

SITE LAYOUT

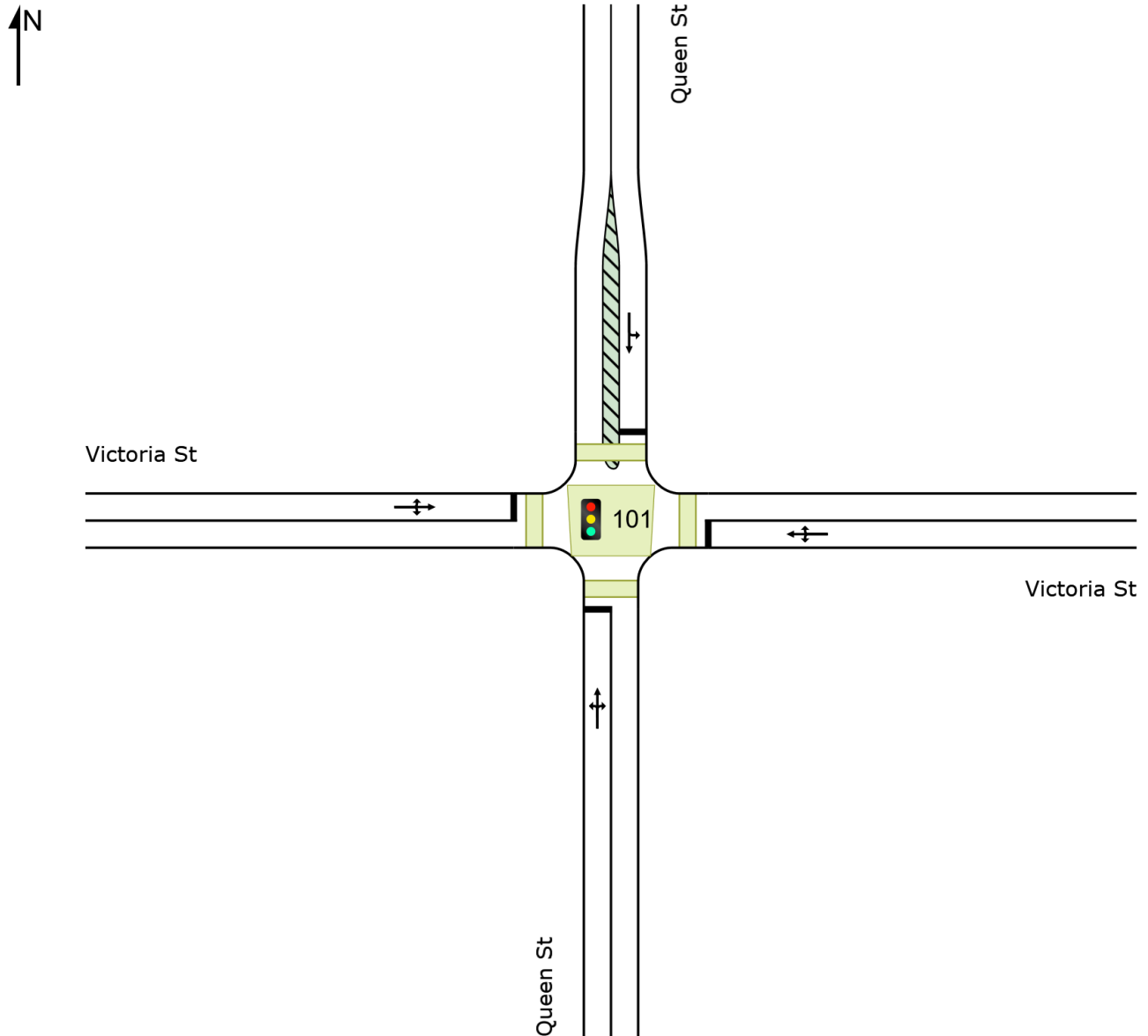
 **Site: 101 [Option Improvement AM - Ped phasing reduction - Split Phasing (Site Folder: Queen St/Victoria St - Post-THN)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated

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Project: C:\Users\NZRT31477\Documents\Projects\Queen St WW\VO\Queen St_WW Part 3 29072024 - v6.sip9

MOVEMENT SUMMARY

Site: 101 [Option Improvement AM - Ped phasing reduction - Split Phasing (Site Folder: Queen St/Victoria St - Post-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				
South: Queen St														
1	L2	22	9.0	23	9.0	1.085	155.4	LOS F	50.1	409.3	1.00	1.62	2.00	5.0
2	T1	240	28.0	253	28.0	* 1.085	155.3	LOS F	50.1	409.3	1.00	1.62	2.00	6.6
3	R2	174	9.0	183	9.0	1.085	155.8	LOS F	50.1	409.3	1.00	1.62	2.00	5.8
Approach		436	19.5	459	19.5	1.085	155.5	LOS F	50.1	409.3	1.00	1.62	2.00	6.2
East: Victoria St														
4	L2	114	7.0	120	7.0	1.126	187.8	LOS F	29.2	216.7	1.00	1.70	2.28	4.9
5	T1	9	7.0	9	7.0	* 1.126	185.8	LOS F	29.2	216.7	1.00	1.70	2.28	3.0
6	R2	114	7.0	120	7.0	1.126	188.1	LOS F	29.2	216.7	1.00	1.70	2.28	4.5
Approach		237	7.0	249	7.0	1.126	187.8	LOS F	29.2	216.7	1.00	1.70	2.28	4.6
North: Queen St														
7	L2	87	9.0	92	9.0	1.115	179.2	LOS F	26.1	202.4	1.00	1.77	2.25	4.7
8	T1	131	15.0	138	15.0	* 1.115	177.8	LOS F	26.1	202.4	1.00	1.77	2.25	5.8
Approach		218	12.6	229	12.6	1.115	178.4	LOS F	26.1	202.4	1.00	1.77	2.25	5.4
West: Victoria St														
10	L2	25	7.0	26	7.0	0.586	67.1	LOS E	3.3	24.3	1.00	0.79	1.07	9.0
11	T1	15	7.0	16	7.0	* 0.586	65.2	LOS E	3.3	24.3	1.00	0.79	1.07	7.4
12	R2	10	7.0	11	7.0	0.586	67.5	LOS E	3.3	24.3	1.00	0.79	1.07	9.7
Approach		50	7.0	53	7.0	0.586	66.6	LOS E	3.3	24.3	1.00	0.79	1.07	8.7
All Vehicles		941	14.1	991	14.1	1.126	164.2	LOS F	50.1	409.3	1.00	1.63	2.08	5.6

