

KM Nobely Garments Ltd (Extension Building)

8/1 Zorun, Konabari Gazipur- 1702

(24.000314, 90.323740)

24th May 2022

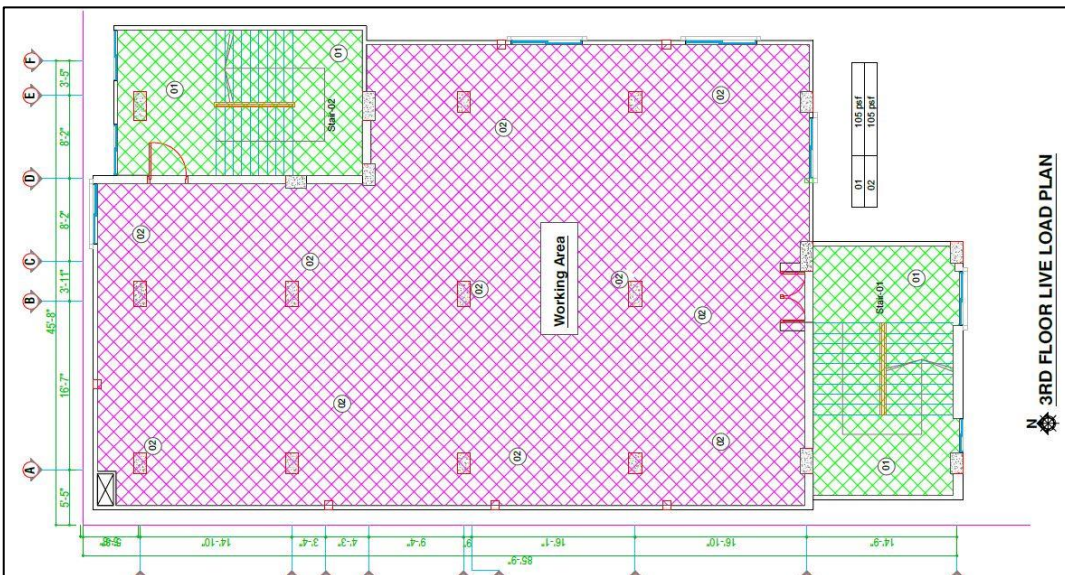


Building Information

6 storied RC Building: six storied (G+5) reinforced concrete (RC) building.

Observations

Design report needs to be revised



Floor live load plan with 105 psf (5 kN/m²) loading limit



Floor Loading

As per factory management, the 3rd & 4th floor is allotted for finished goods area. As per BNBC, the minimum floor live load for light storage is 6 kN/m² (125 psf). The storage in this building is designed for 5 kN/m² live loads.

The building engineer is required to revise the storage live load limit and related design documents accordingly based on BNBC requirement.

4.5		1 Light workroom without storage	3.0	2.7
		2 Machinery hall & circulation area	4.0	4.5
1.8		3 Factory, workshop etc.	5.0	4.5
		4 Manufacturing : light	6.0	4.5 ⁽⁵⁾
		heavy	12.0	9.0 ⁽⁵⁾
		ice	15.0	9.0 ⁽⁵⁾
2.7		5 Printing plant :		(5)
4.5		Press room	7.0	11.0
		Composing and linotype room	5.0	9.0 ⁽⁵⁾
		Paper storage room	12.0	9.0 ⁽⁵⁾
2.7		6 Motor room, fan room etc. including the weight of machinery	7.5	4.5
4.5		7 Cold storage, grain storage	15.0	9.0 ⁽⁵⁾
4.5		8 Storage warehouses : light	6.0	4.5 ⁽⁵⁾
		heavy	12.0	9.0
7.0		9 Foundries	20.0	12.0

Expose rebar at roof



Exposed rebar at column on the roof

Exposed reinforcement was found extended from parapet on roof. All exposed reinforcement is to be protected from corrosion which may cause degradation of the concrete. Factory engineer is required to take necessary measures to prevent the corrosion in exposed rebar.

Stacking of construction material on the roof



Stacking of construction materials and debris found on the roof.

Water proofing layer not found



The roof slab is made of brick aggregate. Water proofing layer has not been applied yet. The factory engineer is required provide water proofing layer with proper drainage system and adequate sloping on the roof to avoid water ponding.

Falling Hazard



No handrail/edge protection was provided near stair on roof. The factory engineer is required to take necessary measures to provide railing to mitigate the falling hazard.

Lack of as-built drawings

Observation: Security Building



No drawing was found for the Security Building. Building engineer is required to survey the structure and produce as-built drawing as per BNBC.

Tests carried out



Stone Chips (Column)



Brick Chips (Slab)c



Rebar Scan by ferro-scanning



Stone Chips (Beam)

Problems Observed

6 Storied RC Building :

Item 01: Design report needs to be revised.

Item 02: Expose rebar at roof.

Item 03: Stacking of construction material on the roof.

Item 04: Water proofing layer not found.

Item 05: Falling hazard.

Security Building:

Item 06: Lack of as-built drawings.

Priority Actions

Item No.	Observation	Recommended Action Plan	Recommended Timeline
01	Design report needs to be revised (6 storied RC Building)	The building engineer is required to revise the storage live load limit and related design documents accordingly based on BNBC requirement.	6-weeks
02	Design report needs to be revised (6 storied RC Building)	Revise and actively manage a set of floor loading plan following BNBC.	6-weeks
03	Design report needs to be revised (6 storied RC Building)	Implement the recommendations of design report.	6-months
04	Design report needs to be revised (6 storied RC Building)	Implement floor load plan.	6-months
05	Exposed rebar found (6 storied RC Building)	All exposed reinforcement is to be protected from corrosion.	6-weeks
06	Stacking of construction material on the roof (6 storied RC Building)	Remove construction materials and debris from the roof.	6-weeks

Item No.	Observation	Recommended Action Plan	Recommended Timeline
07	Water proofing layer not found (6 storied RC Building)	The factory engineer is required provide water proofing layer with proper drainage system and adequate sloping on the roof.	6-months
08	Falling Hazard (6 storied RC Building)	The factory engineer is required to provide railing/barrier to mitigate the falling hazard.	6-weeks
09	Lack of as-built drawings (Security Building)	Building engineer is required to survey the structure and produce as-built drawing as per BNBC.	6-weeks