

Nafa Apparels Ltd. 2 (Extension)

Village: Joyapura, Union: Shombag, Upazila: Dhamrai, District: Dhaka
(23.912710, 90.183601)

10 September 2024



1. Building Information

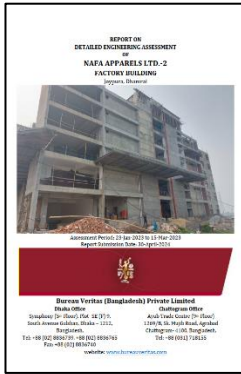
Six Storied New RCC Building-1: six storied RC structure with a basement (B+G+5).

Utility Building: consists of three parts- Part 1, Part-2 and Part 3. Part-1 is a partially two storied with a mezzanine on the ground floor. Part-1 & Part-2 is single storied.

2. Observation:

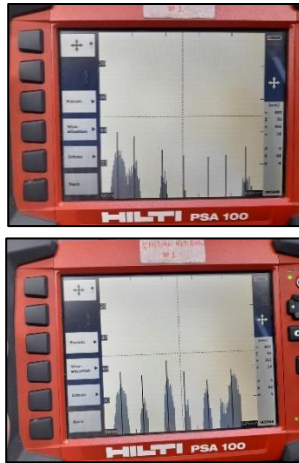
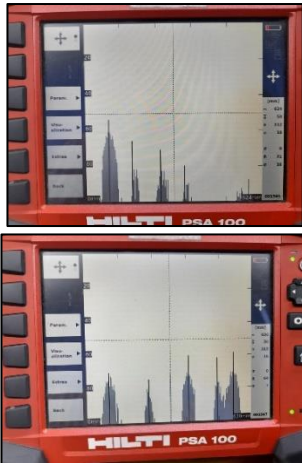
Observation-1: Prepared DEA needs to be reviewed against lateral forces.

(Six Storied New RCC Building-1)



Description: Cursory calculation shows that column & pile are adequate for service loadings. However, capacity against lateral loadings could not be verified onsite. The building engineer is required to submit the prepared DEA documents to the RSC for detailed review against lateral forces.

Observation-2: Discrepancies in as-built drawings. (Six Storied New RCC Building-1)

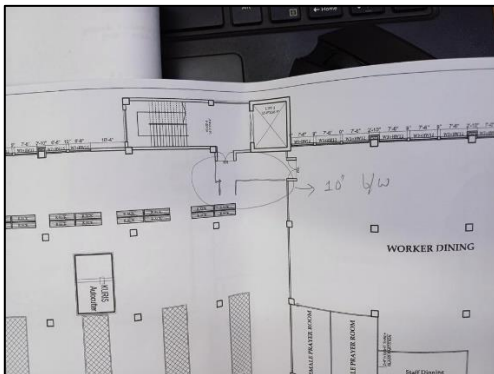


Column C-2 & C-3 rebar scan

COLUMN SCHEDULE			
TYPE OF COLUMN	UP TO 1ST C1 Cover=1.5" Stair claps	2ND & 3RD C1 Cover=1.5" Stair claps	4TH & 5TH C1 Cover=1.5" Stair claps
C1	 20"x20" 10-16mm Ø Bar. 10-20mm Ø Bar.	 20"x20" 10-16mm Ø Bar. 10-20mm Ø Bar.	 20"x20" 10-16mm Ø Bar. 10-20mm Ø Bar.
C2	 24"x24" 10-16mm Ø Bar. 14-20mm Ø Bar.	 24"x24" 10-16mm Ø Bar. 14-20mm Ø Bar.	 24"x24" 10-16mm Ø Bar. 14-20mm Ø Bar.
C3	 24"x24" 10-20mm Ø Bar. 14-25mm Ø Bar.	 24"x24" 10-20mm Ø Bar. 14-25mm Ø Bar.	 24"x24" 10-20mm Ø Bar. 14-25mm Ø Bar.

Column Schedule

Description: The number of rebars in the C2 columns found 20 instead of 24 and the amount of rebar in the C3 column found 18 instead of 20. The building engineer is required to survey the whole structure and prepare a full set of as-built drawings.



Description: In the marked location on the 4th floor 250 mm brick wall was found on site. But in the as-built drawing, no brick layout was mentioned. The building engineer is required to survey the whole structure and prepare a full set of as-built drawings with brick wall legends.

Observation-3: Crack on the brick wall. (Six Storied New RCC Building-1)



Description: Crack was observed on the brick wall on the 5th floor. The building engineer is required to investigate the reason for the crack and repair the crack accordingly.

