# APPENDIX M

# BUILD WITH MITIGATION CAPACITY ANALYSIS

| INTERSECTION | | BUILD CONDITIONS | | | | | | | | | BUILD WITH MITIGATION CONDITIONS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Friday PM Street Peak | | | Friday Casino Peak | | | Saturday Casino Peak | | | Friday PM Street Peak | | | Friday Casino Peak | | | Saturday Casino Peak | | |
| | | LOS | Delay (Secs) | 95% Queue (feet) | LOS | Delay (Secs) | 95% Queue (feet) | LOS | Delay (Secs) | 95% Queue (feet) | LOS | Delay (Secs) | 95% Queue (feet) | LOS | Delay (Secs) | 95% Queue (feet) | LOS | Delay (Secs) | 95% Queue (feet) |
| **8th Street & Market Street** | **Overall** | **C** | **22.0** | **-** | **C** | **34.0** | **-** | **D** | **50.0** | **-** | **C** | **23.7** | **-** | **B** | **18.0** | **-** | **C** | **21.1** | **-** |
| | EB Thru | A | 0.9 | 10.0 | A | 0.5 | 7.5 | A | 0.6 | 7.5 | C | 21.3 | 247.5 | A | 6.7 | 70.0 | A | 8.0 | 82.5 |
| | EB Right | A | 3.0 | 20.0 | A | 1.6 | 12.5 | A | 3.3 | 25.0 | C | 23.7 | 215.0 | B | 10.8 | 72.5 | C | 27.9 | 157.5 |
| | WB Thru | B | 15.6 | 177.5 | B | 14.8 | 142.5 | B | 14.5 | 125.0 | B | 19.3 | 185.0 | C | 20.2 | 152.5 | C | 20.5 | 140.0 |
| | SB Left/Thru | D | 52.9 | 452.5 | F | 80.8 | 647.5 | F | 118.6 | 880.0 | C | 28.6 | 355.0 | C | 26.8 | 397.5 | C | 28.2 | 435.0 |
| | SB Thru/Right | D | 45.9 | 335.0 | E | 58.7 | 450.0 | F | 84.7 | 585.0 | C | 27.9 | 277.5 | C | 25.2 | 325.0 | C | 26.2 | 352.5 |
| **9th Street & Market Street** | **Overall** | **D** | **51.0** | **-** | **C** | **20.8** | **-** | **E** | **59.7** | **-** | **B** | **15.8** | **-** | **B** | **11.3** | **-** | **C** | **20.3** | **-** |
| | EB Thru | A | 0.5 | 5.0 | A | 0.3 | 2.5 | A | 0.2 | 2.5 | A | 0.9 | 10.0 | A | 0.3 | 2.5 | A | 0.2 | 2.5 |
| | WB Thru | A | 1.5 | 15.0 | A | 1.2 | 12.5 | A | 0.6 | 7.5 | B | 19.0 | 217.5 | A | 1.2 | 12.5 | A | 0.6 | 7.5 |
| | WB Thru/Right | A | 1.8 | 15.0 | A | 1.3 | 15.0 | A | 0.7 | 7.5 | B | 19.3 | 205.0 | A | 1.3 | 15.0 | A | 0.7 | 7.5 |
| | NB Left/Thru | F | 136.2 | 872.5 | E | 57.5 | 500.0 | F | 130.0 | 927.5 | C | 29.1 | 272.5 | C | 27.0 | 240.0 | C | 29.1 | 270.0 |
| | NB Thru/Right | F | 143.5 | 543 | D | 52.9 | 295.0 | F | 116.0 | 475.0 | - | - | - | - | - | - | - | - | - |
| | NB Thru | - | - | - | - | - | - | - | - | - | C | 27.3 | 252.5 | C | 25.8 | 222.5 | C | 27.3 | 247.5 |
| | NB Right | - | - | - | - | - | - | - | - | - | D | 35.9 | 212.5 | D | 39.5 | 210.0 | E | 75.5 | 345.0 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 0 | 774 | 216 | 0 | 511 | 0 | 0 | 0 | 0 | 73 | 714 | 60 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | | | | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 12 | 0 | 0 | 6 | 0 | | | | 0 | 11 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.86 | 1.00 | | 1.00 | | | | 1.00 | | 0.65 |
| Parking Bus Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 0.90 |
| Adj Sat Flow veh/h/ln | 0.0 | 181.5 | 189.0 | 0.0 | 176.6 | 0.0 | | | | 181.4 | 177.9 | 181.4 |
| Lanes | 0 | 3 | 0 | 0 | 2 | 0 | | | | 0 | 2 | 0 |
| Cap, veh/h | 0 | 2080 | 572 | 0 | 1855 | 0 | | | | 86 | 868 | 77 |
| Arrive On Green | 0.00 | 1.00 | 1.00 | 0.00 | 0.17 | 0.00 | | | | 0.11 | 0.11 | 0.11 |
| Sat Flow, veh/h | 0 | 3961 | 1090 | 0 | 3533 | 0 | | | | 264 | 2672 | 237 |
| Grp Volume(v), veh/h | 0 | 753 | 300 | 0 | 544 | 0 | | | | 523 | 0 | 379 |
| Grp Sat Flow(s),veh/h/ln | 0 | 1815 | 1421 | 0 | 1766 | 0 | | | | 1766 | 0 | 1407 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 8.0 | 0.0 | | | | 17.6 | 0.0 | 15.8 |
| Cycle Q Clear(g_c), s | 0.0 | 0.0 | 0.0 | 0.0 | 8.0 | 0.0 | | | | 17.6 | 0.0 | 15.8 |
| Prop In Lane | 0.00 | | 0.77 | 0.00 | | 0.00 | | | | 0.15 | | 0.17 |
| Lane Grp Cap(c), veh/h | 0 | 1906 | 746 | 0 | 1855 | 0 | | | | 574 | 0 | 457 |
| V/C Ratio(X) | 0.00 | 0.40 | 0.40 | 0.00 | 0.29 | 0.00 | | | | 0.91 | 0.00 | 0.83 |
| Avail Cap(c_a), veh/h | 0 | 1906 | 746 | 0 | 1855 | 0 | | | | 574 | 0 | 457 |
| HCM Platoon Ratio | 1.00 | 2.00 | 2.00 | 1.00 | 0.33 | 1.00 | | | | 0.33 | 0.33 | 0.33 |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 15.1 | 0.0 | | | | 25.9 | 0.0 | 25.2 |
| Incr Delay (d2), s/veh | 0.0 | 0.6 | 1.6 | 0.0 | 0.4 | 0.0 | | | | 21.0 | 0.0 | 15.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.2 | 0.3 | 0.0 | 0.1 | 0.0 | | | | 7.4 | 0.0 | 6.1 |
| %ile Back of Q (95%), veh/ln | 0.0 | 0.3 | 0.7 | 0.0 | 7.1 | 0.0 | | | | 18.5 | 0.0 | 13.4 |
| Lane Grp Delay (d), s/veh | 0.0 | 0.8 | 2.0 | 0.0 | 15.6 | 0.0 | | | | 54.4 | 0.0 | 47.1 |
| Lane Grp LOS | | A | A | | B | | | | | D | | D |
| Approach Vol, veh/h | | 1053 | | | 544 | | | | | | 902 | |
| Approach Delay, s/veh | | 1.1 | | | 15.6 | | | | | | 51.3 | |
| Approach LOS | | A | | | B | | | | | | D | |

