

# INITIAL STRUCTURAL INTEGRITY ASSESSMENT REPORT (SIAR)

Factory Name: **SIMBA FASHION LTD Extension plot**  
Address: **Plot # 259,260,277,278 Adamjee EPZ, Siddirgonj,  
Narayangonj Siddirgonj Dhaka Bangladesh**  
Assessor: **BD Technologies**  
Date: **17 Jan 2016**





## 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](http://www.bangladeshworkersafety.org).





## GENERAL INFORMATION

General Information	
Factory Name:	SIMBA FASHION LTD Extension plot
Address:	Plot # 259,260,277,278 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 :	January 23, 2016
Final Report Date :	February 8, 2016
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex :	There are 4 buildings, one main factory building and three ancillary sheds. 1) Main factory building; 2) Ancillary-1 (Security room); 3) Ancillary-2 (Fire pump and FACP room); 4) Ancillary-3 (Utility building).
Number of Building Levels (Stories) :	1) Main Factory Building: 1-story plus mezzanine.
Approximate Building Area (SF) :	Total area of all buildings in the factory premises: 134,533 SF. 1) Main Factory Building: 130,970 SF.
Date of Building Construction :	2014-2015
Date of Last Building Renovation/Addition :	N/A
Is the Building mixed use?:	No
Ancillary Structures in Complex :	1) Ancillary-1 (Security room); 2) Ancillary-2 (Fire pump and FACP room); 3) Ancillary-3 Utility building).
Number of Ancillary Levels (Stories) :	All Ancillary buildings: 1-story.

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Approximate Ancillary Structures Area (SF) :	1) Ancillary-1 (Security room): 200 SF; 2) Ancillary-2 (Fire pump and FACP room): 200 SF; 3) Ancillary-3 (Utility building): 2,236 SF.
Number of Occupants :	Total number of occupants: 1,226.
Exterior Facade Description :	Brick masonry infill walls with aluminum framed glass windows.
Structural System Description :	Main factory building is Structural steel framing with RC decking slab. The lateral load resisting systems are also steel main beam and sub beam. The foundation system is Isolated Footing.
Issues were not found during the structural integrity assessment that required the Emergency Escalation Protocol (and referral to NTC Review Panel)?:	Yes



## ASSESSMENT FINDINGS

### Structural System Design

Question:	Are credible structural design documents available for review and kept on site?	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	A few structural documents for the main factory building are available for review and kept on site but the documents are not credible as per BNBC part 6 section 1.9 and the requirements of Part 8 Section 8.19/8.20 of the Alliance Standard.	
Source of Findings:	Document Review: Document reviewed during visit January 17, 2016. , Visual Assessment: Visual Assessment on Site visit January 17, 2016.	
Suggested Plan of Action:	Have a qualified structural engineer prepare credible as-built documents based on the requirements of Part 8 Section 8.19 of the Alliance Standard. The documents should be prepared for all buildings within the factory complex.	
Suggested Deadline Date:	31 Mar 2016	
Standard:	Alliance Standard Part 8 Section 8.19 Required Structural Documentation for New and Existing Factories	
Question:	Have provisions been made in floors or decks for a concentrated load (such as heavy equipment, water tanks, stored materials, etc) applied at a location wherever this load acting upon an otherwise unloaded floor would produce stresses greater than those caused by a uniform load?	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	Concentrated load conditions were noted in the mezzanine floor storage area during the visual review. No evidence was available to indicate that the structural impact of these concentrated loads were considered.	
Source of Findings:	Visual Assessment: Visual Assessment on Site visit January 17, 2016.	
Suggested Plan of Action:	Engage a qualified structural engineer to confirm and document that provisions have been made to accommodate concentrated loads. If provisions have not been made, have a qualified structural engineer develop a remediation plan.	
Suggested Deadline Date:	31 Mar 2016	
Standard:	Alliance Standard Part 8 Section 8.13 and 8.14	
Question:	Where density of operations, storage of materials, or equipment weights	



