

# SITE LAYOUT

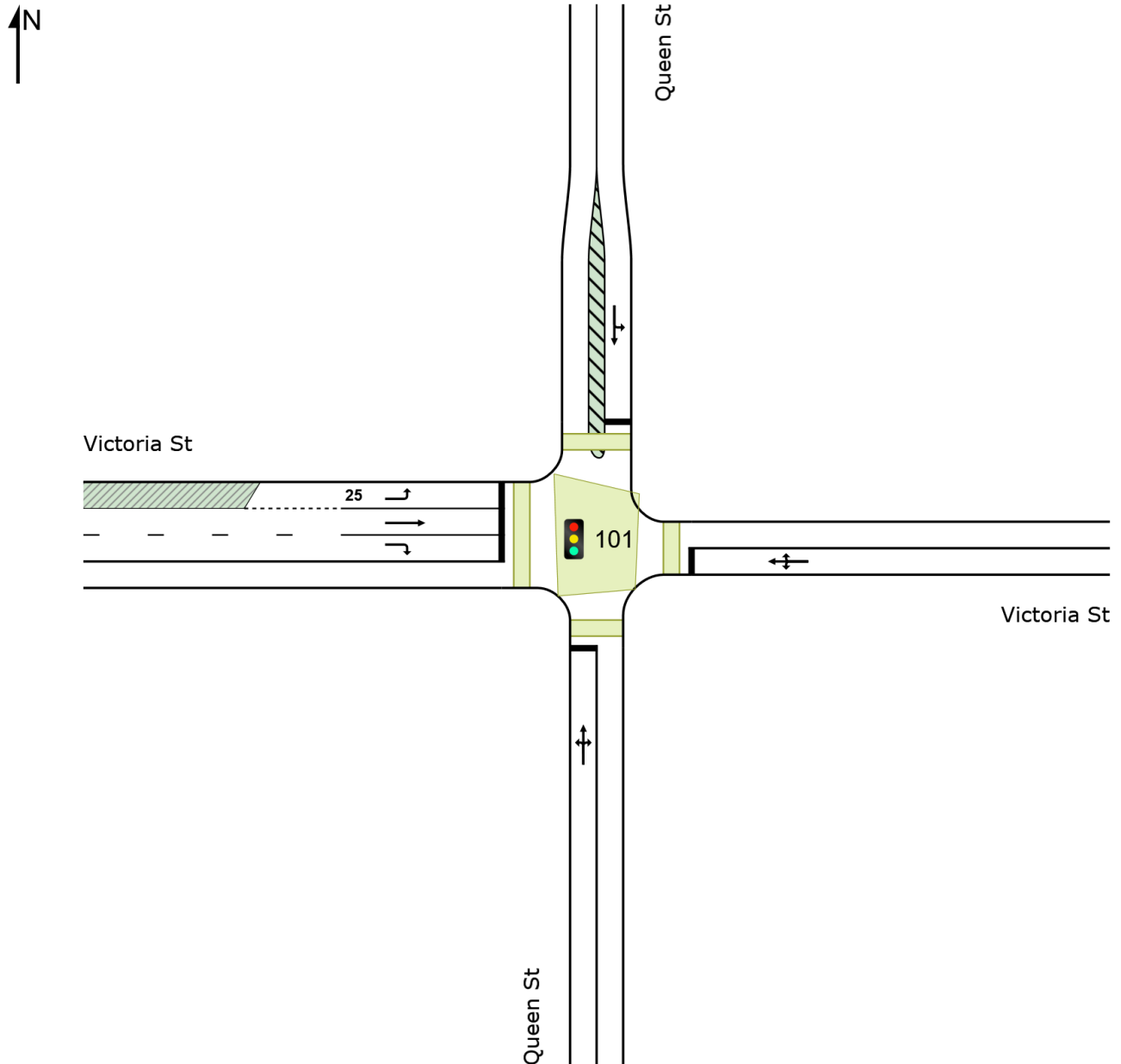
 **Site: 101 [Option Improvement AM - Ped phasing reduction - Split phasing (Site Folder: Queen St/Victoria St - Pre-THN)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



## MOVEMENT SUMMARY

**Site: 101 [Option Improvement AM - Ped phasing reduction - Split phasing (Site Folder: Queen St/Victoria St - Pre-THN)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 150 seconds (Site Optimum Cycle Time - Minimum Delay)

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |          |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |          | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] m |           |                     |                  |             |
| South: Queen St              |      |               |      |               |      |           |             |                  |                   |          |           |                     |                  |             |
| 1                            | L2   | 22            | 9.0  | 23            | 9.0  | 0.891     | 69.2        | LOS E            | 36.4              | 274.5    | 1.00      | 1.00                | 1.17             | 9.7         |
| 2                            | T1   | 240           | 9.0  | 253           | 9.0  | * 0.891   | 67.2        | LOS E            | 36.4              | 274.5    | 1.00      | 1.00                | 1.17             | 11.7        |
| 3                            | R2   | 174           | 9.0  | 183           | 9.0  | 0.891     | 69.6        | LOS E            | 36.4              | 274.5    | 1.00      | 1.00                | 1.17             | 10.7        |
| Approach                     |      | 436           | 9.0  | 459           | 9.0  | 0.891     | 68.3        | LOS E            | 36.4              | 274.5    | 1.00      | 1.00                | 1.17             | 11.2        |
| East: Victoria St            |      |               |      |               |      |           |             |                  |                   |          |           |                     |                  |             |
| 4                            | L2   | 114           | 7.0  | 120           | 7.0  | 0.880     | 80.1        | LOS F            | 20.1              | 149.0    | 1.00      | 1.01                | 1.25             | 9.7         |
| 5                            | T1   | 9             | 7.0  | 9             | 7.0  | * 0.880   | 78.1        | LOS E            | 20.1              | 149.0    | 1.00      | 1.01                | 1.25             | 6.4         |
| 6                            | R2   | 114           | 7.0  | 120           | 7.0  | 0.880     | 80.4        | LOS F            | 20.1              | 149.0    | 1.00      | 1.01                | 1.25             | 9.0         |
| Approach                     |      | 237           | 7.0  | 249           | 7.0  | 0.880     | 80.2        | LOS F            | 20.1              | 149.0    | 1.00      | 1.01                | 1.25             | 9.2         |
| North: Queen St              |      |               |      |               |      |           |             |                  |                   |          |           |                     |                  |             |
| 7                            | L2   | 87            | 9.0  | 92            | 9.0  | 0.909     | 86.6        | LOS F            | 19.2              | 144.7    | 1.00      | 1.08                | 1.33             | 8.7         |
| 8                            | T1   | 131           | 9.0  | 138           | 9.0  | * 0.909   | 84.6        | LOS F            | 19.2              | 144.7    | 1.00      | 1.08                | 1.33             | 10.2        |
| Approach                     |      | 218           | 9.0  | 229           | 9.0  | 0.909     | 85.4        | LOS F            | 19.2              | 144.7    | 1.00      | 1.08                | 1.33             | 9.6         |
| West: Victoria St            |      |               |      |               |      |           |             |                  |                   |          |           |                     |                  |             |
| 10                           | L2   | 25            | 7.0  | 26            | 7.0  | * 0.372   | 82.9        | LOS F            | 2.0               | 14.9     | 1.00      | 0.71                | 1.00             | 7.7         |
| 11                           | T1   | 15            | 7.0  | 16            | 7.0  | 0.212     | 79.5        | LOS E            | 1.2               | 8.8      | 1.00      | 0.69                | 1.00             | 6.4         |
| 12                           | R2   | 10            | 7.0  | 11            | 7.0  | 0.149     | 81.6        | LOS F            | 0.8               | 5.8      | 0.99      | 0.67                | 0.99             | 8.4         |
| Approach                     |      | 50            | 7.0  | 53            | 7.0  | 0.372     | 81.6        | LOS F            | 2.0               | 14.9     | 1.00      | 0.70                | 1.00             | 7.5         |
| All Vehicles                 |      | 941           | 8.4  | 991           | 8.4  | 0.909     | 76.0        | LOS E            | 36.4              | 274.5    | 1.00      | 1.01                | 1.22             | 10.1        |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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 (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

