

Shanta Expression Limited (Extention)

Kakil, Shataish, Mudafa, Vadam Road, Tongi, Gazipur.

(23.904543, 90.374869)

26 February 2025

Structural Inspection Report



1. Building Information:

Production & Utility Building,

Boiler room

RMS & CP Room,

Security room &

DISEL Store shed.

Seven-storied RC building.

Single-storied RC building.

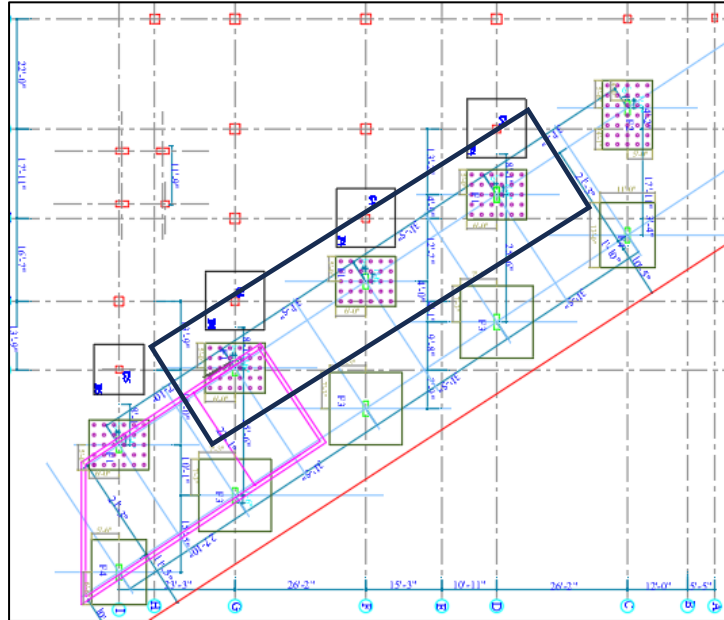
Single-storied RC building.

Single-storied building.

Single-storied steel shed.

2. Observations

Observation 01: Marginally stress above normal design limit in column and foundation (Production & Utility Building).



Description: Cursors calculation indicates that stress in the columns and foundation exceeds the normal design limit in the highlighted columns and foundation (marked in the layout) for the 7-storied structure.

Building engineer is required to perform in-situ material strength, review the design of the foundation stress and prepare a Detail Engineering Assessment (DEA) report with a proper remediation plan and submit to RSC for review.

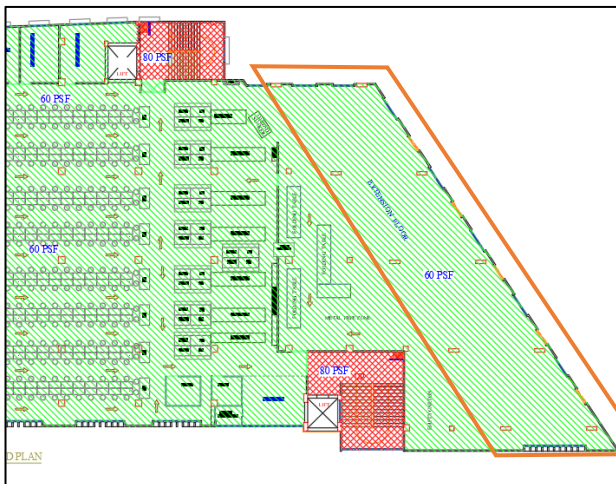
Observation 02: Lack of Lateral Stability (Production & Utility Building).



Description: This structure is a 7 storied structure with a single bay and the width of this building is very less compared to its length.

The building engineer is required to check the stability of this structure against lateral forces, stresses and serviceability's as part of DEA and submit to RSC for review.

Observation-3: Occupancy doesn't match with prepared load plan and onsite floor uses (Production & Utility Building).



Description: Prepared load plans are not matched with the current floor loading on some floors. Some temporary stores were found on the 3rd to 5th floor, which are designated as 3 kPa live load in prepared load plan for regular uses.

Building engineer is required to update load plan as per floor uses.

Observation 4: Cracks and signs of water intrusion on bottom of roof slab (Production & Utility Building).



Description: Cracks and signage of water intrusion were observed on bottom of roof slab. The building engineer is required to prepare an investigation report with suitable remedial method and submit to RSC for review.

Observation 5: Trolley impact and surface damage (Production & Utility Building).



Trolley impact and surface damage on columns

Description: Damage due to trolley impact was observed on different floor columns. The building engineer is required to provide columns guard to protect from trolley impact.

Observation 6: Lack of anchorage/braced of non-structural elements (Production & Utility Building).



Description: Non-structural elements (storage racks) were found not anchored & unbraced. The factory is required to brace/anchor all the non-structural elements within the building.

Observation 7: Lack of as-built drawings (Boiler room, RMS & CP Room & Security room)



Description: During inspection, no credible drawings were available for these structures. The building engineer is required to survey these structures and prepare accurate as-built drawings.

3. Action Plan

SL	Observation	Action Plan	Timeline
1.	Marginally stress above normal design limit in column and foundation (Production & Utility Building).	Verify in-situ concrete material strength by taking concrete cores (minimum 4 nos and 100 mm diameter) from lower tier building columns.	within 6 weeks
2.		Building engineer is required to review, design of foundation stress and prepare a Detail Engineering Assessment (DEA) report with proper remediation plan and submit to RSC for review.	within 6 weeks
3.		Carry out suggested remedial works if required.	within 6 months
4.	Lack of Lateral Stability (Production & Utility Building).	The building engineer is required to check the stability of this structure against lateral forces, stresses and serviceability's as part of DEA and submit to RSC for review.	within 6 weeks
5.	Occupancy doesn't match with prepared load plan and onsite floor uses (Production & Utility Building).	The building engineer is required to prepare floor load plan and implement management program (posting, marking & maintaining).	within 6 weeks
6.	Cracks and signage of water intrusion on the bottom of the roof slab (Production & Utility Building).	The building engineer is required to prepare an investigation report with suitable remedial method and submit to RSC for review.	within 6 weeks
7.		Carry out suggested remedial works if required.	within 6 months
8.	Trolley impact and surface damage (Production & Utility Building).	The building engineer is required to provide column guard to protect from trolley impact.	within 6 months
9.	Lack of anchorage / bracing of non-structural elements. (Production & Utility Building).	The factory is required to brace/anchor all the non-structural elements within the building.	within 6 months
10	Lack of as-built drawings (Boiler room, RMS & CP Room, Security room & DIESEL Store shed)	The building engineer is required to survey these structures and prepare accurate as-built drawings with foundation details.	within 6 weeks