



Pakiza Knit Composite Ltd. (New Building)

A-1/5, Mojidpur (Boro-bolimeher), Savar, Dhaka 1340
(23.842333, 90.259173)

5th January 2020 & 19th January 2020



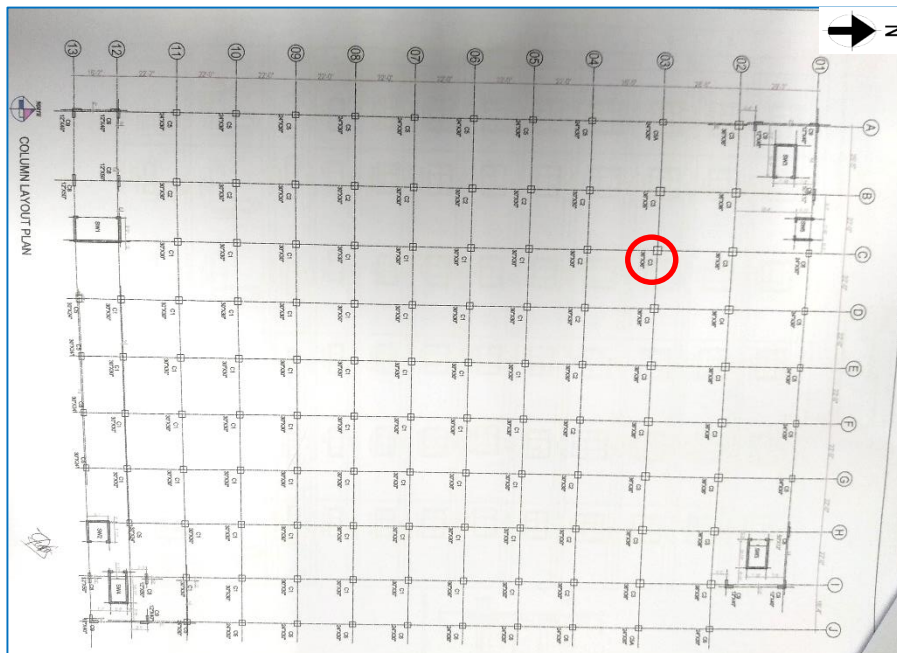


Observations



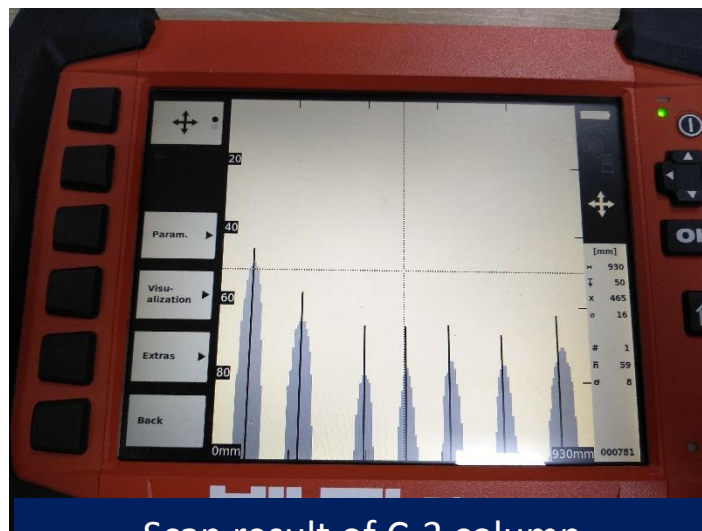
Discrepancies in as-built drawing

Observations: Main Building



Column Layout

Number of rebar in C-3 type column didn't match with column schedule. In C-3 column 7 rebars were counted by ferro scanning in one direction instead of 9 rebars.



