

8169

Burton St-West St AM EX

Intersection ID: 0

Give-Way Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (m)
SouthEast: Burton St (East)								
22	T	396	1890	0.210	10.6	A	3.6	25
23	R	4	19	0.211*	11.1	A	3.6	25
West: Burton St (West)								
10	L (Slp)	44	1857	0.024	7.6	A	0.0	0
11	T	203	1950	0.104	7.8	A	0.0	0
ALL VEHICLES:		647		0.211	9.6	NA	3.6	25

Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used.
For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods

" Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)

8169

Burton St-West St PM EX

Intersection ID: 0

Give-Way Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (m)
SouthEast: Burton St (East)								
22	T	184	1482	0.124	11.7	A	1.9	13
23	R	16	129	0.124	12.1	A	1.9	13
West: Burton St (West)								
10	L (Slp)	39	1857	0.021	7.6	A	0.0	0
11	T	318	1950	0.163*	7.8	A	0.0	0
ALL VEHICLES:		557		0.163	9.2	NA	1.9	13

Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used.
For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods

" Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)

8169

Burton St-West St AM FU 400

Intersection ID: 0

Give-Way Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (m)
--------	---------	-----------------------	-----------------------	-----------------------	----------------------	-----	-------------------------------------	--------------

SouthEast: Burton St (East)

22	T	396	1483	0.267*	13.7	A	5.0	35
23	R	32	120	0.267*	14.1	A	5.0	35

West: Burton St (West)

10	L (Slp)	174	1857	0.094	7.6	A	0.0	0
11	T	203	1950	0.104	7.8	A	0.0	0

ALL VEHICLES:		805		0.267	10.9	NA	5.0	35
---------------	--	-----	--	-------	------	----	-----	----

Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used.

For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods

" Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)

8169

Burton St-West St PM FU 400

Intersection ID: 0

Give-Way Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (m)
--------	---------	-----------------------	-----------------------	-----------------------	----------------------	-----	-------------------------------------	--------------

SouthEast: Burton St (East)

22	T	184	1397	0.132	11.8	A	2.0	14
23	R	20	152	0.132	12.2	A	2.0	14

West: Burton St (West)

10	L (Slp)	61	1857	0.033	7.6	A	0.0	0
11	T	320	1950	0.164*	7.8	A	0.0	0

ALL VEHICLES:		585		0.164	9.2	NA	2.0	14
---------------	--	-----	--	-------	-----	----	-----	----

Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used.

For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods

" Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)

8169

Burton St-West St AM FU 500

Intersection ID: 0

Give-Way Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (m)
SouthEast: Burton St (East)								
22	T	396	1399	0.283	14.6	B	5.5	38
23	R	38	134	0.284*	15.0	B	5.5	38
West: Burton St (West)								
10	L (Slp)	205	1857	0.110	7.6	A	0.0	0
11	T	203	1950	0.104	7.8	A	0.0	0
ALL VEHICLES:		842		0.284	11.3	NA	5.5	38

Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used.
For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods

" Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)

8169

Burton St-West St PM FU 500

Intersection ID: 0

Give-Way Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (m)
SouthEast: Burton St (East)								
22	T	184	1358	0.135	11.8	A	2.0	14
23	R	22	162	0.136	12.2	A	2.0	14
West: Burton St (West)								
10	L (Slp)	67	1857	0.036	7.6	A	0.0	0
11	T	321	1950	0.165*	7.8	A	0.0	0
ALL VEHICLES:		594		0.165	9.2	NA	2.0	14

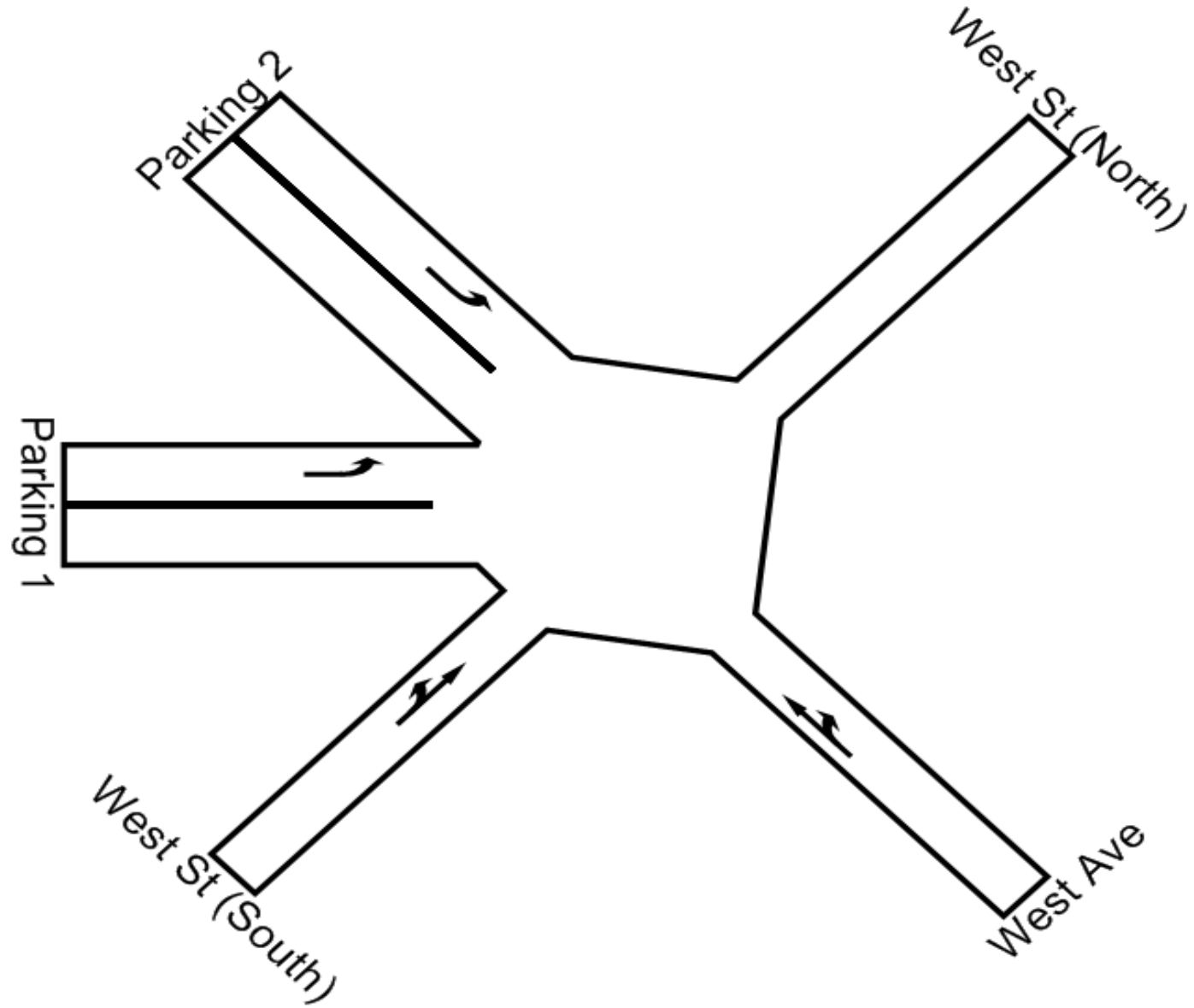
Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used.
For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

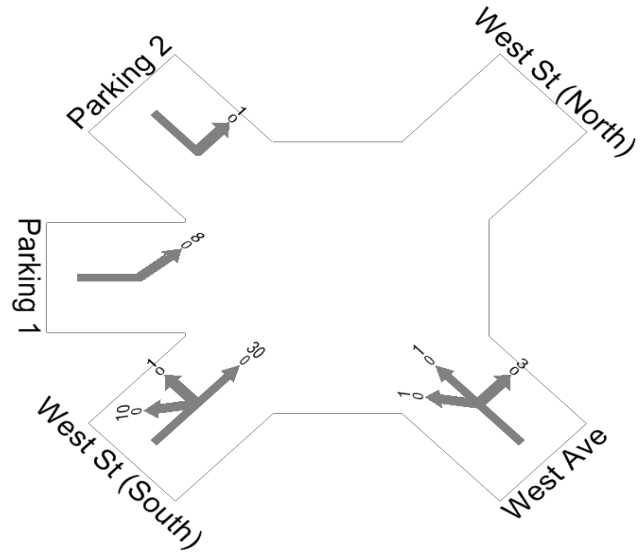
* Maximum v/c ratio, or critical green periods

" Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)

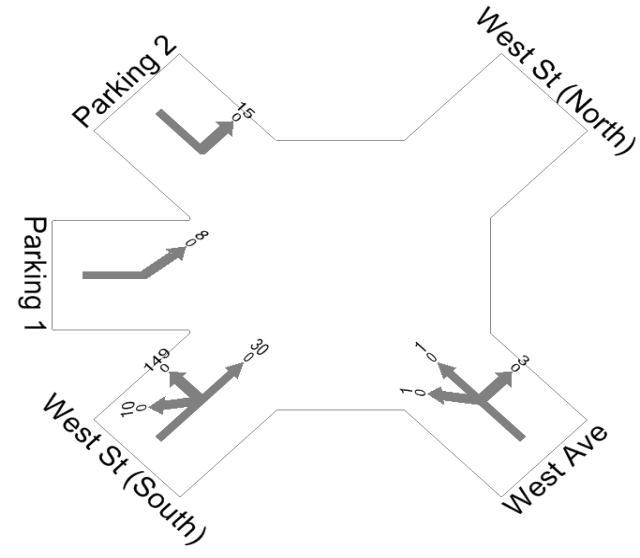
Layout



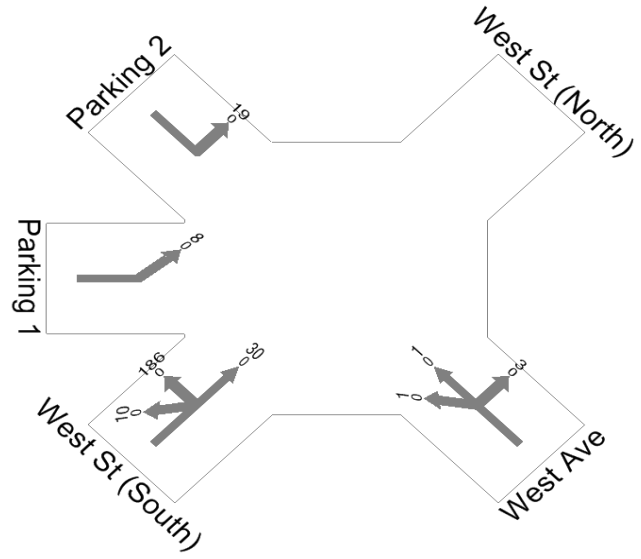
Volume AM EX



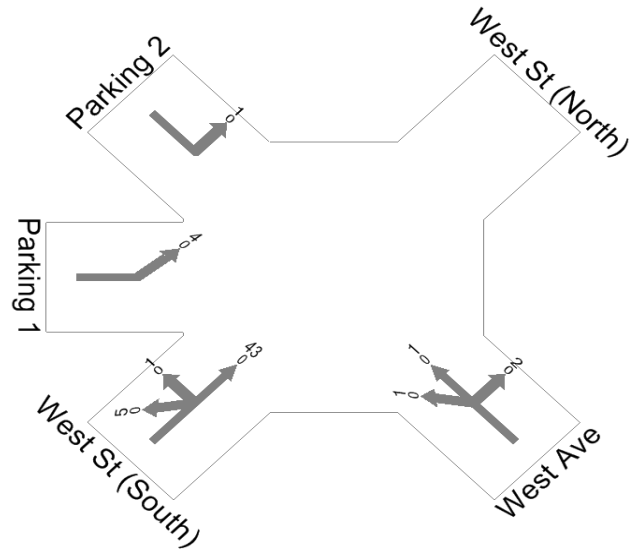
Volume AM FU 400



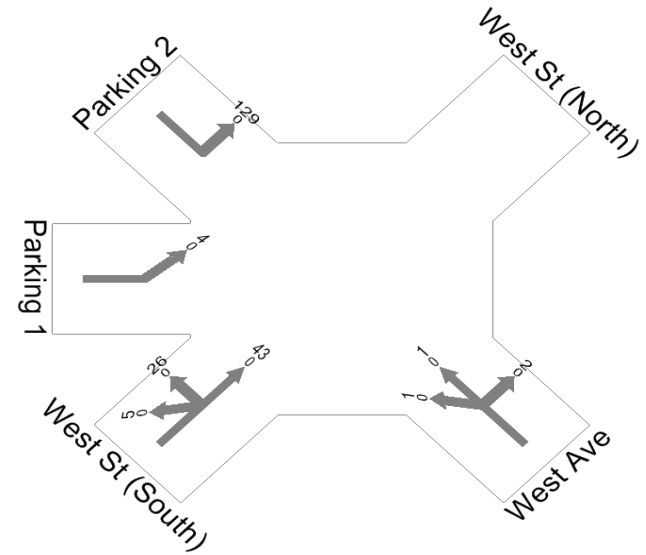
Volume AM FU 500



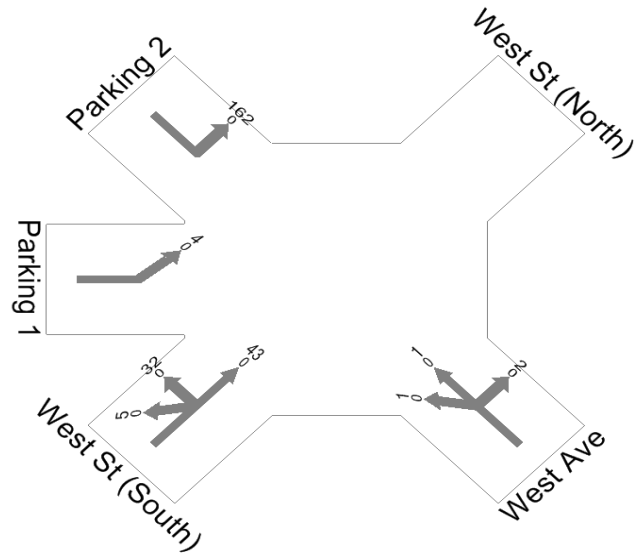
Volume PM EX



Volume PM FU 400



Volume PM FU 500



8169

West St-West Ave AM EX

Intersection ID: 0

Give-Way Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (m)
SouthEast: West Ave								
22	T	2	757	0.003	4.0	A	0.0	0
23	R	3	1136	0.003	8.9	A	0.0	0
NorthWest: Parking 2								
27	L	1	1857	0.001	8.2	A	0.0	0
West: Parking 1								
10	L	8	1857	0.004	7.8	A	0.0	0
SouthWest: West St (South)								
30	L	12	525	0.023*	9.0	A	0.0	0
31	T	32	1399	0.023*	0.0	A	0.0	0
ALL VEHICLES:		58		0.023	3.7	NA	0.0	0

Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used.
For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods

8169

West St-West Ave PM EX

Intersection ID: 0

Give-Way Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (m)
SouthEast: West Ave								
22	T	2	951	0.002	4.0	A	0.0	0
23	R	2	951	0.002	8.9	A	0.0	0
NorthWest: Parking 2								
27	L	1	1857	0.001	8.2	A	0.0	0
West: Parking 1								
10	L	4	1857	0.002	7.8	A	0.0	0
SouthWest: West St (South)								
30	L	6	228	0.026*	9.0	A	0.0	0
31	T	45	1711	0.026*	0.0	A	0.0	0
ALL VEHICLES:		60		0.026	2.0	NA	0.0	0

Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used.
For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods

8169

West St-West Ave AM FU 400

Intersection ID: 0

Give-Way Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (m)
SouthEast: West Ave								
22	T	2	757	0.003	4.0	A	0.0	0
23	R	3	1136	0.003	8.9	A	0.0	0
NorthWest: Parking 2								
27	L	16	1857	0.009	8.2	A	0.0	0
West: Parking 1								
10	L	8	1857	0.004	7.8	A	0.0	0
SouthWest: West St (South)								
30	L	167	1571	0.106*	8.2	A	0.0	0
31	T	32	301	0.106*	0.0	A	0.0	0
ALL VEHICLES:		228		0.106	7.0	NA	0.0	0

Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used. For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods

8169

West St-West Ave PM FU 400

Intersection ID: 0

Give-Way Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (m)
SouthEast: West Ave								
22	T	2	951	0.002	4.0	A	0.0	0
23	R	2	951	0.002	8.9	A	0.0	0
NorthWest: Parking 2								
27	L	136	1857	0.073*	8.2	A	0.0	0
West: Parking 1								
10	L	4	1857	0.002	7.8	A	0.0	0
SouthWest: West St (South)								
30	L	33	808	0.041	8.3	A	0.0	0
31	T	45	1102	0.041	0.0	A	0.0	0
ALL VEHICLES:		222		0.073	6.5	NA	0.0	0

Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used. For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods

8169

West St-West Ave AM FU 500

Intersection ID: 0

Give-Way Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (m)
SouthEast: West Ave								
22	T	2	757	0.003	4.0	A	0.0	0
23	R	3	1136	0.003	8.9	A	0.0	0
NorthWest: Parking 2								
27	L	20	1857	0.011	8.2	A	0.0	0
West: Parking 1								
10	L	8	1857	0.004	7.8	A	0.0	0
SouthWest: West St (South)								
30	L	206	1618	0.127*	8.2	A	0.0	0
31	T	32	251	0.127*	0.0	A	0.0	0
ALL VEHICLES:		271		0.127	7.2	NA	0.0	0

Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used.
For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods

