# MOVEMENT SUMMARY

## Site: [2] BasePM_TamahereDr80_PickeringRd40

(TamahereDr_PickeringRd)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

New Site
Give-Way (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Tamahere Drive | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 29 | 8.0 | 29 | 8.0 | 0.016 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 80.0 |
| 6 | R2 | All MCs | 8 | 8.0 | 8 | 8.0 | 0.005 | 6.9 | LOS A | 0.0 | 0.2 | 0.14 | 0.59 | 0.14 | 47.5 |
| Approach | | | 37 | 8.0 | 37 | 8.0 | 0.016 | 1.5 | NA | 0.0 | 0.2 | 0.03 | 0.13 | 0.03 | 69.7 |
| NorthEast: Pickering Road | | | | | | | | | | | | | | | |
| 7 | L2 | All MCs | 14 | 8.0 | 14 | 8.0 | 0.026 | 3.6 | LOS A | 0.1 | 0.8 | 0.15 | 0.45 | 0.15 | 46.1 |
| 9 | R2 | All MCs | 18 | 8.0 | 18 | 8.0 | 0.026 | 4.0 | LOS A | 0.1 | 0.8 | 0.15 | 0.45 | 0.15 | 46.0 |
| Approach | | | 32 | 8.0 | 32 | 8.0 | 0.026 | 3.8 | LOS A | 0.1 | 0.8 | 0.15 | 0.45 | 0.15 | 46.1 |
| NorthWest: Tamahere Drive | | | | | | | | | | | | | | | |
| 10 | L2 | All MCs | 13 | 8.0 | 13 | 8.0 | 0.027 | 7.1 | LOS A | 0.0 | 0.0 | 0.00 | 0.17 | 0.00 | 67.8 |
| 11 | T1 | All MCs | 36 | 8.0 | 36 | 8.0 | 0.027 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.17 | 0.00 | 76.9 |
| Approach | | | 49 | 8.0 | 49 | 8.0 | 0.027 | 1.9 | NA | 0.0 | 0.0 | 0.00 | 0.17 | 0.00 | 74.2 |
| All Vehicles | | | 118 | 8.0 | 118 | 8.0 | 0.027 | 2.3 | NA | 0.1 | 0.8 | 0.05 | 0.23 | 0.05 | 62.6 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [2 (4)] BasePM_TamahereDr80_PickeringRd40_15HCV
(TamahereDr_PickeringRd)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

New Site
Give-Way (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Tamahere Drive | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 29 | 15.0 | 29 | 15.0 | 0.016 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 80.0 |
| 6 | R2 | All MCs | 8 | 15.0 | 8 | 15.0 | 0.005 | 7.1 | LOS A | 0.0 | 0.2 | 0.14 | 0.59 | 0.14 | 47.5 |
| Approach | | | 37 | 15.0 | 37 | 15.0 | 0.016 | 1.5 | NA | 0.0 | 0.2 | 0.03 | 0.13 | 0.03 | 69.7 |
| NorthEast: Pickering Road | | | | | | | | | | | | | | | |
| 7 | L2 | All MCs | 14 | 15.0 | 14 | 15.0 | 0.027 | 3.6 | LOS A | 0.1 | 0.8 | 0.15 | 0.45 | 0.15 | 45.0 |
| 9 | R2 | All MCs | 18 | 15.0 | 18 | 15.0 | 0.027 | 4.1 | LOS A | 0.1 | 0.8 | 0.15 | 0.45 | 0.15 | 44.8 |
| Approach | | | 32 | 15.0 | 32 | 15.0 | 0.027 | 3.9 | LOS A | 0.1 | 0.8 | 0.15 | 0.45 | 0.15 | 44.8 |
| NorthWest: Tamahere Drive | | | | | | | | | | | | | | | |
| 10 | L2 | All MCs | 13 | 15.0 | 13 | 15.0 | 0.028 | 7.2 | LOS A | 0.0 | 0.0 | 0.00 | 0.17 | 0.00 | 65.3 |
| 11 | T1 | All MCs | 36 | 15.0 | 36 | 15.0 | 0.028 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.17 | 0.00 | 76.9 |
| Approach | | | 49 | 15.0 | 49 | 15.0 | 0.028 | 1.9 | NA | 0.0 | 0.0 | 0.00 | 0.17 | 0.00 | 73.4 |
| All Vehicles | | | 118 | 15.0 | 118 | 15.0 | 0.028 | 2.3 | NA | 0.1 | 0.8 | 0.05 | 0.23 | 0.05 | 61.7 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [2 (2)] DevPM_TamahereDr80_PickeringRd40

(TamahereDr_PickeringRd)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

New Site
Give-Way (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Tamahere Drive | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 216 | 8.0 | 216 | 8.0 | 0.117 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 79.9 |
| 6 | R2 | All MCs | 30 | 8.0 | 30 | 8.0 | 0.020 | 7.3 | LOS A | 0.1 | 0.7 | 0.26 | 0.59 | 0.26 | 47.2 |
| Approach | | | 246 | 8.0 | 246 | 8.0 | 0.117 | 0.9 | NA | 0.1 | 0.7 | 0.03 | 0.07 | 0.03 | 73.7 |
| NorthEast: Pickering Road | | | | | | | | | | | | | | | |
| 7 | L2 | All MCs | 14 | 8.0 | 14 | 8.0 | 0.036 | 3.9 | LOS A | 0.1 | 1.0 | 0.36 | 0.50 | 0.36 | 45.5 |
| 9 | R2 | All MCs | 18 | 8.0 | 18 | 8.0 | 0.036 | 6.4 | LOS A | 0.1 | 1.0 | 0.36 | 0.50 | 0.36 | 45.3 |
| Approach | | | 32 | 8.0 | 32 | 8.0 | 0.036 | 5.3 | LOS A | 0.1 | 1.0 | 0.36 | 0.50 | 0.36 | 45.4 |
| NorthWest: Tamahere Drive | | | | | | | | | | | | | | | |
| 10 | L2 | All MCs | 13 | 8.0 | 13 | 8.0 | 0.080 | 7.1 | LOS A | 0.0 | 0.0 | 0.00 | 0.06 | 0.00 | 69.4 |
| 11 | T1 | All MCs | 135 | 8.0 | 135 | 8.0 | 0.080 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.06 | 0.00 | 78.9 |
| Approach | | | 148 | 8.0 | 148 | 8.0 | 0.080 | 0.6 | NA | 0.0 | 0.0 | 0.00 | 0.06 | 0.00 | 78.0 |
| All Vehicles | | | 426 | 8.0 | 426 | 8.0 | 0.117 | 1.1 | NA | 0.1 | 1.0 | 0.05 | 0.10 | 0.05 | 71.7 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [2 (3)] DevPM_TamahereDr80_PickeringRd40_15HCV

(TamahereDr_PickeringRd)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

New Site
Give-Way (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Tamahere Drive | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 216 | 15.0 | 216 | 15.0 | 0.122 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 79.9 |
| 6 | R2 | All MCs | 30 | 15.0 | 30 | 15.0 | 0.021 | 7.5 | LOS A | 0.1 | 0.7 | 0.27 | 0.59 | 0.27 | 47.2 |
| Approach | | | 246 | 15.0 | 246 | 15.0 | 0.122 | 0.9 | NA | 0.1 | 0.7 | 0.03 | 0.07 | 0.03 | 73.7 |
| NorthEast: Pickering Road | | | | | | | | | | | | | | | |
| 7 | L2 | All MCs | 14 | 15.0 | 14 | 15.0 | 0.038 | 4.0 | LOS A | 0.1 | 1.1 | 0.38 | 0.51 | 0.38 | 44.2 |
| 9 | R2 | All MCs | 18 | 15.0 | 18 | 15.0 | 0.038 | 6.8 | LOS A | 0.1 | 1.1 | 0.38 | 0.51 | 0.38 | 44.0 |
| Approach | | | 32 | 15.0 | 32 | 15.0 | 0.038 | 5.6 | LOS A | 0.1 | 1.1 | 0.38 | 0.51 | 0.38 | 44.1 |
| NorthWest: Tamahere Drive | | | | | | | | | | | | | | | |
| 10 | L2 | All MCs | 13 | 15.0 | 13 | 15.0 | 0.084 | 7.2 | LOS A | 0.0 | 0.0 | 0.00 | 0.06 | 0.00 | 66.7 |
| 11 | T1 | All MCs | 135 | 15.0 | 135 | 15.0 | 0.084 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.06 | 0.00 | 78.9 |
| Approach | | | 148 | 15.0 | 148 | 15.0 | 0.084 | 0.6 | NA | 0.0 | 0.0 | 0.00 | 0.06 | 0.00 | 77.7 |
| All Vehicles | | | 426 | 15.0 | 426 | 15.0 | 0.122 | 1.2 | NA | 0.1 | 1.1 | 0.05 | 0.10 | 0.05 | 71.3 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [1 (4)]
## DevPM_PencarrowRd80_NorthernVehicleAccess40
(PencarrowRd_NorthernVehicleAccess)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

Three-way intersection with 3-lane major road (giveway control)
Give-Way (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Northern Vehicle Access | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 195 | 8.0 | 195 | 8.0 | 0.134 | 3.8 | LOS A | 0.6 | 4.4 | 0.20 | 0.45 | 0.20 | 46.0 |
| 2 | R2 | All MCs | 125 | 8.0 | 125 | 8.0 | 0.180 | 6.8 | LOS A | 0.7 | 5.4 | 0.51 | 0.67 | 0.51 | 44.5 |
| Approach | | | 320 | 8.0 | 320 | 8.0 | 0.180 | 5.0 | LOS A | 0.7 | 5.4 | 0.32 | 0.54 | 0.32 | 45.4 |
| NorthEast: Pencarrow Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 58 | 8.0 | 58 | 8.0 | 0.080 | 7.1 | LOS A | 0.0 | 0.0 | 0.00 | 0.26 | 0.00 | 66.7 |
| 4 | T1 | All MCs | 88 | 8.0 | 88 | 8.0 | 0.080 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.26 | 0.00 | 75.4 |
| Approach | | | 146 | 8.0 | 146 | 8.0 | 0.080 | 2.8 | NA | 0.0 | 0.0 | 0.00 | 0.26 | 0.00 | 71.7 |
| SouthWest: Pencarrow Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 146 | 8.0 | 146 | 8.0 | 0.079 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 80.0 |
| 6 | R2 | All MCs | 137 | 8.0 | 137 | 8.0 | 0.091 | 7.5 | LOS A | 0.4 | 3.2 | 0.27 | 0.60 | 0.27 | 47.2 |
| Approach | | | 283 | 8.0 | 283 | 8.0 | 0.091 | 3.6 | NA | 0.4 | 3.2 | 0.13 | 0.29 | 0.13 | 59.9 |
| All Vehicles | | | 749 | 8.0 | 749 | 8.0 | 0.180 | 4.0 | NA | 0.7 | 5.4 | 0.19 | 0.39 | 0.19 | 54.2 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [1 (5)] DevPM_PencarrowRd80_NorthernVehicleAccess40_one_exit_lane (PencarrowRd_NorthernVehicleAccess)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