| Timer | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Assigned Phs | | 2 | | | 6 | | | | | | 4 | |
| Phs Duration (G+Y+Rc), s | | 36.0 | | | 36.0 | | | | | | 24.0 | |
| Change Period (Y+Rc), s | | 6.0 | | | 6.0 | | | | | | 6.0 | |
| Max Green Setting (Gmax), s | | 30.0 | | | 30.0 | | | | | | 18.0 | |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | | 10.0 | | | | | | 19.6 | |
| Green Ext Time (p_c), s | | 12.0 | | | 10.2 | | | | | | 0.0 | |

| Intersection Summary | | |
|---|---|---|
| HCM 2010 Ctrl Delay | 22.4 | |
| HCM 2010 LOS | C | |

Notes

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 0 | 1011 | 0 | 0 | 541 | 56 | 99 | 587 | 232 | 0 | 0 | 0 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | | | |
| Initial Q (Qb), veh | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 15 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.78 | 1.00 | | 0.68 | | | |
| Parking Bus Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 | | | |
| Adj Sat Flow veh/h/ln | 0.0 | 176.6 | 0.0 | 0.0 | 166.1 | 189.0 | 181.4 | 176.8 | 181.4 | | | |
| Lanes | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | | | |
| Cap, veh/h | 0 | 2782 | 0 | 0 | 1510 | 154 | 95 | 571 | 245 | | | |
| Arrive On Green | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.11 | 0.11 | 0.11 | | | |
| Sat Flow, veh/h | 0 | 5299 | 0 | 0 | 2877 | 294 | 292 | 1757 | 753 | | | |
| Grp Volume(v), veh/h | 0 | 1053 | 0 | 0 | 324 | 298 | 619 | 0 | 337 | | | |
| Grp Sat Flow(s),veh/h/ln | 0 | 1766 | 0 | 0 | 1661 | 1510 | 1753 | 0 | 1049 | | | |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 19.5 | 0.0 | 19.3 | | | |
| Cycle Q Clear(g_c), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 19.5 | 0.0 | 19.3 | | | |
| Prop In Lane | 0.00 | | 0.00 | 0.00 | | 0.19 | 0.17 | | 0.72 | | | |
| Lane Grp Cap(c), veh/h | 0 | 2782 | 0 | 0 | 872 | 793 | 570 | 0 | 341 | | | |
| V/C Ratio(X) | 0.00 | 0.38 | 0.00 | 0.00 | 0.37 | 0.38 | 1.09 | 0.00 | 0.99 | | | |
| Avail Cap(c_a), veh/h | 0 | 2782 | 0 | 0 | 872 | 793 | 570 | 0 | 341 | | | |
| HCM Platoon Ratio | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 2.00 | 0.33 | 0.33 | 0.33 | | | |
| Upstream Filter(I) | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | | | |
| Uniform Delay (d), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 26.8 | 0.0 | 26.7 | | | |
| Incr Delay (d2), s/veh | 0.0 | 0.4 | 0.0 | 0.0 | 1.2 | 1.4 | 63.2 | 0.0 | 46.0 | | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.1 | 0.0 | 0.0 | 0.3 | 0.4 | 47.4 | 0.0 | 74.0 | | | |
| %ile Back of Q (95%), veh/ln | 0.0 | 0.2 | 0.0 | 0.0 | 0.6 | 0.6 | 35.2 | 0.0 | 21.9 | | | |
| Lane Grp Delay (d), s/veh | 0.0 | 0.5 | 0.0 | 0.0 | 1.5 | 1.7 | 137.4 | 0.0 | 146.7 | | | |
| Lane Grp LOS | | A | | | A | A | F | | F | | | |
| Approach Vol, veh/h | | 1053 | | | 622 | | | 956 | | | | |
| Approach Delay, s/veh | | 0.5 | | | 1.6 | | | 140.7 | | | | |
| Approach LOS | | A | | | A | | | F | | | | |

| Timer | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Assigned Phs | | 2 | | | 6 | | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 36.0 | | | 36.0 | | | 24.0 | | | | |
| Change Period (Y+Rc), s | | 6.0 | | | 6.0 | | | 6.0 | | | | |
| Max Green Setting (Gmax), s | | 30.0 | | | 30.0 | | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | | 2.0 | | | 21.5 | | | | |
| Green Ext Time (p_c), s | | 12.5 | | | 12.5 | | | 0.0 | | | | |

| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 2010 Ctrl Delay | | | 51.7 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |

Notes

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 0 | 665 | 241 | 0 | 427 | 0 | 0 | 0 | 0 | 77 | 909 | 46 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | | | | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.83 | 1.00 | | 1.00 | | | | 1.00 | | 0.81 |
| Parking Bus Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 0.90 |
| Adj Sat Flow veh/h/ln | 0.0 | 183.1 | 189.0 | 0.0 | 176.6 | 0.0 | | | | 181.4 | 179.5 | 181.4 |
| Lanes | 0 | 3 | 0 | 0 | 2 | 0 | | | | 0 | 2 | 0 |
| Cap, veh/h | 0 | 1927 | 674 | 0 | 1855 | 0 | | | | 77 | 953 | 51 |
| Arrive On Green | 0.00 | 1.00 | 1.00 | 0.00 | 0.17 | 0.00 | | | | 0.11 | 0.11 | 0.11 |
| Sat Flow, veh/h | 0 | 3671 | 1284 | 0 | 3533 | 0 | | | | 238 | 2933 | 156 |
| Grp Volume(v), veh/h | 0 | 705 | 258 | 0 | 454 | 0 | | | | 614 | 0 | 484 |
| Grp Sat Flow(s),veh/h/ln | 0 | 1831 | 1292 | 0 | 1766 | 0 | | | | 1783 | 0 | 1545 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 6.7 | 0.0 | | | | 19.5 | 0.0 | 18.7 |
| Cycle Q Clear(g_c), s | 0.0 | 0.0 | 0.0 | 0.0 | 6.7 | 0.0 | | | | 19.5 | 0.0 | 18.7 |
| Prop In Lane | 0.00 | | 0.99 | 0.00 | | 0.00 | | | | 0.13 | | 0.10 |
| Lane Grp Cap(c), veh/h | 0 | 1923 | 678 | 0 | 1855 | 0 | | | | 579 | 0 | 502 |
| V/C Ratio(X) | 0.00 | 0.37 | 0.38 | 0.00 | 0.24 | 0.00 | | | | 1.06 | 0.00 | 0.96 |
| Avail Cap(c_a), veh/h | 0 | 1923 | 678 | 0 | 1855 | 0 | | | | 579 | 0 | 502 |
| HCM Platoon Ratio | 1.00 | 2.00 | 2.00 | 1.00 | 0.33 | 1.00 | | | | 0.33 | 0.33 | 0.33 |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 14.5 | 0.0 | | | | 26.8 | 0.0 | 26.4 |
| Incr Delay (d2), s/veh | 0.0 | 0.5 | 1.6 | 0.0 | 0.3 | 0.0 | | | | 54.0 | 0.0 | 32.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| %ile Back of Q (95%), veh/ln | 0.0 | 0.3 | 0.5 | 0.0 | 5.7 | 0.0 | | | | 25.9 | 0.0 | 18.0 |
| Lane Grp Delay (d), s/veh | 0.0 | 0.5 | 1.6 | 0.0 | 14.8 | 0.0 | | | | 80.8 | 0.0 | 58.7 |
| Lane Grp LOS | | A | A | | B | | | | | F | | E |
| Approach Vol, veh/h | | 963 | | | 454 | | | | | | 1098 | |
| Approach Delay, s/veh | | 0.8 | | | 14.8 | | | | | | 71.1 | |
| Approach LOS | | A | | | B | | | | | | E | |

| Timer | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Assigned Phs | | 2 | | | 6 | | | | | | 4 | |
| Phs Duration (G+Y+Rc), s | | 36.0 | | | 36.0 | | | | | | 24.0 | |
| Change Period (Y+Rc), s | | 6.0 | | | 6.0 | | | | | | 6.0 | |
| Max Green Setting (Gmax), s | | 30.0 | | | 30.0 | | | | | | 18.0 | |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | | 8.7 | | | | | | 21.5 | |
| Green Ext Time (p_c), s | | 10.5 | | | 9.3 | | | | | | 0.0 | |

| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 2010 Ctrl Delay | | | 34.0 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |

| Notes |
|---|

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 0 | 730 | 0 | 0 | 548 | 52 | 71 | 490 | 201 | 0 | 0 | 0 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.85 | 1.00 | | 0.69 | | | |
| Parking Bus Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 | | | |
| Adj Sat Flow veh/h/ln | 0.0 | 173.4 | 0.0 | 0.0 | 174.4 | 189.0 | 181.4 | 177.7 | 181.4 | | | |
| Lanes | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | | | |
| Cap, veh/h | 0 | 2731 | 0 | 0 | 1620 | 152 | 82 | 575 | 255 | | | |
| Arrive On Green | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.11 | 0.11 | 0.11 | | | |
| Sat Flow, veh/h | 0 | 5202 | 0 | 0 | 3085 | 289 | 254 | 1769 | 784 | | | |
| Grp Volume(v), veh/h | 0 | 820 | 0 | 0 | 347 | 327 | 556 | 0 | 301 | | | |
| Grp Sat Flow(s),veh/h/ln | 0 | 1734 | 0 | 0 | 1744 | 1631 | 1765 | 0 | 1042 | | | |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 18.9 | 0.0 | 17.1 | | | |
| Cycle Q Clear(g_c), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 18.9 | 0.0 | 17.1 | | | |
| Prop In Lane | 0.00 | | 0.00 | 0.00 | | 0.18 | 0.14 | | 0.75 | | | |
| Lane Grp Cap(c), veh/h | 0 | 2731 | 0 | 0 | 915 | 856 | 573 | 0 | 339 | | | |
| V/C Ratio(X) | 0.00 | 0.30 | 0.00 | 0.00 | 0.38 | 0.38 | 0.97 | 0.00 | 0.89 | | | |
| Avail Cap(c_a), veh/h | 0 | 2731 | 0 | 0 | 915 | 856 | 573 | 0 | 339 | | | |
| HCM Platoon Ratio | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 2.00 | 0.33 | 0.33 | 0.33 | | | |
| Upstream Filter(I) | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | | | |
| Uniform Delay (d), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 26.5 | 0.0 | 25.7 | | | |
| Incr Delay (d2), s/veh | 0.0 | 0.3 | 0.0 | 0.0 | 1.2 | 1.3 | 31.0 | 0.0 | 27.2 | | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| %ile Back of Q (95%), veh/ln | 0.0 | 0.1 | 0.0 | 0.0 | 0.5 | 0.6 | 20.0 | 0.0 | 11.8 | | | |
| Lane Grp Delay (d), s/veh | 0.0 | 0.3 | 0.0 | 0.0 | 1.2 | 1.3 | 57.5 | 0.0 | 52.9 | | | |
| Lane Grp LOS | | A | | | A | A | E | | D | | | |
| Approach Vol, veh/h | | 820 | | | 674 | | | 857 | | | | |
| Approach Delay, s/veh | | 0.3 | | | 1.2 | | | 55.9 | | | | |
| Approach LOS | | A | | | A | | | E | | | | |

| Timer | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Assigned Phs | | 2 | | | 6 | | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 36.0 | | | 36.0 | | | 24.0 | | | | |
| Change Period (Y+Rc), s | | 6.0 | | | 6.0 | | | 6.0 | | | | |
| Max Green Setting (Gmax), s | | 30.0 | | | 30.0 | | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | | 2.0 | | | 20.9 | | | | |
| Green Ext Time (p_c), s | | 10.7 | | | 10.7 | | | 0.0 | | | | |

| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 2010 Ctrl Delay | | | 20.8 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |

