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## **Appendix 6.3**

# **Vissim Modelling Results**

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## South Circular Road Junction Diversions - Delays (AM Peak)

Arm	Movement	Do Something Scenario Phase 1 (Phase 1 Cut and cover buried portal)				Do Something Scenario Phase 2 (Phase 2 Cut and cover buried portal)			
		Avg Queue	Max Queue	Avg delay	Veh.	Avg Queue	Max Queue	Avg delay	Veh.
R111 North (South Circular Road)	Left turn to R148	59.6 pcu	72.6 pcu	1 min 27 sec	655 vehicles	51.2 pcu	73.3 pcu	1 min 22 sec	691 vehicles
R111 South (South Circular Road)	Left to R148 Westbound	3.7 pcu	17.5 pcu	42 sec	196 vehicles	3.3 pcu	17.5 pcu	37 sec	198 vehicles
	Ahead to R111 Northbound	3.7 pcu	17.5 pcu	40 sec	297 vehicles	3.3 pcu	17.5 pcu	32 sec	300 vehicles
	<b>Average</b>	<b>3.7 pcu</b>	<b>17.5 pcu</b>	<b>41 sec</b>	<b>493 vehicles</b>	<b>3.3 pcu</b>	<b>17.5 pcu</b>	<b>34 sec</b>	<b>498 vehicles</b>
R148 Westbound (St. John's Road West)	Ahead to R148 westbound bridge	25.8 pcu	53.2 pcu	2 min 23 sec	598 vehicles	20.1 pcu	47.4 pcu	2 min 8 sec	605 vehicles
	To Left slip towards R111 southbound	25.8 pcu	53.2 pcu	2 min 13 sec	76 vehicles	20.1 pcu	47.4 pcu	1 min 60 sec	76 vehicles
	<b>Average</b>	<b>25.8 pcu</b>	<b>53.2 pcu</b>	<b>2 min 22 sec</b>	<b>674 vehicles</b>	<b>20.1 pcu</b>	<b>47.4 pcu</b>	<b>2 min 7 sec</b>	<b>681 vehicles</b>
R148 Eastbound (Con Colbert Road)	Ahead to R148 eastbound bridge	18.4 pcu	54.1 pcu	44 sec	1599 vehicles	22.6 pcu	63.7 pcu	52 sec	1575 vehicles
	To Left slip towards R111 northbound	17.7 pcu	53.8 pcu	30 sec	502 vehicles	20.6 pcu	65 pcu	44 sec	503 vehicles
	<b>Average</b>	<b>18.4 pcu</b>	<b>54.1 pcu</b>	<b>40 sec</b>	<b>2101 vehicles</b>	<b>22.6 pcu</b>	<b>65 pcu</b>	<b>50 sec</b>	<b>2078 vehicles</b>
R148 Westbound (Bridge)	Ahead to R148 westbound bridge	0.7 pcu	7.7 pcu	6 sec	682 vehicles	1 pcu	8.1 pcu	5 sec	679 vehicles
	Right to R111 northbound	0.7 pcu	7.7 pcu	14 sec	18 vehicles	1 pcu	8.1 pcu	5 sec	18 vehicles
	Left to R111 southbound	1.3 pcu	9.7 pcu	6 sec	1099 vehicles	2.8 pcu	10.6 pcu	9 sec	1127 vehicles
	<b>Average</b>	<b>1.3 pcu</b>	<b>9.7 pcu</b>	<b>6 sec</b>	<b>1799 vehicles</b>	<b>2.8 pcu</b>	<b>10.6 pcu</b>	<b>7 sec</b>	<b>1824 vehicles</b>

