

INITIAL STRUCTURAL INTEGRITY ASSESSMENT REPORT (SIAR)

Factory Name: **Unimas Sportswear, Ltd.**
Address: **Bagbari, Kashimpur, Gazipur Sadar Gazipur Dhaka
Bangladesh**
Assessor: **BD Technologies**
Date: **16 Aug 2015**





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:	Unimas Sportswear, Ltd.
Address:	Bagbari, Kashimpur, Gazipur Sadar Gazipur Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	Gazipur
Zip Code:	
Audit Duration:	1 Days
Re-Audit:	Re-Audit After 0 Months
Draft Report Date :	August 18, 2015
Final Report Date :	August 31, 2015
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex :	There are five(5) building in the factory premises. Two of them are main factory building and three ancillary structures.
Number of Building Levels (Stories) :	Main Factory building#1 and Building#2 both of them are eight (8) storied.
Approximate Building Area (SF) :	Total Approximate Building area: = 2,53,138 sq. ft.
Date of Building Construction :	Building-1: 2010-2012. Building-2: 2013-2014. Ancillary-1: 2010. Ancillary-2: 2015. Ancillary-3: 2015.
Date of Last Building Renovation/Addition :	No Renovation/Addition done.
Is the Building mixed use?:	No
Ancillary Structures in Complex :	There are three(3) Ancillary Structures in Complex.
Number of Ancillary Levels (Stories) :	All three ancillary structures are single storied.

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Approximate Ancillary Structures Area (SF) :	Total Approximate Ancillary Structures Area= (2668+250+9000) =11,918 sq. ft.
Number of Occupants :	Total number of occupants: 2700.
Exterior Facade Description :	Brick masonry infill walls between structural elements (beams, slabs, columns) with aluminium framed glass windows.
Structural System Description :	Reinforced concrete moment resisting frames with slabs between beams and beams between columns. Foundation system consists of Isolated Footing Foundation for both main factory building.
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 both 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:	Visual Assessment: Visual Assessment on Site visit August 16, 2015.	
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.	
Suggested Deadline Date:	15 Oct 2015	
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:	The following concentrated load conditions were noted during the visual review: Rooftop water tanks in both building; Machinery Storage at 2nd floor of Building-1; Finished Goods and Accessories storage at 2nd floor to 4th floor in Building-1; Fabric and Accessories storage at 1st floor to 7th floor in Building-2. No evidence was available to indicate that the structural impact of these concentrated loads was considered.	
Source of Findings:	Visual Assessment: Visual Assessment on Site visit August 16, 2015.	
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	15 Oct 2015	



Date:		
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/m ² (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:	The following conditions were evaluated and determined to create loading conditions in excess of 2.0 kN/m ² (42 psf) were noted during the visual review: Machinery Storage at 2nd floor of Building-1; Finished Goods and Accessories storage at 2nd floor to 4th floor in Building-1; Fabric and Accessories storage at 1st floor to 7th floor in Building-2.	
Source of Findings:	Visual Assessment: Visual Assessment on Site visit August 16, 2015.	
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:	15 Oct 2015	
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 August 16, 2015.	
Suggested Plan of Action:	Provide Certificates of Occupancy for review.	
Suggested Deadline Date:	15 Oct 2015	
Standard:	Alliance Standard Part 8 Section 8.3 Preliminary Structural Assessment	
Structural System Construction		



Question:	Is the structural system free of distress, settlement, shifting, or cracking in columns or walls?
Priority Level:	High
Non-Compliance Level:	2
Description:	During the audit, cracking was observed at several different levels of the brick walls of the main factory building.
Source of Findings:	Visual Assessment: Visual Assessment on Site visit August 16, 2015.
Suggested Plan of Action:	Have a qualified structural engineer provide further testing and analysis of distress, settlement, shifting, or cracking in columns, slab or walls and provide a remediation plan to correct noted issues.
Suggested Deadline Date:	15 Oct 2015
Standard:	Alliance Standard Part 8 Section 8.3.3
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:	The following areas of needed maintenance are not addressed: Standing water on rooftops.
Source of Findings:	Visual Assessment: Visual Assessment on Site visit August 16, 2015.
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:	15 Oct 2015
Standard:	Alliance Standard Part 8 Section 8.26 Durability and Maintenance
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:	Following non-structural elements found without seismic bracing: 1. Storage racks in different floor of the both main factory building; 2. Air Conditioner out door unit; 3. PVC water tanks on roof level.
Source of Findings:	Visual Assessment: Visual Assessment on Site visit August 16, 2015.
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:	15 Oct 2015
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 August 16, 2015.
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:	15 Oct 2015
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 August 16, 2015.
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:	15 Oct 2015
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 August 16, 2015.	
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:	15 Oct 2015	
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 August 16, 2015.	
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:	15 Oct 2015	
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	
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 August 16, 2015.	
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	

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	limits as described on the Floor Loading Plans.	
Suggested Deadline Date:	15 Oct 2015	
Standard:	Alliance Standards Part 8 Section 8.9 Factory Load Manager	