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	214.8	208.6	0.97
Pedestrian Movements (Diagonal)											
PD Diagonal	80	84	54.3	LOS E	0.1	0.1	0.95	0.95	217.5	212.2	0.98
All Pedestrians	400	421	54.3	LOS E	0.3	0.3	0.95	0.95	215.7	209.7	0.97

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 - Post-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

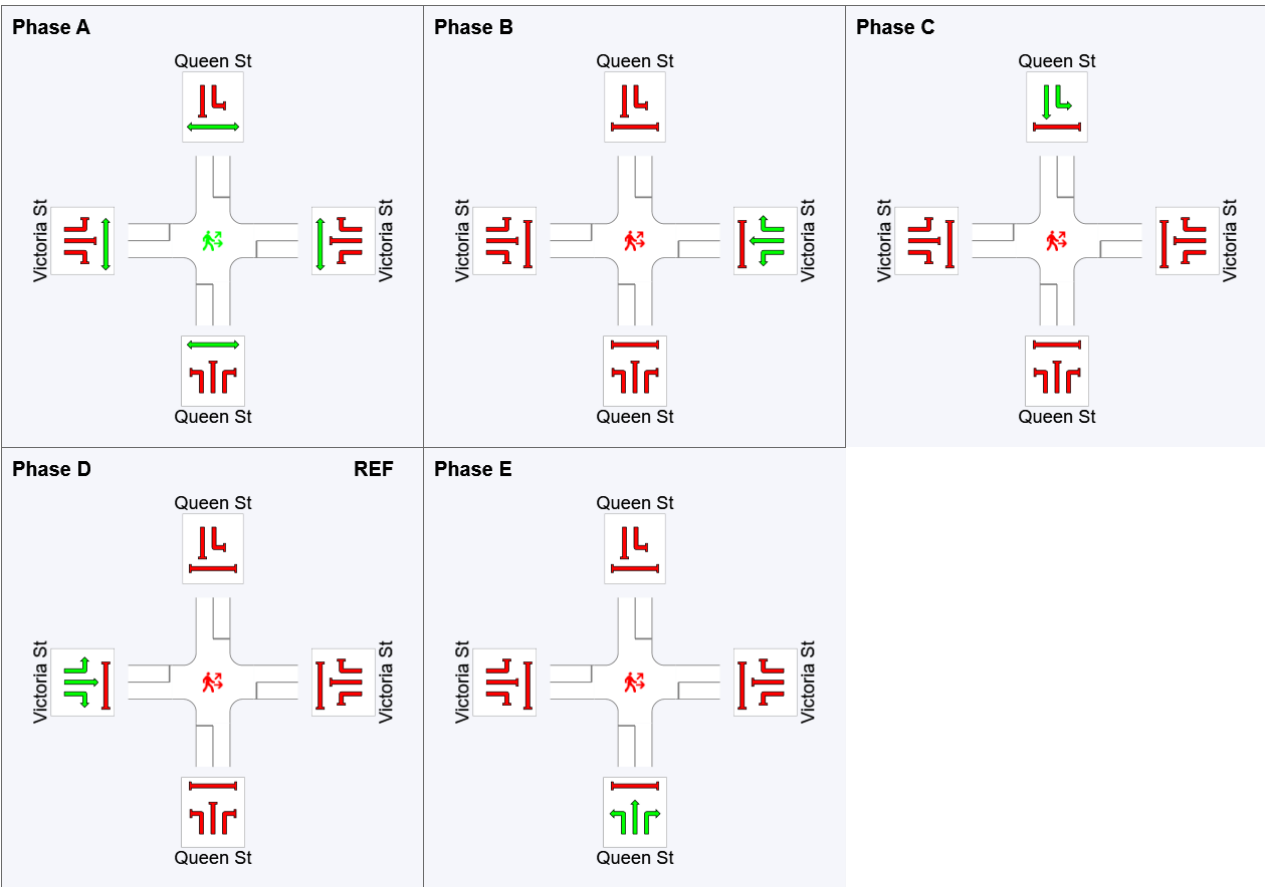
Output Phase Sequence: A, B, C, D, E

Phase Timing Summary

Phase	A	B	C	D	E
Phase Change Time (sec)	46	81	101	0	11
Green Time (sec)	30	15	14	6	30
Phase Time (sec)	35	20	19	11	35
Phase Split	29%	17%	16%	9%	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

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

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 119 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	53.8	LOS E	0.3	0.3	0.95	0.95	214.3	208.6	0.97
East: Victoria St												
P2	Full	80	84	53.8	LOS E	0.3	0.3	0.95	0.95	214.3	208.6	0.97
North: Queen St												