Three-way intersection with 3-lane major road (giveway control)
Give-Way (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Northern Vehicle Access | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 195 | 8.0 | 195 | 8.0 | 0.315 | 3.9 | LOS A | 1.6 | 11.7 | 0.35 | 0.49 | 0.35 | 45.4 |
| 2 | R2 | All MCs | 125 | 8.0 | 125 | 8.0 | 0.315 | 7.6 | LOS A | 1.6 | 11.7 | 0.35 | 0.49 | 0.35 | 45.3 |
| Approach | | | 320 | 8.0 | 320 | 8.0 | 0.315 | 5.3 | LOS A | 1.6 | 11.7 | 0.35 | 0.49 | 0.35 | 45.4 |
| NorthEast: Pencarrow Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 58 | 8.0 | 58 | 8.0 | 0.080 | 7.1 | LOS A | 0.0 | 0.0 | 0.00 | 0.26 | 0.00 | 66.7 |
| 4 | T1 | All MCs | 88 | 8.0 | 88 | 8.0 | 0.080 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.26 | 0.00 | 75.4 |
| Approach | | | 146 | 8.0 | 146 | 8.0 | 0.080 | 2.8 | NA | 0.0 | 0.0 | 0.00 | 0.26 | 0.00 | 71.7 |
| SouthWest: Pencarrow Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 146 | 8.0 | 146 | 8.0 | 0.079 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 80.0 |
| 6 | R2 | All MCs | 137 | 8.0 | 137 | 8.0 | 0.091 | 7.3 | LOS A | 0.4 | 3.2 | 0.27 | 0.60 | 0.27 | 47.2 |
| Approach | | | 283 | 8.0 | 283 | 8.0 | 0.091 | 3.5 | NA | 0.4 | 3.2 | 0.13 | 0.29 | 0.13 | 59.9 |
| All Vehicles | | | 749 | 8.0 | 749 | 8.0 | 0.315 | 4.2 | NA | 1.6 | 11.7 | 0.20 | 0.37 | 0.20 | 54.2 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [1 (13)] DevPM_PencarrowRd80_NorthernVehicleAccess40_one_exit_lane_15HCV (PencarrowRd_NorthernVehicleAccess)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

Three-way intersection with 3-lane major road (giveway control)
Give-Way (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Queued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Northern Vehicle Access | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 195 | 15.0 | 195 | 15.0 | 0.335 | 4.0 | LOS A | 1.7 | 13.3 | 0.38 | 0.50 | 0.38 | 44.1 |
| 2 | R2 | All MCs | 125 | 15.0 | 125 | 15.0 | 0.335 | 8.4 | LOS A | 1.7 | 13.3 | 0.38 | 0.50 | 0.38 | 43.9 |
| Approach | | | 320 | 15.0 | 320 | 15.0 | 0.335 | 5.7 | LOS A | 1.7 | 13.3 | 0.38 | 0.50 | 0.38 | 44.0 |
| NorthEast: Pencarrow Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 58 | 15.0 | 58 | 15.0 | 0.084 | 7.2 | LOS A | 0.0 | 0.0 | 0.00 | 0.26 | 0.00 | 64.2 |
| 4 | T1 | All MCs | 88 | 15.0 | 88 | 15.0 | 0.084 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.26 | 0.00 | 75.4 |
| Approach | | | 146 | 15.0 | 146 | 15.0 | 0.084 | 2.9 | NA | 0.0 | 0.0 | 0.00 | 0.26 | 0.00 | 70.5 |
| SouthWest: Pencarrow Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 146 | 15.0 | 146 | 15.0 | 0.082 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 80.0 |
| 6 | R2 | All MCs | 137 | 15.0 | 137 | 15.0 | 0.095 | 7.5 | LOS A | 0.4 | 3.5 | 0.29 | 0.61 | 0.29 | 47.1 |
| Approach | | | 283 | 15.0 | 283 | 15.0 | 0.095 | 3.6 | NA | 0.4 | 3.5 | 0.14 | 0.29 | 0.14 | 59.8 |
| All Vehicles | | | 749 | 15.0 | 749 | 15.0 | 0.335 | 4.4 | NA | 1.7 | 13.3 | 0.21 | 0.37 | 0.21 | 53.2 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [1 (6)]
## DevPM_PencarrowRd80_SouthernVehicleAccess40
(PencarrowRd_SouthernVehicleAccess)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

Three-way intersection with 3-lane major road (giveway control)
Give-Way (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Southern Vehicle Access | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 85 | 8.0 | 85 | 8.0 | 0.070 | 4.4 | LOS A | 0.3 | 2.1 | 0.35 | 0.51 | 0.35 | 45.7 |
| 2 | R2 | All MCs | 57 | 8.0 | 57 | 8.0 | 0.104 | 8.4 | LOS A | 0.4 | 2.8 | 0.57 | 0.71 | 0.57 | 43.6 |
| Approach | | | 142 | 8.0 | 142 | 8.0 | 0.104 | 6.0 | LOS A | 0.4 | 2.8 | 0.44 | 0.59 | 0.44 | 44.8 |
| NorthEast: Pencarrow Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 23 | 8.0 | 23 | 8.0 | 0.153 | 7.1 | LOS A | 0.0 | 0.0 | 0.00 | 0.05 | 0.00 | 69.4 |
| 4 | T1 | All MCs | 259 | 8.0 | 259 | 8.0 | 0.153 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.05 | 0.00 | 78.9 |
| Approach | | | 282 | 8.0 | 282 | 8.0 | 0.153 | 0.6 | NA | 0.0 | 0.0 | 0.00 | 0.05 | 0.00 | 78.1 |
| SouthWest: Pencarrow Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 226 | 8.0 | 226 | 8.0 | 0.122 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 79.9 |
| 6 | R2 | All MCs | 55 | 8.0 | 55 | 8.0 | 0.043 | 8.0 | LOS A | 0.2 | 1.4 | 0.38 | 0.62 | 0.38 | 47.0 |
| Approach | | | 281 | 8.0 | 281 | 8.0 | 0.122 | 1.6 | NA | 0.2 | 1.4 | 0.08 | 0.12 | 0.08 | 70.3 |
| All Vehicles | | | 705 | 8.0 | 705 | 8.0 | 0.153 | 2.1 | NA | 0.4 | 2.8 | 0.12 | 0.19 | 0.12 | 65.4 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [1 (7)] DevPM_PencarrowRd80_SouthernVehicleAccess40_one_exit_lane (PencarrowRd_SouthernVehicleAccess)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

Three-way intersection with 3-lane major road (giveway control)
Give-Way (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Southern Vehicle Access | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 85 | 8.0 | 85 | 8.0 | 0.174 | 4.5 | LOS A | 0.7 | 5.2 | 0.49 | 0.61 | 0.49 | 44.9 |
| 2 | R2 | All MCs | 57 | 8.0 | 57 | 8.0 | 0.174 | 8.8 | LOS A | 0.7 | 5.2 | 0.49 | 0.61 | 0.49 | 44.8 |
| Approach | | | 142 | 8.0 | 142 | 8.0 | 0.174 | 6.3 | LOS A | 0.7 | 5.2 | 0.49 | 0.61 | 0.49 | 44.8 |
| NorthEast: Pencarrow Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 23 | 8.0 | 23 | 8.0 | 0.153 | 7.1 | LOS A | 0.0 | 0.0 | 0.00 | 0.05 | 0.00 | 69.4 |
| 4 | T1 | All MCs | 259 | 8.0 | 259 | 8.0 | 0.153 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.05 | 0.00 | 78.9 |
| Approach | | | 282 | 8.0 | 282 | 8.0 | 0.153 | 0.6 | NA | 0.0 | 0.0 | 0.00 | 0.05 | 0.00 | 78.1 |
| SouthWest: Pencarrow Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 226 | 8.0 | 226 | 8.0 | 0.122 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 79.9 |
| 6 | R2 | All MCs | 55 | 8.0 | 55 | 8.0 | 0.043 | 7.8 | LOS A | 0.2 | 1.4 | 0.38 | 0.62 | 0.38 | 47.0 |
| Approach | | | 281 | 8.0 | 281 | 8.0 | 0.122 | 1.5 | NA | 0.2 | 1.4 | 0.08 | 0.12 | 0.08 | 70.3 |
| All Vehicles | | | 705 | 8.0 | 705 | 8.0 | 0.174 | 2.1 | NA | 0.7 | 5.2 | 0.13 | 0.19 | 0.13 | 65.4 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [1 (14)] DevPM_PencarrowRd80_SouthernVehicleAccess40_one_exit_lane_15HCV (PencarrowRd_SouthernVehicleAccess)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

Three-way intersection with 3-lane major road (giveway control)
Give-Way (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Southern Vehicle Access | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 85 | 15.0 | 85 | 15.0 | 0.189 | 4.7 | LOS A | 0.8 | 6.0 | 0.51 | 0.62 | 0.51 | 43.6 |
| 2 | R2 | All MCs | 57 | 15.0 | 57 | 15.0 | 0.189 | 9.8 | LOS A | 0.8 | 6.0 | 0.51 | 0.62 | 0.51 | 43.4 |
| Approach | | | 142 | 15.0 | 142 | 15.0 | 0.189 | 6.8 | LOS A | 0.8 | 6.0 | 0.51 | 0.62 | 0.51 | 43.5 |
| NorthEast: Pencarrow Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 23 | 15.0 | 23 | 15.0 | 0.159 | 7.2 | LOS A | 0.0 | 0.0 | 0.00 | 0.05 | 0.00 | 66.8 |
| 4 | T1 | All MCs | 259 | 15.0 | 259 | 15.0 | 0.159 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.05 | 0.00 | 78.9 |
| Approach | | | 282 | 15.0 | 282 | 15.0 | 0.159 | 0.6 | NA | 0.0 | 0.0 | 0.00 | 0.05 | 0.00 | 77.8 |
| SouthWest: Pencarrow Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 226 | 15.0 | 226 | 15.0 | 0.127 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 79.9 |
| 6 | R2 | All MCs | 55 | 15.0 | 55 | 15.0 | 0.045 | 8.1 | LOS A | 0.2 | 1.5 | 0.40 | 0.63 | 0.40 | 46.9 |
| Approach | | | 281 | 15.0 | 281 | 15.0 | 0.127 | 1.6 | NA | 0.2 | 1.5 | 0.08 | 0.12 | 0.08 | 70.2 |
| All Vehicles | | | 705 | 15.0 | 705 | 15.0 | 0.189 | 2.2 | NA | 0.8 | 6.0 | 0.13 | 0.20 | 0.13 | 64.7 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [1 (9)] BasePM_PencarrowRd100_HookerRd100

(PencarrowRd_HookerRd)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

Three-way intersection with 2-lane major road (Stop control)
Stop (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Hooker Road | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 16 | 8.0 | 16 | 8.0 | 0.055 | 9.9 | LOS A | 0.2 | 1.4 | 0.10 | 0.93 | 0.10 | 69.1 |
| 2 | R2 | All MCs | 46 | 8.0 | 46 | 8.0 | 0.055 | 9.4 | LOS A | 0.2 | 1.4 | 0.10 | 0.93 | 0.10 | 68.9 |
| Approach | | | 62 | 8.0 | 62 | 8.0 | 0.055 | 9.5 | LOS A | 0.2 | 1.4 | 0.10 | 0.93 | 0.10 | 69.0 |
| NorthEast: Pencarrow Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 35 | 8.0 | 35 | 8.0 | 0.026 | 8.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.50 | 0.00 | 73.6 |
| 4 | T1 | All MCs | 12 | 8.0 | 12 | 8.0 | 0.026 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.50 | 0.00 | 86.2 |
| Approach | | | 47 | 8.0 | 47 | 8.0 | 0.026 | 6.0 | NA | 0.0 | 0.0 | 0.00 | 0.50 | 0.00 | 76.5 |
| SouthWest: Pencarrow Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 15 | 8.0 | 15 | 8.0 | 0.014 | 0.1 | LOS A | 0.0 | 0.3 | 0.10 | 0.26 | 0.10 | 91.9 |
| 6 | R2 | All MCs | 9 | 8.0 | 9 | 8.0 | 0.014 | 7.8 | LOS A | 0.0 | 0.3 | 0.10 | 0.26 | 0.10 | 77.4 |
| Approach | | | 24 | 8.0 | 24 | 8.0 | 0.014 | 3.0 | NA | 0.0 | 0.3 | 0.10 | 0.26 | 0.10 | 85.8 |
| All Vehicles | | | 133 | 8.0 | 133 | 8.0 | 0.055 | 7.1 | NA | 0.2 | 1.4 | 0.06 | 0.66 | 0.06 | 74.2 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [1 (19)]
## BasePM_PencarrowRd100_HookerRd100_15HCV
(PencarrowRd_HookerRd)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

