Century Apparels Ltd. (11059)

Masdir, Fatulah, Narayangong-1400, Dhaka.

(+23.627874N, 90.485352E)

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Identified Priority 3 Concerns

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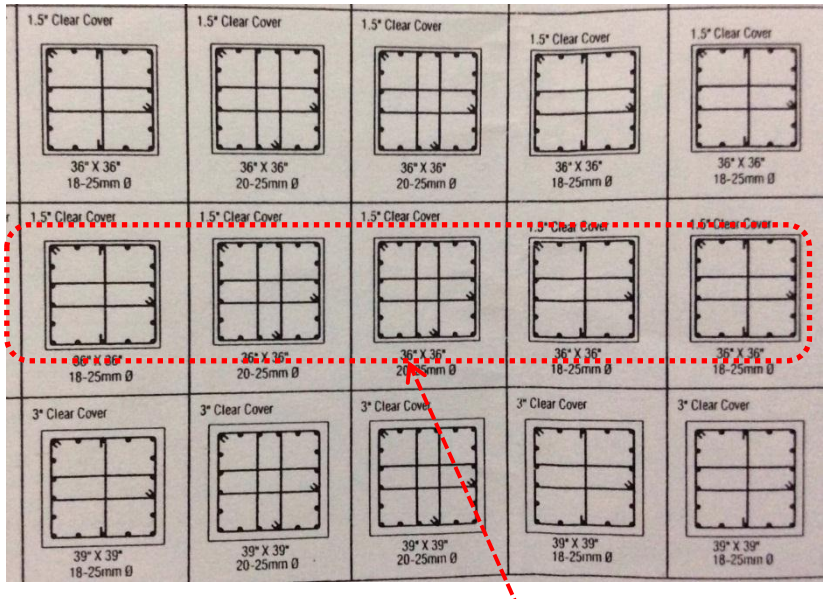
1st Priority 3 Concern



The designed or drawn column sizes C9 to C15 do not match the column sizes as-built.

There are inconsistencies with the number of bars between the as-built columns and designed or drawn ones at 5th floor level.

The As-built drawings need to be produced as per existing construction.

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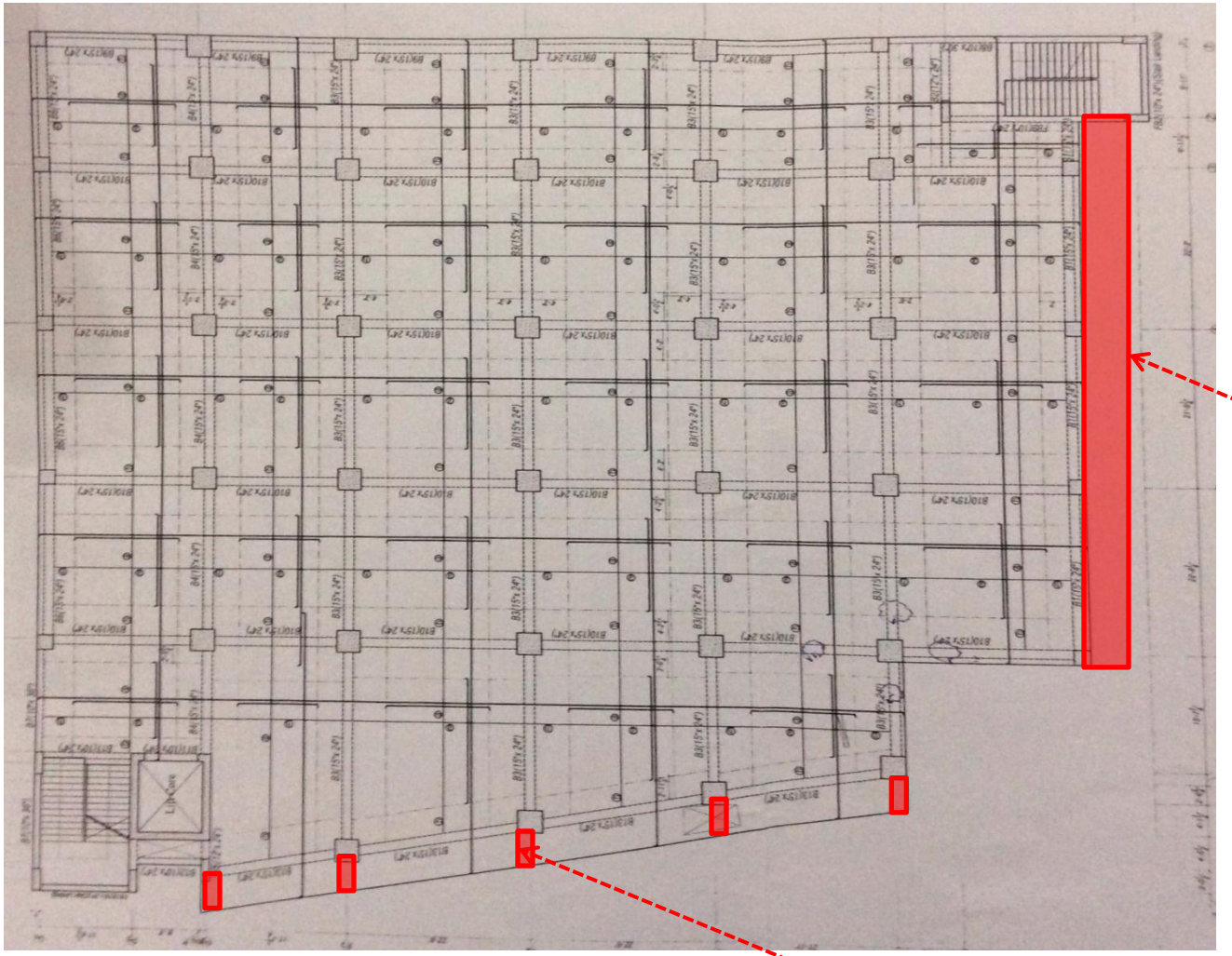
2nd Priority 3 Concern



Extra cantilevered beams and slabs were not shown on the construction drawings

Typical Floor plan

The As-built drawings need to be revised to represent the actual existing construction.

these cantilevered beams were not shown on the construction drawings.

