

# ASRS & Knitting / Warehouse Building – Phase 1 (Design & Build Package)

*How Are You Industrial Project – Dhaka–Mymensingh Highway, Mawna, Bangladesh*

**Project overview.** The package covers the design, construction and completion of a new ASRS (Automated Storage & Retrieval System) and Knitting/Warehouse building integrated as one facility, including associated MEP works and coordination with ongoing 24/7 production operations through phased construction planning.

## Key concepts / requirements.

- Maintain live-factory interface: production remains operational (24/7) during construction; coordinate access, phasing, and safety.
- ASRS design intent: minimise internal column rows within enclosed storage space to 2 rows; design for high racking point loads.
- Structural loading criteria (ASRS): 7 ton/m<sup>2</sup> floor loading and 11.5 ton at racking column point (as noted in Employer's Brief).
- Knitting building clear heights: GF Fabric WHSE (12 m clear + 1.5 m services), 1F Yarn WHSE (6 m clear + 1.5 m services), and knitting floors above.

## Storey summary (as described).

- Knitting/Warehouse building levels: Ground Floor + 1st Floor + 2nd-4th Floors (total 5 storeys) with Roof level above.
- 11 kV Power Station: Ground Floor + 1st Floor (2 storeys).
- Boiler Room (GF) and Compressor Room (1F) are shown as dedicated facilities in the revised master plan.

## Master plan structures and floor areas (as indicated on the revised master plan).

Structure / facility	Floors / level	Floor area
Utility Building - Gas & Diesel Generator (GF)	1 storey (GF)	22,700 sft
11 kV Power Station	GF + 1F	4,220 sft (GF) + 4,220 sft (1F)
Production Building	Main production + support	Production: 194,548 sft; Office: 12,820 sft (GF) + 12,820 sft (1F); Auto Dispensary (Indoor): 16,747 sft; Auto Dispensary (Indoor): 5,230 sft
ETP/WTP	Plant area	45,885 sft
Outside Substation (33 kV)	Outdoor facility	4,305 sft
Water Reservoir - Location 01	Reservoir areas	Area 01: 15,236.5 sft; Area 02: 3,625 sft
Boiler Room	GF	2,325 sft
Compressor Room	1F	2,325 sft
Chemical Store	Single floor	4,000 sft

**BoQ-derived floor-area indicator (Excel):** Reference quantity for "Concrete Floor FF=40 FL=30" is 33,000 m<sup>2</sup> (treated floor finish area) and layout/markings reference quantity is 8,360 m<sup>2</sup> (indicative building footprint). These quantities are taken from the BoQ and may not represent the gross built-up area.