ATTACHMENT 1

DEGREE OF SATURATION

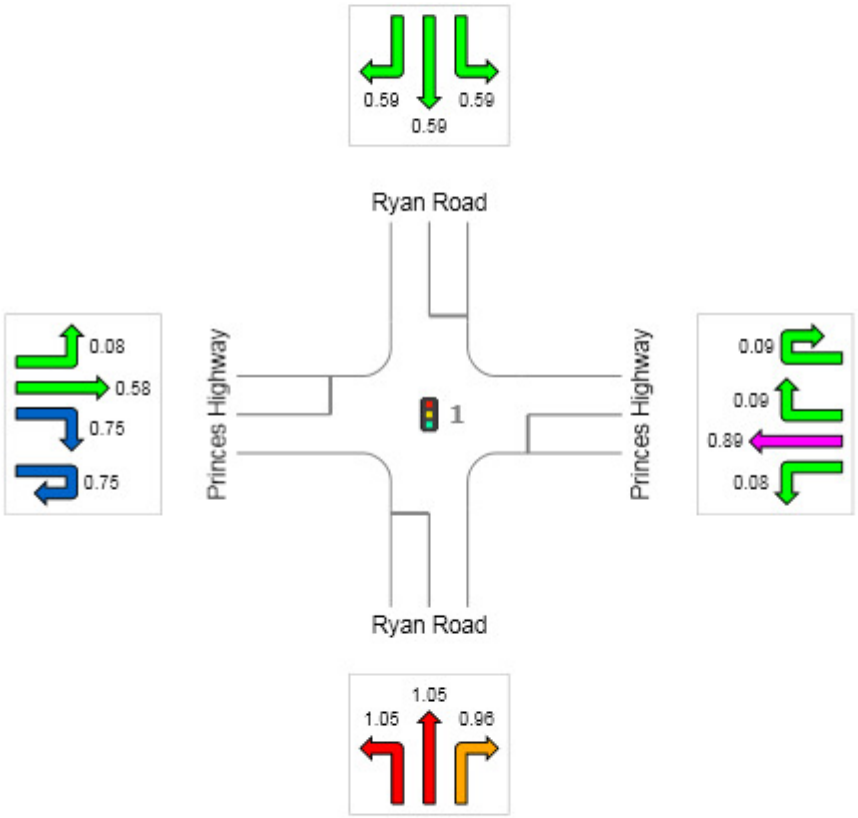
Ratio of Demand Volume to Capacity (v/c ratio)

Site: 1 [Princes Highway/ Ryan Road- Ultimate Year - 2046 -revised-AM - Base case *]

Princes Highway/ Ryan Road
Ultimate Year
2046 (AM Peak)
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Phase Times)

All Movement Classes

	South	East	North	West	Intersection
Degree of Saturation	1.05	0.89	0.59	0.75	1.05



Colour code based on Degree of Saturation

[< 0.6] [0.6 – 0.7] [0.7 – 0.8] [0.8 – 0.9] [0.9 – 1.0] [> 1.0]

LANE SUMMARY

Site: 1 [Princes Highway/ Ryan Road- Ultimate Year - 2046 -revised-AM - Base case *]

Princes Highway/ Ryan Road
Ultimate Year
2046 (AM Peak)
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Phase Times)

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Ryan Road													
Lane 1	562	4.0	534[1]	1.052	100	146.4	LOS F	58.1	421.0	Full	500	0.0	0.0
Lane 2	187	4.0	195[1]	0.962	91[5]	90.2	LOS E	13.8	100.0	Short	25	0.0	NA
Approach	749	4.0		1.052		132.3	LOS F	58.1	421.0				
East: Princes Highway													
Lane 1	47	10.0	569	0.083	100	35.6	LOS A	1.9	14.5	Short	75	0.0	NA
Lane 2	514	10.0	579[1]	0.888	100	52.9	LOS C	32.9	250.0	Full	500	0.0	0.0
Lane 3	534	10.0	601	0.888	100	53.0	LOS C	34.4	261.8	Full	500	0.0	0.0
Lane 4	530	10.0	597[1]	0.888	100	53.0	LOS C	34.2	259.6	Full	500	0.0	0.0
Lane 5	16	10.0	180	0.088	100	59.0	LOS A	0.9	6.5	Short	120	0.0	NA
Approach	1642	10.0		0.888		52.5	LOS C	34.4	261.8				
North: Ryan Road													
Lane 1	132	4.0	224	0.588	100	49.1	LOS A	6.0	43.6	Full	500	0.0	0.0
Lane 2	112	4.0	191[1]	0.588	100	62.5	LOS A	6.5	47.1	Short	25	0.0	NA
Approach	244	4.0		0.588		55.3	LOS A	6.5	47.1				
West: Princes Highway													
Lane 1	46	10.0	569	0.081	100	35.5	LOS A	1.9	14.1	Short	75	0.0	NA
Lane 2	351	10.0	601	0.584	100	36.3	LOS A	17.1	130.0	Full	500	0.0	0.0
Lane 3	351	10.0	601	0.584	100	36.3	LOS A	17.1	130.0	Full	500	0.0	0.0
Lane 4	351	10.0	601	0.584	100	36.3	LOS A	17.1	130.0	Full	500	0.0	0.0
Lane 5	141	10.0	187	0.752	100	66.5	LOS C	8.6	65.7	Short	120	0.0	NA
Approach	1240	10.0		0.752		39.7	LOS C	17.1	130.0				
Intersection	3876	8.5		1.052		64.0	LOS F	58.1	421.0				

Site Level of Service (LOS) Method: Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on degree of saturation per lane.
Intersection and Approach LOS values are based on worst degree of saturation for any lane.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the adjacent full-length lanes. Some upstream delays at entry to short lanes are not included.
5 Lane under-utilisation found by the program

PHASING SUMMARY

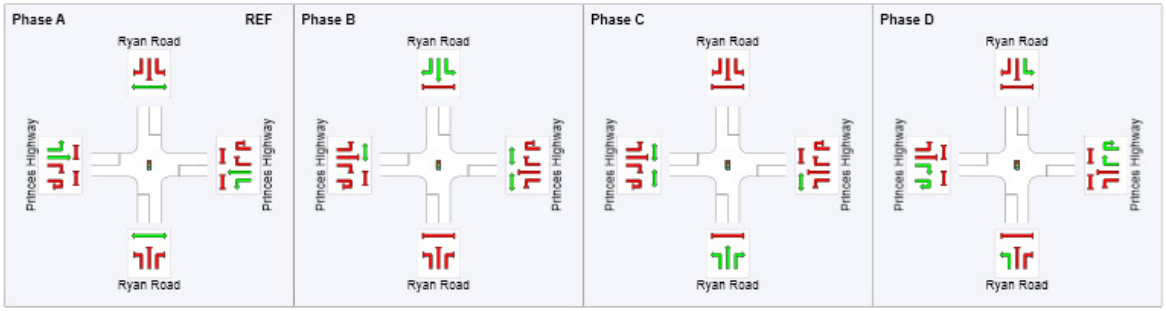
Site: 1 [Princes Highway/ Ryan Road- Ultimate Year - 2046 -revised-AM - Base case *]

Princes Highway/ Ryan Road
Ultimate Year
2046 (AM Peak)
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Phase Times)

Phase times specified by the user
Sequence: Split Phasing
Movement Class: All Movement Classes
Input Sequence: A, B, C, D
Output Sequence: A, B, C, D

Phase Timing Results

Phase	A	B	C	D
Reference Phase	Yes	No	No	No
Phase Change Time (sec)	0	45	64	101
Green Time (sec)	39	13	31	13
Yellow Time (sec)	4	4	4	4
All-Red Time (sec)	2	2	2	2
Phase Time (sec)	45	19	37	19
Phase Split	38 %	16 %	31 %	16 %