Scan result of C-3 column

COL NO.		Below PL	Ground & 1st Floor
	SIZE	32"x32"	30"x30"
C1			
	TIE	D10-5"~6"~5" C/C	D10-5"~6"~5" C/C
C2	SIZE	32"x32"	30"x30"
	TIE	D10-5"~6"~5" C/C	D10-5"~6"~5" C/C
C3	SIZE	38"x38"	36"x36"
	TIE	D10-5"~6"~5" C/C	D10-5"~6"~5" C/C
C4	SIZE	38"x38"	36"x36"

Column schedule

Observations: Main Building



Implement floor load management program

Observations: Main Building



Current floor loading

No load management program was visible on-site. We have checked the column capacity considering 3 kPa floor live load and minimum concrete strength. The column stresses was found within normal design limit. Follow 3 kPa floor live load on typical floors of the building and make sure that the workers understand the loading requirements.



Exposed rebar at roof



Exposed rebar at Stair

Corrosion was observed on some exposed reinforcement on roof. Factory must provide adequate protection to the structural elements from corrosion.



Stacked of construction materials



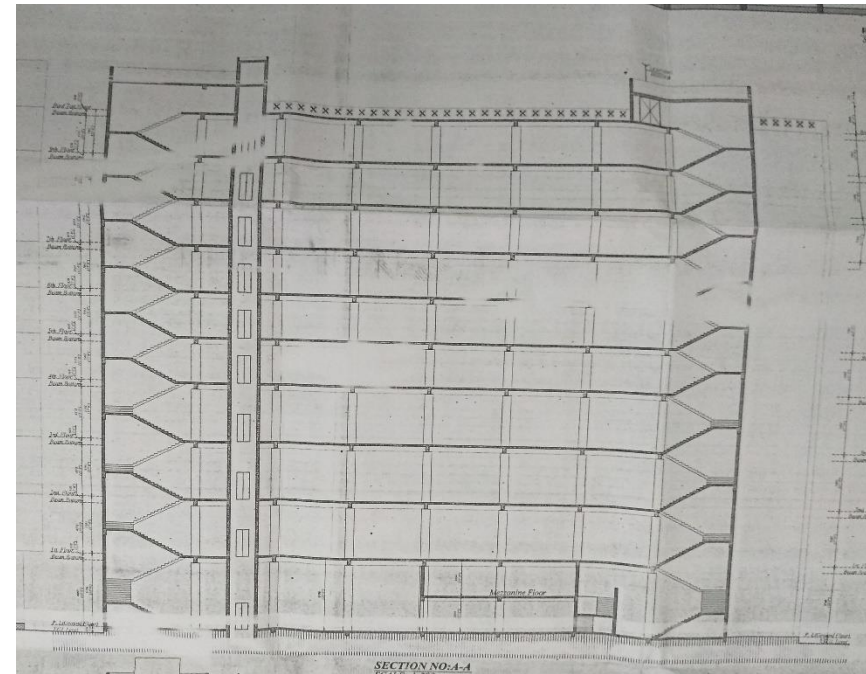
Possible vertical extension



This building is permitted for 10 (G+9) storied from local authority. Currently the building is partially 8 storied. Factory owner has a future plan to extend the building. Factory engineer is required to carry out a Detail Engineering Assessment considering BNBC provision prior to any extension work.



