 |
| DesignQueue: | 11 | 28 | | 10 | 12 | 30 | | 8 | 0 | 51 | | 4 | 0 | 47 | | 2 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #37 Cedar Hills/Farmington

Cycle (sec): 100 Critical Vol./Cap. (X): 1.077
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 53.2
Optimal Cycle: 180 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 2 | 0 | 0 | 2 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 766 | 0 | 460 | 513 | 1410 | 0 | 0 | 1324 | 454 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 766 | 0 | 460 | 513 | 1410 | 0 | 0 | 1324 | 454 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 766 | 0 | 460 | 513 | 1410 | 0 | 0 | 1324 | 454 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 766 | 0 | 460 | 513 | 1410 | 0 | 0 | 1324 | 454 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 0 | 0 | 766 | 0 | 460 | 513 | 1410 | 0 | 0 | 1324 | 454 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 0.91 | 1.00 | 0.84 | 0.93 | 0.93 | 1.00 | 1.00 | 0.94 | 0.82 |
| Lanes: | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 0.00 | 0.00 | 2.00 | 1.00 |
| Final Sat.: | 0 | 0 | 0 | 3467 | 0 | 1599 | 1769 | 3538 | 0 | 0 | 3574 | 1560 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.22 | 0.00 | 0.29 | 0.29 | 0.40 | 0.00 | 0.00 | 0.37 | 0.29 |
| Crit Moves: | | | | | | **** | **** | | | | **** | |
| Green/Cycle: | 0.00 | 0.00 | 0.00 | 0.27 | 0.00 | 0.27 | 0.27 | 0.61 | 0.00 | 0.00 | 0.34 | 0.61 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.83 | 0.00 | 1.08 | 1.08 | 0.65 | 0.00 | 0.00 | 1.08 | 0.48 |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 34.5 | 0.0 | 36.6 | 36.5 | 12.5 | 0.0 | 0.0 | 32.8 | 10.7 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 6.3 | 0.0 | 65.9 | 63.7 | 0.7 | 0.0 | 0.0 | 49.3 | 0.4 |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 40.7 | 0.0 | 102.5 | 100.2 | 13.2 | 0.0 | 0.0 | 82.1 | 11.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 40.7 | 0.0 | 102.5 | 100.2 | 13.2 | 0.0 | 0.0 | 82.1 | 11.1 |
| DesignQueue: | 0 | 0 | 0 | 33 | 0 | 20 | 22 | 34 | 0 | 0 | 53 | 10 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #38 Hall/Center

Cycle (sec): 100 Critical Vol./Cap. (X): 0.682
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 25.7
Optimal Cycle: 57 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | | Prot+Permit | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 56 | 679 | 103 | 338 | 528 | 24 | 37 | 43 | 66 | 85 | 54 | 219 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 56 | 679 | 103 | 338 | 528 | 24 | 37 | 43 | 66 | 85 | 54 | 219 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 56 | 679 | 103 | 338 | 528 | 24 | 37 | 43 | 66 | 85 | 54 | 219 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 56 | 679 | 103 | 338 | 528 | 24 | 37 | 43 | 66 | 85 | 54 | 219 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 56 | 679 | 103 | 338 | 528 | 24 | 37 | 43 | 66 | 85 | 54 | 219 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.49 | 0.93 | 0.92 | 0.50 | 0.93 | 0.93 | 0.37 | 0.91 | 0.90 | 0.65 | 0.86 | 0.85 |
| Lanes: | 1.00 | 1.74 | 0.26 | 1.00 | 1.91 | 0.09 | 1.00 | 0.39 | 0.61 | 1.00 | 0.20 | 0.80 |
| Final Sat.: | 933 | 3064 | 465 | 941 | 3398 | 154 | 697 | 678 | 1041 | 1234 | 320 | 1299 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.22 | 0.22 | 0.36 | 0.16 | 0.16 | 0.05 | 0.06 | 0.06 | 0.07 | 0.17 | 0.17 |
| Crit Moves: | | **** | | **** | | | **** | | | | **** | |
| Green/Cycle: | 0.43 | 0.33 | 0.33 | 0.63 | 0.50 | 0.50 | 0.19 | 0.16 | 0.16 | 0.31 | 0.25 | 0.25 |
| Volume/Cap: | 0.14 | 0.68 | 0.68 | 0.57 | 0.31 | 0.31 | 0.28 | 0.40 | 0.40 | 0.22 | 0.68 | 0.68 |
| Uniform Del: | 17.5 | 29.3 | 29.3 | 15.2 | 14.7 | 14.7 | 34.4 | 37.9 | 37.9 | 25.5 | 34.1 | 34.1 |
| IncremntDel: | 0.2 | 1.7 | 1.7 | 1.3 | 0.1 | 0.1 | 1.2 | 1.0 | 1.0 | 0.3 | 4.8 | 4.8 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 17.6 | 31.0 | 31.0 | 16.5 | 14.8 | 14.8 | 35.6 | 38.9 | 38.9 | 25.8 | 38.8 | 38.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 17.6 | 31.0 | 31.0 | 16.5 | 14.8 | 14.8 | 35.6 | 38.9 | 38.9 | 25.8 | 38.8 | 38.8 |
| DesignQueue: | 3 | 27 | 4 | 14 | 15 | 1 | 2 | 2 | 3 | 4 | 2 | 10 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #39 Hall/Allen

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap. (X): | 0.971 |
| Loss Time (sec): | 16 (Y+R = 4 sec) | Average Delay (sec/veh): | 48.6 |
| Optimal Cycle: | 154 | Level Of Service: | D |

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 2 | 0 1 | 1 0 | 2 | 0 1 | 1 0 | 1 | 0 2 | 0 1 | 1 | 0 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 417 | 598 | 62 | 174 | 991 | 71 | 106 | 722 | 331 | 153 | 1198 | 98 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 417 | 598 | 62 | 174 | 991 | 71 | 106 | 722 | 331 | 153 | 1198 | 98 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 417 | 598 | 62 | 174 | 991 | 71 | 106 | 722 | 331 | 153 | 1198 | 98 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 417 | 598 | 62 | 174 | 991 | 71 | 106 | 722 | 331 | 153 | 1198 | 98 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 417 | 598 | 62 | 174 | 991 | 71 | 106 | 722 | 331 | 153 | 1198 | 98 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.91 | 0.93 | 0.93 | 0.91 | 0.93 | 0.93 | 0.93 | 0.93 | 0.83 | 0.94 | 0.94 | 0.84 |
| Lanes: | 2.00 | 1.81 | 0.19 | 2.00 | 1.87 | 0.13 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 3467 | 3186 | 330 | 3467 | 3302 | 237 | 1769 | 3538 | 1576 | 1787 | 3574 | 1592 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.12 | 0.19 | 0.19 | 0.05 | 0.30 | 0.30 | 0.06 | 0.20 | 0.21 | 0.09 | 0.34 | 0.06 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green/Cycle: | 0.12 | 0.34 | 0.34 | 0.09 | 0.31 | 0.31 | 0.06 | 0.29 | 0.29 | 0.12 | 0.35 | 0.35 |
| Volume/Cap: | 0.97 | 0.55 | 0.55 | 0.55 | 0.97 | 0.97 | 0.97 | 0.71 | 0.73 | 0.73 | 0.97 | 0.18 |
| Uniform Del: | 43.6 | 26.7 | 26.7 | 43.5 | 34.1 | 34.1 | 46.8 | 31.7 | 32.0 | 42.6 | 32.2 | 22.8 |
| IncremntDel: | 35.8 | 0.5 | 0.5 | 2.0 | 20.4 | 20.4 | 76.6 | 2.3 | 5.8 | 11.9 | 19.0 | 0.2 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 79.4 | 27.2 | 27.2 | 45.5 | 54.5 | 54.5 | 123.4 | 34.0 | 37.8 | 54.5 | 51.2 | 23.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 79.4 | 27.2 | 27.2 | 45.5 | 54.5 | 54.5 | 123.4 | 34.0 | 37.8 | 54.5 | 51.2 | 23.0 |
| DesignQueue: | 21 | 23 | 2 | 9 | 41 | 3 | 6 | 30 | 14 | 8 | 48 | 4 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #40 Hall/Denney

| | | | |
|---|---|---|---|
| Cycle (sec): | 100 | Critical Vol./Cap. (X): | 1.019 |
| Loss Time (sec): | 12 (Y+R = 4 sec) | Average Delay (sec/veh): | 57.9 |
| Optimal Cycle: | 180 | Level Of Service: | E |

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permit+Prot | | | Permit+Prot | | | Split Phase | | | Split Phase | | |
| Rights: | Ignore | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 | 0 2 | 0 1 | 1 | 0 2 | 0 0 | 0 | 0 0 | 0 0 | 1 | 0 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 1110 | 497 | 226 | 1238 | 0 | 0 | 0 | 0 | 895 | 0 | 237 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 1110 | 497 | 226 | 1238 | 0 | 0 | 0 | 0 | 895 | 0 | 237 |
| User Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 1110 | 0 | 226 | 1238 | 0 | 0 | 0 | 0 | 895 | 0 | 237 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 1110 | 0 | 226 | 1238 | 0 | 0 | 0 | 0 | 895 | 0 | 237 |
| PCE Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 1110 | 0 | 226 | 1238 | 0 | 0 | 0 | 0 | 895 | 0 | 237 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 0.93 | 1.00 | 0.42 | 0.94 | 1.00 | 1.00 | 1.00 | 1.00 | 0.94 | 1.00 | 0.84 |
| Lanes: | 0.00 | 2.00 | 1.00 | 1.00 | 2.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Final Sat.: | 0 | 3538 | 1900 | 793 | 3574 | 0 | 0 | 0 | 0 | 1787 | 0 | 1599 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.31 | 0.00 | 0.29 | 0.35 | 0.00 | 0.00 | 0.00 | 0.00 | 0.50 | 0.00 | 0.15 |
| Crit Moves: | | **** | | **** | | | | | | **** | | |
| Green/Cycle: | 0.00 | 0.29 | 0.00 | 0.45 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.47 | 0.00 | 0.47 |
| Volume/Cap: | 0.00 | 1.07 | 0.00 | 0.63 | 0.84 | 0.00 | 0.00 | 0.00 | 0.00 | 1.07 | 0.00 | 0.32 |
| Uniform Del: | 0.0 | 35.3 | 0.0 | 37.3 | 26.5 | 0.0 | 0.0 | 0.0 | 0.0 | 26.6 | 0.0 | 16.6 |
| IncremntDel: | 0.0 | 48.5 | 0.0 | 3.6 | 4.6 | 0.0 | 0.0 | 0.0 | 0.0 | 51.4 | 0.0 | 0.2 |
| Delay Adj: | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 0.0 | 83.8 | 0.0 | 40.9 | 31.0 | 0.0 | 0.0 | 0.0 | 0.0 | 78.0 | 0.0 | 16.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 83.8 | 0.0 | 40.9 | 31.0 | 0.0 | 0.0 | 0.0 | 0.0 | 78.0 | 0.0 | 16.8 |
| DesignQueue: | 0 | 47 | 0 | 11 | 44 | 0 | 0 | 0 | 0 | 30 | 0 | 7 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #41 Hall/Greenway

Cycle (sec): 120 Critical Vol./Cap. (X): 1.010
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 49.9
Optimal Cycle: 180 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Permit+Prot | | | Permit+Prot | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 1 | 0 | 0 1 | 0 0 | 1! 0 | 0 | 1 0 | 1 | 1 0 | 1 0 | 1 | 1 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 151 | 17 | 258 | 26 | 27 | 4 | 7 | 883 | 309 | 641 | 1297 | 26 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 151 | 17 | 258 | 26 | 27 | 4 | 7 | 883 | 309 | 641 | 1297 | 26 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 151 | 17 | 258 | 26 | 27 | 4 | 7 | 883 | 309 | 641 | 1297 | 26 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 151 | 17 | 258 | 26 | 27 | 4 | 7 | 883 | 309 | 641 | 1297 | 26 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 151 | 17 | 258 | 26 | 27 | 4 | 7 | 883 | 309 | 641 | 1297 | 26 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.94 | 0.94 | 0.83 | 0.97 | 0.97 | 0.97 | 0.22 | 0.90 | 0.89 | 0.55 | 0.94 | 0.94 |
| Lanes: | 0.90 | 0.10 | 1.00 | 0.46 | 0.47 | 0.07 | 1.00 | 1.48 | 0.52 | 1.00 | 1.96 | 0.04 |
| Final Sat.: | 1602 | 180 | 1583 | 840 | 872 | 129 | 411 | 2534 | 887 | 1048 | 3493 | 70 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.09 | 0.16 | 0.03 | 0.03 | 0.03 | 0.02 | 0.35 | 0.35 | 0.61 | 0.37 | 0.37 |
| Crit Moves: | | | **** | | **** | | | **** | | **** | | |
| Green/Cycle: | 0.16 | 0.16 | 0.16 | 0.03 | 0.03 | 0.03 | 0.39 | 0.34 | 0.34 | 0.72 | 0.67 | 0.67 |
| Volume/Cap: | 0.60 | 0.60 | 1.04 | 1.04 | 1.04 | 1.04 | 0.04 | 1.04 | 1.04 | 0.84 | 0.55 | 0.55 |
| Uniform Del: | 47.1 | 47.1 | 50.6 | 58.2 | 58.2 | 58.2 | 37.1 | 39.9 | 39.9 | 31.1 | 10.2 | 10.2 |
| IncremntDel: | 3.6 | 3.6 | 67.9 | 133.2 | 133 | 133.2 | 0.1 | 37.5 | 37.5 | 8.6 | 0.3 | 0.3 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 50.7 | 50.7 | 118.5 | 191.5 | 191 | 191.5 | 37.2 | 77.4 | 77.4 | 39.7 | 10.5 | 10.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 50.7 | 50.7 | 118.5 | 191.5 | 191 | 191.5 | 37.2 | 77.4 | 77.4 | 39.7 | 10.5 | 10.5 |
| DesignQueue: | 9 | 1 | 15 | 2 | 2 | 0 | 0 | 43 | 15 | 29 | 31 | 1 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #42 Hall/Nimbus

Cycle (sec): 100 Critical Vol./Cap. (X): 0.952
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 43.9
Optimal Cycle: 142 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Prot+Permit | | | Prot+Permit | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 | 1 0 | 1 0 | 0 | 1 0 | 1 | 0 | 1 0 | 1 0 | 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 156 | 36 | 356 | 173 | 49 | 88 | 18 | 1078 | 84 | 220 | 1512 | 59 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 156 | 36 | 356 | 173 | 49 | 88 | 18 | 1078 | 84 | 220 | 1512 | 59 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 156 | 36 | 356 | 173 | 49 | 88 | 18 | 1078 | 84 | 220 | 1512 | 59 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 156 | 36 | 356 | 173 | 49 | 88 | 18 | 1078 | 84 | 220 | 1512 | 59 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 156 | 36 | 356 | 173 | 49 | 88 | 18 | 1078 | 84 | 220 | 1512 | 59 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.67 | 0.86 | 0.85 | 0.49 | 0.88 | 0.86 | 0.93 | 0.91 | 0.91 | 0.94 | 0.94 | 0.84 |
| Lanes: | 1.00 | 0.09 | 0.91 | 1.00 | 0.35 | 0.65 | 1.00 | 1.86 | 0.14 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1274 | 149 | 1470 | 922 | 590 | 1059 | 1769 | 3213 | 250 | 1787 | 3574 | 1599 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.12 | 0.24 | 0.24 | 0.19 | 0.08 | 0.08 | 0.01 | 0.34 | 0.34 | 0.12 | 0.42 | 0.04 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green/Cycle: | 0.40 | 0.25 | 0.25 | 0.28 | 0.17 | 0.17 | 0.01 | 0.35 | 0.35 | 0.13 | 0.47 | 0.47 |
| Volume/Cap: | 0.31 | 0.95 | 0.95 | 0.68 | 0.48 | 0.48 | 0.90 | 0.95 | 0.95 | 0.95 | 0.90 | 0.08 |
| Uniform Del: | 20.2 | 36.7 | 36.7 | 30.4 | 37.2 | 37.2 | 49.4 | 31.5 | 31.5 | 43.2 | 24.3 | 14.6 |
| IncremntDel: | 0.3 | 32.1 | 32.1 | 7.0 | 1.3 | 1.3 | 153.5 | 15.6 | 15.6 | 45.7 | 6.9 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 20.5 | 68.8 | 68.8 | 37.5 | 38.5 | 38.5 | 202.8 | 47.2 | 47.2 | 88.9 | 31.2 | 14.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 20.5 | 68.8 | 68.8 | 37.5 | 38.5 | 38.5 | 202.8 | 47.2 | 47.2 | 88.9 | 31.2 | 14.6 |
| DesignQueue: | 7 | 2 | 16 | 9 | 2 | 4 | 1 | 42 | 3 | 11 | 50 | 2 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #43 125th/Greenway

Cycle (sec): 100 Critical Vol./Cap. (X): 0.771
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 36.5
Optimal Cycle: 71 Level Of Service: D

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Protected | | | | Protected | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 | 0 | 1 0 | 1 | 0 | 1 | 0 1 | 1 | 0 | 0 | 1 0 | 1 | 0 | 0 | 1 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 196 | 255 | | 82 | 27 | 313 | | 192 | 52 | 241 | | 236 | 217 | 542 | | 26 |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Initial Bse: | 196 | 255 | | 82 | 27 | 313 | | 192 | 52 | 241 | | 236 | 217 | 542 | | 26 |
| User Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| PHF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| PHF Volume: | 196 | 255 | | 82 | 27 | 313 | | 192 | 52 | 241 | | 236 | 217 | 542 | | 26 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Reduced Vol: | 196 | 255 | | 82 | 27 | 313 | | 192 | 52 | 241 | | 236 | 217 | 542 | | 26 |
| PCE Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| MLF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Final Vol.: | 196 | 255 | | 82 | 27 | 313 | | 192 | 52 | 241 | | 236 | 217 | 542 | | 26 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 |
| Adjustment: | 0.93 | 0.94 | | 0.94 | 0.93 | 0.98 | | 0.83 | 0.93 | 0.91 | | 0.91 | 0.93 | 0.97 | | 0.97 |
| Lanes: | 1.00 | 0.76 | | 0.24 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.51 | | 0.49 | 1.00 | 0.95 | | 0.05 |
| Final Sat.: | 1769 | 1358 | | 437 | 1769 | 1862 | | 1583 | 1769 | 871 | | 853 | 1769 | 1764 | | 85 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.19 | | 0.19 | 0.02 | 0.17 | | 0.12 | 0.03 | 0.28 | | 0.28 | 0.12 | 0.31 | | 0.31 |
| Crit Moves: | **** | | | | | **** | | | | **** | | | **** | | | |
| Green/Cycle: | 0.14 | 0.33 | | 0.33 | 0.03 | 0.22 | | 0.22 | 0.05 | 0.36 | | 0.36 | 0.16 | 0.47 | | 0.47 |
| Volume/Cap: | 0.77 | 0.56 | | 0.56 | 0.56 | 0.77 | | 0.56 | 0.65 | 0.77 | | 0.77 | 0.77 | 0.65 | | 0.65 |
| Uniform Del: | 41.2 | 27.2 | | 27.2 | 48.0 | 36.7 | | 34.8 | 47.0 | 28.4 | | 28.4 | 40.3 | 20.1 | | 20.1 |
| IncremntDel: | 13.4 | 1.2 | | 1.2 | 14.2 | 8.8 | | 2.0 | 17.3 | 5.9 | | 5.9 | 12.3 | 1.7 | | 1.7 |
| Delay Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Delay/Veh: | 54.7 | 28.5 | | 28.5 | 62.2 | 45.5 | | 36.8 | 64.2 | 34.3 | | 34.3 | 52.6 | 21.8 | | 21.8 |
| User DelAdj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| AdjDel/Veh: | 54.7 | 28.5 | | 28.5 | 62.2 | 45.5 | | 36.8 | 64.2 | 34.3 | | 34.3 | 52.6 | 21.8 | | 21.8 |
| DesignQueue: | 10 | 10 | | 3 | 1 | 14 | | 9 | 3 | 9 | | 9 | 10 | 17 | | 1 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #44 Western/Beaverton Hillsdale

Cycle (sec): 120 Critical Vol./Cap. (X): 0.723
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 29.4
Optimal Cycle: 65 Level Of Service: C