DEGREE OF SATURATION

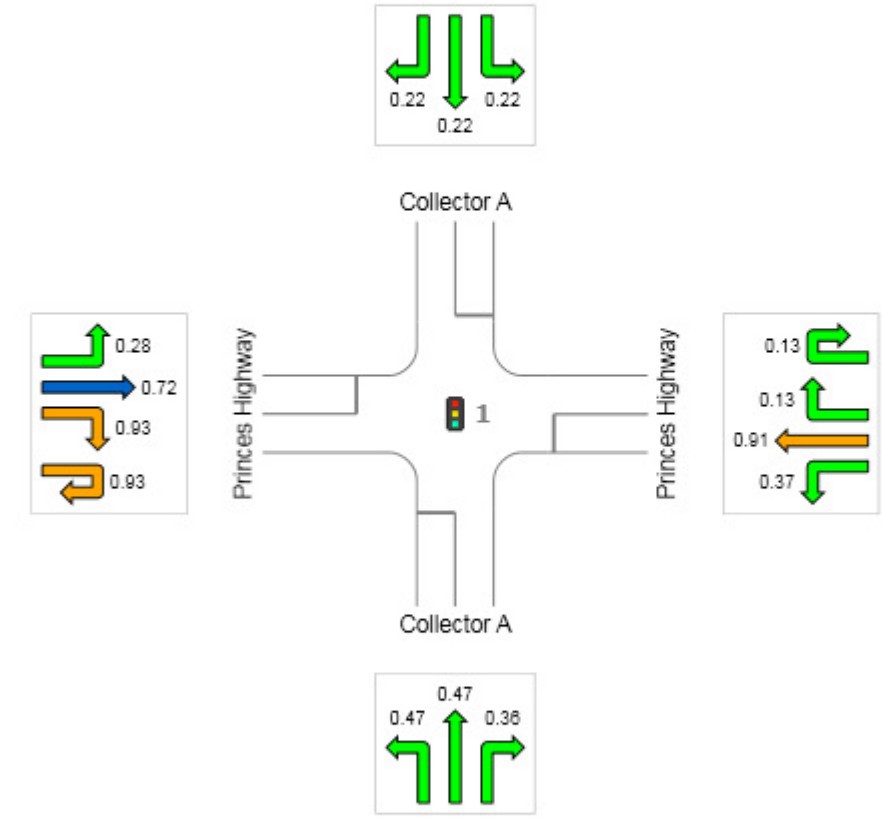
Ratio of Demand Volume to Capacity (v/c ratio)

Site: 1 [Princes Highway/ Ryan Road- Ultimate Year - 2046 -revised-PM - Base case *]

Princes Highway/ Collector A
Ultimate Year
2046 (PM Peak)
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Cycle Time)

All Movement Classes

	South	East	North	West	Intersection
Degree of Saturation	0.47	0.91	0.22	0.93	0.93



Colour code based on Degree of Saturation

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LANE SUMMARY

Site: 1 [Princes Highway/ Ryan Road- Ultimate Year - 2046 -revised-PM - Base case *]

Princes Highway/ Collector A
Ultimate Year
2046 (PM Peak)
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Cycle Time)

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Collector A													
Lane 1	211	4.0	447[1]	0.471	100	42.0	LOS A	9.9	71.8	Full	500	0.0	0.0
Lane 2	71	4.0	198	0.357	76[5]	60.9	LOS A	4.0	28.7	Short	25	0.0	NA
Approach	281	4.0		0.471		46.7	LOS A	9.9	71.8				
East: Princes Highway													
Lane 1	197	10.0	525	0.375	100	41.3	LOS A	9.1	69.1	Short	75	0.0	NA
Lane 2	441	10.0	486[1]	0.909	100	58.8	LOS D	29.2	221.8	Full	500	0.0	0.0
Lane 3	504	10.0	555	0.909	100	59.1	LOS D	34.1	259.5	Full	500	0.0	0.0
Lane 4	503	10.0	553[1]	0.909	100	59.1	LOS D	34.0	258.5	Full	500	0.0	0.0
Lane 5	64	10.0	478	0.134	100	40.2	LOS A	2.8	21.2	Short	120	0.0	NA
Approach	1709	10.0		0.909		56.3	LOS D	34.1	259.5				
North: Collector A													
Lane 1	49	4.0	226	0.216	100	39.0	LOS A	2.0	14.6	Full	500	0.0	0.0
Lane 2	43	4.0	198	0.216	100	59.7	LOS A	2.4	17.0	Short	25	0.0	NA
Approach	92	4.0		0.216		48.7	LOS A	2.4	17.0				
West: Princes Highway													
Lane 1	149	10.0	525	0.284	100	40.2	LOS A	6.7	50.8	Short	75	0.0	NA
Lane 2	381	10.0	526[1]	0.724	100	40.4	LOS C	19.9	151.1	Full	500	0.0	0.0
Lane 3	402	10.0	555	0.724	100	40.7	LOS C	21.2	161.1	Full	500	0.0	0.0
Lane 4	402	10.0	555	0.724	100	40.7	LOS C	21.2	161.1	Full	500	0.0	0.0
Lane 5	459	10.0	494	0.928	100	71.8	LOS D	32.8	249.4	Short	120	0.0	NA
Approach	1794	10.0		0.928		48.6	LOS D	32.8	249.4				
Intersection	3876	9.4		0.928		51.8	LOS D	34.1	259.5				

Site Level of Service (LOS) Method: Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on degree of saturation per lane.
Intersection and Approach LOS values are based on worst degree of saturation for any lane.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the adjacent full-length lanes. Some upstream delays at entry to short lanes are not included.
5 Lane under-utilisation found by the program

PHASING SUMMARY

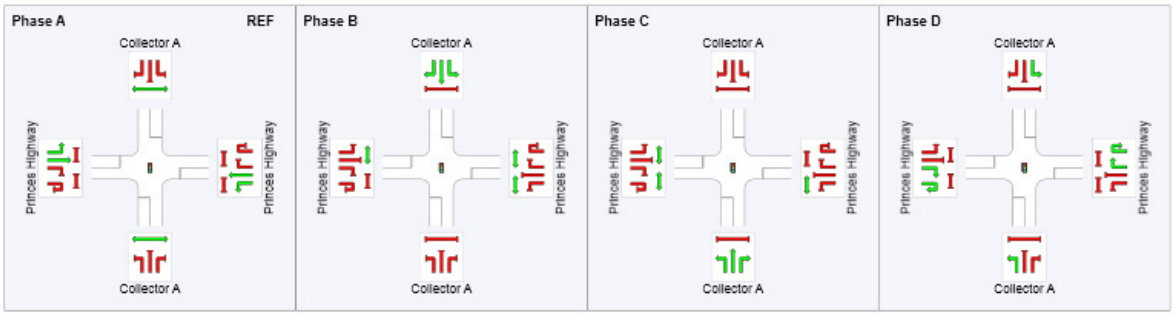
Site: 1 [Princes Highway/ Ryan Road- Ultimate Year - 2046 -revised-PM - Base case *]

Princes Highway/ Collector A
Ultimate Year
2046 (PM Peak)
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Split Phasing
Movement Class: All Movement Classes
Input Sequence: A, B, C, D
Output Sequence: A, B, C, D

Phase Timing Results

Phase	A	B	C	D
Reference Phase	Yes	No	No	No
Phase Change Time (sec)	0	42	61	80
Green Time (sec)	36	13	13	34
Yellow Time (sec)	4	4	4	4
All-Red Time (sec)	2	2	2	2
Phase Time (sec)	42	19	19	40
Phase Split	35 %	16 %	16 %	33 %



