INITIAL STRUCTURAL INTEGRITY ASSESSMENT REPORT (SIAR)

Factory Name:	**Kenpark Bangladesh (PVT), Ltd.**
Address:	**Sector 8, Plot 31-42 Export Processing Zone KEPZ, Chittagong Chittagong Chittagong Bangladesh**
Assessor:	**Emkay Enterprises LTD**
Date:	**26 Feb 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:	Kenpark Bangladesh (PVT), Ltd.
Address:	Sector 8, Plot 31-42 Export Processing Zone KEPZ, Chittagong Chittagong Chittagong Bangladesh
Country:	Bangladesh
Province:	Chittagong
City:	Chittagong
Zip Code:	
Audit Duration:	1 Days
Re-Audit:	Re-Audit After 0 Months
Draft Report Date :	8/7/2014
Final Report Date :	12/18/2014
Are all Action Items From Previous Assessment Completed?:	N/A
Buildings in Complex :	2 Main Buildings 1 Ancillary Building
Number of Building Levels (Stories) :	Building-1 (Washing Building-A): 1 (Grade + Mezzanine); Building-2 (Washing Building-B): 3 (Grade + 1 + Rooftop Shed).
Approximate Building Area (SF) :	43,438 SF
Date of Building Construction :	Main building-1: 2006; Main building-2: 2001
Date of Last Building Renovation/Addition :	No renovations or additions have been performed.
Is the Building mixed use?:	No
Ancillary Structures in Complex :	1 Ancillary Structure
Number of Ancillary Levels (Stories) :	1 (Grade)
Approximate Ancillary	1,350 SF

Structures Area (SF) :	
Number of Occupants :	340
Exterior Facade Description :	Brick masonry wall with plaster finish and paint.
Structural System Description :	Building-1: Single Storied Prefabricated steel Shed structure with partial interior mezzanine level; Building-2: RCC frame structure with roof top steel structure shed.

ASSESSMENT FINDINGS

Structural System Design		
Question:	Are Certificates of Occupancy available for review?	
Priority Level:	Low	
Non-Compliance Level:		
Description:	The factory is in EPZ area. BEPZA provided approval for factory occupancy.	
Source of Findings:	Document Review: Certificate found	
Suggested Plan of Action:	N/A	
Suggested Deadline Date:		
Standard:	Alliance Standard Part 8 Section 8.3 Preliminary Structural Assessment	
Question:	Structural Engineer of Record	
Priority Level:		
Non-Compliance Level:		
Description:	Building-1 Design by: SHERRITT STRUCTURES SDN BHD, 110 & 110 A, Jalan Meranti, taman Melodies, 80250 Johor Bahru, Johor, Malaysia. Building-2 Design by: Nalaka Bandara, B.Sc. Engineer, Maintenance Manager, Kenpark Bangladesh (Pvt.) Ltd.	
Source of Findings:	Document Review: Found on provided documents.	
Suggested Plan of Action:	N/A	
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:	No record of Architect found.	
Source of Findings:	Document Review: Not record found	

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:		
Description:	Credible structural design documents are available for review and kept on site.	
Source of Findings:	Document Review: Structural Design documents found.	
Suggested Plan of Action:	N/A	
Suggested Deadline Date:		
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:	Geotechnical Report is available for review and kept on site. Calculated soil bearing capacity or pile capacity (from soil report) ~ 1.8 ksf.	
Source of Findings:	Document Review: Soil test report found., Uploaded Document: Soil test report	
Suggested Plan of Action:	N/A	
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 structural drawings do not mention BNBC or any other code references.	

Source of Findings:	Document Review: No relevant document found	
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:	25 Sep 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:	All buildings were designed and constructed in 2006 or earlier.	
Source of Findings:		
Suggested Plan of Action:	N/A	
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 design reports were provided to show compliance with the requirements of wind loading and storm surge loadings as detailed in BNBC Part 6 Section 1.5.3.	
Source of Findings:	Document Review: No document found	
Suggested Plan of Action:	Engage a qualified structural engineer to confirm satisfactory structural performance of the buildings under wind loading.	
Suggested Deadline Date:	15 Sep 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:	A structural assessment report was found based on the factory design documents only, provided by Bureau of Research, Testing and Consultancy, Department of Civil Engineering, Chittagong University of Engineering and Technology.	
Source of Findings:	Document Review: Assessment report found.	
Suggested Plan of Action:	N/A	
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:	No previous expansion done.	
Source of Findings:	Document Review: No documents found against previous expansion.	
Suggested Plan of Action:	N/A	
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:	All the Buildings are Moment Resisting Frame System Structures.	
Source of Findings:	Visual Assessment: Site Visit 26 Feb, 2014 Onsite inspection	
Suggested Plan of	N/A	