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Split Phase | | | | Split Phase | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 | 1! | 0 1 | 0 | 0 | 0 | 0 0 | 0 | 0 | 2 | 0 1 | 2 | 0 | 2 | 0 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 394 | | 0 | 495 | 0 | | 0 | 0 | 0 | 1159 | | 496 | 452 | 1004 | | 0 |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Initial Bse: | 394 | | 0 | 495 | 0 | | 0 | 0 | 0 | 1159 | | 496 | 452 | 1004 | | 0 |
| User Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| PHF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| PHF Volume: | 394 | | 0 | 495 | 0 | | 0 | 0 | 0 | 1159 | | 496 | 452 | 1004 | | 0 |
| Reduct Vol: | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Reduced Vol: | 394 | | 0 | 495 | 0 | | 0 | 0 | 0 | 1159 | | 496 | 452 | 1004 | | 0 |
| PCE Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| MLF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Final Vol.: | 394 | | 0 | 495 | 0 | | 0 | 0 | 0 | 1159 | | 496 | 452 | 1004 | | 0 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 |
| Adjustment: | 0.89 | 1.00 | | 0.89 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.92 | | 0.83 | 0.90 | 0.93 | | 1.00 |
| Lanes: | 1.44 | 0.00 | | 1.56 | 0.00 | 0.00 | | 0.00 | 0.00 | 2.00 | | 1.00 | 2.00 | 2.00 | | 0.00 |
| Final Sat.: | 2432 | | 0 | 2623 | 0 | | 0 | 0 | 0 | 3505 | | 1568 | 3432 | 3531 | | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.16 | 0.00 | | 0.19 | 0.00 | 0.00 | | 0.00 | 0.00 | 0.33 | | 0.32 | 0.13 | 0.28 | | 0.00 |
| Crit Moves: | | | | **** | | | | | | | **** | | | **** | | |
| Green/Cycle: | 0.26 | 0.00 | | 0.26 | 0.00 | 0.00 | | 0.00 | 0.00 | 0.46 | | 0.46 | 0.18 | 0.64 | | 0.00 |
| Volume/Cap: | 0.62 | 0.00 | | 0.72 | 0.00 | 0.00 | | 0.00 | 0.00 | 0.72 | | 0.69 | 0.72 | 0.44 | | 0.00 |
| Uniform Del: | 39.1 | 0.0 | | 40.4 | 0.0 | 0.0 | | 0.0 | 0.0 | 26.4 | | 25.9 | 46.2 | 10.9 | | 0.0 |
| IncremntDel: | 0.8 | 0.0 | | 2.2 | 0.0 | 0.0 | | 0.0 | 0.0 | 1.7 | | 2.9 | 4.2 | 0.1 | | 0.0 |
| Delay Adj: | 1.00 | 0.00 | | 1.00 | 0.00 | 0.00 | | 0.00 | 0.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.00 |
| Delay/Veh: | 40.0 | 0.0 | | 42.6 | 0.0 | 0.0 | | 0.0 | 0.0 | 28.1 | | 28.8 | 50.4 | 11.1 | | 0.0 |
| User DelAdj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| AdjDel/Veh: | 40.0 | 0.0 | | 42.6 | 0.0 | 0.0 | | 0.0 | 0.0 | 28.1 | | 28.8 | 50.4 | 11.1 | | 0.0 |
| DesignQueue: | 20 | 0 | | 26 | 0 | 0 | | 0 | 0 | 46 | | 19 | 25 | 26 | | 0 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #45 Western/Allen

Cycle (sec): 100 Critical Vol./Cap. (X): 0.922
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 37.2
Optimal Cycle: 128 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Permit+Prot | | | Permit+Prot | | |
| Rights: | Include | | | Include | | | Include | | | Ignore | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 0 | 0 0 | 1 0 | 0 | 0 1 | 1 0 | 2 | 0 0 | 0 0 | 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 578 | 0 | 615 | 398 | 790 | 0 | 0 | 716 | 346 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 578 | 0 | 615 | 398 | 790 | 0 | 0 | 716 | 346 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Volume: | 0 | 0 | 0 | 578 | 0 | 615 | 398 | 790 | 0 | 0 | 716 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 578 | 0 | 615 | 398 | 790 | 0 | 0 | 716 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Final Vol.: | 0 | 0 | 0 | 578 | 0 | 615 | 398 | 790 | 0 | 0 | 716 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 0.93 | 1.00 | 0.83 | 0.61 | 0.91 | 1.00 | 1.00 | 0.92 | 1.00 |
| Lanes: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 2.00 | 0.00 | 0.00 | 2.00 | 1.00 |
| Final Sat.: | 0 | 0 | 0 | 1769 | 0 | 1583 | 1151 | 3473 | 0 | 0 | 3505 | 1900 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.33 | 0.00 | 0.39 | 0.35 | 0.23 | 0.00 | 0.00 | 0.20 | 0.00 |
| Crit Moves: | | | | | | **** | **** | | | | **** | |
| Green/Cycle: | 0.00 | 0.00 | 0.00 | 0.42 | 0.00 | 0.42 | 0.52 | 0.46 | 0.00 | 0.00 | 0.22 | 0.00 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.79 | 0.00 | 0.93 | 0.66 | 0.49 | 0.00 | 0.00 | 0.93 | 0.00 |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 25.3 | 0.0 | 27.9 | 27.3 | 18.6 | 0.0 | 0.0 | 38.4 | 0.0 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 5.6 | 0.0 | 20.5 | 2.7 | 0.2 | 0.0 | 0.0 | 18.4 | 0.0 |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 30.9 | 0.0 | 48.4 | 30.0 | 18.8 | 0.0 | 0.0 | 56.7 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 30.9 | 0.0 | 48.4 | 30.0 | 18.8 | 0.0 | 0.0 | 56.7 | 0.0 |
| DesignQueue: | 0 | 0 | 0 | 20 | 0 | 22 | 16 | 25 | 0 | 0 | 33 | 0 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #46 Laurelwood/Beaverton Hillsdale

Cycle (sec): 100 Critical Vol./Cap. (X): 1.090
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 66.7
Optimal Cycle: 180 Level Of Service: E

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! | 0 0 | 0 0 | 1! | 0 0 | 1 0 | 1 | 1 0 | 1 0 | 1 | 1 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 121 | 127 | 108 | 277 | 103 | 73 | 79 | 1431 | 137 | 139 | 1265 | 168 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 121 | 127 | 108 | 277 | 103 | 73 | 79 | 1431 | 137 | 139 | 1265 | 168 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 121 | 127 | 108 | 277 | 103 | 73 | 79 | 1431 | 137 | 139 | 1265 | 168 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 121 | 127 | 108 | 277 | 103 | 73 | 79 | 1431 | 137 | 139 | 1265 | 168 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 121 | 127 | 108 | 277 | 103 | 73 | 79 | 1431 | 137 | 139 | 1265 | 168 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.72 | 0.72 | 0.72 | 0.55 | 0.55 | 0.55 | 0.93 | 0.92 | 0.92 | 0.94 | 0.92 | 0.92 |
| Lanes: | 0.34 | 0.36 | 0.30 | 0.61 | 0.23 | 0.16 | 1.00 | 1.83 | 0.17 | 1.00 | 1.77 | 0.23 |
| Final Sat.: | 464 | 487 | 414 | 641 | 238 | 169 | 1769 | 3187 | 305 | 1787 | 3098 | 411 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.26 | 0.26 | 0.26 | 0.43 | 0.43 | 0.43 | 0.04 | 0.45 | 0.45 | 0.08 | 0.41 | 0.41 |
| Crit Moves: | | | | | **** | | | **** | | **** | | |
| Green/Cycle: | 0.40 | 0.40 | 0.40 | 0.40 | 0.40 | 0.40 | 0.05 | 0.41 | 0.41 | 0.07 | 0.44 | 0.44 |
| Volume/Cap: | 0.66 | 0.66 | 0.66 | 1.09 | 1.09 | 1.09 | 0.94 | 1.09 | 1.09 | 1.09 | 0.94 | 0.94 |
| Uniform Del: | 24.6 | 24.6 | 24.6 | 30.2 | 30.2 | 30.2 | 47.5 | 29.4 | 29.4 | 46.4 | 26.9 | 26.9 |
| IncremntDel: | 3.0 | 3.0 | 3.0 | 70.5 | 70.5 | 70.5 | 76.8 | 52.1 | 52.1 | 105.7 | 11.2 | 11.2 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 27.6 | 27.6 | 27.6 | 100.6 | 101 | 100.6 | 124.3 | 81.5 | 81.5 | 152.2 | 38.1 | 38.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 27.6 | 27.6 | 27.6 | 100.6 | 101 | 100.6 | 124.3 | 81.5 | 81.5 | 152.2 | 38.1 | 38.1 |
| DesignQueue: | 4 | 4 | 4 | 10 | 4 | 3 | 4 | 52 | 5 | 7 | 44 | 6 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #47 Lombard/Farmington

Cycle (sec): 100 Critical Vol./Cap. (X): 0.967
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 51.6
Optimal Cycle: 151 Level Of Service: D

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Protected | | | | Protected | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Ignore | | | | Ignore | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 | 1 | 0 1 | 1 | 0 | 0 | 1 0 | 1 | 0 | 2 | 0 1 | 1 | 0 | 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 121 | 201 | 95 | | 316 | 360 | 68 | | 82 | 1342 | | 194 | 168 | 1617 | | 370 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Initial Bse: | 121 | 201 | 95 | | 316 | 360 | 68 | | 82 | 1342 | | 194 | 168 | 1617 | | 370 |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | 1.00 | | 0.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | 1.00 | | 0.00 |
| PHF Volume: | 121 | 201 | 95 | | 316 | 360 | 68 | | 82 | 1342 | | 0 | 168 | 1617 | | 0 |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Reduced Vol: | 121 | 201 | 95 | | 316 | 360 | 68 | | 82 | 1342 | | 0 | 168 | 1617 | | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | 1.00 | | 0.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | 1.00 | | 0.00 |
| Final Vol.: | 121 | 201 | 95 | | 316 | 360 | 68 | | 82 | 1342 | | 0 | 168 | 1617 | | 0 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 |
| Adjustment: | 0.92 | 0.97 | 0.83 | | 0.91 | 0.94 | 0.94 | | 0.93 | 0.93 | | 1.00 | 0.93 | 0.93 | | 1.00 |
| Lanes: | 1.00 | 1.00 | 1.00 | | 1.00 | 0.84 | 0.16 | | 1.00 | 2.00 | | 1.00 | 1.00 | 2.00 | | 1.00 |
| Final Sat.: | 1753 | 1845 | 1568 | | 1736 | 1501 | 283 | | 1769 | 3538 | | 1900 | 1769 | 3538 | | 1900 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.11 | 0.06 | | 0.18 | 0.24 | 0.24 | | 0.05 | 0.38 | | 0.00 | 0.09 | 0.46 | | 0.00 |
| Crit Moves: | **** | | | | | **** | | | **** | | | | | **** | | |
| Green/Cycle: | 0.07 | 0.12 | 0.12 | | 0.20 | 0.25 | 0.25 | | 0.05 | 0.42 | | 0.00 | 0.10 | 0.47 | | 0.00 |
| Volume/Cap: | 0.97 | 0.91 | 0.51 | | 0.91 | 0.97 | 0.97 | | 0.97 | 0.91 | | 0.00 | 0.91 | 0.97 | | 0.00 |
| Uniform Del: | 46.3 | 43.5 | 41.3 | | 39.1 | 37.2 | 37.2 | | 47.5 | 27.4 | | 0.0 | 44.3 | 25.6 | | 0.0 |
| IncremntDel: | 70.0 | 37.1 | 2.2 | | 27.1 | 34.2 | 34.2 | | 86.5 | 8.8 | | 0.0 | 41.9 | 14.9 | | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | 1.00 | | 0.00 |
| Delay/Veh: | 116.3 | 80.6 | 43.5 | | 66.2 | 71.4 | 71.4 | | 134.0 | 36.3 | | 0.0 | 86.3 | 40.5 | | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| AdjDel/Veh: | 116.3 | 80.6 | 43.5 | | 66.2 | 71.4 | 71.4 | | 134.0 | 36.3 | | 0.0 | 86.3 | 40.5 | | 0.0 |
| DesignQueue: | 6 | 10 | 5 | | 15 | 16 | 3 | | 4 | 48 | | 0 | 9 | 53 | | 0 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #48 114th/Canyon

Cycle (sec): 100 Critical Vol./Cap. (X): 0.843
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 26.1
Optimal Cycle: 97 Level Of Service: C

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Split Phase | | | | Split Phase | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 | 1 | 0 1 | 2 | 0 | 0 | 1 0 | 1 | 0 | 2 | 0 1 | 2 | 0 | 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 29 | 122 | 1 | | 292 | 59 | 126 | | 133 | 1922 | | 46 | 12 | 1633 | | 374 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Initial Bse: | 29 | 122 | 1 | | 292 | 59 | 126 | | 133 | 1922 | | 46 | 12 | 1633 | | 374 |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| PHF Volume: | 29 | 122 | 1 | | 292 | 59 | 126 | | 133 | 1922 | | 46 | 12 | 1633 | | 374 |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Reduced Vol: | 29 | 122 | 1 | | 292 | 59 | 126 | | 133 | 1922 | | 46 | 12 | 1633 | | 374 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Final Vol.: | 29 | 122 | 1 | | 292 | 59 | 126 | | 133 | 1922 | | 46 | 12 | 1633 | | 374 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 |
| Adjustment: | 0.95 | 1.00 | 0.85 | | 0.92 | 0.90 | 0.90 | | 0.95 | 0.95 | | 0.85 | 0.92 | 0.95 | | 0.85 |
| Lanes: | 1.00 | 1.00 | 1.00 | | 2.00 | 0.32 | 0.68 | | 1.00 | 2.00 | | 1.00 | 2.00 | 2.00 | | 1.00 |
| Final Sat.: | 1805 | 1900 | 1615 | | 3502 | 544 | 1162 | | 1805 | 3610 | | 1615 | 3502 | 3610 | | 1615 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.06 | 0.00 | | 0.08 | 0.11 | 0.11 | | 0.07 | 0.53 | | 0.03 | 0.00 | 0.45 | | 0.23 |
| Crit Moves: | | **** | | | | **** | | | | **** | | | **** | | | |
| Green/Cycle: | 0.08 | 0.08 | 0.08 | | 0.13 | 0.13 | 0.13 | | 0.09 | 0.63 | | 0.63 | 0.00 | 0.55 | | 0.55 |
| Volume/Cap: | 0.21 | 0.84 | 0.01 | | 0.65 | 0.84 | 0.84 | | 0.83 | 0.84 | | 0.05 | 0.84 | 0.83 | | 0.42 |
| Uniform Del: | 43.4 | 45.6 | 42.7 | | 41.4 | 42.6 | 42.6 | | 44.8 | 14.5 | | 7.0 | 49.8 | 18.8 | | 13.4 |
| IncremntDel: | 0.8 | 33.9 | 0.0 | | 3.3 | 24.6 | 24.6 | | 28.6 | 3.1 | | 0.0 | 157.7 | 3.1 | | 0.3 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Delay/Veh: | 44.1 | 79.5 | 42.7 | | 44.7 | 67.2 | 67.2 | | 73.4 | 17.6 | | 7.0 | 207.5 | 21.9 | | 13.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| AdjDel/Veh: | 44.1 | 79.5 | 42.7 | | 44.7 | 67.2 | 67.2 | | 73.4 | 17.6 | | 7.0 | 207.5 | 21.9 | | 13.7 |
| DesignQueue: | 1 | 6 | 0 | | 14 | 3 | 6 | | 7 | 45 | | 1 | 1 | 46 | | 10 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #49 Griffith/Beaverton Hillsdale

Cycle (sec): 100 Critical Vol./Cap. (X): 0.756
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 30.8
Optimal Cycle: 96 Level Of Service: C

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Prot+Permit | | | | Prot+Permit | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Ovl | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 | 1 | 0 1 | 1 | 0 | 1 | 0 1 | 1 | 0 | 2 | 0 1 | 1 | 0 | 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 155 | 96 | 182 | | 186 | 119 | 143 | | 96 | 1334 | 120 | | 178 | 1495 | 349 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 155 | 96 | 182 | | 186 | 119 | 143 | | 96 | 1334 | 120 | | 178 | 1495 | 349 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 155 | 96 | 182 | | 186 | 119 | 143 | | 96 | 1334 | 120 | | 178 | 1495 | 349 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 155 | 96 | 182 | | 186 | 119 | 143 | | 96 | 1334 | 120 | | 178 | 1495 | 349 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 155 | 96 | 182 | | 186 | 119 | 143 | | 96 | 1334 | 120 | | 178 | 1495 | 349 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 0.64 | 0.99 | 0.80 | | 0.76 | 0.99 | 0.80 | | 0.93 | 0.93 | 0.83 | | 0.94 | 0.94 | 0.84 | |
| Lanes: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 2.00 | 1.00 | | 1.00 | 2.00 | 1.00 | |
| Final Sat.: | 1220 | 1881 | 1514 | | 1450 | 1881 | 1518 | | 1769 | 3538 | 1570 | | 1787 | 3574 | 1599 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.13 | 0.05 | 0.12 | | 0.13 | 0.06 | 0.09 | | 0.05 | 0.38 | 0.08 | | 0.10 | 0.42 | 0.22 | |
| Crit Moves: | | | **** | | **** | | | | | **** | | | **** | | | |
| Green/Cycle: | 0.31 | 0.14 | 0.14 | | 0.27 | 0.14 | 0.14 | | 0.07 | 0.45 | 0.45 | | 0.12 | 0.50 | 0.63 | |
| Volume/Cap: | 0.41 | 0.36 | 0.84 | | 0.48 | 0.45 | 0.67 | | 0.83 | 0.84 | 0.17 | | 0.84 | 0.83 | 0.35 | |
| Uniform Del: | 26.3 | 38.7 | 41.7 | | 30.1 | 39.5 | 40.8 | | 46.2 | 24.3 | 16.4 | | 43.1 | 21.2 | 8.7 | |
| IncremntDel: | 0.7 | 0.8 | 23.9 | | 0.9 | 1.2 | 8.1 | | 37.4 | 4.1 | 0.1 | | 24.4 | 3.4 | 0.2 | |
| Delay Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Delay/Veh: | 27.0 | 39.5 | 65.6 | | 31.0 | 40.7 | 48.9 | | 83.6 | 28.4 | 16.5 | | 67.5 | 24.6 | 8.9 | |
| User DelAdj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| AdjDel/Veh: | 27.0 | 39.5 | 65.6 | | 31.0 | 40.7 | 48.9 | | 83.6 | 28.4 | 16.5 | | 67.5 | 24.6 | 8.9 | |
| DesignQueue: | 8 | 5 | 9 | | 9 | 6 | 7 | | 5 | 45 | 4 | | 9 | 46 | 8 | |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #50 87th/Canyon

Cycle (sec): 100 Critical Vol./Cap. (X): 0.846
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 25.0
Optimal Cycle: 78 Level Of Service: C

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Permitted | | | | Permitted | | | | Permitted | | | | Permitted | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 0 | 0 | 1! | 0 0 | 0 | 0 | 1! | 0 0 | 0 | 0 | 2 | 0 1 | 0 | 0 | 1 | 1 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 214 | 144 | 88 | | 51 | 138 | 119 | | 0 | 1416 | 272 | | 0 | 1035 | 18 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 214 | 144 | 88 | | 51 | 138 | 119 | | 0 | 1416 | 272 | | 0 | 1035 | 18 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 214 | 144 | 88 | | 51 | 138 | 119 | | 0 | 1416 | 272 | | 0 | 1035 | 18 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 214 | 144 | 88 | | 51 | 138 | 119 | | 0 | 1416 | 272 | | 0 | 1035 | 18 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 214 | 144 | 88 | | 51 | 138 | 119 | | 0 | 1416 | 272 | | 0 | 1035 | 18 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 0.62 | 0.62 | 0.62 | | 0.82 | 0.82 | 0.82 | | 1.00 | 0.93 | 0.83 | | 1.00 | 0.93 | 0.93 | |
| Lanes: | 0.48 | 0.32 | 0.20 | | 0.16 | 0.45 | 0.39 | | 0.00 | 2.00 | 1.00 | | 0.00 | 1.97 | 0.03 | |
| Final Sat.: | 565 | 380 | 233 | | 258 | 699 | 603 | | 0 | 3538 | 1579 | | 0 | 3467 | 60 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.38 | 0.38 | 0.38 | | 0.20 | 0.20 | 0.20 | | 0.00 | 0.40 | 0.17 | | 0.00 | 0.30 | 0.30 | |
| Crit Moves: | | **** | | | | | | | | **** | | | | | | |
| Green/Cycle: | 0.45 | 0.45 | 0.45 | | 0.45 | 0.45 | 0.45 | | 0.00 | 0.47 | 0.47 | | 0.00 | 0.47 | 0.47 | |
| Volume/Cap: | 0.85 | 0.85 | 0.85 | | 0.44 | 0.44 | 0.44 | | 0.00 | 0.85 | 0.36 | | 0.00 | 0.63 | 0.63 | |
| Uniform Del: | 24.6 | 24.6 | 24.6 | | 19.0 | 19.0 | 19.0 | | 0.0 | 23.2 | 16.8 | | 0.0 | 19.8 | 19.8 | |
| IncremntDel: | 12.1 | 12.1 | 12.1 | | 0.4 | 0.4 | 0.4 | | 0.0 | 4.2 | 0.3 | | 0.0 | 0.8 | 0.8 | |
| Delay Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.00 | 1.00 | 1.00 | | 0.00 | 1.00 | 1.00 | |
| Delay/Veh: | 36.7 | 36.7 | 36.7 | | 19.5 | 19.5 | 19.5 | | 0.0 | 27.4 | 17.1 | | 0.0 | 20.6 | 20.6 | |
| User DelAdj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| AdjDel/Veh: | 36.7 | 36.7 | 36.7 | | 19.5 | 19.5 | 19.5 | | 0.0 | 27.4 | 17.1 | | 0.0 | 20.6 | 20.6 | |
| DesignQueue: | 7 | 5 | 3 | | 2 | 4 | 4 | | 0 | 46 | 8 | | 0 | 33 | 1 | |

