INITIAL STRUCTURAL INTEGRITY ASSESSMENT REPORT (SIAR)

Factory Name:	**Onus Garments Ltd**
Address:	**Outside Industrial Park Joy Bangla Road, Kunia, K.B. Bazar, Barabari Gazipur Dhaka Bangladesh**
Assessor:	**Bureau Veritas**
Date:	**15 May 2014**

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ALLIANCE
FOR BANGLADESH WORKER SAFETY

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:	Onus Garments Ltd
Address:	Outside Industrial Park Joy Bangla Road, Kunia, K.B. Bazar, Barabari Gazipur Dhaka Bangladesh
Country:	Bangladesh
Province:	Dhaka
City:	Gazipur
Zip Code:	1704
Audit Duration:	1 Days
Re-Audit:	Re-Audit After 0 Months
Draft Report Date :	09 June , 2014
Final Report Date :	02 October, 2014
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex :	1 Main Building 6 Ancillary Buildings
Number of Building Levels (Stories) :	8 (Grade + 7)
Approximate Building Area (SF) :	124204.00 sf
Date of Building Construction :	No record of date of construction was found.
Date of Last Building Renovation/Addition :	No renovations or additions have been performed.
Is the Building mixed use?:	No
Ancillary Structures in Complex :	1) Two story RCC building-2 (Substation and Generator), 2) Two story medical and childcare shed-1, 3) Single story boiler shed-2, 4) Single story fire pump station shed-3, 5) Single story goods store shed-4, 6) Single story store shed-5.
Number of Ancillary Levels (Stories) :	1) Two story RCC building-2: 2 (Grade + 1) 2) Two story medical and childcare shed-1: 2 (Grade + 1) 3) Single story boiler shed-2: 1 (Grade) 4) Single story fire pump station shed-3: 1 (Grade) 5) Single story goods store shed-4: 1 (Grade) 6) Single story store shed-5: 1 (Grade)
Approximate Ancillary Structures Area (SF) :	1) Two story RCC building-2 (Substation and Generator): 1800.00sft 2) Two story medical and childcare shed-1: 3560.00 sft, 3) Single story boiler shed-2: 216.00 sft, 4) Single story fire pump station shed-3: 168.00 sft, 5) Single story goods store shed-4: 600.00 sft, 6) Single story store shed-5: 1500.00sft.
Number of Occupants :	2229
Exterior Facade Description :	The exterior of the building is of infilled brick walls in RCC frame. The main door is iron framed and the windows are of sliding glass in aluminum frame. The building outer wall are painted.
Structural System Description :	RCC moment resisting framed structure with monolithic slab beam. The type of foundation is shallow foundation (spread, combined & strap footing).

ASSESSMENT FINDINGS

Structural System Design		
Question:	Are Certificates of Occupancy available for review?	
Priority Level:	Low	
Non-Compliance Level:	1	
Description:	The factory has not obtained a Certificate of Occupancy from the authority.	
Source of Findings:	Document Review: The document review shows that the factory has not obtained a Certificate of Occupancy from the authority.	
Suggested Plan of Action:	Provide Certificates of Occupancy for review.	
Suggested Deadline Date:	31 Jul 2014	
Standard:	Alliance Standard Part 8 Section 8.3 Preliminary Structural Assessment	
Question:	Structural Engineer of Record	
Priority Level:		
Non-Compliance Level:		
Description:	Mr. M M Rahman is the Structural Engineer of Record whose IEB membership no. and signature is available on site.	
Source of Findings:	Document Review: Document Review reveals that the Structural Engineer on Record is Mr. M M Rahman whose FIEB no. is 4015 and the signature is available on the record.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Provide the name and firm of the structural engineer of record.	
Question:	Architect of Record	
Priority Level:		
Non-Compliance Level:		
Description:	Mr. Asfarul Islam is the Architect of Record whose IAB membership no. and signature is available on site.	
Source of Findings:	Document Review: Document Review reveals that the Architect of Record is Mr. Asfarul Islam whose IAB no. is A-00106 and the signature is available on the record.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Provide the name and firm of the architect of record.	

