

Geebee (Bangladesh) Limited Extended Unit.

FS SFB 02 Karnaphuli EPZ Chittagong
(22.278980, 91.789511)
8th November 2018



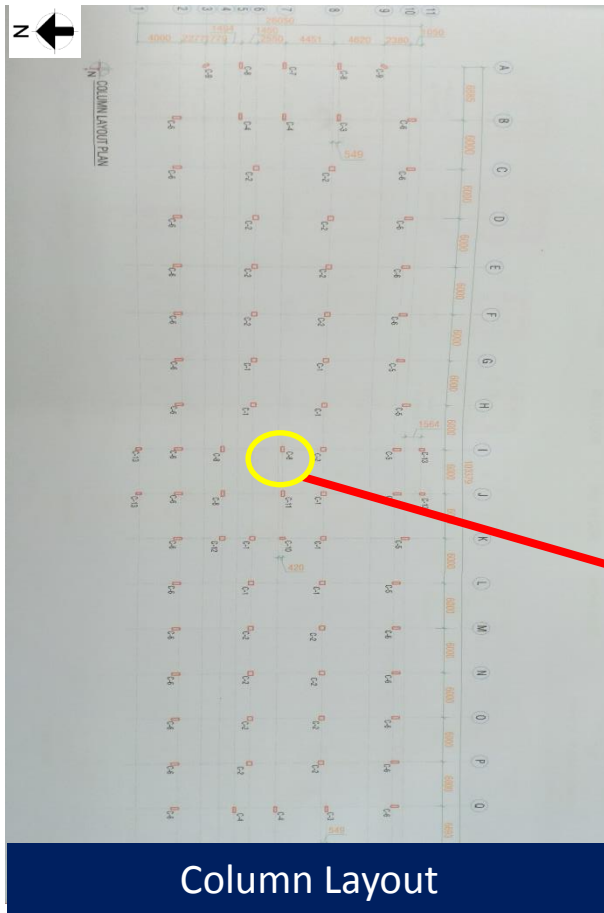


Observations

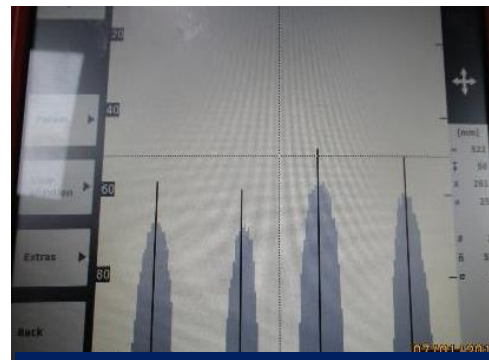


Discrepancies between provided drawings and on site condition

Observations: Main Production Building



Column Layout



4 nos. of rebar instead of 5 nos. at C-2 type column.



C-5 type column

SCHEDULE OF COLUMN					
COLUMN NO.	BELOW F.G.L.	GR. FLOOR	1ST. FLOOR	2ND. FLOOR	3RD. FLOOR
C1	10-20mm ²	10-20mm ²	10-20mm ²	10-20mm ²	10-20mm ²
C2	10-20mm ²	10-20mm ²	10-20mm ²	10-20mm ²	10-20mm ²
C3	10-20mm ²	10-20mm ²	10-20mm ²	10-20mm ²	10-20mm ²

Column Schedule

SCHEDULE OF COLUMN					
COLUMN NO.	BELOW F.G.L.	GR. FLOOR	1ST. FLOOR	2ND. FLOOR	3RD. FLOOR
C7	10-20mm ²	10-20mm ²	10-20mm ²	10-20mm ²	10-20mm ²
C8	10-20mm ²	10-20mm ²	10-20mm ²	10-20mm ²	10-20mm ²
C9	10-20mm ²	10-20mm ²	10-20mm ²	10-20mm ²	10-20mm ²

Column Schedule

Number of rebar for C-2 column does not match with column schedule. 12 nos. of rebar are found by ferro scan whereas 16 nos. of rebars are shown in column schedule. Also size of C-8 type column found 500 mm instead of 750 mm in long direction and size of C-10 & 12 type column found 260 instead of 380 mm in short direction. Also, mismatch found in beam layout.



Lack of proper drainage at roof and sign of dampness inside slab & walls

Observation : Main Production Building



Water intrusion was found at 3rd floor ceiling .
Dampness also observed at slab and walls at toilet



Water clogging on roof



No water proofing was found at roof.



Visible Cracks on façade walls.

Observations: Main Production Building



Minor cracks in facade walls were noted at a few locations. Have a qualified structural engineer provide further analysis of the identified cracks to determine the appropriate course of corrective action.



Cracks at North façade



Minor cracks on wall



Sagging on window grills

Observations: Main Production Building



Sagged grills

Sagging was found on windows grills on the 2nd & 3rd floors. Engineering investigation is needed to determine whether it is due to the extra load imposed from BUS bar or Cable tray.