Notes

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 0 | 654 | 289 | 0 | 382 | 0 | 0 | 0 | 0 | 64 | 980 | 61 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | | | | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.75 | 1.00 | | 1.00 | | | | 1.00 | | 0.83 |
| Parking Bus Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 0.90 |
| Adj Sat Flow veh/h/ln | 0.0 | 177.4 | 189.0 | 0.0 | 178.3 | 0.0 | | | | 181.4 | 178.7 | 181.4 |
| Lanes | 0 | 3 | 0 | 0 | 2 | 0 | | | | 0 | 2 | 0 |
| Cap, veh/h | 0 | 1863 | 594 | 0 | 1872 | 0 | | | | 60 | 953 | 62 |
| Arrive On Green | 0.00 | 1.00 | 1.00 | 0.00 | 0.17 | 0.00 | | | | 0.11 | 0.11 | 0.11 |
| Sat Flow, veh/h | 0 | 3548 | 1132 | 0 | 3566 | 0 | | | | 185 | 2931 | 191 |
| Grp Volume(v), veh/h | 0 | 711 | 314 | 0 | 415 | 0 | | | | 673 | 0 | 528 |
| Grp Sat Flow(s),veh/h/ln | 0 | 1774 | 1132 | 0 | 1783 | 0 | | | | 1778 | 0 | 1529 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 6.0 | 0.0 | | | | 19.5 | 0.0 | 19.5 |
| Cycle Q Clear(g_c), s | 0.0 | 0.0 | 0.0 | 0.0 | 6.0 | 0.0 | | | | 19.5 | 0.0 | 19.5 |
| Prop In Lane | 0.00 | | 1.00 | 0.00 | | 0.00 | | | | 0.10 | | 0.12 |
| Lane Grp Cap(c), veh/h | 0 | 1863 | 594 | 0 | 1872 | 0 | | | | 578 | 0 | 497 |
| V/C Ratio(X) | 0.00 | 0.38 | 0.53 | 0.00 | 0.22 | 0.00 | | | | 1.16 | 0.00 | 1.06 |
| Avail Cap(c_a), veh/h | 0 | 1863 | 594 | 0 | 1872 | 0 | | | | 578 | 0 | 497 |
| HCM Platoon Ratio | 1.00 | 2.00 | 2.00 | 1.00 | 0.33 | 1.00 | | | | 0.33 | 0.33 | 0.33 |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 14.3 | 0.0 | | | | 26.8 | 0.0 | 26.8 |
| Incr Delay (d2), s/veh | 0.0 | 0.6 | 3.3 | 0.0 | 0.3 | 0.0 | | | | 91.8 | 0.0 | 57.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| %ile Back of Q (95%), veh/ln | 0.0 | 0.3 | 1.0 | 0.0 | 5.0 | 0.0 | | | | 35.2 | 0.0 | 23.4 |
| Lane Grp Delay (d), s/veh | 0.0 | 0.6 | 3.3 | 0.0 | 14.5 | 0.0 | | | | 118.6 | 0.0 | 84.7 |
| Lane Grp LOS | | A | A | | B | | | | | F | | F |
| Approach Vol, veh/h | | 1025 | | | 415 | | | | | | 1201 | |
| Approach Delay, s/veh | | 1.4 | | | 14.5 | | | | | | 103.7 | |
| Approach LOS | | A | | | B | | | | | | F | |

| Timer | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Assigned Phs | | 2 | | | 6 | | | | | | 4 | |
| Phs Duration (G+Y+Rc), s | | 36.0 | | | 36.0 | | | | | | 24.0 | |
| Change Period (Y+Rc), s | | 6.0 | | | 6.0 | | | | | | 6.0 | |
| Max Green Setting (Gmax), s | | 30.0 | | | 30.0 | | | | | | 18.0 | |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | | 8.0 | | | | | | 21.5 | |
| Green Ext Time (p_c), s | | 11.1 | | | 9.9 | | | | | | 0.0 | |

| Intersection Summary | | |
|---|---|---|
| HCM 2010 Ctrl Delay | 50.0 | |
| HCM 2010 LOS | D | |

Notes

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 0 | 647 | 0 | 0 | 362 | 45 | 81 | 588 | 282 | 0 | 0 | 0 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | | | |
| Initial Q (Qb), veh | 0 | 5 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.85 | 1.00 | | 0.68 | | | |
| Parking Bus Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 | | | |
| Adj Sat Flow veh/h/ln | 0.0 | 183.5 | 0.0 | 0.0 | 178.5 | 189.0 | 181.4 | 179.8 | 181.4 | | | |
| Lanes | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | | | |
| Cap, veh/h | 0 | 2890 | 0 | 0 | 1600 | 197 | 74 | 542 | 283 | | | |
| Arrive On Green | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.11 | 0.11 | 0.11 | | | |
| Sat Flow, veh/h | 0 | 5505 | 0 | 0 | 3049 | 374 | 228 | 1667 | 872 | | | |
| Grp Volume(v), veh/h | 0 | 688 | 0 | 0 | 223 | 210 | 675 | 0 | 337 | | | |
| Grp Sat Flow(s),veh/h/ln | 0 | 1835 | 0 | 0 | 1785 | 1638 | 1787 | 0 | 980 | | | |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 19.5 | 0.0 | 19.5 | | | |
| Cycle Q Clear(g_c), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 19.5 | 0.0 | 19.5 | | | |
| Prop In Lane | 0.00 | | 0.00 | 0.00 | | 0.23 | 0.13 | | 0.89 | | | |
| Lane Grp Cap(c), veh/h | 0 | 2890 | 0 | 0 | 937 | 860 | 581 | 0 | 319 | | | |
| V/C Ratio(X) | 0.00 | 0.24 | 0.00 | 0.00 | 0.24 | 0.24 | 1.16 | 0.00 | 1.06 | | | |
| Avail Cap(c_a), veh/h | 0 | 2890 | 0 | 0 | 937 | 860 | 581 | 0 | 319 | | | |
| HCM Platoon Ratio | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 2.00 | 0.33 | 0.33 | 0.33 | | | |
| Upstream Filter(I) | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | | | |
| Uniform Delay (d), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 26.8 | 0.0 | 26.8 | | | |
| Incr Delay (d2), s/veh | 0.0 | 0.2 | 0.0 | 0.0 | 0.6 | 0.7 | 90.9 | 0.0 | 66.6 | | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 12.4 | 0.0 | 22.6 | | | |
| %ile Back of Q (95%), veh/ln | 0.0 | 0.1 | 0.0 | 0.0 | 0.3 | 0.3 | 37.1 | 0.0 | 19.0 | | | |
| Lane Grp Delay (d), s/veh | 0.0 | 0.2 | 0.0 | 0.0 | 0.6 | 0.7 | 130.0 | 0.0 | 116.0 | | | |
| Lane Grp LOS | | A | | | A | A | F | | F | | | |
| Approach Vol, veh/h | | 688 | | | 433 | | | 1012 | | | | |
| Approach Delay, s/veh | | 0.2 | | | 0.7 | | | 125.4 | | | | |
| Approach LOS | | A | | | A | | | F | | | | |