Observation-4: Dampness was found on the basement RC wall. (Six Storied New RCC Building-1)



Description: Dampness was found on the basement RC wall. The building engineer is required to investigate the cause of the dampness and repair it using a suitable method.

Observation-5: Water intrusion in the basement RC wall. (Six Storied New RCC Building-1)



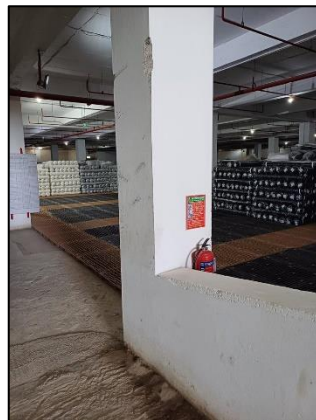
Description: During the inspection, water intrusion was found on the basement RC wall. The building engineer is required to seal the crack/leakage of the RC wall to stop water intrusion and repair it with suitable methods.

Observation-6: Column susceptible to trolley impact. (Six Storied New RCC Building-1)



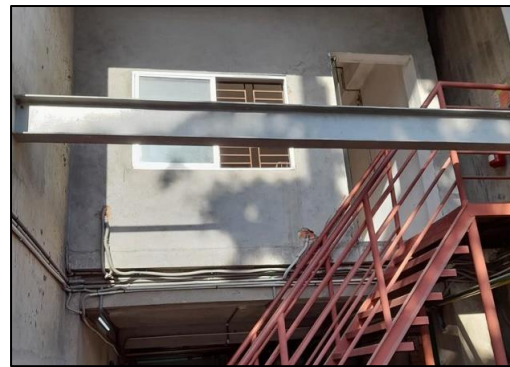
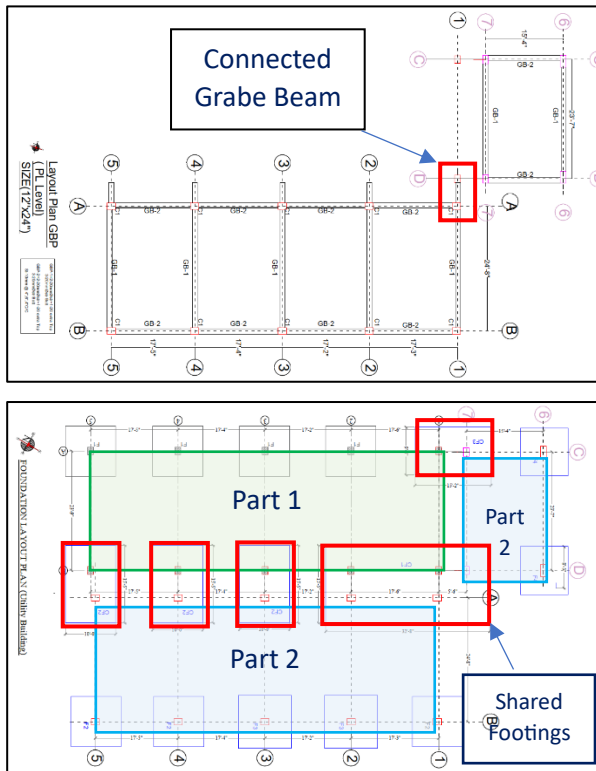
Description: Damage due to trolley impact observed on the column surface on different floors. The building engineer is required to provide a column guard to protect the trolley impact.

Observation-7: Column susceptible to vehicle impact. (Six Storied New RCC Building-1)



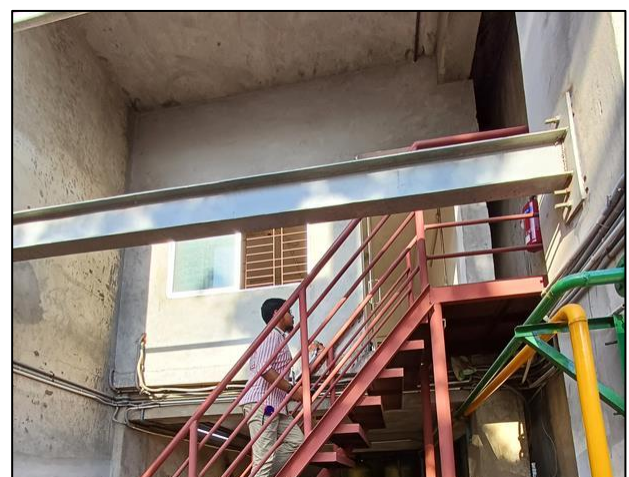
Description: RC columns on the ground floor & basement were susceptible to vehicle impact. The building engineer is required to provide a barrier around the column to avoid vehicle impact.

