NAYEM KNITWEAR LTD - Extension
(Previously UNION KNITTING AND DYEING LTD)

42 & 44 BORO RANGAMATIA, ZIRABO, SAVAR, DHAKA, BANGLADESH.

(23.912118, 90.3061516)

25 September 2024

RSC RMG SUSTAINABILITY COUNCIL

Level 5, Shanta Forum, 187, 188/B,
Bir Uttam Mir Shawkat Sarak, Tejgaon,
Dhaka- 1208, Bangladesh
PABX : +880 2 41081863-6
www.rsc-bd.org

1. Building Information

1. This is a three-story (G+2) reinforced concrete (RC) building.
2. This is a two-storied (G+1) reinforced concrete (RC) building.
3. Single-storied RC office building.
4. Single-storied Doctor & Childcare Shed.
5. Single-storied RC Boiler & Compressor Building.
6. Single-storied Fire Control Room.

2. Observations:

Observation-1: Storage live load does not comply with BNBC requirements. (Factory Building (New))

INDUSTRIAL, STORAGE & HAZARDOUS (Occupancy - G, H & J)	Workshop, factory, warehouse	1 Light workroom without storage	3.0	2.7
		2 Machinery hall & circulation area	4.0	4.5
		3 Factory, workshop etc.	5.0	4.5
		4 Manufacturing : light	6.0	4.5
		heavy	12.0	9.0 (5)
		ice	15.0	9.0 (5)
		5 Printing plant :		(5)
		Press room	7.0	11.0
		Composing and linotype room	5.0	9.0 (5)
		Paper storage room	12.0	9.0 (5)
		6 Motor room, fan room etc. including the weight of machinery	7.5	4.5
		7 Cold storage, grain storage	15.0	9.0 (5)
		8 Storage warehouses : light	6.0	4.5 (5)
		heavy	12.0	9.0
		9 Foundries	20.0	12.0

Live load table (BNBC part 6)

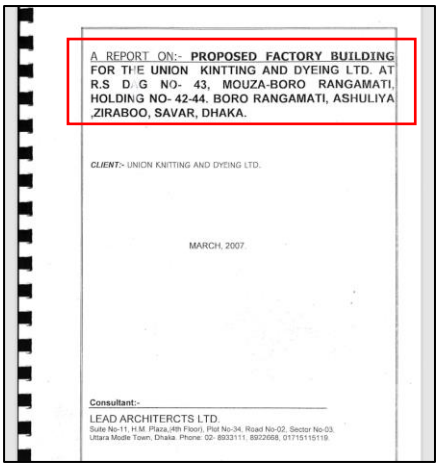
1ST FLOOR LOADING FOR THIS FLOOR

NO.	TYPE	ITEM	MAX. LOAD IN PSF	DESCRIPTION
01	LIGHT	FABRIC STORE	63	TYPICAL STORAGE
02	LIGHT	CAD ROOM	63	TYPICAL FURNITURE
03	LIGHT	SAMPLE SECTION	63	TYPICAL FURNITURE
04	LIGHT	TOILET	42	TYPICAL TOILET
05	LIGHT	STAIR	105	TYPICAL STAIR

Prepared load plan for 1st floor

Description: The live load on the storage area of the 1st floor is considered 3 kPa (63 PSF) in the prepared load plan. As per BNBC-2006, the live load for light storage areas is required to be considered a minimum of 6 kPa. The building engineer is required to revise the load plan as per BNBC requirement and check the design accordingly.

Observation-2: Inconsistencies in geotechnical investigation report. (Factory Building (New))

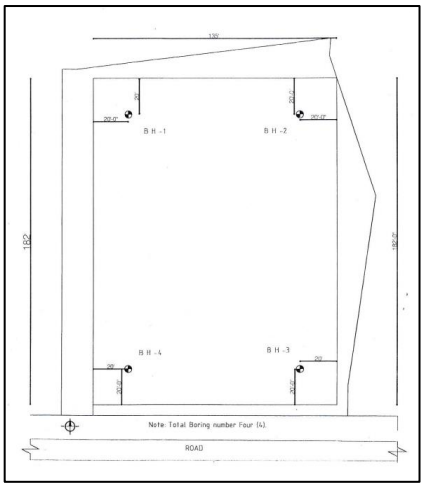

A REPORT ON:- **PROPOSED FACTORY BUILDING** FOR THE UNION KINTTING AND DYEING LTD. AT R.S D.G NO- 43, MOUZA-BORO RANGAMATI, HOLDING NO- 42-44, BORO RANGAMATI, ASHULIYA ,ZIRABOO, SAVAR, DHAKA.

CLIENT:- UNION KNITTING AND DYEING LTD.

MARCH, 2007

Consultant:-

LEAD ARCHITERCTS LTD.