DEGREE OF SATURATION

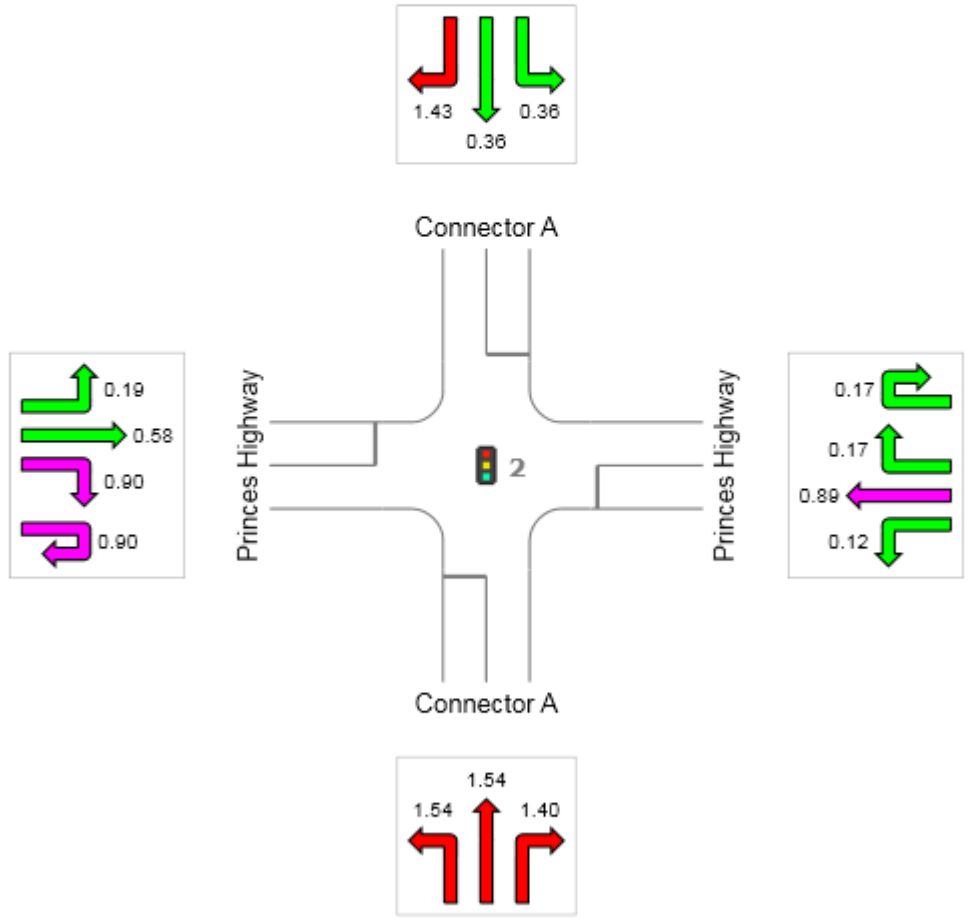
Ratio of Demand Volume to Capacity (v/c ratio)

Site: 2 [Princes Highway/ Connector A- Ultimate Year - 2046 -revised-AM - Base case *]

Princes Highway/ Connector A
Ultimate Year
2046 (AM Peak)
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Phase Times)

All Movement Classes

	South	East	North	West	Intersection
Degree of Saturation	1.54	0.89	1.43	0.90	1.54



Colour code based on Degree of Saturation

[< 0.6] [0.6 – 0.7] [0.7 – 0.8] [0.8 – 0.9] [0.9 – 1.0] [> 1.0]

LANE SUMMARY

Site: 2 [Princes Highway/ Connector A- Ultimate Year - 2046 -revised-AM - Base case *]

Princes Highway/ Connector A
Ultimate Year
2046 (AM Peak)
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Phase Times)

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Connector A													
Lane 1	726	4.0	470[1]	1.544	100	574.6	LOS F	154.8	1120.9	Full	500	0.0	80.4
Lane 2	242	4.0	173[1]	1.402	91[5]	505.5	LOS F	45.1	326.4	Short	25	0.0	NA
Approach	968	4.0		1.544		557.3	LOS F	154.8	1120.9				
East: Princes Highway													
Lane 1	61	10.0	525	0.116	100	38.2	LOS A	2.6	19.6	Short	75	0.0	NA
Lane 2	470	10.0	530[1]	0.886	100	54.3	LOS C	30.1	228.4	Full	500	0.0	0.0
Lane 3	491	10.0	555	0.886	100	54.5	LOS C	31.7	241.2	Full	500	0.0	0.0
Lane 4	491	10.0	555	0.886	100	54.5	LOS C	31.7	241.2	Full	500	0.0	0.0
Lane 5	33	10.0	192	0.170	100	58.8	LOS A	1.8	13.5	Short	120	0.0	NA
Approach	1546	10.0		0.886		53.9	LOS C	31.7	241.2				
North: Connector A													
Lane 1	157	4.0	434	0.361	100	26.5	LOS A	4.6	33.3	Full	500	0.0	5.8[8]
Lane 2	365	4.0	255[1]	1.433	100	481.3	LOS F	69.7	504.4	Short	25	0.0	NA
Approach	522	4.0		1.433		344.7	LOS F	69.7	504.4				
West: Princes Highway													
Lane 1	98	10.0	525	0.186	100	39.0	LOS A	4.2	32.2	Short	75	0.0	NA
Lane 2	323	10.0	555	0.582	100	38.4	LOS A	16.1	122.0	Full	500	0.0	0.0
Lane 3	323	10.0	555	0.582	100	38.4	LOS A	16.1	122.0	Full	500	0.0	0.0
Lane 4	323	10.0	555	0.582	100	38.4	LOS A	16.1	122.0	Full	500	0.0	0.0
Lane 5	182	10.0	202	0.900	100	76.3	LOS C	12.4	94.1	Short	120	0.0	NA
Approach	1248	10.0		0.900		44.0	LOS C	16.1	122.0				
Intersection	4285	7.9		1.544		200.2	LOS F	154.8	1120.9				

Site Level of Service (LOS) Method: Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on degree of saturation per lane.
Intersection and Approach LOS values are based on worst degree of saturation for any lane.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the adjacent full-length lanes. Some upstream delays at entry to short lanes are not included.
5 Lane under-utilisation found by the program
8 Probability of Blockage has been set on the basis of a queue that overflows from an adjacent short lane.

PHASING SUMMARY

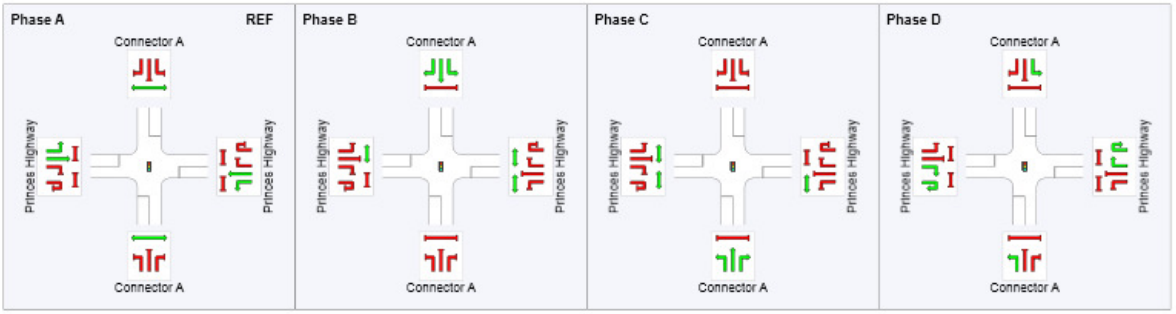
Site: 2 [Princes Highway/ Connector A- Ultimate Year - 2046 -revised-AM - Base case *]

Princes Highway/ Connector A
Ultimate Year
2046 (AM Peak)
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Phase Times)

Phase times specified by the user
Sequence: Split Phasing
Movement Class: All Movement Classes
Input Sequence: A, B, C, D
Output Sequence: A, B, C, D

Phase Timing Results

Phase	A	B	C	D
Reference Phase	Yes	No	No	No
Phase Change Time (sec)	0	42	69	100
Green Time (sec)	36	21	25	14
Yellow Time (sec)	4	4	4	4
All-Red Time (sec)	2	2	2	2
Phase Time (sec)	42	27	31	20
Phase Split	35 %	23 %	26 %	17 %