8169

West St-West Ave PM FU 500

Intersection ID: 0

Give-Way Sign Controlled Intersection

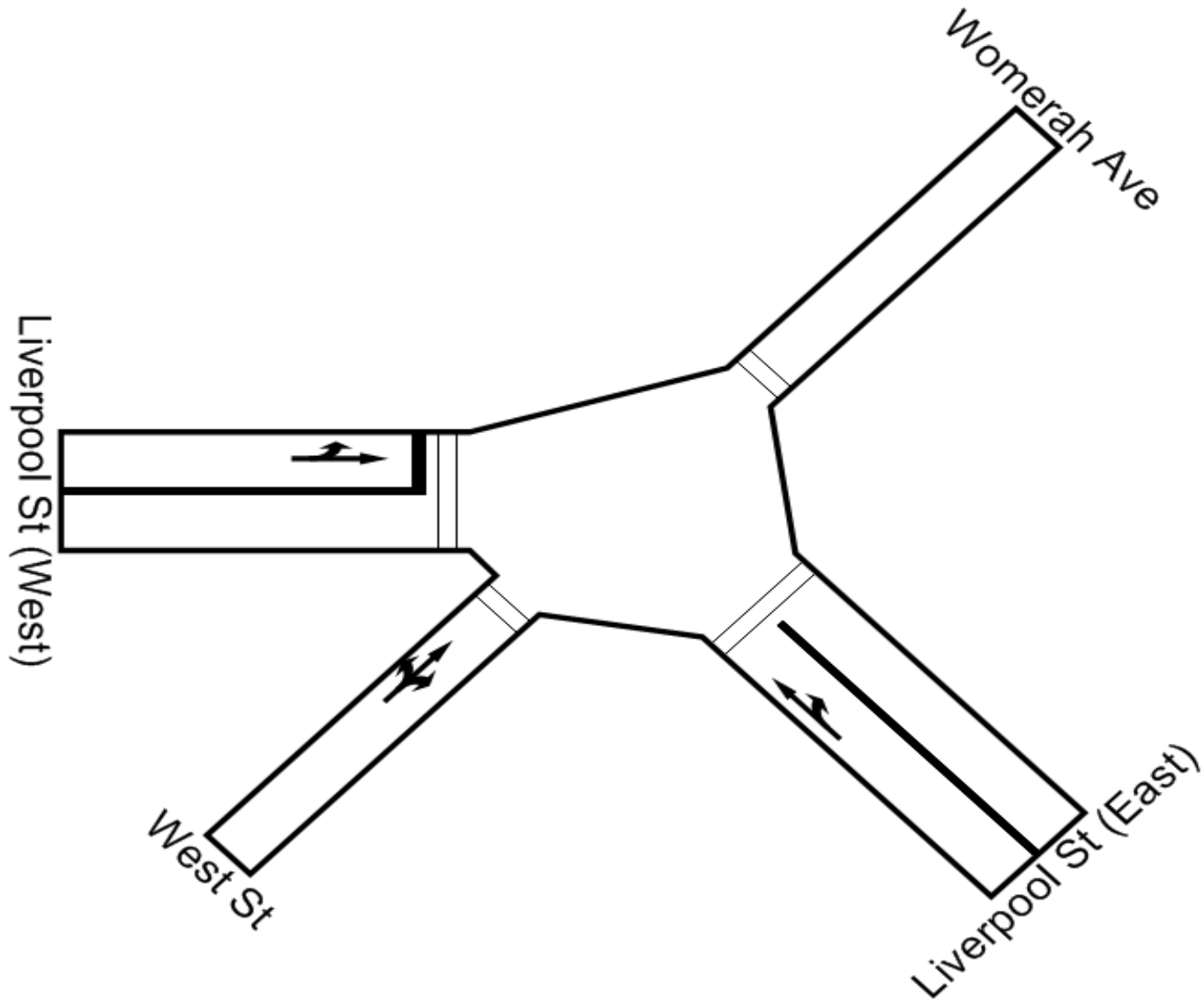
Mov ID	Mov Typ	Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (m)
SouthEast: West Ave								
22	T	2	951	0.002	4.0	A	0.0	0
23	R	2	951	0.002	8.9	A	0.0	0
NorthWest: Parking 2								
27	L	171	1857	0.092*	8.2	A	0.0	0
West: Parking 1								
10	L	4	1857	0.002	7.8	A	0.0	0
SouthWest: West St (South)								
30	L	39	885	0.044	8.3	A	0.0	0
31	T	45	1021	0.044	0.0	A	0.0	0
ALL VEHICLES:		263		0.092	6.8	NA	0.0	0

Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used.
For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

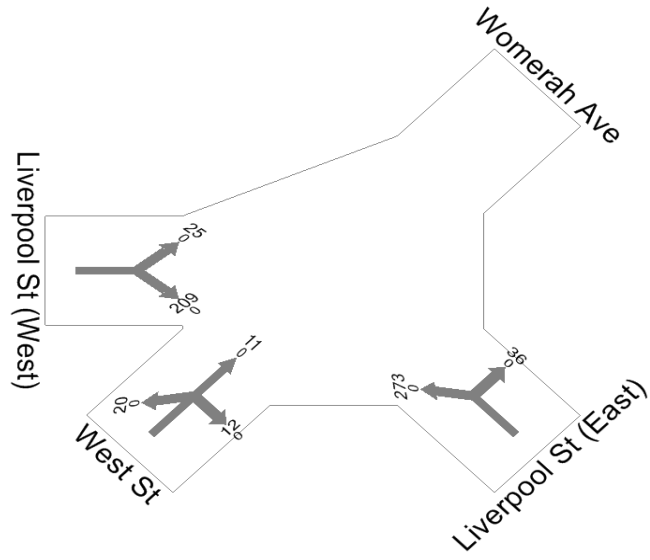
NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods

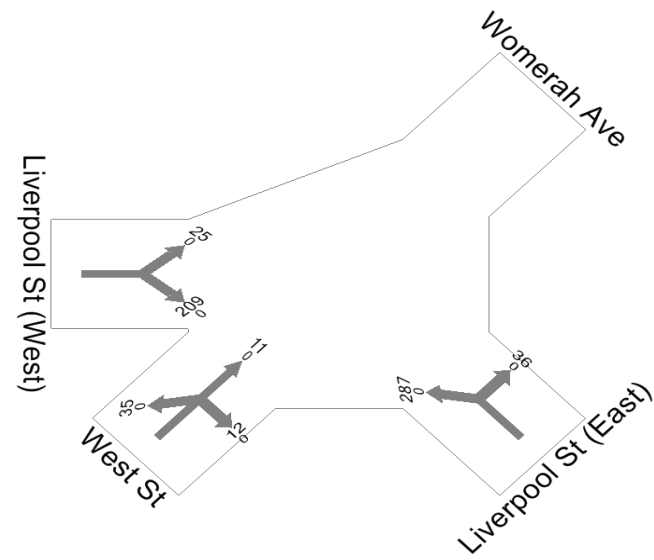
Layout



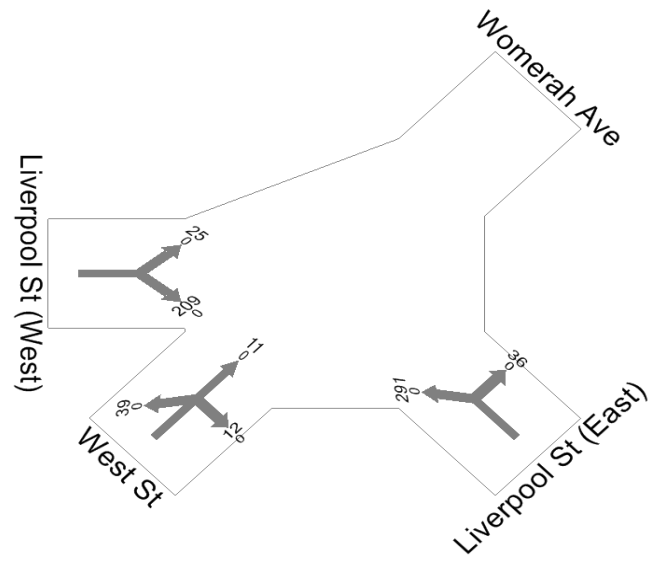
Volume AM EX



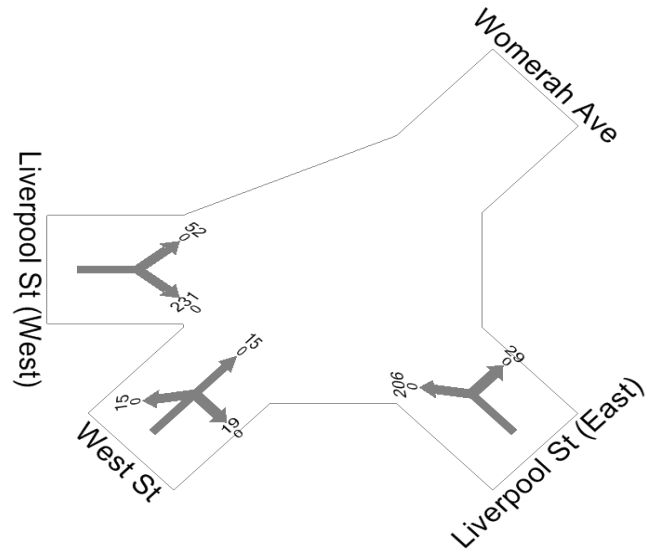
Volume AM FU 400



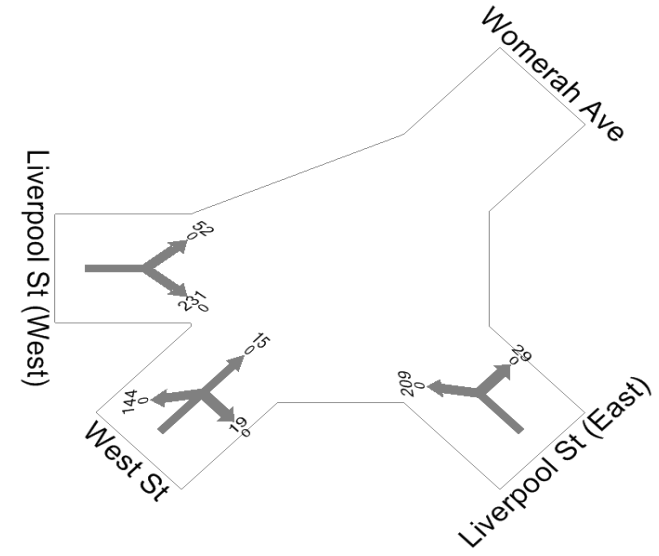
Volume AM FU 500



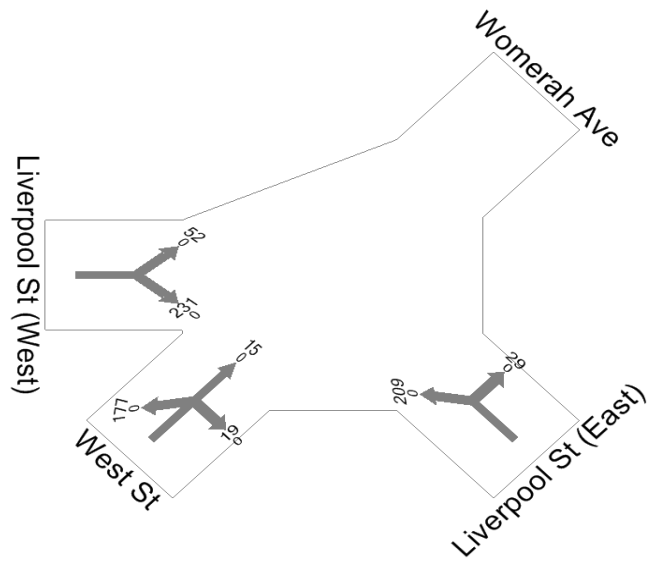
Volume PM EX



Volume PM FU 400



Volume PM FU 500



8169

Liverpool St-West St AM EX

Intersection ID: 0

Fixed-Time Signals, Cycle Time = 65 (Sum of User-given Phase Times)

Mov ID	Mov Typ	Green Time Ratio (g/C)		Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (m)
		1st grn	2nd grn							
SouthEast: Liverpool St (East)										
22	T	0.569		287	985	0.291	15.0	B	6.9	48
23	R	0.569*		38	130	0.292*	16.2	B	6.9	48
West: Liverpool St (West)										
10	L	0.569		26	127	0.205	15.8	B	5.2	36
11	T	0.569		220	1074	0.205	14.6	B	5.2	36
SouthWest: West St										
30	L	0.246		21	230	0.091	29.7	C	1.7	12
31	T	0.246		12	131	0.091	20.6	B	1.7	12
32	R	0.246*		13	142	0.091	29.3	C	1.7	12
Pedestrian Movements										
P9	(Ped)	0.185		53	2215	0.024	21.6	C	0.1	0
P11	(Ped)	0.538		53	6462	0.008	6.9	A	0.0	0
P7	(Ped)	0.154		53	1846	0.029	23.3	C	0.1	0
P15	(Ped)	0.538		53	6462	0.008	6.9	A	0.0	0
ALL VEHICLES:				617		0.292	15.9	B	6.9	48
INTERSECTION (persons):				1138			15.6		6.9	48

Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used.

For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

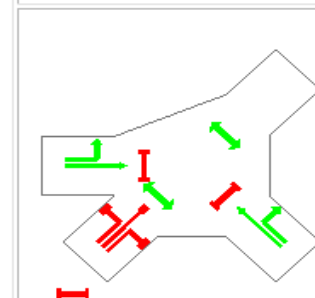
Intersection capacity is calculated considering vehicle movements only.

* Maximum v/c ratio, or critical green periods

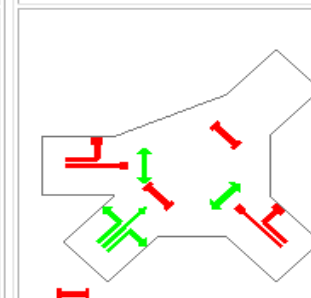
8169

Liverpool St-West St AM EX

C = 65 seconds

Cycle Time Option: **User-specified cycle time****Phase times specified by the user.****Phase A**

Green Time = 37 seconds
Phase Time = 43 seconds
Phase Split = 66 %

Phase B

Green Time = 16 seconds
Phase Time = 22 seconds
Phase Split = 34 %

- █ Normal Movement
- █ Slip-Lane
- █ Stopped Movement
- █ Turn On Red
- █ Permitted/Opposed
- █ Opposed Slip-Lane
- █ Continuous

8169									
Liverpool St-West St PM EX									
Intersection ID: 0									
Fixed-Time Signals, Cycle Time = 65 (Sum of User-given Phase Times)									
Mov ID	Mov Typ	Green Time Ratio (g/C)		Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs) (m)
		1st grn	2nd grn						
SouthEast: Liverpool St (East)									
22	T	0.569		217	975	0.223	14.6	B	5.3 37
23	R	0.569		31	139	0.222	15.8	B	5.3 37
West: Liverpool St (West)									
10	L	0.569		55	221	0.249*	16.0	B	6.2 44
11	T	0.569*		243	976	0.249*	14.8	B	6.2 44
SouthWest: West St									
30	L	0.246		16	155	0.103	29.8	C	1.9 14
31	T	0.246		16	155	0.103	20.7	B	1.9 14
32	R	0.246*		20	194	0.103	29.4	C	1.9 14
Pedestrian Movements									
P9	(Ped)	0.185		53	2215	0.024	21.6	C	0.1 0
P11	(Ped)	0.538		53	6462	0.008	6.9	A	0.0 0
P7	(Ped)	0.154		53	1846	0.029	23.3	C	0.1 0
P15	(Ped)	0.538		53	6462	0.008	6.9	A	0.0 0
ALL VEHICLES:				598		0.249	16.0	B	6.2 44
INTERSECTION (persons):				1109			15.7		6.2 44
Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used. For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help. Intersection capacity is calculated considering vehicle movements only. * Maximum v/c ratio, or critical green periods									

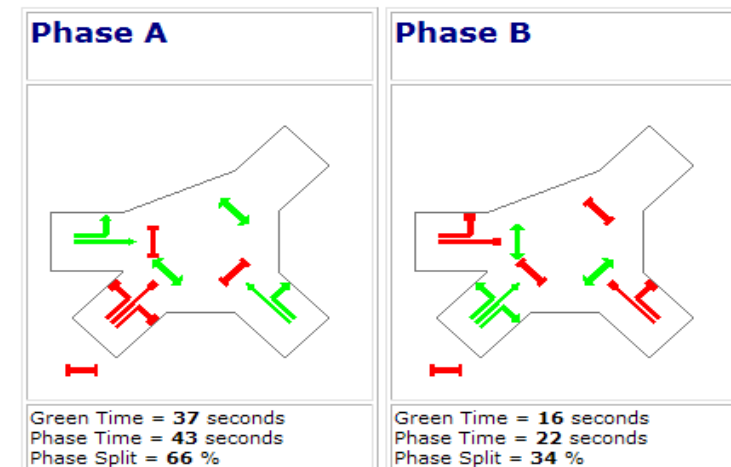
8169

Liverpool St-West St PM EX

C = 65 seconds

Cycle Time Option: **User-specified cycle time**

Phase times specified by the user.



- █ Normal Movement
- █ Slip-Lane
- █ Stopped Movement
- █ Turn On Red
- █ Permitted/Opposed
- █ Opposed Slip-Lane
- █ Continuous

8169

Liverpool St-West St AM FU 400

Intersection ID: 0

Fixed-Time Signals, Cycle Time = 65 (Sum of User-given Phase Times)

Mov ID	Mov Typ	Green Time Ratio (g/C)		Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs) (m)	
		1st grn	2nd grn							
SouthEast: Liverpool St (East)										
22	T	0.569*		302	990	0.305*	15.1	B	7.2	51
23	R	0.569		38	125	0.305*	16.2	B	7.2	51
West: Liverpool St (West)										
10	L	0.569		26	127	0.205	15.8	B	5.2	36
11	T	0.569		220	1074	0.205	14.6	B	5.2	36
SouthWest: West St										
30	L	0.246		37	300	0.124	29.9	C	2.3	16
31	T	0.246		12	97	0.123	20.8	B	2.3	16
32	R	0.246*		13	105	0.124	29.5	C	2.3	16
Pedestrian Movements										
P9	(Ped)	0.185		53	2215	0.024	21.6	C	0.1	0
P11	(Ped)	0.538		53	6462	0.008	6.9	A	0.0	0
P7	(Ped)	0.154		53	1846	0.029	23.3	C	0.1	0
P15	(Ped)	0.538		53	6462	0.008	6.9	A	0.0	0
ALL VEHICLES:				648		0.305	16.3	B	7.2	51
INTERSECTION (persons):				1184			16.0		7.2	51

Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used.

For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

Intersection capacity is calculated considering vehicle movements only.

* Maximum v/c ratio, or critical green periods

8169

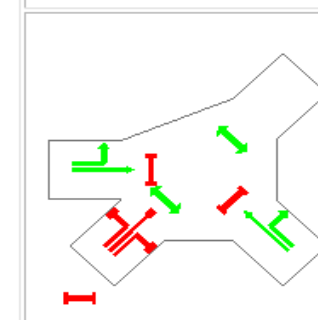
Liverpool St-West St AM FU 400

C = 65 seconds

Cycle Time Option: User-specified cycle time

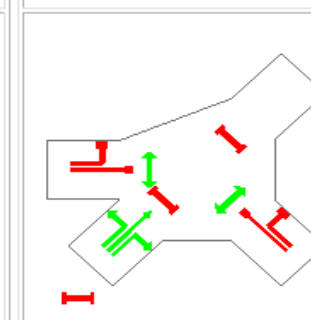
Phase times specified by the user.