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #51 Garden Home/84th

Average Delay (sec/veh): 33.1 Worst Case Level Of Service: D

| Approach: | North Bound | | | | | | South Bound | | | | | | East Bound | | | | | | West Bound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | |
| Control: | Stop Sign | | | | | | Stop Sign | | | | | | Uncontrolled | | | | | | Uncontrolled | | | | | |
| Rights: | | | Include | | | | | | Include | | | | | | Include | | | | | | Include | | | |
| Lanes: | 0 | 0 | 1! | 0 | 0 | | 0 | 0 | 1! | 0 | 0 | | 0 | 0 | 1! | 0 | 0 | | 0 | 0 | 1! | 0 | 0 | |
| Volume Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 6 | | 1 | | 11 | | 4 | | 0 | | 2 | | 6 | | 733 | | 11 | | 6 | | 677 | | 12 | |
| Growth Adj: | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| Initial Bse: | 6 | | 1 | | 11 | | 4 | | 0 | | 2 | | 6 | | 733 | | 11 | | 6 | | 677 | | 12 | |
| User Adj: | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| PHF Adj: | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| PHF Volume: | 6 | | 1 | | 11 | | 4 | | 0 | | 2 | | 6 | | 733 | | 11 | | 6 | | 677 | | 12 | |
| Reduct Vol: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Final Vol.: | 6 | | 1 | | 11 | | 4 | | 0 | | 2 | | 6 | | 733 | | 11 | | 6 | | 677 | | 12 | |
| Critical Gap Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Critical Gp: | 7.1 | | 6.5 | | 6.2 | | 7.2 | xxxx | | | 6.3 | | 4.1 | xxxx | xxxxx | | | | 4.1 | xxxx | xxxxx | | | |
| FollowUpTim: | 3.5 | | 4.0 | | 3.3 | | 3.6 | xxxx | | | 3.4 | | 2.2 | xxxx | xxxxx | | | | 2.2 | xxxx | xxxxx | | | |
| Capacity Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 1450 | | 1454 | | 745 | | 1456 | xxxx | | | 684 | | 689 | xxxx | xxxxx | | | | 746 | xxxx | xxxxx | | | |
| Potent Cap.: | 108 | | 129 | | 411 | | 105 | xxxx | | | 438 | | 905 | xxxx | xxxxx | | | | 862 | xxxx | xxxxx | | | |
| Move Cap.: | 106 | | 127 | | 409 | | 100 | xxxx | | | 438 | | 905 | xxxx | xxxxx | | | | 861 | xxxx | xxxxx | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Stopped Del: | xxxxx | | xxxx | | xxxxx | | xxxxx | xxxx | | | xxxxx | | 9.0 | xxxx | xxxxx | | | | 9.2 | xxxx | xxxxx | | | |
| LOS by Move: | * | | * | | * | | * | * | | | * | | A | * | * | | | | A | * | * | | | |
| Movement: | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | |
| Shared Cap.: | xxxx | | 197 | | xxxxx | | xxxx | | 134 | | xxxxx | | xxxx | xxxx | xxxxx | | | | xxxx | xxxx | xxxxx | | | |
| Shrd StpDel: | xxxxx | | 25.1 | | xxxxx | | xxxxx | | 33.1 | | xxxxx | | xxxxx | xxxx | xxxxx | | | | xxxxx | xxxx | xxxxx | | | |
| Shared LOS: | * | | D | | * | | * | | D | | * | | * | * | * | | | | * | * | * | | | |
| ApproachDel: | | | 25.1 | | | | | | 33.1 | | | | | | xxxxxx | | | | | | xxxxxx | | | |
| ApproachLOS: | | | D | | | | | | D | | | | | | * | | | | | | * | | | |





Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #52 Garden Home/88th

Average Delay (sec/veh): 23.3 Worst Case Level Of Service: C

| Approach: | North Bound | | | | | | South Bound | | | | | | East Bound | | | | | | West Bound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | | L | - | T | - | R | |
| Control: | Stop Sign | | | | | | Stop Sign | | | | | | Uncontrolled | | | | | | Uncontrolled | | | | | |
| Rights: | | | Include | | | | | | Include | | | | | | Include | | | | | | Include | | | |
| Lanes: | 0 | 0 | 1! | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 1 | 0 | | 0 | 1 | 0 | 0 | 0 | |
| Volume Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Base Vol: | 9 | | 0 | | 10 | | 0 | | 0 | | 0 | | 0 | | 762 | | 17 | | 23 | | 624 | | 0 | |
| Growth Adj: | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| Initial Bse: | 9 | | 0 | | 10 | | 0 | | 0 | | 0 | | 0 | | 762 | | 17 | | 23 | | 624 | | 0 | |
| User Adj: | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| PHF Adj: | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.00 | |
| PHF Volume: | 9 | | 0 | | 10 | | 0 | | 0 | | 0 | | 0 | | 762 | | 17 | | 23 | | 624 | | 0 | |
| Reduct Vol: | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Final Vol.: | 9 | | 0 | | 10 | | 0 | | 0 | | 0 | | 0 | | 762 | | 17 | | 23 | | 624 | | 0 | |
| Critical Gap Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Critical Gp: | 6.4 | xxxx | | | 6.2 | | xxxxx | xxxx | | | xxxxx | | xxxx | xxxxx | | | 4.1 | | xxxx | xxxxx | | | | |
| FollowUpTim: | 3.5 | xxxx | | | 3.3 | | xxxxx | xxxx | | | xxxxx | | xxxx | xxxxx | | | 2.2 | | xxxx | xxxxx | | | | |
| Capacity Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 1440 | xxxx | | | 771 | | xxxx | xxxx | | | xxxxx | | xxxx | xxxx | | | 779 | | xxxx | xxxxx | | | | |
| Potent Cap.: | 146 | xxxx | | | 400 | | xxxx | xxxx | | | xxxxx | | xxxx | xxxx | | | 838 | | xxxx | xxxxx | | | | |
| Move Cap.: | 143 | xxxx | | | 400 | | xxxx | xxxx | | | xxxxx | | xxxx | xxxx | | | 838 | | xxxx | xxxxx | | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | | | | | | | | | |
| Stopped Del: | xxxxx | xxxx | | | xxxxx | | xxxxx | xxxx | | | xxxxx | | xxxxx | xxxx | | | 9.3 | | xxxx | xxxxx | | | | |
| LOS by Move: | * | * | | | * | | * | * | | | * | | * | * | | | A | | * | * | | | | |
| Movement: | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | | LT | - | LTR | - | RT | |
| Shared Cap.: | xxxx | | 216 | | xxxxx | | xxxx | | xxxx | | xxxxx | | xxxx | xxxx | xxxxx | | | | xxxx | xxxx | xxxxx | | | |
| Shrd StpDel: | xxxxx | | 23.3 | | xxxxx | | xxxxx | | xxxx | | xxxxx | | xxxxx | xxxx | xxxxx | | | | 9.4 | xxxx | xxxxx | | | |
| Shared LOS: | * | | C | | * | | * | | * | | * | | * | * | * | | | | A | * | * | | | |
| ApproachDel: | | | 23.3 | | | | | | xxxxxx | | | | | | xxxxxx | | | | | | xxxxxx | | | |
| ApproachLOS: | | | C | | | | | | * | | | | | | * | | | | | | * | | | |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #53 158th/Jenkins

Cycle (sec): 100 Critical Vol./Cap. (X): 1.102
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 78.6
Optimal Cycle: 180 Level Of Service: E

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Protected | | | | Protected | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Ovl | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 | 2 | 0 1 | 1 | 0 | 1 | 1 0 | 1 | 0 | 1 | 1 0 | 2 | 0 | 1 | 1 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 37 | 208 | 267 | | 493 | 372 | 93 | | 64 | 1043 | 31 | | 529 | 914 | 327 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 37 | 208 | 267 | | 493 | 372 | 93 | | 64 | 1043 | 31 | | 529 | 914 | 327 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 37 | 208 | 267 | | 493 | 372 | 93 | | 64 | 1043 | 31 | | 529 | 914 | 327 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 37 | 208 | 267 | | 493 | 372 | 93 | | 64 | 1043 | 31 | | 529 | 914 | 327 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 37 | 208 | 267 | | 493 | 372 | 93 | | 64 | 1043 | 31 | | 529 | 914 | 327 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 0.86 | 0.86 | 0.76 | | 0.92 | 0.89 | 0.89 | | 0.93 | 0.93 | 0.93 | | 0.89 | 0.89 | 0.89 | |
| Lanes: | 1.00 | 2.00 | 1.00 | | 1.00 | 1.60 | 0.40 | | 1.00 | 1.94 | 0.06 | | 2.00 | 1.47 | 0.53 | |
| Final Sat.: | 1626 | 3253 | 1449 | | 1753 | 2720 | 680 | | 1769 | 3422 | 102 | | 3400 | 2481 | 888 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.06 | 0.18 | | 0.28 | 0.14 | 0.14 | | 0.04 | 0.30 | 0.30 | | 0.16 | 0.37 | 0.37 | |
| Crit Moves: | | | **** | | **** | | | | | **** | | | **** | | | |
| Green/Cycle: | 0.06 | 0.17 | 0.17 | | 0.26 | 0.36 | 0.40 | | 0.04 | 0.28 | 0.28 | | 0.14 | 0.38 | 0.38 | |
| Volume/Cap: | 0.38 | 0.38 | 1.10 | | 1.10 | 0.38 | 0.34 | | 0.97 | 1.10 | 1.10 | | 1.10 | 0.97 | 0.97 | |
| Uniform Del: | 45.2 | 37.1 | 41.6 | | 37.2 | 23.6 | 20.9 | | 48.1 | 36.2 | 36.2 | | 42.9 | 30.4 | 30.4 | |
| IncremntDel: | 2.4 | 0.5 | 87.9 | | 73.3 | 0.2 | 0.2 | | 99.4 | 61.0 | 61.0 | | 71.9 | 18.1 | 18.1 | |
| Delay Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Delay/Veh: | 47.6 | 37.5 | 129.6 | | 110.5 | 23.8 | 21.0 | | 147.5 | 97.2 | 97.2 | | 114.8 | 48.5 | 48.5 | |
| User DelAdj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| AdjDel/Veh: | 47.6 | 37.5 | 129.6 | | 110.5 | 23.8 | 21.0 | | 147.5 | 97.2 | 97.2 | | 114.8 | 48.5 | 48.5 | |
| DesignQueue: | 2 | 10 | 13 | | 22 | 14 | 3 | | 3 | 45 | 1 | | 26 | 34 | 12 | |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #54 170th/Merlo

Cycle (sec): 100 Critical Vol./Cap. (X): 0.722
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 27.8
Optimal Cycle: 74 Level Of Service: C

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Permit+Prot | | | | Permit+Prot | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 | 1 | 0 1 | 1 | 0 | 0 | 1 0 | 1 | 0 | 1 | 0 1 | 2 | 0 | 1 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 22 | 497 | 360 | | 92 | 640 | 15 | | 10 | 12 | 15 | | 793 | 22 | 128 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 22 | 497 | 360 | | 92 | 640 | 15 | | 10 | 12 | 15 | | 793 | 22 | 128 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 22 | 497 | 360 | | 92 | 640 | 15 | | 10 | 12 | 15 | | 793 | 22 | 128 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 22 | 497 | 360 | | 92 | 640 | 15 | | 10 | 12 | 15 | | 793 | 22 | 128 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 22 | 497 | 360 | | 92 | 640 | 15 | | 10 | 12 | 15 | | 793 | 22 | 128 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 0.25 | 0.97 | 0.82 | | 0.41 | 0.96 | 0.96 | | 0.94 | 0.91 | 0.91 | | 0.90 | 0.85 | 0.85 | |
| Lanes: | 1.00 | 1.00 | 1.00 | | 1.00 | 0.98 | 0.02 | | 1.00 | 0.44 | 0.56 | | 2.00 | 0.15 | 0.85 | |
| Final Sat.: | 476 | 1845 | 1563 | | 778 | 1781 | 42 | | 1787 | 767 | 958 | | 3432 | 238 | 1386 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.27 | 0.23 | | 0.12 | 0.36 | 0.36 | | 0.01 | 0.02 | 0.02 | | 0.23 | 0.09 | 0.09 | |
| Crit Moves: | **** | | | | | **** | | | | | **** | | **** | | | |
| Green/Cycle: | 0.48 | 0.42 | 0.42 | | 0.55 | 0.49 | 0.49 | | 0.02 | 0.02 | 0.02 | | 0.31 | 0.32 | 0.32 | |
| Volume/Cap: | 0.10 | 0.64 | 0.55 | | 0.22 | 0.74 | 0.74 | | 0.29 | 0.74 | 0.74 | | 0.74 | 0.29 | 0.29 | |
| Uniform Del: | 30.8 | 22.9 | 21.7 | | 22.6 | 20.5 | 20.5 | | 48.4 | 48.7 | 48.7 | | 30.6 | 25.8 | 25.8 | |
| IncremntDel: | 0.2 | 1.8 | 1.0 | | 0.3 | 3.3 | 3.3 | | 4.7 | 55.3 | 55.3 | | 2.7 | 0.3 | 0.3 | |
| Delay Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Delay/Veh: | 31.0 | 24.6 | 22.7 | | 22.8 | 23.7 | 23.7 | | 53.1 | 104 | 104.0 | | 33.3 | 26.1 | 26.1 | |
| User DelAdj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| AdjDel/Veh: | 31.0 | 24.6 | 22.7 | | 22.8 | 23.7 | 23.7 | | 53.1 | 104 | 104.0 | | 33.3 | 26.1 | 26.1 | |
| DesignQueue: | 1 | 17 | 12 | | 5 | 20 | 0 | | 1 | 1 | 1 | | 32 | 1 | 5 | |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #56 TV Highway/Murray

Cycle (sec): 120 Critical Vol./Cap. (X): 1.096
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 76.0
Optimal Cycle: 180 Level Of Service: E

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Ignore | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 2 | 0 2 | 0 1 | 2 | 0 2 | 0 1 | 2 | 0 3 | 0 1 | 2 | 0 3 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 451 | 1098 | 108 | 323 | 1613 | 56 | 125 | 1477 | 173 | 313 | 1508 | 153 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 451 | 1098 | 108 | 323 | 1613 | 56 | 125 | 1477 | 173 | 313 | 1508 | 153 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 451 | 1098 | 108 | 323 | 1613 | 0 | 125 | 1477 | 173 | 313 | 1508 | 153 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 451 | 1098 | 108 | 323 | 1613 | 0 | 125 | 1477 | 173 | 313 | 1508 | 153 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 451 | 1098 | 108 | 323 | 1613 | 0 | 125 | 1477 | 173 | 313 | 1508 | 153 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.95 | 0.85 | 0.92 | 0.95 | 1.00 | 0.92 | 0.91 | 0.85 | 0.92 | 0.91 | 0.85 |
| Lanes: | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 |
| Final Sat.: | 3502 | 3610 | 1615 | 3502 | 3610 | 1900 | 3502 | 5187 | 1615 | 3502 | 5187 | 1615 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.13 | 0.30 | 0.07 | 0.09 | 0.45 | 0.00 | 0.04 | 0.28 | 0.11 | 0.09 | 0.29 | 0.09 |
| Crit Moves: | **** | | | | **** | | | **** | | **** | | |
| Green/Cycle: | 0.12 | 0.40 | 0.40 | 0.12 | 0.41 | 0.00 | 0.04 | 0.26 | 0.26 | 0.08 | 0.30 | 0.30 |
| Volume/Cap: | 1.10 | 0.75 | 0.17 | 0.75 | 1.10 | 0.00 | 0.96 | 1.10 | 0.41 | 1.10 | 0.96 | 0.31 |
| Uniform Del: | 52.9 | 30.7 | 22.9 | 50.9 | 35.5 | 0.0 | 57.7 | 44.4 | 36.8 | 55.1 | 41.0 | 32.1 |
| IncremntDel: | 72.8 | 2.3 | 0.1 | 7.5 | 54.3 | 0.0 | 65.0 | 55.1 | 0.7 | 81.3 | 13.7 | 0.4 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 125.7 | 33.0 | 23.0 | 58.4 | 89.8 | 0.0 | 122.7 | 99.5 | 37.5 | 136.4 | 54.6 | 32.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 125.7 | 33.0 | 23.0 | 58.4 | 89.8 | 0.0 | 122.7 | 99.5 | 37.5 | 136.4 | 54.6 | 32.5 |
| DesignQueue: | 27 | 47 | 4 | 19 | 72 | 0 | 8 | 78 | 9 | 20 | 75 | 7 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #57 Farmington/Hall

Cycle (sec): 100 Critical Vol./Cap. (X): 0.905
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 28.7
Optimal Cycle: 112 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 | 1 1 | 0 | 0 | 0 0 | 0 0 | 1 | 0 2 | 0 0 | 0 | 0 1 | 1 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 273 | 724 | 143 | 0 | 0 | 0 | 109 | 1475 | 0 | 0 | 1532 | 209 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 273 | 724 | 143 | 0 | 0 | 0 | 109 | 1475 | 0 | 0 | 1532 | 209 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 273 | 724 | 143 | 0 | 0 | 0 | 109 | 1475 | 0 | 0 | 1532 | 209 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 273 | 724 | 143 | 0 | 0 | 0 | 109 | 1475 | 0 | 0 | 1532 | 209 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 273 | 724 | 143 | 0 | 0 | 0 | 109 | 1475 | 0 | 0 | 1532 | 209 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.86 | 0.86 | 0.86 | 1.00 | 1.00 | 1.00 | 0.93 | 0.93 | 1.00 | 1.00 | 0.91 | 0.91 |
| Lanes: | 0.72 | 1.90 | 0.38 | 0.00 | 0.00 | 0.00 | 1.00 | 2.00 | 0.00 | 0.00 | 1.76 | 0.24 |
| Final Sat.: | 1171 | 3107 | 614 | 0 | 0 | 0 | 1769 | 3531 | 0 | 0 | 3051 | 416 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.23 | 0.23 | 0.23 | 0.00 | 0.00 | 0.00 | 0.06 | 0.42 | 0.00 | 0.00 | 0.50 | 0.50 |
| Crit Moves: | | **** | | | | | **** | | | | **** | |
| Green/Cycle: | 0.26 | 0.26 | 0.26 | 0.00 | 0.00 | 0.00 | 0.07 | 0.62 | 0.00 | 0.00 | 0.55 | 0.55 |
| Volume/Cap: | 0.91 | 0.91 | 0.91 | 0.00 | 0.00 | 0.00 | 0.91 | 0.67 | 0.00 | 0.00 | 0.91 | 0.91 |
| Uniform Del: | 36.0 | 36.0 | 36.0 | 0.0 | 0.0 | 0.0 | 46.3 | 12.2 | 0.0 | 0.0 | 19.9 | 19.9 |
| IncremntDel: | 9.5 | 9.5 | 9.5 | 0.0 | 0.0 | 0.0 | 53.7 | 0.8 | 0.0 | 0.0 | 6.6 | 6.6 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Delay/Veh: | 45.5 | 45.5 | 45.5 | 0.0 | 0.0 | 0.0 | 100.0 | 13.0 | 0.0 | 0.0 | 26.5 | 26.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 45.5 | 45.5 | 45.5 | 0.0 | 0.0 | 0.0 | 100.0 | 13.0 | 0.0 | 0.0 | 26.5 | 26.5 |
| DesignQueue: | 12 | 32 | 6 | 0 | 0 | 0 | 6 | 34 | 0 | 0 | 43 | 6 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #58 Canyon/Hall