P3 Full	80	84	53.8	LOS E	0.3	0.3	0.95	0.95	215.8	210.6	0.98
West: Victoria St											
P4 Full	80	84	53.8	LOS E	0.3	0.3	0.95	0.95	214.3	208.6	0.97
Pedestrian Movements (Diagonal)											
PD Diagonal	80	84	53.8	LOS E	0.1	0.1	0.95	0.95	217.0	212.2	0.98
All Pedestrians	400	421	53.8	LOS E	0.3	0.3	0.95	0.95	215.2	209.7	0.97

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 - Post-THN)]**

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 119 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

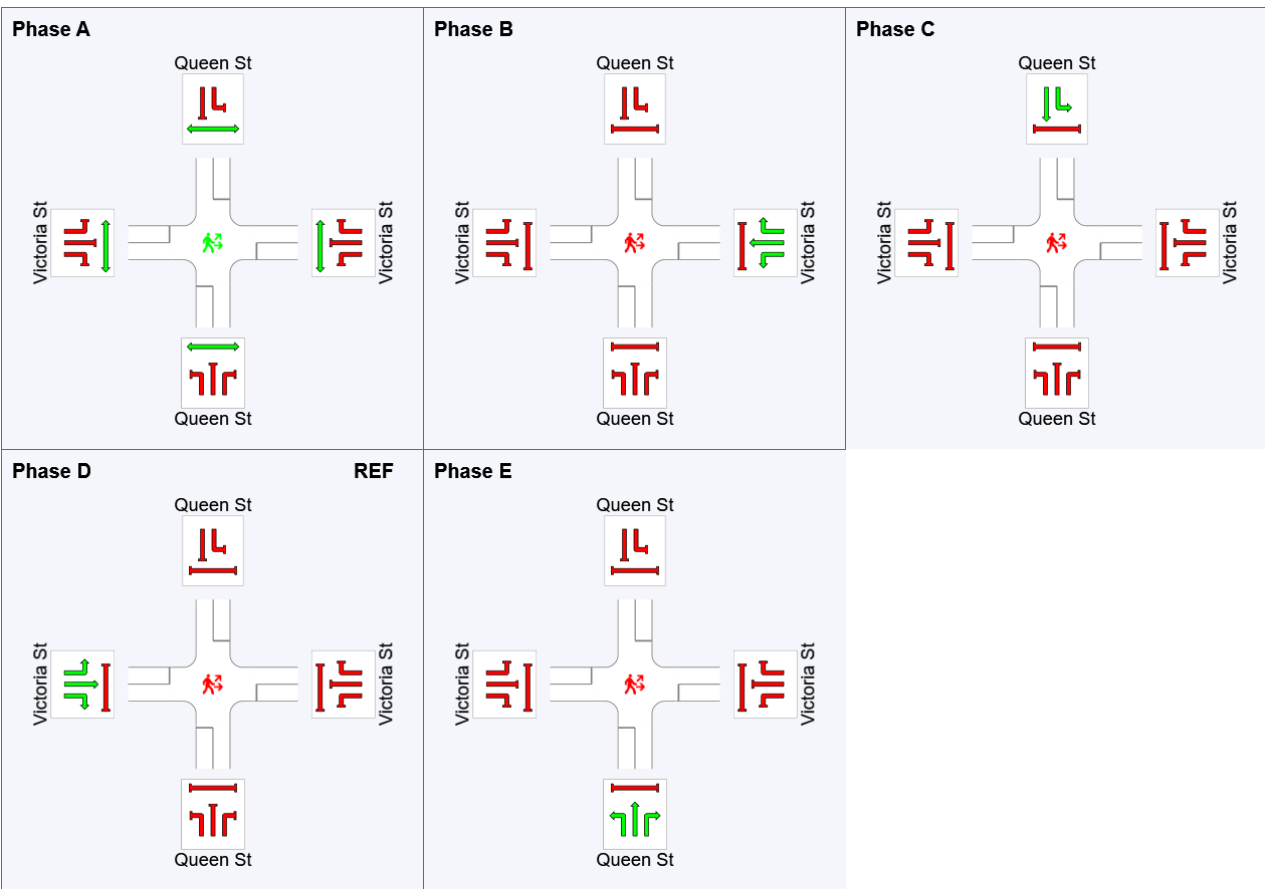
Output Phase Sequence: A, B, C, D, E

Phase Timing Summary

Phase	A	B	C	D	E
Phase Change Time (sec)	42	77	99	0	11
Green Time (sec)	30	17	15	6	26
Phase Time (sec)	35	22	20	11	31
Phase Split	29%	18%	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 (15% Vol reduction) - Split Phasing (Site Folder: Queen St/ Victoria St - Post-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				
South: Queen St														
1	L2	19	9.0	20	9.0	0.924	69.5	LOS E	27.8	226.9	1.00	1.12	1.35	9.7
2	T1	204	28.0	215	28.0	* 0.924	69.4	LOS E	27.8	226.9	1.00	1.12	1.35	12.0
3	R2	148	9.0	156	9.0	0.924	69.8	LOS E	27.8	226.9	1.00	1.12	1.35	10.8
Approach		371	19.4	391	19.4	0.924	69.5	LOS E	27.8	226.9	1.00	1.12	1.35	11.4
East: Victoria St														
4	L2	97	7.0	102	7.0	0.960	85.8	LOS F	16.0	118.8	1.00	1.22	1.58	9.2
5	T1	8	7.0	8	7.0	* 0.960	83.8	LOS F	16.0	118.8	1.00	1.22	1.58	6.1
6	R2	97	7.0	102	7.0	0.960	86.2	LOS F	16.0	118.8	1.00	1.22	1.58	8.5