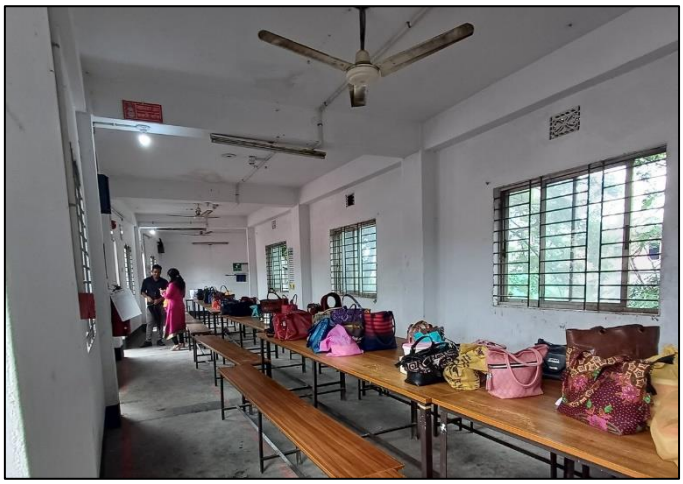
Soil test report provided by Factory

Description: During the inspection, the factory provided soil test report for the factory building (New). However as per the factory name and bore layout, it was found that the soil test report was for the Main factory shed (covered in the previous ID) not for this structure. The building engineer is required to prepare the geotechnical investigation report for this structure and check the design accordingly.

Observation-3: Lack of anchorage of non-structural elements. (Factory Building (New))

Description: On the roof top, PVC water tank was not found anchored/braced. The building engineer is required to anchor/brace all the non-structural elements within this building.

Observation-4: Absence of design documents. (Dinning 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. The design document shall include a design report, and a set of structural drawings, which shall be prepared in compliance with section 1.9.1.1 and section 1.9.1.2 as per BNBC. At the time of inspection, only a set of as-built drawings were available, but the design report, load plan, and geotechnical investigation report were not available. The building engineer is required to prepare the design report, load plan, and geotechnical investigation report in compliance with section 1.9.1 (Part 6, BNBC).

Observation-5: Exposed rebar on roof. (Dinning Building)

Description: Exposed reinforcement is left at roof, which was prone to corrosion. The building engineer is required to provide rust proof coating on the exposed reinforcement to protect from corrosion.

Observation-6: Crack on Brick wall. (Dinning Building)

Description: Crack found on 1st floor brick wall of Dinning Building. The building engineer is required to investigate the cause of wall cracks and repair with a suitable method.

Observation-7: Dampness on roof slab and brick wall. (Dinning Building)

Dampness on roof slab

Dampness on wall

Description: Dampness found on roof slab and brick wall of Dinning Building. The building engineer is required to investigate the cause of dampness and repair with a suitable method.

Observation-8: Exposed rebar on roof. (Office Building)

Description: Exposed reinforcement is left on roof, which was prone to corrosion. The building engineer is required to provide a rust-proof coating on the exposed reinforcement to protect it from corrosion.

Observation-9: Incomplete as-built drawing. (Doctor & Childcare, Fire Control Room; and Boiler & Compressor Building)

Doctor & Childcare

Fire Control Room

Boiler & Compressor Building

Description: During the inspection, as-built drawings of super structure were found for these structures. But the foundation and connection details were not available in the provided drawings. The building engineer is required to conduct an onsite investigation and produce complete as-built drawings for all structures including foundation and connection details.

3. Action Plan

Item No.	Observation	Action Plan	Timeline
1	Storage live load does not comply with BNBC requirement. (Factory Building (New))	The building engineer is required to revise the load plan as per BNBC requirement and check the design accordingly.	within 6 weeks
2		Produce and actively manage live load plan.	within 6 weeks
3		Carry out suggested remedial works if required.	within 6 months
4	Inconsistencies in geotechnical investigation report. (Factory Building (New))	The building engineer is required to conduct geotechnical investigation to close the vicinity of the building, prepare report, and check the foundation design accordingly.	within 6 weeks
5	Lack of anchorage of non-structural elements. (Factory Building (New))	The building engineer is required to anchor/brace all the non-structural elements.	within 6 weeks
6	Absence of design documents. (Dinning Building)	The building engineer is required to prepare the design report, load plan, and geotechnical investigation report in compliance with section 1.9.1 (Part 6, BNBC).	within 6 weeks
7		Produce and actively manage live load plan.	within 6 weeks
8		Carry out suggested remedial works if required.	within 6 months
9	Exposed rebar on roof. (Dinning Building)	Provide rust proof coating on the exposed reinforcement to protect from corrosion.	within 6 weeks
10	Crack on Brick wall. (Dinning Building)	The building engineer is required to investigate the cause of wall cracks and repair with a suitable method.	within 6 weeks
11	Dampness on roof slab and brick wall. (Dinning Building)	The building engineer is required to investigate the cause of dampness and repair with a suitable method.	within 6 weeks
12	Exposed rebar on roof. (Office Building)	Provide rust proof coating on the exposed reinforcement to protect from corrosion.	within 6 weeks
13	Incomplete as-built drawing. (Doctor & Childcare, Fire Control Room; and Boiler & Compressor Building)	The building engineer is required to produce complete as-built drawings for all the structures including foundation and connection details.	within 6 weeks