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Shad Fashion Limited

Gorat, Ashulia, Savar, Dhaka
(23.9444492, 90.303822)
18 May, 2016

Client Summary Report

Observations & Actions

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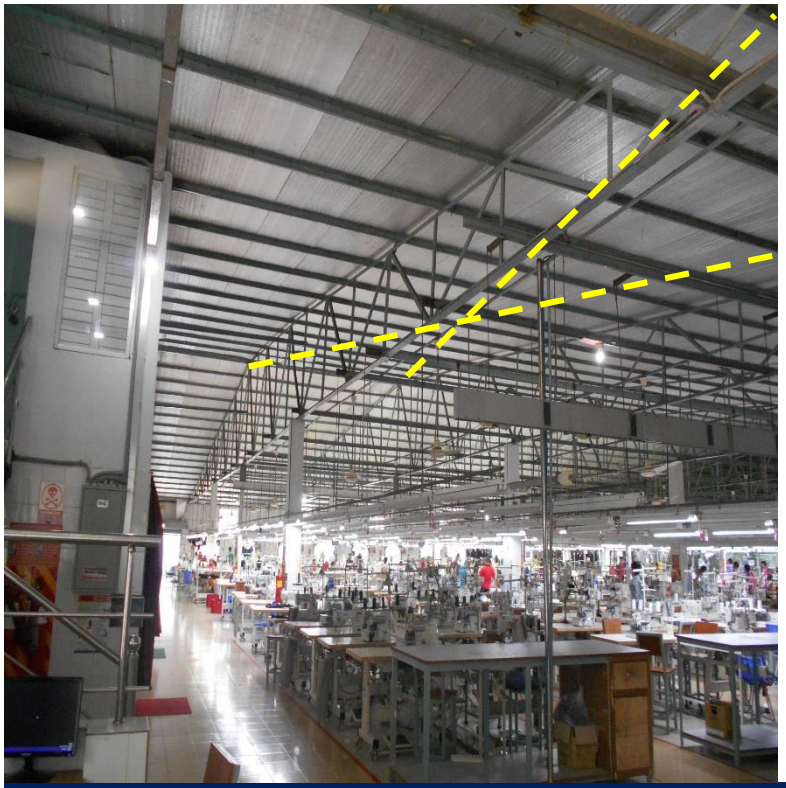
Observations

No obvious stability system to Main production Sheds

Lack of engineered connection details between steelwork & concrete structure/ brick wall

No lateral bracing system



Lateral bracing has been omitted from the shed structure. We require that the necessity of bracing system and section adequacy of structural components must be verified by the Building Engineer and upgraded as necessary to ensure adequacy for code vertical and lateral loads.

No lateral bracing system

Prominent sign of previous sagging of Main Production Shed

Prominent sign of previous sagging

Main Production Shed

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Inconsistencies between existing drawings and As built condition

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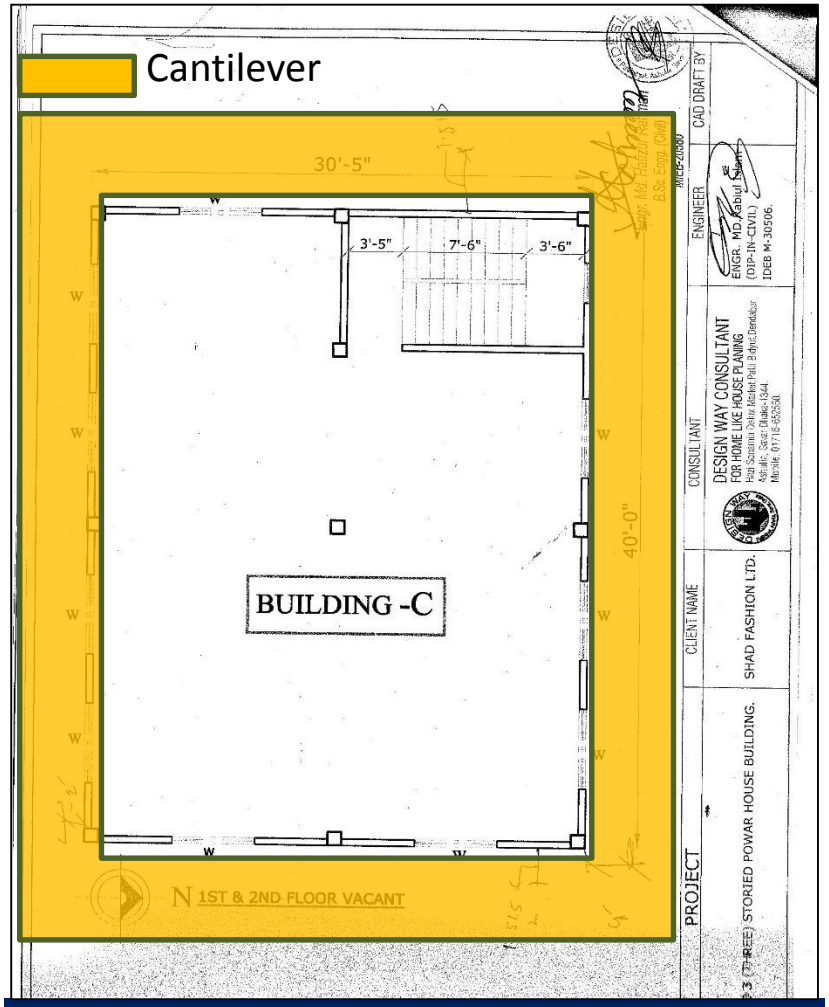
Main Shed: No connection details were shown in as-built drawings.