Approach		202	7.0	213	7.0	0.960	85.9	LOS F	16.0	118.8	1.00	1.22	1.58	8.8
North: Queen St														
7	L2	74	9.0	78	9.0	0.946	82.0	LOS F	14.2	110.4	1.00	1.24	1.55	9.0
8	T1	111	15.0	117	15.0	* 0.946	80.6	LOS F	14.2	110.4	1.00	1.24	1.55	10.6
Approach		185	12.6	195	12.6	0.946	81.2	LOS F	14.2	110.4	1.00	1.24	1.55	10.0
West: Victoria St														
10	L2	21	7.0	22	7.0	0.504	66.4	LOS E	2.8	20.7	1.00	0.74	1.00	9.1
11	T1	13	7.0	14	7.0	* 0.504	64.4	LOS E	2.8	20.7	1.00	0.74	1.00	7.5
12	R2	9	7.0	9	7.0	0.504	66.8	LOS E	2.8	20.7	1.00	0.74	1.00	9.8
Approach		43	7.0	45	7.0	0.504	65.9	LOS E	2.8	20.7	1.00	0.74	1.00	8.8
All Vehicles		801	14.1	843	14.1	0.960	76.2	LOS E	27.8	226.9	1.00	1.15	1.43	10.2

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	Dist]					
		ped/h	ped/h	sec		ped	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	214.8	208.6	0.97	
Pedestrian Movements (Diagonal)												
PD Diagonal	80	84	54.3	LOS E	0.1	0.1	0.95	0.95	217.5	212.2	0.98	
All Pedestrians	400	421	54.3	LOS E	0.3	0.3	0.95	0.95	215.7	209.7	0.97	

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 - Post-THN)]**

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site Optimum Cycle Time - Minimum Delay)

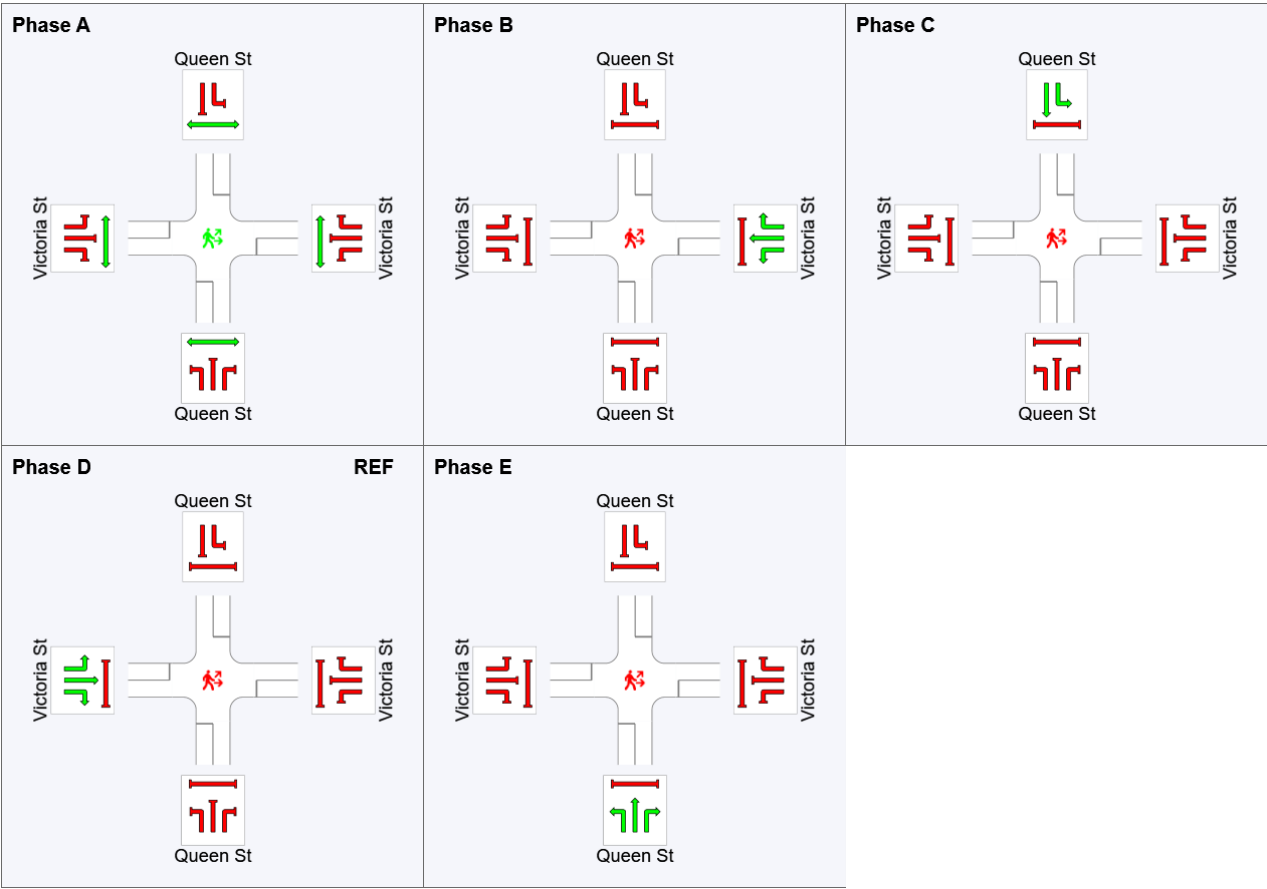
Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Phase Sequence: Leading Right Turn
Reference Phase: Phase D
Input Phase Sequence: A, B, C, D, E
Output Phase Sequence: A, B, C, D, E