Phase A



Green Time = 37 seconds
Phase Time = 43 seconds
Phase Split = 66 %

Phase B



Green Time = 16 seconds
Phase Time = 22 seconds
Phase Split = 34 %

- █ Normal Movement
- █ Slip-Lane
- █ Stopped Movement
- █ Turn On Red
- █ Permitted/Opposed
- █ Opposed Slip-Lane
- █ Continuous

8169

Liverpool St-West St PM FU 400

Intersection ID: 0

Fixed-Time Signals, Cycle Time = 65 (Sum of User-given Phase Times)

Mov ID	Mov Typ	Green Time Ratio (g/C)	Total Flow (veh /h)	Total Cap. (veh /h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (m)
		1st grn	2nd grn						
SouthEast: Liverpool St (East)									
22	T	0.569		220	0.225	14.7	B	5.3	37
23	R	0.569		31	0.225	15.8	B	5.3	37
West: Liverpool St (West)									
10	L	0.569		55	0.249	16.0	B	6.2	44
11	T	0.569*		243	0.249	14.8	B	6.2	44
SouthWest: West St									
30	L	0.246*		152	0.377*	31.6	C	6.7	47
31	T	0.246		16	0.376	22.5	B	6.7	47
32	R	0.246		20	0.376	31.2	C	6.7	47
Pedestrian Movements									
P9	(Ped)	0.185		53	0.024	21.6	C	0.1	0
P11	(Ped)	0.538		53	0.008	6.9	A	0.0	0
P7	(Ped)	0.154		53	0.029	23.3	C	0.1	0
P15	(Ped)	0.538		53	0.008	6.9	A	0.0	0
ALL VEHICLES:			737		0.377	19.0	B	6.7	47
INTERSECTION (persons):			1318			18.3		6.7	47

Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used.

For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

Intersection capacity is calculated considering vehicle movements only.

* Maximum v/c ratio, or critical green periods

8169

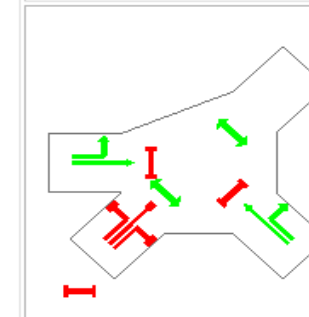
Liverpool St-West St PM FU 400

C = 65 seconds

Cycle Time Option: User-specified cycle time

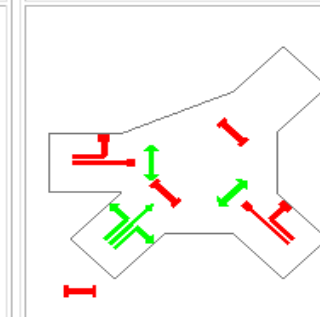
Phase times specified by the user.

Phase A



Green Time = 37 seconds
Phase Time = 43 seconds
Phase Split = 66 %

Phase B



Green Time = 16 seconds
Phase Time = 22 seconds
Phase Split = 34 %

- █ Normal Movement
- █ Slip-Lane
- █ Stopped Movement
- █ Turn On Red
- █ Permitted/Opposed
- █ Opposed Slip-Lane
- █ Continuous

8169

Liverpool St-West St AM FU 500

Intersection ID: 0

Fixed-Time Signals, Cycle Time = 65 (Sum of User-given Phase Times)

Mov ID	Mov Typ	Green Time Ratio (g/C)	Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	
		1st grn	2nd grn						
SouthEast: Liverpool St (East)									
22	T	0.569		306	992	0.308	15.1	B	7.3
23	R	0.569*		38	123	0.309*	16.3	B	7.3
West: Liverpool St (West)									
10	L	0.569		26	127	0.205	15.8	B	5.2
11	T	0.569		220	1074	0.205	14.6	B	5.2
SouthWest: West St									
30	L	0.246		41	312	0.132	30.0	C	2.5
31	T	0.246*		12	91	0.132	20.9	B	2.5
32	R	0.246		13	99	0.132	29.6	C	2.5
Pedestrian Movements									
P9	(Ped)	0.185		53	2215	0.024	21.6	C	0.1
P11	(Ped)	0.538		53	6462	0.008	6.9	A	0.0
P7	(Ped)	0.154		53	1846	0.029	23.3	C	0.1
P15	(Ped)	0.538		53	6462	0.008	6.9	A	0.0
ALL VEHICLES:									
			656		0.309	16.3	B	7.3	51
INTERSECTION (persons):									
			1196			16.0		7.3	51

Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used.

For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

Intersection capacity is calculated considering vehicle movements only.

* Maximum v/c ratio, or critical green periods

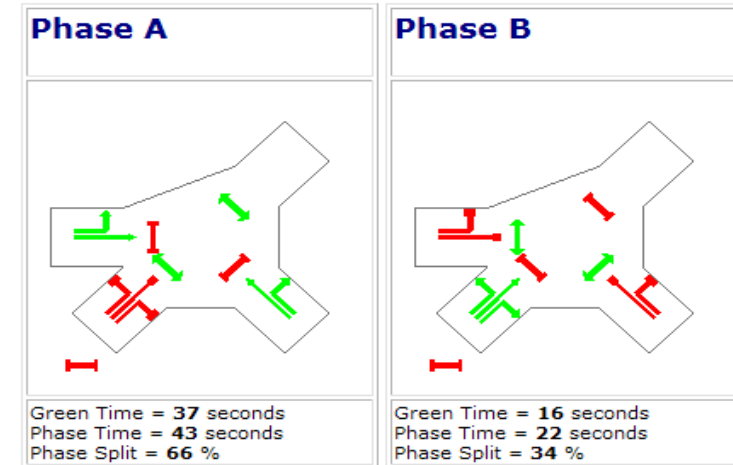
8169

Liverpool St-West St AM FU 500

C = 65 seconds

Cycle Time Option: User-specified cycle time

Phase times specified by the user.



- █ Normal Movement
- █ Slip-Lane
- █ Stopped Movement
- █ Turn On Red
- █ Permitted/Opposed
- █ Opposed Slip-Lane
- █ Continuous

8169

Liverpool St-West St PM FU 500

Intersection ID: 0

Fixed-Time Signals, Cycle Time = 65 (Sum of User-given Phase Times)

Mov ID	Mov Typ	Green Time Ratio (g/C)	Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (m)
		1st grn	2nd grn						
SouthEast: Liverpool St (East)									
22	T	0.569		220	0.225	14.7	B	5.3	37
23	R	0.569		31	0.225	15.8	B	5.3	37
West: Liverpool St (West)									
10	L	0.569		55	0.249	16.0	B	6.2	44
11	T	0.569*		243	0.249	14.8	B	6.2	44
SouthWest: West St									
30	L	0.246		186	0.445*	32.1	C	7.8	54
31	T	0.246*		16	0.445*	23.0	B	7.8	54
32	R	0.246		20	0.444	31.6	C	7.8	54
Pedestrian Movements									
P9	(Ped)	0.185		53	0.024	21.6	C	0.1	0
P11	(Ped)	0.538		53	0.008	6.9	A	0.0	0
P7	(Ped)	0.154		53	0.029	23.3	C	0.1	0
P15	(Ped)	0.538		53	0.008	6.9	A	0.0	0
ALL VEHICLES:				771	0.445	19.7	B	7.8	54
INTERSECTION (persons):				1369		18.9		7.8	54

Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used. For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help. Intersection capacity is calculated considering vehicle movements only.

* Maximum v/c ratio, or critical green periods

" Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)

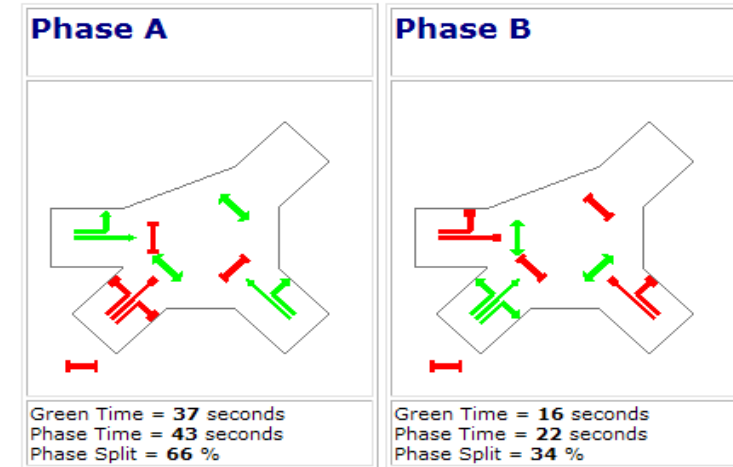
8169

Liverpool St-West St PM FU 500

C = 65 seconds

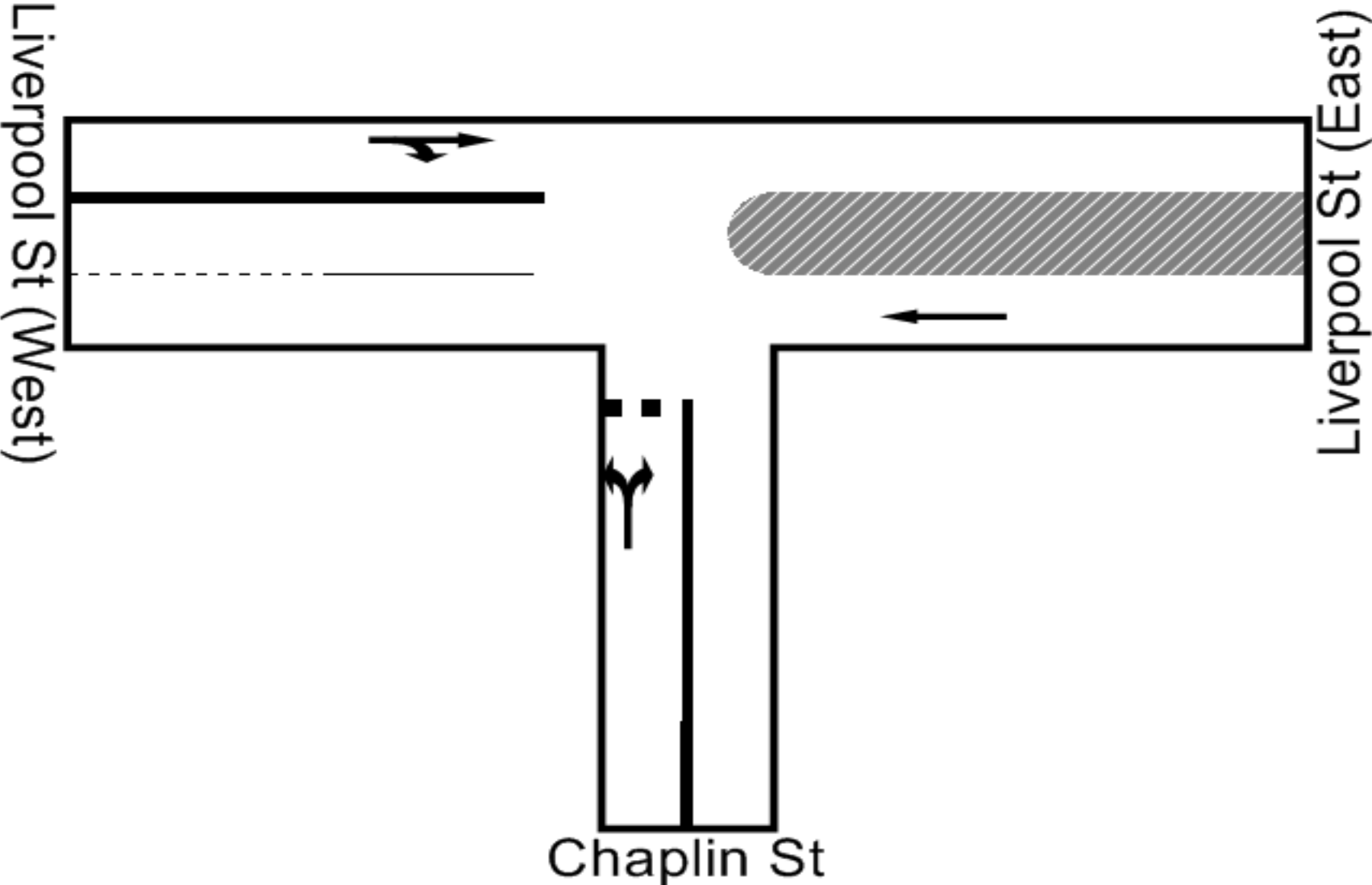
Cycle Time Option: User-specified cycle time

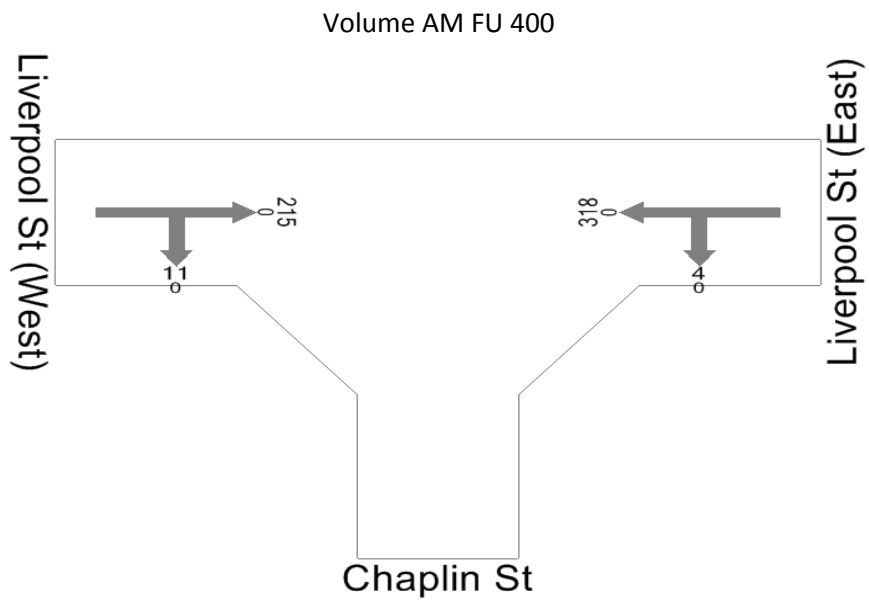
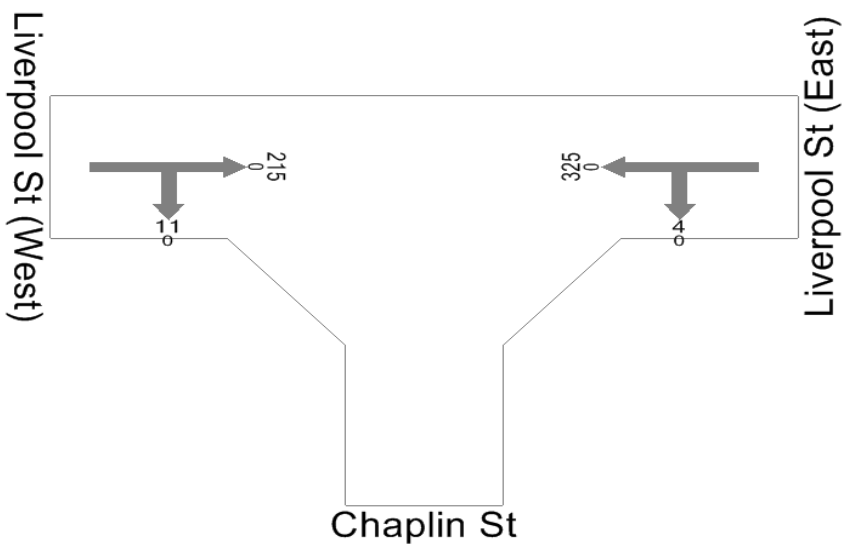
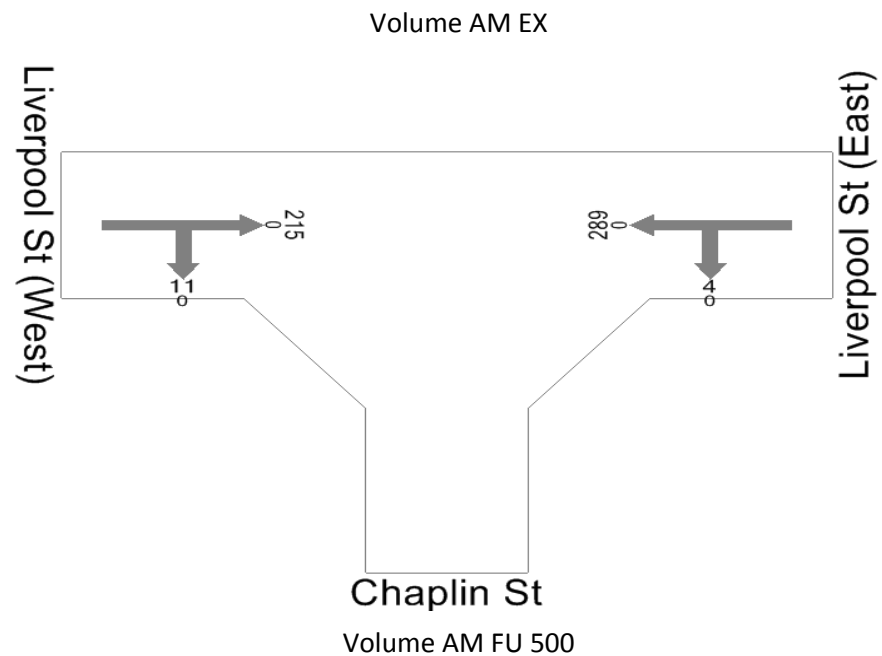
Phase times specified by the user.