Existing Building



Local authority Permit drawing shown 10 storied

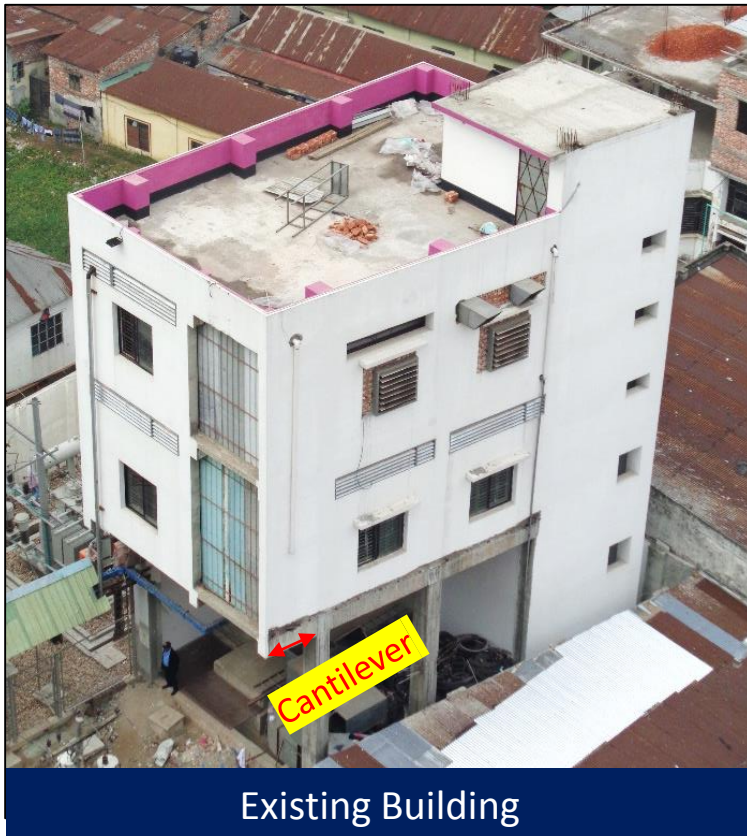


Lateral stability

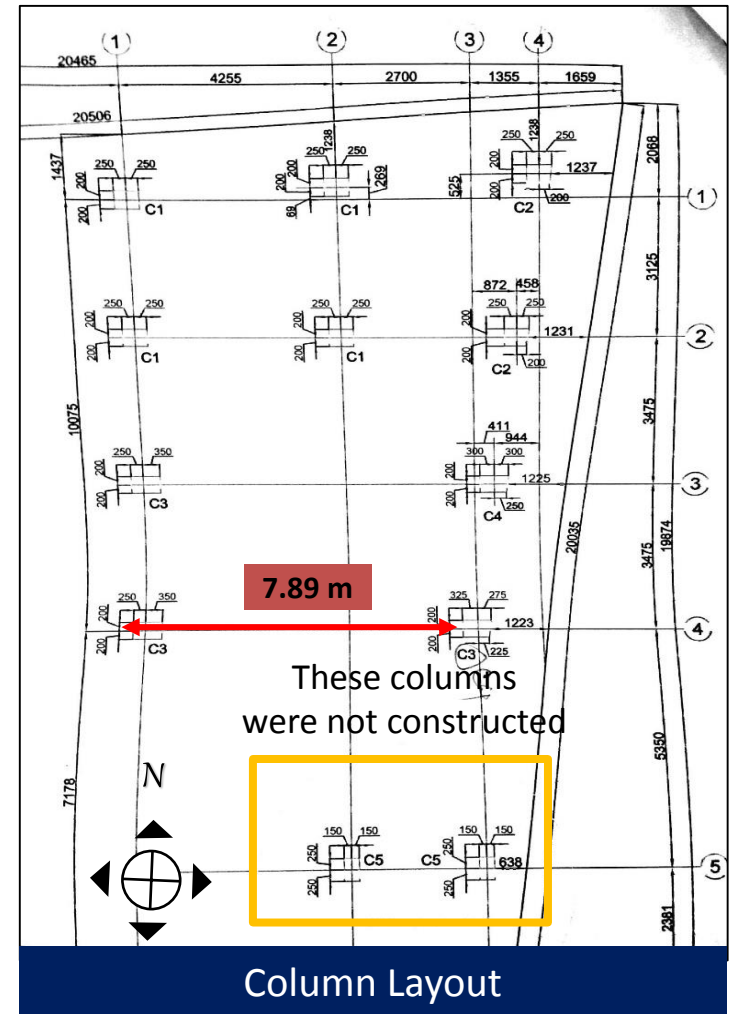


The building columns arranged irregularly. The ground floor height is long and the bays are large having infill walls. Also, a portion of the building has not been constructed yet. The factory engineer to review the design of the existing building for lateral forces.

Please undertake a specific check on the moment resisting frames to ensure that they can resist the applied lateral load with sufficient FoS.