Three-way intersection with 2-lane major road (Stop control)
Stop (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Hooker Road | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 16 | 15.0 | 16 | 15.0 | 0.057 | 10.2 | LOS B | 0.2 | 1.6 | 0.10 | 0.93 | 0.10 | 66.9 |
| 2 | R2 | All MCs | 46 | 15.0 | 46 | 15.0 | 0.057 | 9.7 | LOS A | 0.2 | 1.6 | 0.10 | 0.93 | 0.10 | 66.6 |
| Approach | | | 62 | 15.0 | 62 | 15.0 | 0.057 | 9.8 | LOS A | 0.2 | 1.6 | 0.10 | 0.93 | 0.10 | 66.6 |
| NorthEast: Pencarrow Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 35 | 15.0 | 35 | 15.0 | 0.028 | 8.2 | LOS A | 0.0 | 0.0 | 0.00 | 0.50 | 0.00 | 71.1 |
| 4 | T1 | All MCs | 12 | 15.0 | 12 | 15.0 | 0.028 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.50 | 0.00 | 86.2 |
| Approach | | | 47 | 15.0 | 47 | 15.0 | 0.028 | 6.1 | NA | 0.0 | 0.0 | 0.00 | 0.50 | 0.00 | 74.4 |
| SouthWest: Pencarrow Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 15 | 15.0 | 15 | 15.0 | 0.014 | 0.1 | LOS A | 0.0 | 0.4 | 0.10 | 0.26 | 0.10 | 91.8 |
| 6 | R2 | All MCs | 9 | 15.0 | 9 | 15.0 | 0.014 | 8.0 | LOS A | 0.0 | 0.4 | 0.10 | 0.26 | 0.10 | 74.4 |
| Approach | | | 24 | 15.0 | 24 | 15.0 | 0.014 | 3.0 | NA | 0.0 | 0.4 | 0.10 | 0.26 | 0.10 | 84.4 |
| All Vehicles | | | 133 | 15.0 | 133 | 15.0 | 0.057 | 7.3 | NA | 0.2 | 1.6 | 0.06 | 0.66 | 0.06 | 72.0 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [1 (10)] DevPM_PencarrowRd80_HookerRd80

(PencarrowRd_HookerRd)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

Three-way intersection with 2-lane major road (Stop control)
Stop (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Hooker Road | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 28 | 8.0 | 28 | 8.0 | 0.290 | 9.7 | LOS A | 1.2 | 8.6 | 0.42 | 0.89 | 0.42 | 59.3 |
| 2 | R2 | All MCs | 211 | 8.0 | 211 | 8.0 | 0.290 | 10.8 | LOS B | 1.2 | 8.6 | 0.42 | 0.89 | 0.42 | 59.0 |
| Approach | | | 239 | 8.0 | 239 | 8.0 | 0.290 | 10.6 | LOS B | 1.2 | 8.6 | 0.42 | 0.89 | 0.42 | 59.0 |
| NorthEast: Pencarrow Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 239 | 8.0 | 239 | 8.0 | 0.193 | 7.1 | LOS A | 0.0 | 0.0 | 0.00 | 0.45 | 0.00 | 64.2 |
| 4 | T1 | All MCs | 105 | 8.0 | 105 | 8.0 | 0.193 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.45 | 0.00 | 72.3 |
| Approach | | | 344 | 8.0 | 344 | 8.0 | 0.193 | 5.0 | NA | 0.0 | 0.0 | 0.00 | 0.45 | 0.00 | 66.5 |
| SouthWest: Pencarrow Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 70 | 8.0 | 70 | 8.0 | 0.053 | 0.5 | LOS A | 0.1 | 1.1 | 0.21 | 0.24 | 0.21 | 76.1 |
| 6 | R2 | All MCs | 18 | 8.0 | 18 | 8.0 | 0.053 | 8.2 | LOS A | 0.1 | 1.1 | 0.21 | 0.24 | 0.21 | 66.9 |
| Approach | | | 88 | 8.0 | 88 | 8.0 | 0.053 | 2.0 | NA | 0.1 | 1.1 | 0.21 | 0.24 | 0.21 | 74.1 |
| All Vehicles | | | 671 | 8.0 | 671 | 8.0 | 0.290 | 6.6 | NA | 1.2 | 8.6 | 0.18 | 0.58 | 0.18 | 64.4 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [1 (15)] DevPM_PencarrowRd80_HookerRd80_15HCV

(PencarrowRd_HookerRd)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

Three-way intersection with 2-lane major road (Stop control)
Stop (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Hooker Road | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 28 | 15.0 | 28 | 15.0 | 0.309 | 10.1 | LOS B | 1.3 | 10.0 | 0.44 | 0.90 | 0.45 | 57.1 |
| 2 | R2 | All MCs | 211 | 15.0 | 211 | 15.0 | 0.309 | 11.4 | LOS B | 1.3 | 10.0 | 0.44 | 0.90 | 0.45 | 56.7 |
| Approach | | | 239 | 15.0 | 239 | 15.0 | 0.309 | 11.2 | LOS B | 1.3 | 10.0 | 0.44 | 0.90 | 0.45 | 56.8 |
| NorthEast: Pencarrow Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 239 | 15.0 | 239 | 15.0 | 0.202 | 7.3 | LOS A | 0.0 | 0.0 | 0.00 | 0.45 | 0.00 | 62.0 |
| 4 | T1 | All MCs | 105 | 15.0 | 105 | 15.0 | 0.202 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.45 | 0.00 | 72.2 |
| Approach | | | 344 | 15.0 | 344 | 15.0 | 0.202 | 5.1 | NA | 0.0 | 0.0 | 0.00 | 0.45 | 0.00 | 64.8 |
| SouthWest: Pencarrow Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 70 | 15.0 | 70 | 15.0 | 0.056 | 0.5 | LOS A | 0.2 | 1.2 | 0.21 | 0.25 | 0.21 | 76.1 |
| 6 | R2 | All MCs | 18 | 15.0 | 18 | 15.0 | 0.056 | 8.5 | LOS A | 0.2 | 1.2 | 0.21 | 0.25 | 0.21 | 64.3 |
| Approach | | | 88 | 15.0 | 88 | 15.0 | 0.056 | 2.2 | NA | 0.2 | 1.2 | 0.21 | 0.25 | 0.21 | 73.3 |
| All Vehicles | | | 671 | 15.0 | 671 | 15.0 | 0.309 | 6.9 | NA | 1.3 | 10.0 | 0.19 | 0.58 | 0.19 | 62.6 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [1 (8)] DevPM_HookerRd80_SeniorLiving40

(HookerRd_SeniorLiving)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

Three-way intersection with 3-lane major road (giveway control)
Give-Way (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| East: Hooker Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 204 | 8.0 | 204 | 8.0 | 0.110 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 79.9 |
| 6 | R2 | All MCs | 17 | 8.0 | 17 | 8.0 | 0.013 | 7.7 | LOS A | 0.1 | 0.4 | 0.36 | 0.60 | 0.36 | 47.0 |
| Approach | | | 221 | 8.0 | 221 | 8.0 | 0.110 | 0.6 | NA | 0.1 | 0.4 | 0.03 | 0.05 | 0.03 | 75.9 |
| North: Senior Living | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 11 | 8.0 | 11 | 8.0 | 0.027 | 4.3 | LOS A | 0.1 | 0.7 | 0.43 | 0.54 | 0.43 | 45.2 |
| 2 | R2 | All MCs | 11 | 8.0 | 11 | 8.0 | 0.027 | 7.1 | LOS A | 0.1 | 0.7 | 0.43 | 0.54 | 0.43 | 45.1 |
| Approach | | | 22 | 8.0 | 22 | 8.0 | 0.027 | 5.7 | LOS A | 0.1 | 0.7 | 0.43 | 0.54 | 0.43 | 45.1 |
| West: Hooker Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 17 | 8.0 | 17 | 8.0 | 0.139 | 7.1 | LOS A | 0.0 | 0.0 | 0.00 | 0.04 | 0.00 | 69.6 |
| 4 | T1 | All MCs | 240 | 8.0 | 240 | 8.0 | 0.139 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.04 | 0.00 | 79.1 |
| Approach | | | 257 | 8.0 | 257 | 8.0 | 0.139 | 0.5 | NA | 0.0 | 0.0 | 0.00 | 0.04 | 0.00 | 78.4 |
| All Vehicles | | | 500 | 8.0 | 500 | 8.0 | 0.139 | 0.8 | NA | 0.1 | 0.7 | 0.03 | 0.07 | 0.03 | 74.9 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [1 (16)] DevPM_HookerRd80_SeniorLiving40_15HCV
(HookerRd_SeniorLiving)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

Three-way intersection with 3-lane major road (giveway control)
Give-Way (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| East: Hooker Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 204 | 15.0 | 204 | 15.0 | 0.115 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 79.9 |
| 6 | R2 | All MCs | 17 | 15.0 | 17 | 15.0 | 0.014 | 7.9 | LOS A | 0.1 | 0.5 | 0.37 | 0.60 | 0.37 | 47.0 |
| Approach | | | 221 | 15.0 | 221 | 15.0 | 0.115 | 0.6 | NA | 0.1 | 0.5 | 0.03 | 0.05 | 0.03 | 75.8 |
| North: Senior Living | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 11 | 15.0 | 11 | 15.0 | 0.029 | 4.5 | LOS A | 0.1 | 0.8 | 0.45 | 0.55 | 0.45 | 43.9 |
| 2 | R2 | All MCs | 11 | 15.0 | 11 | 15.0 | 0.029 | 7.8 | LOS A | 0.1 | 0.8 | 0.45 | 0.55 | 0.45 | 43.7 |
| Approach | | | 22 | 15.0 | 22 | 15.0 | 0.029 | 6.1 | LOS A | 0.1 | 0.8 | 0.45 | 0.55 | 0.45 | 43.8 |
| West: Hooker Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 17 | 15.0 | 17 | 15.0 | 0.145 | 7.2 | LOS A | 0.0 | 0.0 | 0.00 | 0.04 | 0.00 | 66.9 |
| 4 | T1 | All MCs | 240 | 15.0 | 240 | 15.0 | 0.145 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.04 | 0.00 | 79.1 |
| Approach | | | 257 | 15.0 | 257 | 15.0 | 0.145 | 0.5 | NA | 0.0 | 0.0 | 0.00 | 0.04 | 0.00 | 78.2 |
| All Vehicles | | | 500 | 15.0 | 500 | 15.0 | 0.145 | 0.8 | NA | 0.1 | 0.8 | 0.03 | 0.07 | 0.03 | 74.6 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [1 (11)] BasePM_HookerRd100_DuncanRd100

(HookerRd_DuncanRd)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

Three-way intersection with 2-lane major road (Stop control)
Stop (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| East: Hooker Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 34 | 8.0 | 34 | 8.0 | 0.021 | 0.0 | LOS A | 0.0 | 0.2 | 0.04 | 0.09 | 0.04 | 97.0 |
| 6 | R2 | All MCs | 5 | 8.0 | 5 | 8.0 | 0.021 | 7.7 | LOS A | 0.0 | 0.2 | 0.04 | 0.09 | 0.04 | 81.0 |
| Approach | | | 39 | 8.0 | 39 | 8.0 | 0.021 | 1.0 | NA | 0.0 | 0.2 | 0.04 | 0.09 | 0.04 | 94.6 |
| North: Duncan Road | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 9 | 8.0 | 9 | 8.0 | 0.012 | 10.0 | LOS B | 0.0 | 0.3 | 0.13 | 0.90 | 0.13 | 68.8 |
| 2 | R2 | All MCs | 5 | 8.0 | 5 | 8.0 | 0.012 | 9.5 | LOS A | 0.0 | 0.3 | 0.13 | 0.90 | 0.13 | 68.6 |
| Approach | | | 14 | 8.0 | 14 | 8.0 | 0.012 | 9.8 | LOS A | 0.0 | 0.3 | 0.13 | 0.90 | 0.13 | 68.8 |
| West: Hooker Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 3 | 8.0 | 3 | 8.0 | 0.024 | 8.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.05 | 0.00 | 82.4 |
| 4 | T1 | All MCs | 41 | 8.0 | 41 | 8.0 | 0.024 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.05 | 0.00 | 98.5 |
| Approach | | | 44 | 8.0 | 44 | 8.0 | 0.024 | 0.6 | NA | 0.0 | 0.0 | 0.00 | 0.05 | 0.00 | 97.2 |
| All Vehicles | | | 97 | 8.0 | 97 | 8.0 | 0.024 | 2.1 | NA | 0.0 | 0.3 | 0.03 | 0.19 | 0.03 | 90.8 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [1 (20)] BasePM_HookerRd100_DuncanRd100_15HCV
(HookerRd_DuncanRd)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