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:	All the Buildings are regular structures.	
Source of Findings:	Visual Assessment: Site Visit 26 Feb, 2014 Onsite documentation	
Suggested Plan of Action:	N/A	
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:	Clear and redundant load path to resist lateral loads have been provided.	
Source of Findings:	Visual Assessment: Site Visit 26 Feb, 2014 Onsite inspection	
Suggested Plan of Action:	N/A	
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:	3	
Description:	Building-2: The FoS of the columns (based on 42 psf live load, and concrete compressive strength of 2370 per the Alliance Standard minimum) are not adequate based on preliminary calculations. The Central Column has an FoS less than the minimum of 1.86. Central Column: 1.29; Corner Column: 2.98; Edge Column: 1.97.	

Source of Findings:	Uploaded Document: FoS calculation Sheet for Building-2 (Washing Building B)
Suggested Plan of Action:	Detailed engineering assessment should be completed within 6 weeks and the concrete compressive strength of the central columns of Building-2 should be verified via core testing.
Suggested Deadline Date:	15 Sep 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:	Results of Ferro Scanning matched with the provided design drawings.
Source of Findings:	Visual Assessment: Ferro-scanning reprot
Suggested Plan of Action:	N/A
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:	Building-1: As the building is one storied, all the live loads are directly on the ground, no impact of live load is considered. Mezzanine floor live load found less than 20psf and which is separated from the main structure, dead load for slab and floor finish will be around 70psf. Bulding-2: Dead load for slab and floor finish is 75 psf and live load found less than 20psf in each floor except ground floor.
Source of Findings:	Visual Assessment: Site Visit 26 Feb, 2014 Onsite inspection
Suggested Plan of Action:	N/A
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:		
Description:	Assessment teams did not notice any such type of heavy equipment, water tanks or stored materials over the floors or decks.	
Source of Findings:	Visual Assessment: Site Visit 26 Feb, 2014 Onsite inspection	
Suggested Plan of Action:	N/A	
Suggested Deadline 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/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:	Assessment teams did not observe any location where live load exceeds 42 psf.	
Source of Findings:	Visual Assessment: Site Visit 26 Feb, 2014 Onsite inspection	
Suggested Plan of Action:	N/A	
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:	2	
Description:	Building-1: Dampness was observed in the roof insulation; Building-1: Severe corrosion in the base plate was found.	
Source of Findings:	Photograph: Dampness and corrosion., Visual Assessment: Site Visit 26 Feb, 2014 Onsite ovservation	
Suggested Plan of Action:	Under guidance from a qualified structural engineer, address all areas of needed maintenance by correcting the identified issues. Remove the rust and then take proper step to resist the propagation.	
Suggested Deadline Date:	25 Sep 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:	No cracks were found in the exterior facade.	
Source of Findings:	Visual Assessment: Site Visit 26 Feb, 2014 Onsite inspection	
Suggested Plan of Action:	N/A	
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:	No expansion joints provided.	
Source of Findings:	Visual Assessment: Site Visit 26 Feb, 2014 Onsite inspection	
Suggested Plan of Action:	N/A	
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:	Not Applicable.	
Source of Findings:		
Suggested Plan of Action:	N/A	
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:	Assessment teams did not observe any water intrusion or ponding due to lack of performance of the façade system.	
Source of Findings:	Visual Assessment: Site Visit 26 Feb, 2014 Onsite inspection	
Suggested Plan of Action:	N/A	
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:	3	
Description:	Building 2: Slender columns were found, and do not appear to be adequate for buckling.	
Source of Findings:	Visual Assessment: Site Visit 26 Feb, 2014 Onsite inspection	
Suggested Plan of Action:	Engage a qualified structural engineer to confirm structural performance of the structure.	

Suggested Deadline Date:	08 Aug 2014	
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:	Assessment teams did not observe any signs of foundation settlement.	
Source of Findings:	Visual Assessment: Site Visit 26 Feb, 2014 Onsite inspection	
Suggested Plan of Action:	N/A	
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:	Assessment teams did not observe any noticeable movements.	
Source of Findings:	Visual Assessment: Site Visit 26 Feb, 2014 Physical inspection	
Suggested Plan of Action:	N/A	
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:	Assessment teams did not observe any noticeable signs of distress, separations, or cracking in the lateral load-carrying system.	
Source of Findings:	Visual Assessment: Site Visit 26 Feb, 2014 Physical inspection	