Cycle (sec): 100 Critical Vol./Cap. (X): 0.836
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 25.3
Optimal Cycle: 86 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 | 1 1 | 0 | 0 | 0 0 | 0 | 1 | 0 2 | 0 | 0 | 1 1 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 416 | 544 | 158 | 0 | 0 | 0 | 61 | 1599 | 0 | 0 | 1304 | 236 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 416 | 544 | 158 | 0 | 0 | 0 | 61 | 1599 | 0 | 0 | 1304 | 236 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 416 | 544 | 158 | 0 | 0 | 0 | 61 | 1599 | 0 | 0 | 1304 | 236 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 416 | 544 | 158 | 0 | 0 | 0 | 61 | 1599 | 0 | 0 | 1304 | 236 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 416 | 544 | 158 | 0 | 0 | 0 | 61 | 1599 | 0 | 0 | 1304 | 236 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.87 | 0.87 | 0.87 | 1.00 | 1.00 | 1.00 | 0.92 | 0.92 | 1.00 | 1.00 | 0.90 | 0.90 |
| Lanes: | 1.00 | 1.55 | 0.45 | 0.00 | 0.00 | 0.00 | 1.00 | 2.00 | 0.00 | 0.00 | 1.69 | 0.31 |
| Final Sat.: | 1654 | 2563 | 744 | 0 | 0 | 0 | 1753 | 3505 | 0 | 0 | 2900 | 525 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.25 | 0.21 | 0.21 | 0.00 | 0.00 | 0.00 | 0.03 | 0.46 | 0.00 | 0.00 | 0.45 | 0.45 |
| Crit Moves: | **** | | | | | | **** | | | | **** | |
| Green/Cycle: | 0.30 | 0.30 | 0.30 | 0.00 | 0.00 | 0.00 | 0.04 | 0.58 | 0.00 | 0.00 | 0.54 | 0.54 |
| Volume/Cap: | 0.84 | 0.71 | 0.71 | 0.00 | 0.00 | 0.00 | 0.84 | 0.79 | 0.00 | 0.00 | 0.84 | 0.84 |
| Uniform Del: | 32.7 | 31.0 | 31.0 | 0.0 | 0.0 | 0.0 | 47.6 | 16.3 | 0.0 | 0.0 | 19.4 | 19.4 |
| IncremntDel: | 4.8 | 1.5 | 1.5 | 0.0 | 0.0 | 0.0 | 53.8 | 2.1 | 0.0 | 0.0 | 3.5 | 3.5 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Delay/Veh: | 37.4 | 32.5 | 32.5 | 0.0 | 0.0 | 0.0 | 101.4 | 18.4 | 0.0 | 0.0 | 22.9 | 22.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 37.4 | 32.5 | 32.5 | 0.0 | 0.0 | 0.0 | 101.4 | 18.4 | 0.0 | 0.0 | 22.9 | 22.9 |
| DesignQueue: | 17 | 22 | 6 | 0 | 0 | 0 | 3 | 42 | 0 | 0 | 38 | 7 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #59 Walker/173rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.862
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 36.0
Optimal Cycle: 103 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 2 | 0 1 | 0 | 1 | 2 | 0 1 | 0 | 1 | 0 1 | 1 | 0 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 342 | 501 | 75 | 135 | 342 | 85 | 48 | 1277 | 454 | 108 | 1084 | 172 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 342 | 501 | 75 | 135 | 342 | 85 | 48 | 1277 | 454 | 108 | 1084 | 172 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 342 | 501 | 75 | 135 | 342 | 85 | 48 | 1277 | 454 | 108 | 1084 | 172 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 342 | 501 | 75 | 135 | 342 | 85 | 48 | 1277 | 454 | 108 | 1084 | 172 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 342 | 501 | 75 | 135 | 342 | 85 | 48 | 1277 | 454 | 108 | 1084 | 172 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 1.00 | 0.85 | 0.90 | 0.98 | 0.83 | 0.93 | 0.93 | 0.83 | 0.94 | 0.94 | 0.83 |
| Lanes: | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 3502 | 1900 | 1615 | 3432 | 1862 | 1583 | 1769 | 3538 | 1583 | 1787 | 3574 | 1586 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.10 | 0.26 | 0.05 | 0.04 | 0.18 | 0.05 | 0.03 | 0.36 | 0.29 | 0.06 | 0.30 | 0.11 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green/Cycle: | 0.12 | 0.31 | 0.31 | 0.05 | 0.23 | 0.23 | 0.04 | 0.42 | 0.42 | 0.07 | 0.45 | 0.45 |
| Volume/Cap: | 0.80 | 0.86 | 0.15 | 0.86 | 0.80 | 0.23 | 0.68 | 0.86 | 0.69 | 0.86 | 0.68 | 0.24 |
| Uniform Del: | 42.7 | 32.7 | 25.3 | 47.4 | 36.4 | 31.4 | 47.4 | 26.5 | 23.7 | 46.0 | 21.8 | 17.1 |
| IncremntDel: | 10.3 | 12.6 | 0.1 | 35.7 | 10.3 | 0.3 | 23.0 | 5.5 | 3.0 | 41.9 | 1.2 | 0.2 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 53.1 | 45.3 | 25.4 | 83.1 | 46.7 | 31.7 | 70.3 | 31.9 | 26.7 | 87.9 | 23.0 | 17.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 53.1 | 45.3 | 25.4 | 83.1 | 46.7 | 31.7 | 70.3 | 31.9 | 26.7 | 87.9 | 23.0 | 17.2 |
| DesignQueue: | 17 | 21 | 3 | 7 | 15 | 4 | 3 | 45 | 16 | 6 | 36 | 5 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #60 170th/Baseline

Cycle (sec): 90 Critical Vol./Cap. (X): 0.953
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 43.5
Optimal Cycle: 131 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 | 0 | 0 1 | 0 | 2 | 0 0 1 | 0 | 1 | 0 1 1 | 0 | 1 | 0 2 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 308 | 347 | 155 | 289 | 263 | 19 | 24 | 1052 | 239 | 154 | 1404 | 180 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 308 | 347 | 155 | 289 | 263 | 19 | 24 | 1052 | 239 | 154 | 1404 | 180 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 308 | 347 | 155 | 289 | 263 | 19 | 24 | 1052 | 239 | 154 | 1404 | 180 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 308 | 347 | 155 | 289 | 263 | 19 | 24 | 1052 | 239 | 154 | 1404 | 180 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 308 | 347 | 155 | 289 | 263 | 19 | 24 | 1052 | 239 | 154 | 1404 | 180 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.94 | 0.94 | 0.94 | 0.90 | 0.97 | 0.97 | 0.93 | 0.90 | 0.90 | 0.94 | 0.94 | 0.84 |
| Lanes: | 1.00 | 0.69 | 0.31 | 2.00 | 0.93 | 0.07 | 1.00 | 1.63 | 0.37 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1787 | 1240 | 554 | 3432 | 1719 | 124 | 1769 | 2802 | 637 | 1787 | 3574 | 1599 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.17 | 0.28 | 0.28 | 0.08 | 0.15 | 0.15 | 0.01 | 0.38 | 0.38 | 0.09 | 0.39 | 0.11 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green/Cycle: | 0.20 | 0.29 | 0.29 | 0.09 | 0.18 | 0.18 | 0.02 | 0.39 | 0.39 | 0.09 | 0.47 | 0.47 |
| Volume/Cap: | 0.85 | 0.95 | 0.95 | 0.95 | 0.85 | 0.85 | 0.84 | 0.95 | 0.95 | 0.95 | 0.84 | 0.24 |
| Uniform Del: | 34.6 | 31.2 | 31.2 | 40.8 | 35.8 | 35.8 | 44.2 | 26.4 | 26.4 | 40.7 | 20.9 | 14.3 |
| IncremntDel: | 17.3 | 27.6 | 27.6 | 39.0 | 18.6 | 18.6 | 101.3 | 14.6 | 14.6 | 56.6 | 3.9 | 0.2 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 51.9 | 58.8 | 58.8 | 79.8 | 54.3 | 54.3 | 145.4 | 41.1 | 41.1 | 97.3 | 24.9 | 14.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 51.9 | 58.8 | 58.8 | 79.8 | 54.3 | 54.3 | 145.4 | 41.1 | 41.1 | 97.3 | 24.9 | 14.5 |
| DesignQueue: | 13 | 13 | 6 | 13 | 11 | 1 | 1 | 35 | 8 | 7 | 41 | 5 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #64 Cornell/173rd

Cycle (sec): 110 Critical Vol./Cap. (X): 1.241
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 119.6
Optimal Cycle: 180 Level Of Service: F

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 | 0 | 0 1 | 0 | 1 | 0 0 1 | 0 | 1 | 0 2 | 0 1 | 1 | 0 1 1 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 390 | 256 | 170 | 123 | 121 | 184 | 487 | 1414 | 347 | 300 | 1283 | 96 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 390 | 256 | 170 | 123 | 121 | 184 | 487 | 1414 | 347 | 300 | 1283 | 96 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 390 | 256 | 170 | 123 | 121 | 184 | 487 | 1414 | 347 | 300 | 1283 | 96 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 390 | 256 | 170 | 123 | 121 | 184 | 487 | 1414 | 347 | 300 | 1283 | 96 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 390 | 256 | 170 | 123 | 121 | 184 | 487 | 1414 | 347 | 300 | 1283 | 96 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.95 | 0.94 | 0.94 | 0.92 | 0.88 | 0.88 | 0.94 | 0.94 | 0.83 | 0.94 | 0.93 | 0.93 |
| Lanes: | 1.00 | 0.60 | 0.40 | 1.00 | 0.40 | 0.60 | 1.00 | 2.00 | 1.00 | 1.00 | 1.86 | 0.14 |
| Final Sat.: | 1805 | 1073 | 713 | 1753 | 666 | 1013 | 1787 | 3574 | 1586 | 1787 | 3285 | 246 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.22 | 0.24 | 0.24 | 0.07 | 0.18 | 0.18 | 0.27 | 0.40 | 0.22 | 0.17 | 0.39 | 0.39 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green/Cycle: | 0.17 | 0.25 | 0.25 | 0.07 | 0.15 | 0.15 | 0.22 | 0.38 | 0.38 | 0.16 | 0.31 | 0.31 |
| Volume/Cap: | 1.24 | 0.96 | 0.96 | 0.96 | 1.24 | 1.24 | 1.24 | 1.06 | 0.58 | 1.06 | 1.24 | 1.24 |
| Uniform Del: | 45.4 | 40.9 | 40.9 | 50.8 | 47.0 | 47.0 | 42.9 | 34.4 | 27.5 | 46.2 | 37.7 | 37.7 |
| IncremntDel: | 132.7 | 33.4 | 33.4 | 68.1 | 138 | 138.2 | 128.6 | 40.5 | 1.5 | 68.6 | 116 | 116.4 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 178.2 | 74.3 | 74.3 | 118.9 | 185 | 185.2 | 171.5 | 74.9 | 29.0 | 114.8 | 154 | 154.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 178.2 | 74.3 | 74.3 | 118.9 | 185 | 185.2 | 171.5 | 74.9 | 29.0 | 114.8 | 154 | 154.1 |
| DesignQueue: | 21 | 13 | 8 | 7 | 7 | 10 | 25 | 60 | 14 | 16 | 59 | 4 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #66 Scholls Ferry/Cascade

Cycle (sec): 100 Critical Vol./Cap. (X): 0.932
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 32.9
Optimal Cycle: 127 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 | 0 0 | 1 0 | 1 | 0 0 | 1 0 | 1 | 0 2 | 1 0 | 1 | 0 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 292 | 115 | 75 | 90 | 139 | 128 | 19 | 1848 | 243 | 128 | 1259 | 33 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 292 | 115 | 75 | 90 | 139 | 128 | 19 | 1848 | 243 | 128 | 1259 | 33 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 292 | 115 | 75 | 90 | 139 | 128 | 19 | 1848 | 243 | 128 | 1259 | 33 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 292 | 115 | 75 | 90 | 139 | 128 | 19 | 1848 | 243 | 128 | 1259 | 33 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 292 | 115 | 75 | 90 | 139 | 128 | 19 | 1848 | 243 | 128 | 1259 | 33 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.47 | 0.94 | 0.94 | 0.55 | 0.91 | 0.91 | 0.93 | 0.88 | 0.88 | 0.93 | 0.93 | 0.83 |
| Lanes: | 1.00 | 0.61 | 0.39 | 1.00 | 0.52 | 0.48 | 1.00 | 2.65 | 0.35 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 886 | 1082 | 706 | 1054 | 899 | 828 | 1769 | 4416 | 581 | 1769 | 3538 | 1583 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.33 | 0.11 | 0.11 | 0.09 | 0.15 | 0.15 | 0.01 | 0.42 | 0.42 | 0.07 | 0.36 | 0.02 |
| Crit Moves: | **** | | | | | | | **** | | **** | | |
| Green/Cycle: | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.02 | 0.45 | 0.45 | 0.08 | 0.51 | 0.51 |
| Volume/Cap: | 0.93 | 0.30 | 0.30 | 0.24 | 0.44 | 0.44 | 0.70 | 0.93 | 0.93 | 0.93 | 0.70 | 0.04 |
| Uniform Del: | 31.2 | 23.4 | 23.4 | 22.8 | 24.7 | 24.7 | 49.0 | 26.1 | 26.1 | 45.9 | 18.6 | 12.2 |
| IncremntDel: | 33.6 | 0.3 | 0.3 | 0.3 | 0.5 | 0.5 | 57.0 | 7.8 | 7.8 | 56.4 | 1.2 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 64.7 | 23.6 | 23.6 | 23.2 | 25.2 | 25.2 | 106.0 | 34.0 | 34.0 | 102.3 | 19.8 | 12.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 64.7 | 23.6 | 23.6 | 23.2 | 25.2 | 25.2 | 106.0 | 34.0 | 34.0 | 102.3 | 19.8 | 12.2 |
| DesignQueue: | 11 | 4 | 3 | 3 | 5 | 5 | 1 | 63 | 8 | 7 | 37 | 1 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #72 Canyon/Watson

Cycle (sec): 100 Critical Vol./Cap. (X): 0.842
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 22.7
Optimal Cycle: 88 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 | 0 0 | 0 0 | 0 | 1 1 | 1 0 | 0 | 0 1 | 1 0 | 1 | 0 2 | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 151 | 467 | 115 | 0 | 1621 | 105 | 162 | 1401 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 151 | 467 | 115 | 0 | 1621 | 105 | 162 | 1401 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 151 | 467 | 115 | 0 | 1621 | 105 | 162 | 1401 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 151 | 467 | 115 | 0 | 1621 | 105 | 162 | 1401 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 0 | 0 | 151 | 467 | 115 | 0 | 1621 | 105 | 162 | 1401 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 0.86 | 0.86 | 0.86 | 1.00 | 0.91 | 0.91 | 0.92 | 0.92 | 1.00 |
| Lanes: | 0.00 | 0.00 | 0.00 | 0.62 | 1.91 | 0.47 | 0.00 | 1.88 | 0.12 | 1.00 | 2.00 | 0.00 |
| Final Sat.: | 0 | 0 | 0 | 1008 | 3116 | 767 | 0 | 3253 | 211 | 1753 | 3491 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.15 | 0.15 | 0.15 | 0.00 | 0.50 | 0.50 | 0.09 | 0.40 | 0.00 |
| Crit Moves: | | | | | | **** | | **** | | **** | | |
| Green/Cycle: | 0.00 | 0.00 | 0.00 | 0.18 | 0.18 | 0.18 | 0.00 | 0.59 | 0.59 | 0.11 | 0.70 | 0.00 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.84 | 0.84 | 0.84 | 0.00 | 0.84 | 0.84 | 0.84 | 0.57 | 0.00 |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 39.7 | 39.7 | 39.7 | 0.0 | 16.6 | 16.6 | 43.7 | 7.4 | 0.0 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 7.4 | 7.4 | 7.4 | 0.0 | 3.3 | 3.3 | 26.9 | 0.3 | 0.0 |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 47.2 | 47.2 | 47.2 | 0.0 | 19.9 | 19.9 | 70.6 | 7.7 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 47.2 | 47.2 | 47.2 | 0.0 | 19.9 | 19.9 | 70.6 | 7.7 | 0.0 |
| DesignQueue: | 0 | 0 | 0 | 7 | 22 | 5 | 0 | 42 | 3 | 8 | 26 | 0 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #73 Farmington/Watson

Cycle (sec): 100 Critical Vol./Cap. (X): 0.852
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 23.4
Optimal Cycle: 91 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 0 0 | 0 | 0 1 | 1! 1 | 0 | 0 0 | 1 1 | 0 | 1 0 | 2 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 158 | 688 | 43 | 0 | 1385 | 355 | 113 | 1702 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 158 | 688 | 43 | 0 | 1385 | 355 | 113 | 1702 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 158 | 688 | 43 | 0 | 1385 | 355 | 113 | 1702 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 158 | 688 | 43 | 0 | 1385 | 355 | 113 | 1702 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 0 | 0 | 158 | 688 | 43 | 0 | 1385 | 355 | 113 | 1702 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 0.88 | 0.88 | 0.88 | 1.00 | 0.90 | 0.90 | 0.93 | 0.93 | 1.00 |
| Lanes: | 0.00 | 0.00 | 0.00 | 0.53 | 2.32 | 0.15 | 0.00 | 1.59 | 0.41 | 1.00 | 2.00 | 0.00 |
| Final Sat.: | 0 | 0 | 0 | 891 | 3879 | 242 | 0 | 2723 | 698 | 1769 | 3524 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.18 | 0.18 | 0.18 | 0.00 | 0.51 | 0.51 | 0.06 | 0.48 | 0.00 |
| Crit Moves: | | | | | **** | | | **** | | **** | | |
| Green/Cycle: | 0.00 | 0.00 | 0.00 | 0.21 | 0.21 | 0.21 | 0.00 | 0.60 | 0.60 | 0.07 | 0.67 | 0.00 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.85 | 0.85 | 0.85 | 0.00 | 0.85 | 0.85 | 0.85 | 0.72 | 0.00 |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 38.1 | 38.1 | 38.1 | 0.0 | 16.5 | 16.5 | 45.7 | 10.4 | 0.0 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 6.9 | 6.9 | 6.9 | 0.0 | 3.7 | 3.7 | 38.0 | 1.1 | 0.0 |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 45.0 | 45.0 | 45.0 | 0.0 | 20.2 | 20.2 | 83.7 | 11.5 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 45.0 | 45.0 | 45.0 | 0.0 | 20.2 | 20.2 | 83.7 | 11.5 | 0.0 |
| DesignQueue: | 0 | 0 | 0 | 7 | 32 | 2 | 0 | 35 | 9 | 6 | 35 | 0 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #76 Scholls Ferry/Denney

Cycle (sec): 100 Critical Vol./Cap. (X): 0.767
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 24.7
Optimal Cycle: 70 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 0 1 | 0 | 1 0 | 1 0 | 1 | 0 0 | 1! 0 | 0 | 0 1 | 0 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 103 | 736 | 2 | 5 | 730 | 408 | 227 | 3 | 85 | 2 | 1 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 103 | 736 | 2 | 5 | 730 | 408 | 227 | 3 | 85 | 2 | 1 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 103 | 736 | 2 | 5 | 730 | 408 | 227 | 3 | 85 | 2 | 1 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 103 | 736 | 2 | 5 | 730 | 408 | 227 | 3 | 85 | 2 | 1 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 103 | 736 | 2 | 5 | 730 | 408 | 227 | 3 | 85 | 2 | 1 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.93 | 0.97 | 0.97 | 0.93 | 0.98 | 0.83 | 0.74 | 0.74 | 0.74 | 0.90 | 0.90 | 1.00 |
| Lanes: | 1.00 | 0.99 | 0.01 | 1.00 | 1.00 | 1.00 | 0.72 | 0.01 | 0.27 | 0.67 | 0.33 | 0.00 |
| Final Sat.: | 1769 | 1842 | 5 | 1769 | 1862 | 1583 | 1011 | 13 | 379 | 1137 | 569 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.40 | 0.40 | 0.00 | 0.39 | 0.26 | 0.22 | 0.22 | 0.22 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | | **** | | | | |
| Green/Cycle: | 0.08 | 0.58 | 0.58 | 0.00 | 0.51 | 0.51 | 0.29 | 0.29 | 0.29 | 0.29 | 0.29 | 0.00 |
| Volume/Cap: | 0.77 | 0.69 | 0.69 | 0.69 | 0.77 | 0.50 | 0.77 | 0.77 | 0.77 | 0.01 | 0.01 | 0.00 |
| Uniform Del: | 45.3 | 14.5 | 14.5 | 49.7 | 19.6 | 16.1 | 32.2 | 32.2 | 32.2 | 25.1 | 25.1 | 0.0 |
| IncremntDel: | 22.9 | 1.9 | 1.9 | 139.6 | 3.8 | 0.5 | 8.4 | 8.4 | 8.4 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh: | 68.2 | 16.3 | 16.3 | 189.3 | 23.4 | 16.6 | 40.7 | 40.7 | 40.7 | 25.1 | 25.1 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 68.2 | 16.3 | 16.3 | 189.3 | 23.4 | 16.6 | 40.7 | 40.7 | 40.7 | 25.1 | 25.1 | 0.0 |
| DesignQueue: | 5 | 19 | 0 | 0 | 22 | 12 | 9 | 0 | 3 | 0 | 0 | 0 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #77 Farmington/Hocken

Cycle (sec): 100 Critical Vol./Cap. (X): 0.745
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 22.4
Optimal Cycle: 66 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 2 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 644 | 0 | 287 | 130 | 1140 | 0 | 0 | 1403 | 306 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 644 | 0 | 287 | 130 | 1140 | 0 | 0 | 1403 | 306 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 644 | 0 | 287 | 130 | 1140 | 0 | 0 | 1403 | 306 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 644 | 0 | 287 | 130 | 1140 | 0 | 0 | 1403 | 306 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 0 | 0 | 644 | 0 | 287 | 130 | 1140 | 0 | 0 | 1403 | 306 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 0.91 | 1.00 | 0.84 | 0.93 | 0.93 | 1.00 | 1.00 | 0.93 | 0.83 |
| Lanes: | 0.00 | 0.00 | 0.00 | 2.00 | 0.00 | 1.00 | 1.00 | 2.00 | 0.00 | 0.00 | 2.00 | 1.00 |
| Final Sat.: | 0 | 0 | 0 | 3467 | 0 | 1599 | 1769 | 3538 | 0 | 0 | 3538 | 1570 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.19 | 0.00 | 0.18 | 0.07 | 0.32 | 0.00 | 0.00 | 0.40 | 0.19 |
| Crit Moves: | | | | **** | | | **** | | | | **** | |
| Green/Cycle: | 0.00 | 0.00 | 0.00 | 0.25 | 0.00 | 0.25 | 0.10 | 0.63 | 0.00 | 0.00 | 0.53 | 0.53 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.75 | 0.00 | 0.72 | 0.75 | 0.51 | 0.00 | 0.00 | 0.75 | 0.37 |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 34.6 | 0.0 | 34.3 | 43.8 | 10.1 | 0.0 | 0.0 | 18.1 | 13.6 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 3.6 | 0.0 | 6.3 | 16.0 | 0.2 | 0.0 | 0.0 | 1.7 | 0.3 |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 38.2 | 0.0 | 40.6 | 59.8 | 10.3 | 0.0 | 0.0 | 19.8 | 13.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 38.2 | 0.0 | 40.6 | 59.8 | 10.3 | 0.0 | 0.0 | 19.8 | 13.9 |
| DesignQueue: | 0 | 0 | 0 | 28 | 0 | 12 | 7 | 25 | 0 | 0 | 40 | 8 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #78 TV Highway/Hocken