| Timer | |
|---|---|
| Assigned Phs | 2 6 8 |
| Phs Duration (G+Y+Rc), s | 36.0 36.0 24.0 |
| Change Period (Y+Rc), s | 6.0 6.0 6.0 |
| Max Green Setting (Gmax), s | 30.0 30.0 18.0 |
| Max Q Clear Time (g_c+I1), s | 2.0 2.0 21.5 |
| Green Ext Time (p_c), s | 7.4 7.4 0.0 |

| Intersection Summary | |
|---|---|
| HCM 2010 Ctrl Delay | 59.7 |
| HCM 2010 LOS | E |

Notes

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 0 | 774 | 216 | 0 | 511 | 0 | 0 | 0 | 0 | 73 | 714 | 60 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | | | | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 12 | 0 | 0 | 6 | 0 | | | | 0 | 11 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.83 | 1.00 | | 1.00 | | | | 1.00 | | 0.67 |
| Parking Bus Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 0.90 |
| Adj Sat Flow veh/h/ln | 0.0 | 181.5 | 189.0 | 0.0 | 176.6 | 0.0 | | | | 181.4 | 177.9 | 181.4 |
| Lanes | 0 | 3 | 0 | 0 | 2 | 0 | | | | 0 | 2 | 0 |
| Cap, veh/h | 0 | 1667 | 458 | 0 | 1501 | 0 | | | | 113 | 1141 | 101 |
| Arrive On Green | 0.00 | 0.14 | 0.14 | 0.00 | 0.14 | 0.00 | | | | 0.14 | 0.14 | 0.14 |
| Sat Flow, veh/h | 0 | 3923 | 1077 | 0 | 3533 | 0 | | | | 265 | 2686 | 239 |
| Grp Volume(v), veh/h | 0 | 761 | 292 | 0 | 544 | 0 | | | | 520 | 0 | 382 |
| Grp Sat Flow(s),veh/h/ln | 0 | 1815 | 1369 | 0 | 1766 | 0 | | | | 1766 | 0 | 1423 |
| Q Serve(g_s), s | 0.0 | 11.6 | 11.9 | 0.0 | 8.4 | 0.0 | | | | 16.8 | 0.0 | 15.2 |
| Cycle Q Clear(g_c), s | 0.0 | 11.6 | 11.9 | 0.0 | 8.4 | 0.0 | | | | 16.8 | 0.0 | 15.2 |
| Prop In Lane | 0.00 | | 0.79 | 0.00 | | 0.00 | | | | 0.15 | | 0.17 |
| Lane Grp Cap(c), veh/h | 0 | 1543 | 582 | 0 | 1501 | 0 | | | | 750 | 0 | 605 |
| V/C Ratio(X) | 0.00 | 0.49 | 0.50 | 0.00 | 0.36 | 0.00 | | | | 0.69 | 0.00 | 0.63 |
| Avail Cap(c_a), veh/h | 0 | 1543 | 582 | 0 | 1501 | 0 | | | | 750 | 0 | 605 |
| HCM Platoon Ratio | 1.00 | 0.33 | 0.33 | 1.00 | 0.33 | 1.00 | | | | 0.33 | 0.33 | 0.33 |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 19.8 | 19.9 | 0.0 | 18.4 | 0.0 | | | | 22.1 | 0.0 | 21.4 |
| Incr Delay (d2), s/veh | 0.0 | 1.1 | 3.1 | 0.0 | 0.7 | 0.0 | | | | 5.2 | 0.0 | 4.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.4 | 0.7 | 0.0 | 0.2 | 0.0 | | | | 1.3 | 0.0 | 1.6 |
| %ile Back of Q (95%), veh/ln | 0.0 | 9.9 | 8.6 | 0.0 | 7.4 | 0.0 | | | | 14.2 | 0.0 | 11.1 |
| Lane Grp Delay (d), s/veh | 0.0 | 21.3 | 23.7 | 0.0 | 19.3 | 0.0 | | | | 28.6 | 0.0 | 27.9 |
| Lane Grp LOS | | C | C | | B | | | | | C | | C |
| Approach Vol, veh/h | | 1053 | | | 544 | | | | | | 902 | |
| Approach Delay, s/veh | | 22.0 | | | 19.3 | | | | | | 28.3 | |
| Approach LOS | | C | | | B | | | | | | C | |

| Timer | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Assigned Phs | | 2 | | | 6 | | | | | | 4 | |
| Phs Duration (G+Y+Rc), s | | 30.0 | | | 30.0 | | | | | | 30.0 | |
| Change Period (Y+Rc), s | | 6.0 | | | 6.0 | | | | | | 6.0 | |
| Max Green Setting (Gmax), s | | 24.0 | | | 24.0 | | | | | | 24.0 | |
| Max Q Clear Time (g_c+I1), s | | 13.9 | | | 10.4 | | | | | | 18.8 | |
| Green Ext Time (p_c), s | | 6.5 | | | 8.1 | | | | | | 2.4 | |

| Intersection Summary | |
|---|---|
| HCM 2010 Ctrl Delay | 23.7 |
| HCM 2010 LOS | C |