- \* Critical Movement (Signal Timing)

| Pedestrian Movement Performance |          |            |           |             |                  |                       |          |           |                     |             |              |             |
|---------------------------------|----------|------------|-----------|-------------|------------------|-----------------------|----------|-----------|---------------------|-------------|--------------|-------------|
| Mov ID                          | Crossing | Input Vol. | Dem. Flow | Aver. Delay | Level of Service | AVERAGE BACK OF QUEUE |          | Prop. Que | Effective Stop Rate | Travel Time | Travel Dist. | Aver. Speed |
|                                 |          | ped/h      | ped/h     | sec         |                  | [ Ped ped             | Dist ] m |           |                     | sec         | m            | m/sec       |
| South: Queen St                 |          |            |           |             |                  |                       |          |           |                     |             |              |             |
| P1                              | Full     | 80         | 84        | 69.4        | LOS F            | 0.3                   | 0.3      | 0.96      | 0.96                | 229.8       | 208.6        | 0.91        |
| East: Victoria St               |          |            |           |             |                  |                       |          |           |                     |             |              |             |
| P2                              | Full     | 80         | 84        | 69.4        | LOS F            | 0.3                   | 0.3      | 0.96      | 0.96                | 229.8       | 208.6        | 0.91        |
| North: Queen St                 |          |            |           |             |                  |                       |          |           |                     |             |              |             |

|                                 |     |     |      |       |     |     |      |      |       |       |      |
|---------------------------------|-----|-----|------|-------|-----|-----|------|------|-------|-------|------|
| P3 Full                         | 80  | 84  | 69.4 | LOS F | 0.3 | 0.3 | 0.96 | 0.96 | 231.4 | 210.6 | 0.91 |
| West: Victoria St               |     |     |      |       |     |     |      |      |       |       |      |
| P4 Full                         | 80  | 84  | 69.4 | LOS F | 0.3 | 0.3 | 0.96 | 0.96 | 234.9 | 215.2 | 0.92 |
| Pedestrian Movements (Diagonal) |     |     |      |       |     |     |      |      |       |       |      |
| PD Diagonal                     | 80  | 84  | 69.4 | LOS F | 0.2 | 0.2 | 0.96 | 0.96 | 239.7 | 221.5 | 0.92 |
| All Pedestrians                 | 400 | 421 | 69.4 | LOS F | 0.3 | 0.3 | 0.96 | 0.96 | 233.1 | 212.9 | 0.91 |

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)  
Pedestrian movement LOS values are based on average delay per pedestrian movement.  
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

# PHASING SUMMARY

 **Site: 101 [Option Improvement AM - Ped phasing reduction - Split phasing (Site Folder: Queen St/Victoria St - Pre-THN)]**

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: Leading Right Turn

Reference Phase: Phase D

Input Phase Sequence: A, B, C, D, E

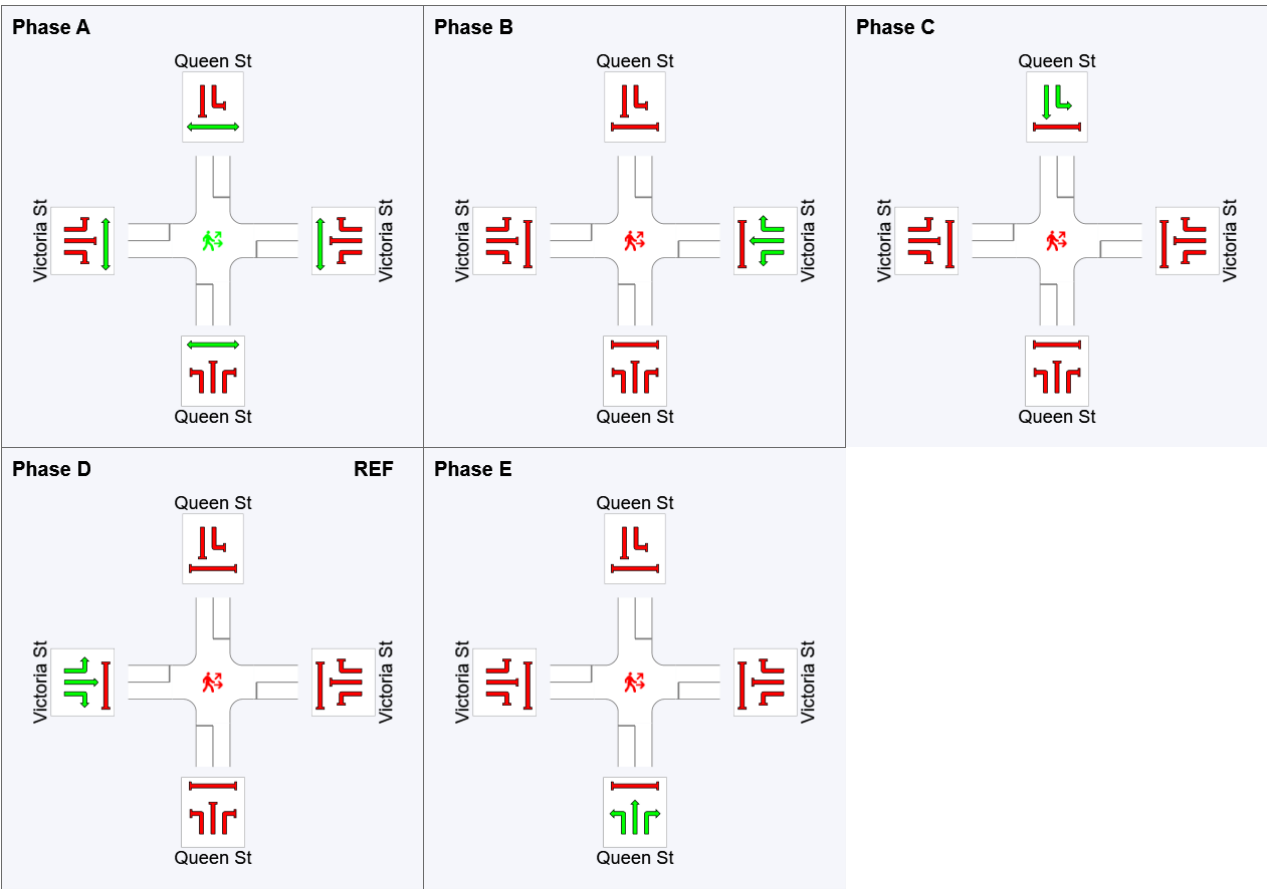
Output Phase Sequence: A, B, C, D, E

## Phase Timing Summary

| Phase                   | A   | B   | C   | D  | E   |
|-------------------------|-----|-----|-----|----|-----|
| Phase Change Time (sec) | 59  | 95  | 124 | 0  | 11  |
| Green Time (sec)        | 31  | 24  | 21  | 6  | 43  |
| Phase Time (sec)        | 36  | 29  | 26  | 11 | 48  |
| Phase Split             | 24% | 19% | 17% | 7% | 32% |

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%.

## Output Phase Sequence



REF: Reference Phase  
VAR: Variable Phase

|                                                                                   |                                   |                                                                                   |                          |
|-----------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------|--------------------------|
|  | Normal Movement                   |  | Permitted/Opposed        |
|  | Slip/Bypass-Lane Movement         |  | Opposed Slip/Bypass-Lane |
|  | Stopped Movement                  |  | Turn On Red              |
|  | Other Movement Class (MC) Running |  | Undetected Movement      |
|  | Mixed Running & Stopped MCs       |  | Continuous Movement      |
|  | Other Movement Class (MC) Stopped |  | Phase Transition Applied |

**Site: 101 [Option Improvement PM - Ped phasing reduction - Split phasing (Site Folder: Queen St/Victoria St - Pre-THN)]**

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 150 seconds (Site Optimum Cycle Time - Minimum Delay)

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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 (Geometric Delay is included).  
 Queue Model: SIDRA Standard.  
 Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).  
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

- \* Critical Movement (Signal Timing)

| Pedestrian Movement Performance |          |            |           |             |                  |                       |          |           |                     |             |              |             |
|---------------------------------|----------|------------|-----------|-------------|------------------|-----------------------|----------|-----------|---------------------|-------------|--------------|-------------|
| Mov ID                          | Crossing | Input Vol. | Dem. Flow | Aver. Delay | Level of Service | AVERAGE BACK OF QUEUE |          | Prop. Que | Effective Stop Rate | Travel Time | Travel Dist. | Aver. Speed |
|                                 |          | ped/h      | ped/h     | sec         |                  | [ Ped ped             | Dist ] m |           |                     | sec         | m            | m/sec       |
| South: Queen St                 |          |            |           |             |                  |                       |          |           |                     |             |              |             |
| P1                              | Full     | 80         | 84        | 69.4        | LOS F            | 0.3                   | 0.3      | 0.96      | 0.96                | 229.8       | 208.6        | 0.91        |
| East: Victoria St               |          |            |           |             |                  |                       |          |           |                     |             |              |             |
| P2                              | Full     | 80         | 84        | 69.4        | LOS F            | 0.3                   | 0.3      | 0.96      | 0.96                | 229.8       | 208.6        | 0.91        |
| North: Queen St                 |          |            |           |             |                  |                       |          |           |                     |             |              |             |

|                                 |     |     |      |       |     |     |      |      |       |       |      |
|---------------------------------|-----|-----|------|-------|-----|-----|------|------|-------|-------|------|
| P3 Full                         | 80  | 84  | 69.4 | LOS F | 0.3 | 0.3 | 0.96 | 0.96 | 231.4 | 210.6 | 0.91 |
| West: Victoria St               |     |     |      |       |     |     |      |      |       |       |      |
| P4 Full                         | 80  | 84  | 69.4 | LOS F | 0.3 | 0.3 | 0.96 | 0.96 | 234.9 | 215.2 | 0.92 |
| Pedestrian Movements (Diagonal) |     |     |      |       |     |     |      |      |       |       |      |
| PD Diagonal                     | 80  | 84  | 69.4 | LOS F | 0.2 | 0.2 | 0.96 | 0.96 | 239.7 | 221.5 | 0.92 |
| All Pedestrians                 | 400 | 421 | 69.4 | LOS F | 0.3 | 0.3 | 0.96 | 0.96 | 233.1 | 212.9 | 0.91 |

