

INITIAL STRUCTURAL INTEGRITY ASSESSMENT REPORT (SIAR)

Factory Name: **SIMBA FASHION LTD**
Address: **SSFB-03 Adamjee EPZ, Siddirgonj, Narayangonj
Siddirgonj Dhaka Bangladesh**
Assessor: **Bureau Veritas**
Date: **14 May 2014**





Introduction to the Report

The following report contains a site profile and summary of non-conformities identified during an onsite assessment commissioned by the Alliance for Bangladesh Worker Safety (Alliance) and conducted by a third-party Qualified Assessment Firm (QAF). The assessment was conducted against the Alliance for Bangladesh Worker Safety Assessment Protocols (APs) and Fire Safety and Structural Integrity Standard, which is harmonized with the factory assessment guidelines developed by Bangladesh University of Engineering and Technology (BUET) for the Bangladesh National Tripartite Plan of Action (NTPA). The goal of the Alliance process is to provide clear and practical technical requirements by which Bangladeshi Ready Made Garment (RMG) Factories producing for Alliance members may be consistently and fairly evaluated for fire, structural, and electrical safety in a non-duplicative manner. Each assessment will prompt action plans that will be used by RMG factories to systematically and sustainably improve safety conditions for garment workers. Beyond tracking and reporting on action steps taken in a transparent manner, the Alliance organization and its members will seek to further support factory improvements through technical assistance, training, implementation support for functional Worker Committees, and in some cases financial assistance and wage support for workers if factories are closed for remediation.

The contents of the report do not constitute a guarantee of compliance with the applicable laws, the Alliance Standard or the absolute or continued safety against fire, electrical and/or structural integrity issues that may lead to injury or loss of life. The report is designed to provide a non-exhaustive summary of risk issues, based on a limited sampling and duration of time onsite by the named QAF. Neither the QAF nor the Alliance can certify or guarantee the quality, outcome, or effectiveness of actions taken in response to the report.

For more information and report feedback please go to: www.bangladeshworkersafety.org.





GENERAL INFORMATION

General Information	
Factory Name:	SIMBA FASHION LTD
Address:	SSFB-03 Adamjee EPZ, Siddirgonj, Narayangonj Siddirgonj Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	Siddirgonj
Zip Code:	
Audit Duration:	1 Days
Re-Audit:	Re-Audit After 0 Months
Draft Report Date :	05-18-2014
Final Report Date :	10-21-2014
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex :	There are 7 buildings in the premises out of which one is main production building and six are ancillary buildings. The buildings are named as: 1) One story PEB production building (with one Mezzanine Floor), 2) Two story Dining building, 3) Two story prayer building, 4) Single story Generator & Guard room, 5) Single story Boiler & Compressor Room, 6) Two story Water reservoir & Pump Room, 7) Single story Wastage Store (Corrugated Iron Shed).
Number of Building Levels (Stories) :	1) One story PEB production building (with one Mezzanine Floor): Stories above grade: 1 (with 01 Mezzanine floor), Stories below grade: 0, Occupied levels: 1, 2) Two story Dining building: Stories above grade: 2, Stories below grade: 0, Occupied levels: 2, 3) Two story prayer building: Stories above grade: 2, Stories below grade: 0, Occupied levels: 2, 4) Single story Generator & Guard room: Stories above grade: 1, Stories below grade: 0, Occupied levels: 1, 5) Single story Boiler & Compressor Room: Stories above grade: 1, Stories below grade: 0, Occupied levels: 1, 6) Two story Water reservoir & Pump Room: Stories above grade: 2, Stories below grade: 0, Occupied levels: 2, 7) Single story Wastage Store (Corrugated Iron Shed): Stories above grade: 1, Stories below grade: 0, Occupied levels: 1.
Approximate Building Area (SF) :	Total area of buildings in the factory premises: 76967.08 sft. Building wise breakdown as follows: 1) One story PEB production building (with one Mezzanine Floor): 66563.02 sft, 2) Two story Dining building: 4073.28 sft, 3) Two story prayer building: 4073.28 sft, 4) Single story Generator & Guard room: 591.79 sft, 5) Single story Boiler & Compressor Room: 589.66 sft, 6) Two story Water reservoir & Pump Room: 176.05 sft, 7) Single story Wastage Store (Corrugated Iron Shed): 900.00 sft.
Date of Building Construction :	Factory personnel informed the date of construction as follows: 1) Single story prefabricated production building (with one Mezzanine Floor): Finished in 1979.
Date of Last Building Renovation/Addition :	Factory personnel informed the date of last building renovation as follows: 1) Two story Dining building: Finished in April-2014.
Is the Building mixed use?:	No
Ancillary Structures in Complex :	1) Two story Dining building, 2) Two story prayer building, 3) Single story Generator & Guard room, 4) Single story Boiler & Compressor Room, 5) Two story Water reservoir & Pump Room, 6) Single story Wastage Store (Corrugated Iron Shed).
Number of Ancillary Levels (Stories) :	1) Two story Dining building: Stories above grade: 2, Stories below grade: 0, Occupied levels: 2, 2) Two story prayer building: Stories above grade: 2, Stories below grade: 0, Occupied levels: 2, 3) Single story Generator

Factory
Name:

SIMBA FASHION LTD

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	& Guard room: Stories above grade: 1, Stories below grade: 0, Occupied levels: 1, 4) Single story Boiler & Compressor Room: Stories above grade: 1, Stories below grade: 0, Occupied levels: 1, 6) Two story Water reservoir & Pump Room: Stories above grade: 2, Stories below grade: 0, Occupied levels: 2, 7) Single story Wastage Store (Corrugated Iron Shed): Stories above grade: 1, Stories below grade: 0, Occupied levels: 1,
Approximate Ancillary Structures Area (SF) :	1) Two story Dining building: 4073.28 sft, 2) Two story prayer building: 4073.28 sft, 3) Single story Generator & Guard room: 591.79 sft, 4) Single story Boiler & Compressor Room: 589.66 sft, 5) Two story Water reservoir & Pump Room: 176.05 sft, 6) Single story Wastage Store (Corrugated Iron Shed): 900.00 sft.
Number of Occupants :	Total number of occupants: 1480. 1) One story prefabricated production building (with one Mezzanine Floor): 1474, 2) Two story Dining building: 2, 3) Two story prayer building: 0, 4) Single story Generator & Guard room: 2, 5) Single story Boiler & Compressor Room: 1, 6) Two story Water reservoir & Pump Room: 1, 7) Single story Wastage Store (Corrugated Iron Shed): 0.
Exterior Facade Description :	From the visual inspection, this is Steel truss structure where the load bearing component of the structure is steel column, truss & RCC column at outer edge of the building. The windows are sliding type with glass. The main gate is sliding metallic type.
Structural System Description :	The Structure system is PEB Steel structure, having spread type foundation having truss roof, partion walls are of brick masonry with plaster on it, the structure configured as a Regular Structure



ASSESSMENT FINDINGS

Structural System Design

Question:	Are the available FoS for the columns adequate based on Preliminary calculation?	 
Priority Level:	High	
Non-Compliance Level:	3	
Description:	The available FoS for the steel columns of the one story PEB production building (with one Mezzanine Floor) are as follows: 1) Center Column - 1.65, 2) Corner Column - 3.48, 3) Edge Column - 2.26, The available FoS for the columns of Two Story Dining Building are as follows: Central columns of this building are made of MCAC and corner and edge columns are made of Stone Chips. FoS considering the value of NDT (UPV Test-2973 for MCAC, 2041 for stone chips): 1) Center Column - 4.55, 2) Corner Column - 8.68, 3) Edge Column - 7.82, FoS considering minimum(2045 for MCAC, 2370 for stone chips): 1) Center Column - 3.54, 2) Corner Column - 9.69, 3) Edge Column - 8.72, FoS of two story prayer room could not be done as the columns of the building are made of bricks.	
Source of Findings:	Uploaded Document: Calculations on Excel files.	
Suggested Plan of Action:	Under guidance from a qualified structural engineer arrange Detail Engineering Assessment of the two story prayer room.	
Suggested Deadline Date:	18 Nov 2014	
Standard:	Provide results of preliminary calculations in space provided. a) column capacity; FoS > 1.86 - Safe b) column capacity; FoS 1.5 -1.86 - Needs Evaluation c) Column capacity; FoS 1.25-1.5 - Needs Evaluation d) Column capacity; FoS <1.25 - Unsafe In case of a critically low FoS (<1.25), consider Immediate Escalation Protocol	

Structural System Construction

Question:	Are all non-structural elements suspended from, attached to, or resting atop the structure adequately anchored and braced to resist earthquake forces?	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	Overhead water tanks are not properly braced against lateral loads at the dining building. The stored raw materials for garment fabrication are not properly braced or anchored.	
Source of Findings:	Visual Assessment: Visual assessment on May 14, 2014.	
Suggested Plan of Action:	Adequately anchor and brace all non-structural elements to resist earthquake forces to comply with the BNBC and Alliance Standards.	
Suggested Deadline Date:	18 Aug 2014	
Standard:	Alliance Standards Part 8 Section 8.18 Seismic Bracing of Key Non-Structural Elements and 2006 BNBC Part 6	



Question:	Have all areas of needed maintenance, including areas with efflorescence, dampness, standing water on rooftops, and corrosion been addressed.
Priority Level:	Medium
Non-Compliance Level:	2
Description:	Water ponding was found on the first floor slab of the dining building.
Source of Findings:	Visual Assessment: Visual assessment on May 14, 2014
Suggested Plan of Action:	Under guidance from a qualified structural engineer, address all areas of needed maintenance by correcting the identified issues.
Suggested Deadline Date:	07 Jul 2014
Standard:	Alliance Standard Part 8 Section 8.26 Durability and Maintenance



Structural Safety Programs

Question:	Is a designated representative (Factory Load Manager), who is onsite full time, trained regarding the structural floor capacity, and serves as an ongoing vendor resource and monitor of operational factory floor loadings?
Priority Level:	Low
Non-Compliance Level:	2
Description:	Factory Load Manager is not available. Record of appointment of a project engineer has been found.
Source of Findings:	Document Review: HR file of Load Manager., Visual Assessment: Visual assessment on May 14, 2014.
Suggested Plan of Action:	Designate a representative as the Factory Load Manager. The Factory Owner shall ensure that at least one individual, the Factory Load Manager who is located onsite full time at the factory, is trained in calculating operational load characteristics of the specific factory. The Factory Load Manager shall serve as an ongoing resource to RMG vendors and be responsible to ensure that the factory operational loads do not at any time exceed the factory floor loading limits as described on the Floor Loading Plans.
Suggested Deadline Date:	12 Jul 2014
Standard:	Alliance Standards Part 8 Section 8.9 Factory Load Manager