Phase Timing Summary

Phase	A	B	C	D	E
Phase Change Time (sec)	46	81	101	0	11
Green Time (sec)	30	15	14	6	30
Phase Time (sec)	35	20	19	11	35
Phase Split	29%	17%	16%	9%	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 - Post-THN)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 118 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	16	9.0	17	9.0	0.912	68.0	LOS E	23.1	191.1	1.00	1.12	1.35	9.8
2	T1	176	31.0	185	31.0	* 0.912	68.0	LOS E	23.1	191.1	1.00	1.12	1.35	12.2
3	R2	128	9.0	135	9.0	0.912	68.3	LOS E	23.1	191.1	1.00	1.12	1.35	10.9
Approach		320	21.1	337	21.1	0.912	68.1	LOS E	23.1	191.1	1.00	1.12	1.35	11.6
East: Victoria St														
4	L2	108	7.0	114	7.0	0.927	75.0	LOS E	16.6	122.8	1.00	1.14	1.46	10.1
5	T1	9	7.0	9	7.0	* 0.927	73.0	LOS E	16.6	122.8	1.00	1.14	1.46	6.8
6	R2	108	7.0	114	7.0	0.927	75.4	LOS E	16.6	122.8	1.00	1.14	1.46	9.4
Approach		225	7.0	237	7.0	0.927	75.1	LOS E	16.6	122.8	1.00	1.14	1.46	9.7
North: Queen St														
7	L2	77	9.0	81	9.0	0.901	71.1	LOS E	13.5	105.1	1.00	1.13	1.40	10.0
8	T1	115	15.0	121	15.0	* 0.901	69.7	LOS E	13.5	105.1	1.00	1.13	1.40	11.7
Approach		192	12.6	202	12.6	0.901	70.2	LOS E	13.5	105.1	1.00	1.13	1.40	11.0
West: Victoria St														
10	L2	21	7.0	22	7.0	0.495	65.2	LOS E	2.7	20.3	1.00	0.74	1.00	9.2
11	T1	13	7.0	14	7.0	* 0.495	63.2	LOS E	2.7	20.3	1.00	0.74	1.00	7.6
12	R2	9	7.0	9	7.0	0.495	65.6	LOS E	2.7	20.3	1.00	0.74	1.00	9.9
Approach		43	7.0	45	7.0	0.495	64.7	LOS E	2.7	20.3	1.00	0.74	1.00	8.9
All Vehicles		780	14.2	821	14.2	0.927	70.5	LOS E	23.1	191.1	1.00	1.11	1.37	10.8

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	53.3	LOS E	0.3	0.3	0.95	0.95	213.8	208.6	0.98
East: Victoria St												
P2	Full	80	84	53.3	LOS E	0.3	0.3	0.95	0.95	213.8	208.6	0.98

North: Queen St												
P3 Full	80	84	53.3	LOS E	0.3	0.3	0.95	0.95	215.3	210.6	0.98	
West: Victoria St												
P4 Full	80	84	53.3	LOS E	0.3	0.3	0.95	0.95	213.8	208.6	0.98	
Pedestrian Movements (Diagonal)												
PD Diagonal	80	84	53.3	LOS E	0.1	0.1	0.95	0.95	216.5	212.2	0.98	
All Pedestrians	400	421	53.3	LOS E	0.3	0.3	0.95	0.95	214.7	209.7	0.98	

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
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PHASING SUMMARY

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New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 118 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