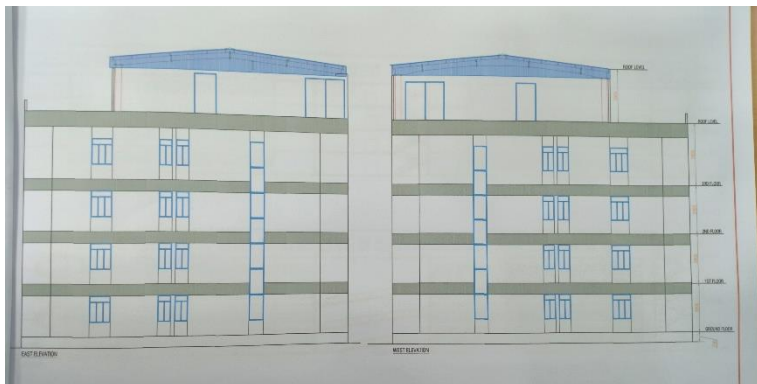
Windows on 2nd & 3rd floor



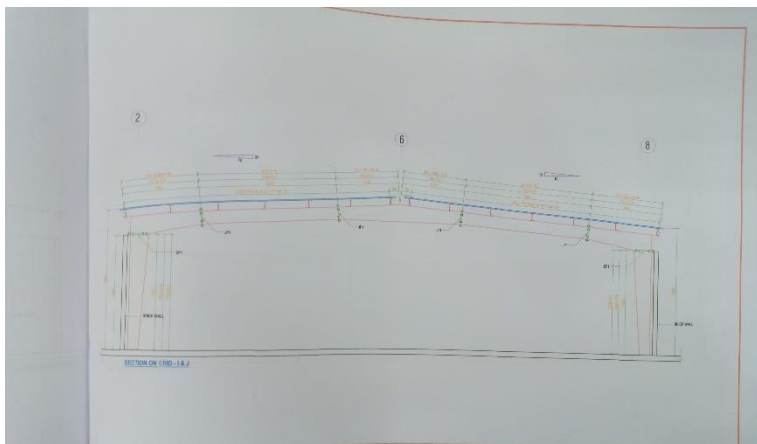
Possible vertical extension



Currently the building is 3 storied. Factory has a future plan to built a shed on current roof. Proposed drawings were available during inspection. Factory engineer is required to carried out a Detail Engineering Assessment considering BNBC provision prior to any extension work.



Proposed roof shed



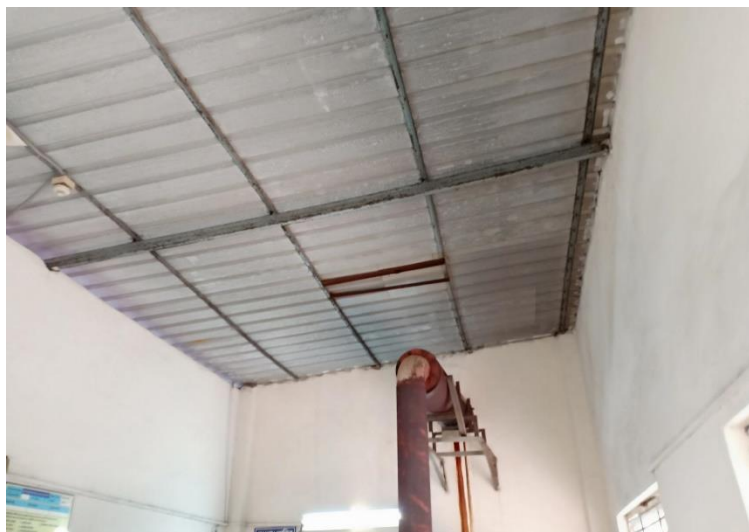
Proposed roof shed (Portal frame)



Current roof of factory building



Lack of as-built documents



Generator Shed



Boiler Shed

No drawings were prepared for boiler & generator shed. Building engineer is required to prepare an “as constructed” drawings which reflect the actual site dimensions with complete structural information.



Boiler Shed

Observations: Boiler & Generator Shed



Problems Observed

Main Production Building:

Item-01: Discrepancies between drawings and on- site condition.

Item-02: Lack of proper drainage at roof and sign of dampness inside slab & walls.

Item-03: Visible Cracks on façade walls.

Item-04: Sagging on window grills.

Item-05: Possible vertical extension.

Boiler & Generator Shed:

Item-06: Lack of as-built documents.



Priority Actions



Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Discrepancies between provided drawings and on site condition. (Main Production building)	Building Engineer to survey as-built structure and prepare accurate as-built survey information for the building.	6-weeks
2	Discrepancies between provided drawings and on site condition. (Main Production building)	Produce and actively manage a loading plan for giving consideration to floor capacity and column capacity.	6-weeks
3	Lack of proper drainage at roof and sign of dampness inside slab & walls. (Main Production building)	Factory Engineer to inspect water damaged structures and apply a suitable method to repair.	6-weeks
4	Lack of proper drainage at roof and sign of dampness inside slab & walls. (Main Production building)	Waterproofing on the roof slab is to be applied. In addition, the roof slab drainage system should be investigated and improved if required.	6-months



Item No.	Observation	Recommended Action Plan	Recommended Timeline
5	Visible Cracks on façade walls (Main Production building)	Have a qualified structural engineer provide further analysis of the identified cracks to determine the appropriate course of corrective action.	6-weeks
6	Sagging on window grills (Main Production building)	Engineering investigation is needed to determine whether it is due to the extra load imposed from BUS bar or Cable tray.	6-weeks
7	Sagging on window grills (Main Production building)	Carry out remedial works resulting from engineering assessment if necessary.	6-months
8	Possible vertical extension (Main Production building)	In case of extension, factory engineer to be carried out further analysis and update design report following BNBC requirement.	6-weeks
9	Lack of as-built documents (Boiler & Generator Shed)	Prepare an “as constructed” drawings which reflect the actual site dimensions with complete structural information.	6-weeks