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)  
Pedestrian movement LOS values are based on average delay per pedestrian movement.  
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

# PHASING SUMMARY

 **Site: 101 [Option Improvement PM - Ped phasing reduction - Split phasing (Site Folder: Queen St/Victoria St - Pre-THN)]**

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: Leading Right Turn

Reference Phase: Phase D

Input Phase Sequence: A, B, C, D, E

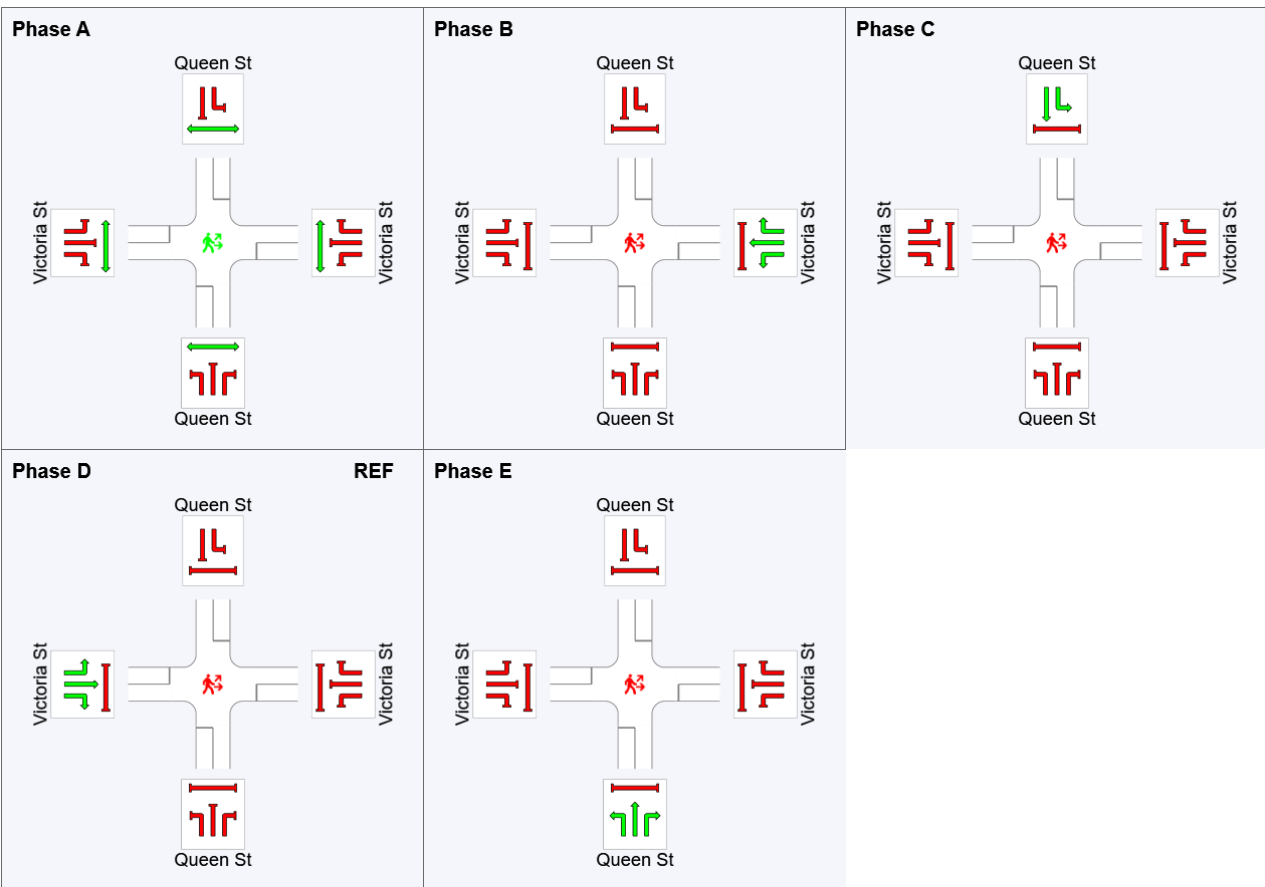
Output Phase Sequence: A, B, C, D, E

## Phase Timing Summary

| Phase                   | A   | B   | C   | D  | E   |
|-------------------------|-----|-----|-----|----|-----|
| Phase Change Time (sec) | 54  | 90  | 122 | 0  | 11  |
| Green Time (sec)        | 31  | 27  | 23  | 6  | 38  |
| Phase Time (sec)        | 36  | 32  | 28  | 11 | 43  |
| Phase Split             | 24% | 21% | 19% | 7% | 29% |

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%.

## Output Phase Sequence



REF: Reference Phase  
VAR: Variable Phase

|                                                                                   |                                   |                                                                                   |                          |
|-----------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------|--------------------------|
|  | Normal Movement                   |  | Permitted/Opposed        |
|  | Slip/Bypass-Lane Movement         |  | Opposed Slip/Bypass-Lane |
|  | Stopped Movement                  |  | Turn On Red              |
|  | Other Movement Class (MC) Running |  | Undetected Movement      |
|  | Mixed Running & Stopped MCs       |  | Continuous Movement      |
|  | Other Movement Class (MC) Stopped |  | Phase Transition Applied |

## MOVEMENT SUMMARY

 **Site: 101 [Option Improvement AM - Ped phasing reduction (15% Vol reduction) - Split phasing (Site Folder: Queen St/ Victoria St - Pre-THN)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 seconds (Site Optimum Cycle Time - Minimum Delay)

| Vehicle Movement Performance |      |               |      |               |      |           |             |                  |                   |          |           |                     |                  |             |
|------------------------------|------|---------------|------|---------------|------|-----------|-------------|------------------|-------------------|----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |      | DEMAND FLOWS  |      | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |          | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV % | [ Total veh/h | HV % |           |             |                  | [ Veh. veh        | Dist ] m |           |                     |                  |             |
|                              |      |               |      |               |      | v/c       | sec         |                  |                   |          |           |                     |                  | km/h        |
| South: Queen St              |      |               |      |               |      |           |             |                  |                   |          |           |                     |                  |             |
| 1                            | L2   | 19            | 9.0  | 20            | 9.0  | 0.856     | 60.0        | LOS E            | 26.2              | 197.6    | 1.00      | 0.98                | 1.16             | 10.7        |
| 2                            | T1   | 204           | 9.0  | 215           | 9.0  | * 0.856   | 58.0        | LOS E            | 26.2              | 197.6    | 1.00      | 0.98                | 1.16             | 12.8        |
| 3                            | R2   | 148           | 9.0  | 156           | 9.0  | 0.856     | 60.3        | LOS E            | 26.2              | 197.6    | 1.00      | 0.98                | 1.16             | 11.8        |
| Approach                     |      | 371           | 9.0  | 391           | 9.0  | 0.856     | 59.0        | LOS E            | 26.2              | 197.6    | 1.00      | 0.98                | 1.16             | 12.3        |
| East: Victoria St            |      |               |      |               |      |           |             |                  |                   |          |           |                     |                  |             |
| 4                            | L2   | 97            | 7.0  | 102           | 7.0  | 0.866     | 71.4        | LOS E            | 14.9              | 110.5    | 1.00      | 1.02                | 1.28             | 10.5        |
| 5                            | T1   | 8             | 7.0  | 8             | 7.0  | * 0.866   | 69.4        | LOS E            | 14.9              | 110.5    | 1.00      | 1.02                | 1.28             | 7.1         |
| 6                            | R2   | 97            | 7.0  | 102           | 7.0  | 0.866     | 71.7        | LOS E            | 14.9              | 110.5    | 1.00      | 1.02                | 1.28             | 9.7         |
| Approach                     |      | 202           | 7.0  | 213           | 7.0  | 0.866     | 71.5        | LOS E            | 14.9              | 110.5    | 1.00      | 1.02                | 1.28             | 10.0        |
| North: Queen St              |      |               |      |               |      |           |             |                  |                   |          |           |                     |                  |             |
| 7                            | L2   | 74            | 9.0  | 78            | 9.0  | 0.826     | 68.4        | LOS E            | 13.2              | 99.5     | 1.00      | 0.98                | 1.21             | 10.3        |
| 8                            | T1   | 111           | 9.0  | 117           | 9.0  | * 0.826   | 66.5        | LOS E            | 13.2              | 99.5     | 1.00      | 0.98                | 1.21             | 11.9        |
| Approach                     |      | 185           | 9.0  | 195           | 9.0  | 0.826     | 67.3        | LOS E            | 13.2              | 99.5     | 1.00      | 0.98                | 1.21             | 11.3        |
| West: Victoria St            |      |               |      |               |      |           |             |                  |                   |          |           |                     |                  |             |
| 10                           | L2   | 21            | 7.0  | 22            | 7.0  | * 0.271   | 70.9        | LOS E            | 1.4               | 10.7     | 1.00      | 0.71                | 1.00             | 8.7         |
| 11                           | T1   | 13            | 7.0  | 14            | 7.0  | 0.159     | 67.8        | LOS E            | 0.9               | 6.5      | 0.99      | 0.68                | 0.99             | 7.2         |
| 12                           | R2   | 9             | 7.0  | 9             | 7.0  | 0.116     | 70.0        | LOS E            | 0.6               | 4.5      | 0.99      | 0.67                | 0.99             | 9.3         |
| Approach                     |      | 43            | 7.0  | 45            | 7.0  | 0.271     | 69.8        | LOS E            | 1.4               | 10.7     | 0.99      | 0.69                | 0.99             | 8.4         |
| All Vehicles                 |      | 801           | 8.4  | 843           | 8.4  | 0.866     | 64.6        | LOS E            | 26.2              | 197.6    | 1.00      | 0.98                | 1.19             | 11.3        |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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 (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

