

Barnali Collections Ltd

Chittaranjan Textile Polli, Arambag, Godnail, Narayanganj-1432

(23.648869, 90.517115)

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Structural Inspection Report

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1. Building Information

Building-1 (Production Building): Four storied RC building with a mezzanine (G+M+3).

Building-2 (Utility Building): Two storied RC building.

Building-3 (Security & Fire Controls Room): Single storied RC building.

Building-4 (Fire Pump Room): Single storied RC building with basement (B+1).

2. Observations

Observation-1: Boundary wall leaned south side of Building 1 (Production Building)



Leaned Boundary wall



Earthwork ongoing opposite of the wall

Description: During the inspection, a portion of the boundary wall was found leaning toward the factory premises on the south side of Building 1 (Production Building). Earthwork is ongoing on the far side of the boundary wall. The boundary wall is potential to hazard.

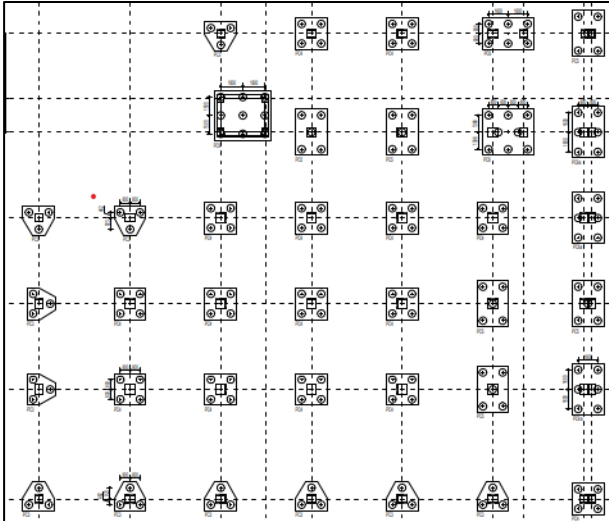
Observation-2: Lack of design documents (Building 1 - Production Building).



Description: As per BNBC, every building or structure designed shall have its design documents prepared in accordance with the provision of Section 1.9.1. During inspection, the design report was not available on site. In addition, the available test results are insufficient to meet the evaluation and acceptance criteria of BNBC.

The building engineer is required to prepare a set of design documents including as built drawings and a design report based on in-situ material strength and software-based analysis which shall be prepared in compliance with section 1.9.1, part-6 of BNBC.

Observation-3: Eccentricity of pile cap (Building 1 - Production Building).



Description: Factory may have to extend the building horizontally southside of the building. As per pile cap layout at grid 7 & 8, double column was observed on single pile cap. One column was constructed up to the full height of the building, but another one was constructed up to mid-height of ground floor. So, the pile cap became eccentric. Building engineer is required to check adequacy of the pile cap for eccentricity.

Observation-4: Column susceptible to trolley impact (Building 1 - Production Building).



Description: Some columns on the ground floor were found susceptible to trolley impact. The building engineer is required to provide barriers around the column to prevent trolley impact.

Observation-5: Lack of design documents (Building 2 - Utility Building).



Description: As per BNBC, every building or structure designed shall have its design documents prepared in accordance with the provision of Section 1.9.1. During inspection, the design report was not available on site. In addition, the available test results are insufficient to meet the evaluation and acceptance criteria of BNBC.

The building engineer is required to prepare a set of design documents including as built drawings and a design report based on in-situ material strength and software-based analysis which shall be prepared in compliance with section 1.9.1, part-6 of BNBC.

3. Action Plan

Observation	Action Plan	Timeline
Boundary wall leaned south side of Building 1 (Production Building)	The factory is required to immediately restrict the entry to the south side set back of the building and provide necessary support to the deflected walls to avoid potential collapse.	Immediate
	The factory is required to demolish the deflected/damaged portion of the boundary wall. During the demolition work, the factory is required to follow standard safety practice as per BNBC.	within 6 weeks
	Further new construction of the boundary wall should be properly designed and supervised by a qualified structural engineer.	within 6 months
Lack of design documents (Building 1 - Production Building).	Verify in situ concrete strength (100mm dia. cores from 4 columns) from lower tier of the building.	within 6 weeks
	The building engineer is required to prepare a set of design documents including as built drawings and a design report based on in-situ material strength and software-based analysis which shall be prepared in compliance with section 1.9.1, part-6 of BNBC.	within 6 weeks
	Carry out suggested remedial works if required.	within 6 months
Eccentricity of pile cap (Building 1 - Production Building).	The building engineer is required to check adequacy of the pile cap for eccentricity.	within 6 weeks
	Carry out remedial work if required.	within 6 months
Column susceptible to trolley impact (Building 1 - Production Building).	The building engineer is required to provide barriers around the column to prevent trolley impact.	within 6 months
Lack of design documents (Building 2 - Utility Building).	Verify in situ concrete strength (100mm dia. cores from 4 columns) from lower tier of the building.	within 6 weeks
	The building engineer is required to prepare a set of design documents including as built drawings and a design report based on in-situ material strength and software-based analysis which shall be prepared in compliance with section 1.9.1, part-6 of BNBC.	within 6 weeks
	Carry out suggested remedial works if required.	within 6 months