Question:	Are credible structural design documents available for review and kept on site?	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	As built structural drawings are available for review and kept on site. However, the structural drawings do not show the overhead water tank detail. Also, the design report is not available as required per BNBC 2006 clause 1.9.1.1.	
Source of Findings:	Document Review: Document review shows that incomplete structural drawings are available, but no design report could be found.	
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:	31 Jul 2014	
Standard:	Alliance Standard Part 8 Section 8.19 Required Structural Documentation for New and Existing Factories	
Question:	Is a Geotechnical Report available for review and kept on site?	
Priority Level:	Low	
Non-Compliance Level:		
Description:	Geo-technical report is available for review and kept on site.	
Source of Findings:	Document Review: Document review shows geotechnical report is available for review and kept on site.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 8 Section 8.2 Structural Integrity of Existing Factory Buildings	
Question:	Can credible structural documentation indicating general conformance with 2006 BNBC or other comparable applicable international model building code be produced?	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	The building was constructed before 2006. No evidence of general conformance with any code is available.	
Source of Findings:	Document Review: Document review shows that the building was constructed before 2006. No evidence indicating general conformance with any code is available.	
Suggested Plan of Action:	Engage a qualified structural engineer to develop the required documents to confirm the structural integrity of the buildings. Documents must comply with Alliance Standard Part 8 Section 8.19 and 8.20	
Suggested Deadline Date:	30 Jul 2014	
Standard:	Reference Alliance Standards Part 8 Section 8.2 Structural Integrity of Existing Factory Buildings	
Question:	If built after 2006, can documented compliance with the seismic and wind	

	requirements of the 2006 BNBC be provided?	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	The building was designed and constructed before 2006.	
Source of Findings:	Document Review: Document review shows the building was designed and constructed before 2006.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 8 Section 8.17 Design for Lateral Loads and 2006 BNBC Part 6 Section 1.5	
Question:	Can documentation be provided that the building is compliant with the requirements for wind loading and storm surge loadings as detailed in BNBC Part 6 Section 1.5.3?	
Priority Level:	Medium	
Non-Compliance Level:	2	
Description:	No documentation showing the consideration of the requirement of wind loading and storm surge loading in the design of the building is available.	
Source of Findings:	Document Review: Document review shows that no documentation showing the consideration of the requirement of wind loading and storm surge loading in the design of the building is available.	
Suggested Plan of Action:	Engage a qualified structural engineer to confirm satisfactory structural performance of the buildings under wind loading and storm surge.	
Suggested Deadline Date:	30 Jul 2014	
Standard:	2006 BNBC Part 6 Section 1.5. Compliance may be waived if the Factory Owner provides satisfactory evidence of a cyclone operations plan that includes full evacuation of the factory in advance of any approaching cyclone"	
Question:	Has evidence of structural integrity been provided using a Preliminary Structural Assessment?	
Priority Level:	High	
Non-Compliance Level:		
Description:	No preliminary structural assessment has been carried out in this factory to provide evidence of integrity of the building.	
Source of Findings:	Document Review: Document review shows that, no preliminary structural assessment has been carried out in this factory to provide evidence of integrity of the building.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference Alliance Standards Part 8 Section 8.2 Structural Integrity of Existing Factory Buildings	

Question:	If the structure has been previously expanded, was the structural impact on the entire structure analytically evaluated and confirmed by a qualified structural engineer.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	There is no evidence of previous expansion of the structure.	
Source of Findings:	Document Review: Document Review shows that, no evidence of previous expansion of the structure., Visual Assessment: Visual Assessment shows that, no evidence of previous expansion of the structure.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference Alliance Standards Part 8 Section 8.1 Applicability of Building Code.	
Question:	Structural System Type as defined by 2006 BNBC Part 6 Chapter 1 Table 6.1.2.	
Priority Level:		
Non-Compliance Level:		
Description:	The structure is moment resisting frame structure.	
Source of Findings:	Document Review: Document review shows that the structure is moment resisting frame structure.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	2006 BNBC Part 6 Chapter 1 Table 6.1.2	
Question:	What is the Structural Configuration?	 
Priority Level:		
Non-Compliance Level:		
Description:	The structural configuration of the building is regular in plan but vertically irregular.	
Source of Findings:	Document Review: Document Review shows the structural configuration of the building is regular in plan but vertically irregular., Visual Assessment: Visual Assessment shows the structural configuration of the building is regular in plan but vertically irregular.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	2006 BNBC Part 6 Chapter 1 Section 1.3.4	