Three-way intersection with 2-lane major road (Stop control)
Stop (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| East: Hooker Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 34 | 15.0 | 34 | 15.0 | 0.022 | 0.0 | LOS A | 0.0 | 0.2 | 0.04 | 0.10 | 0.04 | 96.9 |
| 6 | R2 | All MCs | 5 | 15.0 | 5 | 15.0 | 0.022 | 7.9 | LOS A | 0.0 | 0.2 | 0.04 | 0.10 | 0.04 | 77.7 |
| Approach | | | 39 | 15.0 | 39 | 15.0 | 0.022 | 1.0 | NA | 0.0 | 0.2 | 0.04 | 0.10 | 0.04 | 94.0 |
| North: Duncan Road | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 9 | 15.0 | 9 | 15.0 | 0.012 | 10.3 | LOS B | 0.0 | 0.3 | 0.14 | 0.90 | 0.14 | 66.6 |
| 2 | R2 | All MCs | 5 | 15.0 | 5 | 15.0 | 0.012 | 9.8 | LOS A | 0.0 | 0.3 | 0.14 | 0.90 | 0.14 | 66.3 |
| Approach | | | 14 | 15.0 | 14 | 15.0 | 0.012 | 10.1 | LOS B | 0.0 | 0.3 | 0.14 | 0.90 | 0.14 | 66.5 |
| West: Hooker Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 3 | 15.0 | 3 | 15.0 | 0.025 | 8.2 | LOS A | 0.0 | 0.0 | 0.00 | 0.05 | 0.00 | 79.2 |
| 4 | T1 | All MCs | 41 | 15.0 | 41 | 15.0 | 0.025 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.05 | 0.00 | 98.5 |
| Approach | | | 44 | 15.0 | 44 | 15.0 | 0.025 | 0.6 | NA | 0.0 | 0.0 | 0.00 | 0.05 | 0.00 | 96.9 |
| All Vehicles | | | 97 | 15.0 | 97 | 15.0 | 0.025 | 2.1 | NA | 0.0 | 0.3 | 0.04 | 0.19 | 0.04 | 89.8 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [1 (12)] DevPM_HookerRd80_DuncanRd80

(HookerRd_DuncanRd)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

Three-way intersection with 2-lane major road (Stop control)
Stop (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| East: Hooker Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 189 | 8.0 | 189 | 8.0 | 0.114 | 0.1 | LOS A | 0.1 | 1.0 | 0.07 | 0.09 | 0.07 | 78.5 |
| 6 | R2 | All MCs | 16 | 8.0 | 16 | 8.0 | 0.114 | 7.8 | LOS A | 0.1 | 1.0 | 0.07 | 0.09 | 0.07 | 68.7 |
| Approach | | | 205 | 8.0 | 205 | 8.0 | 0.114 | 0.7 | NA | 0.1 | 1.0 | 0.07 | 0.09 | 0.07 | 77.6 |
| North: Duncan Road | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 50 | 8.0 | 50 | 8.0 | 0.097 | 10.3 | LOS B | 0.4 | 2.6 | 0.40 | 0.88 | 0.40 | 59.2 |
| 2 | R2 | All MCs | 33 | 8.0 | 33 | 8.0 | 0.097 | 11.4 | LOS B | 0.4 | 2.6 | 0.40 | 0.88 | 0.40 | 59.0 |
| Approach | | | 83 | 8.0 | 83 | 8.0 | 0.097 | 10.8 | LOS B | 0.4 | 2.6 | 0.40 | 0.88 | 0.40 | 59.1 |
| West: Hooker Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 12 | 8.0 | 12 | 8.0 | 0.136 | 7.1 | LOS A | 0.0 | 0.0 | 0.00 | 0.03 | 0.00 | 69.7 |
| 4 | T1 | All MCs | 239 | 8.0 | 239 | 8.0 | 0.136 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.03 | 0.00 | 79.3 |
| Approach | | | 251 | 8.0 | 251 | 8.0 | 0.136 | 0.4 | NA | 0.0 | 0.0 | 0.00 | 0.03 | 0.00 | 78.8 |
| All Vehicles | | | 539 | 8.0 | 539 | 8.0 | 0.136 | 2.1 | NA | 0.4 | 2.6 | 0.09 | 0.19 | 0.09 | 74.6 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [1 (17)] DevPM_HookerRd80_DuncanRd80_15HCV

(HookerRd_DuncanRd)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

Three-way intersection with 2-lane major road (Stop control)
Stop (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| East: Hooker Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 189 | 15.0 | 189 | 15.0 | 0.119 | 0.1 | LOS A | 0.1 | 1.1 | 0.07 | 0.10 | 0.07 | 78.5 |
| 6 | R2 | All MCs | 16 | 15.0 | 16 | 15.0 | 0.119 | 8.1 | LOS A | 0.1 | 1.1 | 0.07 | 0.10 | 0.07 | 66.0 |
| Approach | | | 205 | 15.0 | 205 | 15.0 | 0.119 | 0.8 | NA | 0.1 | 1.1 | 0.07 | 0.10 | 0.07 | 77.3 |
| North: Duncan Road | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 50 | 15.0 | 50 | 15.0 | 0.104 | 10.7 | LOS B | 0.4 | 3.0 | 0.42 | 0.88 | 0.42 | 57.1 |
| 2 | R2 | All MCs | 33 | 15.0 | 33 | 15.0 | 0.104 | 12.1 | LOS B | 0.4 | 3.0 | 0.42 | 0.88 | 0.42 | 56.8 |
| Approach | | | 83 | 15.0 | 83 | 15.0 | 0.104 | 11.3 | LOS B | 0.4 | 3.0 | 0.42 | 0.88 | 0.42 | 56.9 |
| West: Hooker Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 12 | 15.0 | 12 | 15.0 | 0.142 | 7.2 | LOS A | 0.0 | 0.0 | 0.00 | 0.03 | 0.00 | 67.1 |
| 4 | T1 | All MCs | 239 | 15.0 | 239 | 15.0 | 0.142 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.03 | 0.00 | 79.3 |
| Approach | | | 251 | 15.0 | 251 | 15.0 | 0.142 | 0.4 | NA | 0.0 | 0.0 | 0.00 | 0.03 | 0.00 | 78.6 |
| All Vehicles | | | 539 | 15.0 | 539 | 15.0 | 0.142 | 2.2 | NA | 0.4 | 3.0 | 0.09 | 0.19 | 0.09 | 73.8 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [1 (23)] DevAM_HookerRd80_DuncanRd80

(HookerRd_DuncanRd - AM)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

Three-way intersection with 2-lane major road (Stop control)
Stop (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| East: Hooker Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 175 | 8.0 | 175 | 8.0 | 0.156 | 0.4 | LOS A | 0.6 | 4.4 | 0.22 | 0.30 | 0.22 | 74.8 |
| 6 | R2 | All MCs | 86 | 8.0 | 86 | 8.0 | 0.156 | 7.5 | LOS A | 0.6 | 4.4 | 0.22 | 0.30 | 0.22 | 65.8 |
| Approach | | | 261 | 8.0 | 261 | 8.0 | 0.156 | 2.7 | NA | 0.6 | 4.4 | 0.22 | 0.30 | 0.22 | 71.6 |
| North: Duncan Road | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 81 | 8.0 | 81 | 8.0 | 0.148 | 9.8 | LOS A | 0.6 | 4.3 | 0.34 | 0.87 | 0.34 | 59.4 |
| 2 | R2 | All MCs | 56 | 8.0 | 56 | 8.0 | 0.148 | 11.4 | LOS B | 0.6 | 4.3 | 0.34 | 0.87 | 0.34 | 59.2 |
| Approach | | | 137 | 8.0 | 137 | 8.0 | 0.148 | 10.4 | LOS B | 0.6 | 4.3 | 0.34 | 0.87 | 0.34 | 59.3 |
| West: Hooker Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 58 | 8.0 | 58 | 8.0 | 0.103 | 7.1 | LOS A | 0.0 | 0.0 | 0.00 | 0.20 | 0.00 | 67.4 |
| 4 | T1 | All MCs | 129 | 8.0 | 129 | 8.0 | 0.103 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.20 | 0.00 | 76.3 |
| Approach | | | 187 | 8.0 | 187 | 8.0 | 0.103 | 2.2 | NA | 0.0 | 0.0 | 0.00 | 0.20 | 0.00 | 73.3 |
| All Vehicles | | | 585 | 8.0 | 585 | 8.0 | 0.156 | 4.4 | NA | 0.6 | 4.4 | 0.18 | 0.40 | 0.18 | 68.8 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [1 (24)] DevAM_HookerRd80_DuncanRd80_15HCV

(HookerRd_DuncanRd - AM)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

Three-way intersection with 2-lane major road (Stop control)
Stop (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| East: Hooker Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 175 | 15.0 | 175 | 15.0 | 0.163 | 0.4 | LOS A | 0.6 | 4.9 | 0.23 | 0.30 | 0.23 | 74.7 |
| 6 | R2 | All MCs | 86 | 15.0 | 86 | 15.0 | 0.163 | 7.8 | LOS A | 0.6 | 4.9 | 0.23 | 0.30 | 0.23 | 63.3 |
| Approach | | | 261 | 15.0 | 261 | 15.0 | 0.163 | 2.9 | NA | 0.6 | 4.9 | 0.23 | 0.30 | 0.23 | 70.5 |
| North: Duncan Road | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 81 | 15.0 | 81 | 15.0 | 0.158 | 10.1 | LOS B | 0.6 | 4.8 | 0.36 | 0.87 | 0.36 | 57.3 |
| 2 | R2 | All MCs | 56 | 15.0 | 56 | 15.0 | 0.158 | 12.1 | LOS B | 0.6 | 4.8 | 0.36 | 0.87 | 0.36 | 57.0 |
| Approach | | | 137 | 15.0 | 137 | 15.0 | 0.158 | 10.9 | LOS B | 0.6 | 4.8 | 0.36 | 0.87 | 0.36 | 57.2 |
| West: Hooker Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 58 | 15.0 | 58 | 15.0 | 0.107 | 7.2 | LOS A | 0.0 | 0.0 | 0.00 | 0.20 | 0.00 | 64.9 |
| 4 | T1 | All MCs | 129 | 15.0 | 129 | 15.0 | 0.107 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.20 | 0.00 | 76.3 |
| Approach | | | 187 | 15.0 | 187 | 15.0 | 0.107 | 2.3 | NA | 0.0 | 0.0 | 0.00 | 0.20 | 0.00 | 72.4 |
| All Vehicles | | | 585 | 15.0 | 585 | 15.0 | 0.163 | 4.5 | NA | 0.6 | 4.9 | 0.19 | 0.40 | 0.19 | 67.4 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [3 (7)] BasePM_Airport80_Tamahere80_SH180