Observation-8: Lack of structural assessment report. (Utility Building Part 1 & 2)



Description: The Utility building consists of three parts- Part 1, Part 2, and Part 3. Part 1 is a partially two-storied. The partial upper story is a steel shed. There is a self-supported RC mezzanine on the ground floor of Part 1. The upper steel story was constructed after retrofitting the ground floor columns. Part 2 is a single-storied RC structure. Part-1 and Part-2 are structurally connected with footing and grade beam which were connected during retrofitting construction. The building engineer is required to prepare an Engineering Assessment (EA) of the utility building and submit the required documents to the RSC for review.

Observation-9: Lack of information in as-built drawing. (Utility Building Part 1 & 2)



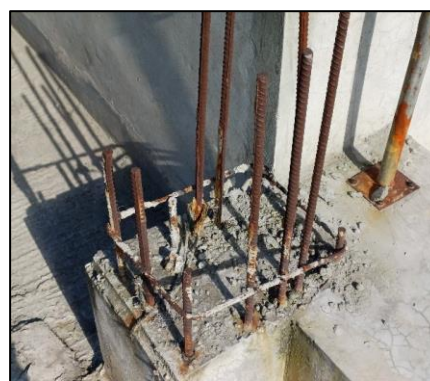
Description: Details of the roof beam of part 2 and details of the mezzanine floor of part 1 were missing in the as-built drawing. The building engineer is required to survey the structures and prepare the complete as-built drawings with connection details of the building.

Observation-10: Missing load plan of the mezzanine floor and EGB Boiler. (Utility Building Part 1)



Description: The load plan of the self-supported mezzanine floor at Utility Part 1 ground floor was missing. Also, the Load plan of the EGB Boiler at the roof of Utility Part 1 was missing. The building engineer is required to prepare the load plan and maintain floor loading accordingly.

Observation-11: Exposed rebar was found on the roof. (Utility Building Part 2)



Description: Exposed rebar was found on the roof of Utility Building part 2. The building engineer is required to apply rust-proof coating on the exposed rebar.

Observation-12: Falling hazard on the roof. (Utility Building Part 3)



Description: A possible falling hazard was found on the roof of utility part 3. The building engineer is required to provide a barrier to mitigate falling hazards.

3. Action Plan:

Item No.	Observation	Action Plan	Timeline
1.	Prepared DEA needs to be reviewed against lateral forces. (Six Storied New RCC Building-1)	The building engineer is required to submit the DEA to RSC for review.	within 6 weeks
		Carry out suggested remedial works if required.	within 6 months
2.	Discrepancies in as-built drawings. (Six Storied New RCC Building-1)	The building engineer is required to survey the whole structure and prepare a full set of as-built drawings.	within 6 weeks
3.	Crack on the brick wall. (Six Storied New RCC Building-1)	The building engineer is required to investigate the reason for the crack and suggest proper remedial action accordingly.	within 6 weeks
4.	Dampness was found on the basement RC wall. (Six Storied New RCC Building-1)	The building engineer is required to investigate the cause of the dampness and repair it using a suitable method.	within 6 weeks
5.	Water intrusion in the basement RC wall. (Six Storied New RCC Building-1)	The building engineer is required to seal the water intrusion and repair it using a suitable method.	within 6 weeks
6.	Column susceptible to trolley impact. (Six Storied New RCC Building-1)	The building engineer is required to provide the column guard to avoid trolley impact.	within 6 months
7.	Column susceptible to vehicle impact. (Six Storied New RCC Building-1)	The building engineer is required to provide a barrier around the column to avoid vehicle impact.	within 6 months
8.	Lack of structural assessment report. (Utility Building Part 1 & 2)	The building engineer is required to prepare the EA of the utility building and submit it to RSC for review.	within 6 weeks
		Carry out suggested remedial works if required.	within 6 months
9.	Lack of information in as-built drawing. (Utility Building Part 1 & 2)	The building engineer is required to prepare accurate as-built drawings.	within 6 weeks
10.	Missing load plan of the mezzanine floor and EGB Boiler. (Utility Building Part 1)	The building engineer is required to prepare the load plan and maintain loading accordingly.	within 6 weeks
11.	Exposed rebar was found on the roof. (Utility Building Part 2)	The building engineer is required to apply rust-proof coating on the exposed rebar.	within 6 months
12.	Falling hazard on the roof. (Utility Building Part 3)	The building engineer is required to provide a barrier to mitigate falling hazards.	within 6 months