

SAFE DESIGNS FOR BRT SYSTEMS

H D VORSTER AND *J SEYMOUR

Transport Department, City of Tshwane
Tel: 012 358-7950; Fax: 012 358 7731; Email: hiltonv@tshwane.gov.za
*Regional Director, AECOM
Tel 00353 1 2383100 (Ireland); Email: Joseph.Seymour@aecom.com

ABSTRACT

Road traffic safety is a major challenge in South Africa and also internationally. All efforts must be made to implement road safety initiatives, especially from a transport infrastructure and operations design perspective. Traffic safety is an aspect that has consistently been missing from publications and planning guides for Bus Rapid Transit. The impact of bus systems on road safety is particularly important because they tend to be situated along major urban arterials, which often account for severe pedestrian crashes.

Most of the Bus Rapid Transit (BRT) Systems are retro-fitted onto existing road networks which result in major changes to traffic patterns, especially pedestrians. The implementation of these high capacity transit systems on any urban arterial will attract large volumes of pedestrians to streets where risks are already high. Facilities are often not available to provide for the changes in traffic patterns. There is thus a definite need to design for road safety when implementing BRT systems.

Some key design elements of bus systems can significantly improve safety. The presentation will highlight some typical design problems which are often overlooked. The role and importance of Road Safety Audits during the design process will also be discussed and how it should be applied. As pedestrians are high risk users in terms of safety, the development of Non-Motorised Transport (NMT) Plans and Universal Access Plans around BRT stations is essential. Examples of how to address safe pedestrian and cycle routes to stations will be presented.

The overall aim of the presentation is to sensitise designers on the importance of designing for safety during BRT projects.