

Effect of Vehicle Type on the Capacity of Signalized Intersections

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Abstract

Evaluation of present and future traffic situation is carried out for estimating the level of service through a lot of traffic indicators (such as Saturation Flow, capacity, delay and travel time), but all these indicators are based primarily on the measurement of Passenger Car Unit (PCU). This paper analyzes the impacts of four different types of vehicles on the capacity of signalized intersections. Data was collected at five intersections in Damascus city, and estimates of mean headways associated with four different types of vehicles, as well as passenger cars. Using the estimated headways, Passenger Car Equivalents (PCEs) were calculated, and these suggest that the impacts of these types should be given special consideration when analyzing the capacity of signalized intersections.

Key words:

Headway, Saturation flow, Passenger car unit (PCU), Signalized intersection, Passenger car equivalent (PCE)

* For The paper in Arabic see pages (29-42)

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