Arm	Movement	Do Something Scenario Phase 1 (Phase 1 Cut and cover buried portal)				Do Something Scenario Phase 2 (Phase 2 Cut and cover buried portal)			
		Avg Queue	Max Queue	Avg delay	Veh.	Avg Queue	Max Queue	Avg delay	Veh.
R148 Eastbound (Bridge)	Ahead to R148 eastbound	1.2 pcu	10.8 pcu	1 sec	1112 vehicles	0.6 pcu	12.8 pcu	1 sec	1098 vehicles
	Right to circular link	1.2 pcu	10.8 pcu	10 sec	499 vehicles	0.6 pcu	12.8 pcu	10 sec	488 vehicles
	<b>Average</b>	<b>1.2 pcu</b>	<b>10.8 pcu</b>	<b>4 sec</b>	<b>1611 vehicles</b>	<b>0.6 pcu</b>	<b>12.8 pcu</b>	<b>3 sec</b>	<b>1586 vehicles</b>
R111 Southbound Left Slip	To R148 eastbound	6.6 pcu	10 pcu	14 sec	31 vehicles	6 pcu	9.8 pcu	14 sec	33 vehicles
	To Circular link	6.6 pcu	10 pcu	16 sec	622 vehicles	6 pcu	9.8 pcu	22 sec	659 vehicles
	<b>Average</b>	<b>6.6 pcu</b>	<b>10 pcu</b>	<b>16 sec</b>	<b>653 vehicles</b>	<b>6 pcu</b>	<b>9.8 pcu</b>	<b>22 sec</b>	<b>692 vehicles</b>
R148 Circular Link	To R148 westbound bridge	0.6 pcu	8.7 pcu	0 sec	92 vehicles	1.6 pcu	13.4 pcu	0 sec	98 vehicles
	To Left slip towards R111 southbound	0.6 pcu	8.7 pcu	2 sec	1029 vehicles	1.6 pcu	13.4 pcu	3 sec	1051 vehicles
	<b>Average</b>	<b>0.6 pcu</b>	<b>8.7 pcu</b>	<b>2 sec</b>	<b>1121 vehicles</b>	<b>1.6 pcu</b>	<b>13.4 pcu</b>	<b>3 sec</b>	<b>1149 vehicles</b>
R111 Northbound (Bridge)	Ahead	0.3 pcu	10 pcu	2 sec	316 vehicles	0.1 pcu	2.2 pcu	2 sec	319 vehicles
R111 Southbound Inchicore Road Junction	Right	7 pcu	22.5 pcu	16 sec	270 vehicles	9.5 pcu	22.7 pcu	24 sec	278 vehicles
	Ahead	7 pcu	22.5 pcu	20 sec	827 vehicles	9.5 pcu	22.7 pcu	23 sec	848 vehicles
	<b>Average</b>	<b>7 pcu</b>	<b>22.5 pcu</b>	<b>19 sec</b>	<b>1097 vehicles</b>	<b>9.5 pcu</b>	<b>22.7 pcu</b>	<b>23 sec</b>	<b>1126 vehicles</b>
R111 Northbound Inchicore Road Junction	Left	5.4 pcu	29.3 pcu	25 sec	193 vehicles	4.8 pcu	31.2 pcu	24 sec	195 vehicles
	Ahead	5.4 pcu	29.3 pcu	27 sec	488 vehicles	4.8 pcu	31.2 pcu	24 sec	495 vehicles
	<b>Average</b>	<b>5.4 pcu</b>	<b>29.3 pcu</b>	<b>27 sec</b>	<b>681 vehicles</b>	<b>4.8 pcu</b>	<b>31.2 pcu</b>	<b>24 sec</b>	<b>690 vehicles</b>

## South Circular Road Junction Diversions – Delays (PM Peak)

Arm	Movement	Do Something Scenario Phase 1 (Phase 1 Cut and cover buried portal)				Do Something Scenario Phase 2 (Phase 2 Cut and cover buried portal)			
		Avg Queue	Max Queue	Avg Delay	Veh.	Avg Queue	Max Queue	Avg Delay	Veh.
R111 North (South Circular Road)	Left turn to R148	63.7 pcu	72.5 pcu	2 min 2 sec	505 vehicles	6.3 pcu	41.6 pcu	46 sec	634 vehicles
R111 South (South Circular Road)	Left to R148 Westbound	6.6 pcu	22.6 pcu	54 sec	302 vehicles	5.8 pcu	24 pcu	47 sec	304 vehicles
	Ahead to R111 Northbound	6.6 pcu	22.6 pcu	53 sec	348 vehicles	5.8 pcu	24 pcu	43 sec	348 vehicles
	<b>Average</b>	<b>6.6 pcu</b>	<b>22.6 pcu</b>	<b>53 sec</b>	<b>650 vehicles</b>	<b>5.8 pcu</b>	<b>24 pcu</b>	<b>45 sec</b>	<b>652 vehicles</b>
R148 Westbound (St. John's Road West)	Ahead to R148 westbound bridge	31 pcu	72.6 pcu	46 sec	1615 vehicles	45.9 pcu	91.3 pcu	49 sec	1587 vehicles
	To Left slip towards R111 southbound	31 pcu	72.6 pcu	34 sec	148 vehicles	45.9 pcu	91.3 pcu	49 sec	147 vehicles
	<b>Average</b>	<b>31 pcu</b>	<b>72.6 pcu</b>	<b>45 sec</b>	<b>1763 vehicles</b>	<b>45.9 pcu</b>	<b>91.3 pcu</b>	<b>49 sec</b>	<b>1734 vehicles</b>
R148 Eastbound (Con Colbert Road)	Ahead to R148 eastbound bridge	41 pcu	85 pcu	1 min 18 sec	805 vehicles	41.4 pcu	89.1 pcu	58 sec	819 vehicles
	To Left slip towards R111 northbound	40.6 pcu	84.7 pcu	1 min 52 sec	460 vehicles	45.8 pcu	90.4 pcu	1 min 40 sec	462 vehicles
	<b>Average</b>	<b>41 pcu</b>	<b>85 pcu</b>	<b>1 min 30 sec</b>	<b>1265 vehicles</b>	<b>45.8 pcu</b>	<b>90.4 pcu</b>	<b>1 min 13 sec</b>	<b>1281 vehicles</b>
R148 Westbound (Bridge)	Ahead to R148 westbound bridge	1.5 pcu	9.7 pcu	4 sec	1625 vehicles	1.6 pcu	10.4 pcu	3 sec	1613 vehicles
	Right to R111 northbound	1.5 pcu	9.7 pcu	5 sec	114 vehicles	1.6 pcu	10.4 pcu	4 sec	111 vehicles
	Left to R111 southbound	0.3 pcu	8.7 pcu	3 sec	770 vehicles	1.6 pcu	10.8 pcu	7 sec	874 vehicles
	<b>Average</b>	<b>1.5 pcu</b>	<b>9.7 pcu</b>	<b>4 sec</b>	<b>2509 vehicles</b>	<b>1.6 pcu</b>	<b>10.8 pcu</b>	<b>5 sec</b>	<b>2598 vehicles</b>
R148 Eastbound (Bridge)	Ahead to R148 eastbound	3.7 pcu	10.9 pcu	1 sec	562 vehicles	1.2 pcu	12.6 pcu	2 sec	567 vehicles
	Right to circular link	3.7 pcu	10.9 pcu	1 min 4 sec	249 vehicles	1.2 pcu	12.6 pcu	36 sec	253 vehicles

