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Design and enhancement of city park transport infrastructure facilities

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Abstract

Jaipur city park '*Jawahar circle*' plays a major role in transportation system of Jaipur city of India and simultaneously facilitates other recreational activities including cycling, walking and entertainment. A large number of people visit the park regularly as urban city parks are now becoming one of the major sources of attraction for people across all age groups. The current structure and facilities at *Jawahar circle* are designed on the basis of old data and user surveys. Owing to rapid growth in population and current trend towards health care activities in open green spaces, it requires to be redesigned based on new data that can meet the need of current and future demands. In this study, data available in public domain was examined along with a site survey to understand the issues faced by pedestrians and motorists frequenting the city park. The major findings of the study indicate that signages as well as public amenities are either not placed or not designed according to Indian standard codes. The parking can be redesigned to increase the capacity keeping in mind peak traffic hours. This study suggests a modified design based on modeling of current and future needs to enhance the transport infrastructure facilities of a public park in Jaipur city of India.

Introduction

Due to rising concern about health, people are inclining towards oldest modes of transport like walking and cycling. *Jawahar circle*, developed by Jaipur development authority (JDA) is one of the major attractions of the city and is highly popular amongst people of all age groups. It includes several recreational areas such as jogging track, walkways, musical fountains, open gyms, etc. It is also the starting point for most of the marathons and cycloths conducted in the city.

As per study on sustainable urban transport index (SUTI), Mehta [1] stated that SUTI score of Jaipur is 41.45, which is interpreted as low performance. The score conveys that Jaipur city's public transport is unsustainable in its present form. A much desired shift from private motorized transport towards mass public transport system and non-motorized traffic (NMT) is needed. Mismatch between road hierarchies at major traffic locations tends to amplify the traffic congestion problem in the city. The problem of traffic congestion is also rising due to limited NMT infra that supports pedestrian and cycle movements; while encroachment on the footpath and roads and on street parking adds to the problem of congestion in the city [2]. Hildebrandt and Auffrey [3] analysed five years of photography and highway signages using visual attention software tools. Their analysis focused on measuring the effectiveness of road signs as they are displayed and perceived in specific natural and built environment contexts. They concluded that virtual analysis of images could help to guide these improvements and assist efforts to create research methodologies for large scale studies with human subjects.