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ACCORD
on Fire and Building Safety in Bangladesh



Identified Priority 1 Concerns

Inadequate detailing of steel shed truss column supports.
Full engineering assessment required



1st Priority 1
Concern

Inadequate detailing
of steel truss at
column supports.
Full engineering
assessment of shed
required

Identified Priority 2 Concerns

The ground floor is used to store stock up to approximately 2.5m height. Record drawings show this to be a 178mm thick slab spanning 6700mm between ground beams.

Monitoring of loading on third floor to ensure bays are not overloaded.

Apparent cracking to the soffit of the roof slab, due to water cooler above.

Storage of rubbish on part of the roof.



Priority 2 Concern

Rolls of yarn stored on suspended slab approximate height 2.5m. Load path is unclear due to lack of detailing of the foundations and ground beams.



Storage of yarn rolls on the third floor slab. No loading plan visible.



Storage of rubbish on the roof

Priority 2 Concerns



Apparent cracking to soffit of slab directly below water cooling plant. Weight could not be confirmed.

Priority 2 Concerns

Identified Priority 3 Concerns



No waterproofing membrane was visible on the roof of the building. This means that any cracks in the surface finishes on the roof will allow water to seep into the concrete slab beneath the finishes, and cause long-term soaking of the slab.



Column is unrestrained at 2 floors. Although not very loaded, this column may be unstable under second order effects (P-Delta).

Overall Stability System



The building has four stairwells and two lift shafts, these walls are 250mm thick concrete.

Brick walls infills cannot be considered in the lateral load resisting system as they are not restrained.

Sway stability could also be expected from the 330mm slab working with the 610 sq

We require that these items be investigated in a Detail Engineering Assessment

Priority Actions

Problems Observed Summary

ITEM 1: Priority 1 - Inadequate detailing of steel shed truss column supports. Full engineering assessment required

ITEM 2: Priority 2 - Check ground floor slab for loading.

ITEM 3: Priority 2 - Monitor storage on the third floor.

ITEM 4: Priority 2 - Investigate soffit of slab below water cooler on North West corner of roof.

ITEM 5: Priority 2 - Remove rubbish on roof and mitigate against storing items on the roof.

ITEM 6: Priority 3 - No waterproofing membrane on the roof.

ITEM 7: Priority 3 - Slenderness ratio of concrete column at entrance

Item 1 and actions

Inadequate detailing of steel shed truss column supports.

Priority 1 (Immediate – Now)

- Carry out an engineering assessment to determine the stability and capacity of roof.

Priority 2 (within 6 – weeks)

- None.

Priority 3 (within 6-months)

- None.

Item 2 and actions

Suspended ground floor is used for storage of yarn.

Priority 1 (Immediate – Now)

- None.

Priority 2 (within 6 – weeks)

- Carry out an engineering assessment to determine the capacity of the slab and the current loading. Investigation of soil stiffness and load distribution should be done to better define load path.

Priority 3 (within 6-months)

- None.

Item 3 and actions

A section of the third floor slab is used for storage of yarn.

Priority 1 (Immediate – Now)

- None.

Priority 2 (within 6 – weeks)

- Produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor capacity and column capacity.

Priority 3 (within 6-months)

- None.

Item 4 and actions

Cracked soffit of slab below water cooler on North West corner of roof.

Priority 1 (Immediate – Now)

- None.

Priority 2 (within 6 – weeks)

- Carry out an engineering assessment to determine the capacity of the slab and the current loading.

Priority 3 (within 6-months)

- None.

Item 5 and actions

Rubbish and storage on roof.

Priority 1 (Immediate – Now)

- None.

Priority 2 (within 6 – weeks)

- Remove all rubbish and stored items on roof and do not use roof for storage.

Priority 3 (within 6-months)

- None.

Item 6 and actions

Roof appears not to have any waterproofing system applied.

Priority 1 (Immediate – Now)

- None.

Priority 2 (within 6 – weeks)

- None.

Priority 3 (within 6-months)

- Consider applying a new waterproofing membrane.

Item 7 and actions

Perimeter column appears to have a big slenderness ratio

Priority 1 (Immediate – Now)

- None.

Priority 2 (within 6 – weeks)

- None.

Priority 3 (within 6-months)

- Engineer should verify slenderness ratio of column and verify possible instability with regards to second order effects (P-Delta).