Utility Building: Cantilever on four sides of the building was not shown.

Discrepancies in As-built Drawing

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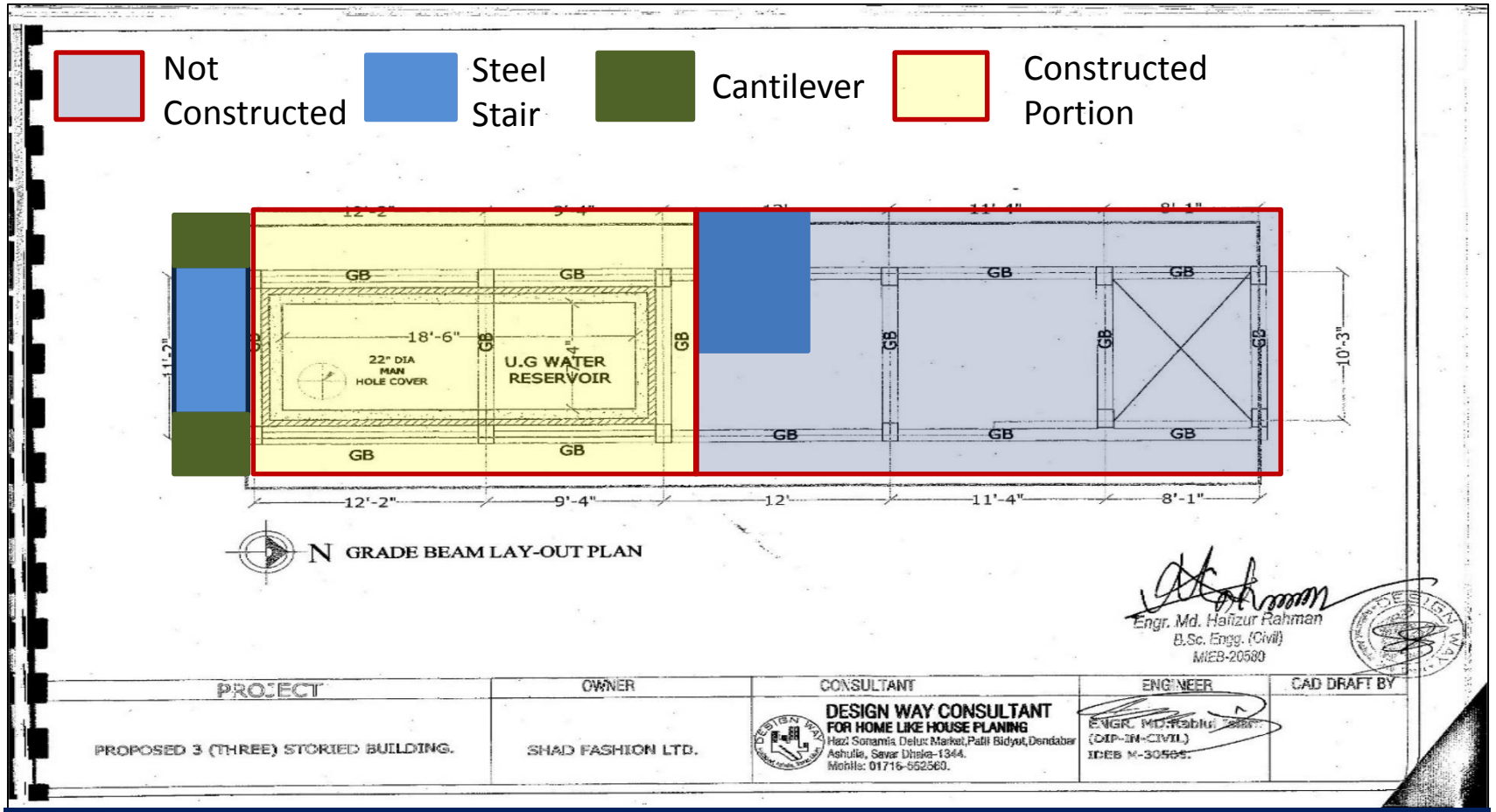

