

C9 Substation Building (1-C-9 Baily Road 33kV Substation)

Technical Specification & BOQ Summary | Procurement No.: TBEA-XB-MJLDK-SG-2024-056

Project	Construction of 1-C-9 Baily Road 33kV Substation Building – Project of Expansion and Strengthening of Power System Network under DPDC Area
Employer / Utility	Dhaka Power Distribution Company Limited (DPDC)
Main Contractor / Purchaser	TBEA Co., Ltd. (TBEA)
Building configuration	1 Basement + 5 storeys above ground (Total 6 levels)
Floor area (as specified)	Total: 1,548.38 m ² Basement: 251.53 m ² Above ground: 1,296.85 m ²
Height above ground	26.7 m (above ground)

Overview. This package covers the construction of the C9 (1-C-9) substation building to support power network expansion and strengthening works under DPDC. The facility is designed as a multi-level substation building with a basement and five storeys above ground, integrating civil, architectural finishing, and complete building services required for safe operation and maintenance.

Structural concept. Frame–shear wall structural system; staircase as shear wall; foundation pit supported by steel sheet piles.

The technical specification highlights local environmental considerations (high ambient temperature and monsoon rainfall), requiring appropriate quality control, protection, and sequencing for concrete and steel works.

- **List of structures, works and installed systems (BOQ-based).**
- Substation building civil & structural works: earthwork/excavation, backfilling, RCC beams/slabs/columns/shear walls, staircases, lintels and masonry/hollow-block partitions as applicable.
- Equipment and embedded works: equipment foundations, embedded parts/anchors, embedded sleeves/pipes and cable routes as required for electrical installation.

- Architectural/finishing works: floor finishes (tiles / cement mortar), internal & external plaster, putty, internal emulsion paint, exterior putty & paint, ceiling works, staircase railing, doors and windows.
- Water supply & sanitary works: plumbing equipment, water supply network, drainage network, and sanitary fixtures (including joints and accessories).
- Firefighting system: water-based firefighting network and gas firefighting system (as per drawings/BOQ).
- HVAC / ventilation: wall-mounted axial fans, ceiling aspirators/exhaust, and rain-proof louvers.
- Electrical & grounding: grounding/earthing conductors and accessories; power supply and lighting systems including cabling, switches/sockets, DBs and related installation items.
- Boundary wall works: concrete and brickwork, plastering and painting, embedded steel parts, and barbed wire along the perimeter.
- Mobilization and temporary facilities: site security, temporary fencing and site establishment items as scheduled in BOQ.