\* Critical Movement (Signal Timing)

| Pedestrian Movement Performance |          |            |           |             |                  |                       |          |           |                     |             |              |             |
|---------------------------------|----------|------------|-----------|-------------|------------------|-----------------------|----------|-----------|---------------------|-------------|--------------|-------------|
| Mov ID                          | Crossing | Input Vol. | Dem. Flow | Aver. Delay | Level of Service | AVERAGE BACK OF QUEUE |          | Prop. Que | Effective Stop Rate | Travel Time | Travel Dist. | Aver. Speed |
|                                 |          | ped/h      | ped/h     | sec         |                  | [ Ped ped             | Dist ] m |           |                     | sec         | m            | m/sec       |
| South: Queen St                 |          |            |           |             |                  |                       |          |           |                     |             |              |             |
| P1                              | Full     | 80         | 84        | 59.3        | LOS E            | 0.3                   | 0.3      | 0.96      | 0.96                | 219.8       | 208.6        | 0.95        |
| East: Victoria St               |          |            |           |             |                  |                       |          |           |                     |             |              |             |
| P2                              | Full     | 80         | 84        | 59.3        | LOS E            | 0.3                   | 0.3      | 0.96      | 0.96                | 219.8       | 208.6        | 0.95        |

|                                 |     |     |      |       |     |     |      |      |       |       |      |  |
|---------------------------------|-----|-----|------|-------|-----|-----|------|------|-------|-------|------|--|
| North: Queen St                 |     |     |      |       |     |     |      |      |       |       |      |  |
| P3 Full                         | 80  | 84  | 59.3 | LOS E | 0.3 | 0.3 | 0.96 | 0.96 | 221.3 | 210.6 | 0.95 |  |
| West: Victoria St               |     |     |      |       |     |     |      |      |       |       |      |  |
| P4 Full                         | 80  | 84  | 59.3 | LOS E | 0.3 | 0.3 | 0.96 | 0.96 | 224.9 | 215.2 | 0.96 |  |
| Pedestrian Movements (Diagonal) |     |     |      |       |     |     |      |      |       |       |      |  |
| PD Diagonal                     | 80  | 84  | 59.3 | LOS E | 0.1 | 0.1 | 0.96 | 0.96 | 229.7 | 221.5 | 0.96 |  |
| All Pedestrians                 | 400 | 421 | 59.3 | LOS E | 0.3 | 0.3 | 0.96 | 0.96 | 223.1 | 212.9 | 0.95 |  |

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)  
Pedestrian movement LOS values are based on average delay per pedestrian movement.  
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

# PHASING SUMMARY

 **Site: 101 [Option Improvement AM - Ped phasing reduction (15% Vol reduction) - Split phasing (Site Folder: Queen St/ Victoria St - Pre-THN)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 130 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

Reference Phase: Phase D

Input Phase Sequence: A, B, C, D, E

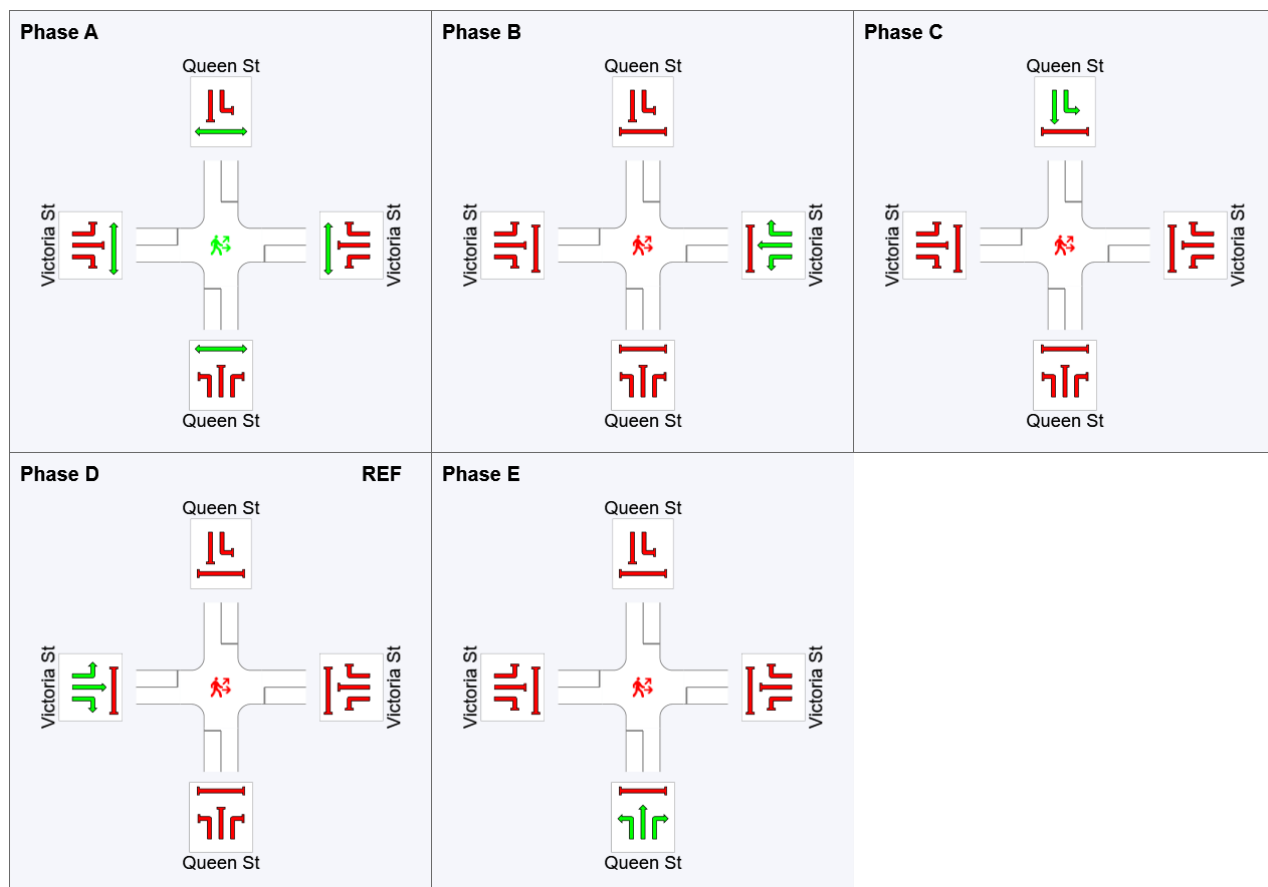
Output Phase Sequence: A, B, C, D, E

## Phase Timing Summary

| Phase                   | A   | B   | C   | D  | E   |
|-------------------------|-----|-----|-----|----|-----|
| Phase Change Time (sec) | 49  | 85  | 108 | 0  | 11  |
| Green Time (sec)        | 31  | 18  | 17  | 6  | 33  |
| Phase Time (sec)        | 36  | 23  | 22  | 11 | 38  |
| Phase Split             | 28% | 18% | 17% | 8% | 29% |

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%.

## Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase

|                                                                                   |                                   |                                                                                   |                          |
|-----------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------|--------------------------|
|  | Normal Movement                   |  | Permitted/Opposed        |
|  | Slip/Bypass-Lane Movement         |  | Opposed Slip/Bypass-Lane |
|  | Stopped Movement                  |  | Turn On Red              |
|  | Other Movement Class (MC) Running |  | Undetected Movement      |
|  | Mixed Running & Stopped MCs       |  | Continuous Movement      |
|  | Other Movement Class (MC) Stopped |  | Phase Transition Applied |

# MOVEMENT SUMMARY

 Site: 101 [Option Improvement PM - Ped phasing reduction (15% Vol reduction) - Split phasing (Site Folder: Queen St/ Victoria St - Pre-THN)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site Optimum Cycle Time - Minimum Delay)

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |          |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |          | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] m |           |                     |                  |             |
|                              |      |               |        |               |        | v/c       | sec         |                  |                   |          |           |                     |                  | km/h        |
| South: Queen St              |      |               |        |               |        |           |             |                  |                   |          |           |                     |                  |             |
| 1                            | L2   | 16            | 9.0    | 17            | 9.0    | 0.865     | 60.4        | LOS E            | 21.6              | 162.5    | 1.00      | 1.01                | 1.22             | 10.6        |
| 2                            | T1   | 176           | 9.0    | 185           | 9.0    | * 0.865   | 58.4        | LOS E            | 21.6              | 162.5    | 1.00      | 1.01                | 1.22             | 12.7        |
| 3                            | R2   | 128           | 9.0    | 135           | 9.0    | 0.865     | 60.7        | LOS E            | 21.6              | 162.5    | 1.00      | 1.01                | 1.22             | 11.7        |
| Approach                     |      | 320           | 9.0    | 337           | 9.0    | 0.865     | 59.5        | LOS E            | 21.6              | 162.5    | 1.00      | 1.01                | 1.22             | 12.2        |
| East: Victoria St            |      |               |        |               |        |           |             |                  |                   |          |           |                     |                  |             |
| 4                            | L2   | 108           | 7.0    | 114           | 7.0    | 0.891     | 68.9        | LOS E            | 15.9              | 117.8    | 1.00      | 1.06                | 1.34             | 10.7        |
| 5                            | T1   | 9             | 7.0    | 9             | 7.0    | * 0.891   | 66.9        | LOS E            | 15.9              | 117.8    | 1.00      | 1.06                | 1.34             | 7.2         |
| 6                            | R2   | 108           | 7.0    | 114           | 7.0    | 0.891     | 69.3        | LOS E            | 15.9              | 117.8    | 1.00      | 1.06                | 1.34             | 10.0        |
| Approach                     |      | 225           | 7.0    | 237           | 7.0    | 0.891     | 69.0        | LOS E            | 15.9              | 117.8    | 1.00      | 1.06                | 1.34             | 10.2        |
| North: Queen St              |      |               |        |               |        |           |             |                  |                   |          |           |                     |                  |             |
| 7                            | L2   | 77            | 9.0    | 81            | 9.0    | 0.897     | 71.3        | LOS E            | 13.6              | 102.9    | 1.00      | 1.11                | 1.39             | 10.0        |
| 8                            | T1   | 115           | 9.0    | 121           | 9.0    | * 0.897   | 69.4        | LOS E            | 13.6              | 102.9    | 1.00      | 1.11                | 1.39             | 11.6        |
| Approach                     |      | 192           | 9.0    | 202           | 9.0    | 0.897     | 70.2        | LOS E            | 13.6              | 102.9    | 1.00      | 1.11                | 1.39             | 11.0        |
| West: Victoria St            |      |               |        |               |        |           |             |                  |                   |          |           |                     |                  |             |
| 10                           | L2   | 21            | 7.0    | 22            | 7.0    | * 0.250   | 65.1        | LOS E            | 1.3               | 9.9      | 0.99      | 0.70                | 0.99             | 9.2         |
| 11                           | T1   | 13            | 7.0    | 14            | 7.0    | 0.147     | 62.1        | LOS E            | 0.8               | 6.0      | 0.99      | 0.68                | 0.99             | 7.7         |
| 12                           | R2   | 9             | 7.0    | 9             | 7.0    | 0.107     | 64.3        | LOS E            | 0.6               | 4.2      | 0.98      | 0.67                | 0.98             | 9.9         |
| Approach                     |      | 43            | 7.0    | 45            | 7.0    | 0.250     | 64.0        | LOS E            | 1.3               | 9.9      | 0.99      | 0.69                | 0.99             | 9.0         |
| All Vehicles                 |      | 780           | 8.3    | 821           | 8.3    | 0.897     | 65.1        | LOS E            | 21.6              | 162.5    | 1.00      | 1.04                | 1.28             | 11.2        |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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 (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

\* Critical Movement (Signal Timing)

| Pedestrian Movement Performance |          |            |           |             |                  |                       |          |           |                     |             |              |             |
|---------------------------------|----------|------------|-----------|-------------|------------------|-----------------------|----------|-----------|---------------------|-------------|--------------|-------------|
| Mov ID                          | Crossing | Input Vol. | Dem. Flow | Aver. Delay | Level of Service | AVERAGE BACK OF QUEUE |          | Prop. Que | Effective Stop Rate | Travel Time | Travel Dist. | Aver. Speed |
|                                 |          | ped/h      | ped/h     | sec         |                  | [ Ped ped             | Dist ] m |           |                     | sec         | m            | m/sec       |
| South: Queen St                 |          |            |           |             |                  |                       |          |           |                     |             |              |             |
| P1                              | Full     | 80         | 84        | 54.3        | LOS E            | 0.3                   | 0.3      | 0.95      | 0.95                | 214.8       | 208.6        | 0.97        |
| East: Victoria St               |          |            |           |             |                  |                       |          |           |                     |             |              |             |
| P2                              | Full     | 80         | 84        | 54.3        | LOS E            | 0.3                   | 0.3      | 0.95      | 0.95                | 214.8       | 208.6        | 0.97        |

|                                 |     |     |      |       |     |     |      |      |       |       |      |  |
|---------------------------------|-----|-----|------|-------|-----|-----|------|------|-------|-------|------|--|
| North: Queen St                 |     |     |      |       |     |     |      |      |       |       |      |  |
| P3 Full                         | 80  | 84  | 54.3 | LOS E | 0.3 | 0.3 | 0.95 | 0.95 | 216.3 | 210.6 | 0.97 |  |
| West: Victoria St               |     |     |      |       |     |     |      |      |       |       |      |  |
| P4 Full                         | 80  | 84  | 54.3 | LOS E | 0.3 | 0.3 | 0.95 | 0.95 | 219.9 | 215.2 | 0.98 |  |
| Pedestrian Movements (Diagonal) |     |     |      |       |     |     |      |      |       |       |      |  |
| PD Diagonal                     | 80  | 84  | 54.3 | LOS E | 0.1 | 0.1 | 0.95 | 0.95 | 224.7 | 221.5 | 0.99 |  |
| All Pedestrians                 | 400 | 421 | 54.3 | LOS E | 0.3 | 0.3 | 0.95 | 0.95 | 218.1 | 212.9 | 0.98 |  |

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)  
Pedestrian movement LOS values are based on average delay per pedestrian movement.  
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

# PHASING SUMMARY

**Site: 101 [Option Improvement PM - Ped phasing reduction (15% Vol reduction) - Split phasing (Site Folder: Queen St/ Victoria St - Pre-THN)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 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

