JL Sweaters Ltd

Mouza, Toiyabpur, Savar, Dhaka, Bangladesh.
23.912234,90.311104
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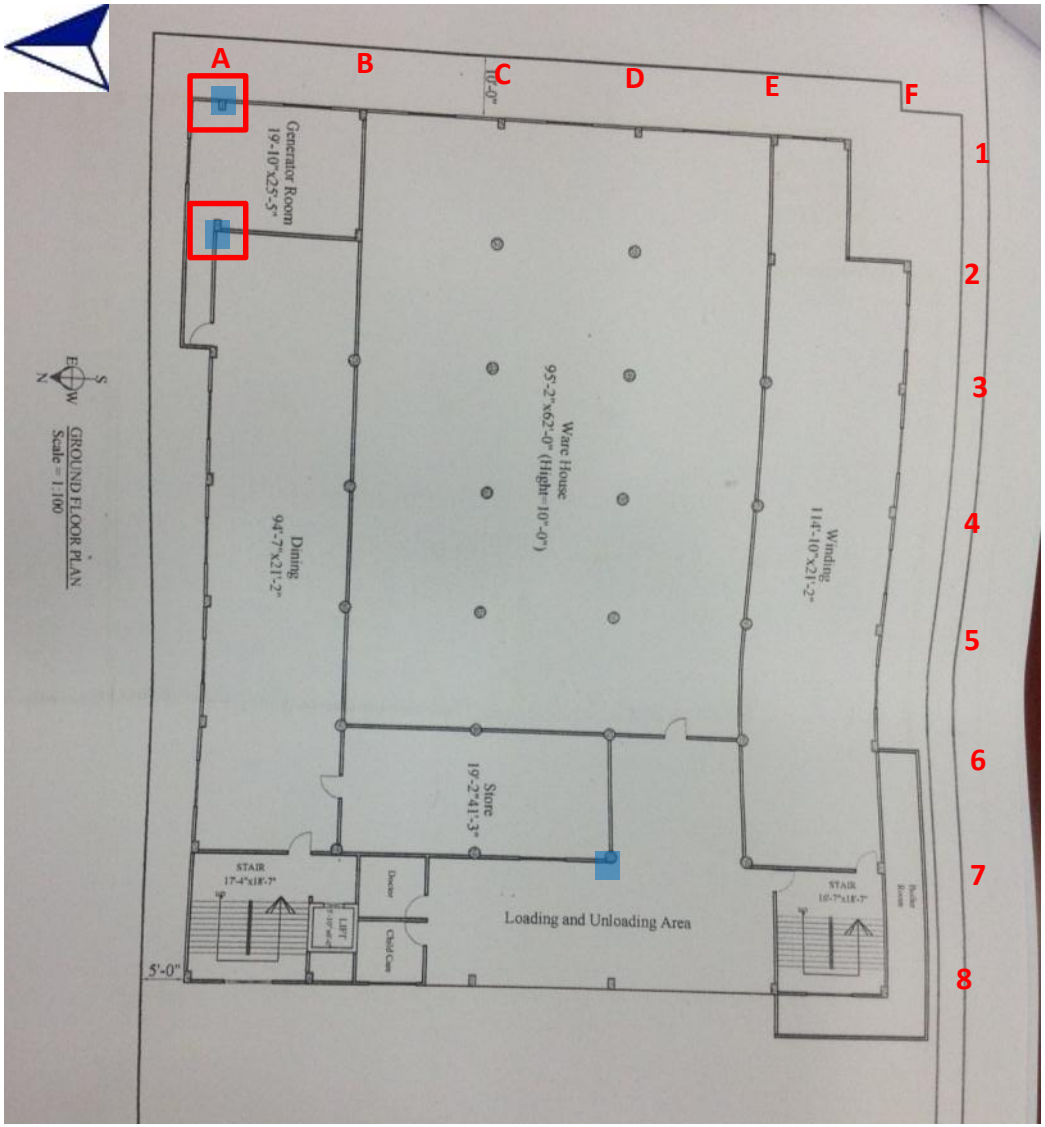
ACCORD on Fire and Building Safety in Bangladesh ARUP

Observations

Stress Levels in Columns

Observations



Ground floor plan

- Column investigations indicated stone aggregate.
- Reinforcement was investigated using a ferroscanner.
- Cursory calculations indicate that the working stresses in the columns are at a high level.

