

Tripple Seven Apparels Ltd(10069)

2, Sujat Nagar, Sujat Plaza, Mirpur-12, Dhaka.

(+23.828756N, 90.363870E)

08.07.2014



Identified Priority 1 Concerns

Not applicable

Identified Priority 2 Concerns

- No loading plan (storage areas)
- Discontinued beam (5th floor, building 1)
- Poor detailing of steelwork at roof
- No obvious lateral stability system

1st Priority 2 Concern

No loading plans were provided for either building.

High load in storage areas were observed during inspection .

Require an Engineering Assessment to verify maximum loading in storage areas.





Building 02 roof

1st Priority 2 Concern (continued)

The Building 02 roof contains about 13 water tanks of different size and shape. Their capacity ranges from 1000 liters to 3000 liters.

Position of these water tanks is confusing and no actual engineering assessment was done to determine their position. Moreover a number of water tanks sits on the cantilever slab.

The total roof load must be reduced to the acceptable level of 2.0 kPa and spread out to not exceed this load in any area.

2nd Priority 2 Concern

Steel roof connections to concrete column of building 1 seem poorly designed

Carry out an Engineering Assessment to verify that those connection are adequately designed.



3rd Priority 2 Concern

- Discontinued beam (photo from 5th floor, building 1)
- Ensure that loads in this area are not increased beyond current levels, and maintain constant surveillance until an Engineering Assessment is carried out to check if this condition meets BNBC requirements.

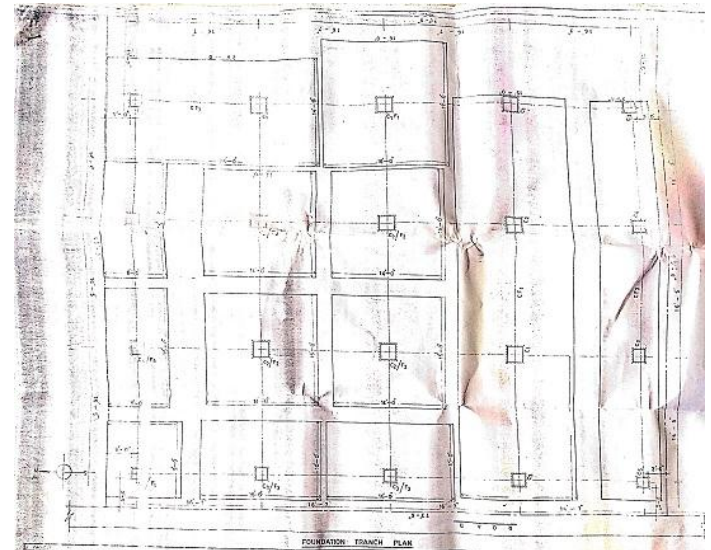


Identified Priority 3 Concerns

Poor documentation
Highly stressed columns in Building 1.

1st Priority 3 Concern

- We were not provided with complete structural documentation of building 2.
- Some structural element where not constructed as showed on the provided documents. We recommend to survey the actual condition and update the drawings.





Footing layout plan for building 02

1st Priority 3 Concern (continued)

Our concerns are due to the following elements seen during our survey:

- The structural drawing for Building 02 does not matches with the actual site condition. The number of columns and the number of rows do not match.
- The drawing of Building 02 do not contain any directions. North direction should be mentioned in the drawings.
- There are no master plan for the entire premises.
- Building 01 has a couple of revised and as-build drawings. But none of them shows the connection between Building 01 an 02.

Overall Stability System



The buildings did not feature any core or shear walls. Stability was achieved through sway action between columns and beams and masonry infill walls.

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



Water Ingress at Roof Level



No waterproofing membrane was visible on the roof of the buildings. 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 deterioration of the slab.

Priority Actions

Problems Observed Summary

ITEM 1 (Priority 2): No loading plan

ITEM 2 (Priority 2): Discontinued beams in building 1

ITEM 3 (Priority 2): Poor detailing to steelwork roof of the storage shed.

ITEM 4 (Priority 2): The buildings does not have any obvious stability system.

ITEM 5 (Priority 3): Poor documentation

ITEM 6 (Priority 3): Highly stressed columns in building 1

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Priority 2 - No loading plan	Immediately reduce storage loading and ensure that loading at all floors is less than or equal to 2.0kPa.	Immediate – Now
2	Priority 2 - No loading plan	Perform an Engineering Assessment of the load bearing capacity of the floors. Produce loading plans for each level.	6-weeks
3	Priority 2 - No loading plan	Ensure that loading plans are displayed and managed at each level.	6-months
4	Priority 2 - Discontinued beams in building 1	Ensure that loading on the floor area supported by this beam is not increased beyond current levels. Implement constant surveillance of this beam.	Immediate – Now
5	Priority 2 - Discontinued beams in building 1	Carry out an Engineering Assessment to verify if the actual structure is adequately design.	6-weeks
6	Priority 2 - Discontinued beams in building 1	Carry out highlighted recommendations of Engineering Assessment.	6-months
7	Priority 2 - Poor detailing to steelwork roof of the storage shed.	Carry out Engineering Assessment on steelwork roof to determine if it is adequate and securely fixed.	6-weeks
8	Priority 2 - Poor detailing to steelwork roof of the storage shed.	Carry out recommendations from Engineering Assessment. Add details drawings of the sheds to the factory buildings documents.	6-months

Item No.	Observation	Recommended Action Plan	Recommended Timeline
9	Priority 2 - The buildings does not have any obvious stability system.	Carry out engineering assessment on the building to verify that it is stable under lateral loading as per BNBC.	6-weeks
10	Priority 2 - The buildings does not have any obvious stability system.	Implement any recommendations from the Engineering assessment.	6-months
11	Priority 3 - Poor documentation	Survey all buildings and update existing drawings.	6-months
12	Priority 3 - Highly stressed columns in building 1	Factory Engineer to review design, loads and columns stresses in area identified above. Verify insitu concrete stresses either by 100mm dia. cores or existing cylinder strength data for [the identified columns] or [100mm dia. cores from 4 columns].	6-months