(AirportRd_TamahereDr_SH1)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

New Site
Roundabout
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Tamahere Drive | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 115 | 8.0 | 115 | 8.0 | 0.393 | 9.8 | LOS A | 1.8 | 13.4 | 0.61 | 0.78 | 0.67 | 59.5 |
| 2 | T1 | All MCs | 158 | 8.0 | 158 | 8.0 | 0.393 | 10.3 | LOS B | 1.8 | 13.4 | 0.61 | 0.78 | 0.67 | 60.1 |
| 3 | R2 | All MCs | 13 | 8.0 | 13 | 8.0 | 0.393 | 14.3 | LOS B | 1.8 | 13.4 | 0.61 | 0.78 | 0.67 | 58.9 |
| Approach | | | 286 | 8.0 | 286 | 8.0 | 0.393 | 10.3 | LOS B | 1.8 | 13.4 | 0.61 | 0.78 | 0.67 | 59.8 |
| NorthEast: Airport Road | | | | | | | | | | | | | | | |
| 4 | L2 | All MCs | 54 | 8.0 | 54 | 8.0 | 0.272 | 6.2 | LOS A | 2.0 | 14.8 | 0.12 | 0.50 | 0.12 | 62.5 |
| 5 | T1 | All MCs | 398 | 8.0 | 398 | 8.0 | 0.272 | 6.5 | LOS A | 2.0 | 14.8 | 0.12 | 0.50 | 0.12 | 63.6 |
| 6 | R2 | All MCs | 280 | 8.0 | 280 | 8.0 | 0.203 | 10.5 | LOS B | 1.3 | 9.9 | 0.12 | 0.65 | 0.12 | 58.7 |
| Approach | | | 732 | 8.0 | 732 | 8.0 | 0.272 | 8.0 | LOS A | 2.0 | 14.8 | 0.12 | 0.56 | 0.12 | 61.5 |
| SouthWest: Airport Road | | | | | | | | | | | | | | | |
| 10 | L2 | All MCs | 330 | 8.0 | 330 | 8.0 | 0.367 | 9.3 | LOS A | 2.3 | 17.2 | 0.66 | 0.69 | 0.66 | 60.0 |
| 11 | T1 | All MCs | 384 | 8.0 | 384 | 8.0 | 0.375 | 9.1 | LOS A | 2.5 | 18.6 | 0.65 | 0.65 | 0.65 | 60.3 |
| 12 | R2 | All MCs | 17 | 8.0 | 17 | 8.0 | 0.375 | 13.1 | LOS B | 2.5 | 18.6 | 0.65 | 0.65 | 0.65 | 59.1 |
| Approach | | | 731 | 8.0 | 731 | 8.0 | 0.375 | 9.3 | LOS A | 2.5 | 18.6 | 0.66 | 0.66 | 0.66 | 60.2 |
| All Vehicles | | | 1749 | 8.0 | 1749 | 8.0 | 0.393 | 8.9 | LOS A | 2.5 | 18.6 | 0.42 | 0.64 | 0.43 | 60.7 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

# MOVEMENT SUMMARY

## Site: [3 (8)] BasePM_Airport80_Tamahere80_SH180_HCV15

(AirportRd_TamahereDr_SH1)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

New Site
Roundabout
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Tamahere Drive | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 115 | 15.0 | 115 | 15.0 | 0.420 | 10.6 | LOS B | 2.0 | 15.7 | 0.64 | 0.80 | 0.72 | 57.1 |
| 2 | T1 | All MCs | 158 | 15.0 | 158 | 15.0 | 0.420 | 11.1 | LOS B | 2.0 | 15.7 | 0.64 | 0.80 | 0.72 | 57.8 |
| 3 | R2 | All MCs | 13 | 15.0 | 13 | 15.0 | 0.420 | 15.1 | LOS B | 2.0 | 15.7 | 0.64 | 0.80 | 0.72 | 56.4 |
| Approach | | | 286 | 15.0 | 286 | 15.0 | 0.420 | 11.1 | LOS B | 2.0 | 15.7 | 0.64 | 0.80 | 0.72 | 57.5 |
| NorthEast: Airport Road | | | | | | | | | | | | | | | |
| 4 | L2 | All MCs | 54 | 15.0 | 54 | 15.0 | 0.282 | 6.3 | LOS A | 2.1 | 16.3 | 0.13 | 0.50 | 0.13 | 60.5 |
| 5 | T1 | All MCs | 398 | 15.0 | 398 | 15.0 | 0.282 | 6.6 | LOS A | 2.1 | 16.3 | 0.13 | 0.50 | 0.13 | 61.6 |
| 6 | R2 | All MCs | 280 | 15.0 | 280 | 15.0 | 0.211 | 10.7 | LOS B | 1.4 | 10.9 | 0.13 | 0.64 | 0.13 | 56.8 |
| Approach | | | 732 | 15.0 | 732 | 15.0 | 0.282 | 8.1 | LOS A | 2.1 | 16.3 | 0.13 | 0.55 | 0.13 | 59.6 |
| SouthWest: Airport Road | | | | | | | | | | | | | | | |
| 10 | L2 | All MCs | 330 | 15.0 | 330 | 15.0 | 0.391 | 9.9 | LOS A | 2.5 | 19.4 | 0.69 | 0.70 | 0.69 | 57.8 |
| 11 | T1 | All MCs | 384 | 15.0 | 384 | 15.0 | 0.398 | 9.5 | LOS A | 2.6 | 20.9 | 0.68 | 0.66 | 0.68 | 58.5 |
| 12 | R2 | All MCs | 17 | 15.0 | 17 | 15.0 | 0.398 | 13.6 | LOS B | 2.6 | 20.9 | 0.68 | 0.66 | 0.68 | 57.1 |
| Approach | | | 731 | 15.0 | 731 | 15.0 | 0.398 | 9.8 | LOS A | 2.6 | 20.9 | 0.68 | 0.68 | 0.68 | 58.1 |
| All Vehicles | | | 1749 | 15.0 | 1749 | 15.0 | 0.420 | 9.3 | LOS A | 2.6 | 20.9 | 0.44 | 0.65 | 0.46 | 58.6 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [3 (9)] DevPM_Airport80_Tamahere80_SH180

(AirportRd_TamahereDr_SH1)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

New Site
Roundabout
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Tamahere Drive | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 124 | 8.0 | 124 | 8.0 | 0.650 | 12.5 | LOS B | 4.5 | 33.6 | 0.74 | 0.90 | 1.02 | 56.8 |
| 2 | T1 | All MCs | 307 | 8.0 | 307 | 8.0 | 0.650 | 13.1 | LOS B | 4.5 | 33.6 | 0.74 | 0.90 | 1.02 | 57.4 |
| 3 | R2 | All MCs | 42 | 8.0 | 42 | 8.0 | 0.650 | 17.1 | LOS B | 4.5 | 33.6 | 0.74 | 0.90 | 1.02 | 56.2 |
| Approach | | | 473 | 8.0 | 473 | 8.0 | 0.650 | 13.3 | LOS B | 4.5 | 33.6 | 0.74 | 0.90 | 1.02 | 57.1 |
| NorthEast: Airport Road | | | | | | | | | | | | | | | |
| 4 | L2 | All MCs | 153 | 8.0 | 153 | 8.0 | 0.330 | 6.2 | LOS A | 2.7 | 20.2 | 0.13 | 0.51 | 0.13 | 62.5 |
| 5 | T1 | All MCs | 398 | 8.0 | 398 | 8.0 | 0.330 | 6.5 | LOS A | 2.7 | 20.2 | 0.13 | 0.51 | 0.13 | 63.6 |
| 6 | R2 | All MCs | 280 | 8.0 | 280 | 8.0 | 0.209 | 10.5 | LOS B | 1.4 | 10.7 | 0.13 | 0.65 | 0.13 | 58.6 |
| Approach | | | 831 | 8.0 | 831 | 8.0 | 0.330 | 7.8 | LOS A | 2.7 | 20.2 | 0.13 | 0.55 | 0.13 | 61.6 |
| SouthWest: Airport Road | | | | | | | | | | | | | | | |
| 10 | L2 | All MCs | 330 | 8.0 | 330 | 8.0 | 0.451 | 11.8 | LOS B | 3.3 | 24.7 | 0.81 | 0.78 | 0.88 | 57.7 |
| 11 | T1 | All MCs | 384 | 8.0 | 384 | 8.0 | 0.447 | 10.8 | LOS B | 3.4 | 25.5 | 0.81 | 0.73 | 0.84 | 59.2 |
| 12 | R2 | All MCs | 17 | 8.0 | 17 | 8.0 | 0.447 | 14.8 | LOS B | 3.4 | 25.5 | 0.81 | 0.73 | 0.84 | 58.0 |
| Approach | | | 731 | 8.0 | 731 | 8.0 | 0.451 | 11.4 | LOS B | 3.4 | 25.5 | 0.81 | 0.75 | 0.86 | 58.5 |
| All Vehicles | | | 2035 | 8.0 | 2035 | 8.0 | 0.650 | 10.4 | LOS B | 4.5 | 33.6 | 0.52 | 0.70 | 0.60 | 59.4 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

# MOVEMENT SUMMARY

## Site: [3 (10)] DevPM_Airport80_Tamahere80_SH180_HCV15

(AirportRd_TamahereDr_SH1)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

New Site
Roundabout
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Tamahere Drive | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 124 | 15.0 | 124 | 15.0 | 0.696 | 14.1 | LOS B | 5.1 | 40.5 | 0.78 | 0.95 | 1.14 | 54.0 |
| 2 | T1 | All MCs | 307 | 15.0 | 307 | 15.0 | 0.696 | 14.7 | LOS B | 5.1 | 40.5 | 0.78 | 0.95 | 1.14 | 54.6 |
| 3 | R2 | All MCs | 42 | 15.0 | 42 | 15.0 | 0.696 | 18.7 | LOS B | 5.1 | 40.5 | 0.78 | 0.95 | 1.14 | 53.4 |
| Approach | | | 473 | 15.0 | 473 | 15.0 | 0.696 | 14.9 | LOS B | 5.1 | 40.5 | 0.78 | 0.95 | 1.14 | 54.3 |
| NorthEast: Airport Road | | | | | | | | | | | | | | | |
| 4 | L2 | All MCs | 153 | 15.0 | 153 | 15.0 | 0.342 | 6.3 | LOS A | 2.8 | 22.4 | 0.14 | 0.51 | 0.14 | 60.5 |
| 5 | T1 | All MCs | 398 | 15.0 | 398 | 15.0 | 0.342 | 6.6 | LOS A | 2.8 | 22.4 | 0.14 | 0.51 | 0.14 | 61.6 |
| 6 | R2 | All MCs | 280 | 15.0 | 280 | 15.0 | 0.217 | 10.7 | LOS B | 1.5 | 11.8 | 0.14 | 0.64 | 0.14 | 56.8 |
| Approach | | | 831 | 15.0 | 831 | 15.0 | 0.342 | 7.9 | LOS A | 2.8 | 22.4 | 0.14 | 0.55 | 0.14 | 59.7 |
| SouthWest: Airport Road | | | | | | | | | | | | | | | |
| 10 | L2 | All MCs | 330 | 15.0 | 330 | 15.0 | 0.489 | 13.3 | LOS B | 3.8 | 29.9 | 0.84 | 0.82 | 0.98 | 54.8 |
| 11 | T1 | All MCs | 384 | 15.0 | 384 | 15.0 | 0.482 | 12.0 | LOS B | 3.9 | 30.8 | 0.84 | 0.76 | 0.93 | 56.9 |
| 12 | R2 | All MCs | 17 | 15.0 | 17 | 15.0 | 0.482 | 16.0 | LOS B | 3.9 | 30.8 | 0.84 | 0.76 | 0.93 | 55.6 |
| Approach | | | 731 | 15.0 | 731 | 15.0 | 0.489 | 12.7 | LOS B | 3.9 | 30.8 | 0.84 | 0.79 | 0.95 | 55.9 |
| All Vehicles | | | 2035 | 15.0 | 2035 | 15.0 | 0.696 | 11.2 | LOS B | 5.1 | 40.5 | 0.54 | 0.73 | 0.66 | 57.0 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [4] BasePM_TamahereDr80_SH1110 (TamahereDr_SH1)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