DEGREE OF SATURATION

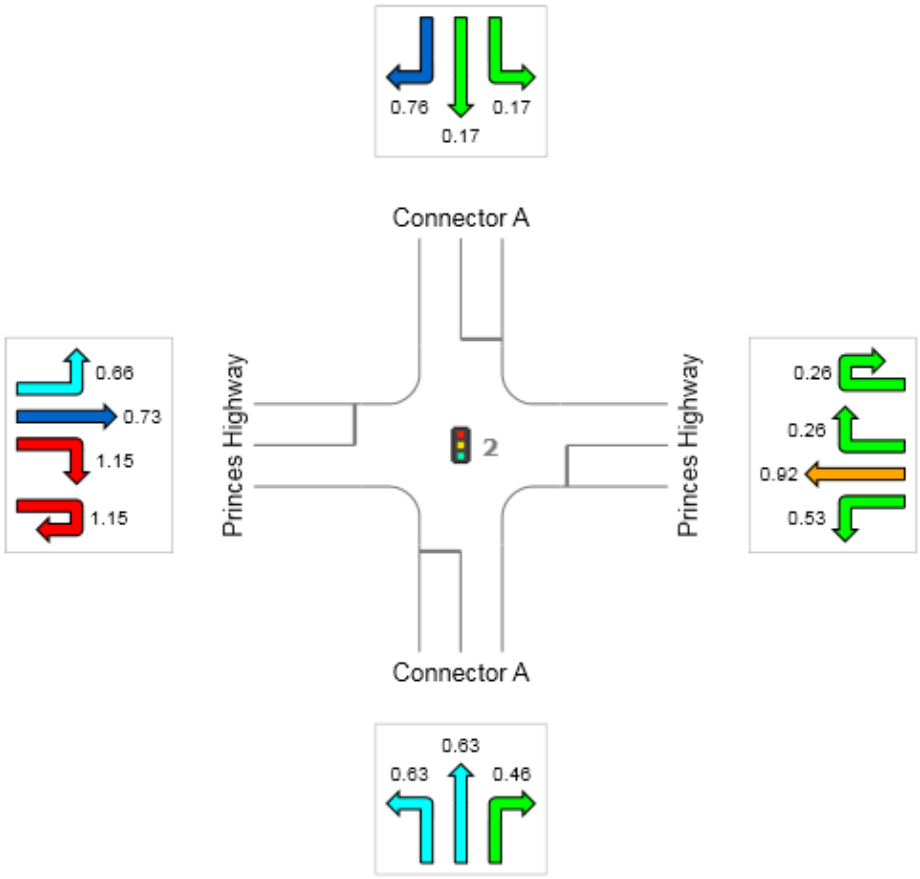
Ratio of Demand Volume to Capacity (v/c ratio)

Site: 2 [Princes Highway/ Connector A- Ultimate Year - 2046 -revised-PM - Base case *]

Princes Highway/ Connector A
Ultimate Year
2046 (PM Peak)
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Phase Times)

All Movement Classes

	South	East	North	West	Intersection
Degree of Saturation	0.63	0.92	0.76	1.15	1.15



Colour code based on Degree of Saturation

[< 0.6] [0.6 – 0.7] [0.7 – 0.8] [0.8 – 0.9] [0.9 – 1.0] [> 1.0]

LANE SUMMARY

Site: 2 [Princes Highway/ Connector A- Ultimate Year - 2046 -revised-PM - Base case *]

Princes Highway/ Connector A
Ultimate Year
2046 (PM Peak)
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Phase Times)

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Connector A													
Lane 1	273	4.0	433[1]	0.629	100	43.5	LOS B	13.3	96.6	Full	500	0.0	0.0
Lane 2	91	4.0	198	0.458	73[5]	61.6	LOS A	5.2	37.3	Short	25	0.0	NA
Approach	363	4.0		0.629		48.0	LOS B	13.3	96.6				
East: Princes Highway													
Lane 1	255	10.0	482	0.529	100	45.6	LOS A	12.7	96.7	Short	75	0.0	NA
Lane 2	401	10.0	439[1]	0.915	100	62.3	LOS D	27.0	205.5	Full	500	0.0	0.0
Lane 3	466	10.0	509	0.915	100	62.4	LOS D	32.1	243.9	Full	500	0.0	0.0
Lane 4	466	10.0	509	0.915	100	62.4	LOS D	32.1	243.9	Full	500	0.0	0.0
Lane 5	137	10.0	528	0.259	100	39.3	LOS A	6.0	45.7	Short	120	0.0	NA
Approach	1724	10.0		0.915		58.0	LOS D	32.1	243.9				
North: Connector A													
Lane 1	59	4.0	351	0.168	100	32.5	LOS A	2.2	16.0	Full	500	0.0	0.0
Lane 2	137	4.0	181[1]	0.758	100	66.0	LOS C	8.3	60.2	Short	25	0.0	NA
Approach	196	4.0		0.758		55.9	LOS C	8.3	60.2				
West: Princes Highway													
Lane 1	320	10.0	482	0.664	100	47.5	LOS B	16.7	127.2	Short	75	0.0	NA
Lane 2	346	10.0	473[1]	0.732	100	42.9	LOS C	18.5	140.3	Full	500	0.0	0.0
Lane 3	372	10.0	509	0.732	100	43.4	LOS C	20.1	153.0	Full	500	0.0	0.0
Lane 4	372	10.0	509	0.732	100	43.4	LOS C	20.1	153.0	Full	500	0.0	18.8[8]
Lane 5	594	10.0	515[1]	1.154	100	219.1	LOS F	76.6	582.1	Short	120	0.0	NA
Approach	2004	10.0		1.154		96.0	LOS F	76.6	582.1				
Intersection	4287	9.2		1.154		74.9	LOS F	76.6	582.1				

Site Level of Service (LOS) Method: Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on degree of saturation per lane.
Intersection and Approach LOS values are based on worst degree of saturation for any lane.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the adjacent full-length lanes. Some upstream delays at entry to short lanes are not included.
5 Lane under-utilisation found by the program
8 Probability of Blockage has been set on the basis of a queue that overflows from an adjacent short lane.

PHASING SUMMARY

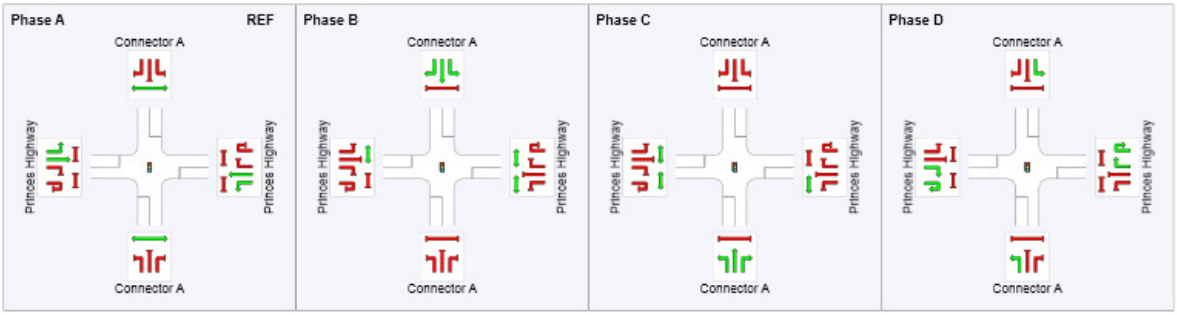
Site: 2 [Princes Highway/ Connector A- Ultimate Year - 2046 -revised-PM - Base case *]

Princes Highway/ Connector A
Ultimate Year
2046 (PM Peak)
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Phase Times)

Phase times specified by the user
Sequence: Split Phasing
Movement Class: All Movement Classes
Input Sequence: A, B, C, D
Output Sequence: A, B, C, D

Phase Timing Results

Phase	A	B	C	D
Reference Phase	Yes	No	No	No
Phase Change Time (sec)	0	39	58	77
Green Time (sec)	33	13	13	37
Yellow Time (sec)	4	4	4	4
All-Red Time (sec)	2	2	2	2
Phase Time (sec)	39	19	19	43
Phase Split	33 %	16 %	16 %	36 %



