

Technical Apparels (Pvt.) Limited.

Plot 01, Sector 7, CEPZ, Chattogram

(22.296867, 91.773659)

15 April 2025



1. Building Information

Factory Building: Partially six-storied (G+5) reinforced concrete (RC) building.

Security & Fire Pump Room: Single-storied RC building with a basement (B+G).

2. Observations

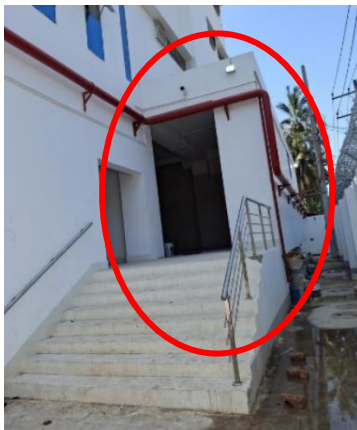
Observation-1: Lack of design documents and load plan (Factory Building)



Description: As per BNBC, every building or structure designed shall have its design documents prepared under the provisions of Section 1.9. The design document shall include a design report and a set of structural drawings, which shall be prepared in compliance with section 1.9.2 and section 1.9.3 as per BNBC 2020.

At the time of inspection, the design report, floor load plan & sufficient material test report were not available. Building engineer is required to prepare a set of design documents, including design report, as-built drawings and a floor load plan in compliance with BNBC based on in-situ material strength.

Observation-2: Connection between extension part and septic tank walls (Factory Building)



Description: The stair and substation portion of the building has been constructed as an extension, projecting outward from the main building structure. This extension is connected to the adjacent septic tank using reinforced concrete (RC) walls and short columns.

The extension's grade beam is supported by RC short columns that extend down to the ground level (GL).

However, the vertical building columns above this grade beam are not aligned with these short columns; instead, they are supported either from different locations or from a cantilever slab.

Given this unconventional structural configuration, particularly the reliance on the septic tank structure for support, the connection between the building extension and the RC walls of the septic tank must be thoroughly investigated and structurally evaluated to ensure safety, stability, and compliance.

Observation-3: Discrepancies in the as-built drawing (Factory Building)



Additional brick wall & build-up for roof gardening provision



Buildup at the toilet zone



1000 litre PVC water tank



2000 litre PVC water tank

Description: Additional brick walls at the roof gardening and build up at the roof gardening & toilet area, two PVC water tanks (1000 litre at 5th floor dining, 2000 litre near RC OHWR) were not mentioned in the as-built architectural drawing.

Observation-4: Non-structural elements found unbraced/not anchored (Factory Building)



Description: Unbraced and unanchored steel storage racks were found on several floors, and PVC water tanks were found unbraced on the 5th floor dining area and beside the RC overhead water tank.

Observation-5: Column susceptible to vehicle impact (Factory Building)



Description: The columns at the ground floor loading-unloading zone are susceptible to vehicle impact. The factory is required to provide separate safety barriers around the columns to protect from possible vehicle impact.

Observation-6: Water ponding (Factory Building)



Description: Water ponding was found on the roof. The building engineer is required to improve the roof drainage system by providing an adequate number of outlets and developing adequate slope.

Observation-7: Falling Hazard (Both structures)



Factory Building



Security & Fire Pump Room

Description: The ground floor stairs were found without railings. The factory is required to install appropriate railings to prevent fall hazards.

Observation-8: Lack of design documents (Security & Fire Pump Room)



Structurally
connected
UGWR

Description: As per BNBC, every building or structure designed shall have its design documents prepared in accordance with the provisions of Section 1.9. The design document shall include a design report and a set of structural drawings, which shall be prepared in compliance with section 1.9.2 and section 1.9.3 as per BNBC 2020.

At the time of inspection, as-built drawings and design report were not available. The building engineer is required to prepare a set of design documents in compliance with BNBC based on current loading conditions.

3. Action Plan

Item No.	Observation	Action Plan	Timeline
1.	Lack of design documents and load plan (Factory Building)	Verify in-situ material strength for concrete by taking 100 mm diameter minimum 4 nos. from columns and 4 nos. from beam/slab.	within 6 weeks
2.		Produce floor live load plan for all floor plates following BNBC requirements and based on column & foundation capacity.	within 6 weeks
3.		The building engineer is required to prepare a set of design documents in compliance with BNBC 2020 based on the floor load plan and in-situ material strength.	within 6 weeks
4.		Carry out suggested remedial works if required	within 6 months
5.	Connection between the extension part and the septic tank walls (Factory Building)	Incorporate the adequacy check of the connection between the extension part and the septic tank walls (Factory Building)	within 6 weeks
6.		Carry out suggested remedial works if required	within 6 months
7.	Discrepancies in the as-built drawing (Factory Building)	The building engineer is required to survey the whole structure and update the as-built drawings as per site conditions.	within 6 weeks
8.	Non-structural elements found unbraced/not anchored (Factory Building)	The factory is required to brace/anchor all non-structural elements (storage racks) to prevent falling during earthquake.	within 6 months
9.	Column susceptible to vehicle impact (factory Building)	The building engineer is required to provide separate barriers around the column to protect the column from possible vehicle impact.	within 6 months
10.	Water ponding (Factory Building)	The building engineer is required to improve the roof drainage system by providing an adequate number of outlets and developing a proper slope.	within 6 months
11.	Falling hazard/lack of railing (Both structures)	The factory is required to install appropriate railings to prevent fall hazards.	within 6 weeks
12.	Lack of design documents (Security & Fire Pump Room)	The building engineer is required to prepare a set of design documents in compliance with BNBC based on the vehicle loading conditions.	within 6 weeks
13.		Carry out suggested remedial works if required	within 6 months