Notes

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 0 | 1011 | 0 | 0 | 541 | 56 | 99 | 587 | 232 | 0 | 0 | 0 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | | | |
| Initial Q (Qb), veh | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 15 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.76 | 1.00 | | 0.69 | | | |
| Parking Bus Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 | | | |
| Adj Sat Flow veh/h/ln | 0.0 | 176.6 | 0.0 | 0.0 | 166.1 | 189.0 | 181.4 | 176.4 | 177.9 | | | |
| Lanes | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 2 | 1 | | | |
| Cap, veh/h | 0 | 2605 | 0 | 0 | 1411 | 144 | 173 | 1083 | 337 | | | |
| Arrive On Green | 0.00 | 0.98 | 0.00 | 0.00 | 0.16 | 0.16 | 0.12 | 0.12 | 0.12 | | | |
| Sat Flow, veh/h | 0 | 5299 | 0 | 0 | 2869 | 293 | 483 | 3021 | 941 | | | |
| Grp Volume(v), veh/h | 0 | 1053 | 0 | 0 | 325 | 297 | 371 | 343 | 242 | | | |
| Grp Sat Flow(s),veh/h/ln | 0 | 1766 | 0 | 0 | 1661 | 1501 | 1740 | 1764 | 941 | | | |
| Q Serve(g_s), s | 0.0 | 0.3 | 0.0 | 0.0 | 10.5 | 10.6 | 12.1 | 11.0 | 14.9 | | | |
| Cycle Q Clear(g_c), s | 0.0 | 0.3 | 0.0 | 0.0 | 10.5 | 10.6 | 12.1 | 11.0 | 14.9 | | | |
| Prop In Lane | 0.00 | | 0.00 | 0.00 | | 0.20 | 0.28 | | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 0 | 2605 | 0 | 0 | 817 | 738 | 623 | 632 | 337 | | | |
| V/C Ratio(X) | 0.00 | 0.40 | 0.00 | 0.00 | 0.40 | 0.40 | 0.60 | 0.54 | 0.72 | | | |
| Avail Cap(c_a), veh/h | 0 | 2605 | 0 | 0 | 817 | 738 | 623 | 632 | 337 | | | |
| HCM Platoon Ratio | 1.00 | 2.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | | | |
| Upstream Filter(I) | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Uniform Delay (d), s/veh | 0.0 | 0.3 | 0.0 | 0.0 | 17.2 | 17.2 | 22.3 | 21.8 | 23.5 | | | |
| Incr Delay (d2), s/veh | 0.0 | 0.5 | 0.0 | 0.0 | 1.4 | 1.6 | 4.2 | 3.3 | 12.4 | | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.1 | 0.0 | 0.0 | 0.4 | 0.4 | 2.6 | 2.2 | 0.0 | | | |
| %ile Back of Q (95%), veh/ln | 0.0 | 0.4 | 0.0 | 0.0 | 8.7 | 8.2 | 10.9 | 10.1 | 8.5 | | | |
| Lane Grp Delay (d), s/veh | 0.0 | 0.9 | 0.0 | 0.0 | 19.0 | 19.3 | 29.1 | 27.3 | 35.9 | | | |
| Lane Grp LOS | | A | | | B | B | C | C | D | | | |
| Approach Vol, veh/h | | 1053 | | | 622 | | | 956 | | | | |
| Approach Delay, s/veh | | 0.9 | | | 19.1 | | | 30.2 | | | | |
| Approach LOS | | A | | | B | | | C | | | | |

| Timer | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Assigned Phs | | 2 | | | 6 | | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 34.0 | | | 34.0 | | | 26.0 | | | | |
| Change Period (Y+Rc), s | | 6.0 | | | 6.0 | | | 6.0 | | | | |
| Max Green Setting (Gmax), s | | 28.0 | | | 28.0 | | | 20.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.3 | | | 12.6 | | | 16.9 | | | | |
| Green Ext Time (p_c), s | | 12.0 | | | 9.0 | | | 1.7 | | | | |

| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 2010 Ctrl Delay | | | 15.8 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |

Notes

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 0 | 665 | 241 | 0 | 427 | 0 | 0 | 0 | 0 | 77 | 909 | 46 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | | | | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.76 | 1.00 | | 1.00 | | | | 1.00 | | 0.87 |
| Parking Bus Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 0.90 |
| Adj Sat Flow veh/h/ln | 0.0 | 183.1 | 189.0 | 0.0 | 176.6 | 0.0 | | | | 181.4 | 179.5 | 181.4 |
| Lanes | 0 | 3 | 0 | 0 | 2 | 0 | | | | 0 | 2 | 0 |
| Cap, veh/h | 0 | 1374 | 444 | 0 | 1325 | 0 | | | | 114 | 1400 | 75 |
| Arrive On Green | 0.00 | 0.75 | 0.75 | 0.00 | 0.12 | 0.00 | | | | 0.16 | 0.16 | 0.16 |
| Sat Flow, veh/h | 0 | 3663 | 1183 | 0 | 3533 | 0 | | | | 239 | 2947 | 157 |
| Grp Volume(v), veh/h | 0 | 707 | 256 | 0 | 454 | 0 | | | | 611 | 0 | 487 |
| Grp Sat Flow(s),veh/h/ln | 0 | 1831 | 1183 | 0 | 1766 | 0 | | | | 1783 | 0 | 1560 |
| Q Serve(g_s), s | 0.0 | 4.7 | 5.7 | 0.0 | 7.1 | 0.0 | | | | 19.6 | 0.0 | 17.6 |
| Cycle Q Clear(g_c), s | 0.0 | 4.7 | 5.7 | 0.0 | 7.1 | 0.0 | | | | 19.6 | 0.0 | 17.6 |
| Prop In Lane | 0.00 | | 1.00 | 0.00 | | 0.00 | | | | 0.13 | | 0.10 |
| Lane Grp Cap(c), veh/h | 0 | 1374 | 444 | 0 | 1325 | 0 | | | | 847 | 0 | 741 |
| V/C Ratio(X) | 0.00 | 0.51 | 0.58 | 0.00 | 0.34 | 0.00 | | | | 0.72 | 0.00 | 0.66 |
| Avail Cap(c_a), veh/h | 0 | 1374 | 444 | 0 | 1325 | 0 | | | | 847 | 0 | 741 |
| HCM Platoon Ratio | 1.00 | 2.00 | 2.00 | 1.00 | 0.33 | 1.00 | | | | 0.33 | 0.33 | 0.33 |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 5.3 | 5.4 | 0.0 | 19.5 | 0.0 | | | | 21.5 | 0.0 | 20.7 |
| Incr Delay (d2), s/veh | 0.0 | 1.4 | 5.4 | 0.0 | 0.7 | 0.0 | | | | 5.3 | 0.0 | 4.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| %ile Back of Q (95%), veh/ln | 0.0 | 2.8 | 2.9 | 0.0 | 6.1 | 0.0 | | | | 15.9 | 0.0 | 13.0 |
| Lane Grp Delay (d), s/veh | 0.0 | 6.7 | 10.8 | 0.0 | 20.2 | 0.0 | | | | 26.8 | 0.0 | 25.2 |
| Lane Grp LOS | | A | B | | C | | | | | C | | C |
| Approach Vol, veh/h | | 963 | | | 454 | | | | | | 1098 | |
| Approach Delay, s/veh | | 7.8 | | | 20.2 | | | | | | 26.1 | |
| Approach LOS | | A | | | C | | | | | | C | |