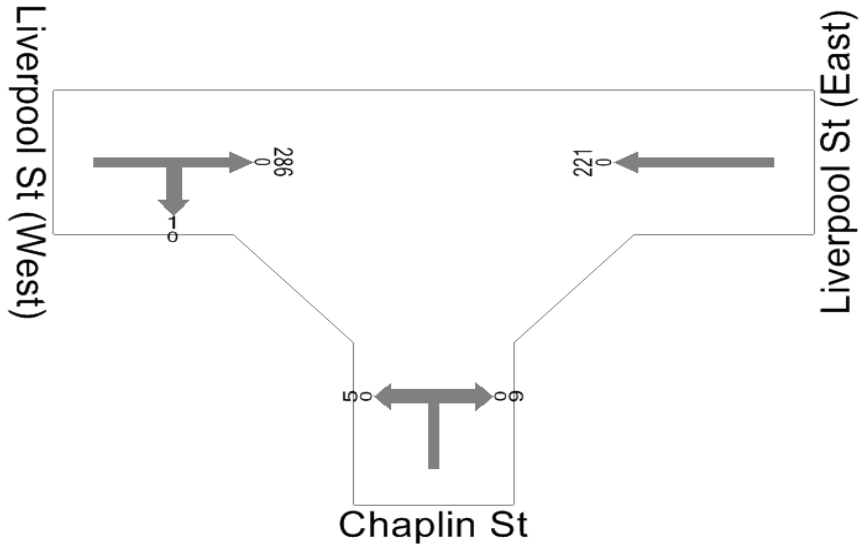
- █ Normal Movement
- █ Slip-Lane
- █ Stopped Movement
- █ Turn On Red
- █ Permitted/Opposed
- █ Opposed Slip-Lane
- █ Continuous

Layout

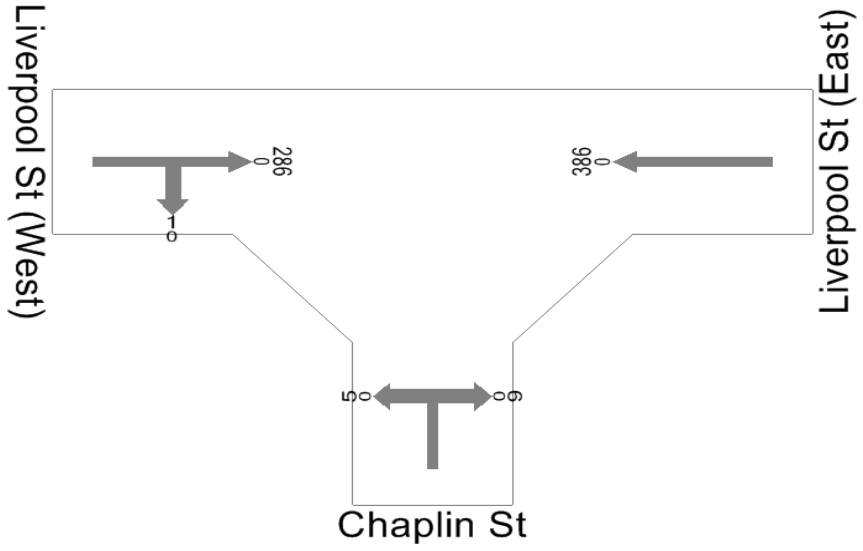




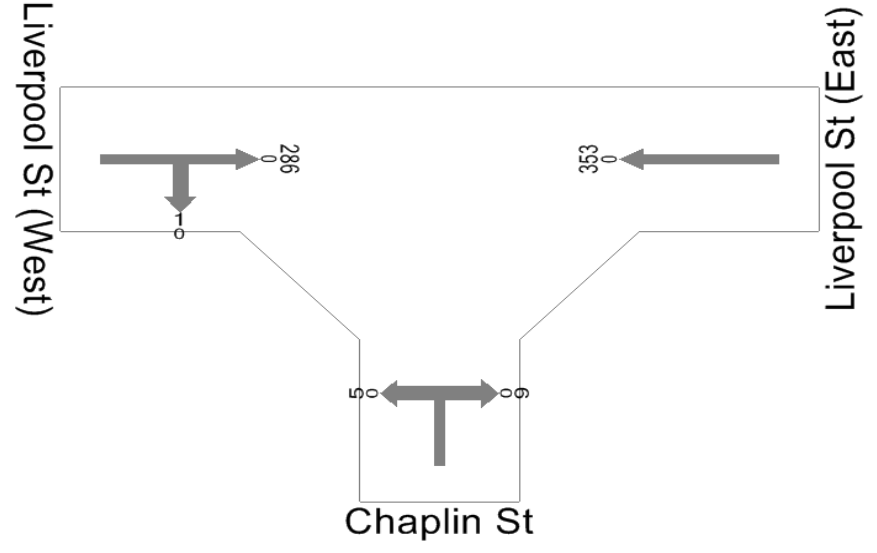
Volume PM EX



Volume PM FU 500



Volume PM FU 400



8169

Liverpool St-Chaplin St AM EX

Intersection ID: 1

Give-Way Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (m)
East: Liverpool St (East)								
4	L	4	25	0.160*	8.2	A	0.0	0
5	T	304	1923	0.158	0.0	A	0.0	0
West: Liverpool St (West)								
11	T	226	1775	0.127	1.5	A	1.2	8
12	R	12	94	0.128	10.0	A	1.2	8
ALL VEHICLES:		546		0.160	0.9	NA	1.2	8

Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used.
For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods

" Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)

8169

Liverpool St-Chaplin St PM EX

Intersection ID: 1

Give-Way Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (m)
South: Chaplin St								
1	L	5	235	0.021	12.5	A	0.1	1
3	R	6	282	0.021	12.8	A	0.1	1
East: Liverpool St (East)								
5	T	233	1950	0.119	0.0	A	0.0	0
West: Liverpool St (West)								
11	T	301	1939	0.155	1.1	A	1.5	10
12	R	1	6	0.167*	9.5	A	1.5	10
ALL VEHICLES:		546		0.167	0.9	NA	1.5	10

Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used.
For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods

" Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)

8169

Liverpool St-Chaplin St AM FU 400

Intersection ID: 1

Give-Way Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (m)
East: Liverpool St (East)								
4	L	4	23	0.174*	8.2	A	0.0	0
5	T	335	1926	0.174*	0.0	A	0.0	0
West: Liverpool St (West)								
11	T	226	1769	0.128	1.7	A	1.2	9
12	R	12	94	0.128	10.2	A	1.2	9
ALL VEHICLES:		577		0.174	0.9	NA	1.2	9

Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used.
For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods

8169

Liverpool St-Chaplin St PM FU 400

Intersection ID: 1

Give-Way Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh/h)	Total Cap. (veh/h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (m)
South: Chaplin St								
1	L	5	183	0.027	14.8	B	0.1	1
3	R	6	220	0.027	15.1	B	0.1	1
East: Liverpool St (East)								
5	T	372	1950	0.191*	0.0	A	0.0	0
West: Liverpool St (West)								
11	T	301	1937	0.155	2.0	A	1.7	12
12	R	1	6	0.167	10.4	A	1.7	12
ALL VEHICLES:		685		0.191	1.1	NA	1.7	12

Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used.
For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods

" Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)

8169

Liverpool St-Chaplin St AM FU 500

Intersection ID: 1

Give-Way Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh /h)	Total Cap. (veh /h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (m)
East: Liverpool St (East)								
4	L	4	23	0.174	8.2	A	0.0	0
5	T	342	1926	0.178*	0.0	A	0.0	0
West: Liverpool St (West)								
11	T	226	1768	0.128	1.8	A	1.3	9
12	R	12	94	0.128	10.2	A	1.3	9
ALL VEHICLES:		584		0.178	0.9	NA	1.3	9

Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used.

For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods

" Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)

8169

Liverpool St-Chaplin St PM FU 500

Intersection ID: 1

Give-Way Sign Controlled Intersection

Mov ID	Mov Typ	Total Flow (veh /h)	Total Cap. (veh /h)	Deg. of Satn (v/c)	Aver. Delay (sec)	LOS	Longest Queue 95% Back (vehs)	Queue (m)
South: Chaplin St								
1	L	5	171	0.029	15.5	B	0.1	1
3	R	6	206	0.029	15.8	B	0.1	1
East: Liverpool St (East)								
5	T	406	1950	0.208*	0.0	A	0.0	0
West: Liverpool St (West)								
11	T	301	1937	0.155	2.3	A	1.7	12
12	R	1	6	0.167	10.7	A	1.7	12
ALL VEHICLES:		719		0.208	1.2	NA	1.7	12

Level of Service calculations are based on average control delay including geometric delay (RTA NSW criteria), independent of the current delay definition used.

For the criteria, refer to the "Level of Service" topic in the SIDRA Output Guide or the Output section of the on-line help.

NA Not Applicable - Intersection Level of Service is not calculated at two-way stop control or give-way/yield controlled intersections.

* Maximum v/c ratio, or critical green periods

" Movement Level of service has been determined using adjacent lane v/c ratio rather than short lane v/c ratio (v/c=1.0)

Intersection	Sidra											
	AM						PM					
	EX		FU 400		FU 500		EX		FU 400		FU 500	
	AVD	LOS	AVD	LOS	AVD	LOS	AVD	LOS	AVD	LOS	AVD	LOS
Oxford St - Darlington Rd	27.7	B	27.9	B	28.0	B	32.4	C	32.4	C	32.4	C
Burton St - Darlington Rd	24.5	B	24.8	B	24.9	B	25.1	B	25.1	B	25.1	B
Liverpool St - Darlington Rd	23.5	B	23.6	B	23.7	B	23.3	B	23.8	B	23.9	B
Oxford St - Victoria St	45.8	D	46.4	D	46.5	D	52.8	D	53.1	D	53.2	D
Burton St - Victoria St	23.2	B	23.3	B	23.3	B	24.0	B	26.0	B	26.8	B
Liverpool st - Victoria St	20.9	B	21.2	B	21.5	B	19.1	B	19.5	B	19.6	B
West St - Liverpool St	15.9	B	16.3	B	16.3	B	16.0	B	19.0	B	19.7	B
West St - Burton St	11.1	A	14.1	A	15.0	B	12.1	A	12.2	A	12.2	A
West St - West Ave	9.0	A	8.9	A	8.9	A	9.0	A	8.9	A	8.9	A
Chaplin St - Liverpool St	10.0	A	10.2	A	10.2	A	12.8	A	15.1	B	15.8	B

Intersection	Aimsun											
	AM						PM					
	EX		FU 400		FU 500		EX		FU 400		FU 500	
	AVD	LOS	AVD	LOS	AVD	LOS	AVD	LOS	AVD	LOS	AVD	LOS
Oxford St - Darlington Rd	32.4	C	33.5	C	34.5	C	27.5	B	28.4	B	29.5	C
Burton St - Darlington Rd	24.3	B	24.3	B	24.3	B	20.7	B	21.1	B	20.9	B
Liverpool St - Darlington Rd	15.4	B	15.3	B	15.3	B	16.9	B	16.8	B	16.9	B
Oxford St - Victoria St	40.3	C	41.0	C	41.0	C	39.1	C	48.0	D	50.1	D
Burton St - Victoria St	10.4	A	11.0	A	11.2	A	9.5	A	14.8	B	15.8	B
Liverpool st - Victoria St	13.0	A	13.8	A	13.5	A	12.7	A	14.5	A	14.1	A
West St - Liverpool St	7.0	A	7.6	A	7.5	A	6.1	A	9.7	A	10.5	A
West St - Burton St	0.7	A	0.9	A	0.9	A	0.8	A	0.9	A	0.9	A
West St - West Ave	0.1	A	2.4	A	4.7	A	0.1	A	0.2	A	0.3	A
Chaplin St - Liverpool St	0.9	A	0.9	A	0.9	A	0.7	A	1.4	A	1.7	A

Intersection	Scates 2008																	
	AM									PM								
	EX			FU 400			FU 500			EX			FU 400			FU 500		
	AVD	LOS	DS	AVD	LOS	DS	AVD	LOS	DS	AVD	LOS	DS	AVD	LOS	DS	AVD	LOS	DS
Oxford St - Darlington Rd	39.4	C	0.72	39.6	C	0.77				39.7	C	0.78	50.4	D	0.71	50.5	D	0.72
Oxford ST - Victoria St	28.2	B	0.82	28.2	B	0.82	28.2	B	0.82	36.2	C	1.01	36.2	C	1.02	36.2	C	1.03

Notes: EX - existing; FU400 - future with 400 space car park; FU500 - future with 500 space car park;
 AVD - average delay; LOS - Level of Service; DS - degree of saturation

Intersection	Sidra			
	AM		PM	
	AVD	LOS	AVD	LOS
Oxford St - Darlington Rd	27.7	B	32.4	C
Burton St - Darlington Rd	24.5	B	25.1	B
Liverpool St - Darlington Rd	23.5	B	23.3	B
Oxford St - Victoria St	45.8	D	52.8	D
Burton St - Victoria St	23.2	B	24.0	B
Liverpool st - Victoria St	20.9	B	19.1	B
West St - Liverpool St	15.9	B	16.0	B
West St - Burton St	11.1	A	12.1	A
West St - West Ave	9.0	A	9.0	A
Chaplin St - Liverpool St	10.0	A	12.8	A

Intersection	Aimsun			
	AM		PM	
	AVD	LOS	AVD	LOS
Oxford St - Darlington Rd	32.4	C	27.5	B
Burton St - Darlington Rd	24.3	B	20.7	B
Liverpool St - Darlington Rd	15.4	B	16.9	B
Oxford St - Victoria St	40.3	C	39.1	C
Burton St - Victoria St	10.4	A	9.5	A
Liverpool st - Victoria St	13.0	A	12.7	A
West St - Liverpool St	7.0	A	6.1	A
West St - Burton St	0.7	A	0.8	A
West St - West Ave	0.1	A	0.1	A
Chaplin St - Liverpool St	0.9	A	0.7	A

Intersection	Scates 2008					
	AM			PM		
	AVD	LOS	DS	AVD	LOS	DS
Oxford St - Darlington Rd	39.4	C	0.72	50.4	D	0.71
Oxford ST - Victoria St	28.2	B	0.82	36.2	C	1.01

AVD - average delay; LOS - Level of Service; DS - degree of saturation

Notes: EX - existing; FU400 - future with 400 space car park; FU500 - future with 500 space car park;

**Levels of Service of the street network – existing AM Peak
Aimsun microsimulation model**



	0.00 - 14.50	A
	14.50 - 28.50	B
	28.50 - 42.50	C
	42.50 - 56.50	D
	56.50 - 70.50	E
	70.50 - inf	F

Level of Service	Average Delay per Vehicle (secs/veh)	Traffic Signals, Roundabout
A	< 14	Good operation
B	15 to 28	Good with acceptable delays & spare capacity
C	29 to 42	Satisfactory
D	43 to 56	Operating near capacity
E	57 to 70	At capacity; at signals, incidents will cause excessive delays Roundabouts require other control mode

**Levels of Service of the street network – AM Peak – 400 space car park
Aimsun microsimulation model**



Green	0.00 - 14.50	A
Cyan	14.50 - 28.50	B
Blue	28.50 - 42.50	C
Magenta	42.50 - 56.50	D
Orange	56.50 - 70.50	E
Red	70.50 - inf	F

Level of Service	Average Delay per Vehicle (secs/veh)	Traffic Signals, Roundabout
A	< 14	Good operation
B	15 to 28	Good with acceptable delays & spare capacity
C	29 to 42	Satisfactory
D	43 to 56	Operating near capacity
E	57 to 70	At capacity; at signals, incidents will cause excessive delays Roundabouts require other control mode

**Levels of Service of the street network – AM Peak – 500 space car park
Aimsun microsimulation model**



	0.00 - 14.50	A
	14.50 - 28.50	B
	28.50 - 42.50	C
	42.50 - 56.50	D
	56.50 - 70.50	E
	70.50 - inf	F

Level of Service	Average Delay per Vehicle (secs/veh)	Traffic Signals, Roundabout
A	< 14	Good operation
B	15 to 28	Good with acceptable delays & spare capacity
C	29 to 42	Satisfactory
D	43 to 56	Operating near capacity
E	57 to 70	At capacity; at signals, incidents will cause excessive delays Roundabouts require other control mode

**Levels of Service of the street network – existing PM Peak
Aimsun microsimulation model**



0.00 - 14.50	A
14.50 - 28.50	B
28.50 - 42.50	C
42.50 - 56.50	D
56.50 - 70.50	E
70.50 - inf	F

Level of Service	Average Delay per Vehicle (secs/veh)	Traffic Signals, Roundabout
A	< 14	Good operation
B	15 to 28	Good with acceptable delays & spare capacity
C	29 to 42	Satisfactory
D	43 to 56	Operating near capacity
E	57 to 70	At capacity; at signals, incidents will cause excessive delays Roundabouts require other control mode

**Levels of Service of the street network – PM Peak – 400 space car park
Aimsun microsimulation model**



■	0.00 - 14.50	A
■	14.50 - 28.50	B
■	28.50 - 42.50	C
■	42.50 - 56.50	D
■	56.50 - 70.50	E
■	70.50 - inf	F

Level of Service	Average Delay per Vehicle (secs/veh)	Traffic Signals, Roundabout
A	< 14	Good operation
B	15 to 28	Good with acceptable delays & spare capacity
C	29 to 42	Satisfactory
D	43 to 56	Operating near capacity
E	57 to 70	At capacity; at signals, incidents will cause excessive delays Roundabouts require other control mode

**Levels of Service of the street network – PAM Peak – 500 space car park
Aimsun microsimulation model**



	0.00 - 14.50	A
	14.50 - 28.50	B
	28.50 - 42.50	C
	42.50 - 56.50	D
	56.50 - 70.50	E
	70.50 - inf	F

Level of Service	Average Delay per Vehicle (secs/veh)	Traffic Signals, Roundabout
A	< 14	Good operation
B	15 to 28	Good with acceptable delays & spare capacity
C	29 to 42	Satisfactory
D	43 to 56	Operating near capacity
E	57 to 70	At capacity; at signals, incidents will cause excessive delays Roundabouts require other control mode

SCATES Program Version: 2008 Date: 23-APR-09 Time:
Registered User Name. - Freeware
Registered User No. - 0
Data File: 8169EX1
OXFORD
EX

AM	AM PEAK					PM PEAK					BUSINESS				
	Vol	Sat	Phse	MocV	Pers	Vol	Sat	Phse	MocV	Pers	Vol	Sat	Phse	MocV	Pers
			Gain	Loss				Gain	Loss				Gain	Loss	
1L	131	500	A	0	0.0	147	500	A	0	0.0	145	500	A	0	0.0
1T	577	4500	A			947	4500	A			700	5000	A		
1R															
2L															
2T															
2R															
3L				0	0.0				0	0.0				0	0.0
3T	983	4500	AB	0	0	854	4500	AB	0	0	854	4000	AB	1224	0
3R	537	1850	B			510	1850	B			515	1850	B		
4L	5	1750	C			5	1750	C			5	1750	C		
4T		3600					3600					3600			
4R	173	1850	C			159	1850	C			173	1850	C		
Type = T4						A	Min	ELT	H%AM	H%PM	H%B	L/S	L-PD	R-PD	
File = 8169EX1						1	10	4.0	0	0	0	0'	0		
						2									
TCS = 1						3	5	4.0	0	0	0	0'		0	
						4	10	4.0	0	0	0		0	0	
	PEDESTRIAN VOLUME					WALK-CLEARANCE		TRAM DATA			PEDEST		TRAM		
App	P#AM	P#PM	P#B	Walk	Clear							FACT	FACT		
1	100	100	0	A	5			0%				100	100		
2	100	100	0	C	5			0%				100	100		
3	0	0	0	0	0			0%				100	100		
4	100	100	0	C	5			0%				100	100		

