

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

Name of the Factory	: Bela Fashions Ltd.
Address of the Factory	: 86, Elephant Road, Dhaka-1205
Present Status of the Factory	: Under Operation
Structural Assessment Conducted by	: BUET
Date of Structural Inspection	: 16 th November 2014

BASIC INFORMATION:

Some design drawings of the as-built building were provided. The following information was noted:

i.	Building Usage Type	: Mixed occupancy/use
ii.	Structural System	: RC beam-column framing system
iii.	Floor System	: RC beam supported slab
iv.	Floor Area	: Approximately 3,225 sft per floor
v.	No. of Stories	: 8 (Eight), Rooms on part ($\approx 1/3$) of roof i.e.8F
vi.	Construction Year	: GF - 1F : 1995, 2F - 7F : 1998-2005
vii.	Foundation Type	: Individual footing (as per drawing): under Interior columns- 8'x8' & under exterior columns- 7'x7'; under corner columns- 6'x6'; inconsistency in drawings noted.
viii.	Design Drawings	: Available (Designed by: Engr. Nuruddin Mohammad, Humayun, B.Sc.in Civil, MIEB: 23541; undated)
ix.	Soil Investigation Report	: Available (By Subsoil Engineering & Construction Co. Ltd., 333 Elephant Road, 2nd fl., Dhaka 1205; June 2006)
x.	Construction Materials	: Reinforced Concrete (No test report on construction materials is available), Coarse aggregate: Brick chips (observed in a GF column).
xi.	Generator	: Ground Floor; 225 kVA

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) : A Detail Engineering Assessment (DEA) has to be completed. 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 : Bela Fashions Ltd.

Fire & Electrical assessment conducted by : BUET

Date of Fire & Electrical Inspection : 29th September 2014

(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

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

<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>Remove obstructions from all escape routes, aisles and passageways.</p> <p>Maintain minimum effective width of corridors, passageways and aisles.</p> <p>Confirm adequate numbers of fire drills.</p> <p>Ensure that portable extinguishers are monitored and maintained at regular interval as per the Guidelines.</p> <p>Provide proper directional signs and exit signs in Bangla and English as per the Guidelines.</p>
<p>Mid Term <i>(The remedial works indicated must be carried out within a period of 6 weeks)</i></p>	<p>Prepare drawings to ensure adequate horizontal and vertical fire-rated separation inside one floor and between different floors, e.g. separation with stairways, storage, offices, and work areas as per the Guidelines.</p> <p>Prepare plans to ensure all exit access doors are side-swinging type and open to the direction of traffic flow.</p> <p>Produce drawings to demonstrate how stairways are to be made of adequate dimensions, without confusion and appropriate specifications and to be converted into continuous fire-rated enclosures equipped with fire-rated doors.</p> <p>Provide design to install standard standpipe and hose system</p> <p>Also show methods to ensure proper separation of high risk areas (e.g., generator and boiler rooms) as per the Guidelines.</p> <p>Provide design to install proper detection and alarm system.</p>
<p>Long Term <i>(The remedial works indicated must be carried out within a period of 6 months)</i></p>	<p>Ensure adequate horizontal and vertical fire-rated separation inside one floor and between different floors, e.g. separation with stairways, storage, offices, and work areas.</p> <p>Ensure all exit access doors are side-swinging type and open to the direction of traffic flow.</p> <p>Install stairways of adequate dimensions, with no confusion and appropriate specifications and convert into continuous fire-rated enclosures equipped with fire-rated doors.</p> <p>Install standard standpipe and hose system</p> <p>Ensure proper separation of high risk areas (e.g., generator and boiler rooms) as per the Guidelines.</p> <p>Install proper detection and alarm system.</p>

(B): Recommendations for Electrical Safety corrective actions:

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

Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

<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>Provide distribution board as per guideline and put identification mark on distribution panel.</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>Provide appropriate Lightening Protection System as per guidelines.</p>
<p>Long Term <i>(The remedial works indicated must be carried out within a period of 6 months)</i></p>	<p style="text-align: center;">N/A</p>