Ferroscan columns

Critical Columns requiring immediate action

Observations

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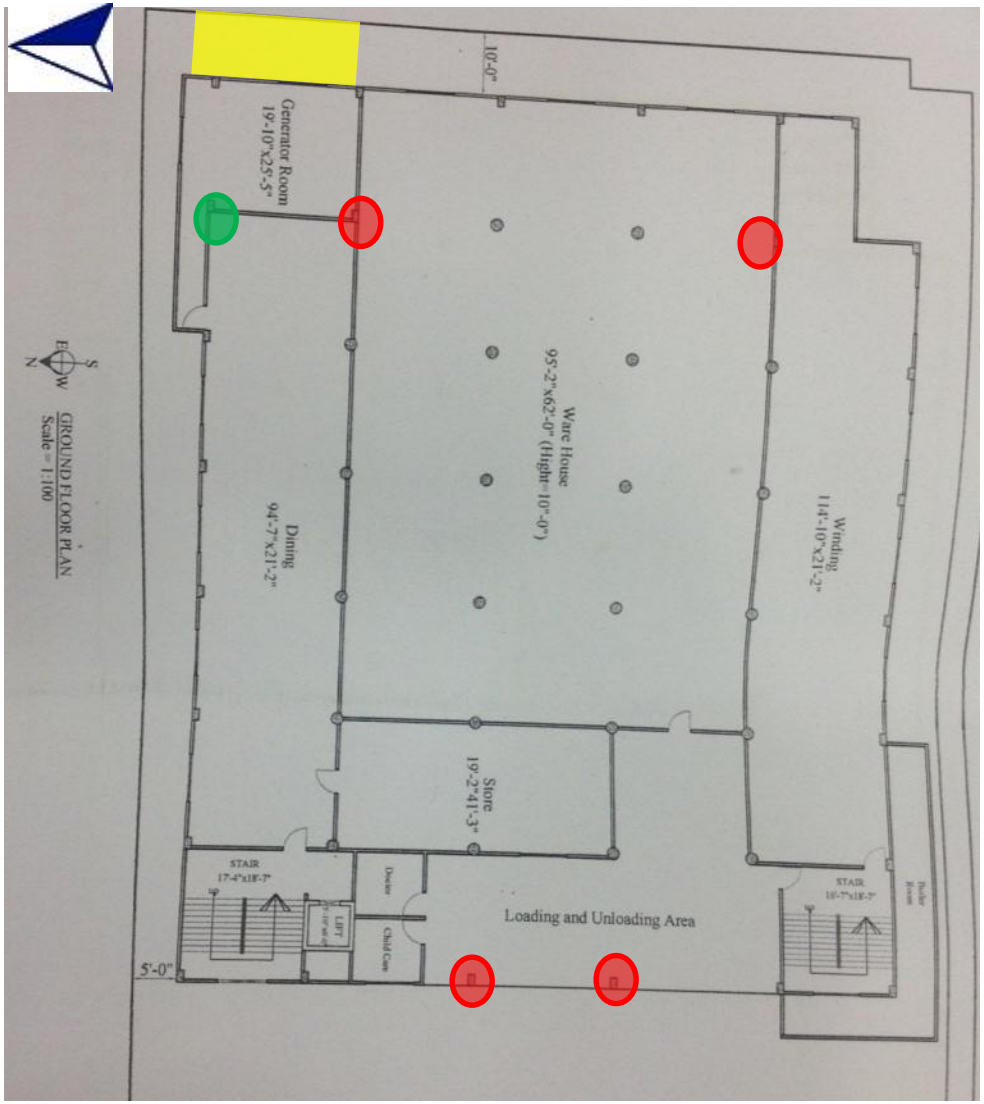
Discrepancies between drawings and on-site observations

Observations



Several observations in the factory building did not correlate with the information presented on the structural drawings.

A non-exhaustive list of discrepancies include:

- Larger column size than that shown on drawings, highlighted in green.
- Circular column constructed instead of rectangular, highlighted in red.
- 'Generator Room' as shown in drawings extends Eastwards by approx. 1.5m, highlighted in yellow.

Observations

Cracking in stair-core and penthouse masonry

Cracks in penthouse and in stair-cores may be as a result of inadequate restraint at head of masonry.

Penthouse Masonry Cracking

Cracking in stair-core Masonry

Observations

Priority Actions

Problems Observed

1. Stress levels in columns - critical A/1 and A/2
2. Discrepancies between drawings and actual observations
3. Cracking in Staircase and Penthouse Masonry

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Stress levels in columns on grid A/1 and A/2	Half of bay between GL A-B is to be completely vacated outside the toilets as shown above at each level, pending verification of column capacity by Building Engineer. Access only to toilets is permitted.	**Immediate - Now**
2	Stress levels in columns on grid A/1 and A/2	Concrete water tank on roof is to be perforated / provided with weep holes, pending verification of column capacity by Building Engineer.	**Immediate - Now**
3	Stress levels in columns on grid A/1 and A/2	Building Engineer to review design, loads and column stresses in the area identified plus the toilet area.	**Immediate - Now**
4	Stress levels in columns on grid A/1 and A/2	Verify in-situ concrete strength either by 100mm dia. cores from min. 4 columns.	**Immediate - Now**
5	Stress levels in columns on grid A/1 and A/2	Produce and actively manage a loading plan for all floor plates within the Main Factory Building, giving consideration to floor capacity and column capacity.	**6-weeks**
6	Stress levels in columns on grid A/1 and A/2	Continue to implement load plan.	**6-months**
7	Discrepancies between drawings and actual observations	Correction of the columns' annotation (shapes & sizes) should be made on the drawings.	**6-months**
8	Cracking in stair-core and penthouse masonry	Affected masonry walls to be repaired.	**6-months**