AM	AM PEAK					PM PEAK					BUSINESS				
	Vol	Sat	Phse	MocV	Pers	Vol	Sat	Phse	MocV	Pers	Vol	Sat	Phse	MocV	Pers
			Gain	Loss				Gain	Loss				Gain	Loss	
1L	71	900	A	0	0.0	55	900	A	0	0.0	102	900	A	0	0.0
1T	514	4900	A	3	0	983	4900	A	86	0	7	4000	A	0	596
1R	0	0	S			0	0	S			0	0	S		
2L	295	1750	B			290	1750	B			102	1750	B		
2T	229	1850	B			248	1850	B			467	1850	B		
2R	142	1850	B			211	1850	B			36	1850	B		
3L	225	900	A	0	0.0	290	900	A	0	0.0	102	900	A	0	0.0
3T	1115	4900	A			910	4900	A			7	4000	A		
3R	0	0	S			0	0	S			0	0	S		
4L	125	1750	C			195	1750	C			102	1750	C		
4T	407	3750	C			412	3750	C			467	2000	C		
4R	110	1850	C			164	1850	C			36	1850	C		
Type = C0S0						A	Min	ELT	H%AM	H%PM	H%B	L/S	L-PD	R-PD	
File = 8169EX1						1	10	4.0	0	0	0	0'	0	0	
						2	10	4.0	0	0	0	0'	0	0	
TCS = 2						3	10	4.0	0	0	0	0'	5	0	
						4	5	4.0	0	0	0	0'	0	0	
	PEDESTRIAN VOLUME					WALK-CLEARANCE		TRAM DATA			PEDEST		TRAM		
App	P#AM	P#PM	P#B	Walk	Clear							FACT	FACT		
1	100	100	0	A	5			0%				100	100		
2	100	100	0	C	5			0%				100	100		
3	100	100	0	A	5			0%				100	100		
4	0	0	0	0	0			0%				100	100		

Ph	AM PEAK				PM PEAK				BUSINESS			
	GT%	GT%	CL	CL	GT%	GT%	CL	CL	GT%	GT%	CL	CL
	CORD	ISOL	CORD	ISOL	CORD	ISOL	CORD	ISOL	CORD	ISOL	CORD	ISOL
A	39.8	39.8	110	110	43.9	43.6	147	110	42.9	42.7	134	110
B	43.7	43.7			41.3	41.1			41.3	41.1		
C	16.5	16.5			14.8	15.3			15.8	16.2		
D												
E												
F			dlay	dlay			dlay	dlay			dlay	dlay
G			3.3	3.3			4.2	3.3			0.0	0.0
Seq	ABC	dlay	13	13	ABC	dlay	19	15	ABC	dlay	16	14
		Stps	1.3	1.3		Stps	1.5	1.5		Stps	1.3	1.3
Mode	0	DS	0.72	0.72	0	DS	0.71	0.74	0	DS	0.73	0.74
File =	8169EX1				A	Bay	Bay	Slip	Slip		Type	
						Req	Act	Req	Act			
TCS =	1							24	55		T4	

Bays if all intersections are optimised

Ph	AM PEAK				PM PEAK				BUSINESS			
	GT%	GT%	CL	CL	GT%	GT%	CL	CL	GT%	GT%	CL	CL
	CORD	ISOL	CORD	ISOL	CORD	ISOL	CORD	ISOL	CORD	ISOL	CORD	ISOL
A	38.8	38.8	110	110	38.0	38.0	147	155	19.3	19.3	134	134
B	29.0	29.0			29.9	29.8			42.3	42.3		
C	32.2	32.2			32.1	32.2			38.3	38.3		
D												
E												
F			dlay	dlay			dlay	dlay			dlay	dlay
G			2.4	2.4			3.0	3.1			0.0	0.0
Seq	ABC	dlay	32	32	ABC	dlay	57	58	ABC	dlay	16	16
		Stps	2.6	2.6		Stps	3.2	3.2		Stps	1.1	1.1
Mode	1	DS	0.82	0.82	1	DS	1.01	1.00	1	DS	0.90	0.90
File =	8169EX1				A	Bay	Bay	Slip	Slip		Type	
						Req	Act	Req	Act			
TCS =	2							24	0		C0S0	
						43	0					
								56	0			
						32	65	38	0			

Bays if all intersections are optimised

```

TCS =      1  Isolated Operation Degree of Saturation for PM Peak 8169EX1
      --- Co-ordinated Cycle Length ---      ----- Isolated Cycle Length -----
A  M  DS      GT      Delay Stops Queue Metre  DS      GT      Delay Stops Queue Metre
1  L  0.71      61        2   111      4    78  0.74      44        1   115      3    60
1  T  0.53      61        9   641      23   66  0.53      44        7   650      17   48
1  R
2  L
2  T
2  R
3  L
3  T  0.23     121        1   166      6    18  0.23      89        1   180      5    18
3  R  0.71      57        5   389      13   78  0.74      41        4   401      10   60
4  L
4  T
4  R  0.71      18        3   141      6    36  0.74      13        2   147      5    30
INT  0.71     147

```

```

TCS =      1  Pedestrian - Vehicle Delay PM Peak File = 8169EX1
                  Isolated Operation
      --- Co-ordinated Cycle Length ---      ----- Isolated Cycle Length -----
A  M  Peds Delay Aver Vehs Delay Aver Peds Delay Aver Veh Delay Aver
1  L              147   1.5 36.8              147   1.2 29.7
1  T    100    0.8 28.5  947   8.6 32.5    100    0.6 22.9  947   6.6 25.2
1  R
2  L
2  T    100    1.7 61.4              100    1.3 47.4
2  R
3  L
3  T        0    0.0              854   0.7  2.8        0    0.0              854   0.6  2.4
3  R              510   5.4 38.2              510   4.3 30.6
4  L              5    0.0   0.0              5    0.0   0.0
4  T    100    1.7 61.4              100    1.3 47.4
4  R              159   2.9 64.6              159   2.3 52.1
INT    300        4  50.4 2622   19 26.1    300        3  39.3 2622    0  0.0

```

TCS = 1 Pedestrian - Vehicle Delay - Stops PM Peak File = 8169EX1

----- Delays & Stops after Co-ordinated Evaluation -----

A	M	Peds	Delay	Aver	Vehs	Delay	Aver	Stops	Aver	LOS		
1	L				147	0.0	0.0	0	0.0	A	0	6
1	T	100	0.8	28.5	947	0.0	0.0	0	0.0	A	0	6
1	R											
2	L											
2	T	100	1.7	61.4								
2	R											
3	L											
3	T	0	0.0		854	0.7	3.1	665	0.8	A	6	18
3	R				510	0.7	5.0	21	0.0	A	1	6
4	L				5	0.0	0.0	0	0.0	A	0	6
4	T	100	1.7	61.4								
4	R				159	2.9	64.6	141	0.9	E	6	36
INT		300	4	50.4	2622	4	5.9	827	0.3	A		

TCS = 1 Isolated Operation Degree of Saturation for Business Peak 8169EX1

--- Co-ordinated Cycle Length --- ----- Isolated Cycle Length -----

A	M	DS	GT	Delay	Stops	Queue	Metre	DS	GT	Delay	Stops	Queue	Metre
1	L	0.73	53	1	112	3	72	0.74	43	1	115	3	60
1	T	0.40	53	6	451	16	48	0.40	43	5	456	13	36
1	R												
2	L												
2	T												
2	R												
3	L												
3	T	0.26	109	1	184	6	18	0.26	88	1	193	5	18
3	R	0.73	51	5	398	12	72	0.74	41	4	408	10	66
4	L												
4	T												
4	R	0.73	17	3	155	6	36	0.74	14	2	161	5	30
INT		0.73	134					0.74	110				

```

TCS =      1  Pedestrian  - Vehicle Delay Business Peak File = 8169EX1
              Isolated Operation
              --- Co-ordinated Cycle Length ---      ----- Isolated Cycle Length -----
A  M  Peds  Delay  Aver Vehs  Delay  Aver Peds  Delay  Aver Veh  Delay  Aver
1  L              145   1.4  35.3              145   1.2  30.7
1  T      0    0.0      700   5.6  28.8      0    0.0      700   4.7  24.2
1  R
2  L
2  T      0    0.0              0    0.0
2  R
3  L
3  T      0    0.0      854   0.7   3.0      0    0.0      854   0.7   2.7
3  R      515   5.1  35.7      515   4.4  30.9
4  L      5    0.0   0.0              5    0.0   0.0
4  T      0    0.0              0    0.0
4  R      173   2.9  59.6      173   2.5  51.8
INT      2392   16  23.7      2392    0   0.0
-----

```

```

TCS =      1  Pedestrian  - Vehicle Delay - Stops Business Peak File = 8169EX1
----- Delays & Stops after Co-ordinated Evaluation-----
A  M  Peds  Delay  Aver Vehs  Delay  Aver Stops  Aver LOS
1  L              145   0.0   0.0      0    0.0   A      0      6
1  T      0    0.0      700   0.0   0.0      0    0.0   A      0      6
1  R
2  L
2  T      0    0.0
2  R
3  L
3  T      0    0.0      854   0.1   0.3     35    0.0   A      1      6
3  R      515   0.7   5.0     19    0.0   A      1      6
4  L      5    0.0   0.0      0    0.0   A      0      6
4  T      0    0.0
4  R      173   2.9  59.6     155   0.9   E      6     36
INT      2392    4   5.5     210   0.1   A
-----

```

```

TCS =      1  Isolated Operation Degree of Saturation for AM Peak 8169EX1
      --- Co-ordinated Cycle Length ---      ----- Isolated Cycle Length -----
A  M  DS      GT      Delay Stops Queue Metre  DS      GT      Delay Stops Queue Metre
1  L  0.72      40       1   104      3    60  0.72      40       1   104      3    60
1  T  0.36      40       4   381     11   36  0.36      40       4   381     11   36
1  R
2  L
2  T
2  R
3  L
3  T  0.27      88       1   228      6   18  0.27      88       1   228      6   18
3  R  0.72      44       4   411     10   60  0.72      44       4   411     10   60
4  L
4  T
4  R  0.72      14       2   156      5   30  0.72      14       2   156      5   30
INT  0.72      110
-----

```

```

TCS =      1  Pedestrian - Vehicle Delay AM Peak File = 8169EX1
                  Isolated Operation
      --- Co-ordinated Cycle Length ---      ----- Isolated Cycle Length -----
A  M  Peds Delay Aver Vehs Delay Aver Peds Delay Aver Veh Delay Aver
1  L              131  1.2  31.8              131  1.2  31.8
1  T  100   0.7  25.7  577  4.1  25.8  100   0.7  25.7  577  4.1  25.8
1  R
2  L
2  T  100   1.3  46.2              100   1.3  46.2
2  R
3  L
3  T      0   0.0              983  0.8  2.9      0   0.0              983  0.8  2.9
3  R              537  4.2  28.3              537  4.2  28.3
4  L              5   0.0  0.0              5   0.0  0.0
4  T  100   1.3  46.2              100   1.3  46.2
4  R              173  2.4  49.5              173  2.4  49.5
INT  300      3  39.4  2406  13  19.0  300      3  39.4  2406  0  0.0
-----

```

TCS = 1 Pedestrian - Vehicle Delay - Stops AM Peak File = 8169EX1

----- Delays & Stops after Co-ordinated Evaluation -----

A	M	Peds	Delay	Aver	Vehs	Delay	Aver	Stops	Aver	LOS		
1	L				131	0.0	0.0	0	0.0	A	0	6
1	T	100	0.7	25.7	577	0.0	0.0	0	0.0	A	0	6
1	R											
2	L											
2	T	100	1.3	46.2								
2	R											
3	L											
3	T	0	0.0		983	0.0	0.0	16	0.0	A	1	6
3	R				537	0.7	5.0	16	0.0	A	1	6
4	L				5	0.0	0.0	0	0.0	A	0	6
4	T	100	1.3	46.2								
4	R				173	2.4	49.5	156	0.9	D	5	30
INT		300	3	39.4	2406	3	4.7	189	0.1	A		

TCS = 2 Isolated Operation Degree of Saturation for PM Peak 8169EX1

--- Co-ordinated Cycle Length --- ----- Isolated Cycle Length -----

A	M	DS	GT	Delay	Stops	Queue	Metre	DS	GT	Delay	Stops	Queue	Metre
1	L	0.60	52	1	41	1	72	0.60	55	1	41	2	78
1	T	0.60	52	11	726	26	72	0.60	55	11	725	27	72
1	R												
2	L	0.61	40	4	228	9	54	0.61	42	4	228	9	60
2	T	0.91	40	5	250	9	108	0.91	42	5	247	9	114
2	R	0.91	40	4	214	8	102	0.91	42	4	212	8	108
3	L	1.01	47	9	365	13	60	1.00	50	9	351	13	66
3	T	0.64	52	10	686	24	78	0.64	55	11	685	25	78
3	R												
4	L	0.91	43	4	196	7	66	0.91	46	4	194	7	72
4	T	0.91	43	8	411	14	114	0.91	46	8	405	15	120
4	R	0.30	43	2	114	5	30	0.30	46	2	114	5	30
INT		1.01	147					1.00	155				

TCS = 2 Pedestrian - Vehicle Delay PM Peak File = 8169EX1

Isolated Operation

--- Co-ordinated Cycle Length --- ----- Isolated Cycle Length -----

A	M	Peds	Delay	Aver	Vehs	Delay	Aver	Peds	Delay	Aver	Veh	Delay	Aver
1	L				55	0.6	39.0				55	0.6	41.0
1	T	100	0.9	34.1	983	10.7	39.0	100	1.0	35.7	983	11.2	41.1
1	R												
2	L				290	3.8	46.7				290	4.0	49.2
2	T	100	1.1	40.3	248	5.0	72.0	100	1.2	42.0	248	5.1	74.0
2	R				211	4.3	73.4				211	4.4	75.5
3	L				290	8.8	109.0				290	8.6	106.2
3	T	100	0.9	34.1	910	10.1	39.8	100	1.0	35.7	910	10.6	41.9
3	R												
4	L				195	3.8	70.9				195	3.9	72.7
4	T	0	0.0		412	7.9	69.5	0	0.0		412	8.1	70.8
4	R				164	1.8	40.2				164	1.9	42.1
INT		300	3	36.2	3758	57	54.4	300	3	37.8	3758	0	0.0

TCS = 2 Pedestrian - Vehicle Delay - Stops PM Peak File = 8169EX1

----- Delays & Stops after Co-ordinated Evaluation -----

A	M	Peds	Delay	Aver	Vehs	Delay	Aver	Stops	Aver	LOS		
1	L				55	0.0	0.2	0	0.0	A	0	6
1	T	100	0.9	34.1	983	0.1	0.2	3	0.0	A	0	6
1	R											
2	L				290	3.8	46.7	228	0.8	D	9	54
2	T	100	1.1	40.3	248	5.0	72.0	250	1.0	F	9	108
2	R				211	4.3	73.4	214	1.0	F	8	54
3	L				290	0.2	2.7	0	0.0	A	0	6
3	T	100	0.9	34.1	910	0.7	2.7	0	0.0	A	0	6
3	R											
4	L				195	3.8	70.9	196	1.0	F	7	24
4	T	0	0.0		412	7.9	69.5	411	1.0	E	14	114
4	R				164	1.8	40.2	114	0.7	C	5	30
INT		300	3	36.2	3758	28	26.4	1417	0.4	B		

```

TCS =      2   Isolated Operation Degree of Saturation for Business Peak 8169EX1
      --- Co-ordinated Cycle Length ---      ----- Isolated Cycle Length -----
A  M  DS      GT      Delay Stops Queue Metre  DS      GT      Delay Stops Queue Metre
1  L  0.69     22       2    87     3     6  0.69     22       2    87     3     6
1  T  0.01     22       0     5     0     6  0.01     22       0     5     0     6
1  R
2  L  0.15     53       1    59     2    18  0.15     53       1    59     2    18
2  T  0.69     53       4   350    11    78  0.69     53       4   350    11    78
2  R  0.69     53       0    27     1    78  0.69     53       0    27     1    78
3  L  0.90     17       3   119     4     6  0.90     17       3   119     4     6
3  T  0.01     22       0     5     0     6  0.01     22       0     5     0     6
3  R
4  L  0.69     47       1    79     2    18  0.69     47       1    79     2    18
4  T  0.69     47       5   360    11    72  0.69     47       5   360    11    72
4  R  0.06     47       0    21     1     6  0.06     47       0    21     1     6
INT  0.90     134
-----

```

```

TCS =      2   Pedestrian - Vehicle Delay Business Peak File = 8169EX1
                  Isolated Operation
      --- Co-ordinated Cycle Length ---      ----- Isolated Cycle Length -----
A  M  Peds Delay Aver Vehs Delay Aver Peds Delay Aver Veh Delay Aver
1  L              102  1.5  53.8              102  1.5  53.8
1  T      0    0.0          7  0.1  47.0      0    0.0          7  0.1  47.0
1  R
2  L              102  0.7  26.2              102  0.7  26.2
2  T      0    0.0         467  4.4  33.9      0    0.0         467  4.4  33.9
2  R              36  0.3  34.4              36  0.3  34.4
3  L              102  2.7  95.7              102  2.7  95.7
3  T      0    0.0          7  0.1  47.0      0    0.0          7  0.1  47.0
3  R
4  L              102  1.1  37.5              102  1.1  37.5
4  T      0    0.0         467  4.8  37.1      0    0.0         467  4.8  37.1
4  R              36  0.3  28.5              36  0.3  28.5
INT              1428  16  40.5              1428  0  0.0
-----

```

TCS = 2 Pedestrian - Vehicle Delay - Stops Business Peak File = 8169EX1

----- Delays & Stops after Co-ordinated Evaluation -----

A	M	Peds	Delay	Aver	Vehs	Delay	Aver	Stops	Aver	LOS		
1	L				102	0.0	1.6	2	0.0	A	0	6
1	T	0	0.0		7	0.0	1.6	0	0.0	A	0	6
1	R											
2	L				102	0.7	26.2	59	0.6	B	2	18
2	T	0	0.0		467	4.4	33.9	350	0.7	C	11	78
2	R				36	0.3	34.4	27	0.8	C	1	6
3	L				102	0.0	0.0	0	0.0	A	0	6
3	T	0	0.0		7	0.0	0.0	0	0.0	A	0	6
3	R											
4	L				102	1.1	37.5	79	0.8	C	2	18
4	T	0	0.0		467	4.8	37.1	360	0.8	C	11	72
4	R				36	0.3	28.5	21	0.6	C	1	6
INT					1428	12	29.5	899	0.6	C		

TCS = 2 Isolated Operation Degree of Saturation for AM Peak 8169EX1

--- Co-ordinated Cycle Length --- ----- Isolated Cycle Length -----

A	M	DS	GT	Delay	Stops	Queue	Metre	DS	GT	Delay	Stops	Queue	Metre
1	L	0.34	39	1	47	1	36	0.34	39	1	47	1	36
1	T	0.34	39	4	340	10	30	0.34	39	4	340	10	30
1	R												
2	L	0.67	28	3	238	7	42	0.67	28	3	238	7	42
2	T	0.79	28	3	205	6	60	0.79	28	3	205	6	60
2	R	0.79	28	2	128	3	60	0.79	28	2	128	3	60
3	L	0.82	34	3	203	5	60	0.82	34	3	203	5	60
3	T	0.79	39	10	912	22	72	0.79	39	10	912	22	72
3	R												
4	L	0.79	31	1	111	3	42	0.79	31	1	111	3	42
4	T	0.79	31	5	356	9	66	0.79	31	5	356	9	66
4	R	0.21	31	1	75	2	18	0.21	31	1	75	2	18
INT		0.82	110					0.82	110				

