

Liz Knitting & Printing Industry (Extension)

Holding-1,Block-C, Shaheed Mosharaf Hossain Road, Purbo Chandora, Sofipur, kaliakoir, Gazipur.

(24.032064, 90.270202)

26 May 2024

Structural Inspection Report



1. Building Information:

LKP-3 Building: Five-storied (G+4) concrete building

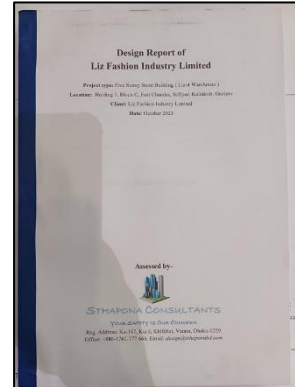
Connecting Bridge: Single-storied steel connecting bridge

2. Observations

Observation 1: Prepared design documents to be reviewed for lateral forces. (LKP-3 Building)



LKP-3 Building



Design report

Description: A set of design documents was available onsite which are to be submitted to RSC for detailed review against lateral forces. Revise the design documents based on in-situ material strength. Submit the design documents to the RSC for review.

Observation 2: Lack of lateral stability for undocumented external steel lift cores. (LKP-3 Building)



Description: Two steel lift cores were observed in front of the building with some anchorage at the bottom. The building engineer is required to check the lateral stability of the lift cores against wind & seismic forces and suggest necessary alternatives accordingly.

Observation 3: Lack of floor load management program (LKP-3 Building)



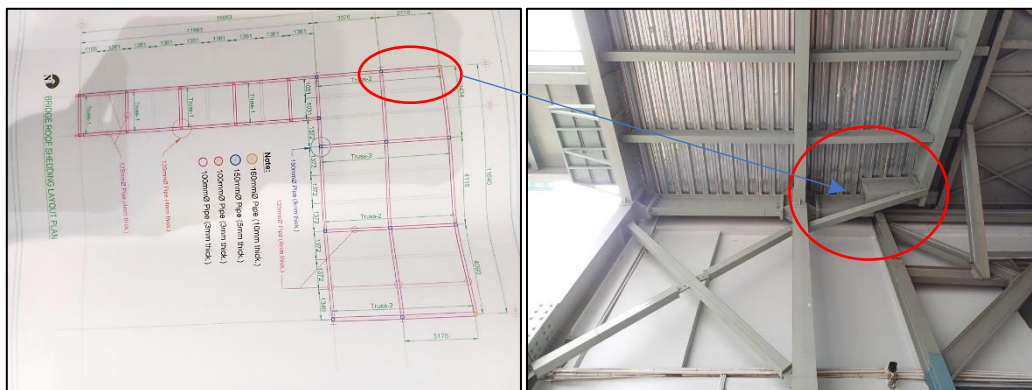
Description: Load plan was prepared for all floors but was not posted on all floor levels.

Observation-4: Damage on the column due to vehicle & trolley impact (LKP-3 Building)



Description: Damage due to vehicle impact was found on the column of the loading-unloading zone. The building engineer is required to repair the damage to the column and provide separate barriers around the susceptible ground floor columns to avoid possible vehicle impact. Also, provide column/wall guard in the floor area to protect the column/walls from trolley impact.

Observation-5: Discrepancy in as-built drawing. (Connecting Bridge)



Description: Zigzag beam observed onsite where drawing shows straight beam. The building engineer is required to survey the beam alignment, size & connections and prepare accurate as-built drawings accordingly.

Observation-6: Inconsistency in the design report. (Connecting Bridge)

	Quote No	Liz Fashion Industry Limited	Revision No	R00
	Client		Designed By	Md. Anwar Hossain
		Connecting Bridge	Checked By	
			Date	01-04-2023

MATERIAL SPECIFICATION:

The following standard materials are used for the member / component design:

Steel Plates..... ASTM A572, Gr. 50, Fy=345 MPa or equivalent

Cold Formed members ASTM A653M Grade 345

Rods (X-Bracing)ASTM A36 or equivalent

AnglesASTM A36 or equivalent

Anchor Bolts ASTM, Gr. 36 or equivalent

High Strength Bolts.....: DIN 933 HEX Bolt Grade 8.8

Description: 50-grade steel strength was considered in the calculation of the design report, but a test report was not available. Also, the structural analysis was done considering a straight beam where a cantilever beam was zigzag. The building engineer is required to check the design against lateral forces based on as-built drawings, in-situ material strength and proper connection types. Submit the revised design documents to the RSC for review.

3. Action Plan

Item No	Observation	Action Plan	Timeline
1.	Prepared design documents to be reviewed for lateral forces. (LKP-3 Building)	The building engineer is required to submit the design documents to the RSC for detail review against wind & seismic forces.	within 6 weeks
2.		Carry out suggested remedial works if required.	within 6 months
3.	Lack of lateral stability for undocumented external steel lift cores. (LKP-3 Building)	As part of Engineering Assessment (EA), the building engineer is required to check the lateral stability of the lift cores against wind & seismic forces and suggest necessary alternatives accordingly. Submit the documents to the RSC for review.	within 6 weeks
4.		Carry out remedial work if required.	within 6 months
5.	Lack of floor load management program (LKP-3 Building)	Implement floor load management program ((posting load plan, marking area & height, and maintaining floor loading)).	within 6 weeks
6.	Damage on the column due to vehicle & trolley impact (LKP-3 Building)	The building engineer is required to repair the damage to the column and provide separate barriers around the susceptible ground floor columns to avoid possible vehicle impact. Also, provide column/wall guard in the floor area to protect the column/walls from trolley impact.	within 6 weeks
7.	Discrepancy in as-built drawing. (Connecting Bridge)	The building engineer is required to survey the beam alignment, size & connections and prepare accurate as-built drawings accordingly.	within 6 weeks
8.	Inconsistency in the design report. (Connecting Bridge)	The building engineer is required to check the design against lateral forces based on as-built drawings, in-situ material strength and proper connection types. Submit the revised design documents to the RSC for review.	within 6 weeks
9.		Carry out remedial works if required.	within 6 months