DESIGN OF PEDESTRIAN FACILITIES IN
SRI LANKA

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Abstract

Pedestrian facilities can be defined as walkways, pedestrian crossings, under passes, over passes and guard fences etc. In Sri Lanka, designing of highways has been mostly confined to providing the facilities for vehicular traffic. However pedestrian facilities are often neglected even though the pedestrians use considerable amount of road space.

The qualitative and quantitative design for a pedestrian environment requires a basic understanding of related human characteristics and capabilities which are dependent on age, sex, physical and mental condition. However, factors such as the purpose of the trip, time of the day, weather and environmental conditions etc. will combine to determine the exact travel behavior of a pedestrian.

Some of the pedestrian characteristics and travel behavior have been identified in the form of relationships among parameters such as speed, density, flow and space of pedestrians by conducting pedestrian surveys such as flow and travel time etc.

The appropriate dimensions of a walkway are dependent on the location, purpose and anticipated flow or demand on the facility: It can be determined by parameters such as design speed, flow, space and density of pedestrians as these parameters can vary according to the above factors.

The concept of level of service (Pedestrian Service Standards) can be introduced in order to facilitate the design of a pedestrian walkway. Pedestrian service standards are based on the freedom to select normal travel speed, the ability to by pass slow moving pedestrians and the relative ease of cross and reverse flow movements at various pedestrian traffic concentrations. The level of service can be measured in terms of space (m²/Ped), flow rate (Pedestrians/m/min), Speed (m/min) and pedestrian density (number of pedestrians/m²) and it can be divided into any number according to the requirements. Four levels of service such as H,M,L and P were
introduced under this study since the variance of the pedestrian flow can be
categorized and illustrated with these four levels of service conveniently.