Name of the Factory	: Daania Fashion Limited: Building-1(6-Storied)
Address of the Factory	: 2/C, Darus Salam Road, Mirpur, Dhaka-1216
Present Status of the Factory	: Under Operation
Structural Assessment Conducted by	: BUET
Date of Structural Inspection	: 27th December 2013
Fire & Electrical Assessment Conducted by	: BUET
Date of Fire & Electrical Inspection	: 15th November 2013

BASIC INFORMATION:

The present garment factory is a six-storied building with beam-column frame system. The following information were noted:

i.	Building Usage Type	: Garments Factory.
ii.	Structural System	: RC beam column frame structure
iii.	Floor System	: Edge supported RC solid floor slab system on RC beam.
iv.	Floor Area	: Approx. 6300 sq ft/floor (as per drawing submitted).
v.	No. of Stories	: 6 (Six)
vi.	Construction Year	: 1st Phase: GF to 3rd Floor: 1984; 2nd Phase: 4th and 5th Floor: After 1984.
vii.	Foundation Type	: Individual footing (as per submitted structural drawing)
viii.	Design Drawings	: Part Available (RAJUK Approval drawing). As-built drawing available (Engr. Nurul Anwar, MIEB: M-5273, January 2007).
ix.	Soil Investigation Report	: Available (By M/S Mozammel Haque, 26/3 Central Road (GP), Dhanmondi, May 2013).
x.	Construction Materials	: Not known (expected to be concrete with brick chips and 40 Grade steel).
xi.	Generator	: One Generator at ground level outside the building.

ACTIONS AND TIMESCALES:

- Due to Concerns with relatively high column stresses some (minimum of 4 number) 4inch diameter cores should be taken from columns as soon as possible (within 6 weeks) and tested to assess the actual strength. UPV test shall also be used for this purpose. Ferro-scanning (or physical investigation) of the steel reinforcement to be done to assess the amount of steel in the columns. If better estimate of concrete strength and steel presence does not improve the safety requirement, Detail Engineering Analysis will be required.
- All areas of storage loads to be limited to 40psf ($2kN/m^2$) immediately.
- Efflorescence to be removed and proper repair should be finished within 6 months.

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)	: Ensure that load is to be limited to 40 psf ($2kN/m^2$) in all floors.
Mid Term (6-weeks)	: Core Tests are required to be done.
Long Term (6-months)	: Efflorescence to be removed and proper repair should be finished

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

(A): Recommendations for Fire Safety corrective actions:

Immediate (*the factory should not continue to be occupied until these non-conformities have been rectified*):	N/A
Short Term (*Actions that must be incorporated into a Fire Safety Management Plan immediately (a week) and should be a regular activity*	Remove all temporary obstructions from all escape routes, aisles and passageways. Remove all combustible materials from transformer room. Ensure minimum width of corridors, passageways and aisles. Ensure easy access to portable extinguishers and monitor and maintain the same at required interval as per guidelines. Provide proper directional sign.
Mid Term (*The remedial works indicated must be carried out within a period of 6 weeks)*	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., generator, boiler, transformer and substation rooms) as per guidelines. 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. Produce design to install standard standpipe, hose and fire pump system. Provide design to install proper detection and alarm system. Install command station as per guidelines.
Long Term (*The remedial works indicated must be carried out within a period of 6 months)*	Install horizontal and vertical fire-rated separation for stairways of appropriate specifications, grills, storage and assembly areas, offices, work areas. Ensure proper fire separation of high risk areas (e.g., generator, boiler, transformer and substation rooms) as per approved design. Install fire rated enclosure and doors of appropriate dimensions at exit to the stairs to prevent smoke and fire propagation as per approved design. Install standard standpipe, hose and fire pump system. Install proper detection and alarm system. Provide fire rated enclosure, install self closing fire rated door as per guidelines.

(B): Recommendations for Electrical Safety corrective actions:

Immediate (*the factory should not continue to be occupied until these non-conformities have been rectified*):	N/A
Short Term (*Actions that must be incorporated into a Fire Safety Management Plan immediately (a week) and should be a regular activity*	Provide instructions for first aid and artificial respiration from exposure to electrical shock. Ensure well-dressed cabling with lugs and remove loose cabling. Ensure earthing of panel body & door with fitted condition. Provide distribution board as per guideline and put identification mark on distribution panel. Remove burn MCB/MCCB box/socket.
Mid Term (*The remedial works indicated must be carried out within a period of 6 weeks)*	Provide separate service ducts for electrical cables. Provide new Emergency Lighting system. Provide appropriate Lightening Protection System as per guidelines.
Long Term (*The remedial works indicated must be carried out within a period of 6 months)*	N/A