Reference Phase: Phase D

Input Phase Sequence: A, B, C, D, E

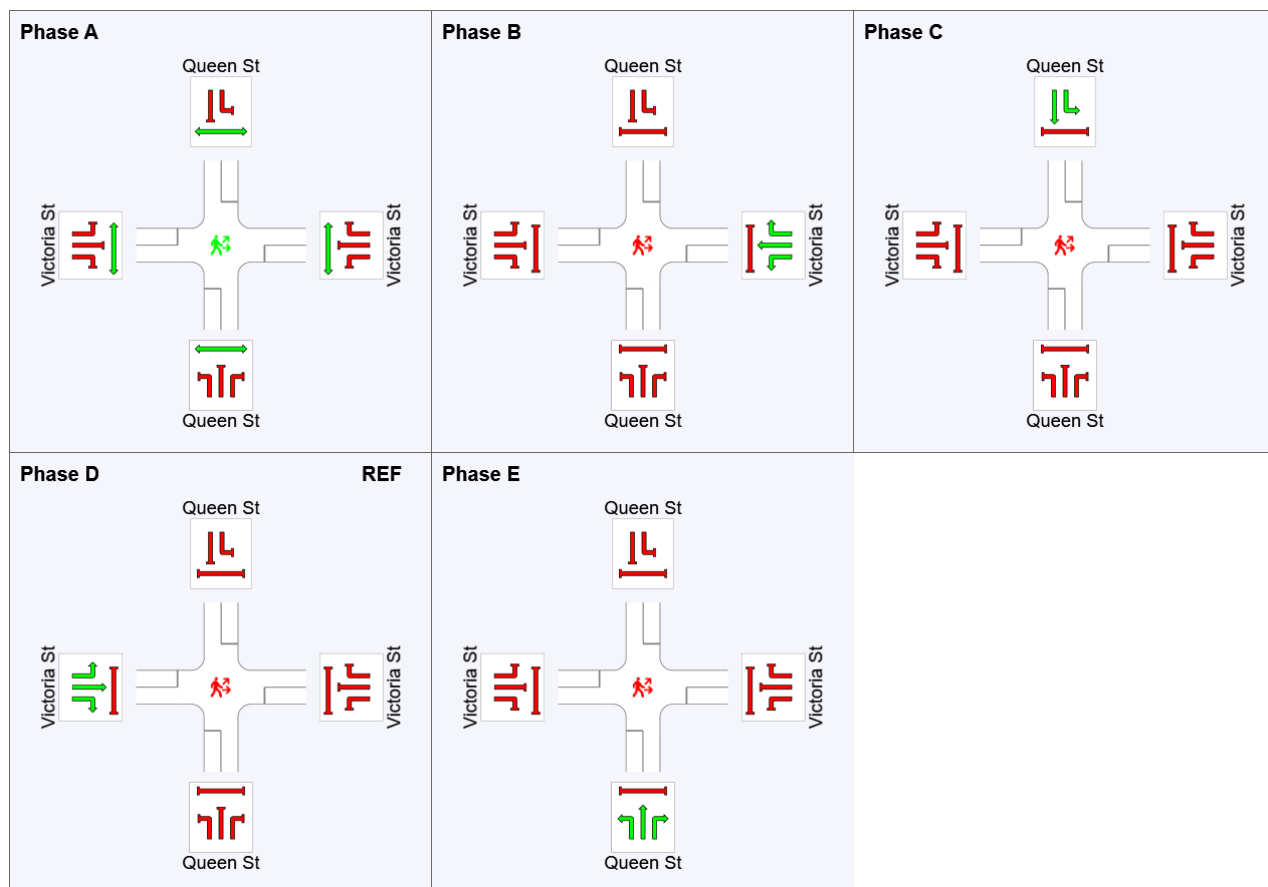
Output Phase Sequence: A, B, C, D, E

## Phase Timing Summary

| Phase                   | A   | B   | C   | D  | E   |
|-------------------------|-----|-----|-----|----|-----|
| Phase Change Time (sec) | 42  | 77  | 100 | 0  | 11  |
| Green Time (sec)        | 30  | 18  | 15  | 6  | 26  |
| Phase Time (sec)        | 35  | 23  | 20  | 11 | 31  |
| Phase Split             | 29% | 19% | 17% | 9% | 26% |

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%.

## Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase

|                                                                                   |                                   |                                                                                   |                          |
|-----------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------|--------------------------|
|  | Normal Movement                   |  | Permitted/Opposed        |
|  | Slip/Bypass-Lane Movement         |  | Opposed Slip/Bypass-Lane |
|  | Stopped Movement                  |  | Turn On Red              |
|  | Other Movement Class (MC) Running |  | Undetected Movement      |
|  | Mixed Running & Stopped MCs       |  | Continuous Movement      |
|  | Other Movement Class (MC) Stopped |  | Phase Transition Applied |

## MOVEMENT SUMMARY

 Site: 101 [Option Improvement AM - Ped phasing reduction (30% Vol reduction) - Split phasing (Site Folder: Queen St/ Victoria St - Pre-THN)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 110 seconds (Site Optimum Cycle Time - Minimum Delay)

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |          |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |          | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] m |           |                     |                  |             |
| South: Queen St              |      |               |        |               |        |           |             |                  |                   |          |           |                     |                  |             |
| 1                            | L2   | 15            | 9.0    | 16            | 9.0    | 0.819     | 51.9        | LOS D            | 18.0              | 135.7    | 1.00      | 0.97                | 1.16             | 11.7        |
| 2                            | T1   | 168           | 9.0    | 177           | 9.0    | * 0.819   | 49.9        | LOS D            | 18.0              | 135.7    | 1.00      | 0.97                | 1.16             | 13.8        |
| 3                            | R2   | 122           | 9.0    | 128           | 9.0    | 0.819     | 52.2        | LOS D            | 18.0              | 135.7    | 1.00      | 0.97                | 1.16             | 12.8        |
| Approach                     |      | 305           | 9.0    | 321           | 9.0    | 0.819     | 51.0        | LOS D            | 18.0              | 135.7    | 1.00      | 0.97                | 1.16             | 13.4        |
| East: Victoria St            |      |               |        |               |        |           |             |                  |                   |          |           |                     |                  |             |
| 4                            | L2   | 80            | 7.0    | 84            | 7.0    | 0.775     | 57.1        | LOS E            | 9.9               | 73.2     | 1.00      | 0.93                | 1.17             | 12.1        |
| 5                            | T1   | 6             | 7.0    | 6             | 7.0    | * 0.775   | 55.1        | LOS E            | 9.9               | 73.2     | 1.00      | 0.93                | 1.17             | 8.3         |
| 6                            | R2   | 80            | 7.0    | 84            | 7.0    | 0.775     | 57.4        | LOS E            | 9.9               | 73.2     | 1.00      | 0.93                | 1.17             | 11.3        |
| Approach                     |      | 166           | 7.0    | 175           | 7.0    | 0.775     | 57.2        | LOS E            | 9.9               | 73.2     | 1.00      | 0.93                | 1.17             | 11.6        |
| North: Queen St              |      |               |        |               |        |           |             |                  |                   |          |           |                     |                  |             |
| 7                            | L2   | 61            | 9.0    | 64            | 9.0    | 0.819     | 60.6        | LOS E            | 9.4               | 70.8     | 1.00      | 1.01                | 1.26             | 11.2        |
| 8                            | T1   | 92            | 9.0    | 97            | 9.0    | * 0.819   | 58.7        | LOS E            | 9.4               | 70.8     | 1.00      | 1.01                | 1.26             | 12.8        |
| Approach                     |      | 153           | 9.0    | 161           | 9.0    | 0.819     | 59.5        | LOS E            | 9.4               | 70.8     | 1.00      | 1.01                | 1.26             | 12.2        |
| West: Victoria St            |      |               |        |               |        |           |             |                  |                   |          |           |                     |                  |             |
| 10                           | L2   | 18            | 7.0    | 19            | 7.0    | * 0.196   | 59.0        | LOS E            | 1.0               | 7.7      | 0.99      | 0.70                | 0.99             | 9.9         |
| 11                           | T1   | 11            | 7.0    | 12            | 7.0    | 0.114     | 56.2        | LOS E            | 0.6               | 4.6      | 0.98      | 0.66                | 0.98             | 8.3         |
| 12                           | R2   | 7             | 7.0    | 7             | 7.0    | 0.076     | 58.3        | LOS E            | 0.4               | 2.9      | 0.97      | 0.65                | 0.97             | 10.5        |
| Approach                     |      | 36            | 7.0    | 38            | 7.0    | 0.196     | 58.0        | LOS E            | 1.0               | 7.7      | 0.98      | 0.68                | 0.98             | 9.6         |
| All Vehicles                 |      | 660           | 8.4    | 695           | 8.4    | 0.819     | 54.9        | LOS D            | 18.0              | 135.7    | 1.00      | 0.95                | 1.18             | 12.4        |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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 (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

\* Critical Movement (Signal Timing)

| Pedestrian Movement Performance |          |            |           |             |                  |                       |        |           |                     |             |              |             |
|---------------------------------|----------|------------|-----------|-------------|------------------|-----------------------|--------|-----------|---------------------|-------------|--------------|-------------|
| Mov ID                          | Crossing | Input Vol. | Dem. Flow | Aver. Delay | Level of Service | AVERAGE BACK OF QUEUE |        | Prop. Que | Effective Stop Rate | Travel Time | Travel Dist. | Aver. Speed |
|                                 |          |            |           |             |                  | [ Ped                 | Dist ] |           |                     |             |              |             |
|                                 |          | ped/h      | ped/h     | sec         |                  | ped                   | m      |           |                     | sec         | m            | m/sec       |
| South: Queen St                 |          |            |           |             |                  |                       |        |           |                     |             |              |             |
| P1                              | Full     | 80         | 84        | 49.3        | LOS E            | 0.2                   | 0.2    | 0.95      | 0.95                | 209.8       | 208.6        | 0.99        |
| East: Victoria St               |          |            |           |             |                  |                       |        |           |                     |             |              |             |
| P2                              | Full     | 80         | 84        | 49.3        | LOS E            | 0.2                   | 0.2    | 0.95      | 0.95                | 209.8       | 208.6        | 0.99        |

|                                 |     |     |      |       |     |     |      |      |       |       |      |  |
|---------------------------------|-----|-----|------|-------|-----|-----|------|------|-------|-------|------|--|
| North: Queen St                 |     |     |      |       |     |     |      |      |       |       |      |  |
| P3 Full                         | 80  | 84  | 49.3 | LOS E | 0.2 | 0.2 | 0.95 | 0.95 | 211.3 | 210.6 | 1.00 |  |
| West: Victoria St               |     |     |      |       |     |     |      |      |       |       |      |  |
| P4 Full                         | 80  | 84  | 49.3 | LOS E | 0.2 | 0.2 | 0.95 | 0.95 | 214.9 | 215.2 | 1.00 |  |
| Pedestrian Movements (Diagonal) |     |     |      |       |     |     |      |      |       |       |      |  |
| PD Diagonal                     | 80  | 84  | 49.3 | LOS E | 0.1 | 0.1 | 0.95 | 0.95 | 219.7 | 221.5 | 1.01 |  |
| All Pedestrians                 | 400 | 421 | 49.3 | LOS E | 0.2 | 0.2 | 0.95 | 0.95 | 213.1 | 212.9 | 1.00 |  |

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)  
 Pedestrian movement LOS values are based on average delay per pedestrian movement.  
 Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

