Matrix Styles Ltd.

Degerchala, National University, Gazipur

(23.962619N, 90.393035E)

8th March 2015

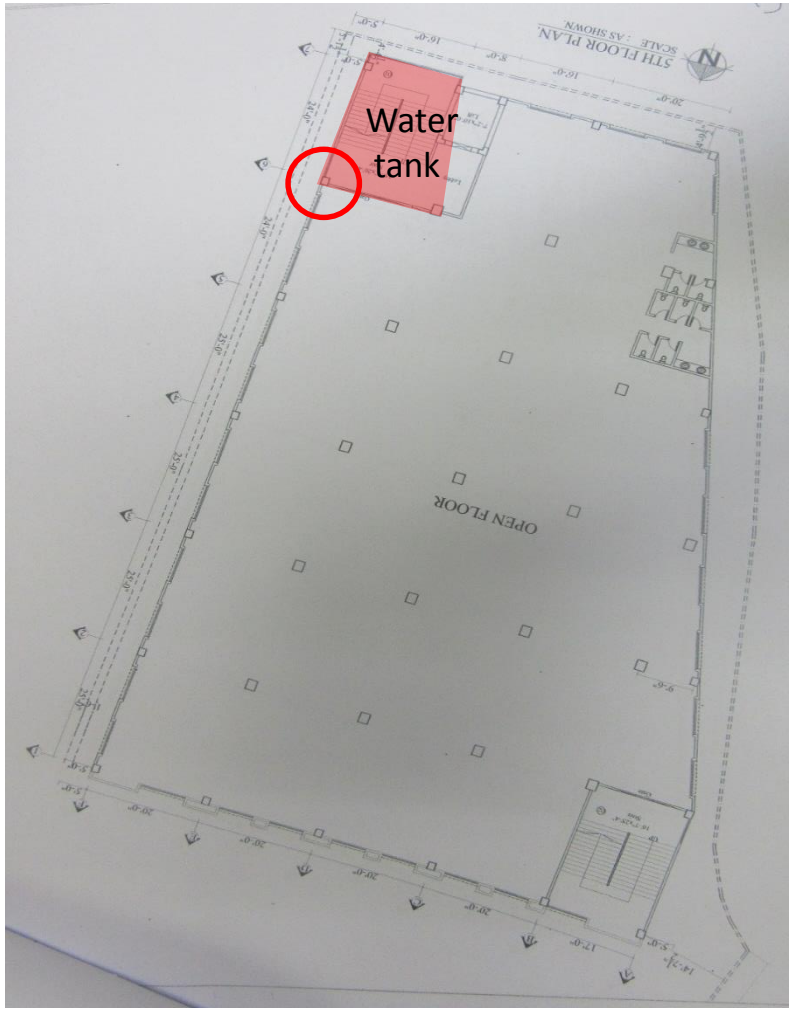
ACCORD on Fire and Building Safety in Bangladesh

ARUP

Observations

Highly-stressed column below water tank

Observations - Building 1



Column below water tank appears to be stressed above normal design limits

Observations - Building 1

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Discrepancy in structural drawings

Observations - Building 1

Brick chip aggregate used in all concrete above ground floor columns

Stone aggregate used in ground floor columns

Structural drawings indicate stone aggregate throughout. However, it was noted on site that brick chip aggregate is used in all concrete above ground floor columns

Observations - Building 1

Uncontrolled storage at 3rd floor level

Observations - Building 2

Uncontrolled loading at 3rd floor level

Observations - Building 2

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Priority Actions

Problems Observed

Building 1

- **ITEM 1:** Highly-stressed column below water tank
- **ITEM 2:** Discrepancy in structural drawings

Building 2

- **ITEM 1:** Uncontrolled storage at 3rd floor level

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Highly-stressed column below water tank	Factory Engineer to review design, loads and columns stresses in area identified above.	**6-weeks**
2	Highly-stressed column below water tank	Verify insitu concrete stresses by 100mm dia. cores from min. 4 no. columns at ground floor level.	**6-weeks**
3	Highly-stressed column below water tank	Review water tank usage and if necessary implement an overflow to limit fill height in water tank.	**6-months**
4	Discrepancy in structural drawings	Factory Engineer to amend as-built drawings to indicate the extent of brick chip aggregate used in construction.	**6-months**
5	Discrepancy in structural drawings	Make any other minor amendments to structural drawings to accurately reflect the as-built state (e.g. one additional column on west elevation)	**6-months**
6	Uncontrolled loading on 3rd floor	Factory Engineer to assess load capacity for each floor.	**6-months**
7	Uncontrolled loading on 3rd floor	Implement load plan at each level.	**6-months**