Sample Section: Two steel stair at north-west and south of the building, no drawing found.

Discrepancies in As-built Drawing

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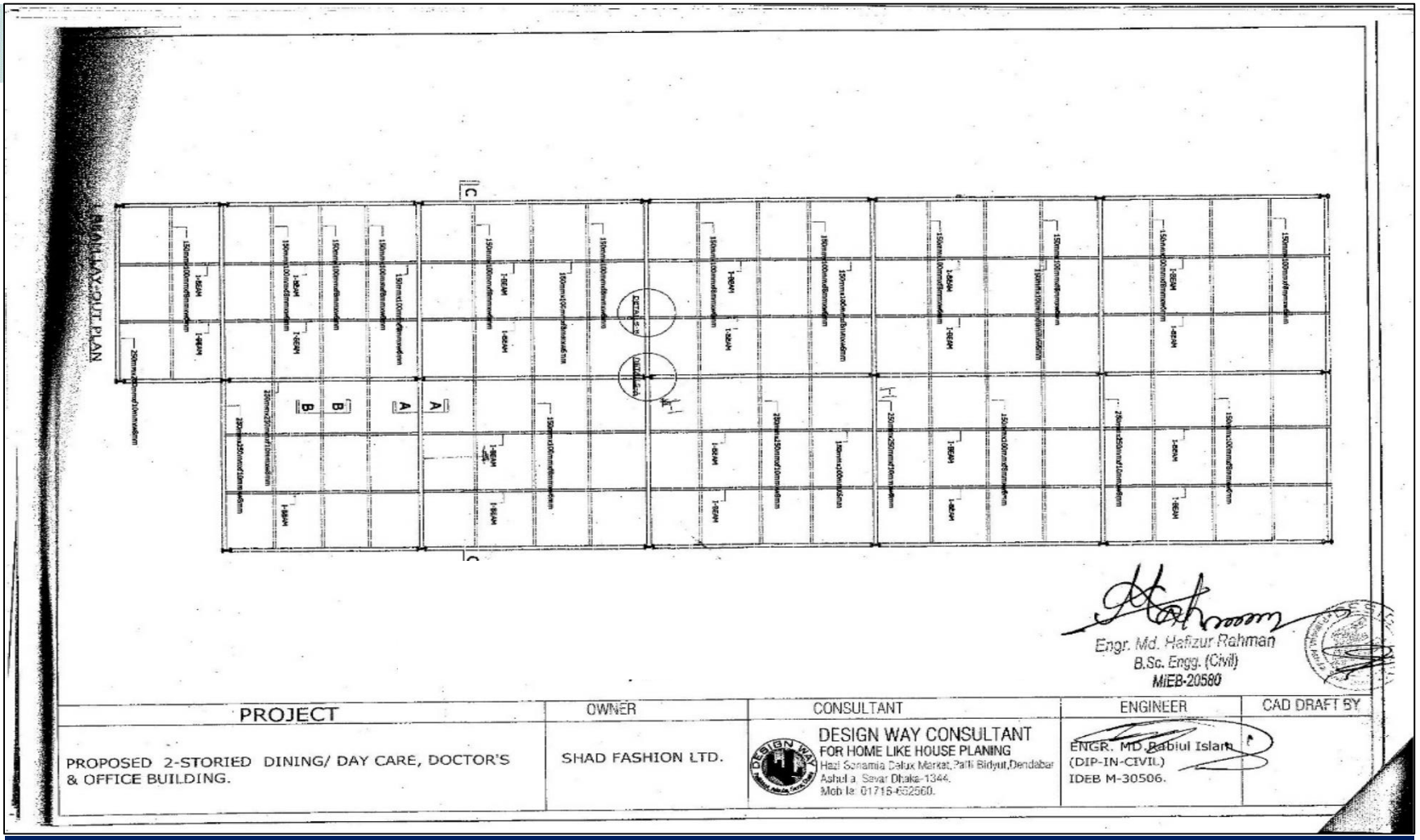

Office Building: Structural member sizes don't match to working drawing.