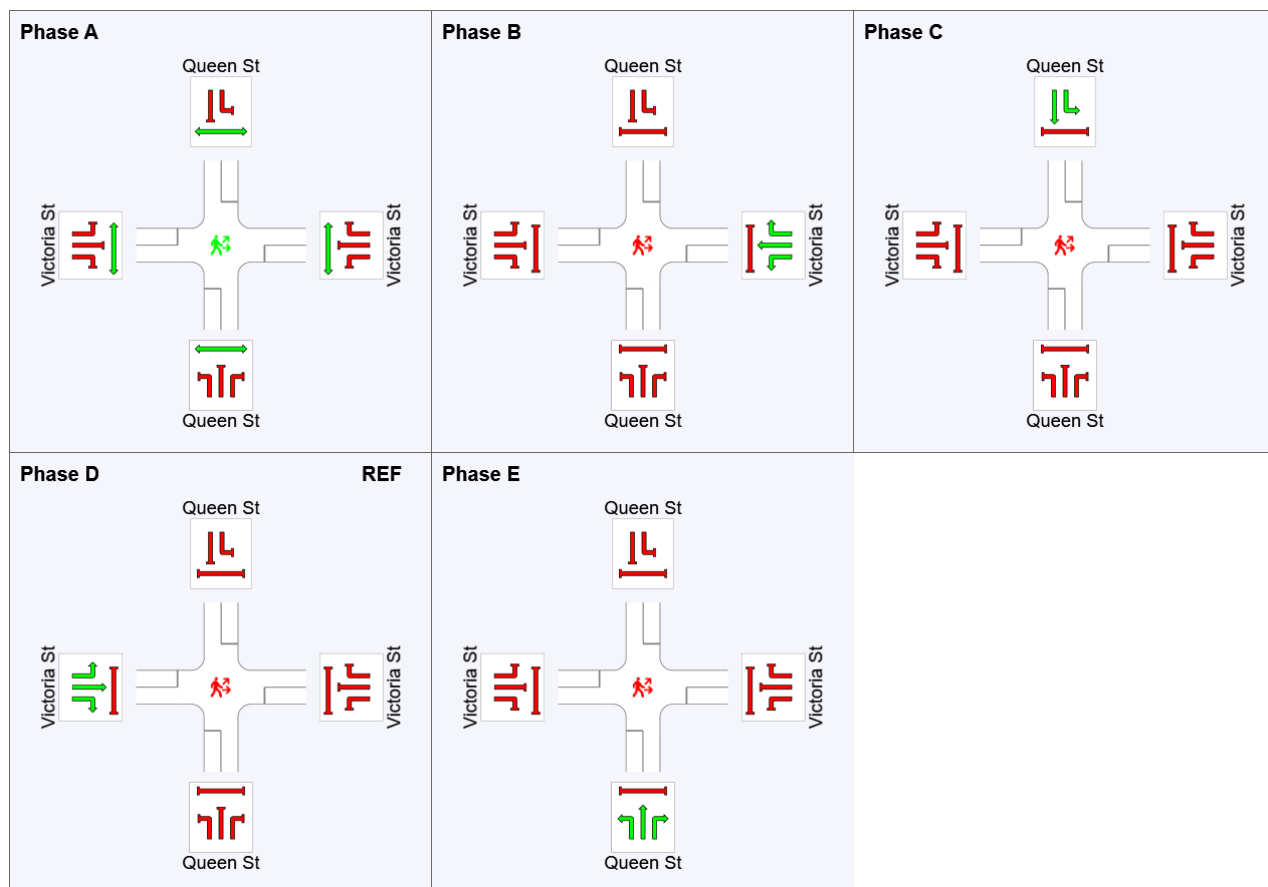
Output Phase Sequence: A, B, C, D, E

Phase Timing Summary

Phase	A	B	C	D	E
Phase Change Time (sec)	42	76	98	0	11
Green Time (sec)	29	17	15	6	26
Phase Time (sec)	34	22	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 - Post-THN)]

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 112 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	0.818	51.9	LOS D	18.3	149.4	1.00	0.97	1.15	11.8
2	T1	168	28.0	177	28.0	* 0.818	51.8	LOS D	18.3	149.4	1.00	0.97	1.15	14.3
3	R2	122	9.0	128	9.0	0.818	52.3	LOS D	18.3	149.4	1.00	0.97	1.15	13.0
Approach		305	19.5	321	19.5	0.818	52.0	LOS D	18.3	149.4	1.00	0.97	1.15	13.7
East: Victoria St														
4	L2	80	7.0	84	7.0	0.789	58.8	LOS E	10.1	75.1	1.00	0.94	1.19	11.9
5	T1	6	7.0	6	7.0	* 0.789	56.8	LOS E	10.1	75.1	1.00	0.94	1.19	8.2
6	R2	80	7.0	84	7.0	0.789	59.1	LOS E	10.1	75.1	1.00	0.94	1.19	11.0
Approach		166	7.0	175	7.0	0.789	58.9	LOS E	10.1	75.1	1.00	0.94	1.19	11.4
North: Queen St														
7	L2	61	9.0	64	9.0	0.787	59.5	LOS E	9.4	72.6	1.00	0.96	1.20	11.3
8	T1	92	15.0	97	15.0	* 0.787	58.2	LOS E	9.4	72.6	1.00	0.96	1.20	13.0
Approach		153	12.6	161	12.6	0.787	58.7	LOS E	9.4	72.6	1.00	0.96	1.20	12.4
West: Victoria St														
10	L2	18	7.0	19	7.0	0.394	61.3	LOS E	2.2	16.0	1.00	0.73	1.00	9.6
11	T1	11	7.0	12	7.0	* 0.394	59.3	LOS E	2.2	16.0	1.00	0.73	1.00	8.0
12	R2	7	7.0	7	7.0	0.394	61.6	LOS E	2.2	16.0	1.00	0.73	1.00	10.3
Approach		36	7.0	38	7.0	0.394	60.7	LOS E	2.2	16.0	1.00	0.73	1.00	9.3
All Vehicles		660	14.1	695	14.1	0.818	55.8	LOS E	18.3	149.4	1.00	0.95	1.17	12.5

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					
South: Queen St												
P1	Full	80	84	50.3	LOS E	0.3	0.3	0.95	0.95	210.8	208.6	0.99
East: Victoria St												
P2	Full	80	84	50.3	LOS E	0.3	0.3	0.95	0.95	210.8	208.6	0.99

North: Queen St												
P3 Full	80	84	50.3	LOS E	0.3	0.3	0.95	0.95	212.3	210.6	0.99	
West: Victoria St												
P4 Full	80	84	50.3	LOS E	0.3	0.3	0.95	0.95	210.8	208.6	0.99	
Pedestrian Movements (Diagonal)												
PD Diagonal	80	84	50.3	LOS E	0.1	0.1	0.95	0.95	213.5	212.2	0.99	
All Pedestrians	400	421	50.3	LOS E	0.3	0.3	0.95	0.95	211.7	209.7	0.99	

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 - Post-THN)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 112 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

