Proposed Moonshine Hill AM – Adjusted

**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. Que | Eff. Stop Rate | Aver. No. of Cycles | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| East: SH2 Hutt Expressway | | | | | | | | | | | | | | | |
| 6 | R2 | All MCs | 50 | 7.0 | 50 | 7.0 | * 0.498 | 64.2 | LOS E | 2.8 | 20.8 | 1.00 | 0.75 | 1.00 | 28.6 |
| Approach | | | 50 | 7.0 | 50 | 7.0 | 0.498 | 64.2 | LOS E | 2.8 | 20.8 | 1.00 | 0.75 | 1.00 | 28.6 |
| North: Moonshine Hill Road | | | | | | | | | | | | | | | |
| 7 | L2 | All MCs | 250 | 9.0 | 250 | 9.0 | 0.143 | 5.7 | LOS A | 0.0 | 0.0 | 0.00 | 0.52 | 0.00 | 53.1 |
| 9 | R2 | All MCs | 250 | 9.0 | 250 | 9.0 | * 0.821 | 59.4 | LOS E | 14.3 | 107.9 | 1.00 | 0.94 | 1.20 | 29.6 |
| Approach | | | 500 | 9.0 | 500 | 9.0 | 0.821 | 32.6 | LOS C | 14.3 | 107.9 | 0.50 | 0.73 | 0.60 | 38.1 |
| West: SH2 Hutt Expressway | | | | | | | | | | | | | | | |
| 10 | L2 | All MCs | 50 | 9.0 | 50 | 9.0 | 0.033 | 6.2 | LOS A | 0.2 | 1.5 | 0.14 | 0.58 | 0.14 | 52.4 |
| 11 | T1 | All MCs | 950 | 7.0 | 950 | 7.0 | * 0.828 | 18.9 | LOS B | 40.5 | 300.3 | 0.86 | 0.80 | 0.87 | 45.8 |
| Approach | | | 1000 | 7.1 | 1000 | 7.1 | 0.828 | 18.3 | LOS B | 40.5 | 300.3 | 0.82 | 0.79 | 0.83 | 46.1 |
| All Vehicles | | | 1550 | 7.7 | 1550 | 7.7 | 0.828 | 24.4 | LOS C | 40.5 | 300.3 | 0.72 | 0.77 | 0.76 | 42.4 |

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.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
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 Green.
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.

# PHASING SUMMARY

## Site: 101 [Design Moonshine Hill - AM - adjustment (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated  Cycle Time = 110 seconds (Site Optimum Cycle Time - Minimum Delay)

**Timings based on settings in the Site Phasing & Timing dialog**
**Phase Times determined by the program**
**Phase Sequence: Leading Right Turn**
**Input Phase Sequence: A, B, C**
**Output Phase Sequence: A, B, C**
**Reference Phase: Phase B**

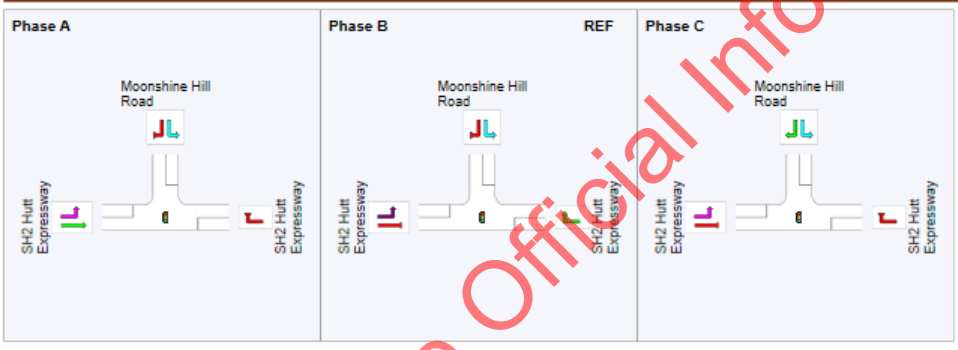
### Phase Timing Summary

| Phase | A | B | C |
|---|---|---|---|
| Phase Change Time (sec) | 37 | 0 | 12 |
| Green Time (sec) | 67 | 6 | 19 |
| Phase Time (sec) | 73 | 12 | 25 |
| Phase Split | 66% | 11% | 23% |
| Phase Frequency (%) | 100.0[4] | 100.0[4] | 100.0[4] |

