

A Review of Sustainable Urban Infrastructure Development

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Abstract: Sustainable urban infrastructure encompasses the design, development, and management of urban systems that minimize environmental impact, optimize resource use, and enhance quality of life. This review explores the principles and practices of sustainable urban infrastructure, highlighting strategies for integrating green technologies, renewable energy sources, and resilient materials into urban planning. It examines case studies demonstrating successful implementations, discusses the challenges of balancing economic, social, and ecological goals, and emphasizes the need for interdisciplinary approaches to create resilient cities. The review underscores the importance of stakeholder engagement and innovative policies in advancing sustainable urban infrastructure to address the complex demands of rapidly growing urban areas.

Keywords: Efficiency, Urban Infrastructure, Waste Management, Green Infrastructure