

HCM 6th Signalized Intersection Summary

3: N Valdosta Rd & Old Hwy 41/Val Del Rd

02/09/2022

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | SEL | SET | SER | NWL | NWT | NWR |
|------------------------------|------|------|------|-------|-------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 4 | 29 | 45 | 307 | 16 | 142 | 228 | 905 | 1 | 102 | 1136 | 608 |
| Future Volume (veh/h) | 4 | 29 | 45 | 307 | 16 | 142 | 228 | 905 | 1 | 102 | 1136 | 608 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1856 | 1856 | 1856 | 1870 | 1870 | 1870 | 1856 | 1856 | 1856 |
| Adj Flow Rate, veh/h | 5 | 35 | 0 | 404 | 21 | 0 | 304 | 1207 | 0 | 134 | 1495 | 0 |
| Peak Hour Factor | 0.83 | 0.83 | 0.83 | 0.76 | 0.76 | 0.76 | 0.75 | 0.75 | 0.75 | 0.76 | 0.76 | 0.76 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 3 |
| Cap, veh/h | 299 | 345 | | 286 | 343 | | 328 | 2237 | | 341 | 2031 | |
| Arrive On Green | 0.18 | 0.18 | 0.00 | 0.18 | 0.18 | 0.00 | 0.10 | 0.63 | 0.00 | 0.05 | 0.58 | 0.00 |
| Sat Flow, veh/h | 1391 | 1870 | 1585 | 1363 | 1856 | 1572 | 1781 | 3554 | 1585 | 1767 | 3526 | 1572 |
| Grp Volume(v), veh/h | 5 | 35 | 0 | 404 | 21 | 0 | 304 | 1207 | 0 | 134 | 1495 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1391 | 1870 | 1585 | 1363 | 1856 | 1572 | 1781 | 1777 | 1585 | 1767 | 1763 | 1572 |
| Q Serve(g_s), s | 0.4 | 2.0 | 0.0 | 22.0 | 1.2 | 0.0 | 11.0 | 24.8 | 0.0 | 4.0 | 40.6 | 0.0 |
| Cycle Q Clear(g_c), s | 1.6 | 2.0 | 0.0 | 24.0 | 1.2 | 0.0 | 11.0 | 24.8 | 0.0 | 4.0 | 40.6 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 299 | 345 | | 286 | 343 | | 328 | 2237 | | 341 | 2031 | |
| V/C Ratio(X) | 0.02 | 0.10 | | 1.41 | 0.06 | | 0.93 | 0.54 | | 0.39 | 0.74 | |
| Avail Cap(c_a), veh/h | 299 | 345 | | 286 | 343 | | 340 | 2237 | | 447 | 2031 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 44.4 | 44.0 | 0.0 | 56.1 | 43.7 | 0.0 | 30.1 | 13.5 | 0.0 | 11.7 | 20.3 | 0.0 |
| Incr Delay (d2), s/veh | 0.0 | 0.1 | 0.0 | 205.7 | 0.1 | 0.0 | 30.2 | 0.9 | 0.0 | 0.7 | 2.4 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.1 | 0.9 | 0.0 | 25.5 | 0.5 | 0.0 | 8.0 | 8.8 | 0.0 | 1.5 | 15.4 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 44.4 | 44.2 | 0.0 | 261.9 | 43.8 | 0.0 | 60.3 | 14.5 | 0.0 | 12.4 | 22.7 | 0.0 |
| LnGrp LOS | D | D | | F | D | | E | B | | B | C | |
| Approach Vol, veh/h | | 40 | A | | 425 | A | | 1511 | A | | 1629 | A |
| Approach Delay, s/veh | | 44.2 | | | 251.1 | | | 23.7 | | | 21.9 | |
| Approach LOS | | D | | | F | | | C | | | C | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 12.2 | 87.8 | | 30.0 | 19.1 | 80.9 | | 30.0 | | | | |
| Change Period (Y+Rc), s | 6.0 | 6.0 | | 6.0 | 6.0 | 6.0 | | 6.0 | | | | |
| Max Green Setting (Gmax), s | 14.0 | 74.0 | | 24.0 | 14.0 | 74.0 | | 24.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.0 | 26.8 | | 26.0 | 13.0 | 42.6 | | 4.0 | | | | |
| Green Ext Time (p_c), s | 0.2 | 34.4 | | 0.0 | 0.1 | 28.2 | | 0.1 | | | | |

Intersection Summary

HCM 6th Ctrl Delay 49.9
 HCM 6th LOS D

Notes

Unsignalized Delay for [NWR, EBR, WBR, SER] is excluded from calculations of the approach delay and intersection delay.