DEGREE OF SATURATION

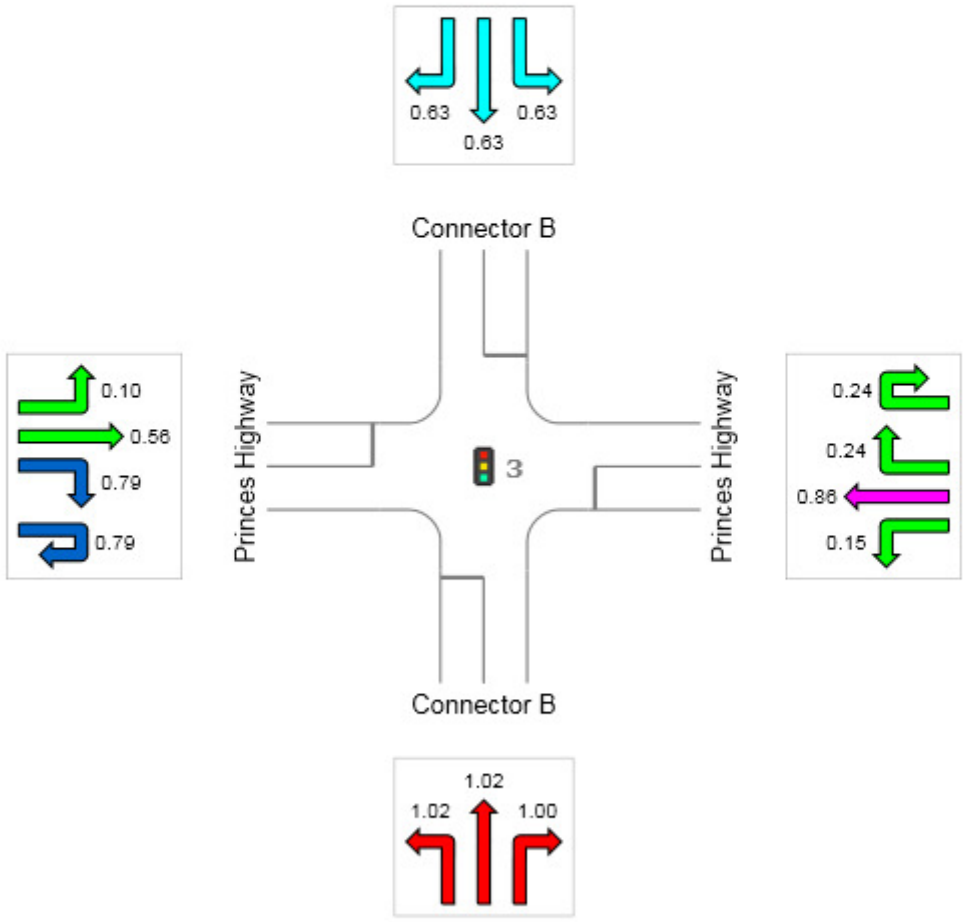
Ratio of Demand Volume to Capacity (v/c ratio)

Site: 3 [Princes Highway/ Connector B- Ultimate Year - 2046 -revised-AM - Base case *]

Princes Highway/ Connector B
Ultimate Year
2046 (AM Peak)
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Phase Times)

All Movement Classes

	South	East	North	West	Intersection
Degree of Saturation	1.02	0.86	0.63	0.79	1.02



Colour code based on Degree of Saturation

[< 0.6] [0.6 – 0.7] [0.7 – 0.8] [0.8 – 0.9] [0.9 – 1.0] [> 1.0]

LANE SUMMARY

Site: 3 [Princes Highway/ Connector B- Ultimate Year - 2046 -revised-AM - Base case *]

Princes Highway/ Connector B
Ultimate Year
2046 (AM Peak)
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Phase Times)

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Connector B													
Lane 1	531	4.0	518[1]	1.024	100	130.1	LOS F	51.1	370.2	Full	500	0.0	0.0
Lane 2	227	4.0	227[1]	1.001	98[5]	175.8	LOS F	21.1	152.5	Short	25	0.0	NA
Approach	758	4.0		1.024		143.8	LOS F	51.1	370.2				
East: Princes Highway													
Lane 1	76	10.0	496	0.153	100	40.2	LOS A	3.3	25.2	Short	75	0.0	NA
Lane 2	428	10.0	499[1]	0.857	100	51.5	LOS C	26.2	199.2	Full	500	0.0	0.0
Lane 3	449	10.0	524	0.857	100	51.8	LOS C	27.8	211.1	Full	500	0.0	0.0
Lane 4	449	10.0	524	0.857	100	51.8	LOS C	27.8	211.1	Full	500	0.0	0.0
Lane 5	33	10.0	137	0.238	100	63.9	LOS A	1.9	14.2	Short	120	0.0	NA
Approach	1435	10.0		0.857		51.3	LOS C	27.8	211.1				
North: Connector B													
Lane 1	193	4.0	306	0.632	100	49.4	LOS B	9.0	64.9	Full	500	0.0	0.0
Lane 2	136	4.0	216[1]	0.632	100	57.7	LOS B	7.6	54.8	Short	25	0.0	NA
Approach	329	4.0		0.632		52.8	LOS B	9.0	64.9				
West: Princes Highway													
Lane 1	49	10.0	496	0.100	100	39.6	LOS A	2.1	16.1	Short	75	0.0	NA
Lane 2	295	10.0	524	0.562	100	39.6	LOS A	14.8	112.1	Full	500	0.0	0.0
Lane 3	295	10.0	524	0.562	100	39.6	LOS A	14.8	112.1	Full	500	0.0	0.0
Lane 4	295	10.0	524	0.562	100	39.6	LOS A	14.8	112.1	Full	500	0.0	0.0
Lane 5	114	10.0	144	0.791	100	70.6	LOS C	7.2	54.6	Short	120	0.0	NA
Approach	1047	10.0		0.791		42.9	LOS C	14.8	112.1				
Intersection	3569	8.2		1.024		68.6	LOS F	51.1	370.2				

Site Level of Service (LOS) Method: Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on degree of saturation per lane.
Intersection and Approach LOS values are based on worst degree of saturation for any lane.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the adjacent full-length lanes. Some upstream delays at entry to short lanes are not included.
5 Lane under-utilisation found by the program

PHASING SUMMARY

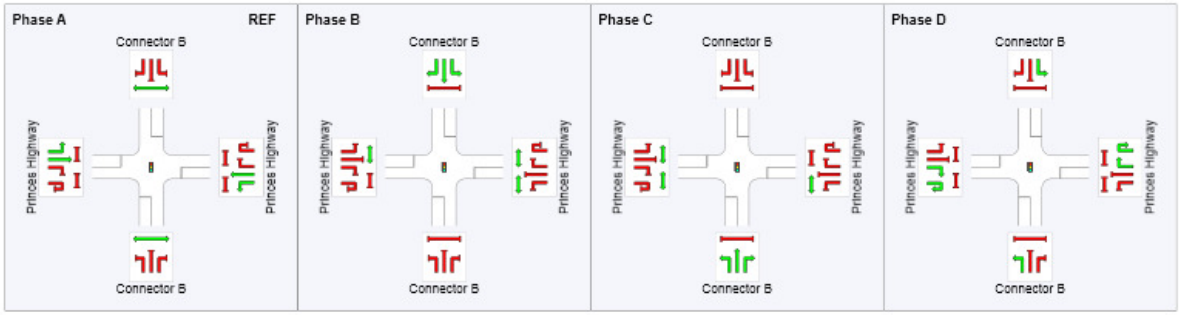
Site: 3 [Princes Highway/ Connector B- Ultimate Year - 2046 -revised-AM - Base case *]

Princes Highway/ Connector B
Ultimate Year
2046 (AM Peak)
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Phase Times)

Phase times specified by the user
Sequence: Split Phasing
Movement Class: All Movement Classes
Input Sequence: A, B, C, D
Output Sequence: A, B, C, D

Phase Timing Results

Phase	A	B	C	D
Reference Phase	Yes	No	No	No
Phase Change Time (sec)	0	40	64	104
Green Time (sec)	34	18	34	10
Yellow Time (sec)	4	4	4	4
All-Red Time (sec)	2	2	2	2
Phase Time (sec)	40	24	40	16
Phase Split	33 %	20 %	33 %	13 %