Cycle (sec): 100 Critical Vol./Cap. (X): 1.026
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 49.5
Optimal Cycle: 180 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Ovl | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 1 | 0 |
| Volume Module: | | | | | | | | | | | | | | | |
| Base Vol: | 188 | 140 | 62 | 339 | 344 | 118 | 97 | 1550 | 448 | 201 | 1498 | 55 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 188 | 140 | 62 | 339 | 344 | 118 | 97 | 1550 | 448 | 201 | 1498 | 55 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 188 | 140 | 62 | 339 | 344 | 118 | 97 | 1550 | 448 | 201 | 1498 | 55 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 188 | 140 | 62 | 339 | 344 | 118 | 97 | 1550 | 448 | 201 | 1498 | 55 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 188 | 140 | 62 | 339 | 344 | 118 | 97 | 1550 | 448 | 201 | 1498 | 55 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.93 | 0.93 | 0.93 | 0.93 | 0.83 | 0.92 | 0.92 | 0.82 | 0.93 | 0.89 | 0.89 |
| Lanes: | 1.00 | 0.69 | 0.31 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.89 | 0.11 |
| Final Sat.: | 1753 | 1220 | 540 | 1769 | 3538 | 1583 | 1753 | 3505 | 1549 | 1769 | 4879 | 179 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.11 | 0.11 | 0.19 | 0.10 | 0.07 | 0.06 | 0.44 | 0.29 | 0.11 | 0.31 | 0.31 |
| Crit Moves: | | **** | | **** | | | | **** | | **** | | |
| Green/Cycle: | 0.16 | 0.11 | 0.11 | 0.19 | 0.14 | 0.22 | 0.08 | 0.43 | 0.43 | 0.11 | 0.46 | 0.46 |
| Volume/Cap: | 0.69 | 1.03 | 1.03 | 1.03 | 0.69 | 0.33 | 0.67 | 1.03 | 0.67 | 1.03 | 0.67 | 0.67 |
| Uniform Del: | 39.8 | 44.4 | 44.4 | 40.7 | 40.8 | 32.5 | 44.5 | 28.5 | 22.8 | 44.5 | 21.1 | 21.1 |
| IncremntDel: | 7.0 | 71.2 | 71.2 | 56.5 | 3.9 | 0.6 | 11.5 | 30.2 | 2.7 | 71.4 | 0.8 | 0.8 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 46.9 | 116 | 115.6 | 97.1 | 44.7 | 33.0 | 56.0 | 58.6 | 25.5 | 115.9 | 21.9 | 21.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 46.9 | 116 | 115.6 | 97.1 | 44.7 | 33.0 | 56.0 | 58.6 | 25.5 | 115.9 | 21.9 | 21.9 |
| DesignQueue: | 9 | 7 | 3 | 16 | 17 | 5 | 5 | 55 | 15 | 10 | 49 | 2 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #81 158th/Blueridge

Cycle (sec): 100 Critical Vol./Cap. (X): 0.987
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 40.7
Optimal Cycle: 173 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 2 0 | 1 | 1 0 | 1 1 | 0 | 0 0 | 1! 0 | 0 | 0 1 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 159 | 1612 | 64 | 33 | 1606 | 51 | 50 | 5 | 102 | 332 | 9 | 57 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 159 | 1612 | 64 | 33 | 1606 | 51 | 50 | 5 | 102 | 332 | 9 | 57 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 159 | 1612 | 64 | 33 | 1606 | 51 | 50 | 5 | 102 | 332 | 9 | 57 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 159 | 1612 | 64 | 33 | 1606 | 51 | 50 | 5 | 102 | 332 | 9 | 57 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 159 | 1612 | 64 | 33 | 1606 | 51 | 50 | 5 | 102 | 332 | 9 | 57 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.92 | 0.82 | 0.93 | 0.93 | 0.93 | 0.62 | 0.62 | 0.61 | 0.58 | 0.59 | 0.85 |
| Lanes: | 1.00 | 2.00 | 1.00 | 1.00 | 1.94 | 0.06 | 0.32 | 0.03 | 0.65 | 0.97 | 0.03 | 1.00 |
| Final Sat.: | 1753 | 3505 | 1556 | 1769 | 3412 | 108 | 372 | 37 | 760 | 1082 | 29 | 1612 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.09 | 0.46 | 0.04 | 0.02 | 0.47 | 0.47 | 0.13 | 0.13 | 0.13 | 0.31 | 0.31 | 0.04 |
| Crit Moves: | **** | | | | **** | | | | | | **** | |
| Green/Cycle: | 0.09 | 0.55 | 0.55 | 0.02 | 0.48 | 0.48 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 |
| Volume/Cap: | 0.99 | 0.84 | 0.08 | 0.84 | 0.99 | 0.99 | 0.43 | 0.43 | 0.43 | 0.99 | 0.99 | 0.11 |
| Uniform Del: | 45.3 | 19.0 | 10.7 | 48.7 | 25.8 | 25.8 | 27.4 | 27.4 | 27.4 | 34.2 | 34.2 | 24.6 |
| IncremntDel: | 66.7 | 3.5 | 0.0 | 83.5 | 18.8 | 18.8 | 0.8 | 0.8 | 0.8 | 44.7 | 44.7 | 0.1 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 112.1 | 22.5 | 10.7 | 132.2 | 44.6 | 44.6 | 28.2 | 28.2 | 28.2 | 78.9 | 78.9 | 24.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 112.1 | 22.5 | 10.7 | 132.2 | 44.6 | 44.6 | 28.2 | 28.2 | 28.2 | 78.9 | 78.9 | 24.7 |
| DesignQueue: | 8 | 46 | 2 | 2 | 53 | 2 | 2 | 0 | 4 | 13 | 0 | 2 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #83 158th/Jay

Cycle (sec): 100 Critical Vol./Cap. (X): 0.917
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 32.9
Optimal Cycle: 118 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Prot+Permit | | | Prot+Permit | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 1 | 0 | 1 0 | 0 1 | 0 | 0 0 | 1! 0 | 0 | 0 1 | 0 0 | 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 116 | 531 | 7 | 65 | 782 | 105 | 184 | 0 | 191 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 116 | 531 | 7 | 65 | 782 | 105 | 184 | 0 | 191 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 116 | 531 | 7 | 65 | 782 | 105 | 184 | 0 | 191 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 116 | 531 | 7 | 65 | 782 | 105 | 184 | 0 | 191 | 0 | 0 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 116 | 531 | 7 | 65 | 782 | 105 | 184 | 0 | 191 | 0 | 0 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.19 | 0.90 | 0.90 | 0.47 | 0.96 | 0.96 | 0.78 | 1.00 | 0.78 | 1.00 | 1.00 | 1.00 |
| Lanes: | 1.00 | 1.97 | 0.03 | 1.00 | 0.88 | 0.12 | 0.49 | 0.00 | 0.51 | 0.00 | 1.00 | 1.00 |
| Final Sat.: | 354 | 3385 | 45 | 897 | 1612 | 216 | 724 | 0 | 752 | 0 | 1900 | 1900 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.33 | 0.16 | 0.16 | 0.07 | 0.49 | 0.49 | 0.25 | 0.00 | 0.25 | 0.00 | 0.00 | 0.00 |
| Crit Moves: | **** | | | | **** | | **** | | | | | |
| Green/Cycle: | 0.56 | 0.49 | 0.49 | 0.64 | 0.53 | 0.53 | 0.28 | 0.00 | 0.28 | 0.00 | 0.00 | 0.00 |
| Volume/Cap: | 0.58 | 0.32 | 0.32 | 0.11 | 0.92 | 0.92 | 0.92 | 0.00 | 0.92 | 0.00 | 0.00 | 0.00 |
| Uniform Del: | 21.6 | 15.5 | 15.5 | 7.1 | 21.5 | 21.5 | 35.0 | 0.0 | 35.0 | 0.0 | 0.0 | 0.0 |
| IncremntDel: | 4.4 | 0.1 | 0.1 | 0.1 | 13.1 | 13.1 | 25.1 | 0.0 | 25.1 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Delay/Veh: | 26.0 | 15.6 | 15.6 | 7.1 | 34.7 | 34.7 | 60.2 | 0.0 | 60.2 | 0.0 | 0.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 26.0 | 15.6 | 15.6 | 7.1 | 34.7 | 34.7 | 60.2 | 0.0 | 60.2 | 0.0 | 0.0 | 0.0 |
| DesignQueue: | 6 | 16 | 0 | 3 | 23 | 3 | 8 | 0 | 8 | 0 | 0 | 0 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #85 TV Highway/160th

| | | | |
|---|---|---|---|
| Cycle (sec): | 120 | Critical Vol./Cap. (X): | 1.136 |
| Loss Time (sec): | 16 (Y+R = 4 sec) | Average Delay (sec/veh): | 73.8 |
| Optimal Cycle: | 180 | Level Of Service: | E |

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Ovl | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 0 | 1 | 0 1 | 1 0 | 1 | 1 1 | 1 0 | 2 | 0 1 | 1 0 | 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 82 | 115 | 99 | 0 | 0 | 722 | 275 | 1624 | 345 | 0 | 1926 | 13 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 82 | 115 | 99 | 0 | 0 | 722 | 275 | 1624 | 345 | 0 | 1926 | 13 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 82 | 115 | 99 | 0 | 0 | 722 | 275 | 1624 | 345 | 0 | 1926 | 13 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 82 | 115 | 99 | 0 | 0 | 722 | 275 | 1624 | 345 | 0 | 1926 | 13 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 82 | 115 | 99 | 0 | 0 | 722 | 275 | 1624 | 345 | 0 | 1926 | 13 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.94 | 0.99 | 0.84 | 1.00 | 0.95 | 0.80 | 0.92 | 0.92 | 0.83 | 1.00 | 0.93 | 0.83 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1787 | 1881 | 1599 | 1900 | 1805 | 3038 | 1753 | 3505 | 1568 | 1900 | 3538 | 1583 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.05 | 0.06 | 0.06 | 0.00 | 0.00 | 0.24 | 0.16 | 0.46 | 0.22 | 0.00 | 0.54 | 0.01 |
| Crit Moves: | **** | | | | | **** | **** | | | | **** | |
| Green/Cycle: | 0.04 | 0.25 | 0.25 | 0.00 | 0.00 | 0.21 | 0.14 | 0.62 | 0.66 | 0.00 | 0.48 | 0.48 |
| Volume/Cap: | 1.14 | 0.25 | 0.25 | 0.00 | 0.00 | 1.14 | 1.14 | 0.75 | 0.33 | 0.00 | 1.14 | 0.02 |
| Uniform Del: | 57.6 | 36.0 | 36.0 | 0.0 | 0.0 | 47.5 | 51.7 | 16.4 | 9.0 | 0.0 | 31.3 | 16.4 |
| IncremntDel: | 147.7 | 0.3 | 0.3 | 0.0 | 0.0 | 79.6 | 99.6 | 1.5 | 0.2 | 0.0 | 69.2 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 |
| Delay/Veh: | 205.3 | 36.3 | 36.4 | 0.0 | 0.0 | 127.0 | 151.3 | 17.9 | 9.2 | 0.0 | 100 | 16.4 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 205.3 | 36.3 | 36.4 | 0.0 | 0.0 | 127.0 | 151.3 | 17.9 | 9.2 | 0.0 | 100 | 16.4 |
| DesignQueue: | 5 | 6 | 5 | 0 | 0 | 40 | 16 | 47 | 8 | 0 | 77 | 0 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #87 Hart/155th

| | | | |
|---|---|---|---|
| Cycle (sec): | 110 | Critical Vol./Cap. (X): | 0.520 |
| Loss Time (sec): | 8 (Y+R = 4 sec) | Average Delay (sec/veh): | 15.8 |
| Optimal Cycle: | 33 | Level Of Service: | B |

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Permitted | | | Permitted | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 1! | 0 0 | 0 0 | 1! | 0 0 | 0 0 | 1! | 0 0 | 0 1 | 0 | 1 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 111 | 32 | 78 | 31 | 80 | 22 | 7 | 380 | 129 | 127 | 725 | 11 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 111 | 32 | 78 | 31 | 80 | 22 | 7 | 380 | 129 | 127 | 725 | 11 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 111 | 32 | 78 | 31 | 80 | 22 | 7 | 380 | 129 | 127 | 725 | 11 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 111 | 32 | 78 | 31 | 80 | 22 | 7 | 380 | 129 | 127 | 725 | 11 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 111 | 32 | 78 | 31 | 80 | 22 | 7 | 380 | 129 | 127 | 725 | 11 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.73 | 0.73 | 0.73 | 0.88 | 0.88 | 0.88 | 0.94 | 0.94 | 0.94 | 0.70 | 0.70 | 0.70 |
| Lanes: | 0.51 | 0.14 | 0.35 | 0.23 | 0.60 | 0.17 | 0.01 | 0.74 | 0.25 | 0.29 | 1.68 | 0.03 |
| Final Sat.: | 695 | 200 | 488 | 389 | 1004 | 276 | 24 | 1309 | 444 | 394 | 2247 | 34 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.16 | 0.16 | 0.16 | 0.08 | 0.08 | 0.08 | 0.29 | 0.29 | 0.29 | 0.32 | 0.32 | 0.32 |
| Crit Moves: | | **** | | | | | | | | | **** | |
| Green/Cycle: | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 | 0.62 | 0.62 | 0.62 | 0.62 | 0.62 | 0.62 |
| Volume/Cap: | 0.52 | 0.52 | 0.52 | 0.26 | 0.26 | 0.26 | 0.47 | 0.47 | 0.47 | 0.52 | 0.52 | 0.52 |
| Uniform Del: | 31.4 | 31.4 | 31.4 | 28.7 | 28.7 | 28.7 | 11.2 | 11.2 | 11.2 | 11.7 | 11.7 | 11.7 |
| IncremntDel: | 1.2 | 1.2 | 1.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 32.6 | 32.6 | 32.6 | 29.0 | 29.0 | 29.0 | 11.5 | 11.5 | 11.5 | 12.0 | 12.0 | 12.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 32.6 | 32.6 | 32.6 | 29.0 | 29.0 | 29.0 | 11.5 | 11.5 | 11.5 | 12.0 | 12.0 | 12.0 |
| DesignQueue: | 5 | 1 | 3 | 1 | 3 | 1 | 0 | 9 | 3 | 3 | 18 | 0 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #88 Murray/Hart

Cycle (sec): 120 Critical Vol./Cap. (X): 1.011
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 52.6
Optimal Cycle: 180 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permit+Prot | | | Permit+Prot | | | Permit+Prot | | | Permit+Prot | | |
| Rights: | Include | | | Ovl | | | Ovl | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 | 0 1 | 1 0 | 1 | 0 2 | 0 1 | 1 | 0 1 | 0 1 | 1 | 0 1 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 184 | 1511 | 65 | 41 | 2144 | 280 | 146 | 131 | 164 | 101 | 284 | 103 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 184 | 1511 | 65 | 41 | 2144 | 280 | 146 | 131 | 164 | 101 | 284 | 103 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 184 | 1511 | 65 | 41 | 2144 | 280 | 146 | 131 | 164 | 101 | 284 | 103 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 184 | 1511 | 65 | 41 | 2144 | 280 | 146 | 131 | 164 | 101 | 284 | 103 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 184 | 1511 | 65 | 41 | 2144 | 280 | 146 | 131 | 164 | 101 | 284 | 103 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.23 | 0.92 | 0.92 | 0.18 | 0.93 | 0.83 | 0.60 | 0.98 | 0.82 | 0.74 | 0.99 | 0.84 |
| Lanes: | 1.00 | 1.92 | 0.08 | 1.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 442 | 3341 | 144 | 342 | 3538 | 1577 | 1149 | 1862 | 1567 | 1405 | 1881 | 1588 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.42 | 0.45 | 0.45 | 0.12 | 0.61 | 0.18 | 0.13 | 0.07 | 0.10 | 0.07 | 0.15 | 0.06 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green/Cycle: | 0.70 | 0.62 | 0.62 | 0.63 | 0.56 | 0.63 | 0.24 | 0.12 | 0.21 | 0.26 | 0.14 | 0.17 |
| Volume/Cap: | 0.60 | 0.73 | 0.73 | 0.19 | 1.09 | 0.28 | 0.53 | 0.59 | 0.49 | 0.28 | 1.09 | 0.38 |
| Uniform Del: | 46.2 | 15.8 | 15.8 | 29.4 | 26.6 | 9.9 | 47.6 | 50.1 | 41.3 | 38.6 | 51.7 | 44.2 |
| IncremntDel: | 3.2 | 1.3 | 1.3 | 0.4 | 49.5 | 0.2 | 2.0 | 4.3 | 1.1 | 0.4 | 81.9 | 0.9 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 49.4 | 17.1 | 17.1 | 29.8 | 76.2 | 10.0 | 49.6 | 54.4 | 42.4 | 39.0 | 134 | 45.1 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 49.4 | 17.1 | 17.1 | 29.8 | 76.2 | 10.0 | 49.6 | 54.4 | 42.4 | 39.0 | 134 | 45.1 |
| DesignQueue: | 11 | 43 | 2 | 3 | 75 | 7 | 9 | 8 | 9 | 6 | 17 | 6 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #89 Murray/Scholls Ferry

Cycle (sec): 120 Critical Vol./Cap. (X): 0.974
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 54.2
Optimal Cycle: 180 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Ovl | | | Ovl | | | Ignore | | | Ignore | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 | 0 1 | 1 0 | 2 | 0 1 | 0 1 | 2 | 0 1 | 1 0 | 1 | 0 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 98 | 560 | 7 | 705 | 546 | 807 | 463 | 698 | 67 | 4 | 998 | 827 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 98 | 560 | 7 | 705 | 546 | 807 | 463 | 698 | 67 | 4 | 998 | 827 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| PHF Volume: | 98 | 560 | 7 | 705 | 546 | 807 | 463 | 698 | 0 | 4 | 998 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 98 | 560 | 7 | 705 | 546 | 807 | 463 | 698 | 0 | 4 | 998 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Final Vol.: | 98 | 560 | 7 | 705 | 546 | 807 | 463 | 698 | 0 | 4 | 998 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.93 | 0.93 | 0.93 | 0.90 | 0.98 | 0.83 | 0.89 | 0.92 | 0.95 | 0.94 | 0.94 | 1.00 |
| Lanes: | 1.00 | 1.98 | 0.02 | 2.00 | 1.00 | 1.00 | 2.00 | 2.00 | 0.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1769 | 3487 | 44 | 3432 | 1862 | 1583 | 3400 | 3505 | 0 | 1787 | 3574 | 1900 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.06 | 0.16 | 0.16 | 0.21 | 0.29 | 0.51 | 0.14 | 0.20 | 0.00 | 0.00 | 0.28 | 0.00 |
| Crit Moves: | **** | | | | | **** | **** | | | | **** | |
| Green/Cycle: | 0.06 | 0.19 | 0.20 | 0.25 | 0.38 | 0.52 | 0.14 | 0.42 | 0.00 | 0.00 | 0.29 | 0.00 |
| Volume/Cap: | 0.97 | 0.83 | 0.81 | 0.83 | 0.76 | 0.97 | 0.97 | 0.47 | 0.00 | 0.47 | 0.97 | 0.00 |
| Uniform Del: | 56.5 | 46.5 | 46.0 | 42.8 | 32.3 | 27.8 | 51.4 | 25.1 | 0.0 | 59.6 | 42.4 | 0.0 |
| IncremntDel: | 81.2 | 8.5 | 7.1 | 7.0 | 4.9 | 25.0 | 34.6 | 0.2 | 0.0 | 36.3 | 22.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh: | 137.7 | 55.1 | 53.1 | 49.8 | 37.2 | 52.9 | 86.0 | 25.3 | 0.0 | 95.9 | 64.4 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 137.7 | 55.1 | 53.1 | 49.8 | 37.2 | 52.9 | 86.0 | 25.3 | 0.0 | 95.9 | 64.4 | 0.0 |
| DesignQueue: | 6 | 31 | 0 | 37 | 24 | 29 | 27 | 28 | 0 | 0 | 51 | 0 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #90 Scholls Ferry/Davies

Cycle (sec): 100 Critical Vol./Cap. (X): 0.701
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 18.2
Optimal Cycle: 76 Level Of Service: B

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Protected | | | | Protected | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 | 1 | 0 1 | 1 | 0 | 0 | 1 0 | 1 | 0 | 1 | 1 0 | 1 | 0 | 1 | 1 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 67 | 19 | 200 | | 50 | 20 | 29 | | 32 | 1176 | 134 | | 308 | 1590 | 121 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 67 | 19 | 200 | | 50 | 20 | 29 | | 32 | 1176 | 134 | | 308 | 1590 | 121 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 67 | 19 | 200 | | 50 | 20 | 29 | | 32 | 1176 | 134 | | 308 | 1590 | 121 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 67 | 19 | 200 | | 50 | 20 | 29 | | 32 | 1176 | 134 | | 308 | 1590 | 121 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 67 | 19 | 200 | | 50 | 20 | 29 | | 32 | 1176 | 134 | | 308 | 1590 | 121 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 0.94 | 0.99 | 0.84 | | 0.94 | 0.90 | 0.90 | | 0.93 | 0.92 | 0.92 | | 0.94 | 0.93 | 0.93 | |
| Lanes: | 1.00 | 1.00 | 1.00 | | 1.00 | 0.41 | 0.59 | | 1.00 | 1.80 | 0.20 | | 1.00 | 1.86 | 0.14 | |
| Final Sat.: | 1787 | 1881 | 1599 | | 1787 | 699 | 1014 | | 1769 | 3128 | 356 | | 1787 | 3271 | 249 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.04 | 0.01 | 0.13 | | 0.03 | 0.03 | 0.03 | | 0.02 | 0.38 | 0.38 | | 0.17 | 0.49 | 0.49 | |
| Crit Moves: | | | **** | | **** | | | | | **** | | | **** | | | |
| Green/Cycle: | 0.12 | 0.18 | 0.18 | | 0.04 | 0.09 | 0.09 | | 0.03 | 0.54 | 0.54 | | 0.25 | 0.75 | 0.75 | |
| Volume/Cap: | 0.30 | 0.06 | 0.70 | | 0.70 | 0.30 | 0.30 | | 0.64 | 0.70 | 0.70 | | 0.70 | 0.64 | 0.64 | |
| Uniform Del: | 39.9 | 34.1 | 38.6 | | 47.4 | 42.2 | 42.2 | | 48.1 | 17.2 | 17.2 | | 34.4 | 5.9 | 5.9 | |
| IncremntDel: | 0.8 | 0.1 | 7.6 | | 26.8 | 1.1 | 1.1 | | 25.6 | 1.2 | 1.2 | | 5.0 | 0.6 | 0.6 | |
| Delay Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Delay/Veh: | 40.7 | 34.2 | 46.2 | | 74.2 | 43.3 | 43.3 | | 73.7 | 18.5 | 18.5 | | 39.4 | 6.5 | 6.5 | |
| User DelAdj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| AdjDel/Veh: | 40.7 | 34.2 | 46.2 | | 74.2 | 43.3 | 43.3 | | 73.7 | 18.5 | 18.5 | | 39.4 | 6.5 | 6.5 | |
| DesignQueue: | 3 | 1 | 9 | | 3 | 1 | 1 | | 2 | 33 | 4 | | 13 | 25 | 2 | |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #92 Scholls Ferry/135th