Question:	Is a clear and redundant load path to resist lateral loads provided?	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	The structural configuration is moment resisting regular frame structure and hence the lateral load path is apparent and there is redundancy due to presence of multiple frames in both directions.	
Source of Findings:	Document Review: Document Review shows that, the structural configuration is moment resisting regular frame structure and hence the lateral load path is apparent and there is redundancy due to presence of multiple frames in both directions. , Visual Assessment: Visual Assessment shows that, the structural configuration is moment resisting regular frame structure and hence the lateral load path is apparent and there is redundancy due to presence of multiple frames in both directions.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 8 Section 8.17 Design for Lateral Loads and 8.3.3. 2006 BNBC Part 6 Section 1.5	
Question:	Are the available FoS for the columns adequate based on Preliminary calculation?	
Priority Level:	High	
Non-Compliance Level:		
Description:	FoS of the columns of the main building (based on live load of 42 psf, based on concrete strength of 2370 psi) are adequate based on preliminary calculations, with the exception of the Central column which is below the minimum acceptable value of 1.86: Central column: 1.68 Corner column: 2.11 Edge column: 2.18 FoS of the columns of the ancillary building (based on live load of 42 psf, based on concrete strength of 2045 psi per the Alliance Standard minimum) are adequate based on preliminary calculations: Central column: 3.44 Corner column: 6.49 Edge column: 4.51	
Source of Findings:	Uploaded Document: The uploaded FoS calculation shows that the minimum FoS available for columns are above minimum value which is 1.86.	
Suggested Plan of Action:	Under guidance of a qualified structural engineer, conduct destructive sore test to validate the in-situ concrete compressive strength of the structural elements.	
Suggested Deadline Date:	23 Dec 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	
Question:	Results of ferro-scanning for confirmation of steel rebar in the columns of the lowest tier were satisfactory.	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	Result of ferro-scanning confirms that the number of rebars are matching with the structural design.	

Source of Findings:	Visual Assessment: Visual assessment shows that, result of ferro-scanning confirms that the number of rebars are matching with the structural design.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 8 Section 8.3 Preliminary Structural Assessment	
Question:	What are the full dead and live loads of the floor slabs and decks?	
Priority Level:		
Non-Compliance Level:		
Description:	Slab thickness is 6". Therefore dead load is 75 + 25 (FF)= 100 psf and on site evaluation of live load is about 42 psf.	
Source of Findings:	Visual Assessment: From visual inspection, Slab thickness is 6". Therefore dead load is 75 + 25 (FF)= 100 psf and on site evaluation of live load is about 42 psf.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Provide information regarding the dead and live loads of the floor slabs and decks.	
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:	2	
Description:	There is a RCC overhead water tank on the roof top of the building. There is no analytical information on the provision of this tank in the design.	
Source of Findings:	Document Review: Document review shows that, there is a RCC overhead water tank on the roof top of the building. There is no analytical information on the provision of this tank in the design.	
Suggested Plan of Action:	Engage a qualified structural engineer to confirm and document that provisions have been made to accommodate this RCC overhead water tanks. If provisions have not been made, have a qualified structural engineer develop a remediation plan.	
Suggested Deadline Date:	28 Jul 2014	
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:		

Description:	The density of operation does not exceed 42 psf.	
Source of Findings:	Visual Assessment: Visual Assessment shows that, the density of operation does not exceed 42 psf.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 8 Section 8.15 Minimum Floor Design Loads	
Structural System Construction		
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:	1	
Description:	There is dampness on the stair case wall at the roof level. Standing water was also observed on the roof top of the building. There is no maintenance program for all areas including areas with efflorescence, dampness, standing water on rooftops, and corrosion.	
Source of Findings:	Document Review: Document Review shows that there is no maintenance program for all areas including areas with efflorescence, dampness, standing water on rooftops, and corrosion. , Visual Assessment: Visual Assessment shows that, there is dampness on the stair case wall in the roof. Standing water is also observed on the roof top of the building.	
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:	31 Jul 2014	
Standard:	Alliance Standard Part 8 Section 8.26 Durability and Maintenance	
Question:	The exterior façade is free of cracking.	
Priority Level:	Low	
Non-Compliance Level:		
Description:	The exterior facade is free of noticeable cracking.	
Source of Findings:	Visual Assessment: Visual assessment shows that the exterior facade is free of noticeable cracking.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 8 Section 8.2	

