UNIT III - CONSTRUCTION PRACTICE - SUB STRUCTURE

Case Study - Dewatering

Implementation of Dewatering Techniques for a Multi-Phase Construction Project

Project Overview

A large infrastructure project involving the construction of a multi-level underground metro station in an urban area required significant excavation work. The site faced challenges due to a high water table and varying soil conditions, making it essential to use different dewatering techniques to ensure a dry and stable work environment.

Site Conditions

- **Location:** The metro station was planned in an area with mixed soil types, including sandy, silty, and clay layers.
- **Water Table:** High groundwater level, with water present just 1 meter below the surface.
- **Excavation Depth:** The excavation required a depth of 15 meters for the station structure.
- **Area Constraints:** The site was located in a densely populated urban area, limiting space for equipment and requiring efficient water management