Cycle (sec): 100 Critical Vol./Cap. (X): 0.660
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 13.4
Optimal Cycle: 54 Level Of Service: B

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Permitted | | | | Permitted | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 0 | 1 | 0 | 0 1 | 0 | 0 | 1! | 0 0 | 1 | 0 | 1 | 1 0 | 1 | 0 | 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 96 | 13 | 102 | | 3 | 8 | 26 | | 24 | 1276 | 146 | | 122 | 1743 | 10 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 96 | 13 | 102 | | 3 | 8 | 26 | | 24 | 1276 | 146 | | 122 | 1743 | 10 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 96 | 13 | 102 | | 3 | 8 | 26 | | 24 | 1276 | 146 | | 122 | 1743 | 10 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 96 | 13 | 102 | | 3 | 8 | 26 | | 24 | 1276 | 146 | | 122 | 1743 | 10 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 96 | 13 | 102 | | 3 | 8 | 26 | | 24 | 1276 | 146 | | 122 | 1743 | 10 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 0.72 | 0.72 | 0.84 | | 0.89 | 0.89 | 0.88 | | 0.93 | 0.92 | 0.92 | | 0.94 | 0.94 | 0.84 | |
| Lanes: | 0.88 | 0.12 | 1.00 | | 0.08 | 0.22 | 0.70 | | 1.00 | 1.79 | 0.21 | | 1.00 | 2.00 | 1.00 | |
| Final Sat.: | 1207 | 163 | 1604 | | 136 | 363 | 1181 | | 1769 | 3127 | 358 | | 1787 | 3574 | 1599 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.08 | 0.08 | 0.06 | | 0.02 | 0.02 | 0.02 | | 0.01 | 0.41 | 0.41 | | 0.07 | 0.49 | 0.01 | |
| Crit Moves: | | **** | | | | | | | | **** | | | | **** | | |
| Green/Cycle: | 0.12 | 0.12 | 0.12 | | 0.12 | 0.12 | 0.12 | | 0.02 | 0.65 | 0.65 | | 0.11 | 0.74 | 0.74 | |
| Volume/Cap: | 0.66 | 0.66 | 0.53 | | 0.18 | 0.18 | 0.18 | | 0.66 | 0.63 | 0.63 | | 0.63 | 0.66 | 0.01 | |
| Uniform Del: | 42.0 | 42.0 | 41.3 | | 39.5 | 39.5 | 39.5 | | 48.6 | 10.3 | 10.3 | | 42.6 | 6.7 | 3.4 | |
| IncremntDel: | 9.5 | 9.5 | 2.7 | | 0.4 | 0.4 | 0.4 | | 36.9 | 0.6 | 0.6 | | 6.4 | 0.6 | 0.0 | |
| Delay Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Delay/Veh: | 51.5 | 51.5 | 44.0 | | 40.0 | 40.0 | 40.0 | | 85.5 | 10.9 | 10.9 | | 49.0 | 7.3 | 3.4 | |
| User DelAdj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| AdjDel/Veh: | 51.5 | 51.5 | 44.0 | | 40.0 | 40.0 | 40.0 | | 85.5 | 10.9 | 10.9 | | 49.0 | 7.3 | 3.4 | |
| DesignQueue: | 5 | 1 | 5 | | 0 | 0 | 1 | | 1 | 27 | 3 | | 6 | 29 | 0 | |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #93 Scholls Ferry/125th

Cycle (sec): 120 Critical Vol./Cap. (X): 1.051
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 63.3
Optimal Cycle: 180 Level Of Service: E

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 | 0 1 | 0 1 | 1 | 0 1 | 0 1 | 1 | 0 1 | 1 0 | 1 | 0 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 273 | 152 | 260 | 203 | 123 | 268 | 147 | 1281 | 84 | 97 | 1843 | 140 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 273 | 152 | 260 | 203 | 123 | 268 | 147 | 1281 | 84 | 97 | 1843 | 140 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 273 | 152 | 260 | 203 | 123 | 268 | 147 | 1281 | 84 | 97 | 1843 | 140 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 273 | 152 | 260 | 203 | 123 | 268 | 147 | 1281 | 84 | 97 | 1843 | 140 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 273 | 152 | 260 | 203 | 123 | 268 | 147 | 1281 | 84 | 97 | 1843 | 140 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.95 | 1.00 | 0.85 | 0.94 | 0.99 | 0.84 | 0.95 | 0.94 | 0.94 | 0.95 | 0.95 | 0.85 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.88 | 0.12 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1805 | 1900 | 1615 | 1787 | 1881 | 1599 | 1805 | 3357 | 220 | 1805 | 3610 | 1615 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.15 | 0.08 | 0.16 | 0.11 | 0.07 | 0.17 | 0.08 | 0.38 | 0.38 | 0.05 | 0.51 | 0.09 |
| Crit Moves: | **** | | | | | **** | **** | | | | **** | |
| Green/Cycle: | 0.14 | 0.18 | 0.18 | 0.13 | 0.16 | 0.16 | 0.08 | 0.49 | 0.49 | 0.07 | 0.49 | 0.49 |
| Volume/Cap: | 1.05 | 0.45 | 0.91 | 0.91 | 0.41 | 1.05 | 1.05 | 0.77 | 0.77 | 0.77 | 1.05 | 0.18 |
| Uniform Del: | 51.4 | 44.1 | 48.3 | 51.8 | 45.4 | 50.4 | 55.4 | 24.9 | 24.9 | 54.9 | 30.9 | 17.4 |
| IncremntDel: | 69.8 | 1.0 | 29.8 | 35.5 | 0.9 | 70.4 | 90.3 | 2.2 | 2.2 | 25.1 | 36.3 | 0.1 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 121.2 | 45.0 | 78.2 | 87.2 | 46.3 | 120.8 | 145.7 | 27.0 | 27.0 | 80.0 | 67.2 | 17.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 121.2 | 45.0 | 78.2 | 87.2 | 46.3 | 120.8 | 145.7 | 27.0 | 27.0 | 80.0 | 67.2 | 17.5 |
| DesignQueue: | 16 | 9 | 15 | 12 | 7 | 16 | 9 | 48 | 3 | 6 | 72 | 5 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #94 Scholls Ferry/121st

Cycle (sec): 140 Critical Vol./Cap. (X): 0.932
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 37.3
Optimal Cycle: 154 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Permitted | | | Permitted | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 | 1 0 | 0 1 | 0 | 0 1! | 0 0 | 1 | 0 2 | 0 1 | 1 | 0 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 263 | 39 | 144 | 40 | 15 | 11 | 24 | 1290 | 411 | 301 | 2189 | 68 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 263 | 39 | 144 | 40 | 15 | 11 | 24 | 1290 | 411 | 301 | 2189 | 68 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 263 | 39 | 144 | 40 | 15 | 11 | 24 | 1290 | 411 | 301 | 2189 | 68 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 263 | 39 | 144 | 40 | 15 | 11 | 24 | 1290 | 411 | 301 | 2189 | 68 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 263 | 39 | 144 | 40 | 15 | 11 | 24 | 1290 | 411 | 301 | 2189 | 68 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.70 | 0.71 | 0.85 | 0.51 | 0.51 | 0.51 | 0.94 | 0.94 | 0.84 | 0.94 | 0.94 | 0.84 |
| Lanes: | 0.87 | 0.13 | 1.00 | 0.60 | 0.23 | 0.17 | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 1.00 |
| Final Sat.: | 1164 | 173 | 1615 | 583 | 219 | 160 | 1787 | 3574 | 1599 | 1787 | 3574 | 1599 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.23 | 0.23 | 0.09 | 0.07 | 0.07 | 0.07 | 0.01 | 0.36 | 0.26 | 0.17 | 0.61 | 0.04 |
| Crit Moves: | | **** | | | | | **** | | | | **** | |
| Green/Cycle: | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.01 | 0.46 | 0.46 | 0.21 | 0.66 | 0.66 |
| Volume/Cap: | 0.93 | 0.93 | 0.37 | 0.28 | 0.28 | 0.28 | 0.93 | 0.79 | 0.56 | 0.79 | 0.93 | 0.06 |
| Uniform Del: | 51.9 | 51.9 | 44.1 | 43.1 | 43.1 | 43.1 | 68.9 | 32.2 | 27.7 | 52.0 | 21.2 | 8.6 |
| IncremntDel: | 32.7 | 32.7 | 0.6 | 0.7 | 0.7 | 0.7 | 147.0 | 2.6 | 1.0 | 10.5 | 7.5 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Delay/Veh: | 84.6 | 84.6 | 44.7 | 43.8 | 43.8 | 43.8 | 215.9 | 34.8 | 28.7 | 62.5 | 28.7 | 8.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 84.6 | 84.6 | 44.7 | 43.8 | 43.8 | 43.8 | 215.9 | 34.8 | 28.7 | 62.5 | 28.7 | 8.6 |
| DesignQueue: | 16 | 2 | 9 | 2 | 1 | 1 | 2 | 60 | 18 | 19 | 69 | 2 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #95 Scholls Ferry/Conestoga

Cycle (sec): 120 Critical Vol./Cap. (X): 0.779
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 12.7
Optimal Cycle: 87 Level Of Service: B

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Split Phase | | | | Split Phase | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 142 | 0 | 37 | 47 | 1448 | 0 | 0 | 2060 | 196 | | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Initial Bse: | 0 | 0 | 0 | 142 | 0 | 37 | 47 | 1448 | 0 | 0 | 2060 | 196 | | | | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Volume: | 0 | 0 | 0 | 142 | 0 | 37 | 47 | 1448 | 0 | 0 | 2060 | 196 | | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Reduced Vol: | 0 | 0 | 0 | 142 | 0 | 37 | 47 | 1448 | 0 | 0 | 2060 | 196 | | | | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Final Vol.: | 0 | 0 | 0 | 142 | 0 | 37 | 47 | 1448 | 0 | 0 | 2060 | 196 | | | | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | | | | |
| Adjustment: | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 0.85 | 0.95 | 0.95 | 1.00 | 1.00 | 0.95 | 0.85 | | | | |
| Lanes: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 2.00 | 0.00 | 0.00 | 2.00 | 1.00 | | | | |
| Final Sat.: | 0 | 0 | 0 | 1805 | 0 | 1615 | 1805 | 3610 | 0 | 0 | 3610 | 1615 | | | | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.08 | 0.00 | 0.02 | 0.03 | 0.40 | 0.00 | 0.00 | 0.57 | 0.12 | | | | |
| Crit Moves: | | | | **** | | | **** | | | | **** | | | | | |
| Green/Cycle: | 0.00 | 0.00 | 0.00 | 0.10 | 0.00 | 0.10 | 0.03 | 0.77 | 0.00 | 0.00 | 0.73 | 0.73 | | | | |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.78 | 0.00 | 0.23 | 0.78 | 0.52 | 0.00 | 0.00 | 0.78 | 0.17 | | | | |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 52.6 | 0.0 | 49.6 | 57.6 | 5.5 | 0.0 | 0.0 | 10.0 | 4.9 | | | | |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 19.0 | 0.0 | 0.7 | 46.7 | 0.2 | 0.0 | 0.0 | 1.5 | 0.1 | | | | |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | | | | |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 71.7 | 0.0 | 50.3 | 104.2 | 5.7 | 0.0 | 0.0 | 11.6 | 5.0 | | | | |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 71.7 | 0.0 | 50.3 | 104.2 | 5.7 | 0.0 | 0.0 | 11.6 | 5.0 | | | | |
| DesignQueue: | 0 | 0 | 0 | 9 | 0 | 2 | 3 | 25 | 0 | 0 | 43 | 4 | | | | |





Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #102 Scholls Ferry/Laurelwood

Average Delay (sec/veh): 129.0 Worst Case Level Of Service: F

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Uncontrolled | | | | Uncontrolled | | | | Stop Sign | | | | Stop Sign | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Lanes: | 1 | 0 | 0 | 1 0 | 0 | 0 | 0 | 1 0 | 1 | 0 | 0 | 0 1 | 1 | 0 | 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 179 | 922 | 0 | 0 | 742 | 74 | 74 | 0 | 211 | 0 | 0 | 0 | | | | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| Initial Bse: | 179 | 922 | 0 | 0 | 742 | 74 | 74 | 0 | 211 | 0 | 0 | 0 | | | | |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | |
| PHF Volume: | 179 | 922 | 0 | 0 | 742 | 74 | 74 | 0 | 211 | 0 | 0 | 0 | | | | |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Final Vol.: | 179 | 922 | 0 | 0 | 742 | 74 | 74 | 0 | 211 | 0 | 0 | 0 | | | | |
| Critical Gap Module: | | | | | | | | | | | | | | | | |
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 6.4 | xxxx | 6.2 | xxxxx | xxxx | xxxxx | | | | |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 3.5 | xxxx | 3.3 | xxxxx | xxxx | xxxxx | | | | |
| Capacity Module: | | | | | | | | | | | | | | | | |
| Cnflict Vol: | 816 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 2061 | xxxx | 779 | xxxx | xxxx | xxxxx | | | | |
| Potent Cap.: | 820 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 60 | xxxx | 396 | xxxx | xxxx | xxxxx | | | | |
| Move Cap.: | 820 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 50 | xxxx | 396 | xxxx | xxxx | xxxxx | | | | |
| Level Of Service Module: | | | | | | | | | | | | | | | | |
| Stopped Del: | 10.6 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 428.3 | xxxx | 24.0 | xxxxx | xxxx | xxxxx | | | | |
| LOS by Move: | B | * | * | * | * | * | F | * | C | * | * | * | | | | |
| Movement: | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | | | | | |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | | | | |
| Shrd StpDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | | | | |
| Shared LOS: | * | * | * | * | * | * | * | * | * | * | * | * | | | | |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 129.0 | | | xxxxxx | | | | | | |
| ApproachLOS: | * | | | * | | | F | | | * | | | | | | |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #103 Canyon/Lombard

Cycle (sec): 100 Critical Vol./Cap. (X): 0.950
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 44.7
Optimal Cycle: 140 Level Of Service: D

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Protected | | | | Protected | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 | 0 | 0 | 1 0 | 1 | 0 | 1 | 0 1 | 1 | 0 | 1 | 1 0 | 1 | 0 | 1 | 1 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 125 | 314 | | 7 | 122 | 414 | | 96 | 70 | 1448 | | 86 | 43 | 1282 | | 100 |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Initial Bse: | 125 | 314 | | 7 | 122 | 414 | | 96 | 70 | 1448 | | 86 | 43 | 1282 | | 100 |
| User Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| PHF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| PHF Volume: | 125 | 314 | | 7 | 122 | 414 | | 96 | 70 | 1448 | | 86 | 43 | 1282 | | 100 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Reduced Vol: | 125 | 314 | | 7 | 122 | 414 | | 96 | 70 | 1448 | | 86 | 43 | 1282 | | 100 |
| PCE Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| MLF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Final Vol.: | 125 | 314 | | 7 | 122 | 414 | | 96 | 70 | 1448 | | 86 | 43 | 1282 | | 100 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 |
| Adjustment: | 0.88 | 0.92 | | 0.92 | 0.80 | 0.85 | | 0.72 | 0.92 | 0.92 | | 0.92 | 0.92 | 0.91 | | 0.91 |
| Lanes: | 1.00 | 0.98 | | 0.02 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.89 | | 0.11 | 1.00 | 1.86 | | 0.14 |
| Final Sat.: | 1671 | 1716 | | 38 | 1529 | 1609 | | 1368 | 1753 | 3282 | | 195 | 1753 | 3216 | | 251 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.07 | 0.18 | | 0.18 | 0.08 | 0.26 | | 0.07 | 0.04 | 0.44 | | 0.44 | 0.02 | 0.40 | | 0.40 |
| Crit Moves: | **** | | | | | **** | | | | **** | | | | **** | | |
| Green/Cycle: | 0.08 | 0.24 | | 0.24 | 0.11 | 0.27 | | 0.27 | 0.04 | 0.46 | | 0.46 | 0.03 | 0.45 | | 0.45 |
| Volume/Cap: | 0.95 | 0.75 | | 0.75 | 0.75 | 0.95 | | 0.26 | 0.89 | 0.95 | | 0.95 | 0.95 | 0.89 | | 0.89 |
| Uniform Del: | 45.9 | 35.0 | | 35.0 | 43.4 | 35.8 | | 28.6 | 47.5 | 25.7 | | 25.7 | 48.6 | 25.5 | | 25.5 |
| IncremntDel: | 62.9 | 7.3 | | 7.3 | 17.7 | 30.5 | | 0.4 | 67.1 | 12.5 | | 12.5 | 114.2 | 7.1 | | 7.1 |
| Delay Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Delay/Veh: | 108.7 | 42.4 | | 42.4 | 61.1 | 66.3 | | 29.0 | 114.6 | 38.1 | | 38.1 | 162.8 | 32.7 | | 32.7 |
| User DelAdj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| AdjDel/Veh: | 108.7 | 42.4 | | 42.4 | 61.1 | 66.3 | | 29.0 | 114.6 | 38.1 | | 38.1 | 162.8 | 32.7 | | 32.7 |
| DesignQueue: | 7 | 14 | | 0 | 6 | 18 | | 4 | 4 | 48 | | 3 | 2 | 44 | | 3 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #105 Canyon/117th

Cycle (sec): 100 Critical Vol./Cap. (X): 0.762
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 25.9
Optimal Cycle: 79 Level Of Service: C

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Protected | | | | Protected | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 | 0 | 1 | 0 1 | 2 | 0 | 0 | 1 0 | 1 | 0 | 2 | 0 1 | 2 | 0 | 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 38 | 77 | | 201 | 244 | 66 | | 83 | 57 | 1436 | | 34 | 117 | 1328 | | 315 |
| Growth Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Initial Bse: | 38 | 77 | | 201 | 244 | 66 | | 83 | 57 | 1436 | | 34 | 117 | 1328 | | 315 |
| User Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| PHF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| PHF Volume: | 38 | 77 | | 201 | 244 | 66 | | 83 | 57 | 1436 | | 34 | 117 | 1328 | | 315 |
| Reduct Vol: | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 |
| Reduced Vol: | 38 | 77 | | 201 | 244 | 66 | | 83 | 57 | 1436 | | 34 | 117 | 1328 | | 315 |
| PCE Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| MLF Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Final Vol.: | 38 | 77 | | 201 | 244 | 66 | | 83 | 57 | 1436 | | 34 | 117 | 1328 | | 315 |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 |
| Adjustment: | 0.94 | 0.99 | | 0.84 | 0.91 | 0.90 | | 0.90 | 0.92 | 0.92 | | 0.82 | 0.90 | 0.93 | | 0.83 |
| Lanes: | 1.00 | 1.00 | | 1.00 | 2.00 | 0.44 | | 0.56 | 1.00 | 2.00 | | 1.00 | 2.00 | 2.00 | | 1.00 |
| Final Sat.: | 1787 | 1881 | | 1599 | 3467 | 760 | | 956 | 1753 | 3505 | | 1556 | 3432 | 3538 | | 1583 |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.02 | 0.04 | | 0.13 | 0.07 | 0.09 | | 0.09 | 0.03 | 0.41 | | 0.02 | 0.03 | 0.38 | | 0.20 |
| Crit Moves: | | | | | **** | **** | | | | | **** | | **** | | | |
| Green/Cycle: | 0.05 | 0.17 | | 0.17 | 0.09 | 0.21 | | 0.21 | 0.05 | 0.54 | | 0.54 | 0.04 | 0.54 | | 0.54 |
| Volume/Cap: | 0.42 | 0.25 | | 0.76 | 0.76 | 0.42 | | 0.42 | 0.70 | 0.76 | | 0.04 | 0.76 | 0.70 | | 0.37 |
| Uniform Del: | 46.0 | 36.3 | | 39.9 | 44.3 | 34.5 | | 34.5 | 47.0 | 18.1 | | 10.9 | 47.2 | 17.2 | | 13.4 |
| IncremntDel: | 3.1 | 0.4 | | 12.3 | 10.3 | 0.8 | | 0.8 | 23.7 | 1.9 | | 0.0 | 19.8 | 1.2 | | 0.3 |
| Delay Adj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| Delay/Veh: | 49.2 | 36.8 | | 52.1 | 54.6 | 35.3 | | 35.3 | 70.7 | 20.0 | | 10.9 | 67.0 | 18.4 | | 13.7 |
| User DelAdj: | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 |
| AdjDel/Veh: | 49.2 | 36.8 | | 52.1 | 54.6 | 35.3 | | 35.3 | 70.7 | 20.0 | | 10.9 | 67.0 | 18.4 | | 13.7 |
| DesignQueue: | 2 | 4 | | 10 | 13 | 3 | | 4 | 3 | 41 | | 1 | 6 | 38 | | 8 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #114 ORE 217 SB Ramp/Canyon

