

Aptech Caswire (Extension) Ltd.

Aptech Industrial Park Holding 30, Sarabo Kashimpur, Gazipur

(23.985134, 90.284214)

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Structural Inspection Report

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1. Building Information

1. **Warehouse Building:** The structure is a 6-storied RC building.
2. **ACL Extension Building:** The structure is 5-storied RC building.
3. **Weight Scale Machine Room:** The structure is 2-storied RC building.

4. Observation

Observation-01: Lack of Design Report (Warehouse Building)

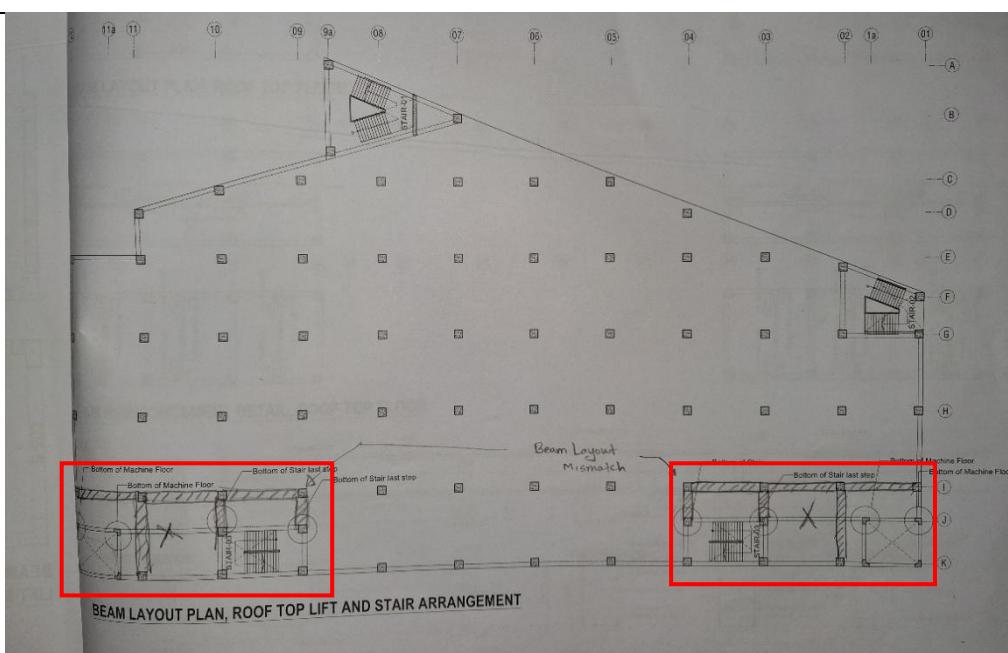


Description: At the time of inspection, the design report for this building was not available on site. Additionally, irregularity in stiffness observed in the building as ground to 4th floor is beam column frame and 5th floor is column-flat plate slab system.

Moreover, number of cylinder test report for column and beam-slab was found inadequate. Building engineer is required to verify the in-situ concrete strength by taking 100 mm diameter concrete cores (minimum 4 no's) from the lower tier columns and from beams.

Based on the in-situ material strength, the building engineer is required to prepare the Engineering Assessment (EA) in compliance with section 1.9.1.1 and section 1.9.1.2, part-6 of BNBC which includes vertical and horizontal irregularity checks.

Observation-02: Mismatch in as-built drawing (Warehouse Building)





Description: Beam found at Stair top and lift top level but not shown in the drawing.
Factory engineer is required to survey the whole structure and prepare accurate as-built drawing.

Observation-03: Incomplete load management program (including load plan posting, marking storage and maintaining loads) (Warehouse Building)



Description: Incomplete load management program (missing load plan, no height marking) observed in Warehouse Building.
Factory engineer is required to post the accepted load plan to all floor level, mark storage area & height and maintain floor loading within limit.

Observation-04: Column susceptible to vehicle impact (Warehouse Building)



Description: RC column found susceptible to vehicle impact during inspection. Factory engineer required to provide separate barriers in front of the columns to avoid impact on columns.

