

Innovative Approaches to Foundation Design in Water Treatment Facilities: A Structural Engineering Perspective

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Abstract: *Water treatment facilities are critical infrastructure components that play a vital role in ensuring public health and environmental protection. These facilities are responsible for purifying water from various sources, making it safe for human consumption and other uses. As urbanization continues to accelerate and climate change poses new challenges, the demand for efficient and resilient water treatment infrastructure has never been greater. At the heart of these facilities lies their foundation a critical component that ensures structural integrity, operational efficiency, and longevity.*

Keywords: Structural Integrity, Operational Efficiency, Longevity, Water Treatment, Critical Infrastructure