Monkgate / Lord Mayor's Walk Junction Modelling

AM Peak

	Existing			Option 1			Option 2		
	DoS (%)	MMQ (PCU)	Delay / PCU (s)	DoS (%)	MMQ (PCU)	Delay / PCU (s)	DoS (%)	MMQ (PCU)	Delay / PCU (s)
Monkgate (N)	86.1	14.5	7.7	78.3	12.6	5.6	102.4	23.8	16.9
St Maurices Road	68.1	13.8	5.2	80.0	13.8	6.1	99.3	22.1	14.1
	58.3	11.3	4.1	68.5	11.0	4.6	85.0	13.3	6.7
Goodramgate	58.1	3.9	2.1	72.5	4.1	2.5	81.6	4.7	3.2
Lord Mayor's Walk	54.6	9.8	4.0	50.1	7.9	3.2	58.5	8.9	3.8
PRC (%)	4.5			12.5			-13.8		
Total Traffic Delay (pcuHr)	23.4			22.5			48.15		

PM Peak

	Existing			Option 1			Option 2		
	DoS (%)	MMQ (PCU)	Delay / PCU (s)	DoS (%)	MMQ (PCU)	Delay / PCU (s)	DoS (%)	MMQ (PCU)	Delay / PCU (s)
Monkgate (N)	64.5	8.8	4.3	67.2	8.8	4.0	97.5	15.2	10.2
St Maurices Road	64.3	11.9	4.4	61.7	10.5	4.0	74.1	11.9	5.1
	77.9	17.3	6.8	78.4	15.2	6.2	94.1	20.4	10.9
Goodramgate	46.1	2.9	1.6	64.7	3.1	1.9	64.7	3.1	1.9
Lord Mayors Walk	77.4	16.9	6.6	79.4	15.1	6.3	97.7	22.9	13.7
PRC (%)	15.6			13.4			-8.6		
Total Traffic Delay (pcuHr)	23.8			22.7			43.7		

Modelling Definitions

Degree of Saturation (DoS): - is a ratio of demand to capacity on each approach to the junction, with a value of 100% meaning that demand and capacity are equal and no further traffic is able to progress through the junction. Values over 85% are typically regarded as suffering from traffic congestion, with queues of vehicles beginning to form.

Mean Maximum Queue (MMQ): - represents the maximum queue within a typical cycle averaged over all the cycles within the modelled time period. When a Link is oversaturated the Maximum Queue within each cycle will grow progressively over the modelled time period. This means that the Mean Maximum Queue will be approximately half the final queue at the end of the modelled time period.

Delay / PCU: - The Average Delay for each Vehicle on the Link averaged over the modelled time period.

Practical Reserve Capacity (PRC): - Is a measure of how much additional traffic could pass through a junction whilst maintaining a maximum degree of saturation of 90% on all Links. It is calculated from the maximum degree of saturation on a Link. Negative PRCs show that the junction is congested and queues will form.

Total Traffic Delay: - This is the total aggregate delay suffered by all traffic using the modelled Network and recorded in pcuHrs.