# PHASING SUMMARY

 **Site: 101 [Option Improvement AM - Ped phasing reduction (30% Vol reduction) - Split phasing (Site Folder: Queen St/ Victoria St - Pre-THN)]**

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

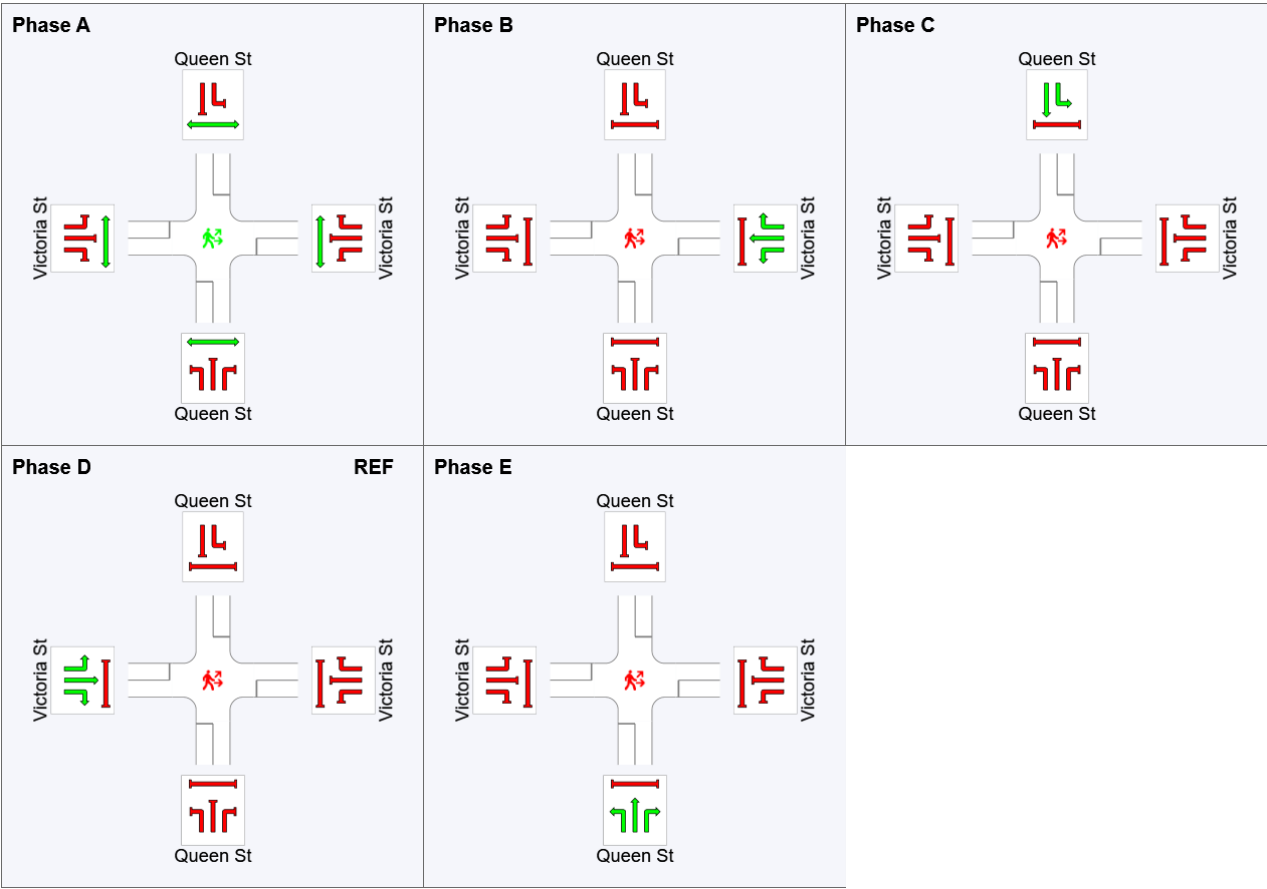
Timings based on settings in the Site Phasing & Timing dialog  
Phase Times determined by the program  
Phase Sequence: Leading Right Turn  
Reference Phase: Phase D  
Input Phase Sequence: A, B, C, D, E  
Output Phase Sequence: A, B, C, D, E

## Phase Timing Summary

| Phase                   | A   | B   | C   | D   | E   |
|-------------------------|-----|-----|-----|-----|-----|
| Phase Change Time (sec) | 40  | 74  | 93  | 0   | 11  |
| Green Time (sec)        | 29  | 14  | 12  | 6   | 24  |
| Phase Time (sec)        | 34  | 19  | 17  | 11  | 29  |
| Phase Split             | 31% | 17% | 15% | 10% | 26% |

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%.

## Output Phase Sequence



REF: Reference Phase  
VAR: Variable Phase

|                                                                                   |                                   |                                                                                   |                          |
|-----------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------|--------------------------|
|  | Normal Movement                   |  | Permitted/Opposed        |
|  | Slip/Bypass-Lane Movement         |  | Opposed Slip/Bypass-Lane |
|  | Stopped Movement                  |  | Turn On Red              |
|  | Other Movement Class (MC) Running |  | Undetected Movement      |
|  | Mixed Running & Stopped MCs       |  | Continuous Movement      |
|  | Other Movement Class (MC) Stopped |  | Phase Transition Applied |

# MOVEMENT SUMMARY

 **Site: 101 [Option Improvement PM - Ped phasing reduction (30% Vol reduction) - Split phasing (Site Folder: Queen St/ Victoria St - Pre-THN)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 100 seconds (Site Optimum Cycle Time - Minimum Delay)

| Vehicle Movement Performance |      |               |        |               |        |           |             |                  |                   |          |           |                     |                  |             |
|------------------------------|------|---------------|--------|---------------|--------|-----------|-------------|------------------|-------------------|----------|-----------|---------------------|------------------|-------------|
| Mov ID                       | Turn | INPUT VOLUMES |        | DEMAND FLOWS  |        | Deg. Satn | Aver. Delay | Level of Service | 95% BACK OF QUEUE |          | Prop. Que | Effective Stop Rate | Aver. No. Cycles | Aver. Speed |
|                              |      | [ Total veh/h | HV ] % | [ Total veh/h | HV ] % |           |             |                  | [ Veh. veh        | Dist ] m |           |                     |                  |             |
| South: Queen St              |      |               |        |               |        |           |             |                  |                   |          |           |                     |                  |             |
| 1                            | L2   | 13            | 9.0    | 14            | 9.0    | 0.859     | 54.0        | LOS D            | 15.1              | 114.1    | 1.00      | 1.04                | 1.28             | 11.4        |
| 2                            | T1   | 145           | 9.0    | 153           | 9.0    | * 0.859   | 52.0        | LOS D            | 15.1              | 114.1    | 1.00      | 1.04                | 1.28             | 13.6        |
| 3                            | R2   | 106           | 9.0    | 112           | 9.0    | 0.859     | 54.3        | LOS D            | 15.1              | 114.1    | 1.00      | 1.04                | 1.28             | 12.5        |
| Approach                     |      | 264           | 9.0    | 278           | 9.0    | 0.859     | 53.0        | LOS D            | 15.1              | 114.1    | 1.00      | 1.04                | 1.28             | 13.1        |
| East: Victoria St            |      |               |        |               |        |           |             |                  |                   |          |           |                     |                  |             |
| 4                            | L2   | 89            | 7.0    | 94            | 7.0    | 0.850     | 56.5        | LOS E            | 10.7              | 79.2     | 1.00      | 1.04                | 1.32             | 12.2        |
| 5                            | T1   | 8             | 7.0    | 8             | 7.0    | * 0.850   | 54.5        | LOS D            | 10.7              | 79.2     | 1.00      | 1.04                | 1.32             | 8.4         |
| 6                            | R2   | 89            | 7.0    | 94            | 7.0    | 0.850     | 56.8        | LOS E            | 10.7              | 79.2     | 1.00      | 1.04                | 1.32             | 11.3        |
| Approach                     |      | 186           | 7.0    | 196           | 7.0    | 0.850     | 56.5        | LOS E            | 10.7              | 79.2     | 1.00      | 1.04                | 1.32             | 11.6        |
| North: Queen St              |      |               |        |               |        |           |             |                  |                   |          |           |                     |                  |             |
| 7                            | L2   | 63            | 9.0    | 66            | 9.0    | 0.839     | 57.0        | LOS E            | 9.0               | 68.0     | 1.00      | 1.05                | 1.32             | 11.6        |
| 8                            | T1   | 95            | 9.0    | 100           | 9.0    | * 0.839   | 55.0        | LOS D            | 9.0               | 68.0     | 1.00      | 1.05                | 1.32             | 13.2        |
| Approach                     |      | 158           | 9.0    | 166           | 9.0    | 0.839     | 55.8        | LOS E            | 9.0               | 68.0     | 1.00      | 1.05                | 1.32             | 12.6        |
| West: Victoria St            |      |               |        |               |        |           |             |                  |                   |          |           |                     |                  |             |
| 10                           | L2   | 18            | 7.0    | 19            | 7.0    | * 0.179   | 53.3        | LOS D            | 0.9               | 7.0      | 0.98      | 0.69                | 0.98             | 10.6        |
| 11                           | T1   | 11            | 7.0    | 12            | 7.0    | 0.103     | 50.5        | LOS D            | 0.6               | 4.2      | 0.97      | 0.66                | 0.97             | 9.0         |
| 12                           | R2   | 7             | 7.0    | 7             | 7.0    | 0.069     | 52.7        | LOS D            | 0.4               | 2.7      | 0.97      | 0.65                | 0.97             | 11.3        |
| Approach                     |      | 36            | 7.0    | 38            | 7.0    | 0.179     | 52.3        | LOS D            | 0.9               | 7.0      | 0.98      | 0.68                | 0.98             | 10.3        |
| All Vehicles                 |      | 644           | 8.3    | 678           | 8.3    | 0.859     | 54.7        | LOS D            | 15.1              | 114.1    | 1.00      | 1.02                | 1.29             | 12.4        |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site 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 (Geometric Delay is included).