Suggested Plan of Action:	N/A	
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:	3	
Description:	Building-1: Significant corrosion was observed at the base of a column and appears to be propagating upward.	
Source of Findings:	Photograph: Corroded column., Visual Assessment: Site Visit 26 Feb, 2014	
Suggested Plan of Action:	Have a qualified structural engineer provide further testing and analysis of distress, settlement, shifting, or cracking in columns or walls and provide a remediation plan to correct noted issues.	
Suggested Deadline Date:	25 Sep 2014	
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 repair has been done.	
Source of Findings:	Visual Assessment: Site Visit 26 Feb, 2014 Physical inspection	
Suggested Plan of Action:	N/A	
Suggested Deadline Date:		
Standard:		
Question:	Was masonry-chip aggregate concrete (MCAC) used in the construction of the building?	
Priority Level:		
Non-Compliance Level:		

Description:	Reference Alliance Standards Part 7 Building Materials Section 7.2 Masonry-chip aggregate concrete (MCAC): Ground floor of Building-2 was constructed using SCAC, while the 1st and 2nd floors were constructed using MCAC.	
Source of Findings:	Visual Assessment: Site Visit 26 Feb, 2014	
Suggested Plan of Action:	Have a qualified structural engineer assess the durability aspects as suggested in Alliance Standard Part 7 Section 7.2 and take appropriate remedial measures.	
Suggested Deadline Date:	25 Sep 2014	
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:	2	
Description:	The 1st and 2nd floor of Building 2 were constructed using MCAC, but no investigation has been performed by an appropriate program of in-situ testing and representative destructive testing or core samples.	
Source of Findings:	Document Review: No test report found.	
Suggested Plan of Action:	Structural members constructed with MCAC require investigation by an appropriate program of in-situ testing and representative destructive testing or core samples.	
Suggested Deadline Date:	25 Sep 2014	
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:		
Description:	No structural elements constructed with MCAC are exposed to rainfall.	
Source of Findings:	Visual Assessment: Site Visit 26 Feb, 2014 Physical inspection	
Suggested Plan of Action:	N/A	
Suggested Deadline		

Date:		
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:	2	
Description:	Building-1: Severe corrosion was observed in the base plate and steel column and appears to be propagating from bottom to top. This reduces the thickness of the base plate and column.	
Source of Findings:	Photograph: Corroded base plate and columns, Visual Assessment: Site Visit 26 Feb, 2014 Physical inspection	
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:	25 Sep 2014	
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:	Post-tensioned reinforced concrete not used.	
Source of Findings:		
Suggested Plan of Action:	N/A	
Suggested Deadline Date:		
Standard:	Not Applicable	
Question:	Is the structure free from any major/progressive distress?	
Priority Level:	High	
Non-Compliance Level:		
Description:	Assessment teams did not find any major/progressive distress.	
Source of Findings:	Visual Assessment: Site Visit 26 Feb, 2014 Physical inspection	
Suggested Plan of Action:	N/A	
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:	2
Description:	Building-1: The suspended steam pipes and other utility cables were not adequately braced to resist earthquake forces. Building-1 & 2: Racks are not anchored to the floor and lateral bracing was not found.
Source of Findings:	Photograph: Suspended steam pipes and other utility cables, Visual Assessment: Site Visit 26 Feb, 2014 Physical inspection
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:	25 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 current renovation or expansion done.
Source of Findings:	Document Review: No documents against current renovation or expansion found., Visual Assessment: Site Visit 26 Feb, 2014 Onsite documentation
Suggested Plan of Action:	N/A
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:	1

Description:	Assessment teams did not find any Floor Load Plan as per Alliance Standards Part 8 Structural Design Section 8.10 Floor Loading Plans (Load Plans).	
Source of Findings:	Document Review: Relevant document not found	
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:	25 Sep 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:	1	
Description:	Floor Load Plans were not posted.	
Source of Findings:	Visual Assessment: Site Visit 26 Feb, 2014 Onsite documentation	
Suggested Plan of Action:	Have a qualified structural engineer prepare load plans including the information required in Section 8.20 of the Alliance Standard.	
Suggested Deadline Date:	25 Sep 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:		
Description:	No floor load plan was available to compare with the existing loads.	
Source of Findings:		
Suggested Plan of Action:	N/A	
Suggested Deadline Date:		
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:	1	

Description:	No such markings were observed.
Source of Findings:	Visual Assessment: Site Visit 26 Feb, 2014 Onsite documentation
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:	25 Sep 2014
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:	No such program is in place.
Source of Findings:	Document Review: Record not found
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:	25 Sep 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:	1
Description:	No designated full time personnel was found according to Alliance Standards Part 8 Section 8.9 Factory Load Manager.
Source of Findings:	Visual Assessment: Site Visit 26 Feb, 2014 Onsite documentation
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:	25 Sep 2014

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:	Post-tensioned reinforced concrete not used.	
Source of Findings:		
Suggested Plan of Action:	N/A	
Suggested Deadline Date:		
Standard:	Alliance Standard Part 8 Section 8.26 Durability and Maintenance	