New Site
Give-Way (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Tamahere Drive | | | | | | | | | | | | | | | |
| 2 | T1 | All MCs | 142 | 8.0 | 142 | 8.0 | 0.077 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 80.0 |
| Approach | | | 142 | 8.0 | 142 | 8.0 | 0.077 | 0.0 | NA | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 80.0 |
| NorthEast: SH1 off-ramp | | | | | | | | | | | | | | | |
| 4 | L2 | All MCs | 11 | 8.0 | 11 | 8.0 | 0.183 | 9.1 | LOS A | 0.7 | 4.9 | 0.39 | 0.73 | 0.39 | 66.1 |
| 6 | R2 | All MCs | 157 | 8.0 | 157 | 8.0 | 0.183 | 9.8 | LOS A | 0.7 | 4.9 | 0.39 | 0.73 | 0.39 | 65.6 |
| Approach | | | 168 | 8.0 | 168 | 8.0 | 0.183 | 9.7 | LOS A | 0.7 | 4.9 | 0.39 | 0.73 | 0.39 | 65.6 |
| NorthWest: Tamahere Drive | | | | | | | | | | | | | | | |
| 8 | T1 | All MCs | 182 | 8.0 | 182 | 8.0 | 0.098 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 79.9 |
| Approach | | | 182 | 8.0 | 182 | 8.0 | 0.098 | 0.0 | NA | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 79.9 |
| All Vehicles | | | 492 | 8.0 | 492 | 8.0 | 0.183 | 3.3 | NA | 0.7 | 4.9 | 0.13 | 0.25 | 0.13 | 74.4 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [4 (2)] BasePM_TamahereDr80_SH1110_HCV15

(TamahereDr_SH1)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

New Site
Give-Way (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Tamahere Drive | | | | | | | | | | | | | | | |
| 2 | T1 | All MCs | 142 | 15.0 | 142 | 15.0 | 0.080 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 80.0 |
| Approach | | | 142 | 15.0 | 142 | 15.0 | 0.080 | 0.0 | NA | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 80.0 |
| NorthEast: SH1 off-ramp | | | | | | | | | | | | | | | |
| 4 | L2 | All MCs | 11 | 15.0 | 11 | 15.0 | 0.194 | 9.5 | LOS A | 0.7 | 5.5 | 0.40 | 0.74 | 0.40 | 63.5 |
| 6 | R2 | All MCs | 157 | 15.0 | 157 | 15.0 | 0.194 | 10.2 | LOS B | 0.7 | 5.5 | 0.40 | 0.74 | 0.40 | 62.8 |
| Approach | | | 168 | 15.0 | 168 | 15.0 | 0.194 | 10.2 | LOS B | 0.7 | 5.5 | 0.40 | 0.74 | 0.40 | 62.9 |
| NorthWest: Tamahere Drive | | | | | | | | | | | | | | | |
| 8 | T1 | All MCs | 182 | 15.0 | 182 | 15.0 | 0.102 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 79.9 |
| Approach | | | 182 | 15.0 | 182 | 15.0 | 0.102 | 0.0 | NA | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 79.9 |
| All Vehicles | | | 492 | 15.0 | 492 | 15.0 | 0.194 | 3.5 | NA | 0.7 | 5.5 | 0.14 | 0.25 | 0.14 | 73.2 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [4 (3)] DevPM_TamahereDr80_SH1110

(TamahereDr_SH1)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

New Site
Give-Way (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Tamahere Drive | | | | | | | | | | | | | | | |
| 2 | T1 | All MCs | 329 | 8.0 | 329 | 8.0 | 0.177 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 79.9 |
| Approach | | | 329 | 8.0 | 329 | 8.0 | 0.177 | 0.0 | NA | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 79.9 |
| NorthEast: SH1 off-ramp | | | | | | | | | | | | | | | |
| 4 | L2 | All MCs | 11 | 8.0 | 11 | 8.0 | 0.255 | 9.8 | LOS A | 0.9 | 7.0 | 0.55 | 0.85 | 0.59 | 63.4 |
| 6 | R2 | All MCs | 157 | 8.0 | 157 | 8.0 | 0.255 | 12.2 | LOS B | 0.9 | 7.0 | 0.55 | 0.85 | 0.59 | 63.0 |
| Approach | | | 168 | 8.0 | 168 | 8.0 | 0.255 | 12.1 | LOS B | 0.9 | 7.0 | 0.55 | 0.85 | 0.59 | 63.0 |
| NorthWest: Tamahere Drive | | | | | | | | | | | | | | | |
| 8 | T1 | All MCs | 281 | 8.0 | 281 | 8.0 | 0.152 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 79.9 |
| Approach | | | 281 | 8.0 | 281 | 8.0 | 0.152 | 0.0 | NA | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 79.9 |
| All Vehicles | | | 778 | 8.0 | 778 | 8.0 | 0.255 | 2.6 | NA | 0.9 | 7.0 | 0.12 | 0.18 | 0.13 | 75.5 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [4 (4)] DevPM_TamahereDr80_SH1110_HCV15

(TamahereDr_SH1)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

New Site
Give-Way (Two-Way)
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Tamahere Drive | | | | | | | | | | | | | | | |
| 2 | T1 | All MCs | 329 | 15.0 | 329 | 15.0 | 0.185 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 79.9 |
| Approach | | | 329 | 15.0 | 329 | 15.0 | 0.185 | 0.0 | NA | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 79.9 |
| NorthEast: SH1 off-ramp | | | | | | | | | | | | | | | |
| 4 | L2 | All MCs | 11 | 15.0 | 11 | 15.0 | 0.280 | 10.3 | LOS B | 1.1 | 8.4 | 0.57 | 0.88 | 0.65 | 60.4 |
| 6 | R2 | All MCs | 157 | 15.0 | 157 | 15.0 | 0.280 | 13.3 | LOS B | 1.1 | 8.4 | 0.57 | 0.88 | 0.65 | 59.8 |
| Approach | | | 168 | 15.0 | 168 | 15.0 | 0.280 | 13.1 | LOS B | 1.1 | 8.4 | 0.57 | 0.88 | 0.65 | 59.9 |
| NorthWest: Tamahere Drive | | | | | | | | | | | | | | | |
| 8 | T1 | All MCs | 281 | 15.0 | 281 | 15.0 | 0.158 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 79.9 |
| Approach | | | 281 | 15.0 | 281 | 15.0 | 0.158 | 0.0 | NA | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 79.9 |
| All Vehicles | | | 778 | 15.0 | 778 | 15.0 | 0.280 | 2.9 | NA | 1.1 | 8.4 | 0.12 | 0.19 | 0.14 | 74.5 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [5] BasePM_Tauwhare60_Airport80_SH1110

(TauwhareRd_AirportRd_SH1)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

New Site
Roundabout
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NorthEast: Tauwhare Road | | | | | | | | | | | | | | | |
| 4 | L2 | All MCs | 6 | 8.0 | 6 | 8.0 | 0.465 | 8.6 | LOS A | 3.4 | 25.8 | 0.78 | 0.71 | 0.82 | 54.7 |
| 5 | T1 | All MCs | 360 | 8.0 | 360 | 8.0 | 0.465 | 8.8 | LOS A | 3.4 | 25.8 | 0.78 | 0.71 | 0.82 | 54.2 |
| Approach | | | 366 | 8.0 | 366 | 8.0 | 0.465 | 8.8 | LOS A | 3.4 | 25.8 | 0.78 | 0.71 | 0.82 | 54.2 |
| NorthWest: SH1 off-ramp | | | | | | | | | | | | | | | |
| 7 | L2 | All MCs | 216 | 8.0 | 216 | 8.0 | 0.633 | 12.9 | LOS B | 6.1 | 45.4 | 0.77 | 0.78 | 0.93 | 56.7 |
| 8 | T1 | All MCs | 5 | 8.0 | 5 | 8.0 | 0.633 | 14.0 | LOS B | 6.1 | 45.4 | 0.77 | 0.78 | 0.93 | 62.4 |
| 9 | R2 | All MCs | 372 | 8.0 | 372 | 8.0 | 0.633 | 17.7 | LOS B | 6.1 | 45.4 | 0.77 | 0.78 | 0.93 | 60.0 |
| Approach | | | 593 | 8.0 | 593 | 8.0 | 0.633 | 16.0 | LOS B | 6.1 | 45.4 | 0.77 | 0.78 | 0.93 | 58.8 |
| SouthWest: Airport Road | | | | | | | | | | | | | | | |
| 11 | T1 | All MCs | 277 | 8.0 | 277 | 8.0 | 0.239 | 6.4 | LOS A | 0.0 | 0.0 | 0.00 | 0.60 | 0.00 | 58.8 |
| 12 | R2 | All MCs | 120 | 8.0 | 120 | 8.0 | 0.239 | 10.4 | LOS B | 0.0 | 0.0 | 0.00 | 0.60 | 0.00 | 63.1 |
| Approach | | | 397 | 8.0 | 397 | 8.0 | 0.239 | 7.6 | LOS A | 0.0 | 0.0 | 0.00 | 0.60 | 0.00 | 60.0 |
| All Vehicles | | | 1356 | 8.0 | 1356 | 8.0 | 0.633 | 11.6 | LOS B | 6.1 | 45.4 | 0.55 | 0.71 | 0.63 | 57.8 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [5 (2)] BasePM_Tauwhare60_Airport80_SH1110_HCV15

(TauwhareRd_AirportRd_SH1)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

New Site
Roundabout
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Queued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NorthEast: Tauwhare Road | | | | | | | | | | | | | | | |
| 4 | L2 | All MCs | 6 | 15.0 | 6 | 15.0 | 0.501 | 9.7 | LOS A | 3.9 | 31.0 | 0.81 | 0.75 | 0.91 | 53.4 |
| 5 | T1 | All MCs | 360 | 15.0 | 360 | 15.0 | 0.501 | 10.0 | LOS A | 3.9 | 31.0 | 0.81 | 0.75 | 0.91 | 52.3 |
| Approach | | | 366 | 15.0 | 366 | 15.0 | 0.501 | 9.9 | LOS A | 3.9 | 31.0 | 0.81 | 0.75 | 0.91 | 52.3 |
| NorthWest: SH1 off-ramp | | | | | | | | | | | | | | | |
| 7 | L2 | All MCs | 216 | 15.0 | 216 | 15.0 | 0.671 | 14.5 | LOS B | 7.0 | 55.4 | 0.81 | 0.81 | 1.04 | 55.3 |
| 8 | T1 | All MCs | 5 | 15.0 | 5 | 15.0 | 0.671 | 15.5 | LOS B | 7.0 | 55.4 | 0.81 | 0.81 | 1.04 | 60.3 |
| 9 | R2 | All MCs | 372 | 15.0 | 372 | 15.0 | 0.671 | 19.3 | LOS B | 7.0 | 55.4 | 0.81 | 0.81 | 1.04 | 56.8 |
| Approach | | | 593 | 15.0 | 593 | 15.0 | 0.671 | 17.5 | LOS B | 7.0 | 55.4 | 0.81 | 0.81 | 1.04 | 56.3 |
| SouthWest: Airport Road | | | | | | | | | | | | | | | |
| 11 | T1 | All MCs | 277 | 15.0 | 277 | 15.0 | 0.247 | 6.5 | LOS A | 0.0 | 0.0 | 0.00 | 0.60 | 0.00 | 58.5 |
| 12 | R2 | All MCs | 120 | 15.0 | 120 | 15.0 | 0.247 | 10.5 | LOS B | 0.0 | 0.0 | 0.00 | 0.60 | 0.00 | 62.0 |
| Approach | | | 397 | 15.0 | 397 | 15.0 | 0.247 | 7.7 | LOS A | 0.0 | 0.0 | 0.00 | 0.60 | 0.00 | 59.6 |
| All Vehicles | | | 1356 | 15.0 | 1356 | 15.0 | 0.671 | 12.6 | LOS B | 7.0 | 55.4 | 0.57 | 0.73 | 0.70 | 56.0 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [5 (3)] DevPM_Tauwhare60_Airport80_SH1110