Observation-05: Lack of Design Report (ACL Extension Building)

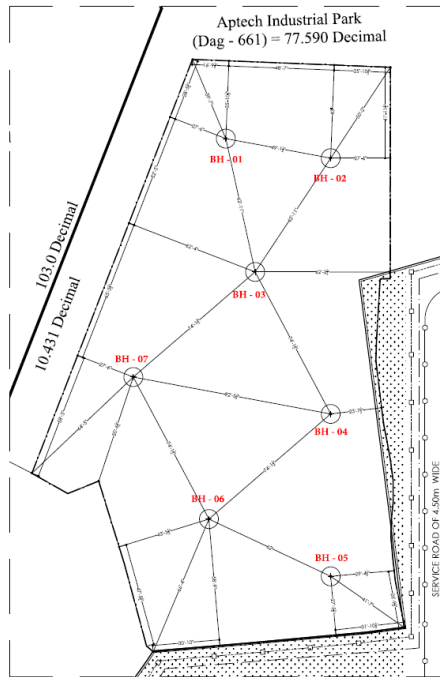


Description: At the time of inspection, the design report for this building was not available on site. As per BNBC, every building or structure designed shall have its design documents prepared following the provisions of Section 1.9.1. The design document shall include a design report and a set of structural drawings, which shall be prepared in compliance with section 1.9.1.1 and section 1.9.1.2 as per BNBC.

Moreover, number of cylinder test report for column and beam-slab was found inadequate. Building engineer is required to verify the in-situ concrete strength by taking 100 mm diameter concrete cores (minimum 4 no's) from the lower tier columns and from beams.

Based on the in-situ material strength, the building engineer is required to prepare the Engineering Assessment (EA) in compliance with section 1.9.1.1 and section 1.9.1.2, part-6 of BNBC.

Observation-06: Lack of Geotechnical investigation report (ACL Extension Building)



Description: A geotechnical investigation report found on site and bore hole layout of which does not represent the in-situ sub-soil condition of this building.

Building engineer is required to perform a geotechnical investigation in the vicinity of the structure and check the integrity of the foundation, considering the in-situ sub-soil condition.

Based on the test reports, the building engineer is required to prepare the Engineering Assessment (EA) in compliance with section 1.9.1.1 and section 1.9.1.2, part-6 of BNBC.

Observation-07: Incomplete load management program (including load plan posting, marking storage and maintaining loads) (ACL Extension Building)



Description: Incomplete load management program (missing load plan, no height marking) observed in ACL Extension Building

Factory engineer is required to post the accepted load plan to all floor levels, mark the storage area & height and maintain floor loading within the limit.

5. Action Plan

Item No	Observation	Action Plan	Timeline
1.	Lack of Design Report (Warehouse Building)	The building engineer is required to prepare the design report as per 1.9.1 BNBC which includes vertical & horizontal irregularity checks and submit it to RSC for detailed review.	within 6 weeks
2.	Lack of Design Report (Warehouse Building)	Building engineer is required to verify the in-situ concrete strength by taking 100 mm diameter concrete cores (minimum 4 no's) from the lower tier columns and from beams.	within 6 weeks
3.	Lack of Design Report (Warehouse Building)	Implement remediation work if required.	within 6 months
4.	Mismatch in as-built drawing (Warehouse Building)	Building engineer is required to survey the whole structure and prepare accurate as-built drawing.	within 6 weeks
5.	Incomplete load management program (Warehouse Building)	Factory engineer is required to post accepted load plan to all floor level, mark storage area & height and maintain floor loading within limit.	within 6 weeks
6.	Column susceptible to vehicle impact (Warehouse Building)	Factory engineer required to provide separate barriers in front of the columns to avoid impact on columns.	within 6 weeks
7.	Lack of Design Report (ACL Extension Building)	The building engineer is required to prepare the design report as per 1.9.1 BNBC and submit it to RSC for detailed review.	within 6 weeks
8.	Lack of Design Report (ACL Extension Building)	Building engineer is required to verify the in-situ concrete strength by taking 100 mm diameter concrete cores (minimum 4 no's) from the lower tier columns and from beams.	within 6 weeks
9.	Lack of Design Report (ACL Extension Building)	Implement remediation work if required.	within 6 months

10.	Lack of Geotechnical investigation report (ACL Extension Building)	Building engineer is required to perform a geotechnical investigation report for close vicinity of the structure and check the foundation adequacy.	within 6 weeks
11.	Incomplete load management program (ACL Extension Building)	Factory engineer is required to post accepted load plan to all floor level, mark storage area & height and maintain floor loading within limit.	within 6 weeks