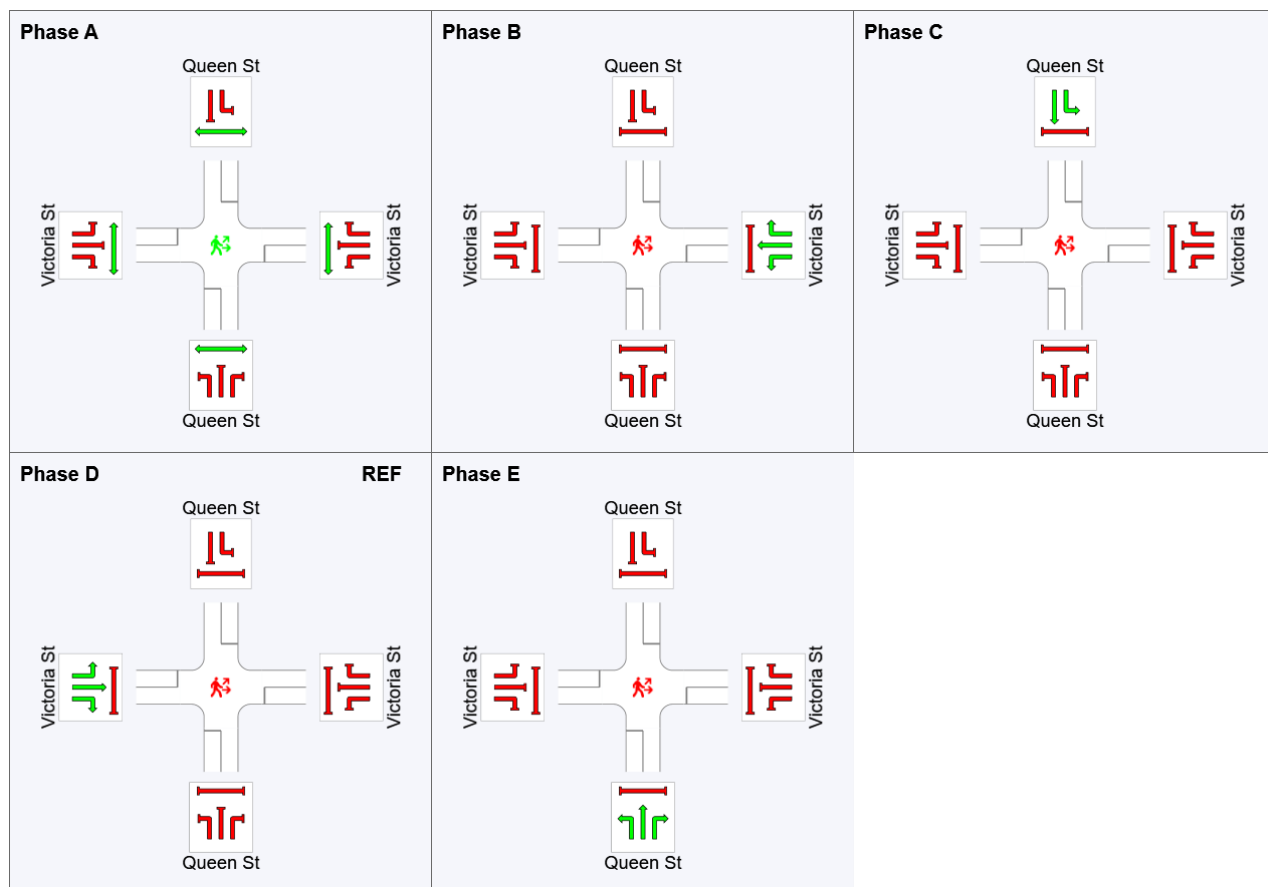
Output Phase Sequence: A, B, C, D, E

Phase Timing Summary

Phase	A	B	C	D	E
Phase Change Time (sec)	42	75	94	0	11
Green Time (sec)	28	14	13	6	26
Phase Time (sec)	33	19	18	11	31
Phase Split	29%	17%	16%	10%	28%

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 - Post-THN)]**

New Site

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 111 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	0.800	52.4	LOS D	15.6	129.0	1.00	0.96	1.15	11.8
2	T1	145	31.0	153	31.0	* 0.800	52.4	LOS D	15.6	129.0	1.00	0.96	1.15	14.3
3	R2	106	9.0	112	9.0	0.800	52.7	LOS D	15.6	129.0	1.00	0.96	1.15	12.9
Approach		264	21.1	278	21.1	0.800	52.5	LOS D	15.6	129.0	1.00	0.96	1.15	13.6
East: Victoria St														
4	L2	89	7.0	94	7.0	0.817	59.0	LOS E	11.4	84.6	1.00	0.97	1.23	11.8
5	T1	8	7.0	8	7.0	* 0.817	57.0	LOS E	11.4	84.6	1.00	0.97	1.23	8.1
6	R2	89	7.0	94	7.0	0.817	59.3	LOS E	11.4	84.6	1.00	0.97	1.23	11.0
Approach		186	7.0	196	7.0	0.817	59.0	LOS E	11.4	84.6	1.00	0.97	1.23	11.3
North: Queen St														
7	L2	63	9.0	66	9.0	0.805	59.8	LOS E	9.7	75.1	1.00	0.99	1.23	11.2
8	T1	95	15.0	100	15.0	* 0.805	58.5	LOS E	9.7	75.1	1.00	0.99	1.23	13.0
Approach		158	12.6	166	12.6	0.805	59.0	LOS E	9.7	75.1	1.00	0.99	1.23	12.3
West: Victoria St														
10	L2	18	7.0	19	7.0	0.390	60.7	LOS E	2.1	15.8	1.00	0.73	1.00	9.7
11	T1	11	7.0	12	7.0	* 0.390	58.7	LOS E	2.1	15.8	1.00	0.73	1.00	8.0
12	R2	7	7.0	7	7.0	0.390	61.0	LOS E	2.1	15.8	1.00	0.73	1.00	10.4
Approach		36	7.0	38	7.0	0.390	60.2	LOS E	2.1	15.8	1.00	0.73	1.00	9.3
All Vehicles		644	14.1	678	14.1	0.817	56.4	LOS E	15.6	129.0	1.00	0.96	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	49.8	LOS E	0.3	0.3	0.95	0.95	210.3	208.6	0.99
East: Victoria St												
P2	Full	80	84	49.8	LOS E	0.3	0.3	0.95	0.95	210.3	208.6	0.99

