

Concept Knitting.(Extension)

Tilargati, Sataish Bazar, Tongi, Gazipur

(23.908869164, 90.37357269)

12 February 2024



1. Building Information

New Garments Building: Ten-storied (B+G+9) reinforced concrete (RC) building with a partial basement.

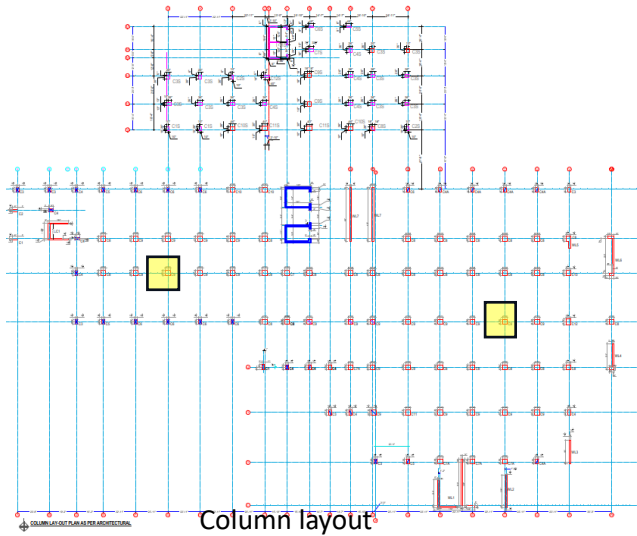
Utility Building: Two-storied (B+G+1) reinforced concrete (RC) building with an underground pump room.

New ETP: Two storied (B+G+1) reinforced concrete (RC) structure.

2. Observation:

New Garments Building:

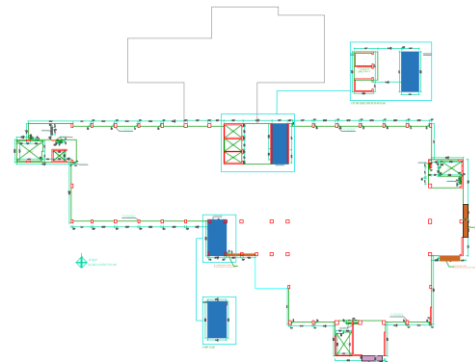
Observation-1: Stress in the column above normal design limit (New Garments Building).



Typical floor loading

Description: The cursory calculation indicates that the column is stressed above the normal design limit at the marked location considering the floor live load as per the provided load plan (6 kPa for the typical floor and roof). We have considered minimum concrete strength based on aggregate type due to inadequate number of concrete cylinder test reports and rebar strength 500 MPa from the available rebar test report. The building engineer is required to review design and column stresses based on in-situ concrete strength at the marked location. Also, produce and actively manage load management plans.

Observation-2: Missing information in as-built drawing. (New Garments Building).



Description: An undocumented plastic water tank was found on the roof slab. The building engineer is required to update the as-built drawing and consider it in the design check.

Observation-3: Stagnant water on the roof slab. (New Garments Building).



Description: Stagnant water on the roof slab. The building engineer is required to improve the drainage system on the roof slab.

Observation-4: Column surface was found damaged due to the trolley impact. (New Garments Building).



Description: Column surface was found damaged due to the trolley impact. The building engineer is required to repair the damaged column and provide adequate barriers to avoid trolley impact.

Observation-5: Nonstructural storage racks found not anchored/braced (New Garments Building).



Description: Nonstructural storage racks found not anchored/braced. The building engineer is required to anchor/brace all nonstructural elements within the factory.

Observation-6: Lack of design report (Utility Building)



Description: As per 1.9.1 (BNBC Part-6), every structure should have a design report. At the time of inspection, only as-built structural drawings were available but no design report was available. The building engineer is required to prepare a design report as per 1.9.1 (BNBC Part-6).

Observation-7: Stagnant water on the roof slab. (Utility Building).



Description: Stagnant water on the roof slab. The building engineer is required to improve the drainage system on the roof slab.

Observation-8: Nonstructural storage racks found not anchored/braced (Utility Building).



Description: Nonstructural storage racks found not anchored/braced. The building engineer is required to anchor/brace all nonstructural elements within the factory.

3. Action Plan

Observation	Action Plan	Timeline
New Garments Building		
Stress in the column above normal design limit (New Garments Building)	The building engineer is required to review design and column stresses based on in-situ concrete strength at the marked location.	within 6 weeks
Stress in the column above normal design limit (New Garments Building)	The building engineer is required to take minimum four concrete cores from the column to justify the design strength.	within 6 weeks
Stress in the column above normal design limit (New Garments Building)	Produce and actively manage load management plans.	within 6 weeks
Stress in the column above normal design limit (New Garments Building)	Implement remediation work if required.	within 6 months
Stress in the column above normal design limit (New Garments Building)	Implement load plan.	within 6 months
Missing information in as-built drawing. (New Garments Building).	The building engineer is required to update as-built drawing and consider it in design check.	within 6 weeks
Stagnant water on roof slab. (New Garments Building).	The building engineer is required to improve drainage system on roof slab.	within 6 weeks
The column surface was found damaged due to trolley impact. (New Garments Building).	The building engineer is required to repair the damaged column and provide adequate barriers to avoid trolley impact.	within 6 weeks
Nonstructural storage racks found not anchored/braced (New Garments Building).	The building engineer is required to investigate the reason of crack and repair as per investigation report.	within 6 weeks
Utility Building		
Lack of design report (Utility Building)	The building engineer is required to prepare a design report as per 1.9.1 (BNBC Part-6).	within 6 weeks
Lack of design report (Utility Building)	Carry out remedial work if required.	within 6 months
Stagnant water on roof slab. (Utility Building).	The building engineer is required to improve drainage system on roof slab.	within 6 weeks
Nonstructural storage racks found not anchored/braced (Utility Building).	The building engineer is required to investigate the reason of crack and repair as per investigation report.	within 6 weeks