

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: AB Mart Fashion Wear Ltd.
Address of the Factory	: Plot # 786, Kakil Sataish Boradawra, 13/3 Purbopara, Mudafa, Tongi, Gazipur
Present Status of the Factory	: Under Operation
Structural Assessment Conducted by	: BUET
Date of Structural Inspection	: 4 th December 2014

BASIC INFORMATION:

The Layout Plan was approved by the Chairman, Tongi Pourashava on 14/08/2006. On the basis of visual observations, the following information was noted:

i.	Building Usage Type	: Garments factory
ii.	Structural System	: RC beam-column framing system
iii.	Floor System	: RC beam supported slab (Thickness : 5")
iv.	Floor Area	: Approximately 6250 sft per floor
v.	No. of Stories	: 4 (four) on most part; partly 5 (five) storied
vi.	Construction Year	: GF-1F: 2005-2006; 2F-3F:2007-2010; (4 storey Extension on South side).
vii.	Foundation Type	: Individual footing (as per drawing) : Typical footing size: Interior column-2.29 m × 2.29m; exterior column: 1.8m × 1.8m; Corner column: 1.52m × 1.52m
viii.	Design Drawings	: Available (Designed by: Engr. Md. Shahadat Hossain (Manik), B.Sc. in Civil, AM-5242, Planners & designers, 413 Khilgaon Chowdhury Para, Dhaka 1219)
ix.	Soil Investigation Report	: Available (By Geotechnical Engineers & Consultants, 17/A, DIT Road (2nd floor), East Rampura, Dhaka 1219; March 2005)
x.	Construction Materials	: Reinforced Concrete (No test report on construction materials is available; Design strengths mentioned on drawing: $f_c=2500$ psi and $f_y=40$ ksi), Coarse aggregate: Brick chips
xi.	Generator/Boiler	: Generator (165 kVA) and boiler (100 kg) are located on GF of extension part.

RECOMMENDATIONS FOR CORRECTIVE ACTION:

The recommendations of corrective action for both Structural and Fire & Electrical Safety comprises in Short Term, Mid Term and Long Term basis.

The recommendations for **Structural Safety** corrective action are:

Short Term (Immediate)	: None
Mid Term (6-weeks)	: None
Long Term (6-months)	: DEA shall have to be conducted within six months time. DEA shall include preparation/verification of as-built drawing as well as testing of 4 nos. 4" concrete cores to determine in-situ strength. Load plan shall have to be prepared after DEA and the same shall have to be submitted for vetting.

The recommendations for **Fire & Electrical Safety** corrective action are:

Name of the Factory	: AB Mart Fashion Wear Ltd.
Fire & Electrical assessment conducted by	: BUET
Date of Fire & Electrical Inspection	: 23 rd December 2014

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(A): Recommendations for Fire Safety corrective actions:

Fire Safety Issues	
Immediate <i>(the factory should not continue to be occupied until these non-conformities have been rectified):</i>	N/A
Short Term <i>(Actions that must be incorporated into a Fire Safety Management Plan immediately (a week) and should be a regular activity)</i>	<p>Remove all temporary obstructions from all escape routes, aisles and passageways.</p> <p>Ensure minimum width of corridors, passageways and aisles.</p> <p>Provide proper directional sign and exit sign in Bangla and English as per guidelines.</p>
Mid Term <i>(The remedial works indicated must be carried out within a period of 6 weeks)</i>	<p>Produce proper drawing and plans to create horizontal and vertical fire-rated separation for stairways of appropriate specifications, grills, storage and assembly areas, offices, work areas. Also design to ensure proper separation of high risk areas (e.g., boiler room) as per guidelines.</p> <p>Remove all collapsible gates/roller shutters/sliding doors. Produce design drawings to demonstrate how stairways are to be made of adequate dimensions and appropriate specifications and to be converted into fire-rated enclosures equipped with fire-rated side swinging doors of required dimensions opening in the direction of travel at each floor. Provide design to install proper detection and alarm system.</p>
Long Term <i>(The remedial works indicated must be carried out within a period of 6 months)</i>	<p>Install horizontal and vertical fire-rated separation for stairways of appropriate specifications, grills, storage and assembly area, offices, work areas.</p> <p>Ensure proper fire separation of high risk areas (e.g., boiler room) as per approved design.</p> <p>Install fire rated enclosure and doors of appropriate dimensions at exit to the stairs to prevent smoke and fire propagation as per approved design.</p>

(B): Recommendations for Electrical Safety corrective actions:

Electrical Safety Issues	
Immediate <i>(the factory should not continue to be occupied until these non-conformities have been rectified):</i>	N/A

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<p>Short Term <i>(Actions that must be incorporated into a Fire Safety Management Plan immediately (a week) and should be a regular activity)</i></p>	<p>Provide instructions for first aid and artificial respiration from exposure to electrical shock.</p> <p>Provide cover on the cable trench and rubber mat in front of the panel.</p> <p>Ensure well-dressed cabling with lugs and remove loose cabling.</p> <p>Ensure earthing of panel body & door with fitted condition.</p> <p>Remove burnt/broken/loose MCB/MCCB box/socket.</p>
<p>Mid Term <i>(The remedial works indicated must be carried out within a period of 6 weeks)</i></p>	<p>Provide separate service ducts for electrical cables.</p> <p>Provide new Emergency Lighting system.</p>
<p>Long Term <i>(The remedial works indicated must be carried out within a period of 6 months)</i></p>	<p>N/A</p>