(TauwhareRd_AirportRd_SH1)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

New Site
Roundabout
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NorthEast: Tauwhare Road | | | | | | | | | | | | | | | |
| 4 | L2 | All MCs | 6 | 8.0 | 6 | 8.0 | 0.539 | 11.3 | LOS B | 4.6 | 34.7 | 0.89 | 0.82 | 1.05 | 52.8 |
| 5 | T1 | All MCs | 360 | 8.0 | 360 | 8.0 | 0.539 | 11.5 | LOS B | 4.6 | 34.7 | 0.89 | 0.82 | 1.05 | 52.4 |
| Approach | | | 366 | 8.0 | 366 | 8.0 | 0.539 | 11.5 | LOS B | 4.6 | 34.7 | 0.89 | 0.82 | 1.05 | 52.4 |
| NorthWest: SH1 off-ramp | | | | | | | | | | | | | | | |
| 7 | L2 | All MCs | 216 | 8.0 | 216 | 8.0 | 0.751 | 16.2 | LOS B | 9.8 | 73.0 | 0.88 | 0.85 | 1.24 | 53.9 |
| 8 | T1 | All MCs | 5 | 8.0 | 5 | 8.0 | 0.751 | 17.3 | LOS B | 9.8 | 73.0 | 0.88 | 0.85 | 1.24 | 58.9 |
| 9 | R2 | All MCs | 471 | 8.0 | 471 | 8.0 | 0.751 | 21.0 | LOS C | 9.8 | 73.0 | 0.88 | 0.85 | 1.24 | 56.8 |
| Approach | | | 692 | 8.0 | 692 | 8.0 | 0.751 | 19.5 | LOS B | 9.8 | 73.0 | 0.88 | 0.85 | 1.24 | 55.9 |
| SouthWest: Airport Road | | | | | | | | | | | | | | | |
| 11 | T1 | All MCs | 288 | 8.0 | 288 | 8.0 | 0.257 | 6.4 | LOS A | 0.0 | 0.0 | 0.00 | 0.61 | 0.00 | 58.7 |
| 12 | R2 | All MCs | 138 | 8.0 | 138 | 8.0 | 0.257 | 10.4 | LOS B | 0.0 | 0.0 | 0.00 | 0.61 | 0.00 | 63.0 |
| Approach | | | 426 | 8.0 | 426 | 8.0 | 0.257 | 7.7 | LOS A | 0.0 | 0.0 | 0.00 | 0.61 | 0.00 | 60.0 |
| All Vehicles | | | 1484 | 8.0 | 1484 | 8.0 | 0.751 | 14.1 | LOS B | 9.8 | 73.0 | 0.63 | 0.77 | 0.83 | 56.1 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [5 (4)] DevPM_Tauwhare60_Airport80_SH1110_HCV15

(TauwhareRd_AirportRd_SH1)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

New Site
Roundabout
**Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | 95% Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NorthEast: Tauwhare Road | | | | | | | | | | | | | | | |
| 4 | L2 | All MCs | 6 | 15.0 | 6 | 15.0 | 0.589 | 13.2 | LOS B | 5.4 | 42.5 | 0.92 | 0.88 | 1.16 | 50.9 |
| 5 | T1 | All MCs | 360 | 15.0 | 360 | 15.0 | 0.589 | 13.4 | LOS B | 5.4 | 42.5 | 0.92 | 0.88 | 1.16 | 49.9 |
| Approach | | | 366 | 15.0 | 366 | 15.0 | 0.589 | 13.4 | LOS B | 5.4 | 42.5 | 0.92 | 0.88 | 1.16 | 49.9 |
| NorthWest: SH1 off-ramp | | | | | | | | | | | | | | | |
| 7 | L2 | All MCs | 216 | 15.0 | 216 | 15.0 | 0.798 | 19.1 | LOS B | 11.8 | 92.9 | 0.94 | 0.90 | 1.44 | 51.6 |
| 8 | T1 | All MCs | 5 | 15.0 | 5 | 15.0 | 0.798 | 20.1 | LOS C | 11.8 | 92.9 | 0.94 | 0.90 | 1.44 | 55.9 |
| 9 | R2 | All MCs | 471 | 15.0 | 471 | 15.0 | 0.798 | 23.9 | LOS C | 11.8 | 92.9 | 0.94 | 0.90 | 1.44 | 53.0 |
| Approach | | | 692 | 15.0 | 692 | 15.0 | 0.798 | 22.4 | LOS C | 11.8 | 92.9 | 0.94 | 0.90 | 1.44 | 52.6 |
| SouthWest: Airport Road | | | | | | | | | | | | | | | |
| 11 | T1 | All MCs | 288 | 15.0 | 288 | 15.0 | 0.265 | 6.5 | LOS A | 0.0 | 0.0 | 0.00 | 0.61 | 0.00 | 58.5 |
| 12 | R2 | All MCs | 138 | 15.0 | 138 | 15.0 | 0.265 | 10.5 | LOS B | 0.0 | 0.0 | 0.00 | 0.61 | 0.00 | 62.0 |
| Approach | | | 426 | 15.0 | 426 | 15.0 | 0.265 | 7.8 | LOS A | 0.0 | 0.0 | 0.00 | 0.61 | 0.00 | 59.6 |
| All Vehicles | | | 1484 | 15.0 | 1484 | 15.0 | 0.798 | 16.0 | LOS B | 11.8 | 92.9 | 0.66 | 0.81 | 0.96 | 53.7 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

**Site: [1 (26)] BasePM_HookerRd100_CambridgeRd100**
(Hooker_Racecourse_Cambridge)

**Network: [1 (2)] BasePM_Hooker_Racecourse_Cambridge**
(Hooker_Racecourse_Cambridge)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

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Three-way intersection with 2-lane major road (giveway control)
Give-Way (Two-Way)
**Network Scenario: 1 | Local Volumes** **Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | Aver. Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Cambridge Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 29 | 8.0 | 29 | 8.0 | 0.193 | 4.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.05 | 0.00 | 73.5 |
| 4 | T1 | All MCs | 328 | 8.0 | 328 | 8.0 | 0.193 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.05 | 0.00 | 98.4 |
| Approach | | | 357 | 8.0 | 357 | 8.0 | 0.193 | 0.3 | NA | 0.0 | 0.0 | 0.00 | 0.05 | 0.00 | 95.8 |
| NorthWest: Cambridge Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 373 | 8.0 | 373 | 8.0 | 0.201 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 99.9 |
| 6 | R2 | All MCs | 7 | 8.0 | 7 | 8.0 | 0.006 | 9.2 | LOS A | 0.0 | 0.1 | 0.43 | 0.60 | 0.43 | 68.7 |
| Approach | | | 380 | 8.0 | 380 | 8.0 | 0.201 | 0.2 | NA | 0.0 | 0.1 | 0.01 | 0.01 | 0.01 | 98.3 |
| SouthWest: Hooker Road | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 11 | 8.0 | 11 | 8.0 | 0.010 | 9.3 | LOS A | 0.0 | 0.1 | 0.38 | 0.62 | 0.38 | 68.7 |
| 2 | R2 | All MCs | 32 | 8.0 | 32 | 8.0 | 0.078 | 15.1 | LOS C | 0.1 | 0.8 | 0.65 | 0.82 | 0.65 | 55.3 |
| Approach | | | 43 | 8.0 | 43 | 8.0 | 0.078 | 13.6 | LOS B | 0.1 | 0.8 | 0.58 | 0.77 | 0.58 | 60.1 |
| All Vehicles | | | 780 | 8.0 | 780 | 8.0 | 0.201 | 1.0 | NA | 0.1 | 0.8 | 0.04 | 0.07 | 0.04 | 93.3 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

**Site: [1 (27)] BasePM_RacecourseRd80_CambridgeRd100**
(Hooker_Racecourse_Cambridge)

**Network: [1 (2)] BasePM_Hooker_Racecourse_Cambridge**
(Hooker_Racecourse_Cambridge)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

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Three-way intersection with 2-lane major road (giveway control)
Give-Way (Two-Way)
**Network Scenario: 1 | Local Volumes** **Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | Aver. Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Cambridge Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 316 | 8.0 | 316 | 8.0 | 0.170 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 99.9 |
| 6 | R2 | All MCs | 14 | 8.0 | 14 | 8.0 | 0.013 | 9.5 | LOS A | 0.0 | 0.2 | 0.46 | 0.63 | 0.46 | 64.2 |
| Approach | | | 330 | 8.0 | 330 | 8.0 | 0.170 | 0.4 | NA | 0.0 | 0.2 | 0.02 | 0.03 | 0.02 | 95.6 |
| NorthEast: Racecourse Road | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 6 | 8.0 | 6 | 8.0 | 0.006 | 8.6 | LOS A | 0.0 | 0.1 | 0.43 | 0.60 | 0.43 | 64.0 |
| 2 | R2 | All MCs | 41 | 8.0 | 41 | 8.0 | 0.102 | 14.5 | LOS B | 0.1 | 1.1 | 0.66 | 0.83 | 0.66 | 49.3 |
| Approach | | | 47 | 8.0 | 47 | 8.0 | 0.102 | 13.8 | LOS B | 0.1 | 1.1 | 0.63 | 0.80 | 0.63 | 52.0 |
| NorthWest: Cambridge Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 9 | 8.0 | 9 | 8.0 | 0.219 | 4.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.01 | 0.00 | 74.1 |
| 4 | T1 | All MCs | 396 | 8.0 | 396 | 8.0 | 0.219 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.01 | 0.00 | 99.5 |
| Approach | | | 405 | 8.0 | 405 | 8.0 | 0.219 | 0.1 | NA | 0.0 | 0.0 | 0.00 | 0.01 | 0.00 | 98.7 |
| All Vehicles | | | 782 | 8.0 | 782 | 8.0 | 0.219 | 1.1 | NA | 0.1 | 1.1 | 0.05 | 0.07 | 0.05 | 92.4 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

**Site: [1 (28)]**
**BasePM_HookerRd100_CambridgeRd100_HCV15**
(Hooker_Racecourse_Cambridge)
**Network: [1 (3)]**
**BasePM_Hooker_Racecourse_Cambridge_HCV15**
(Hooker_Racecourse_Cambridge)
Output produced by SIDRA INTERSECTION Version: 11.0.3.112

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Three-way intersection with 2-lane major road (giveway control)
Give-Way (Two-Way)
**Network Scenario: 1 | Local Volumes** **Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | Aver. Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Cambridge Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 29 | 15.0 | 29 | 15.0 | 0.202 | 4.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.05 | 0.00 | 69.2 |
| 4 | T1 | All MCs | 328 | 15.0 | 328 | 15.0 | 0.202 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.05 | 0.00 | 98.4 |
| Approach | | | 357 | 15.0 | 357 | 15.0 | 0.202 | 0.3 | NA | 0.0 | 0.0 | 0.00 | 0.05 | 0.00 | 95.1 |
| NorthWest: Cambridge Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 373 | 15.0 | 373 | 15.0 | 0.210 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 99.9 |
| 6 | R2 | All MCs | 7 | 15.0 | 7 | 15.0 | 0.006 | 9.6 | LOS A | 0.0 | 0.1 | 0.44 | 0.61 | 0.44 | 66.4 |
| Approach | | | 380 | 15.0 | 380 | 15.0 | 0.210 | 0.2 | NA | 0.0 | 0.1 | 0.01 | 0.01 | 0.01 | 98.1 |
| SouthWest: Hooker Road | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 11 | 15.0 | 11 | 15.0 | 0.010 | 9.6 | LOS A | 0.0 | 0.1 | 0.40 | 0.62 | 0.40 | 66.5 |
| 2 | R2 | All MCs | 32 | 15.0 | 32 | 15.0 | 0.089 | 16.7 | LOS C | 0.1 | 0.9 | 0.68 | 0.84 | 0.68 | 53.1 |
| Approach | | | 43 | 15.0 | 43 | 15.0 | 0.089 | 14.9 | LOS B | 0.1 | 0.9 | 0.61 | 0.79 | 0.61 | 57.8 |
| All Vehicles | | | 780 | 15.0 | 780 | 15.0 | 0.210 | 1.1 | NA | 0.1 | 0.9 | 0.04 | 0.07 | 0.04 | 92.6 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

**Site: [1 (29)]**
**BasePM_RacecourseRd80_CambridgeRd100_HCV15**
(Hooker_Racecourse_Cambridge)
**Network: [1 (3)]**
**BasePM_Hooker_Racecourse_Cambridge_HCV15**
(Hooker_Racecourse_Cambridge)
Output produced by SIDRA INTERSECTION Version: 11.0.3.112

