

Reimagining Urban Road Stretches for Sustainable Mobility: A Case of Bhatar Neighbourhood, Surat

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Abstract: Urban roads in Indian cities serve as critical connectors between varied land-use zones such as residential, commercial areas and public spaces. However, urban roadways have become plagued by congestion, low walkability, high levels of mixed traffic, a lack of pedestrian infrastructure, and a disconnected built environment. As this is ongoing, it results in poor efficiency of travel but also becomes an issue of urban liveability. This study seeks to examine urban road stretch relative to redevelopment potential, specifically in the Indian context of the city of Surat, which is one of the fastest-growing Indian cities. In this limited study, urban road stretch is evaluated as traditional road segments redeveloped to thoughtful design interventions that potentially introduce access, efficiency, sustainable and inclusive use for varied user groups. Multi-modal access, improved NMT infrastructure, green buffers, last-mile mobility solutions, and appropriate public transport were major elements examined within the function of each of the urban road stretches. The research findings illustrate how redeveloping road stretches in a way that prioritizes sustainable urban planning principles can improve accessibility, reduce congestion, and increase equitable use of public space incorporating constantly changing built neighbourhood along the stretch in urban contexts. The research findings can help urban planners, municipalities and policy makers in developing people-centric and environmentally responsive mobility networks in rapidly urbanizing Indian environments.

Keywords: Changing Morphology, Urban Mobility, Sustainable Mobility, NMT, Road Redesign

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