DEGREE OF SATURATION

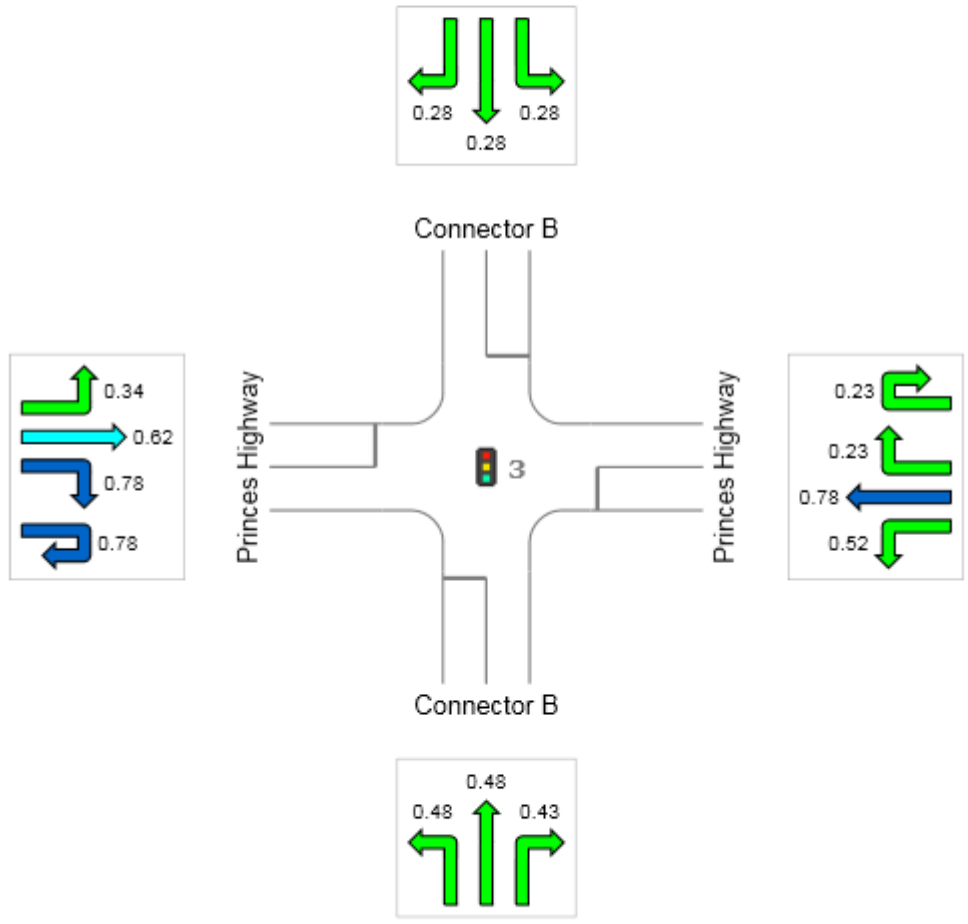
Ratio of Demand Volume to Capacity (v/c ratio)

Site: 3 [Princes Highway/ Connector B- Ultimate Year - 2046 -revised-PM - Base case *]

Princes Highway/ Connector B
Ultimate Year
2046 (PM Peak)
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Cycle Time)

All Movement Classes

	South	East	North	West	Intersection
Degree of Saturation	0.48	0.78	0.28	0.78	0.78



Colour code based on Degree of Saturation

[< 0.6] [0.6 – 0.7] [0.7 – 0.8] [0.8 – 0.9] [0.9 – 1.0] [> 1.0]

LANE SUMMARY

Site: 3 [Princes Highway/ Connector B- Ultimate Year - 2046 -revised-PM - Base case *]

Princes Highway/ Connector B
Ultimate Year
2046 (PM Peak)
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Cycle Time)

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Connector B													
Lane 1	200	4.0	417[1]	0.479	100	43.4	LOS A	9.6	69.2	Full	500	0.0	0.0
Lane 2	85	4.0	198	0.431	90[5]	61.4	LOS A	4.8	35.0	Short	25	0.0	NA
Approach	285	4.0		0.479		48.8	LOS A	9.6	69.2				
East: Princes Highway													
Lane 1	265	10.0	511	0.519	100	44.0	LOS A	13.0	98.9	Short	75	0.0	NA
Lane 2	378	10.0	487[1]	0.777	100	43.5	LOS C	20.7	157.0	Full	500	0.0	0.0
Lane 3	419	10.0	540	0.777	100	44.2	LOS C	23.4	177.6	Full	500	0.0	0.0
Lane 4	419	10.0	540	0.777	100	44.2	LOS C	23.4	177.6	Full	500	0.0	0.0
Lane 5	115	10.0	498	0.230	100	40.4	LOS A	5.1	38.7	Short	120	0.0	NA
Approach	1597	10.0		0.777		43.7	LOS C	23.4	177.6				
North: Connector B													
Lane 1	67	4.0	235	0.284	100	38.5	LOS A	2.8	20.0	Full	500	0.0	0.0
Lane 2	56	4.0	198	0.284	100	60.3	LOS A	3.1	22.6	Short	25	0.0	NA
Approach	123	4.0		0.284		48.5	LOS A	3.1	22.6				
West: Princes Highway													
Lane 1	173	10.0	511	0.338	100	41.6	LOS A	7.9	60.4	Short	75	0.0	NA
Lane 2	332	10.0	540	0.615	100	39.6	LOS B	16.8	127.9	Full	500	0.0	0.0
Lane 3	332	10.0	540	0.615	100	39.6	LOS B	16.8	127.9	Full	500	0.0	0.0
Lane 4	332	10.0	540	0.615	100	39.6	LOS B	16.8	127.9	Full	500	0.0	0.0
Lane 5	398	10.0	509	0.782	100	50.6	LOS C	22.4	170.6	Short	120	0.0	NA
Approach	1566	10.0		0.782		42.6	LOS C	22.4	170.6				
Intersection	3572	9.3		0.782		43.8	LOS C	23.4	177.6				

Site Level of Service (LOS) Method: Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on degree of saturation per lane.
Intersection and Approach LOS values are based on worst degree of saturation for any lane.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the adjacent full-length lanes. Some upstream delays at entry to short lanes are not included.
5 Lane under-utilisation found by the program

PHASING SUMMARY

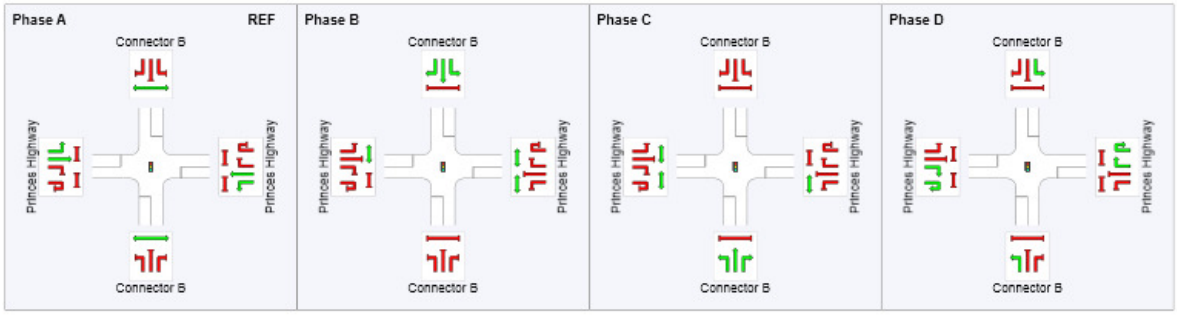
Site: 3 [Princes Highway/ Connector B- Ultimate Year - 2046 -revised-PM - Base case *]

Princes Highway/ Connector B
Ultimate Year
2046 (PM Peak)
Signals - Fixed Time Isolated Cycle Time = 120 seconds (User-Given Cycle Time)

Phase times determined by the program
Sequence: Split Phasing
Movement Class: All Movement Classes
Input Sequence: A, B, C, D
Output Sequence: A, B, C, D