North: Queen St												
P3 Full	80	84	49.8	LOS E	0.3	0.3	0.95	0.95	211.8	210.6	0.99	
West: Victoria St												
P4 Full	80	84	49.8	LOS E	0.3	0.3	0.95	0.95	210.3	208.6	0.99	
Pedestrian Movements (Diagonal)												
PD Diagonal	80	84	49.8	LOS E	0.1	0.1	0.95	0.95	213.0	212.2	1.00	
All Pedestrians	400	421	49.8	LOS E	0.3	0.3	0.95	0.95	211.2	209.7	0.99	

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 - Post-THN)]**

New Site
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 111 seconds (Site Optimum Cycle Time - Minimum Delay)

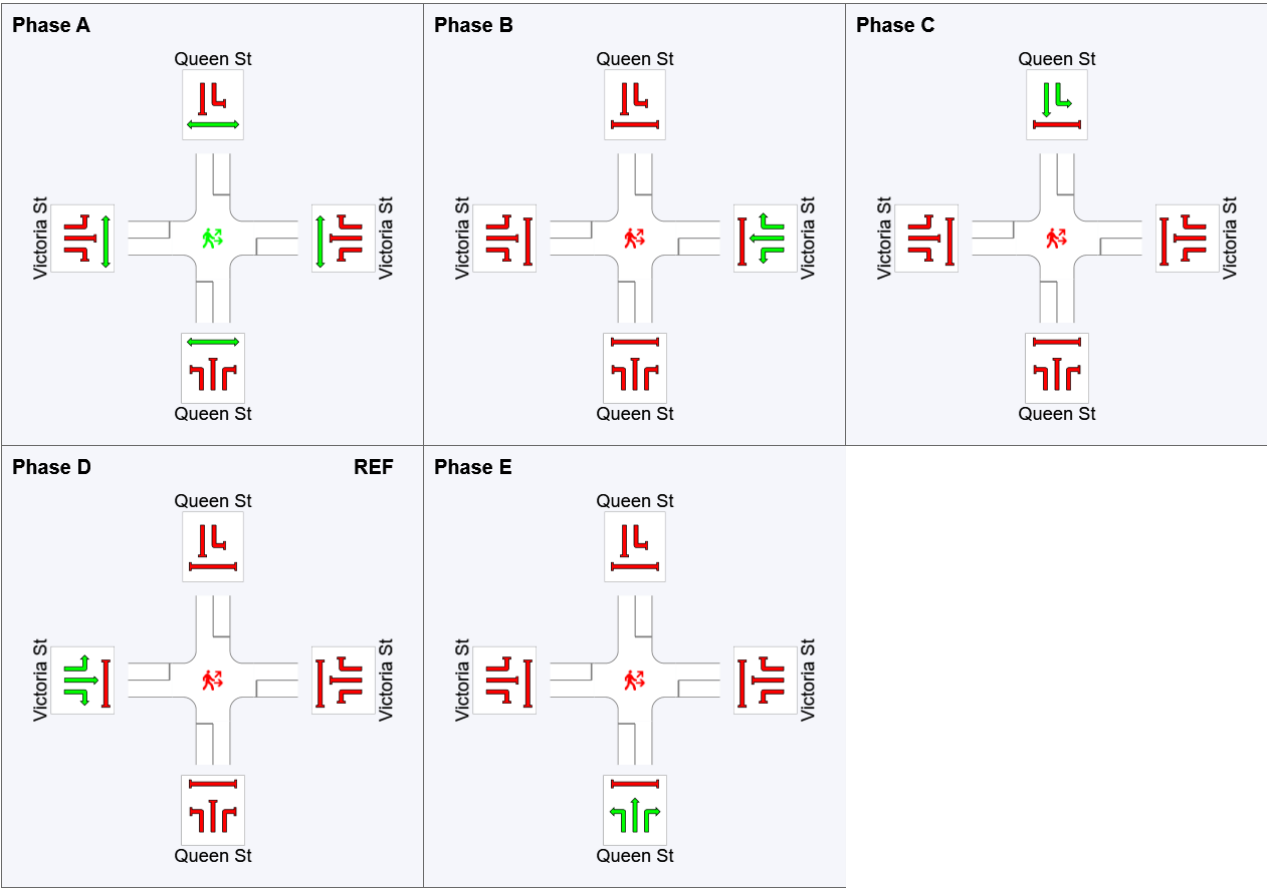
Timings based on settings in the Site Phasing & Timing dialog
Phase Times determined by the program
Phase Sequence: Leading Right Turn
Reference Phase: Phase D
Input Phase Sequence: A, B, C, D, E
Output Phase Sequence: A, B, C, D, E

Phase Timing Summary

Phase	A	B	C	D	E
Phase Change Time (sec)	39	73	93	0	11
Green Time (sec)	29	15	13	6	23
Phase Time (sec)	34	20	18	11	28
Phase Split	31%	18%	16%	10%	25%

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