TCS = 2 Pedestrian - Vehicle Delay AM Peak File = 8169EX1

Isolated Operation

--- Co-ordinated Cycle Length --- ----- Isolated Cycle Length -----

A	M	Peds	Delay	Aver	Vehs	Delay	Aver	Peds	Delay	Aver	Veh	Delay	Aver
1	L				71	0.5	26.2				71	0.5	26.2
1	T	100	0.7	26.4	514	3.7	26.2	100	0.7	26.4	514	3.7	26.2
1	R												
2	L				295	3.0	36.9				295	3.0	36.9
2	T	100	0.9	31.8	229	2.8	43.7	100	0.9	31.8	229	2.8	43.7
2	R				142	1.7	44.3				142	1.7	44.3
3	L				225	2.6	42.1				225	2.6	42.1
3	T	100	0.7	26.4	1115	10.2	32.9	100	0.7	26.4	1115	10.2	32.9
3	R												
4	L				125	1.5	41.9				125	1.5	41.9
4	T	0	0.0		407	4.6	40.5	0	0.0		407	4.6	40.5
4	R				110	0.9	29.9				110	0.9	29.9
INT		300	2	28.2	3233	32	35.2	300	2	28.2	3233	0	0.0

TCS = 2 Pedestrian - Vehicle Delay - Stops AM Peak File = 8169EX1

----- Delays & Stops after Co-ordinated Evaluation -----

A	M	Peds	Delay	Aver	Vehs	Delay	Aver	Stops	Aver	LOS		
1	L				71	0.0	0.2	1	0.0	A	0	6
1	T	100	0.7	26.4	514	0.0	0.2	5	0.0	A	0	6
1	R											
2	L				295	3.0	36.9	238	0.8	C	7	42
2	T	100	0.9	31.8	229	2.8	43.7	205	0.9	D	6	60
2	R				142	1.7	44.3	128	0.9	D	3	24
3	L				225	0.2	2.4	0	0.0	A	0	6
3	T	100	0.7	26.4	1115	0.7	2.4	0	0.0	A	0	6
3	R											
4	L				125	1.5	41.9	111	0.9	C	3	12
4	T	0	0.0		407	4.6	40.5	356	0.9	C	9	66
4	R				110	0.9	29.9	75	0.7	C	2	18
INT		300	2	28.2	3233	15	17.2	1120	0.3	B		

SCATES Program Version: 2008 Date: 23-APR-09 Time:
Registered User Name. - Freeware
Registered User No. - 0
Data File: 8169FU1
OXFORD
EX

AM	AM PEAK					PM PEAK					BUSINESS					
	Vol	Sat	Phse	MocV	Pers	Vol	Sat	Phse	MocV	Pers	Vol	Sat	Phse	MocV	Pers	
				Gain	Loss				Gain	Loss				Gain	Loss	
1L	142	500	A	0	0.0	149	500	A	0	0.0	145	500	A	0	0.0	
1T	577	4500	A			947	4500	A			700	5000	A			
1R																
2L																
2T																
2R																
3L				0	0.0				0	0.0				0	0.0	
3T	985	4500	AB	0	0	874	4500	AB	0	0	854	4000	AB	1224	0	
3R	565	1850	B			515	1850	B			515	1850	B			
4L	5	1750	C			5	1750	C			5	1750	C			
4T		3600					3600					3600				
4R	173	1850	C			159	1850	C			173	1850	C			
Type = T4						A	Min	ELT	H%AM	H%PM	H%B	L/S	L-PD	R-PD		
File = 8169FU1						1	10	4.0	0	0	0	0'	0			
						2										
TCS = 1						3	5	4.0	0	0	0	0'		0		
						4	10	4.0	0	0	0		0	0		
	PEDESTRIAN VOLUME					WALK-CLEARANCE					TRAM DATA		PEDEST		TRAM	
App	P#AM	P#PM	P#B	Walk	Clear							FACT	FACT			
1	100	100	0	A	5				0%			100	100			
2	100	100	0	C	5				0%			100	100			
3	0	0	0	0	0				0%			100	100			
4	100	100	0	C	5				0%			100	100			

AM	AM PEAK					PM PEAK					BUSINESS					
	Vol	Sat	Phse	MocV	Pers	Vol	Sat	Phse	MocV	Pers	Vol	Sat	Phse	MocV	Pers	
				Gain	Loss				Gain	Loss				Gain	Loss	
1L	71	900	A	0	0.0	55	900	A	0	0.0	102	900	A	0	0.0	
1T	514	4900	A	3	0	983	4900	A	86	0	7	4000	A	0	596	
1R	0	0	S			0	0	S			0	0	S			
2L	323	1750	B			295	1750	B			102	1750	B			
2T	229	1850	B			248	1850	B			467	1850	B			
2R	142	1850	B			211	1850	B			36	1850	B			
3L	225	900	A	0	0.0	290	900	A	0	0.0	102	900	A	0	0.0	
3T	1115	4900	A			910	4900	A			7	4000	A			
3R	0	0	S			0	0	S			0	0	S			
4L	125	1750	C			195	1750	C			102	1750	C			
4T	410	3750	C			434	3750	C			467	2000	C			
4R	112	1850	C			184	1850	C			36	1850	C			
Type = C0S0						A	Min	ELT	H%AM	H%PM	H%B	L/S	L-PD	R-PD		
File = 8169FU1						1	10	4.0	0	0	0	0'	0	0		
						2	10	4.0	0	0	0	0'	0	0		
TCS = 2						3	10	4.0	0	0	0	0'	5	0		
						4	5	4.0	0	0	0	0'	0	0		
	PEDESTRIAN VOLUME					WALK-CLEARANCE					TRAM DATA		PEDEST		TRAM	
App	P#AM	P#PM	P#B	Walk	Clear							FACT	FACT			
1	100	100	0	A	5				0%			100	100			
2	100	100	0	C	5				0%			100	100			
3	100	100	0	A	5				0%			100	100			
4	0	0	0	0	0				0%			100	100			

	APPROACH 1			APPROACH 2			APPROACH 3			APPROACH 4		
Tidal	Down	Lanes	Grade	Down	Lanes	Grade	Down	Lanes	Grade	Down	Lanes	Grade
N	0	4	0				0	4	0		2	0
Lane	Type	Length	Sat	Type	Length	Sat	Type	Length	Sat	Type	Length	Sat
1	L	55	500				T	9999	500	L	9999	1750
2	T	85	500				T	9999	2000	R	9999	1850
3	T	9999	2000				T	9999	2000			
4	T	9999	2000				R	9999	1850			
5												
6												
7												
8												
	No Parking			No Parking			No Parking			No Parking		
	AM	PM	BUS	AM	PM	BUS	AM	PM	BUS	AM	PM	BUS
Apprch	0	0	30				0	0	30	0	0	0
Depart	0	0	30				0	0	30	0	0	0

File = 8169FU1
Type = T4 TCS = 1

	APPROACH 1			APPROACH 2			APPROACH 3			APPROACH 4		
Tidal	Down	Lanes	Grade	Down	Lanes	Grade	Down	Lanes	Grade	Down	Lanes	Grade
N	0	3	0	0	2	0	0	3	0	0	3	0
Lane	Type	Length	Sat	Type	Length	Sat	Type	Length	Sat	Type	Length	Sat
1	LT	9999	900	L	9999	1750	LT	9999	900	LT	65	1750
2	T	9999	2000	TR	9999	1850	T	9999	2000	T	9999	2000
3	T	9999	2000				T	9999	2000	R	65	1850
4												
5												
6												
7												
8												
	No Parking			No Parking			No Parking			No Parking		
	AM	PM	BUS	AM	PM	BUS	AM	PM	BUS	AM	PM	BUS
Apprch	0	0	30	0	0	0	0	0	30	0	0	30
Depart	0	0	30	0	0	0	0	0	30	0	0	30

File = 8169FU1
Type = C0S0 TCS = 2

Ph	AM PEAK				PM PEAK				BUSINESS			
	GT%	GT%	CL	CL	GT%	GT%	CL	CL	GT%	GT%	CL	CL
	CORD	ISOL	CORD	ISOL	CORD	ISOL	CORD	ISOL	CORD	ISOL	CORD	ISOL
A	40.7	40.7	110	110	44.0	43.7	147	110	42.9	42.7	134	110
B	43.5	43.5			41.3	41.1			41.3	41.1		
C	15.8	15.8			14.6	15.2			15.8	16.2		
D												
E												
F			dlay	dlay			dlay	dlay			dlay	dlay
G			3.3	3.3			4.2	3.3			0.0	0.0
Seq	ABC	dlay	14	14	ABC	dlay	19	15	ABC	dlay	16	14
		Stps	1.3	1.3		Stps	1.5	1.5		Stps	1.3	1.3
Mode	0	DS	0.77	0.77	0	DS	0.72	0.74	0	DS	0.73	0.74
File = 8169FU1					A	Bay	Bay	Slip	Slip		Type	
						Req	Act	Req	Act			
TCS = 1								25	55		T4	

Bays if all intersections are optimised

Ph	AM PEAK				PM PEAK				BUSINESS			
	GT%	GT%	CL	CL	GT%	GT%	CL	CL	GT%	GT%	CL	CL
	CORD	ISOL	CORD	ISOL	CORD	ISOL	CORD	ISOL	CORD	ISOL	CORD	ISOL
A	38.8	38.8	110	110	37.6	37.6	147	155	19.3	19.3	134	134
B	28.9	28.9			29.6	29.5			42.3	42.3		
C	32.3	32.3			32.8	32.9			38.3	38.3		
D												
E												
F			dlay	dlay			dlay	dlay			dlay	dlay
G			2.4	2.4			3.0	3.1			0.0	0.0
Seq	ABC	dlay	32	32	ABC	dlay	59	61	ABC	dlay	16	16
		Stps	2.7	2.7		Stps	3.3	3.3		Stps	1.1	1.1
Mode	1	DS	0.82	0.82	1	DS	1.02	1.01	1	DS	0.90	0.90
File = 8169FU1					A	Bay	Bay	Slip	Slip		Type	
						Req	Act	Req	Act			
TCS = 2								24	0		C0S0	
						43	0					
								56	0			
						36	65	38	0			

Bays if all intersections are optimised

```

TCS =      1  Isolated Operation Degree of Saturation for PM Peak 8169FU1
      --- Co-ordinated Cycle Length ---      ----- Isolated Cycle Length -----
A  M  DS    GT    Delay Stops Queue Metre  DS    GT    Delay Stops Queue Metre
1  L  0.72   61     2   113    4   78  0.74   44     1   118    3   60
1  T  0.53   61     9   639   23   66  0.53   44     7   648   17   48
1  R
2  L
2  T
2  R
3  L
3  T  0.24  121     1   170    6   18  0.24   89     1   184    5   18
3  R  0.72   57     6   395   13   78  0.74   41     4   408   10   66
4  L
4  T
4  R  0.72   18     3   142    6   36  0.74   13     2   149    5   30
INT  0.72  147
      -----

```

```

TCS =      1  Pedestrian - Vehicle Delay PM Peak File = 8169FU1
              Isolated Operation
      --- Co-ordinated Cycle Length ---      ----- Isolated Cycle Length -----
A  M  Peds Delay Aver Vehs Delay Aver Peds Delay Aver Veh Delay Aver
1  L              149   1.5 37.0              149   1.2 30.0
1  T    100   0.8 28.3  947   8.5 32.4    100   0.6 22.9  947   6.6 25.1
1  R
2  L
2  T    100   1.7 61.5              100   1.3 47.6
2  R
3  L
3  T        0   0.0              874   0.7  2.8        0   0.0              874   0.6  2.4
3  R              515   5.5 38.5              515   4.4 31.0
4  L              5   0.0   0.0              5   0.0   0.0
4  T    100   1.7 61.5              100   1.3 47.6
4  R              159   2.9 65.5              159   2.3 53.1
INT    300     4 50.5 2649   19 26.0    300     3 39.3 2649    0  0.0
      -----

```

TCS = 1 Pedestrian - Vehicle Delay - Stops PM Peak File = 8169FU1
 ----- Delays & Stops after Co-ordinated Evaluation -----

A	M	Peds	Delay	Aver	Vehs	Delay	Aver	Stops	Aver	LOS		
1	L				149	0.0	0.0	0	0.0	A	0	6
1	T	100	0.8	28.3	947	0.0	0.0	0	0.0	A	0	6
1	R											
2	L											
2	T	100	1.7	61.5								
2	R											
3	L											
3	T	0	0.0		874	0.8	3.2	674	0.8	A	6	18
3	R				515	0.7	5.0	21	0.0	A	1	6
4	L				5	0.0	0.0	0	0.0	A	0	6
4	T	100	1.7	61.5								
4	R				159	2.9	65.5	142	0.9	E	6	36
INT		300	4	50.5	2649	4	6.0	837	0.3	A		

TCS = 1 Isolated Operation Degree of Saturation for Business Peak 8169FU1
 --- Co-ordinated Cycle Length --- ----- Isolated Cycle Length -----

A	M	DS	GT	Delay	Stops	Queue	Metre	DS	GT	Delay	Stops	Queue	Metre
1	L	0.73	53	1	112	3	72	0.74	43	1	115	3	60
1	T	0.40	53	6	451	16	48	0.40	43	5	456	13	36
1	R												
2	L												
2	T												
2	R												
3	L												
3	T	0.26	109	1	184	6	18	0.26	88	1	193	5	18
3	R	0.73	51	5	398	12	72	0.74	41	4	408	10	66
4	L												
4	T												
4	R	0.73	17	3	155	6	36	0.74	14	2	161	5	30
INT		0.73	134					0.74	110				

```

TCS =      1  Pedestrian  - Vehicle Delay Business Peak File = 8169FU1
              Isolated Operation
              --- Co-ordinated Cycle Length ---      ----- Isolated Cycle Length -----
A  M  Peds  Delay  Aver Vehs  Delay  Aver Peds  Delay  Aver Veh  Delay  Aver
1  L              145   1.4  35.3              145   1.2  30.7
1  T      0    0.0      700   5.6  28.8      0    0.0      700   4.7  24.2
1  R
2  L
2  T      0    0.0              0    0.0
2  R
3  L
3  T      0    0.0      854   0.7   3.0      0    0.0      854   0.7   2.7
3  R      515   5.1  35.7      515   4.4  30.9
4  L      5    0.0   0.0              5    0.0   0.0
4  T      0    0.0              0    0.0
4  R      173   2.9  59.6      173   2.5  51.8
INT      2392   16  23.7      2392    0   0.0
-----

```

```

TCS =      1  Pedestrian  - Vehicle Delay - Stops Business Peak File = 8169FU1
----- Delays & Stops after Co-ordinated Evaluation-----
A  M  Peds  Delay  Aver Vehs  Delay  Aver Stops  Aver LOS
1  L              145   0.0   0.0      0    0.0   A      0      6
1  T      0    0.0      700   0.0   0.0      0    0.0   A      0      6
1  R
2  L
2  T      0    0.0
2  R
3  L
3  T      0    0.0      854   0.1   0.3     35    0.0   A      1      6
3  R      515   0.7   5.0     19    0.0   A      1      6
4  L      5    0.0   0.0      0    0.0   A      0      6
4  T      0    0.0
4  R      173   2.9  59.6     155   0.9   E      6     36
INT      2392    4   5.5     210   0.1   A
-----

```

```

TCS =      1  Isolated Operation Degree of Saturation for AM Peak 8169FU1
      --- Co-ordinated Cycle Length ---      ----- Isolated Cycle Length -----
A  M  DS      GT      Delay Stops Queue Metre  DS      GT      Delay Stops Queue Metre
1  L  0.77      41        1   117      3    60  0.77      41        1   117      3    60
1  T  0.35      41        4   375     11    30  0.35      41        4   375     11    30
1  R
2  L
2  T
2  R
3  L
3  T  0.27      89        1   221      6    18  0.27      89        1   221      6    18
3  R  0.77      44        5   452     11    66  0.77      44        5   452     11    66
4  L
4  T
4  R  0.77      13        3   167      5    36  0.77      13        3   167      5    36
INT  0.77      110
-----

```

```

TCS =      1  Pedestrian - Vehicle Delay AM Peak File = 8169FU1
                  Isolated Operation
      --- Co-ordinated Cycle Length ---      ----- Isolated Cycle Length -----
A  M  Peds Delay Aver Vehs Delay Aver Peds Delay Aver Veh Delay Aver
1  L              142  1.3  33.5              142  1.3  33.5
1  T    100    0.7  25.1  577  4.0  25.0    100    0.7  25.1  577  4.0  25.0
1  R
2  L
2  T    100    1.3  46.9              100    1.3  46.9
2  R
3  L
3  T        0    0.0              985  0.7  2.7        0    0.0              985  0.7  2.7
3  R              565  4.8  30.5              565  4.8  30.5
4  L              5    0.0  0.0              5    0.0  0.0
4  T    100    1.3  46.9              100    1.3  46.9
4  R              173  2.7  55.3              173  2.7  55.3
INT    300        3  39.6  2447  14  19.9    300        3  39.6  2447  0  0.0
-----

```

TCS = 1 Pedestrian - Vehicle Delay - Stops AM Peak File = 8169FU1

----- Delays & Stops after Co-ordinated Evaluation -----

A	M	Peds	Delay	Aver	Vehs	Delay	Aver	Stops	Aver	LOS		
1	L				142	0.0	0.0	0	0.0	A	0	6
1	T	100	0.7	25.1	577	0.0	0.0	0	0.0	A	0	6
1	R											
2	L											
2	T	100	1.3	46.9								
2	R											
3	L											
3	T	0	0.0		985	0.0	0.0	17	0.0	A	1	6
3	R				565	0.8	5.0	17	0.0	A	1	6
4	L				5	0.0	0.0	0	0.0	A	0	6
4	T	100	1.3	46.9								
4	R				173	2.7	55.3	167	1.0	D	5	36
INT		300	3	39.6	2447	3	5.1	201	0.1	A		

TCS = 2 Isolated Operation Degree of Saturation for PM Peak 8169FU1

--- Co-ordinated Cycle Length --- ----- Isolated Cycle Length -----

A	M	DS	GT	Delay	Stops	Queue	Metre	DS	GT	Delay	Stops	Queue	Metre
1	L	0.61	51	1	41	1	72	0.60	54	1	41	2	78
1	T	0.61	51	11	731	26	72	0.61	54	11	730	28	72
1	R												
2	L	0.63	40	4	234	9	54	0.63	42	4	233	9	60
2	T	0.92	40	5	255	9	108	0.92	42	5	252	9	114
2	R	0.92	40	4	219	8	108	0.92	42	5	216	8	114
3	L	1.02	46	9	380	14	60	1.01	49	9	364	13	66
3	T	0.65	51	10	690	24	78	0.65	54	11	689	25	78
3	R												
4	L	0.92	44	4	199	7	72	0.92	47	4	197	7	78
4	T	0.92	44	9	440	15	120	0.92	47	9	434	16	120
4	R	0.33	44	2	129	5	36	0.33	47	2	128	6	36
INT		1.02	147					1.01	155				