Phase Timing Results

Phase	A	B	C	D
Reference Phase	Yes	No	No	No
Phase Change Time (sec)	0	41	60	79
Green Time (sec)	35	13	13	35
Yellow Time (sec)	4	4	4	4
All-Red Time (sec)	2	2	2	2
Phase Time (sec)	41	19	19	41
Phase Split	34 %	16 %	16 %	34 %



DEGREE OF SATURATION

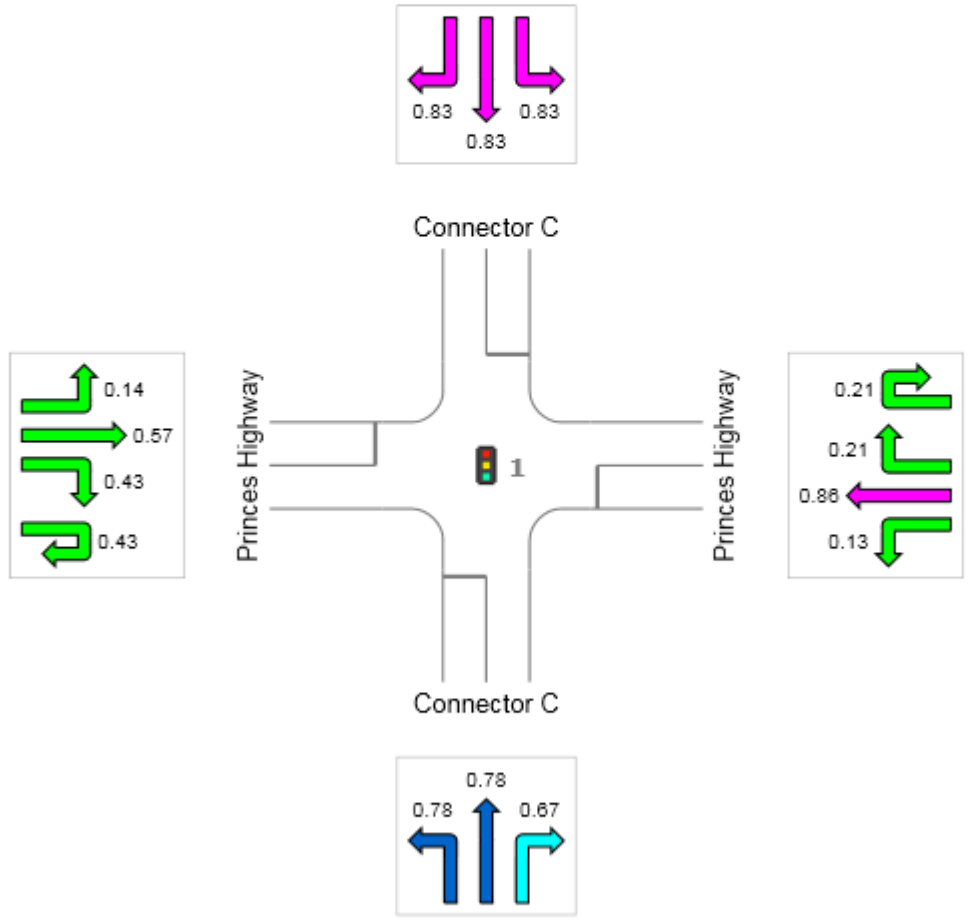
Ratio of Demand Volume to Capacity (v/c ratio)

Site: 1 [Princes Highway/ Connector C- Ultimate Year - 2046 -revised-AM - Base case *]

Princes Highway/ Connector C
Ultimate Year
2046 (AM Peak)
Signals - Fixed Time Isolated Cycle Time = 110 seconds (User-Given Phase Times)

All Movement Classes

	South	East	North	West	Intersection
Degree of Saturation	0.78	0.86	0.83	0.57	0.86



Colour code based on Degree of Saturation

[< 0.6] [0.6 – 0.7] [0.7 – 0.8] [0.8 – 0.9] [0.9 – 1.0] [> 1.0]

LANE SUMMARY

Site: 1 [Princes Highway/ Connector C- Ultimate Year - 2046 -revised-AM - Base case *]

Princes Highway/ Connector C
Ultimate Year
2046 (AM Peak)
Signals - Fixed Time Isolated Cycle Time = 110 seconds (User-Given Phase Times)

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Connector C													
Lane 1	401	4.0	514[1]	0.780	100	38.6	LOS C	18.6	134.6	Full	500	0.0	0.0
Lane 2	172	4.0	257[1]	0.668	86[5]	44.3	LOS B	7.9	57.3	Short	25	0.0	NA
Approach	573	4.0		0.780		40.3	LOS C	18.6	134.6				
East: Princes Highway													
Lane 1	57	10.0	446	0.127	100	39.7	LOS A	2.4	17.9	Short	75	0.0	NA
Lane 2	394	10.0	461[1]	0.855	100	50.2	LOS C	22.7	172.4	Full	500	0.0	0.0
Lane 3	403	10.0	471	0.855	100	50.3	LOS C	23.3	176.7	Full	500	0.0	0.0
Lane 4	403	10.0	471	0.855	100	50.3	LOS C	23.3	176.7	Full	500	0.0	0.0
Lane 5	42	10.0	197	0.214	100	54.7	LOS A	2.1	16.1	Short	120	0.0	NA
Approach	1299	10.0		0.855		49.9	LOS C	23.3	176.7				
North: Connector C													
Lane 1	251	4.0	301[1]	0.834	100	53.0	LOS C	12.5	90.6	Full	500	0.0	0.0
Lane 2	170	4.0	204[1]	0.834	100	60.2	LOS C	9.6	69.3	Short	25	0.0	NA
Approach	421	4.0		0.834		55.9	LOS C	12.5	90.6				
West: Princes Highway													
Lane 1	63	10.0	446	0.142	100	39.8	LOS A	2.6	19.9	Short	75	0.0	NA
Lane 2	267	10.0	471	0.566	100	38.8	LOS A	12.6	95.7	Full	500	0.0	0.0
Lane 3	267	10.0	471	0.566	100	38.8	LOS A	12.6	95.7	Full	500	0.0	0.0
Lane 4	267	10.0	471	0.566	100	38.8	LOS A	12.6	95.7	Full	500	0.0	0.0
Lane 5	86	10.0	203	0.425	100	56.2	LOS A	4.5	34.0	Short	120	0.0	NA
Approach	949	10.0		0.566		40.5	LOS A	12.6	95.7				
Intersection	3242	8.2		0.855		46.2	LOS C	23.3	176.7				

Site Level of Service (LOS) Method: Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on degree of saturation per lane.
Intersection and Approach LOS values are based on worst degree of saturation for any lane.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the adjacent full-length lanes. Some upstream delays at entry to short lanes are not included.
5 Lane under-utilisation found by the program

PHASING SUMMARY

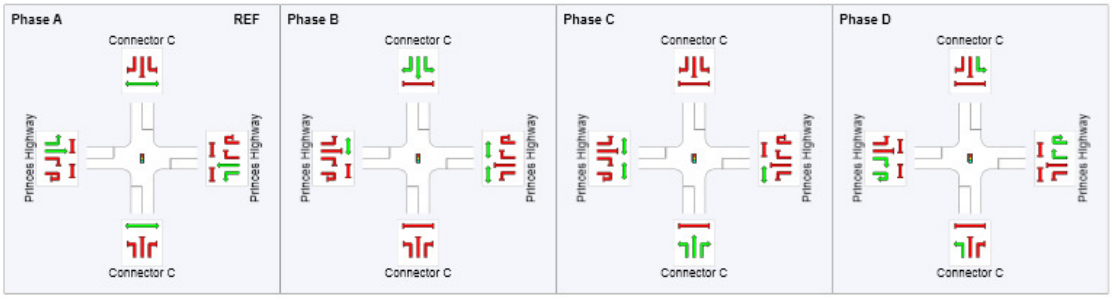
Site: 1 [Princes Highway/ Connector C- Ultimate Year - 2046 -revised-AM - Base case *]