| Timer | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Assigned Phs | | 2 | | | 6 | | | | | | 4 | |
| Phs Duration (G+Y+Rc), s | | 27.0 | | | 27.0 | | | | | | 33.0 | |
| Change Period (Y+Rc), s | | 6.0 | | | 6.0 | | | | | | 6.0 | |
| Max Green Setting (Gmax), s | | 21.0 | | | 21.0 | | | | | | 27.0 | |
| Max Q Clear Time (g_c+I1), s | | 7.7 | | | 9.1 | | | | | | 21.6 | |
| Green Ext Time (p_c), s | | 7.2 | | | 6.7 | | | | | | 2.9 | |

| Intersection Summary | | |
|---|---|---|
| HCM 2010 Ctrl Delay | | 18.0 |
| HCM 2010 LOS | | B |

Notes

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 0 | 730 | 0 | 0 | 548 | 52 | 71 | 490 | 201 | 0 | 0 | 0 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.85 | 1.00 | | 0.69 | | | |
| Parking Bus Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 | | | |
| Adj Sat Flow veh/h/ln | 0.0 | 173.4 | 0.0 | 0.0 | 174.4 | 189.0 | 181.4 | 177.7 | 177.9 | | | |
| Lanes | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 2 | 1 | | | |
| Cap, veh/h | 0 | 2731 | 0 | 0 | 1620 | 152 | 139 | 1009 | 304 | | | |
| Arrive On Green | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.11 | 0.11 | 0.11 | | | |
| Sat Flow, veh/h | 0 | 5202 | 0 | 0 | 3085 | 289 | 427 | 3104 | 935 | | | |
| Grp Volume(v), veh/h | 0 | 820 | 0 | 0 | 347 | 327 | 328 | 303 | 226 | | | |
| Grp Sat Flow(s),veh/h/ln | 0 | 1734 | 0 | 0 | 1744 | 1631 | 1755 | 1777 | 935 | | | |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.7 | 9.7 | 14.1 | | | |
| Cycle Q Clear(g_c), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.7 | 9.7 | 14.1 | | | |
| Prop In Lane | 0.00 | | 0.00 | 0.00 | | 0.18 | 0.24 | | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 0 | 2731 | 0 | 0 | 915 | 856 | 570 | 577 | 304 | | | |
| V/C Ratio(X) | 0.00 | 0.30 | 0.00 | 0.00 | 0.38 | 0.38 | 0.58 | 0.52 | 0.74 | | | |
| Avail Cap(c_a), veh/h | 0 | 2731 | 0 | 0 | 915 | 856 | 570 | 577 | 304 | | | |
| HCM Platoon Ratio | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 2.00 | 0.33 | 0.33 | 0.33 | | | |
| Upstream Filter(I) | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Uniform Delay (d), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.8 | 22.4 | 24.4 | | | |
| Incr Delay (d2), s/veh | 0.0 | 0.3 | 0.0 | 0.0 | 1.2 | 1.3 | 4.2 | 3.4 | 15.2 | | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| %ile Back of Q (95%), veh/ln | 0.0 | 0.1 | 0.0 | 0.0 | 0.5 | 0.6 | 9.6 | 8.9 | 8.4 | | | |
| Lane Grp Delay (d), s/veh | 0.0 | 0.3 | 0.0 | 0.0 | 1.2 | 1.3 | 27.0 | 25.8 | 39.5 | | | |
| Lane Grp LOS | | A | | | A | A | C | C | D | | | |
| Approach Vol, veh/h | | 820 | | | 674 | | | 857 | | | | |
| Approach Delay, s/veh | | 0.3 | | | 1.2 | | | 29.9 | | | | |
| Approach LOS | | A | | | A | | | C | | | | |
| **Timer** | | | | | | | | | | | | |
| Assigned Phs | | 2 | | | 6 | | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 36.0 | | | 36.0 | | | 24.0 | | | | |
| Change Period (Y+Rc), s | | 6.0 | | | 6.0 | | | 6.0 | | | | |
| Max Green Setting (Gmax), s | | 30.0 | | | 30.0 | | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | | 2.0 | | | 16.1 | | | | |
| Green Ext Time (p_c), s | | 10.7 | | | 10.7 | | | 1.0 | | | | |
| **Intersection Summary** | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 11.3 | | | | | | | | | |
| HCM 2010 LOS | | | B | | | | | | | | | |
| **Notes** | | | | | | | | | | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 0 | 654 | 289 | 0 | 382 | 0 | 0 | 0 | 0 | 64 | 980 | 61 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | | | | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.69 | 1.00 | | 1.00 | | | | 1.00 | | 0.89 |
| Parking Bus Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 0.90 |
| Adj Sat Flow veh/h/ln | 0.0 | 177.4 | 189.0 | 0.0 | 178.3 | 0.0 | | | | 181.4 | 178.7 | 181.4 |
| Lanes | 0 | 3 | 0 | 0 | 2 | 0 | | | | 0 | 2 | 0 |
| Cap, veh/h | 0 | 1271 | 371 | 0 | 1278 | 0 | | | | 91 | 1449 | 94 |
| Arrive On Green | 0.00 | 0.72 | 0.72 | 0.00 | 0.12 | 0.00 | | | | 0.16 | 0.16 | 0.16 |
| Sat Flow, veh/h | 0 | 3548 | 1036 | 0 | 3566 | 0 | | | | 186 | 2947 | 192 |
| Grp Volume(v), veh/h | 0 | 711 | 314 | 0 | 415 | 0 | | | | 670 | 0 | 531 |
| Grp Sat Flow(s),veh/h/ln | 0 | 1774 | 1036 | 0 | 1783 | 0 | | | | 1778 | 0 | 1546 |
| Q Serve(g_s), s | 0.0 | 5.7 | 13.1 | 0.0 | 6.4 | 0.0 | | | | 21.6 | 0.0 | 19.5 |
| Cycle Q Clear(g_c), s | 0.0 | 5.7 | 13.1 | 0.0 | 6.4 | 0.0 | | | | 21.6 | 0.0 | 19.5 |
| Prop In Lane | 0.00 | | 1.00 | 0.00 | | 0.00 | | | | 0.10 | | 0.12 |
| Lane Grp Cap(c), veh/h | 0 | 1271 | 371 | 0 | 1278 | 0 | | | | 874 | 0 | 760 |
| V/C Ratio(X) | 0.00 | 0.56 | 0.85 | 0.00 | 0.32 | 0.00 | | | | 0.77 | 0.00 | 0.70 |
| Avail Cap(c_a), veh/h | 0 | 1271 | 371 | 0 | 1278 | 0 | | | | 874 | 0 | 760 |
| HCM Platoon Ratio | 1.00 | 2.00 | 2.00 | 1.00 | 0.33 | 1.00 | | | | 0.33 | 0.33 | 0.33 |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 6.3 | 7.3 | 0.0 | 19.8 | 0.0 | | | | 21.8 | 0.0 | 20.9 |
| Incr Delay (d2), s/veh | 0.0 | 1.8 | 20.5 | 0.0 | 0.7 | 0.0 | | | | 6.4 | 0.0 | 5.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| %ile Back of Q (95%), veh/ln | 0.0 | 3.3 | 6.3 | 0.0 | 5.6 | 0.0 | | | | 17.4 | 0.0 | 14.1 |
| Lane Grp Delay (d), s/veh | 0.0 | 8.0 | 27.9 | 0.0 | 20.5 | 0.0 | | | | 28.2 | 0.0 | 26.2 |
| Lane Grp LOS | | A | C | | C | | | | | C | | C |
| Approach Vol, veh/h | | 1025 | | | 415 | | | | | | 1201 | |
| Approach Delay, s/veh | | 14.1 | | | 20.5 | | | | | | 27.3 | |
| Approach LOS | | B | | | C | | | | | | C | |