TCS = 2 Pedestrian - Vehicle Delay PM Peak File = 8169FU1

Isolated Operation

--- Co-ordinated Cycle Length --- ----- Isolated Cycle Length -----

A	M	Peds	Delay	Aver	Vehs	Delay	Aver	Peds	Delay	Aver	Veh	Delay	Aver
1	L				55	0.6	39.5				55	0.6	41.6
1	T	100	1.0	34.5	983	10.8	39.5	100	1.0	36.1	983	11.4	41.6
1	R												
2	L				295	3.9	47.3				295	4.1	49.7
2	T	100	1.1	39.5	248	5.2	75.2	100	1.1	41.2	248	5.3	77.2
2	R				211	4.5	76.7				211	4.6	78.7
3	L				290	9.5	117.9				290	9.2	114.5
3	T	100	1.0	34.5	910	10.2	40.3	100	1.0	36.1	910	10.7	42.4
3	R												
4	L				195	3.9	72.5				195	4.0	74.1
4	T	0	0.0		434	8.6	71.3	0	0.0		434	8.8	72.8
4	R				184	2.0	39.9				184	2.1	41.8
INT		300	3	36.2	3805	59	56.0	300	3	37.8	3805	0	0.0

TCS = 2 Pedestrian - Vehicle Delay - Stops PM Peak File = 8169FU1

----- Delays & Stops after Co-ordinated Evaluation-----

A	M	Peds	Delay	Aver	Vehs	Delay	Aver	Stops	Aver	LOS		
1	L				55	0.0	0.2	0	0.0	A	0	6
1	T	100	1.0	34.5	983	0.1	0.2	3	0.0	A	0	6
1	R											
2	L				295	3.9	47.3	234	0.8	D	9	54
2	T	100	1.1	39.5	248	5.2	75.2	255	1.0	F	9	108
2	R				211	4.5	76.7	219	1.0	F	8	54
3	L				290	0.2	2.7	0	0.0	A	0	6
3	T	100	1.0	34.5	910	0.7	2.7	0	0.0	A	0	6
3	R											
4	L				195	3.9	72.5	199	1.0	F	7	24
4	T	0	0.0		434	8.6	71.3	440	1.0	F	15	120
4	R				184	2.0	39.9	129	0.7	C	5	36
INT		300	3	36.2	3805	29	27.5	1478	0.4	B		

```

TCS =      2   Isolated Operation Degree of Saturation for Business Peak 8169FU1
      --- Co-ordinated Cycle Length ---      ----- Isolated Cycle Length -----
A  M  DS      GT      Delay Stops Queue Metre  DS      GT      Delay Stops Queue Metre
1  L  0.69     22       2    87     3     6  0.69     22       2    87     3     6
1  T  0.01     22       0     5     0     6  0.01     22       0     5     0     6
1  R
2  L  0.15     53       1    59     2    18  0.15     53       1    59     2    18
2  T  0.69     53       4   350    11    78  0.69     53       4   350    11    78
2  R  0.69     53       0    27     1    78  0.69     53       0    27     1    78
3  L  0.90     17       3   119     4     6  0.90     17       3   119     4     6
3  T  0.01     22       0     5     0     6  0.01     22       0     5     0     6
3  R
4  L  0.69     47       1    79     2    18  0.69     47       1    79     2    18
4  T  0.69     47       5   360    11    72  0.69     47       5   360    11    72
4  R  0.06     47       0    21     1     6  0.06     47       0    21     1     6
INT  0.90     134
-----

```

```

TCS =      2   Pedestrian - Vehicle Delay Business Peak File = 8169FU1
                        Isolated Operation
      --- Co-ordinated Cycle Length ---      ----- Isolated Cycle Length -----
A  M  Peds Delay Aver Vehs Delay Aver Peds Delay Aver Veh Delay Aver
1  L              102  1.5  53.8              102  1.5  53.8
1  T      0    0.0          7  0.1  47.0      0    0.0          7  0.1  47.0
1  R
2  L              102  0.7  26.2              102  0.7  26.2
2  T      0    0.0          467  4.4  33.9      0    0.0          467  4.4  33.9
2  R              36  0.3  34.4              36  0.3  34.4
3  L              102  2.7  95.7              102  2.7  95.7
3  T      0    0.0          7  0.1  47.0      0    0.0          7  0.1  47.0
3  R
4  L              102  1.1  37.5              102  1.1  37.5
4  T      0    0.0          467  4.8  37.1      0    0.0          467  4.8  37.1
4  R              36  0.3  28.5              36  0.3  28.5
INT              1428  16  40.5              1428  0  0.0
-----

```

TCS = 2 Pedestrian - Vehicle Delay - Stops Business Peak File = 8169FU1

----- Delays & Stops after Co-ordinated Evaluation -----

A	M	Peds	Delay	Aver	Vehs	Delay	Aver	Stops	Aver	LOS		
1	L				102	0.0	1.6	2	0.0	A	0	6
1	T	0	0.0		7	0.0	1.6	0	0.0	A	0	6
1	R											
2	L				102	0.7	26.2	59	0.6	B	2	18
2	T	0	0.0		467	4.4	33.9	350	0.7	C	11	78
2	R				36	0.3	34.4	27	0.8	C	1	6
3	L				102	0.0	0.0	0	0.0	A	0	6
3	T	0	0.0		7	0.0	0.0	0	0.0	A	0	6
3	R											
4	L				102	1.1	37.5	79	0.8	C	2	18
4	T	0	0.0		467	4.8	37.1	360	0.8	C	11	72
4	R				36	0.3	28.5	21	0.6	C	1	6
INT					1428	12	29.5	899	0.6	C		

TCS = 2 Isolated Operation Degree of Saturation for AM Peak 8169FU1

--- Co-ordinated Cycle Length --- ----- Isolated Cycle Length -----

A	M	DS	GT	Delay	Stops	Queue	Metre	DS	GT	Delay	Stops	Queue	Metre
1	L	0.34	39	1	47	1	36	0.34	39	1	47	1	36
1	T	0.34	39	4	341	10	30	0.34	39	4	341	10	30
1	R												
2	L	0.73	28	4	272	8	48	0.73	28	4	272	8	48
2	T	0.79	28	3	205	6	60	0.79	28	3	205	6	60
2	R	0.79	28	2	128	3	60	0.79	28	2	128	3	60
3	L	0.82	34	3	203	5	60	0.82	34	3	203	5	60
3	T	0.79	39	10	913	22	72	0.79	39	10	913	22	72
3	R												
4	L	0.79	32	1	111	3	42	0.79	32	1	111	3	42
4	T	0.79	32	5	359	9	66	0.79	32	5	359	9	66
4	R	0.21	32	1	77	2	18	0.21	32	1	77	2	18
INT		0.82	110					0.82	110				

TCS = 2 Pedestrian - Vehicle Delay AM Peak File = 8169FU1

Isolated Operation

--- Co-ordinated Cycle Length ---

----- Isolated Cycle Length -----

A	M	Peds	Delay	Aver	Vehs	Delay	Aver	Peds	Delay	Aver	Veh	Delay	Aver
1	L				71	0.5	26.3				71	0.5	26.3
1	T	100	0.7	26.5	514	3.8	26.3	100	0.7	26.5	514	3.8	26.3
1	R												
2	L				323	3.5	39.3				323	3.5	39.3
2	T	100	0.9	31.7	229	2.8	43.8	100	0.9	31.7	229	2.8	43.8
2	R				142	1.8	44.5				142	1.8	44.5
3	L				225	2.6	42.4				225	2.6	42.4
3	T	100	0.7	26.5	1115	10.2	33.0	100	0.7	26.5	1115	10.2	33.0
3	R												
4	L				125	1.5	41.9				125	1.5	41.9
4	T	0	0.0		410	4.6	40.5	0	0.0		410	4.6	40.5
4	R				112	0.9	29.8				112	0.9	29.8
INT		300	2	28.2	3266	32	35.5	300	2	28.2	3266	0	0.0

TCS = 2 Pedestrian - Vehicle Delay - Stops AM Peak File = 8169FU1

----- Delays & Stops after Co-ordinated Evaluation -----

A	M	Peds	Delay	Aver	Vehs	Delay	Aver	Stops	Aver	LOS		
1	L				71	0.0	0.2	1	0.0	A	0	6
1	T	100	0.7	26.5	514	0.0	0.2	5	0.0	A	0	6
1	R											
2	L				323	3.5	39.3	272	0.8	C	8	48
2	T	100	0.9	31.7	229	2.8	43.8	205	0.9	D	6	60
2	R				142	1.8	44.5	128	0.9	D	3	24
3	L				225	0.2	2.4	0	0.0	A	0	6
3	T	100	0.7	26.5	1115	0.7	2.4	0	0.0	A	0	6
3	R											
4	L				125	1.5	41.9	111	0.9	C	3	12
4	T	0	0.0		410	4.6	40.5	359	0.9	C	9	66
4	R				112	0.9	29.8	77	0.7	C	2	18
INT		300	2	28.2	3266	16	17.6	1159	0.4	B		

SCATES Program Version: 2008 Date: 23-APR-09 Time:
Registered User Name. - Freeware
Registered User No. - 0
Data File: 8169FU2
OXFORD
EX

AM	AM PEAK					PM PEAK					BUSINESS					
	Vol	Sat	Phse	MocV	Pers	Vol	Sat	Phse	MocV	Pers	Vol	Sat	Phse	MocV	Pers	
				Gain	Loss				Gain	Loss				Gain	Loss	
1L	145	500	A	0	0.0	149	500	A	0	0.0	145	500	A	0	0.0	
1T	577	4500	A			947	4500	A			700	5000	A			
1R																
2L																
2T																
2R																
3L				0	0.0				0	0.0				0	0.0	
3T	986	4500	AB	0	0	879	4500	AB	0	0	854	4000	AB	1224	0	
3R	573	1850	B			516	1850	B			515	1850	B			
4L	5	1750	C			5	1750	C			5	1750	C			
4T		3600					3600					3600				
4R	173	1850	C			159	1850	C			173	1850	C			
Type = T4						A	Min	ELT	H%AM	H%PM	H%B	L/S	L-PD	R-PD		
File = 8169FU2						1	10	4.0	0	0	0	0'	0			
						2										
TCS = 1						3	5	4.0	0	0	0	0'		0		
						4	10	4.0	0	0	0		0	0		
	PEDESTRIAN VOLUME					WALK-CLEARANCE					TRAM DATA		PEDEST		TRAM	
App	P#AM	P#PM	P#B	Walk	Clear							FACT	FACT			
1	100	100	0	A	5				0%			100	100			
2	100	100	0	C	5				0%			100	100			
3	0	0	0	0	0				0%			100	100			
4	100	100	0	C	5				0%			100	100			

AM	AM PEAK					PM PEAK					BUSINESS					
	Vol	Sat	Phse	MocV	Pers	Vol	Sat	Phse	MocV	Pers	Vol	Sat	Phse	MocV	Pers	
				Gain	Loss				Gain	Loss				Gain	Loss	
1L	71	900	A	0	0.0	55	900	A	0	0.0	102	900	A	0	0.0	
1T	514	4900	A	3	0	983	4900	A	86	0	7	4000	A	0	596	
1R	0	0	S			0	0	S			0	0	S			
2L	331	1750	B			296	1750	B			102	1750	B			
2T	229	1850	B			248	1850	B			467	1850	B			
2R	142	1850	B			211	1850	B			36	1850	B			
3L	225	900	A	0	0.0	290	900	A	0	0.0	102	900	A	0	0.0	
3T	1115	4900	A			910	4900	A			7	4000	A			
3R	0	0	S			0	0	S			0	0	S			
4L	125	1750	C			195	1750	C			102	1750	C			
4T	410	3750	C			440	3750	C			467	2000	C			
4R	113	1850	C			189	1850	C			36	1850	C			
Type = C0S0						A	Min	ELT	H%AM	H%PM	H%B	L/S	L-PD	R-PD		
File = 8169FU2						1	10	4.0	0	0	0	0'	0	0		
						2	10	4.0	0	0	0	0'	0	0		
TCS = 2						3	10	4.0	0	0	0	0'	5	0		
						4	5	4.0	0	0	0	0'	0	0		
	PEDESTRIAN VOLUME					WALK-CLEARANCE					TRAM DATA		PEDEST		TRAM	
App	P#AM	P#PM	P#B	Walk	Clear							FACT	FACT			
1	100	100	0	A	5				0%			100	100			
2	100	100	0	C	5				0%			100	100			
3	100	100	0	A	5				0%			100	100			
4	0	0	0	0	0				0%			100	100			

	APPROACH 1			APPROACH 2			APPROACH 3			APPROACH 4		
Tidal	Down	Lanes	Grade	Down	Lanes	Grade	Down	Lanes	Grade	Down	Lanes	Grade
N	0	4	0				0	4	0		2	0
Lane	Type	Length	Sat	Type	Length	Sat	Type	Length	Sat	Type	Length	Sat
1	L	55	500				T	9999	500	L	9999	1750
2	T	85	500				T	9999	2000	R	9999	1850
3	T	9999	2000				T	9999	2000			
4	T	9999	2000				R	9999	1850			
5												
6												
7												
8												
	No Parking			No Parking			No Parking			No Parking		
	AM	PM	BUS	AM	PM	BUS	AM	PM	BUS	AM	PM	BUS
Apprch	0	0	30				0	0	30	0	0	0
Depart	0	0	30				0	0	30	0	0	0

File = 8169FU2
Type = T4 TCS = 1

	APPROACH 1			APPROACH 2			APPROACH 3			APPROACH 4		
Tidal	Down	Lanes	Grade	Down	Lanes	Grade	Down	Lanes	Grade	Down	Lanes	Grade
N	0	3	0	0	2	0	0	3	0	0	3	0
Lane	Type	Length	Sat	Type	Length	Sat	Type	Length	Sat	Type	Length	Sat
1	LT	9999	900	L	9999	1750	LT	9999	900	LT	65	1750
2	T	9999	2000	TR	9999	1850	T	9999	2000	T	9999	2000
3	T	9999	2000				T	9999	2000	R	65	1850
4												
5												
6												
7												
8												
	No Parking			No Parking			No Parking			No Parking		
	AM	PM	BUS	AM	PM	BUS	AM	PM	BUS	AM	PM	BUS
Apprch	0	0	30	0	0	0	0	0	30	0	0	30
Depart	0	0	30	0	0	0	0	0	30	0	0	30

File = 8169FU2
Type = C0S0 TCS = 2

Ph	AM PEAK				PM PEAK				BUSINESS			
	GT%	GT%	CL	CL	GT%	GT%	CL	CL	GT%	GT%	CL	CL
	CORD	ISOL	CORD	ISOL	CORD	ISOL	CORD	ISOL	CORD	ISOL	CORD	ISOL
A	40.9	40.9	110	110	44.0	43.7	147	110	42.9	42.7	134	110
B	43.4	43.4			41.4	41.1			41.3	41.1		
C	15.7	15.7			14.6	15.2			15.8	16.2		
D												
E												
F			dlay	dlay			dlay	dlay			dlay	dlay
G			3.3	3.3			4.2	3.3			0.0	0.0
Seq	ABC	dlay	14	14	ABC	dlay	19	15	ABC	dlay	16	14
		Stps	1.4	1.4		Stps	1.5	1.5		Stps	1.3	1.3
Mode	0	DS	0.78	0.78	0	DS	0.72	0.74	0	DS	0.73	0.74
File = 8169FU2					A	Bay	Bay	Slip	Slip		Type	
						Req	Act	Req	Act			
TCS = 1								25	55		T4	

Bays if all intersections are optimised

Ph	AM PEAK				PM PEAK				BUSINESS			
	GT%	GT%	CL	CL	GT%	GT%	CL	CL	GT%	GT%	CL	CL
	CORD	ISOL	CORD	ISOL	CORD	ISOL	CORD	ISOL	CORD	ISOL	CORD	ISOL
A	38.8	38.8	110	110	37.5	37.5	147	155	19.3	19.3	134	134
B	28.9	28.9			29.5	29.4			42.3	42.3		
C	32.3	32.3			33.0	33.1			38.3	38.3		
D												
E												
F			dlay	dlay			dlay	dlay			dlay	dlay
G			2.4	2.4			3.0	3.1			0.0	0.0
Seq	ABC	dlay	32	32	ABC	dlay	60	62	ABC	dlay	16	16
		Stps	2.7	2.7		Stps	3.3	3.3		Stps	1.1	1.1
Mode	1	DS	0.82	0.82	1	DS	1.03	1.02	1	DS	0.90	0.90
File = 8169FU2					A	Bay	Bay	Slip	Slip		Type	
						Req	Act	Req	Act			
TCS = 2								24	0		C0S0	
						43	0					
								56	0			
						37	65	38	0			

Bays if all intersections are optimised

```

TCS =      1  Isolated Operation Degree of Saturation for PM Peak 8169FU2
      --- Co-ordinated Cycle Length ---      ----- Isolated Cycle Length -----
A  M  DS      GT      Delay Stops Queue Metre  DS      GT      Delay Stops Queue Metre
1  L  0.72      61        2   113      4   78  0.74      44        1   118      3   60
1  T  0.53      61        9   640     23   66  0.53      44        7   649     17   48
1  R
2  L
2  T
2  R
3  L
3  T  0.24     121        1   171      6   18  0.24      89        1   185      5   18
3  R  0.72      57        6   396     13   78  0.74      41        4   409     10   66
4  L
4  T
4  R  0.72      18        3   142      6   36  0.74      13        2   149      5   30
INT  0.72     147
-----

```

```

TCS =      1  Pedestrian - Vehicle Delay PM Peak File = 8169FU2
                  Isolated Operation
      --- Co-ordinated Cycle Length ---      ----- Isolated Cycle Length -----
A  M  Peds Delay Aver Vehs Delay Aver Peds Delay Aver Veh Delay Aver
1  L              149   1.5 37.1              149   1.2 30.1
1  T    100    0.8 28.4  947   8.5 32.4    100    0.6 22.9  947   6.6 25.1
1  R
2  L
2  T    100    1.7 61.5              100    1.3 47.6
2  R
3  L
3  T        0    0.0              879   0.7  2.8        0    0.0              879   0.6  2.4
3  R              516   5.5 38.5              516   4.4 31.0
4  L              5    0.0   0.0              5    0.0   0.0
4  T    100    1.7 61.5              100    1.3 47.6
4  R              159   2.9 65.6              159   2.4 53.2
INT    300        4  50.5 2655   19 26.0    300        3  39.3 2655    0  0.0
-----