Cycle (sec): 100 Critical Vol./Cap. (X): 0.835
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 28.4
Optimal Cycle: 86 Level Of Service: C

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Split Phase | | | | Split Phase | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Ignore | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 1 | 0 | 2 | 0 |
| **Volume Module:** | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | | 191 | 508 | 387 | | 0 | 1237 | 486 | | 314 | 1203 | 0 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 0 | 0 | 0 | | 191 | 508 | 387 | | 0 | 1237 | 486 | | 314 | 1203 | 0 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 0 | 0 | 0 | | 191 | 508 | 387 | | 0 | 1237 | 0 | | 314 | 1203 | 0 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 0 | 0 | 0 | | 191 | 508 | 387 | | 0 | 1237 | 0 | | 314 | 1203 | 0 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 0 | 0 | 0 | | 191 | 508 | 387 | | 0 | 1237 | 0 | | 314 | 1203 | 0 | |
| **Saturation Flow Module:** | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 1.00 | 1.00 | 1.00 | | 0.90 | 0.85 | 0.85 | | 1.00 | 0.90 | 1.00 | | 0.88 | 0.88 | 1.00 | |
| Lanes: | 0.00 | 0.00 | 0.00 | | 1.00 | 1.70 | 1.30 | | 0.00 | 2.00 | 1.00 | | 1.00 | 2.00 | 0.00 | |
| Final Sat.: | 0 | 0 | 0 | | 1709 | 2765 | 2106 | | 0 | 3404 | 1900 | | 1671 | 3343 | 0 | |
| **Capacity Analysis Module:** | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | | 0.11 | 0.18 | 0.18 | | 0.00 | 0.36 | 0.00 | | 0.19 | 0.36 | 0.00 | |
| Crit Moves: | | | | | | | **** | | | **** | | | **** | | | |
| Green/Cycle: | 0.00 | 0.00 | 0.00 | | 0.22 | 0.22 | 0.22 | | 0.00 | 0.44 | 0.00 | | 0.22 | 0.66 | 0.00 | |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | | 0.51 | 0.84 | 0.84 | | 0.00 | 0.84 | 0.00 | | 0.84 | 0.55 | 0.00 | |
| Uniform Del: | 0.0 | 0.0 | 0.0 | | 34.2 | 37.3 | 37.3 | | 0.0 | 25.1 | 0.0 | | 37.0 | 9.0 | 0.0 | |
| IncremntDel: | 0.0 | 0.0 | 0.0 | | 1.1 | 5.8 | 5.8 | | 0.0 | 4.3 | 0.0 | | 14.9 | 0.3 | 0.0 | |
| Delay Adj: | 0.00 | 0.00 | 0.00 | | 1.00 | 1.00 | 1.00 | | 0.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 0.00 | |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | | 35.4 | 43.1 | 43.1 | | 0.0 | 29.4 | 0.0 | | 51.9 | 9.3 | 0.0 | |
| User DelAdj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | | 35.4 | 43.1 | 43.1 | | 0.0 | 29.4 | 0.0 | | 51.9 | 9.3 | 0.0 | |
| DesignQueue: | 0 | 0 | 0 | | 9 | 23 | 17 | | 0 | 42 | 0 | | 14 | 25 | 0 | |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #115 ORE 217 NB Ramp/Canyon

Cycle (sec): 100 Critical Vol./Cap. (X): 0.811
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 28.5
Optimal Cycle: 80 Level Of Service: C

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Split Phase | | | | Split Phase | | | | Protected | | | | Protected | | | |
| Rights: | Ovl | | | | Include | | | | Include | | | | Ovl | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 1 |
| **Volume Module:** | | | | | | | | | | | | | | | | |
| Base Vol: | 508 | 494 | 380 | | 0 | 0 | 0 | | 226 | 1187 | 0 | | 0 | 1119 | 210 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 508 | 494 | 380 | | 0 | 0 | 0 | | 226 | 1187 | 0 | | 0 | 1119 | 210 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 508 | 494 | 380 | | 0 | 0 | 0 | | 226 | 1187 | 0 | | 0 | 1119 | 210 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 508 | 494 | 380 | | 0 | 0 | 0 | | 226 | 1187 | 0 | | 0 | 1119 | 210 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 508 | 494 | 380 | | 0 | 0 | 0 | | 226 | 1187 | 0 | | 0 | 1119 | 210 | |
| **Saturation Flow Module:** | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 0.76 | 0.76 | 0.80 | | 1.00 | 1.00 | 1.00 | | 0.90 | 0.90 | 1.00 | | 1.00 | 0.89 | 0.79 | |
| Lanes: | 1.52 | 1.48 | 1.00 | | 0.00 | 0.00 | 0.00 | | 1.00 | 2.00 | 0.00 | | 0.00 | 2.00 | 1.00 | |
| Final Sat.: | 2201 | 2140 | 1523 | | 0 | 0 | 0 | | 1702 | 3404 | 0 | | 0 | 3375 | 1510 | |
| **Capacity Analysis Module:** | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.23 | 0.23 | 0.25 | | 0.00 | 0.00 | 0.00 | | 0.13 | 0.35 | 0.00 | | 0.00 | 0.33 | 0.14 | |
| Crit Moves: | | | **** | | | | | | **** | | | | | **** | | |
| Green/Cycle: | 0.31 | 0.31 | 0.31 | | 0.00 | 0.00 | 0.00 | | 0.16 | 0.57 | 0.00 | | 0.00 | 0.41 | 0.41 | |
| Volume/Cap: | 0.75 | 0.75 | 0.81 | | 0.00 | 0.00 | 0.00 | | 0.81 | 0.61 | 0.00 | | 0.00 | 0.81 | 0.34 | |
| Uniform Del: | 31.2 | 31.2 | 31.9 | | 0.0 | 0.0 | 0.0 | | 40.3 | 14.0 | 0.0 | | 0.0 | 26.2 | 20.3 | |
| IncremntDel: | 2.4 | 2.4 | 10.3 | | 0.0 | 0.0 | 0.0 | | 16.3 | 0.6 | 0.0 | | 0.0 | 3.7 | 0.3 | |
| Delay Adj: | 1.00 | 1.00 | 1.00 | | 0.00 | 0.00 | 0.00 | | 1.00 | 1.00 | 0.00 | | 0.00 | 1.00 | 1.00 | |
| Delay/Veh: | 33.6 | 33.6 | 42.2 | | 0.0 | 0.0 | 0.0 | | 56.6 | 14.6 | 0.0 | | 0.0 | 29.9 | 20.6 | |
| User DelAdj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| AdjDel/Veh: | 33.6 | 33.6 | 42.2 | | 0.0 | 0.0 | 0.0 | | 56.6 | 14.6 | 0.0 | | 0.0 | 29.9 | 20.6 | |
| DesignQueue: | 20 | 20 | 15 | | 0 | 0 | 0 | | 11 | 31 | 0 | | 0 | 40 | 7 | |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #116 ORE 217 SB Ramp/Farmington

Cycle (sec): 100 Critical Vol./Cap. (X): 0.891
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 33.5
Optimal Cycle: 106 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 449 | 555 | 277 | 0 | 1249 | 495 | 231 | 1705 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 449 | 555 | 277 | 0 | 1249 | 495 | 231 | 1705 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 449 | 555 | 277 | 0 | 1249 | 495 | 231 | 1705 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 449 | 555 | 277 | 0 | 1249 | 495 | 231 | 1705 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 0 | 0 | 449 | 555 | 277 | 0 | 1249 | 495 | 231 | 1705 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 0.80 | 0.90 | 0.80 | 1.00 | 0.92 | 0.83 | 0.91 | 0.91 | 1.00 |
| Lanes: | 0.00 | 0.00 | 0.00 | 1.00 | 2.00 | 1.00 | 0.00 | 2.00 | 1.00 | 1.00 | 2.00 | 0.00 |
| Final Sat.: | 0 | 0 | 0 | 1523 | 3404 | 1523 | 0 | 3505 | 1568 | 1736 | 3473 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.29 | 0.16 | 0.18 | 0.00 | 0.36 | 0.32 | 0.13 | 0.49 | 0.00 |
| Crit Moves: | | | | **** | | | | **** | | **** | | |
| Green/Cycle: | 0.00 | 0.00 | 0.00 | 0.33 | 0.33 | 0.33 | 0.00 | 0.40 | 0.40 | 0.15 | 0.55 | 0.00 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.89 | 0.49 | 0.55 | 0.00 | 0.89 | 0.79 | 0.89 | 0.89 | 0.00 |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 31.7 | 26.7 | 27.4 | 0.0 | 28.0 | 26.3 | 41.7 | 20.0 | 0.0 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 17.7 | 0.3 | 1.3 | 0.0 | 7.5 | 6.7 | 29.3 | 5.9 | 0.0 |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 49.5 | 27.1 | 28.7 | 0.0 | 35.5 | 33.0 | 71.1 | 25.9 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 49.5 | 27.1 | 28.7 | 0.0 | 35.5 | 33.0 | 71.1 | 25.9 | 0.0 |
| DesignQueue: | 0 | 0 | 0 | 18 | 21 | 11 | 0 | 46 | 18 | 11 | 48 | 0 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #117 ORE 217 NB Ramp/Farmington

Cycle (sec): 100 Critical Vol./Cap. (X): 0.809
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 28.5
Optimal Cycle: 79 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Protected | | | Protected | | |
| Rights: | Ovl | | | Include | | | Include | | | Ovl | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 2 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 1 |
| Volume Module: | | | | | | | | | | | | | | |
| Base Vol: | 731 | 651 | 353 | 0 | 0 | 0 | 222 | 1390 | 0 | 0 | 1170 | 423 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 731 | 651 | 353 | 0 | 0 | 0 | 222 | 1390 | 0 | 0 | 1170 | 423 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 731 | 651 | 353 | 0 | 0 | 0 | 222 | 1390 | 0 | 0 | 1170 | 423 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 731 | 651 | 353 | 0 | 0 | 0 | 222 | 1390 | 0 | 0 | 1170 | 423 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 731 | 651 | 353 | 0 | 0 | 0 | 222 | 1390 | 0 | 0 | 1170 | 423 |
| Saturation Flow Module: | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.78 | 0.90 | 0.81 | 1.00 | 1.00 | 1.00 | 0.92 | 0.92 | 1.00 | 1.00 | 0.90 | 0.81 |
| Lanes: | 2.00 | 2.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 2.00 | 0.00 | 0.00 | 2.00 | 1.00 |
| Final Sat.: | 2983 | 3437 | 1537 | 0 | 0 | 0 | 1753 | 3505 | 0 | 0 | 3437 | 1537 |
| Capacity Analysis Module: | | | | | | | | | | | | | | |
| Vol/Sat: | 0.25 | 0.19 | 0.23 | 0.00 | 0.00 | 0.00 | 0.13 | 0.40 | 0.00 | 0.00 | 0.34 | 0.28 |
| Crit Moves: | **** | | | | | | **** | | | | **** | |
| Green/Cycle: | 0.30 | 0.30 | 0.30 | 0.00 | 0.00 | 0.00 | 0.16 | 0.58 | 0.00 | 0.00 | 0.42 | 0.42 |
| Volume/Cap: | 0.81 | 0.63 | 0.76 | 0.00 | 0.00 | 0.00 | 0.81 | 0.69 | 0.00 | 0.00 | 0.81 | 0.65 |
| Uniform Del: | 32.2 | 30.0 | 31.5 | 0.0 | 0.0 | 0.0 | 40.7 | 14.8 | 0.0 | 0.0 | 25.4 | 23.2 |
| IncremntDel: | 5.5 | 1.2 | 7.1 | 0.0 | 0.0 | 0.0 | 16.3 | 1.0 | 0.0 | 0.0 | 3.5 | 2.4 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Delay/Veh: | 37.7 | 31.2 | 38.6 | 0.0 | 0.0 | 0.0 | 57.0 | 15.8 | 0.0 | 0.0 | 29.0 | 25.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 37.7 | 31.2 | 38.6 | 0.0 | 0.0 | 0.0 | 57.0 | 15.8 | 0.0 | 0.0 | 29.0 | 25.6 |
| DesignQueue: | 30 | 26 | 14 | 0 | 0 | 0 | 11 | 36 | 0 | 0 | 41 | 14 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #118 ORE 217 SB Ramp/Allen

Cycle (sec): 100 Critical Vol./Cap. (X): 0.900
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 35.0
Optimal Cycle: 110 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Protected | | | Protected | | |
| Rights: | Include | | | Ovl | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 0 | 0 0 | 0 1 | 1 0 | 2 | 0 0 | 2 | 0 1 | 1 0 | 2 | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 385 | 0 | 518 | 0 | 867 | 312 | 498 | 1258 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 385 | 0 | 518 | 0 | 867 | 312 | 498 | 1258 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 385 | 0 | 518 | 0 | 867 | 312 | 498 | 1258 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 385 | 0 | 518 | 0 | 867 | 312 | 498 | 1258 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 0 | 0 | 385 | 0 | 518 | 0 | 867 | 312 | 498 | 1258 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 0.85 | 0.95 | 0.71 | 1.00 | 0.93 | 0.83 | 0.85 | 0.85 | 1.00 |
| Lanes: | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 2.00 | 0.00 | 2.00 | 1.00 | 1.00 | 2.00 | 0.00 |
| Final Sat.: | 0 | 0 | 0 | 1617 | 1805 | 2680 | 0 | 3538 | 1583 | 1612 | 3224 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.24 | 0.00 | 0.19 | 0.00 | 0.25 | 0.20 | 0.31 | 0.39 | 0.00 |
| Crit Moves: | | | | **** | | | | **** | | **** | | |
| Green/Cycle: | 0.00 | 0.00 | 0.00 | 0.26 | 0.00 | 0.26 | 0.00 | 0.27 | 0.27 | 0.34 | 0.62 | 0.00 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.90 | 0.00 | 0.73 | 0.00 | 0.90 | 0.72 | 0.90 | 0.63 | 0.00 |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 35.5 | 0.0 | 33.5 | 0.0 | 35.1 | 33.0 | 31.2 | 12.1 | 0.0 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 21.5 | 0.0 | 3.9 | 0.0 | 11.3 | 6.0 | 17.7 | 0.7 | 0.0 |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 57.0 | 0.0 | 37.4 | 0.0 | 46.4 | 39.0 | 48.9 | 12.8 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 57.0 | 0.0 | 37.4 | 0.0 | 46.4 | 39.0 | 48.9 | 12.8 | 0.0 |
| DesignQueue: | 0 | 0 | 0 | 17 | 0 | 22 | 0 | 37 | 13 | 20 | 29 | 0 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #119 ORE 217 NB Ramp/Allen

Cycle (sec): 100 Critical Vol./Cap. (X): 0.900
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 32.4
Optimal Cycle: 110 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Protected | | | Protected | | |
| Rights: | Ovl | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 1 1 | 0 | 0 1 | 0 0 | 0 | 0 0 | 1 0 | 2 | 0 0 | 0 0 | 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 462 | 0 | 344 | 0 | 0 | 0 | 300 | 919 | 0 | 0 | 1269 | 496 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 462 | 0 | 344 | 0 | 0 | 0 | 300 | 919 | 0 | 0 | 1269 | 496 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 462 | 0 | 344 | 0 | 0 | 0 | 300 | 919 | 0 | 0 | 1269 | 496 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 462 | 0 | 344 | 0 | 0 | 0 | 300 | 919 | 0 | 0 | 1269 | 496 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 462 | 0 | 344 | 0 | 0 | 0 | 300 | 919 | 0 | 0 | 1269 | 496 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.90 | 1.00 | 0.80 | 1.00 | 1.00 | 1.00 | 0.91 | 0.91 | 1.00 | 1.00 | 0.85 | 0.76 |
| Lanes: | 2.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 2.00 | 0.00 | 0.00 | 2.00 | 1.00 |
| Final Sat.: | 3411 | 0 | 1523 | 0 | 0 | 0 | 1736 | 3473 | 0 | 0 | 3224 | 1442 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.14 | 0.00 | 0.23 | 0.00 | 0.00 | 0.00 | 0.17 | 0.26 | 0.00 | 0.00 | 0.39 | 0.34 |
| Crit Moves: | | | **** | | | | **** | | | | **** | |
| Green/Cycle: | 0.25 | 0.00 | 0.25 | 0.00 | 0.00 | 0.00 | 0.19 | 0.63 | 0.00 | 0.00 | 0.44 | 0.44 |
| Volume/Cap: | 0.54 | 0.00 | 0.90 | 0.00 | 0.00 | 0.00 | 0.90 | 0.42 | 0.00 | 0.00 | 0.90 | 0.79 |
| Uniform Del: | 32.5 | 0.0 | 36.2 | 0.0 | 0.0 | 0.0 | 39.5 | 9.4 | 0.0 | 0.0 | 26.1 | 24.1 |
| IncremntDel: | 0.7 | 0.0 | 23.5 | 0.0 | 0.0 | 0.0 | 26.0 | 0.1 | 0.0 | 0.0 | 8.2 | 6.5 |
| Delay Adj: | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Delay/Veh: | 33.2 | 0.0 | 59.7 | 0.0 | 0.0 | 0.0 | 65.4 | 9.5 | 0.0 | 0.0 | 34.3 | 30.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 33.2 | 0.0 | 59.7 | 0.0 | 0.0 | 0.0 | 65.4 | 9.5 | 0.0 | 0.0 | 34.3 | 30.7 |
| DesignQueue: | 20 | 0 | 15 | 0 | 0 | 0 | 14 | 20 | 0 | 0 | 44 | 17 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #120 ORE 217 SB Ramp/Denney

Cycle (sec): 100 Critical Vol./Cap. (X): 0.957
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 42.7
Optimal Cycle: 145 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 111 | 0 | 402 | 0 | 643 | 208 | 144 | 659 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 111 | 0 | 402 | 0 | 643 | 208 | 144 | 659 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 111 | 0 | 402 | 0 | 643 | 208 | 144 | 659 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 111 | 0 | 402 | 0 | 643 | 208 | 144 | 659 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 0 | 0 | 111 | 0 | 402 | 0 | 643 | 208 | 144 | 659 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 0.87 | 1.00 | 0.78 | 1.00 | 0.92 | 0.92 | 0.90 | 0.94 | 1.00 |
| Lanes: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.76 | 0.24 | 1.00 | 1.00 | 0.00 |
| Final Sat.: | 0 | 0 | 0 | 1659 | 0 | 1481 | 0 | 1322 | 428 | 1702 | 1792 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.07 | 0.00 | 0.27 | 0.00 | 0.49 | 0.49 | 0.08 | 0.37 | 0.00 |
| Crit Moves: | | | | | | **** | | **** | | **** | | |
| Green/Cycle: | 0.00 | 0.00 | 0.00 | 0.28 | 0.00 | 0.28 | 0.00 | 0.51 | 0.51 | 0.09 | 0.60 | 0.00 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.24 | 0.00 | 0.96 | 0.00 | 0.96 | 0.96 | 0.96 | 0.62 | 0.00 |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 27.5 | 0.0 | 35.2 | 0.0 | 23.6 | 23.6 | 45.4 | 12.9 | 0.0 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 33.0 | 0.0 | 20.5 | 20.5 | 60.4 | 1.1 | 0.0 |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 27.8 | 0.0 | 68.2 | 0.0 | 44.1 | 44.1 | 105.8 | 14.0 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 27.8 | 0.0 | 68.2 | 0.0 | 44.1 | 44.1 | 105.8 | 14.0 | 0.0 |
| DesignQueue: | 0 | 0 | 0 | 4 | 0 | 17 | 0 | 20 | 6 | 7 | 16 | 0 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #121 ORE 217 NB Ramp/Denney

Cycle (sec): 100 Critical Vol./Cap. (X): 0.848
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 37.0
Optimal Cycle: 90 Level Of Service: D

