

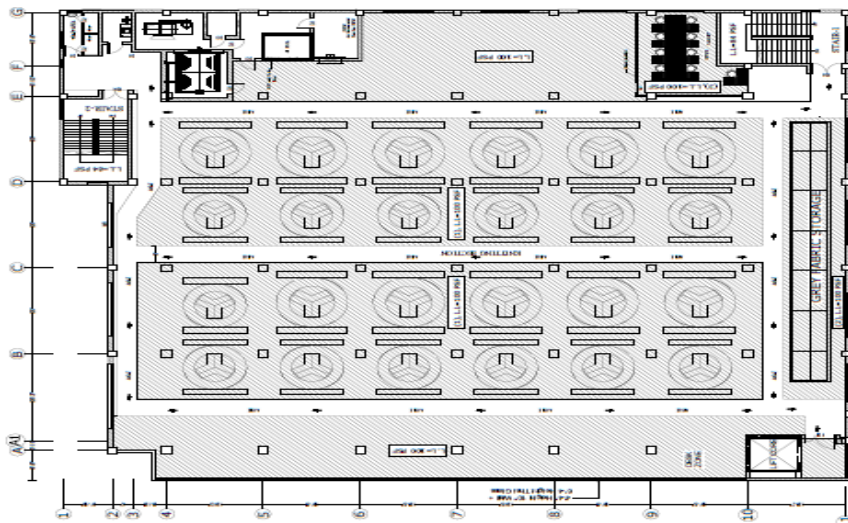
Liz Knitting & Printing Industry.

Holding-1,Block-C, Shaheed Mosharaf Hossain Road,
Purbo Chandora, Sofipur, kaliakoir, Gazipur.
(24.032036 N, 90.270180 E)
28 February 2022



Observations

Floor load plan management



TYPICAL FLOOR LOADING FOR THIS FLOOR				
NO.	TYPE	ITEM NAME	MAX PSF LOAD	DESCRIPTION
1	LIGHT	KNITTING SECTION	100	24 NOS. KNITTING MACHINE, WEIGHT= 6 KIP
2	LS	STORE	100	GREY FABRIC STORAGE
3	LIGHT	OFFICE AREA	100	TYPICAL OFFICE AREA

Load consideration on 4th floor (5 kPa)

4th floor layout plan



Uncontrolled loading on floors

INDUSTRIAL STORAGE & HAZARDOUS (Occupancy - G, H & I)	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 ⁽⁵⁾
		heavy	12.0	9.0 ⁽⁵⁾
		ice	15.0	9.0 ⁽⁵⁾
		5 Printing plant :		
		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

As per BNBC, the minimum floor live load for light storage is 6 kN/m² (126 psf). The storage in this building is designed for 5 kN/m² live loads. The building engineer is required to check the occupancies and update the floor live loading plan for all floors based on BNBC requirements and manage the floor loading accordingly.

Observations: Building-2

Crack found in the façade wall and brick wall



Fig- Crack on façade wall



Fig- Crack on the brick wall

Crack observed in the several locations of the façade wall and partition wall of the building-2. Factory Engineer is required to investigate the crack in the brick wall and carry out remedial measure as per investigation report.

Water ponding on the roof



Water ponding on the roof slab



Signage of water ponding due to lack of proper sloping

Standing water observed on the roof of the building-2 due to lack of proper sloping. The building engineer is required to provide proper sloping and clear all kinds of obstacles near the outlet of drainage pipe to wash out the storm water properly.

Lack of lateral load transfer media



Compression Strut Missing



Compression Strut Missing

Missing compression strut on roof



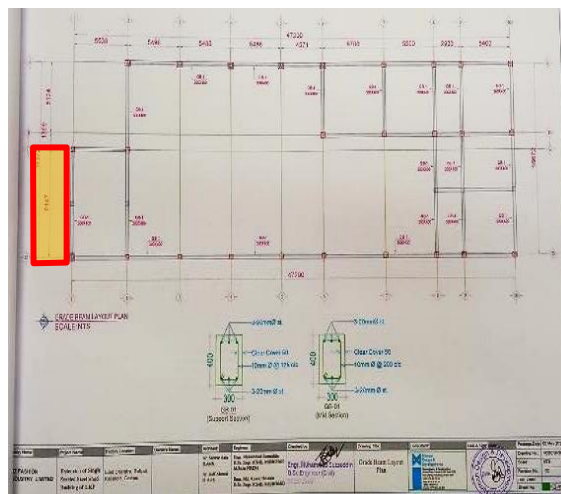
Missing bracing at roof

The building engineer is required to check the stability of the structure. Also take proper remedial action where required.