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

4 Phase Frequency specified by the user (phase times not specified).

### Output Phase Sequence



# 1 Proposed Moonshine Hill PM – Adjusted

**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. Que | Eff. Stop Rate | Aver. No. of Cycles | Aver. Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| East: SH2 Hutt Expressway | | | | | | | | | | | | | | | |
| 6 | R2 | All MCs | 200 | 9.0 | 200 | 9.0 | * 1.031 | 174.9 | LOS F | 23.8 | 179.2 | 1.00 | 1.29 | 2.00 | 15.3 |
| Approach | | | 200 | 9.0 | 200 | 9.0 | 1.031 | 174.9 | LOS F | 23.8 | 179.2 | 1.00 | 1.29 | 2.00 | 15.3 |
| North: Moonshine Hill Road | | | | | | | | | | | | | | | |
| 7 | L2 | All MCs | 75 | 9.0 | 75 | 9.0 | 0.043 | 5.7 | LOS A | 0.0 | 0.0 | 0.00 | 0.52 | 0.00 | 53.1 |
| 9 | R2 | All MCs | 75 | 9.0 | 75 | 9.0 | * 0.797 | 89.5 | LOS F | 6.0 | 44.9 | 1.00 | 0.90 | 1.27 | 23.8 |
| Approach | | | 150 | 9.0 | 150 | 9.0 | 0.797 | 47.6 | LOS D | 6.0 | 44.9 | 0.50 | 0.71 | 0.63 | 33.0 |
| West: SH2 Hutt Expressway | | | | | | | | | | | | | | | |
| 10 | L2 | All MCs | 200 | 9.0 | 200 | 9.0 | 0.140 | 33.8 | LOS C | 2.5 | 18.7 | 0.22 | 0.61 | 0.22 | 51.2 |
| 11 | T1 | All MCs | 1400 | 7.0 | 1400 | 7.0 | * 1.118 | 267.6 | LOS F | 228.5 | 1695.8 | 1.00 | 2.08 | 2.36 | 11.6 |
| Approach | | | 1600 | 7.3 | 1600 | 7.3 | 1.118 | 238.3 | LOS F | 228.5 | 1695.8 | 0.90 | 1.89 | 2.09 | 12.8 |
| All Vehicles | | | 1950 | 7.6 | 1950 | 7.6 | 1.118 | 217.2 | LOS F | 228.5 | 1695.8 | 0.88 | 1.74 | 1.97 | 13.7 |

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.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
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 Green.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akcelik 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.

# PHASING SUMMARY

## Site: 101 [Design Moonshine Hill - PM - adjustment (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated  Cycle Time = 150 seconds (Site Optimum Cycle Time - Minimum Delay)

**Timings based on settings in the Site Phasing & Timing dialog**
**Phase Times determined by the program**
**Phase Sequence: Split Phasing**
**Input Phase Sequence: A, B, C**
**Output Phase Sequence: A, B, C**
**Reference Phase: Phase A**

### Phase Timing Summary

| Phase | A | B | C |
|---|---|---|---|
| Phase Change Time (sec) | 0 | 14 | 128 |
| Green Time (sec) | 8 | 108 | 16 |
| Phase Time (sec) | 14 | 114 | 22 |
| Phase Split | 9% | 76% | 15% |
| Phase Frequency (%) | 100.0[4] | 100.0[4] | 100.0[4] |

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

4 Phase Frequency specified by the user (phase times not specified).

### Output Phase Sequence