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 275 | 0 | 196 | 0 | 0 | 0 | 411 | 335 | 0 | 0 | 518 | 113 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 275 | 0 | 196 | 0 | 0 | 0 | 411 | 335 | 0 | 0 | 518 | 113 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 275 | 0 | 196 | 0 | 0 | 0 | 411 | 335 | 0 | 0 | 518 | 113 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 275 | 0 | 196 | 0 | 0 | 0 | 411 | 335 | 0 | 0 | 518 | 113 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 275 | 0 | 196 | 0 | 0 | 0 | 411 | 335 | 0 | 0 | 518 | 113 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.88 | 1.00 | 0.79 | 1.00 | 1.00 | 1.00 | 0.92 | 0.97 | 1.00 | 1.00 | 0.96 | 0.96 |
| Lanes: | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.82 | 0.18 |
| Final Sat.: | 1675 | 0 | 1495 | 0 | 0 | 0 | 1753 | 1845 | 0 | 0 | 1492 | 325 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.16 | 0.00 | 0.13 | 0.00 | 0.00 | 0.00 | 0.23 | 0.18 | 0.00 | 0.00 | 0.35 | 0.35 |
| Crit Moves: | **** | | | | | | **** | | | | **** | |
| Green/Cycle: | 0.19 | 0.00 | 0.19 | 0.00 | 0.00 | 0.00 | 0.28 | 0.69 | 0.00 | 0.00 | 0.41 | 0.41 |
| Volume/Cap: | 0.85 | 0.00 | 0.68 | 0.00 | 0.00 | 0.00 | 0.85 | 0.26 | 0.00 | 0.00 | 0.85 | 0.85 |
| Uniform Del: | 38.9 | 0.0 | 37.4 | 0.0 | 0.0 | 0.0 | 34.2 | 6.0 | 0.0 | 0.0 | 26.7 | 26.7 |
| IncremntDel: | 18.4 | 0.0 | 6.3 | 0.0 | 0.0 | 0.0 | 13.1 | 0.1 | 0.0 | 0.0 | 9.0 | 9.0 |
| Delay Adj: | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Delay/Veh: | 57.3 | 0.0 | 43.7 | 0.0 | 0.0 | 0.0 | 47.3 | 6.1 | 0.0 | 0.0 | 35.7 | 35.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 57.3 | 0.0 | 43.7 | 0.0 | 0.0 | 0.0 | 47.3 | 6.1 | 0.0 | 0.0 | 35.7 | 35.7 |
| DesignQueue: | 13 | 0 | 9 | 0 | 0 | 0 | 18 | 6 | 0 | 0 | 19 | 4 |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #122 ORE 217 SB off Ramp/Hall/Cascade

Cycle (sec): 120 Critical Vol./Cap. (X): 1.106
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 76.0
Optimal Cycle: 180 Level Of Service: E

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Split Phase | | | | Split Phase | | | | Protected | | | | Protected | | | |
| Rights: | Ovl | | | | Include | | | | Include | | | | Ignore | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 | 1 | 0 1 | 1 | 0 | 1! | 0 0 | 1 | 0 | 1 | 1 0 | 1 | 0 | 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 192 | 10 | 47 | | 498 | 90 | 264 | | 154 | 1135 | 155 | | 24 | 1398 | 24 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 192 | 10 | 47 | | 498 | 90 | 264 | | 154 | 1135 | 155 | | 24 | 1398 | 24 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | |
| PHF Volume: | 192 | 10 | 47 | | 498 | 90 | 264 | | 154 | 1135 | 155 | | 24 | 1398 | 0 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 192 | 10 | 47 | | 498 | 90 | 264 | | 154 | 1135 | 155 | | 24 | 1398 | 0 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | |
| Final Vol.: | 192 | 10 | 47 | | 498 | 90 | 264 | | 154 | 1135 | 155 | | 24 | 1398 | 0 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 0.90 | 0.94 | 0.80 | | 0.89 | 0.89 | 0.89 | | 0.93 | 0.91 | 0.91 | | 0.91 | 0.91 | 1.00 | |
| Lanes: | 1.00 | 1.00 | 1.00 | | 1.41 | 0.15 | 0.44 | | 1.00 | 1.76 | 0.24 | | 1.00 | 2.00 | 1.00 | |
| Final Sat.: | 1702 | 1792 | 1523 | | 2395 | 253 | 742 | | 1769 | 3044 | 416 | | 1736 | 3473 | 1900 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.11 | 0.01 | 0.03 | | 0.21 | 0.36 | 0.36 | | 0.09 | 0.37 | 0.37 | | 0.01 | 0.40 | 0.00 | |
| Crit Moves: | **** | | | | | **** | | | **** | | | | | **** | | |
| Green/Cycle: | 0.10 | 0.10 | 0.12 | | 0.32 | 0.32 | 0.32 | | 0.08 | 0.43 | 0.43 | | 0.02 | 0.36 | 0.00 | |
| Volume/Cap: | 1.11 | 0.05 | 0.26 | | 0.65 | 1.11 | 1.11 | | 1.11 | 0.87 | 0.87 | | 0.87 | 1.11 | 0.00 | |
| Uniform Del: | 53.9 | 48.7 | 48.2 | | 34.8 | 40.7 | 40.7 | | 55.3 | 31.4 | 31.4 | | 58.9 | 38.2 | 0.0 | |
| IncremntDel: | 99.4 | 0.1 | 0.8 | | 1.1 | 65.3 | 65.3 | | 107.4 | 6.0 | 6.0 | | 117.4 | 59.4 | 0.0 | |
| Delay Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | |
| Delay/Veh: | 153.3 | 48.8 | 49.0 | | 36.0 | 106 | 106.0 | | 162.7 | 37.4 | 37.4 | | 176.4 | 97.6 | 0.0 | |
| User DelAdj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| AdjDel/Veh: | 153.3 | 48.8 | 49.0 | | 36.0 | 106 | 106.0 | | 162.7 | 37.4 | 37.4 | | 176.4 | 97.6 | 0.0 | |
| DesignQueue: | 12 | 1 | 3 | | 24 | 4 | 13 | | 10 | 48 | 7 | | 2 | 66 | 0 | |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #123 ORE 217 NB on Ramp/Scholls Ferry

Cycle (sec): 100 Critical Vol./Cap. (X): 1.429
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 148.9
Optimal Cycle: 180 Level Of Service: F

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Protected | | | | Protected | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Ignore | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 1 | 0 | 2 | 0 0 | 0 | 0 | 2 | 0 1 | 0 | 0 | 0 | 0 0 | 1 | 0 | 2 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 713 | 916 | 0 | | 0 | 1362 | 573 | | 0 | 0 | 0 | | 679 | 722 | 292 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 713 | 916 | 0 | | 0 | 1362 | 573 | | 0 | 0 | 0 | | 679 | 722 | 292 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 713 | 916 | 0 | | 0 | 1362 | 0 | | 0 | 0 | 0 | | 679 | 722 | 292 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 713 | 916 | 0 | | 0 | 1362 | 0 | | 0 | 0 | 0 | | 679 | 722 | 292 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 0.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 713 | 916 | 0 | | 0 | 1362 | 0 | | 0 | 0 | 0 | | 679 | 722 | 292 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 0.92 | 0.91 | 1.00 | | 1.00 | 0.90 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.79 | 0.88 | 0.79 | |
| Lanes: | 1.00 | 2.00 | 0.00 | | 0.00 | 2.00 | 1.00 | | 0.00 | 0.00 | 0.00 | | 1.00 | 2.00 | 1.00 | |
| Final Sat.: | 1753 | 3449 | 0 | | 0 | 3437 | 1900 | | 0 | 0 | 0 | | 1495 | 3343 | 1495 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.41 | 0.27 | 0.00 | | 0.00 | 0.40 | 0.00 | | 0.00 | 0.00 | 0.00 | | 0.45 | 0.22 | 0.20 | |
| Crit Moves: | **** | | | | | **** | | | | | | | | **** | | |
| Green/Cycle: | 0.28 | 0.56 | 0.00 | | 0.00 | 0.28 | 0.00 | | 0.00 | 0.00 | 0.00 | | 0.32 | 0.32 | 0.32 | |
| Volume/Cap: | 1.43 | 0.47 | 0.00 | | 0.00 | 1.43 | 0.00 | | 0.00 | 0.00 | 0.00 | | 1.43 | 0.68 | 0.61 | |
| Uniform Del: | 35.8 | 13.0 | 0.0 | | 0.0 | 36.1 | 0.0 | | 0.0 | 0.0 | 0.0 | | 34.1 | 29.7 | 28.9 | |
| IncremntDel: | 204.2 | 0.2 | 0.0 | | 0.0 | 199 | 0.0 | | 0.0 | 0.0 | 0.0 | | 204.8 | 1.8 | 2.4 | |
| Delay Adj: | 1.00 | 1.00 | 0.00 | | 0.00 | 1.00 | 0.00 | | 0.00 | 0.00 | 0.00 | | 1.00 | 1.00 | 1.00 | |
| Delay/Veh: | 240.0 | 13.2 | 0.0 | | 0.0 | 235 | 0.0 | | 0.0 | 0.0 | 0.0 | | 238.9 | 31.5 | 31.3 | |
| User DelAdj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| AdjDel/Veh: | 240.0 | 13.2 | 0.0 | | 0.0 | 235 | 0.0 | | 0.0 | 0.0 | 0.0 | | 238.9 | 31.5 | 31.3 | |
| DesignQueue: | 31 | 24 | 0 | | 0 | 60 | 0 | | 0 | 0 | 0 | | 28 | 29 | 12 | |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #125 ORE 217 NB off Ramp/Scholls Ferry

Cycle (sec): 100 Critical Vol./Cap. (X): 0.645
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 19.6
Optimal Cycle: 42 Level Of Service: B

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Permitted | | | | Permitted | | | | Split Phase | | | | Split Phase | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 0 | 0 | 2 | 0 0 | 0 | 0 | 2 | 0 0 | 0 | 0 | 0 | 0 0 | 1 | 0 | 0 | 0 1 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 0 | 1117 | 0 | | 0 | 771 | 0 | | 0 | 0 | 0 | | 247 | 0 | 427 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 0 | 1117 | 0 | | 0 | 771 | 0 | | 0 | 0 | 0 | | 247 | 0 | 427 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 0 | 1117 | 0 | | 0 | 771 | 0 | | 0 | 0 | 0 | | 247 | 0 | 427 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 0 | 1117 | 0 | | 0 | 771 | 0 | | 0 | 0 | 0 | | 247 | 0 | 427 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 0 | 1117 | 0 | | 0 | 771 | 0 | | 0 | 0 | 0 | | 247 | 0 | 427 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 1.00 | 0.92 | 1.00 | | 1.00 | 0.90 | 1.00 | | 1.00 | 1.00 | 1.00 | | 0.91 | 1.00 | 0.82 | |
| Lanes: | 0.00 | 2.00 | 0.00 | | 0.00 | 2.00 | 0.00 | | 0.00 | 0.00 | 0.00 | | 1.00 | 0.00 | 1.00 | |
| Final Sat.: | 0 | 3505 | 0 | | 0 | 3437 | 0 | | 0 | 0 | 0 | | 1736 | 0 | 1554 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.32 | 0.00 | | 0.00 | 0.22 | 0.00 | | 0.00 | 0.00 | 0.00 | | 0.14 | 0.00 | 0.27 | |
| Crit Moves: | | **** | | | | | | | | | | | | | **** | |
| Green/Cycle: | 0.00 | 0.49 | 0.00 | | 0.00 | 0.49 | 0.00 | | 0.00 | 0.00 | 0.00 | | 0.43 | 0.00 | 0.43 | |
| Volume/Cap: | 0.00 | 0.65 | 0.00 | | 0.00 | 0.45 | 0.00 | | 0.00 | 0.00 | 0.00 | | 0.33 | 0.00 | 0.65 | |
| Uniform Del: | 0.0 | 18.8 | 0.0 | | 0.0 | 16.5 | 0.0 | | 0.0 | 0.0 | 0.0 | | 19.2 | 0.0 | 22.7 | |
| IncremntDel: | 0.0 | 0.8 | 0.0 | | 0.0 | 0.2 | 0.0 | | 0.0 | 0.0 | 0.0 | | 0.3 | 0.0 | 2.2 | |
| Delay Adj: | 0.00 | 1.00 | 0.00 | | 0.00 | 1.00 | 0.00 | | 0.00 | 0.00 | 0.00 | | 1.00 | 0.00 | 1.00 | |
| Delay/Veh: | 0.0 | 19.6 | 0.0 | | 0.0 | 16.7 | 0.0 | | 0.0 | 0.0 | 0.0 | | 19.5 | 0.0 | 24.9 | |
| User DelAdj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| AdjDel/Veh: | 0.0 | 19.6 | 0.0 | | 0.0 | 16.7 | 0.0 | | 0.0 | 0.0 | 0.0 | | 19.5 | 0.0 | 24.9 | |
| DesignQueue: | 0 | 34 | 0 | | 0 | 23 | 0 | | 0 | 0 | 0 | | 8 | 0 | 14 | |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #129 ORE 217 NB Ramp/Walker

Cycle (sec): 80 Critical Vol./Cap. (X): 0.756
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 24.1
Optimal Cycle: 64 Level Of Service: C

| Approach: | North Bound | | | | South Bound | | | | East Bound | | | | West Bound | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | - | T | - R | L | - | T | - R | L | - | T | - R | L | - | T | - R |
| Control: | Split Phase | | | | Split Phase | | | | Protected | | | | Protected | | | |
| Rights: | Include | | | | Include | | | | Include | | | | Include | | | |
| Min. Green: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Lanes: | 2 | 0 | 0 | 1 0 | 0 | 0 | 0 | 0 0 | 1 | 0 | 1 | 0 0 | 0 | 0 | 0 | 1 0 |
| Volume Module: | | | | | | | | | | | | | | | | |
| Base Vol: | 918 | 0 | 81 | | 0 | 0 | 0 | | 82 | 676 | 0 | | 0 | 394 | 186 | |
| Growth Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Initial Bse: | 918 | 0 | 81 | | 0 | 0 | 0 | | 82 | 676 | 0 | | 0 | 394 | 186 | |
| User Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| PHF Volume: | 918 | 0 | 81 | | 0 | 0 | 0 | | 82 | 676 | 0 | | 0 | 394 | 186 | |
| Reduct Vol: | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 0 | 0 | |
| Reduced Vol: | 918 | 0 | 81 | | 0 | 0 | 0 | | 82 | 676 | 0 | | 0 | 394 | 186 | |
| PCE Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| MLF Adj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| Final Vol.: | 918 | 0 | 81 | | 0 | 0 | 0 | | 82 | 676 | 0 | | 0 | 394 | 186 | |
| Saturation Flow Module: | | | | | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | | 1900 | 1900 | 1900 | |
| Adjustment: | 0.90 | 1.00 | 0.83 | | 1.00 | 1.00 | 1.00 | | 0.93 | 0.98 | 1.00 | | 1.00 | 0.93 | 0.93 | |
| Lanes: | 2.00 | 0.00 | 1.00 | | 0.00 | 0.00 | 0.00 | | 1.00 | 1.00 | 0.00 | | 0.00 | 0.68 | 0.32 | |
| Final Sat.: | 3432 | 0 | 1583 | | 0 | 0 | 0 | | 1769 | 1862 | 0 | | 0 | 1199 | 566 | |
| Capacity Analysis Module: | | | | | | | | | | | | | | | | |
| Vol/Sat: | 0.27 | 0.00 | 0.05 | | 0.00 | 0.00 | 0.00 | | 0.05 | 0.36 | 0.00 | | 0.00 | 0.33 | 0.33 | |
| Crit Moves: | **** | | | | | | | | **** | | | | | **** | | |
| Green/Cycle: | 0.35 | 0.00 | 0.35 | | 0.00 | 0.00 | 0.00 | | 0.06 | 0.50 | 0.00 | | 0.00 | 0.43 | 0.43 | |
| Volume/Cap: | 0.76 | 0.00 | 0.14 | | 0.00 | 0.00 | 0.00 | | 0.76 | 0.73 | 0.00 | | 0.00 | 0.76 | 0.76 | |
| Uniform Del: | 22.8 | 0.0 | 17.6 | | 0.0 | 0.0 | 0.0 | | 37.0 | 16.0 | 0.0 | | 0.0 | 19.0 | 19.0 | |
| IncremntDel: | 2.8 | 0.0 | 0.1 | | 0.0 | 0.0 | 0.0 | | 25.7 | 3.0 | 0.0 | | 0.0 | 4.3 | 4.3 | |
| Delay Adj: | 1.00 | 0.00 | 1.00 | | 0.00 | 0.00 | 0.00 | | 1.00 | 1.00 | 0.00 | | 0.00 | 1.00 | 1.00 | |
| Delay/Veh: | 25.6 | 0.0 | 17.7 | | 0.0 | 0.0 | 0.0 | | 62.7 | 19.0 | 0.0 | | 0.0 | 23.4 | 23.4 | |
| User DelAdj: | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | | 1.00 | 1.00 | 1.00 | |
| AdjDel/Veh: | 25.6 | 0.0 | 17.7 | | 0.0 | 0.0 | 0.0 | | 62.7 | 19.0 | 0.0 | | 0.0 | 23.4 | 23.4 | |
| DesignQueue: | 28 | 0 | 2 | | 0 | 0 | 0 | | 3 | 17 | 0 | | 0 | 11 | 5 | |

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #130 ORE 217 SB Ramp/Walker

Cycle (sec): 80 Critical Vol./Cap. (X): 0.643
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 15.9
Optimal Cycle: 50 Level Of Service: B

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 0 | 0 0 | 0 1 | 0 | 0 1 | 0 0 | 1 | 0 2 | 1 0 | 2 | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 243 | 0 | 289 | 0 | 639 | 912 | 36 | 1269 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 243 | 0 | 289 | 0 | 639 | 912 | 36 | 1269 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 243 | 0 | 289 | 0 | 639 | 912 | 36 | 1269 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 243 | 0 | 289 | 0 | 639 | 912 | 36 | 1269 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 0 | 0 | 243 | 0 | 289 | 0 | 639 | 912 | 36 | 1269 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 0.93 | 1.00 | 0.83 | 1.00 | 0.98 | 0.73 | 0.93 | 0.93 | 1.00 |
| Lanes: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 2.00 | 1.00 | 2.00 | 0.00 |
| Final Sat.: | 0 | 0 | 0 | 1773 | 0 | 1583 | 0 | 1862 | 2786 | 1769 | 3538 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.14 | 0.00 | 0.18 | 0.00 | 0.34 | 0.33 | 0.02 | 0.36 | 0.00 |
| Crit Moves: | | | | | | **** | | **** | | **** | | |
| Green/Cycle: | 0.00 | 0.00 | 0.00 | 0.28 | 0.00 | 0.28 | 0.00 | 0.53 | 0.53 | 0.03 | 0.57 | 0.00 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.48 | 0.00 | 0.64 | 0.00 | 0.64 | 0.61 | 0.64 | 0.63 | 0.00 |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 23.8 | 0.0 | 25.1 | 0.0 | 13.2 | 12.9 | 38.3 | 11.8 | 0.0 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 3.2 | 0.0 | 1.4 | 0.8 | 22.7 | 0.7 | 0.0 |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 24.5 | 0.0 | 28.2 | 0.0 | 14.7 | 13.7 | 61.0 | 12.4 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 24.5 | 0.0 | 28.2 | 0.0 | 14.7 | 13.7 | 61.0 | 12.4 | 0.0 |
| DesignQueue: | 0 | 0 | 0 | 8 | 0 | 10 | 0 | 15 | 20 | 2 | 27 | 0 |





Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #131 Scholls Ferry/ORE 217 SB on Ramp

Cycle (sec): 120 Critical Vol./Cap. (X): 0.741
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 32.3
Optimal Cycle: 79 Level Of Service: C

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Split Phase | | | Split Phase | | | Protected | | | Protected | | |
| Rights: | Include | | | Include | | | Ignore | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lanes: | 0 0 | 0 | 0 0 | 0 1 | 0 | 0 1 | 0 0 | 1 | 1 1 | 1 0 | 2 | 0 0 |
| Volume Module: | | | | | | | | | | | | |
| Base Vol: | 0 | 0 | 0 | 90 | 0 | 434 | 0 | 961 | 802 | 147 | 746 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 0 | 0 | 90 | 0 | 434 | 0 | 961 | 802 | 147 | 746 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| PHF Volume: | 0 | 0 | 0 | 90 | 0 | 434 | 0 | 961 | 0 | 147 | 746 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 0 | 0 | 90 | 0 | 434 | 0 | 961 | 0 | 147 | 746 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Final Vol.: | 0 | 0 | 0 | 90 | 0 | 434 | 0 | 961 | 0 | 147 | 746 | 0 |
| Saturation Flow Module: | | | | | | | | | | | | |
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 1.00 | 1.00 | 0.91 | 1.00 | 0.81 | 1.00 | 0.92 | 0.95 | 0.90 | 0.90 | 1.00 |
| Lanes: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 2.00 | 1.00 | 1.00 | 2.00 | 0.00 |
| Final Sat.: | 0 | 0 | 0 | 1722 | 0 | 1537 | 0 | 3505 | 1805 | 1718 | 3437 | 0 |
| Capacity Analysis Module: | | | | | | | | | | | | |
| Vol/Sat: | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 | 0.28 | 0.00 | 0.27 | 0.00 | 0.09 | 0.22 | 0.00 |
| Crit Moves: | | | | | | **** | | **** | | **** | | |
| Green/Cycle: | 0.00 | 0.00 | 0.00 | 0.38 | 0.00 | 0.38 | 0.00 | 0.37 | 0.00 | 0.12 | 0.49 | 0.00 |
| Volume/Cap: | 0.00 | 0.00 | 0.00 | 0.14 | 0.00 | 0.74 | 0.00 | 0.74 | 0.00 | 0.74 | 0.45 | 0.00 |
| Uniform Del: | 0.0 | 0.0 | 0.0 | 24.3 | 0.0 | 32.0 | 0.0 | 32.8 | 0.0 | 51.3 | 20.3 | 0.0 |
| IncremntDel: | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 5.0 | 0.0 | 2.3 | 0.0 | 13.8 | 0.2 | 0.0 |
| Delay Adj: | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh: | 0.0 | 0.0 | 0.0 | 24.3 | 0.0 | 37.0 | 0.0 | 35.1 | 0.0 | 65.2 | 20.5 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 0.0 | 0.0 | 24.3 | 0.0 | 37.0 | 0.0 | 35.1 | 0.0 | 65.2 | 20.5 | 0.0 |
| DesignQueue: | 0 | 0 | 0 | 4 | 0 | 19 | 0 | 43 | 0 | 9 | 27 | 0 |