Arm	Movement	Do Something Scenario Phase 1 (Phase 1 Cut and cover buried portal)				Do Something Scenario Phase 2 (Phase 2 Cut and cover buried portal)			
		Avg Queue	Max Queue	Avg Delay	Veh.	Avg Queue	Max Queue	Avg Delay	Veh.
	<b>Average</b>	<b>3.7 pcu</b>	<b>10.9 pcu</b>	<b>20 sec</b>	<b>811 vehicles</b>	<b>1.2 pcu</b>	<b>12.6 pcu</b>	<b>12 sec</b>	<b>820 vehicles</b>
R111 Southbound Left Slip	To R148 eastbound	7.2 pcu	9.8 pcu	20 sec	20 vehicles	5.2 pcu	9.8 pcu	15 sec	25 vehicles
	To Circular link	7.2 pcu	9.8 pcu	22 sec	485 vehicles	5.2 pcu	9.8 pcu	22 sec	608 vehicles
	<b>Average</b>	<b>7.2 pcu</b>	<b>9.8 pcu</b>	<b>22 sec</b>	<b>505 vehicles</b>	<b>5.2 pcu</b>	<b>9.8 pcu</b>	<b>22 sec</b>	<b>633 vehicles</b>
R148 Circular Link	To R148 westbound bridge	1.7 pcu	9.2 pcu	1 sec	108 vehicles	2.5 pcu	12.8 pcu	0 sec	134 vehicles
	To Left slip towards R111 southbound	1.7 pcu	9.2 pcu	5 sec	629 vehicles	2.5 pcu	12.8 pcu	5 sec	728 vehicles
	<b>Average</b>	<b>1.7 pcu</b>	<b>9.2 pcu</b>	<b>5 sec</b>	<b>737 vehicles</b>	<b>2.5 pcu</b>	<b>12.8 pcu</b>	<b>5 sec</b>	<b>862 vehicles</b>
R111 Northbound (Bridge)	Ahead	0.5 pcu	11.4 pcu	1 sec	462 vehicles	0.2 pcu	2.4 pcu	1 sec	461 vehicles
R111 Southbound Inchicore Road Junction	Right	4.3 pcu	22.1 pcu	25 sec	197 vehicles	7.7 pcu	22.1 pcu	49 sec	226 vehicles
	Ahead	4.3 pcu	22.1 pcu	18 sec	568 vehicles	7.7 pcu	22.1 pcu	22 sec	646 vehicles
	<b>Average</b>	<b>4.3 pcu</b>	<b>22.1 pcu</b>	<b>20 sec</b>	<b>765 vehicles</b>	<b>7.7 pcu</b>	<b>22.1 pcu</b>	<b>29 sec</b>	<b>872 vehicles</b>
R111 Northbound Inchicore Road Junction	Left	27.5 pcu	45.2 pcu	47 sec	290 vehicles	27.6 pcu	45.4 pcu	46 sec	293 vehicles
	Ahead	27.5 pcu	45.2 pcu	47 sec	641 vehicles	27.6 pcu	45.4 pcu	49 sec	649 vehicles
	<b>Average</b>	<b>27.5 pcu</b>	<b>45.2 pcu</b>	<b>47 sec</b>	<b>931 vehicles</b>	<b>27.6 pcu</b>	<b>45.4 pcu</b>	<b>48 sec</b>	<b>942 vehicles</b>