

SUPPLEMENTARY INFORMATION - DESCRIPTION - LEVELS OF SERVICE FOR TRAFFIC ALONG KENNEDY DRIVE AT COBAKI

A level of service for arterial roads is defined in terms of the average travel speed for all through vehicles. In general, there are six levels of service for urban and suburban arterial roads with interrupted flow conditions, designated from A to F with each level of service being described as follows:

- **Level of Service A:** Generally free flow conditions with operating speeds usually about 90% of the free flow travel speed for the particular class of arterial. Vehicles are unimpeded in manoeuvring in the traffic stream and stopped delay at intersections is minimal. In the case of Kennedy Drive average travel speed would be greater than 55kph.
- **Level of Service B:** Relatively unimpeded operation with average travel speeds about 70% of the free flow speed for the particular arterial class. Manoeuvring in the traffic stream is only slightly restricted and stopped delays are low. In the case of Kennedy Drive average travel speed would be greater than 45kph.
- **Level of Service C:** Stable operating conditions but with manoeuvring becoming more restricted and motorist experiencing appreciable tension in driving, longer queues and/or adverse signal coordination may contribute to lower average travel speeds of about 50% of the free flow speed for the arterial class. In the case of Kennedy Drive average travel speed would be greater than 35kph.
- **Level of Service D:** Conditions border on a range in which small increases in flow can significantly increase intersection delay and reduce travel speed. Travel speeds are about 40% of the free flow speed. In the case of Kennedy Drive average travel speed would be greater than 25kph.
- **Level of Service E:** Conditions are characterised by significant intersection delays and travel speeds of 35% of free flow speed or lower. Contributing factors may be: adverse signal progression, closely spaced signals, expensive queuing at critical intersections (i.e. saturated intersection conditions). In the case of Kennedy Drive average travel speed would be greater than 20kph.
- **Level of Service F:** Travel flow at this level is very low speed – below 25% to 33% of the free flow speed for the arterial class. Signalised intersections would be severely congested (over-saturated) with extensive queuing and delay. In the case of Kennedy Drive average travel speed would be less than 20kph.

The maximum lane carrying capacity occurs at a volume to capacity ratio of 1.0 or Level of Service E.

As the level of service is a qualitative measure it should not be rigorously applied, however the principles involved are quite valid.
