

Denim Attires Ltd. (11366)

Nimtoly, Shilmon, Tongi, Gazipur.

(+23.912951N, 90.422348E)

28.06.2014



Identified Priority 1 Concerns

Not applicable

Identified Priority 2 Concerns

Missing structural documentation for steel structure
Exterior steel staircase is poorly design
No fireproofing on mezzanine floor steel structure

1st Priority 2 Concern



Structural details of steel structures (mezzanine, stairs, shed roofs) were not provided on any documents.

2nd Priority 2 Concern



Exterior steel staircase of the main building is poorly designed.

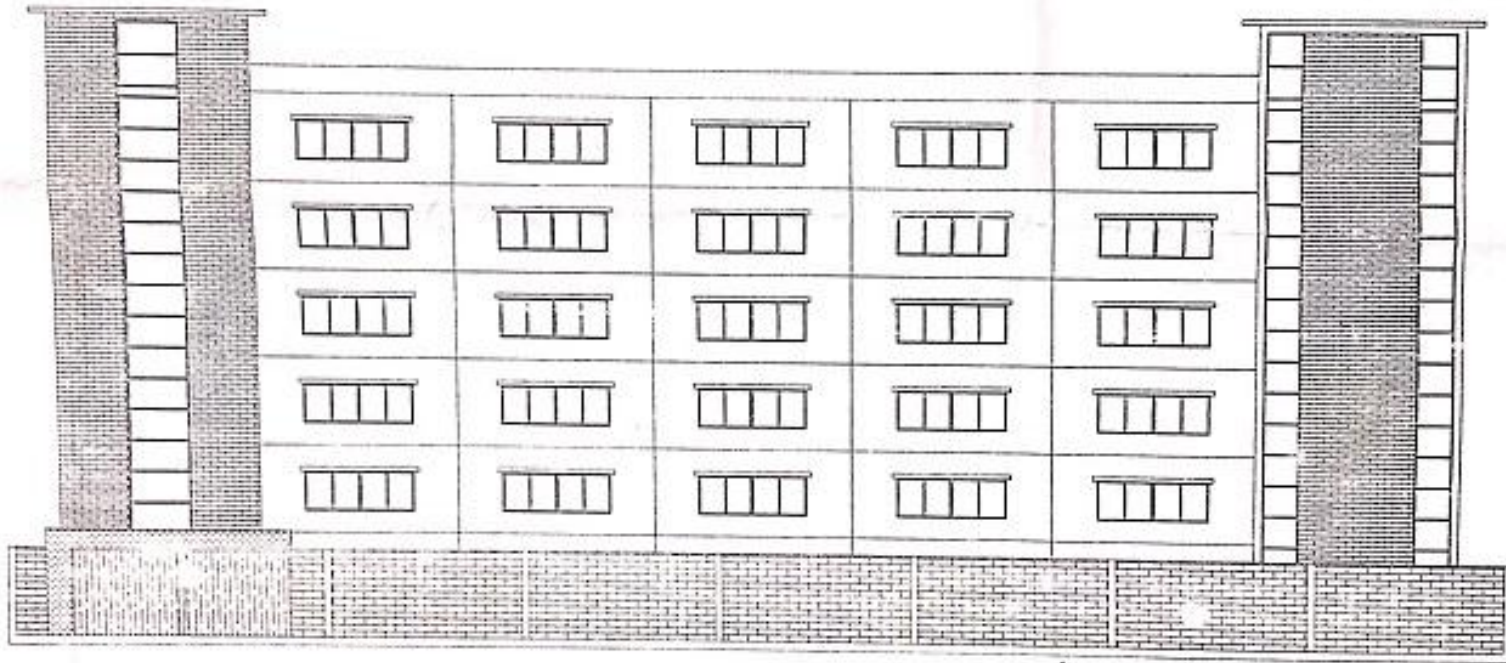
3rd Priority 2 Concern



No fireproofing material was noted on any structural steel elements supporting the mezzanine floor as suggested by BNBC 2006.

Identified Priority 3 Concern

Highly stressed columns for the proposed 6-storey.



SOUTH SIDE ELEVATION
SCALE: 1:150

If construction is extended to 6 storeys as permitted, the columns will be somewhat overstressed to a YELLOW rating.

Overall Stability System



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

We recommend that these items be investigated in an Engineering Assessment

Water Ingress at Roof Level



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 corrosion of the reinforcing steel.

Priority Actions

Problems Observed Summary

ITEM 1: (1st Priority 2) No structural documentation for any steel structure.

ITEM 2: (2nd Priority 2) Exterior steel staircase is poorly designed.

ITEM 3: (3rd Priority 2) No fireproofing on mezzanine floor steel structure.

ITEM 4: (Priority 3) Highly stressed columns for the proposed 6-storey construction.

ITEM 5: No obvious lateral stability system observed.

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	1st Priority 2 - No structural documentation for any steel structure.	Factory Engineer to update or produce as-built drawings for all the buildings in the factory.	6-weeks
2	2nd Priority 2 - Exterior steel staircase is poorly designed.	Carry out an Engineering Assessment on the steel staircase to verify that it is adequately design for its purposes.	6-weeks
3	2nd Priority 2 - Exterior steel staircase is poorly designed.	Carry out recommendations of the Engineering Assessment.	6-months
4	3rd Priority 2 - No fireproofing on mezzanine floor steel structure.	Fireproofing material for structural steel element is recommended as suggested in BNBC Codes.	6-weeks
5	3rd Priority 2 - No fireproofing on mezzanine floor steel structure.	Maintain standard of quality control and protection of the fire protection.	6-months
6	Priority 3 - Highly stressed columns for the proposed 6-storey construction.	Carry out Engineering Assessment on the building to verify if the columns are adequately designed for a 6-storey building. In-situ concrete testing may be required.	6-months
7	No obvious lateral stability system observed.	Carry out Engineering Assessment on the building to verify that it is stable under lateral loading as per BNBC both in the current and proposed configurations.	6-weeks
8	No obvious lateral stability system observed.	Carry out recommendations from Engineering Assessment.	6-months