Queue Model: SIDRA Standard.

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

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

\* Critical Movement (Signal Timing)

| Pedestrian Movement Performance |          |            |           |             |                  |                       |        |           |                     |             |              |             |
|---------------------------------|----------|------------|-----------|-------------|------------------|-----------------------|--------|-----------|---------------------|-------------|--------------|-------------|
| Mov ID                          | Crossing | Input Vol. | Dem. Flow | Aver. Delay | Level of Service | AVERAGE BACK OF QUEUE |        | Prop. Que | Effective Stop Rate | Travel Time | Travel Dist. | Aver. Speed |
|                                 |          |            |           |             |                  | [ Ped                 | Dist ] |           |                     |             |              |             |
|                                 |          | ped/h      | ped/h     | sec         |                  | ped                   | m      |           |                     |             |              |             |
| South: Queen St                 |          |            |           |             |                  |                       |        |           |                     |             |              |             |
| P1                              | Full     | 80         | 84        | 44.3        | LOS E            | 0.2                   | 0.2    | 0.94      | 0.94                | 204.8       | 208.6        | 1.02        |
| East: Victoria St               |          |            |           |             |                  |                       |        |           |                     |             |              |             |
| P2                              | Full     | 80         | 84        | 44.3        | LOS E            | 0.2                   | 0.2    | 0.94      | 0.94                | 204.8       | 208.6        | 1.02        |

|                                 |     |     |      |       |     |     |      |      |       |       |      |  |
|---------------------------------|-----|-----|------|-------|-----|-----|------|------|-------|-------|------|--|
| North: Queen St                 |     |     |      |       |     |     |      |      |       |       |      |  |
| P3 Full                         | 80  | 84  | 44.3 | LOS E | 0.2 | 0.2 | 0.94 | 0.94 | 206.3 | 210.6 | 1.02 |  |
| West: Victoria St               |     |     |      |       |     |     |      |      |       |       |      |  |
| P4 Full                         | 80  | 84  | 44.3 | LOS E | 0.2 | 0.2 | 0.94 | 0.94 | 209.9 | 215.2 | 1.03 |  |
| Pedestrian Movements (Diagonal) |     |     |      |       |     |     |      |      |       |       |      |  |
| PD Diagonal                     | 80  | 84  | 44.3 | LOS E | 0.1 | 0.1 | 0.94 | 0.94 | 214.7 | 221.5 | 1.03 |  |
| All Pedestrians                 | 400 | 421 | 44.3 | LOS E | 0.2 | 0.2 | 0.94 | 0.94 | 208.1 | 212.9 | 1.02 |  |

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)  
Pedestrian movement LOS values are based on average delay per pedestrian movement.  
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

# PHASING SUMMARY

 **Site: 101 [Option Improvement PM - Ped phasing reduction (30% Vol reduction) - Split phasing (Site Folder: Queen St/ Victoria St - Pre-THN)]**

New Site  
Site Category: (None)  
Signals - EQUISAT (Fixed-Time/SCATS) Isolated    Cycle Time = 100 seconds (Site Optimum Cycle Time - Minimum Delay)

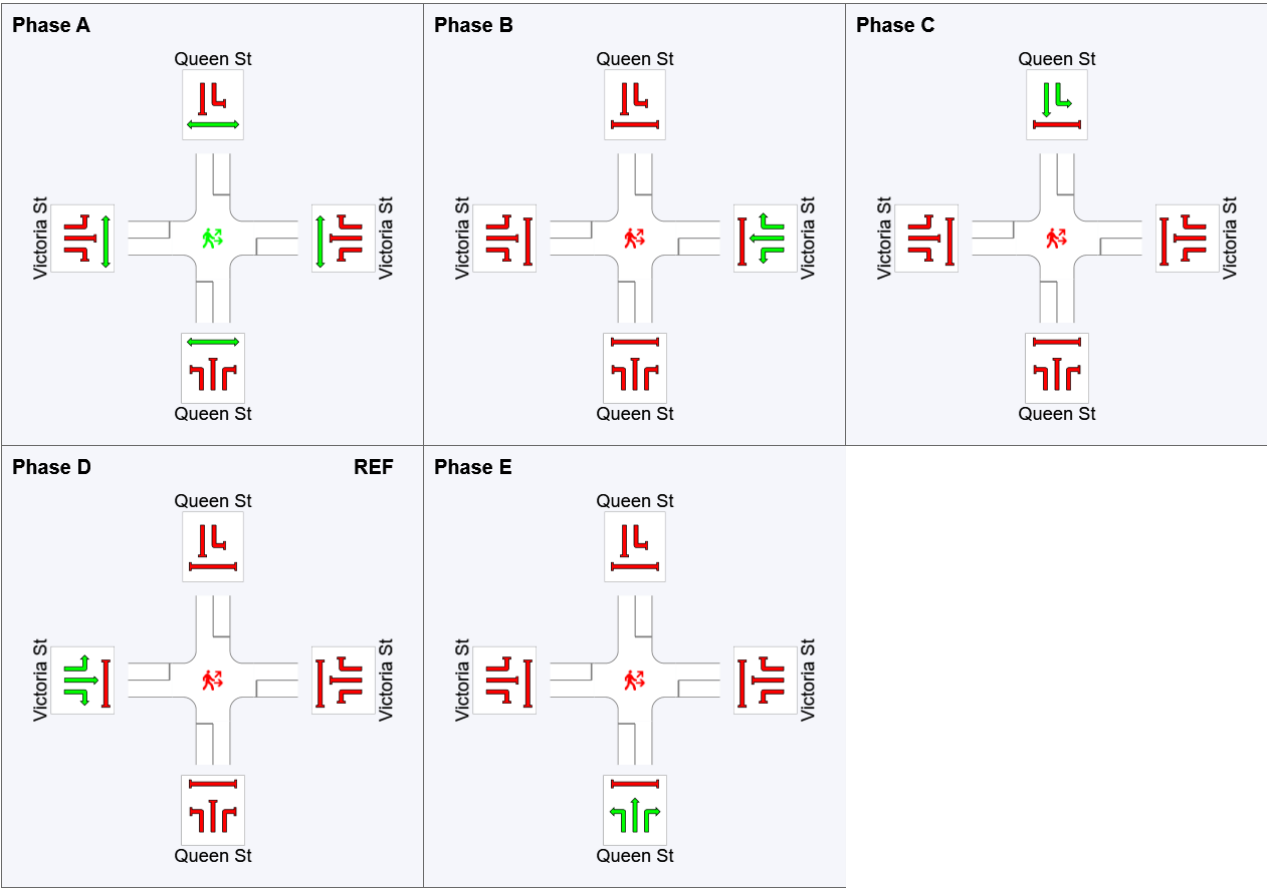
Timings based on settings in the Site Phasing & Timing dialog  
Phase Times determined by the program  
Phase Sequence: Leading Right Turn  
Reference Phase: Phase D  
Input Phase Sequence: A, B, C, D, E  
Output Phase Sequence: A, B, C, D, E

## Phase Timing Summary

| Phase                   | A   | B   | C   | D   | E   |
|-------------------------|-----|-----|-----|-----|-----|
| Phase Change Time (sec) | 34  | 66  | 84  | 0   | 11  |
| Green Time (sec)        | 27  | 13  | 11  | 6   | 18  |
| Phase Time (sec)        | 32  | 18  | 16  | 11  | 23  |
| Phase Split             | 32% | 18% | 16% | 11% | 23% |

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%.

## Output Phase Sequence



REF: Reference Phase  
VAR: Variable Phase

|                                                                                   |                                   |                                                                                   |                          |
|-----------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------|--------------------------|
|  | Normal Movement                   |  | Permitted/Opposed        |
|  | Slip/Bypass-Lane Movement         |  | Opposed Slip/Bypass-Lane |
|  | Stopped Movement                  |  | Turn On Red              |
|  | Other Movement Class (MC) Running |  | Undetected Movement      |
|  | Mixed Running & Stopped MCs       |  | Continuous Movement      |
|  | Other Movement Class (MC) Stopped |  | Phase Transition Applied |