```

TCS = 1 Pedestrian - Vehicle Delay - Stops PM Peak File = 8169FU2

----- Delays & Stops after Co-ordinated Evaluation -----

A	M	Peds	Delay	Aver	Vehs	Delay	Aver	Stops	Aver	LOS		
1	L				149	0.0	0.0	0	0.0	A	0	6
1	T	100	0.8	28.4	947	0.0	0.0	0	0.0	A	0	6
1	R											
2	L											
2	T	100	1.7	61.5								
2	R											
3	L											
3	T	0	0.0		879	0.8	3.2	677	0.8	A	6	18
3	R				516	0.7	5.0	21	0.0	A	1	6
4	L				5	0.0	0.0	0	0.0	A	0	6
4	T	100	1.7	61.5								
4	R				159	2.9	65.6	142	0.9	E	6	36
INT		300	4	50.5	2655	4	6.0	840	0.3	A		

TCS = 1 Isolated Operation Degree of Saturation for Business Peak 8169FU2

--- Co-ordinated Cycle Length --- ----- Isolated Cycle Length -----

A	M	DS	GT	Delay	Stops	Queue	Metre	DS	GT	Delay	Stops	Queue	Metre
1	L	0.73	53	1	112	3	72	0.74	43	1	115	3	60
1	T	0.40	53	6	451	16	48	0.40	43	5	456	13	36
1	R												
2	L												
2	T												
2	R												
3	L												
3	T	0.26	109	1	184	6	18	0.26	88	1	193	5	18
3	R	0.73	51	5	398	12	72	0.74	41	4	408	10	66
4	L												
4	T												
4	R	0.73	17	3	155	6	36	0.74	14	2	161	5	30
INT		0.73	134					0.74	110				

```

TCS =      1  Pedestrian  - Vehicle Delay Business Peak File = 8169FU2
              Isolated Operation
              --- Co-ordinated Cycle Length ---      ----- Isolated Cycle Length -----
A  M  Peds  Delay  Aver Vehs  Delay  Aver Peds  Delay  Aver Veh  Delay  Aver
1  L              145   1.4  35.3              145   1.2  30.7
1  T      0   0.0      700   5.6  28.8      0   0.0      700   4.7  24.2
1  R
2  L
2  T      0   0.0              0   0.0
2  R
3  L
3  T      0   0.0      854   0.7   3.0      0   0.0      854   0.7   2.7
3  R              515   5.1  35.7              515   4.4  30.9
4  L              5   0.0   0.0              5   0.0   0.0
4  T      0   0.0              0   0.0
4  R              173   2.9  59.6              173   2.5  51.8
INT              2392   16  23.7              2392   0   0.0
-----

```

```

TCS =      1  Pedestrian  - Vehicle Delay - Stops Business Peak File = 8169FU2
----- Delays & Stops after Co-ordinated Evaluation-----
A  M  Peds  Delay  Aver Vehs  Delay  Aver Stops  Aver LOS
1  L              145   0.0   0.0      0   0.0   A      0      6
1  T      0   0.0      700   0.0   0.0      0   0.0   A      0      6
1  R
2  L
2  T      0   0.0
2  R
3  L
3  T      0   0.0      854   0.1   0.3     35   0.0   A      1      6
3  R              515   0.7   5.0     19   0.0   A      1      6
4  L              5   0.0   0.0      0   0.0   A      0      6
4  T      0   0.0
4  R              173   2.9  59.6     155   0.9   E      6     36
INT              2392   4   5.5     210   0.1   A
-----

```

```

TCS =      1  Isolated Operation Degree of Saturation for AM Peak 8169FU2
      --- Co-ordinated Cycle Length ---      ----- Isolated Cycle Length -----
A  M  DS      GT      Delay Stops Queue Metre  DS      GT      Delay Stops Queue Metre
1  L  0.78      41        1  121        3   66  0.78      41        1  121        3   66
1  T  0.35      41        4  374        11  30  0.35      41        4  374        11  30
1  R
2  L
2  T
2  R
3  L
3  T  0.27      89        1  219        6   18  0.27      89        1  219        6   18
3  R  0.78      44        5  464        11  66  0.78      44        5  464        11  66
4  L
4  T
4  R  0.78      13        3  170        5   36  0.78      13        3  170        5   36
INT  0.78      110
-----

```

```

TCS =      1  Pedestrian - Vehicle Delay AM Peak File = 8169FU2
                  Isolated Operation
      --- Co-ordinated Cycle Length ---      ----- Isolated Cycle Length -----
A  M  Peds Delay Aver Vehs Delay Aver Peds Delay Aver Veh Delay Aver
1  L              145  1.4 34.1              145  1.4 34.1
1  T  100  0.7 24.9  577  4.0 24.9  100  0.7 24.9  577  4.0 24.9
1  R
2  L
2  T  100  1.3 47.1              100  1.3 47.1
2  R
3  L
3  T      0  0.0              986  0.7  2.6      0  0.0              986  0.7  2.6
3  R              573  5.0 31.2              573  5.0 31.2
4  L              5  0.0  0.0              5  0.0  0.0
4  T  100  1.3 47.1              100  1.3 47.1
4  R              173  2.8 57.3              173  2.8 57.3
INT  300      3 39.7 2459  14 20.2  300      3 39.7 2459      0  0.0
-----

```

TCS = 1 Pedestrian - Vehicle Delay - Stops AM Peak File = 8169FU2

----- Delays & Stops after Co-ordinated Evaluation -----

A	M	Peds	Delay	Aver	Vehs	Delay	Aver	Stops	Aver	LOS		
1	L				145	0.0	0.0	0	0.0	A	0	6
1	T	100	0.7	24.9	577	0.0	0.0	0	0.0	A	0	6
1	R											
2	L											
2	T	100	1.3	47.1								
2	R											
3	L											
3	T	0	0.0		986	0.0	0.0	18	0.0	A	1	6
3	R				573	0.8	5.0	18	0.0	A	1	6
4	L				5	0.0	0.0	0	0.0	A	0	6
4	T	100	1.3	47.1								
4	R				173	2.8	57.3	170	1.0	E	5	36
INT		300	3	39.7	2459	4	5.2	205	0.1	A		

TCS = 2 Isolated Operation Degree of Saturation for PM Peak 8169FU2

--- Co-ordinated Cycle Length --- ----- Isolated Cycle Length -----

A	M	DS	GT	Delay	Stops	Queue	Metre	DS	GT	Delay	Stops	Queue	Metre
1	L	0.61	51	1	41	1	72	0.61	54	1	41	2	78
1	T	0.61	51	11	732	26	72	0.61	54	11	731	28	72
1	R												
2	L	0.63	39	4	235	9	54	0.63	42	4	234	9	60
2	T	0.93	39	5	256	9	114	0.92	42	5	253	9	114
2	R	0.93	39	5	220	8	108	0.92	42	5	217	8	114
3	L	1.03	46	10	384	14	60	1.02	49	9	368	14	66
3	T	0.65	51	10	691	24	78	0.65	54	11	690	26	78
3	R												
4	L	0.93	44	4	200	7	72	0.92	47	4	197	7	78
4	T	0.93	44	9	449	15	120	0.92	47	9	442	16	126
4	R	0.34	44	2	132	5	36	0.33	47	2	132	6	36
INT		1.03	147					1.02	155				

TCS = 2 Pedestrian - Vehicle Delay PM Peak File = 8169FU2

Isolated Operation

--- Co-ordinated Cycle Length --- ----- Isolated Cycle Length -----

A	M	Peds	Delay	Aver	Vehs	Delay	Aver	Peds	Delay	Aver	Veh	Delay	Aver
1	L				55	0.6	39.7				55	0.6	41.7
1	T	100	1.0	34.6	983	10.8	39.7	100	1.0	36.2	983	11.4	41.7
1	R												
2	L				296	3.9	47.4				296	4.1	49.9
2	T	100	1.1	39.3	248	5.2	76.1	100	1.1	41.0	248	5.4	78.1
2	R				211	4.6	77.6				211	4.7	79.6
3	L				290	9.7	120.4				290	9.4	116.9
3	T	100	1.0	34.6	910	10.2	40.5	100	1.0	36.2	910	10.8	42.6
3	R												
4	L				195	3.9	72.7				195	4.0	74.4
4	T	0	0.0		440	8.8	72.1	0	0.0		440	9.0	73.4
4	R				189	2.1	39.8				189	2.2	41.7
INT		300	3	36.2	3817	60	56.5	300	3	37.8	3817	0	0.0

TCS = 2 Pedestrian - Vehicle Delay - Stops PM Peak File = 8169FU2

----- Delays & Stops after Co-ordinated Evaluation-----

A	M	Peds	Delay	Aver	Vehs	Delay	Aver	Stops	Aver	LOS		
1	L				55	0.0	0.2	0	0.0	A	0	6
1	T	100	1.0	34.6	983	0.1	0.2	3	0.0	A	0	6
1	R											
2	L				296	3.9	47.4	235	0.8	D	9	54
2	T	100	1.1	39.3	248	5.2	76.1	256	1.0	F	9	114
2	R				211	4.6	77.6	220	1.0	F	8	54
3	L				290	0.2	2.7	0	0.0	A	0	6
3	T	100	1.0	34.6	910	0.7	2.7	0	0.0	A	0	6
3	R											
4	L				195	3.9	72.7	200	1.0	F	7	24
4	T	0	0.0		440	8.8	72.1	449	1.0	F	15	120
4	R				189	2.1	39.8	132	0.7	C	5	36
INT		300	3	36.2	3817	29	27.8	1495	0.4	B		

```

TCS =      2  Isolated Operation Degree of Saturation for Business Peak 8169FU2
      --- Co-ordinated Cycle Length ---      ----- Isolated Cycle Length -----
A  M  DS      GT      Delay Stops Queue Metre  DS      GT      Delay Stops Queue Metre
1  L  0.69      22        2      87      3      6  0.69      22        2      87      3      6
1  T  0.01      22        0        5      0      6  0.01      22        0        5      0      6
1  R
2  L  0.15      53        1       59      2     18  0.15      53        1       59      2     18
2  T  0.69      53        4     350     11     78  0.69      53        4     350     11     78
2  R  0.69      53        0       27      1     78  0.69      53        0       27      1     78
3  L  0.90      17        3     119      4      6  0.90      17        3     119      4      6
3  T  0.01      22        0        5      0      6  0.01      22        0        5      0      6
3  R
4  L  0.69      47        1       79      2     18  0.69      47        1       79      2     18
4  T  0.69      47        5     360     11     72  0.69      47        5     360     11     72
4  R  0.06      47        0       21      1      6  0.06      47        0       21      1      6
INT  0.90      134
-----

```

```

TCS =      2  Pedestrian - Vehicle Delay Business Peak File = 8169FU2
                  Isolated Operation
      --- Co-ordinated Cycle Length ---      ----- Isolated Cycle Length -----
A  M  Peds Delay Aver Vehs Delay Aver Peds Delay Aver Veh Delay Aver
1  L              102  1.5  53.8              102  1.5  53.8
1  T      0    0.0              7  0.1  47.0      0    0.0              7  0.1  47.0
1  R
2  L              102  0.7  26.2              102  0.7  26.2
2  T      0    0.0          467  4.4  33.9      0    0.0          467  4.4  33.9
2  R              36  0.3  34.4              36  0.3  34.4
3  L              102  2.7  95.7              102  2.7  95.7
3  T      0    0.0              7  0.1  47.0      0    0.0              7  0.1  47.0
3  R
4  L              102  1.1  37.5              102  1.1  37.5
4  T      0    0.0          467  4.8  37.1      0    0.0          467  4.8  37.1
4  R              36  0.3  28.5              36  0.3  28.5
INT              1428  16  40.5              1428  0    0.0
-----

```

TCS = 2 Pedestrian - Vehicle Delay - Stops Business Peak File = 8169FU2

----- Delays & Stops after Co-ordinated Evaluation -----

A	M	Peds	Delay	Aver	Vehs	Delay	Aver	Stops	Aver	LOS		
1	L				102	0.0	1.6	2	0.0	A	0	6
1	T	0	0.0		7	0.0	1.6	0	0.0	A	0	6
1	R											
2	L				102	0.7	26.2	59	0.6	B	2	18
2	T	0	0.0		467	4.4	33.9	350	0.7	C	11	78
2	R				36	0.3	34.4	27	0.8	C	1	6
3	L				102	0.0	0.0	0	0.0	A	0	6
3	T	0	0.0		7	0.0	0.0	0	0.0	A	0	6
3	R											
4	L				102	1.1	37.5	79	0.8	C	2	18
4	T	0	0.0		467	4.8	37.1	360	0.8	C	11	72
4	R				36	0.3	28.5	21	0.6	C	1	6
INT					1428	12	29.5	899	0.6	C		

TCS = 2 Isolated Operation Degree of Saturation for AM Peak 8169FU2

--- Co-ordinated Cycle Length --- ----- Isolated Cycle Length -----

A	M	DS	GT	Delay	Stops	Queue	Metre	DS	GT	Delay	Stops	Queue	Metre
1	L	0.34	39	1	47	1	36	0.34	39	1	47	1	36
1	T	0.34	39	4	341	10	30	0.34	39	4	341	10	30
1	R												
2	L	0.75	28	4	284	8	48	0.75	28	4	284	8	48
2	T	0.79	28	3	205	6	60	0.79	28	3	205	6	60
2	R	0.79	28	2	128	3	60	0.79	28	2	128	3	60
3	L	0.82	34	3	203	5	60	0.82	34	3	203	5	60
3	T	0.79	39	10	913	22	72	0.79	39	10	913	22	72
3	R												
4	L	0.79	32	1	111	3	42	0.79	32	1	111	3	42
4	T	0.79	32	5	359	9	66	0.79	32	5	359	9	66
4	R	0.21	32	1	77	2	18	0.21	32	1	77	2	18
INT		0.82	110					0.82	110				

TCS = 2 Pedestrian - Vehicle Delay AM Peak File = 8169FU2

Isolated Operation

--- Co-ordinated Cycle Length ---

----- Isolated Cycle Length -----

A	M	Peds	Delay	Aver	Vehs	Delay	Aver	Peds	Delay	Aver	Veh	Delay	Aver
1	L				71	0.5	26.3				71	0.5	26.3
1	T	100	0.7	26.5	514	3.8	26.3	100	0.7	26.5	514	3.8	26.3
1	R												
2	L				331	3.7	40.5				331	3.7	40.5
2	T	100	0.9	31.7	229	2.8	43.8	100	0.9	31.7	229	2.8	43.8
2	R				142	1.8	44.5				142	1.8	44.5
3	L				225	2.6	42.4				225	2.6	42.4
3	T	100	0.7	26.5	1115	10.2	33.0	100	0.7	26.5	1115	10.2	33.0
3	R												
4	L				125	1.5	41.9				125	1.5	41.9
4	T	0	0.0		410	4.6	40.5	0	0.0		410	4.6	40.5
4	R				113	0.9	29.8				113	0.9	29.8
INT		300	2	28.2	3275	32	35.6	300	2	28.2	3275	0	0.0

TCS = 2 Pedestrian - Vehicle Delay - Stops AM Peak File = 8169FU2

----- Delays & Stops after Co-ordinated Evaluation -----

A	M	Peds	Delay	Aver	Vehs	Delay	Aver	Stops	Aver	LOS		
1	L				71	0.0	0.2	1	0.0	A	0	6
1	T	100	0.7	26.5	514	0.0	0.2	5	0.0	A	0	6
1	R											
2	L				331	3.7	40.5	284	0.9	C	8	48
2	T	100	0.9	31.7	229	2.8	43.8	205	0.9	D	6	60
2	R				142	1.8	44.5	128	0.9	D	3	24
3	L				225	0.2	2.4	0	0.0	A	0	6
3	T	100	0.7	26.5	1115	0.7	2.4	0	0.0	A	0	6
3	R											
4	L				125	1.5	41.9	111	0.9	C	3	12
4	T	0	0.0		410	4.6	40.5	359	0.9	C	9	66
4	R				113	0.9	29.8	77	0.7	C	2	18
INT		300	2	28.2	3275	16	17.8	1172	0.4	B		

Appendix E
Loading dock activities

Activity	Unit/Vessel	vehicle type	Duration (min)	Service Frequency Alone	Service Frequency	Gar & LP Bldg SVRBP	plus GSVCCC	plus Virology
WASTE 7am - 4pm								
General Waste	660L	MRV	30	D				
	Compactor	MRV	15		F	15m3	retain compactus, increase frequency	
Animal Waste	660L	MRV	20	Included in General	Wx3	5	negligable change	
Animal Carcass	240L	MRV	20	F	2x	inc. in contaminated	negligable change	
Paper/Cardboard	240L	MRV	15-30	W				
	Compactor	MRV			W - F	15m3	retain compactus, increase frequency	
Polystyrene	SRV	MRV	15	M		inc. in paper compactor	into paper compactor	
Comingled Recycle	240L	MRV	30	F	6	add 3. new total 11		
Contaminated Waste	240L	HRV	30	D	10	15	add 5. new total 20	
Sharps	HRV	HRV	inc. in contaminated					
Chemical	SRV	SRV	45	3M	2M		increase frequency to monthly	
Large/Bulky Waste	truck/skip at dock	MRV	120	2M	2M		ad hoc, deal with as generated	
fem hygiene	van	van	60	F	35 bins	F	would retain a fortnightly service	
GASES 8am - 4pm								
LN2	PLV	SRV	240	Wx2				
	BULK	MRV,	20		Wx3	2000L/week	expect minimal change to this, retain existing	
CO2	minibulk	MRV, HRV	45	F				
	BULK	MRV,	20		M	1000/Month	add 500L month, retain existing, increase frequency	
N2	cylinders	MRV, HRV	20	F	2G size	W	plus 2G/week, total 4G/week	
CO2	cylinders (BU)	MRV, HRV					no change, back up only	
O2	cylinders	MRV, HRV	20	F	4G size			
	packs	MRV, HRV			F	9XG size/F	no change	
Ar	cylinders	MRV, HRV	20	3M	1G size	3M	no change	
other	cylinders	MRV, HRV	20	M	1D/E size	M	slight increase, to be determined	
Dry Ice	25kg esky	SRV	10	Wx3	65kg/week	Wx3	increase kg quantity, frequency as is	
DELIVERIES 8am - 4pm								
courier	small box/lesky	van	5	D	15-25	D	add up to five couriers?	
large deliveries	pallet	HRV	15	W		Wx2	no change	
animal feed/bedding	pallet	HRV	30	Wx2			no change	
live animals	Van	Van	30	W	10 boxes	Wx3	no change	
large equipment	wheeled in	Van, MRV, HRV	20	M		M	no change	
building works	various	Van, MRV, HRV	45	3M		2M	no change	
mail		Van	5	D			no change	
staff catering/events/vending machines		Van, SRV	30	F				
Linen	wheeled in	Van	15	Wx2			same frequency, increase quantity	
	Van			D	Daily			
	SRV	Small Rigid Truck (6.4m)		Wx3	3 /week			
MRV		Medium (8.8m)		Wx2	2 /week			
HRV		Heavy (12m)		W	Weekly			
				F	Fortnightly			
				M	Monthly			
				2M	Every 2 months			
				3M	Every 3 months			

Assumed same effect as GSVCCC