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Three-way intersection with 2-lane major road (giveway control)
Give-Way (Two-Way)
**Network Scenario: 1 | Local Volumes** **Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | Aver. Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Cambridge Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 316 | 15.0 | 316 | 15.0 | 0.178 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 99.9 |
| 6 | R2 | All MCs | 14 | 15.0 | 14 | 15.0 | 0.014 | 9.9 | LOS A | 0.0 | 0.2 | 0.47 | 0.64 | 0.47 | 61.8 |
| Approach | | | 330 | 15.0 | 330 | 15.0 | 0.178 | 0.4 | NA | 0.0 | 0.2 | 0.02 | 0.03 | 0.02 | 95.2 |
| NorthEast: Racecourse Road | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 6 | 15.0 | 6 | 15.0 | 0.006 | 9.0 | LOS A | 0.0 | 0.1 | 0.44 | 0.61 | 0.44 | 62.0 |
| 2 | R2 | All MCs | 41 | 15.0 | 41 | 15.0 | 0.117 | 16.2 | LOS C | 0.2 | 1.2 | 0.69 | 0.86 | 0.69 | 47.4 |
| Approach | | | 47 | 15.0 | 47 | 15.0 | 0.117 | 15.3 | LOS C | 0.2 | 1.2 | 0.66 | 0.83 | 0.66 | 50.0 |
| NorthWest: Cambridge Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 9 | 15.0 | 9 | 15.0 | 0.228 | 4.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.01 | 0.00 | 69.8 |
| 4 | T1 | All MCs | 396 | 15.0 | 396 | 15.0 | 0.228 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.01 | 0.00 | 99.5 |
| Approach | | | 405 | 15.0 | 405 | 15.0 | 0.228 | 0.1 | NA | 0.0 | 0.0 | 0.00 | 0.01 | 0.00 | 98.5 |
| All Vehicles | | | 782 | 15.0 | 782 | 15.0 | 0.228 | 1.1 | NA | 0.2 | 1.2 | 0.05 | 0.07 | 0.05 | 91.7 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

**Site: [1 (30)] DevPM_HookerRd100_CambridgeRd100**
(Hooker_Racecourse_Cambridge)

**Network: [1 (4)] DevPM_Hooker_Racecourse_Cambridge**
(Hooker_Racecourse_Cambridge)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

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Three-way intersection with 2-lane major road (giveway control)
Give-Way (Two-Way)
**Network Scenario: 1 | Local Volumes** **Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | Aver. Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Cambridge Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 195 | 8.0 | 195 | 8.0 | 0.288 | 4.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.23 | 0.00 | 70.7 |
| 4 | T1 | All MCs | 328 | 8.0 | 328 | 8.0 | 0.288 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.23 | 0.00 | 93.3 |
| Approach | | | 523 | 8.0 | 523 | 8.0 | 0.288 | 1.5 | NA | 0.0 | 0.0 | 0.00 | 0.23 | 0.00 | 83.3 |
| NorthWest: Cambridge Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 373 | 8.0 | 373 | 8.0 | 0.201 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 99.9 |
| 6 | R2 | All MCs | 7 | 8.0 | 7 | 8.0 | 0.007 | 10.2 | LOS B | 0.0 | 0.1 | 0.52 | 0.64 | 0.52 | 67.9 |
| Approach | | | 380 | 8.0 | 380 | 8.0 | 0.201 | 0.2 | NA | 0.0 | 0.1 | 0.01 | 0.01 | 0.01 | 98.2 |
| SouthWest: Hooker Road | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 15 | 8.0 | 15 | 8.0 | 0.013 | 9.3 | LOS A | 0.0 | 0.2 | 0.39 | 0.62 | 0.39 | 68.7 |
| 2 | R2 | All MCs | 266 | 8.0 | 266 | 8.0 | 0.755 | 29.6 | LOS D | 2.2 | 16.2 | 0.90 | 1.19 | 2.05 | 38.6 |
| Approach | | | 281 | 8.0 | 281 | 8.0 | 0.755 | 28.5 | LOS D | 2.2 | 16.2 | 0.87 | 1.16 | 1.97 | 40.4 |
| All Vehicles | | | 1184 | 8.0 | 1184 | 8.0 | 0.755 | 7.5 | NA | 2.2 | 16.2 | 0.21 | 0.38 | 0.47 | 69.5 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

**Site: [1 (31)] DevPM_RacecourseRd80_CambridgeRd100**
(Hooker_Racecourse_Cambridge)

**Network: [1 (4)] DevPM_Hooker_Racecourse_Cambridge**
(Hooker_Racecourse_Cambridge)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

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Three-way intersection with 2-lane major road (giveway control)
Give-Way (Two-Way)
**Network Scenario: 1 | Local Volumes** **Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | Aver. Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Cambridge Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 449 | 8.0 | 449 | 8.0 | 0.242 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 99.9 |
| 6 | R2 | All MCs | 14 | 8.0 | 14 | 8.0 | 0.018 | 11.2 | LOS B | 0.0 | 0.2 | 0.57 | 0.69 | 0.57 | 62.5 |
| Approach | | | 463 | 8.0 | 463 | 8.0 | 0.242 | 0.4 | NA | 0.0 | 0.2 | 0.02 | 0.02 | 0.02 | 96.5 |
| NorthEast: Racecourse Road | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 6 | 8.0 | 6 | 8.0 | 0.007 | 9.8 | LOS A | 0.0 | 0.1 | 0.52 | 0.64 | 0.52 | 62.9 |
| 2 | R2 | All MCs | 74 | 8.0 | 74 | 8.0 | 0.366 | 28.7 | LOS D | 0.5 | 3.9 | 0.87 | 1.00 | 1.09 | 35.7 |
| Approach | | | 80 | 8.0 | 80 | 8.0 | 0.366 | 27.3 | LOS D | 0.5 | 3.9 | 0.84 | 0.97 | 1.05 | 38.0 |
| NorthWest: Cambridge Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 61 | 8.0 | 61 | 8.0 | 0.347 | 4.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.06 | 0.00 | 72.8 |
| 4 | T1 | All MCs | 578 | 8.0 | 578 | 8.0 | 0.347 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.06 | 0.00 | 95.7 |
| Approach | | | 639 | 8.0 | 639 | 8.0 | 0.347 | 0.4 | NA | 0.0 | 0.0 | 0.00 | 0.06 | 0.00 | 93.0 |
| All Vehicles | | | 1182 | 8.0 | 1182 | 8.0 | 0.366 | 2.2 | NA | 0.5 | 3.9 | 0.06 | 0.11 | 0.08 | 85.9 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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# MOVEMENT SUMMARY

## Site: [1 (32)] DevPM_HookerRd100_CambridgeRd100_HCV15
(Hooker_Racecourse_Cambridge)

**Network: [1 (5)]**
**DevPM_Hooker_Racecourse_Cambridge_HCV15**
(Hooker_Racecourse_Cambridge)

Output produced by SIDRA INTERSECTION Version: 11.0.3.112

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Three-way intersection with 2-lane major road (giveway control)
Give-Way (Two-Way)
**Network Scenario: 1 | Local Volumes** **Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | Aver. Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Cambridge Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 195 | 15.0 | 195 | 15.0 | 0.301 | 4.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.23 | 0.00 | 66.7 |
| 4 | T1 | All MCs | 328 | 15.0 | 328 | 15.0 | 0.301 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.23 | 0.00 | 93.3 |
| Approach | | | 523 | 15.0 | 523 | 15.0 | 0.301 | 1.5 | NA | 0.0 | 0.0 | 0.00 | 0.23 | 0.00 | 81.2 |
| NorthWest: Cambridge Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 373 | 15.0 | 373 | 15.0 | 0.210 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 99.9 |
| 6 | R2 | All MCs | 7 | 15.0 | 7 | 15.0 | 0.008 | 10.7 | LOS B | 0.0 | 0.1 | 0.54 | 0.65 | 0.54 | 65.2 |
| Approach | | | 380 | 15.0 | 380 | 15.0 | 0.210 | 0.2 | NA | 0.0 | 0.1 | 0.01 | 0.01 | 0.01 | 98.0 |
| SouthWest: Hooker Road | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 15 | 15.0 | 15 | 15.0 | 0.014 | 10.6 | LOS B | 0.0 | 0.2 | 0.40 | 0.63 | 0.40 | 66.4 |
| 2 | R2 | All MCs | 266 | 15.0 | 266 | 15.0 | 0.880 | 45.6 | LOS E | 3.3 | 25.7 | 0.95 | 1.40 | 3.07 | 29.5 |
| Approach | | | 281 | 15.0 | 281 | 15.0 | 0.880 | 43.7 | LOS E | 3.3 | 25.7 | 0.92 | 1.36 | 2.92 | 30.7 |
| All Vehicles | | | 1184 | 15.0 | 1184 | 15.0 | 0.880 | 11.1 | NA | 3.3 | 25.7 | 0.22 | 0.43 | 0.70 | 61.2 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

# MOVEMENT SUMMARY

**Site: [1 (33)]**
**DevPM_RacecourseRd80_CambridgeRd100_HCV15**
(Hooker_Racecourse_Cambridge)
**Network: [1 (5)]**
**DevPM_Hooker_Racecourse_Cambridge_HCV15**
(Hooker_Racecourse_Cambridge)
Output produced by SIDRA INTERSECTION Version: 11.0.3.112

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Three-way intersection with 2-lane major road (giveway control)
Give-Way (Two-Way)
**Network Scenario: 1 | Local Volumes** **Site Scenario: 1 | Local Volumes**

**Vehicle Movement Performance**

| Mov ID | Turn | Mov Class | Demand Flows [ Total veh/h | HV ] % | Arrival Flows [ Total veh/h | HV ] % | Deg. Satn v/c | Aver. Delay sec | Level of Service | Aver. Back Of Queue [ Veh. veh | Dist ] m | Prop. Qued | Eff. Stop Rate | Number of Cycles to Depart | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SouthEast: Cambridge Road | | | | | | | | | | | | | | | |
| 5 | T1 | All MCs | 449 | 15.0 | 449 | 15.0 | 0.253 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 99.9 |
| 6 | R2 | All MCs | 14 | 15.0 | 14 | 15.0 | 0.020 | 12.0 | LOS B | 0.0 | 0.2 | 0.59 | 0.71 | 0.59 | 59.7 |
| Approach | | | 463 | 15.0 | 463 | 15.0 | 0.253 | 0.4 | NA | 0.0 | 0.2 | 0.02 | 0.02 | 0.02 | 96.1 |
| NorthEast: Racecourse Road | | | | | | | | | | | | | | | |
| 1 | L2 | All MCs | 6 | 15.0 | 6 | 15.0 | 0.008 | 10.4 | LOS B | 0.0 | 0.1 | 0.54 | 0.65 | 0.54 | 60.6 |
| 2 | R2 | All MCs | 74 | 15.0 | 74 | 15.0 | 0.459 | 36.8 | LOS E | 0.6 | 5.0 | 0.90 | 1.03 | 1.22 | 31.0 |
| Approach | | | 80 | 15.0 | 80 | 15.0 | 0.459 | 34.8 | LOS D | 0.6 | 5.0 | 0.88 | 1.00 | 1.17 | 33.2 |
| NorthWest: Cambridge Road | | | | | | | | | | | | | | | |
| 3 | L2 | All MCs | 61 | 15.0 | 61 | 15.0 | 0.362 | 4.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.06 | 0.00 | 68.4 |
| 4 | T1 | All MCs | 578 | 15.0 | 578 | 15.0 | 0.362 | 0.0 | LOS A | 0.0 | 0.0 | 0.00 | 0.06 | 0.00 | 95.7 |
| Approach | | | 639 | 15.0 | 639 | 15.0 | 0.362 | 0.4 | NA | 0.0 | 0.0 | 0.00 | 0.06 | 0.00 | 92.2 |
| All Vehicles | | | 1182 | 15.0 | 1182 | 15.0 | 0.459 | 2.7 | NA | 0.6 | 5.0 | 0.07 | 0.11 | 0.09 | 83.6 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Override Site Data tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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