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3rd Priority 3 Concern

The roof needs to be protected with a water proofing layer if the construction does not proceed in the near future, (within 6 months).

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4th Priority 3 Concern

The starter bars of the columns and shear walls on the 5th floor level need to be painted to prevent the corrosion of steel for future use.

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Overall Stability System

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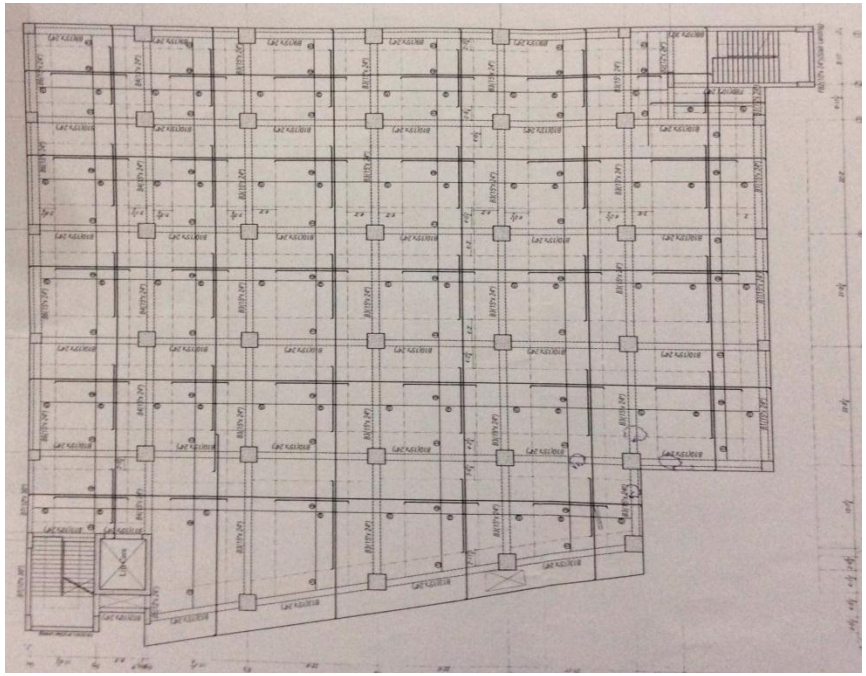

We require that these items be investigated in an Engineering Assessment.

R.C Beam and column frame with a 2-way solid slab.

A set of core walls of 300mm thickness is located on one corner of the building. Because it is some distance from the centre of the building, the walls will not work effectively under lateral loading. For this reason, the lateral load resisting capacity for this building still relies mainly on the moment frame system.

Slab Thickness 152.4mm
Column Size 890x890mm (typ.)
Beam Size 381x610mm(typ.)

Grid 6.858m x 6.92m.

This type of structural framing is appropriate for a building lower than 10 storeys high and with the large plan area. However, in this case is recommended that an Engineer reviews and checks the building stability under wind and seismic loads.

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Priority Actions

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Problems Observed Summary

ITEM 1: (1st Priority 3) The As-built drawings need to be revised to more accurately reflect the actual existing construction.

ITEM 2: (2nd Priority 3) The existing extra cantilevered slabs and beams needs to be checked and reviewed against what was originally designed for .

ITEM 3: (3rd Priority 3) The roof needs to be protected with a water proofing layer if the construction does not proceed in the near future, (within 6 months).

ITEM 4: (4th Priority 3) The starter bars of the columns and shear walls on the 5th floor level need to be painted to prevent the corrosion of steel for future use.

ITEM 5: (5th Priority 3) A Structural Engineer is to review and check the building stability under wind and seismic loads.

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Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	1st Priority 3 - The As-built drawings need to be revised to more accurately reflect the actual existing construction.	The factory's Structural Engineer is to survey the actual conditions and revise the As-built drawings as early as possible.	6-months
2	2nd Priority 3 - The existing extra cantilevered slabs and beams needs to be checked and reviewed against what was originally designed for .	The factory's Structural Engineer is to survey the actual conditions, revised the drawings and designs and carry a new structural analysis to confirm the structural safety of the slab system with the new site modifications.	6-months
3	3rd Priority 3 - The roof needs to be protected with a water proofing layer if the construction does not proceed in the near future, (within 6 months).	Provide a proper waterproofing layer at the roof level if construction is not to proceed.	6-months
4	4th Priority 3 - The starter bars of the columns and shear walls on the 5th floor level need to be painted to prevent the corrosion of steel for future use.	Provide a proper painting layer to prevent steel corrosion.	6-months
5	5th Priority 3 - A Structural Engineer is to review and check the building stability under wind and seismic loads.	The factory's Structural Engineer is to analyse and check the overall structural system under lateral wind and seismic loading to verify all compliance with BNBC codes.	6-weeks
6	5th Priority 3 - A Structural Engineer is to review and check the building stability under wind and seismic loads.	Based on the analysis results, consider whether any strengthening or modification work needs to be taken.	6-months