Princes Highway/ Connector C
Ultimate Year
2046 (AM Peak)
Signals - Fixed Time Isolated Cycle Time = 110 seconds (User-Given Phase Times)

Phase times specified by the user
Sequence: Split Phasing
Movement Class: All Movement Classes
Input Sequence: A, B, C, D
Output Sequence: A, B, C, D

Phase Timing Results

Phase	A	B	C	D
Reference Phase	Yes	No	No	No
Phase Change Time (sec)	0	34	58	91
Green Time (sec)	28	18	27	13
Yellow Time (sec)	4	4	4	4
All-Red Time (sec)	2	2	2	2
Phase Time (sec)	34	24	33	19
Phase Split	31 %	22 %	30 %	17 %



DEGREE OF SATURATION

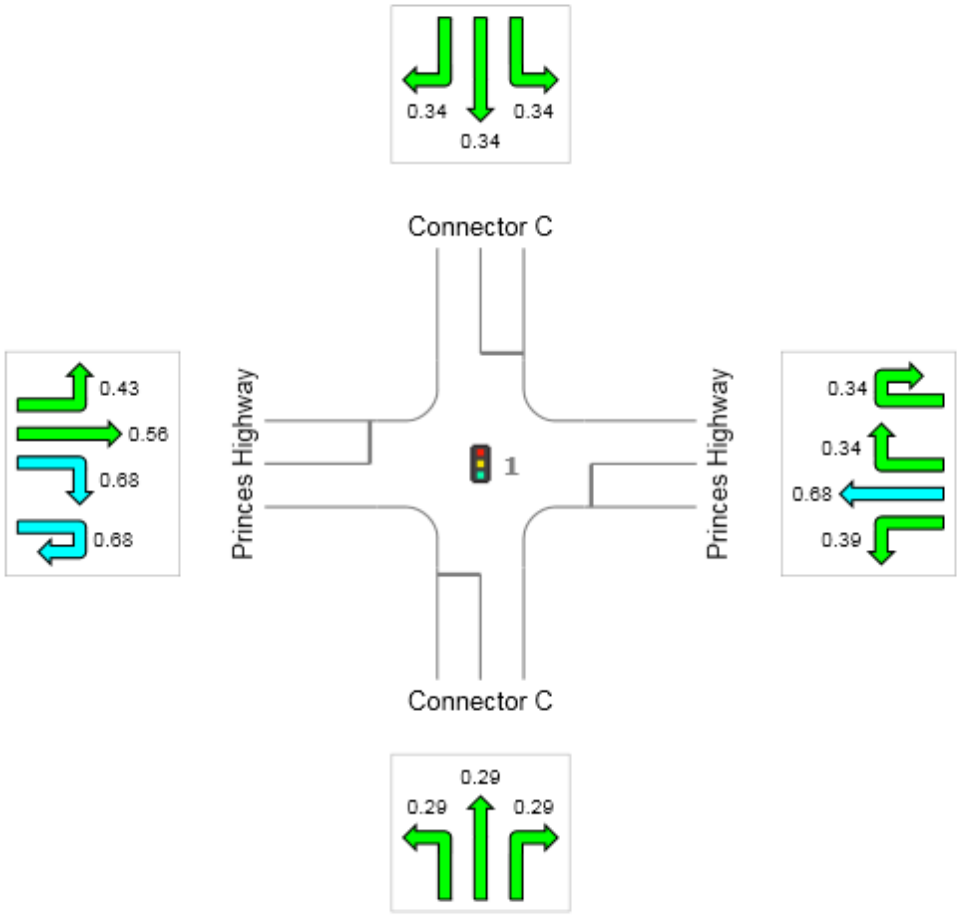
Ratio of Demand Volume to Capacity (v/c ratio)

Site: 1 [Princes Highway/ Connector C- Ultimate Year - 2046 -revised-PM - Base case *]

Princes Highway/ Connector C
Ultimate Year
2046 (PM Peak)
Signals - Fixed Time Isolated Cycle Time = 110 seconds (User-Given Phase Times)

All Movement Classes

	South	East	North	West	Intersection
Degree of Saturation	0.29	0.68	0.34	0.68	0.68



Colour code based on Degree of Saturation

[< 0.6] [0.6 – 0.7] [0.7 – 0.8] [0.8 – 0.9] [0.9 – 1.0] [> 1.0]

LANE SUMMARY

Site: 1 [Princes Highway/ Connector C- Ultimate Year - 2046 -revised-PM - Base case *]

Princes Highway/ Connector C
Ultimate Year
2046 (PM Peak)
Signals - Fixed Time Isolated Cycle Time = 110 seconds (User-Given Phase Times)

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
South: Connector C													
Lane 1	151	3.9	513[1]	0.295	100	37.7	LOS A	6.3	45.5	Full	500	0.0	0.0
Lane 2	64	4.0	216	0.295	100	54.9	LOS A	3.2	23.3	Short	25	0.0	NA
Approach	215	3.9		0.295		42.8	LOS A	6.3	45.5				
East: Princes Highway													
Lane 1	200	10.0	510	0.392	100	39.4	LOS A	8.6	65.6	Short	75	0.0	NA
Lane 2	366	10.0	537[1]	0.682	100	37.4	LOS B	17.5	133.1	Full	500	0.0	0.0
Lane 3	367	10.0	538	0.682	100	37.4	LOS B	17.6	133.5	Full	500	0.0	0.0
Lane 4	367	10.0	538	0.682	100	37.4	LOS B	17.6	133.5	Full	500	0.0	0.0
Lane 5	147	10.0	436	0.338	100	42.0	LOS A	6.5	49.5	Short	120	0.0	NA
Approach	1448	10.0		0.682		38.1	LOS B	17.6	133.5				
North: Connector C													
Lane 1	86	4.0	256	0.337	100	34.2	LOS A	3.2	22.9	Full	500	0.0	0.0
Lane 2	73	4.0	216	0.337	100	55.2	LOS A	3.7	26.8	Short	25	0.0	NA
Approach	159	4.0		0.337		43.8	LOS A	3.7	26.8				
West: Princes Highway													
Lane 1	221	10.0	510	0.434	100	39.9	LOS A	9.7	73.6	Short	75	0.0	NA
Lane 2	300	10.0	538	0.558	100	35.7	LOS A	13.7	104.3	Full	500	0.0	0.0
Lane 3	300	10.0	538	0.558	100	35.7	LOS A	13.7	104.3	Full	500	0.0	0.0
Lane 4	300	10.0	538	0.558	100	35.7	LOS A	13.7	104.3	Full	500	0.0	0.0
Lane 5	301	10.0	443	0.679	100	46.1	LOS B	14.8	112.4	Short	120	0.0	NA
Approach	1423	10.0		0.679		38.6	LOS B	14.8	112.4				
Intersection	3245	9.3		0.682		38.9	LOS B	17.6	133.5				

Site Level of Service (LOS) Method: Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Lane LOS values are based on degree of saturation per lane.
Intersection and Approach LOS values are based on worst degree of saturation for any lane.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

1 Reduced capacity due to a short lane effect. Short lane queues may extend into the adjacent full-length lanes. Some upstream delays at entry to short lanes are not included.

PHASING SUMMARY

Site: 1 [Princes Highway/ Connector C- Ultimate Year - 2046 -revised-PM - Base case *]

Princes Highway/ Connector C
Ultimate Year
2046 (PM Peak)
Signals - Fixed Time Isolated Cycle Time = 110 seconds (User-Given Phase Times)

Phase times specified by the user
Sequence: Split Phasing
Movement Class: All Movement Classes
Input Sequence: A, B, C, D
Output Sequence: A, B, C, D

Phase Timing Results

Phase	A	B	C	D
Reference Phase	Yes	No	No	No
Phase Change Time (sec)	0	38	57	76
Green Time (sec)	32	13	13	28
Yellow Time (sec)	4	4	4	4
All-Red Time (sec)	2	2	2	2
Phase Time (sec)	38	19	19	34
Phase Split	35 %	17 %	17 %	31 %