	require live load capacity in excess of 2.0 kN/m2 (42 psf), do the design documents confirm that the required load capacity exists? Or has the load capacity been analytically confirmed and certified by an Alliance-qualified structural engineer?	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	Live load in excess of 2.0 kN/m2 (42 psf) were noted in the mezzanine floor storage area during the visual review.	
Source of Findings:	Visual Assessment: Visual Assessment on Site visit January 17, 2016.	
Suggested Plan of Action:	Have a qualified structural engineer confirm that capacity to support the load is available. Load Plans complying with Alliance Standard Part 8 Section 8.20.4.3 should also be developed.	
Suggested Deadline Date:	31 Mar 2016	
Standard:	Alliance Standards Part 8 Section 8.15 Minimum Floor Design Loads	
Question:	Are Certificates of Occupancy available for review?	
Priority Level:	Low	
Non-Compliance Level:	2	
Description:	No certificates of occupancy are available for review.	
Source of Findings:	Visual Assessment: Visual Assessment on Site visit January 17, 2016.	
Suggested Plan of Action:	Provide Certificates of Occupancy for review.	
Suggested Deadline Date:	31 Mar 2016	
Standard:	Alliance Standard Part 8 Section 8.3 Preliminary Structural Assessment	
<b>Structural System Construction</b>		



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:	2
Description:	The following non-structural elements required seismic bracing: 1. Storage Rack in Ground Floor; 2. AC outdoor unit.
Source of Findings:	Visual Assessment: Visual Assessment on Site visit January 17, 2016.
Suggested Plan of Action:	Adequately anchor and brace all non-structural elements to resist earthquake forces to comply with the BNBC and Alliance Standard.
Suggested Deadline Date:	31 Mar 2016
Standard:	Alliance Standards Part 8 Section 8.18 Seismic Bracing of Key Non-Structural Elements and 2006 BNBC Part 6



### Structural Safety Programs

Question:	Is a program in place to ensure that the live loads for which a floor or roof is or has been designed will not be exceeded?
Priority Level:	Medium
Non-Compliance Level:	2
Description:	There is no program in place to ensure that the live loads for which a floor or roof is or has been designed will not be exceeded.
Source of Findings:	Visual Assessment: Visual Assessment on Site visit January 17, 2016.
Suggested Plan of Action:	Develop a program to ensure that all live loads for which a floor or roof has been designed for will not be exceeded. The designated Load Manager shall oversee this program and ensure it is enforced.
Suggested Deadline Date:	31 Mar 2016
Standard:	Alliance Standard Part 13 Section 13.7 and Part 8 Section 8.9.

Question:	Have Load Plans been prepared for each floor documenting the actual maximum operational loading that is intended and/or allowable on each floor.
Priority Level:	Low
Non-Compliance Level:	2
Description:	Load Plans have not been prepared for each floor documenting the actual maximum operational loading that is intended and/or allowable on each floor.
Source of Findings:	Visual Assessment: Visual Assessment on Site visit January 17, 2016.



Suggested Plan of Action:	Have a qualified structural engineer develop Floor Loading Plans per the requirements of Part 8 Section 8.20.5.3.	
Suggested Deadline Date:	31 Mar 2016	
Standard:	Alliance Standard Part 8 Section 8.10 Floor Loading Plans (Load Plans)	
Question:	Are Floor Load Plans posted as required?	
Priority Level:	Low	
Non-Compliance Level:	2	
Description:	Floor Load Plans are not posted as required.	
Source of Findings:	Visual Assessment: Visual Assessment on Site visit January 17, 2016.	
Suggested Plan of Action:	Have a qualified structural engineer prepare load plans including the information required in Section 8.20 of the Alliance Standard. Floor load plans should be visibly posted on all levels of the building.	
Suggested Deadline Date:	31 Mar 2016	
Standard:	Alliance Standard Part 8 Section 8.20.5.3	
Question:	Are areas used for storage of work materials and work products, clearly marked to indicate the acceptable loading limits as described in the Load Plan for that floor?	
Priority Level:	Low	
Non-Compliance Level:	2	
Description:	Areas used for storage of work materials and work products are not clearly marked to indicate a acceptable loading limits.	
Source of Findings:	Visual Assessment: Visual Assessment on Site visit January 17, 2016.	
Suggested Plan of Action:	Provide signage or the appropriate markings at all areas used for storage to indicate the acceptable loading limits detailed in the Load Plan.	
Suggested Deadline Date:	31 Mar 2016	
Standard:	Alliance Standard Part 8 Section 8.11 Floor Load Markings	
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	



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Description:	There is no 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.
Source of Findings:	Visual Assessment: Visual Assessment on Site visit January 17, 2016.
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:	31 Mar 2016
Standard:	Alliance Standards Part 8 Section 8.9 Factory Load Manager