Question:	Are expansion joints provided at appropriate intervals on the exterior façade?	
Priority Level:	Low	
Non-Compliance Level:		
Description:	There is an expansion joint which is free from blockage.	
Source of Findings:	Visual Assessment: Visual assessment shows that, there is an expansion joint which is free from blockage.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 8 Section 8.2 Structural Integrity of Existing Factory Buildings	
Question:	Is expansion joint material free from cracking and other forms of deterioration?	
Priority Level:	Low	
Non-Compliance Level:		
Description:	There is an expansion joint which is free from blockage, cracking and other forms of deterioration.	
Source of Findings:	Visual Assessment: Visual assessment shows that, there is an expansion joint which is free from blockage,cracking and other forms of deterioration.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 8 Section 8.26 Durability and Maintenance	
Question:	Is the building free of active signs of water intrusion or ponding due to lack of performance of the façade system?	
Priority Level:	Low	
Non-Compliance Level:		
Description:	The building is free from active signs of water intrusion or ponding due to lack of performance of the façade system.	
Source of Findings:	Visual Assessment: Visual Assessment shows that, the building is free from active signs of water intrusion or ponding due to lack of performance of the façade system.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 8 Section 8.26 Durability and Maintenance	
Question:	Are the performance of key structural elements such as columns, slender columns, flat plates and transfer structures satisfactory?	
Priority Level:	High	
Non-Compliance Level:		

Description:	The performance of key structural elements such as columns, beams and transfer structures are satisfactory.	
Source of Findings:	Visual Assessment: From the visual assessment and simple calculation of column stress we found that performance of the key structural elements are satisfactory.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 8 Section 8.3.3	
Question:	Is the structural system free of settlement cracking, excessive perimeter separations, and unlevel floors attributable to foundation settlements?	
Priority Level:	High	
Non-Compliance Level:		
Description:	The structural system is free from settlement cracking, excessive perimeter separations, and unlevel floors attributable to foundation settlements.	
Source of Findings:	Visual Assessment: Visually the structural system is free from settlement cracking, excessive perimeter separations, and unlevel floors attributable to foundation settlements.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference Alliance Standards Part 8 Structural Design Section 8.2 Structural Integrity of Existing Factory Buildings	
Question:	Is the structural system free of deflections (sagging), rotations (twisting), perceivable vibrations, or other noticeable movements of the structure?	
Priority Level:	High	
Non-Compliance Level:		
Description:	The structural system is free of deflections (sagging), rotations (twisting), perceivable vibrations, or other noticeable movements of the structure.	
Source of Findings:	Visual Assessment: Visual Assessment shows that the structural system is free of deflections (sagging), rotations (twisting), perceivable vibrations, or other noticeable movements of the structure.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference Alliance Standards Part 8 Structural Design Section 8.2 Structural Integrity of Existing Factory Buildings	
Question:	Is the structural system free of distress, separations, or cracking that indicates lack of performance or overstress of the lateral load-carrying system?	
Priority Level:	High	
Non-Compliance Level:		

Description:	Though there are some minor hairline cracks in some beams, they do not indicate lack of performance of the lateral load-carrying system.	
Source of Findings:	Visual Assessment: No lack of performance of the lateral load carrying system has been found in visual inspection.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 8 Section 8.3.3	
Question:	Is the structural system free of distress, settlement, shifting, or cracking in columns or walls?	
Priority Level:	High	
Non-Compliance Level:		
Description:	The structural system is free of distress, settlement, shifting, or cracking in columns. There are some hairline cracks on the walls which do not indicate lack of performance of the structure.	
Source of Findings:	Visual Assessment: Visual assessment shows that, the structural system is free of distress, settlement, shifting, or cracking in columns. There are some hairline cracks on wall which do not indicate lack of performance of the structure.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 8 Section 8.3.3	
Question:	Have any previous repairs to correct structural deficiencies or to reinforce the existing structure been completed?	
Priority Level:		
Non-Compliance Level:		
Description:	No strengthening or retrofitting has been done on the structural members of the building.	
Source of Findings:	Visual Assessment: Visual assessment shows that, no strengthening or retrofitting done on the structural members of the building.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:		