Discrepancies between drawings and as-built condition



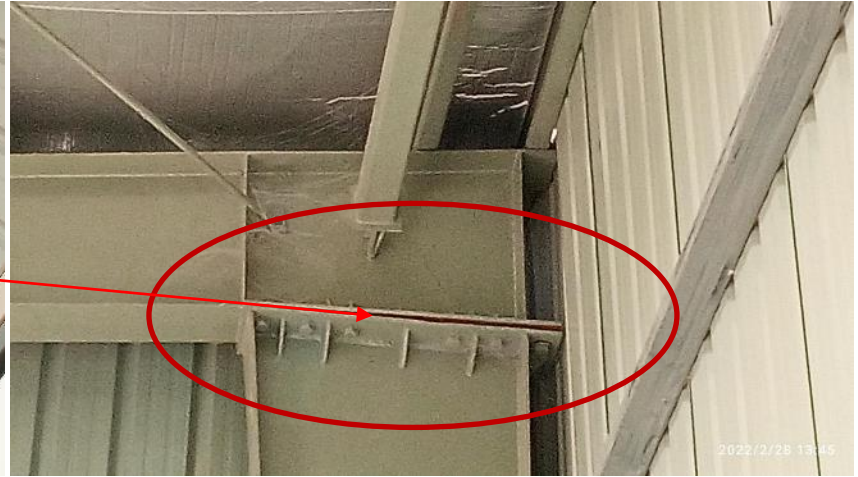
Missing bracing at roof



Missing bracing & undocumented extension of shed has been found on south side of the structure. The building engineer is required to survey the structure and produce accurate as built drawings.

Undocumented extension

Significant gaps in connection & bolt missing



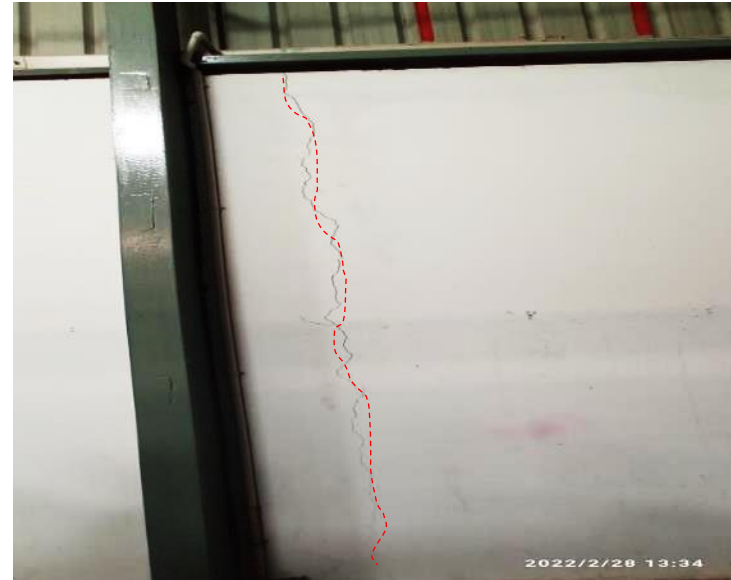
Gaps between connection plates



Missing bolts

Missing bolts and connection gaps in several locations were observed. The building is required check the structure to identify the missing bolts & connection gaps and take necessary actions as per the engineer's suggestion.

Crack found on the brick wall



Crack on the brick wall

Crack on the brick wall found in the several locations of the shed-1. The building engineer is required to investigate the crack in the brick wall and carry out remedial measure as per investigation report.

Problems Observed

Building-2 :

Item 01: Floor load plan management .

Item 02: Crack found in the façade wall and brick wall.

Item 03: Water ponding on the roof top.

Shed-1 :

Item 04: Lack of lateral load transfer media.

Item 05: Discrepancies between drawings and as-built condition.

Item 06: Significant gaps in connection & bolt missing.

Item 07: Crack found on the brick wall.

Priority Actions

Item No.	Observation	Recommended Action Plan	Recommended Timeline
01	Floor load plan management (Building-2)	The building engineer is required to check the occupancies and update the floor live loading plan for the building based on BNBC loading requirements and capacity of building floor, column & foundations.	6-weeks
02	Floor load plan management (Building-2)	Implement the floor loading plan (by posting in each floor level, providing signage and maintaining loadings)	6-months
03	Crack found in the façade wall and brick wall (Building-2)	The building engineer is required to investigate the crack in the brick wall and carry out remedial measure as per investigation report.	6-weeks
04	Water ponding on the roof (Building-2)	The building engineer is required to improve the roof drainage system with adequate slope and clear all kinds of obstacles near the outlet of drainage pipe.	6-months

Item No.	Observation	Recommended Action Plan	Recommended Timeline
05	Lack of lateral load transfer media (Shed-1)	The factory engineer is required to check the stability system of the structure and suggest the remedial actions accordingly.	6-weeks
06	Lack of lateral load transfer media (Shed-1)	Carry out remedial works where necessary.	6-months
07	Discrepancies between drawings and as-built condition (Shed-1)	The building engineer is required to survey the structure and produce accurate as built drawings.	6-weeks
08	Significant gaps in connection & bolt missing (Shed-1)	The building is required check the structure to identify the missing bolts & connection gaps and take necessary actions as per the engineer's suggestion.	6-weeks
09	Crack found on the brick wall (Shed-1)	The building engineer is required to investigate the crack in the brick wall and carry out remedial measure as per investigation report.	6-weeks