| Timer | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Assigned Phs | | 2 | | | 6 | | | | | | 4 | |
| Phs Duration (G+Y+Rc), s | | 26.0 | | | 26.0 | | | | | | 34.0 | |
| Change Period (Y+Rc), s | | 6.0 | | | 6.0 | | | | | | 6.0 | |
| Max Green Setting (Gmax), s | | 20.0 | | | 20.0 | | | | | | 28.0 | |
| Max Q Clear Time (g_c+I1), s | | 15.1 | | | 8.4 | | | | | | 23.6 | |
| Green Ext Time (p_c), s | | 3.5 | | | 6.9 | | | | | | 2.7 | |

| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 2010 Ctrl Delay | | | 21.1 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |

| Notes | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Volume (veh/h) | 0 | 647 | 0 | 0 | 362 | 45 | 81 | 588 | 282 | 0 | 0 | 0 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | | | |
| Initial Q (Qb), veh | 0 | 5 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.85 | 1.00 | | 0.68 | | | |
| Parking Bus Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 | | | |
| Adj Sat Flow veh/h/ln | 0.0 | 183.5 | 0.0 | 0.0 | 178.5 | 189.0 | 181.4 | 179.9 | 179.6 | | | |
| Lanes | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 2 | 1 | | | |
| Cap, veh/h | 0 | 2890 | 0 | 0 | 1600 | 197 | 134 | 1028 | 303 | | | |
| Arrive On Green | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.11 | 0.11 | 0.11 | | | |
| Sat Flow, veh/h | 0 | 5505 | 0 | 0 | 3049 | 374 | 412 | 3164 | 934 | | | |
| Grp Volume(v), veh/h | 0 | 688 | 0 | 0 | 223 | 210 | 371 | 341 | 300 | | | |
| Grp Sat Flow(s),veh/h/ln | 0 | 1835 | 0 | 0 | 1785 | 1638 | 1778 | 1799 | 934 | | | |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.0 | 10.8 | 19.2 | | | |
| Cycle Q Clear(g_c), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.0 | 10.8 | 19.2 | | | |
| Prop In Lane | 0.00 | | 0.00 | 0.00 | | 0.23 | 0.23 | | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 0 | 2890 | 0 | 0 | 937 | 860 | 578 | 585 | 303 | | | |
| V/C Ratio(X) | 0.00 | 0.24 | 0.00 | 0.00 | 0.24 | 0.24 | 0.64 | 0.58 | 0.99 | | | |
| Avail Cap(c_a), veh/h | 0 | 2890 | 0 | 0 | 937 | 860 | 578 | 585 | 303 | | | |
| HCM Platoon Ratio | 1.00 | 2.00 | 1.00 | 1.00 | 2.00 | 2.00 | 0.33 | 0.33 | 0.33 | | | |
| Upstream Filter(I) | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Uniform Delay (d), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23.4 | 22.9 | 26.7 | | | |
| Incr Delay (d2), s/veh | 0.0 | 0.2 | 0.0 | 0.0 | 0.6 | 0.7 | 5.4 | 4.2 | 48.8 | | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.2 | 0.0 | | | |
| %ile Back of Q (95%), veh/ln | 0.0 | 0.1 | 0.0 | 0.0 | 0.3 | 0.3 | 10.8 | 9.9 | 13.8 | | | |
| Lane Grp Delay (d), s/veh | 0.0 | 0.2 | 0.0 | 0.0 | 0.6 | 0.7 | 29.1 | 27.3 | 75.5 | | | |
| Lane Grp LOS | | A | | | A | A | C | C | E | | | |
| Approach Vol, veh/h | | 688 | | | 433 | | | 1012 | | | | |
| Approach Delay, s/veh | | 0.2 | | | 0.7 | | | 42.3 | | | | |
| Approach LOS | | A | | | A | | | D | | | | |

| Timer | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Assigned Phs | | 2 | | | 6 | | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 36.0 | | | 36.0 | | | 24.0 | | | | |
| Change Period (Y+Rc), s | | 6.0 | | | 6.0 | | | 6.0 | | | | |
| Max Green Setting (Gmax), s | | 30.0 | | | 30.0 | | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | | 2.0 | | | 21.2 | | | | |
| Green Ext Time (p_c), s | | 7.4 | | | 7.4 | | | 0.0 | | | | |

| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 2010 Ctrl Delay | | | 20.3 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |

Notes