Question:	Was masonry-chip aggregate concrete (MCAC) used in the construction of the building?	 
Priority Level:		
Non-Compliance Level:		
Description:	The structural frame (foundation and column) is of stone chips. But the roof is of masonry-chip aggregate concrete.	
Source of Findings:	Visual Assessment: Visual assessment shows the structural frame (foundation and column) is of stone chips. But the roof is of masonry-chip aggregate concrete.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference Alliance Standards Part 7 Building Materials Section 7.2 Masonry-chip aggregate concrete (MCAC)	
Question:	If yes, have the structural members constructed with MCAC been investigated by an appropriate program of in-situ testing and representative destructive testing or core samples?	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	The structural members (slabs) constructed with MCAC have not been investigated by an appropriate program of in-situ testing and representative destructive testing or core samples. The column stress calculated taking into account the strength of concrete either from standard or from test result of NDT, does not show any overstress.	
Source of Findings:	Document Review: The structural members (slabs) constructed with MCAC have not been investigated by an appropriate program of in-situ testing and representative destructive testing or core samples. The column stress calculated taking into account the strength of concrete either from standard or from test result of NDT, does not show any overstress.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Reference Alliance Standards Part 7 Building Materials Section 7.2 Masonry-chip aggregate concrete (MCAC)	
Question:	Are any structural elements constructed with MCAC exposed to rainfall or other sources of water sealed with a protective coating to prevent water intrusion?	
Priority Level:	Medium	
Non-Compliance Level:	1	
Description:	The roof of the building is of MCAC and is exposed to rainfall, but protective sealing and proper slope are not provided.	
Source of Findings:	Visual Assessment: Visual assessment shows that the roof of the building is of MCAC and is exposed to rainfall, but protective sealing and proper slope are not provided.	
Suggested Plan of	Provide a protective coating at the structural elements constructed with MCAC	

Action:	exposed to rainfall or other sources of water. Have protective coating approved by the Alliance or a qualified structural engineer or provide 2% slope on the exposed surface to prevent accumulation of water.	
Suggested Deadline Date:	28 Jul 2014	
Standard:	Alliance Standards Part 7 Building Materials Section 7.2 Masonry-chip aggregate concrete (MCAC).	
Question:	Are structural steel members free of corrosion, physical damage or other types of deterioration?	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	There are no structural steel members in the building. Though the ancillary medical & day care have a angle truss supported roof, it is also free of corrosion, physical damage or other types of deterioration.	
Source of Findings:	Document Review: shows that, there are no structural steel members in the building. But the ancillary medical & day care have a angle truss supported roof., Visual Assessment: shows that there is no steel structure in the building. Though the ancillary medical & day care have a angle truss supported roof, it is also free of corrosion, physical damage or other types of deterioration.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 8 Section 8.26	
Question:	For post-tensioned reinforced concrete systems or elements, cored holes have not compromised the post-tensioned strands.	
Priority Level:	High	
Non-Compliance Level:		
Description:	There are no post-tensioned reinforced concrete systems or elements, cored holes have been found.	
Source of Findings:	Visual Assessment: Visual assessment supported by document review shows that there are no post-tensioned reinforced concrete systems or elements, cored holes in the structure.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Not Applicable	
Question:	Is the structure free from any major/progressive distress?	
Priority Level:	High	
Non-Compliance Level:		
Description:	No major/progressive distress was observed.	
Source of Findings:	Visual Assessment: Visual Assessment did not reveal any major/progressive distress.	

Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 8 Section 8.3.3	
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:	1	
Description:	There are several racks at the 1st floor, as well as a rooftop plastic water tank, which are not braced for earthquake force.	
Source of Findings:	Visual Assessment: Visual assessment shows that here are several racks at the 1st floor, as well as a rooftop plastic water tank, which are not braced for earthquake force.	
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:	11 Sep 2014	
Standard:	Alliance Standards Part 8 Section 8.18 Seismic Bracing of Key Non-Structural Elements and 2006 BNBC Part 6	
Question:	If the building is currently being renovated or expanded, are the Construction Practices and Safety requirements of Section 9 being followed?	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	No renovation work is going on.	
Source of Findings:	Visual Assessment: Visual Assessment shows that no renovation work is ongoing.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standard Part 9 Construction Practices and Safety.	
Structural Safety Programs		
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:	3	
Description:	Load Plans have been prepared for each floor documenting the actual maximum operational loading that is intended or allowable on each floor. But the floor load plan does not comply with the standard as per Alliance Part 8 Section 8.20.5.3.	
Source of Findings:	Document Review: Document Review shows that the existing Load Plans do not comply with the Alliance Standard.	

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:	28 Jul 2014	
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:	3	
Description:	Floor Load Plans are posted as required, but the floor load plan is not in standard format.	
Source of Findings:	Visual Assessment: Visual inspection shows that Floor Load Plans are posted as required, but the floor load plan is not in standard format.	
Suggested Plan of Action:	Have a qualified structural engineer prepare load plans including the information required in Section 8.20 of the Alliance Standard and have it posted in all required location.	
Suggested Deadline Date:	28 Jul 2014	
Standard:	Alliance Standard Part 8 Section 8.20.5.3	
Question:	Are floor loads in compliance with posted plans?	
Priority Level:	Medium	
Non-Compliance Level:	3	
Description:	Floor load plan is not in standard format as per Alliance part 8 Section 8.20.5.3.	
Source of Findings:	Visual Assessment: shows that Floor load plan is not in standard format as per Alliance part 8 Section 8.20.5.3.	
Suggested Plan of Action:	Have a qualified structural engineer develop Floor Loading Plans as per the requirements of Part 8 Section 8.20.5.3.	
Suggested Deadline Date:	28 Jul 2014	
Standard:	Alliance Standard Part 8 Section 8.10 Floor Loading Plans (Load Plans).	
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:	There is no marking on the floor to designate spaces and height for storage of work materials.	
Source of Findings:	Visual Assessment: Visual inspection shows that there is no marking on the floor to designate spaces and height for storage of work materials.	
Suggested Plan of Action:	Provide signage or the appropriate markings at all floors marked for designating storage area to indicate the acceptable loading limits detailed in accordance with Load Plan.	
Suggested Deadline	31 Jul 2014	

Date:		
Standard:	Alliance Standard Part 8 Section 8.11 Floor Load Markings	
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:	The live loads may comply with floor live load from our simple calculation. However, there is no program available to manage floor and roof live loads.	
Source of Findings:	Visual Assessment: Visual Assessment shows that, the live loads may comply with floor live load from our simple calculation. There is no program available to manage floor and roof live loads.	
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:	14 Jul 2014	
Standard:	Alliance Standard Part 13 Section 13.7 and Part 8 Section 8.9.	
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:		
Description:	Factory Load manager or designated representative is available.	
Source of Findings:	Document Review: Document review shows that, the HR file of factory load manager is available., Visual Assessment: shows the presence of factory load manager or designated representative is evident.	
Suggested Plan of Action:		
Suggested Deadline Date:		
Standard:	Alliance Standards Part 8 Section 8.9 Factory Load Manager	
Question:	For post-tensioned reinforced concrete systems or elements, is a program in place to ensure post-tensioned strands are located before core drilling begins?	
Priority Level:	Medium	
Non-Compliance Level:		
Description:	There are no post-tensioned reinforced concrete systems or elements present.	
Source of Findings:	Document Review: Document Review shows that there are no post-tensioned reinforced concrete systems or elements., Visual Assessment: Visual assessment shows that there are no post-tensioned reinforced concrete systems or elements.	
Suggested Plan of Action:		
Suggested Deadline Date:		

Standard:	Alliance Standard Part 8 Section 8.26 Durability and Maintenance	