Existing Building

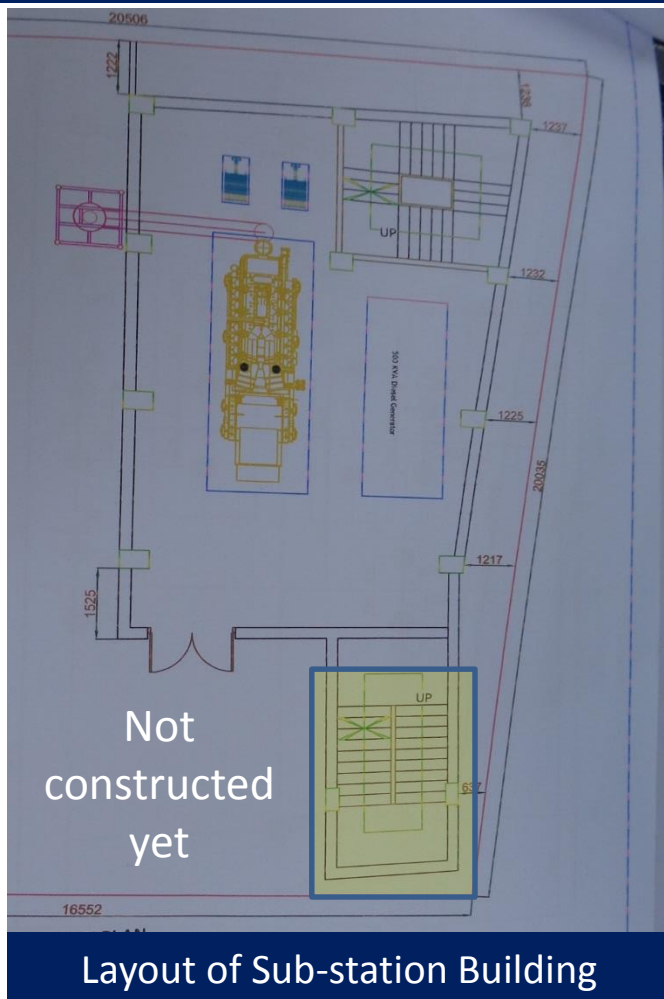




Possible Horizontal Extension



A set of proposed drawings has been provided for Sub-station building. Also, Grade beam reinforcements are found exposed at South side of the structures. Factory owner has a future plan to extend the building horizontally. Factory engineer is required to carry out a Detail Engineering Assessment considering BNBC provision prior to any further extension work.





Problems Observed

Main Building:

Item-01: Discrepancy in as-built drawing.

Item-02: Implement floor load management program.

Item-03: Exposed rebar and stacking of construction material at roof.

Item-04: Possible vertical extension.

Sub-station Building:

Item-05: Lateral stability.

Item-06: Possible horizontal extension.



Priority Actions



Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Discrepancy in as-built drawing	Building Engineer to confirm the number of rebar in all column and prepare accurate as-built structural drawing.	6-weeks
2	Implement floor load management program	Produce and actively manage a loading plan of 3 KPa for typical floor plates. Engineering assessment is required if floor loading is being considered more than 3 KPa.	6-weeks
3	Implement floor load management program	Continue to implement loading plan.	6-months
4	Exposed rebar at roof	All exposed reinforcement is to be protected from corrosion.	6-weeks
5	Possible vertical extension (Main Building)	Factory engineer is required to carry out a Detail Engineering Assessment considering BNBC provision prior to any extension work.	6-months
6	Possible vertical extension (Main Building)	Remedial works required to be carried out where necessary.	6-months



Item No.	Observation	Recommended Action Plan	Recommended Timeline
7	Lateral stability. (Sub-station Building)	Factory engineer requires to check the building frame system against lateral forces.	6-weeks
8	Lateral stability. (Sub-station Building)	Carry out remedial works as per recommendation of engineering assessment report.	6-months
9	Possible horizontal extension. (Sub-station Building)	Factory engineer is required to carry out a Detail Engineering Assessment considering BNBC provision prior to any extension work.	6-months
10	Possible horizontal extension. (Sub-station Building)	Carry out remedial works from outcome of Detail Engineering Assessment where necessary before further construction.	6-months