Discrepancies in As-built Drawing

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Apparently non-engineered external steel stairs

South Stair

North-West Stair

The steel stairs of Sample Section building are apparently non-engineered & poorly constructed

Sample Section building

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Lack of engineered connection in Office Building

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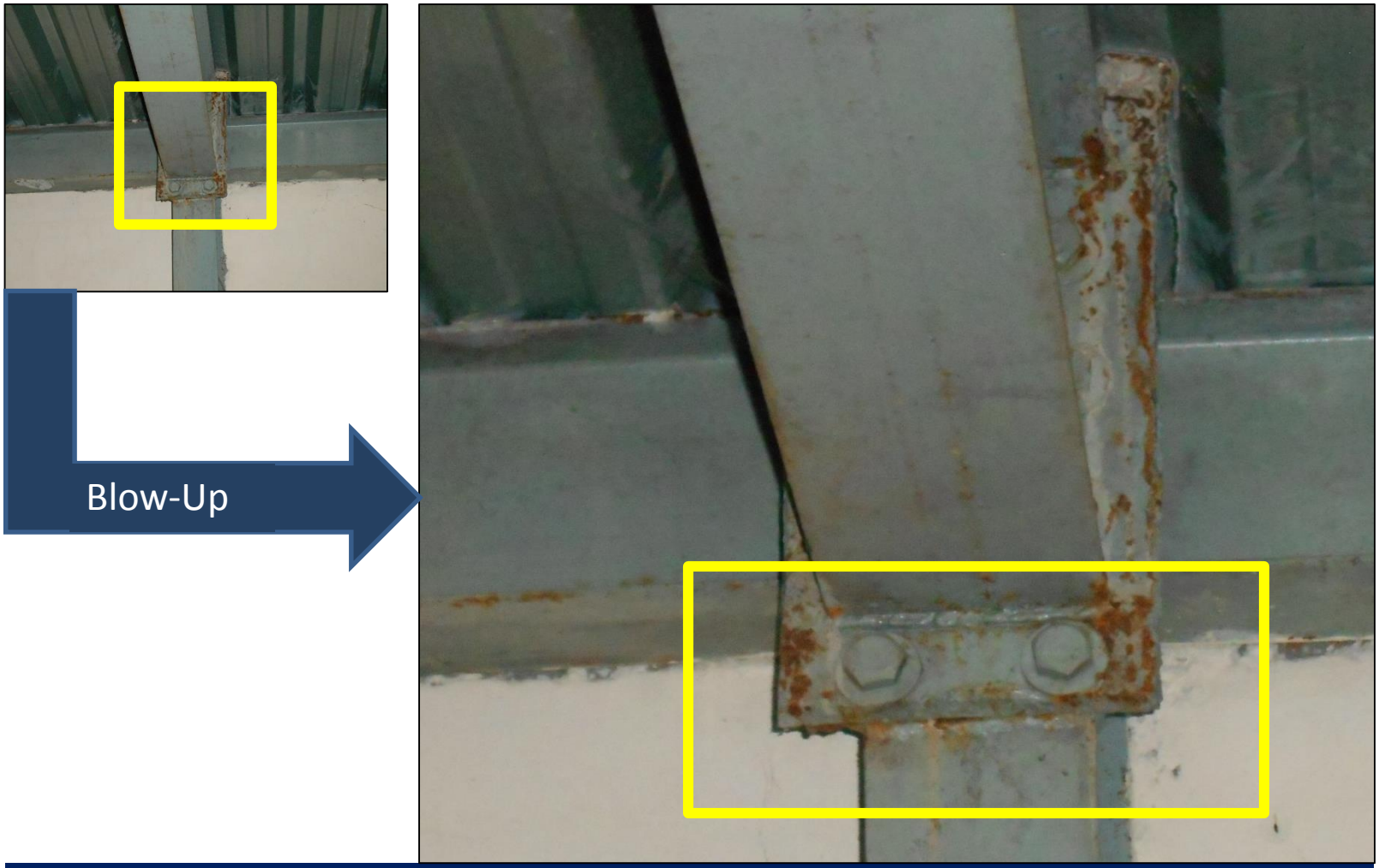
Lack of engineered connection between columns & beams and loose bolts at column base

Office building



Lack of minimum edge distance for bolt

Office building

No water proofing membrane appears on roof &
Exposed reinforcement of column & slab

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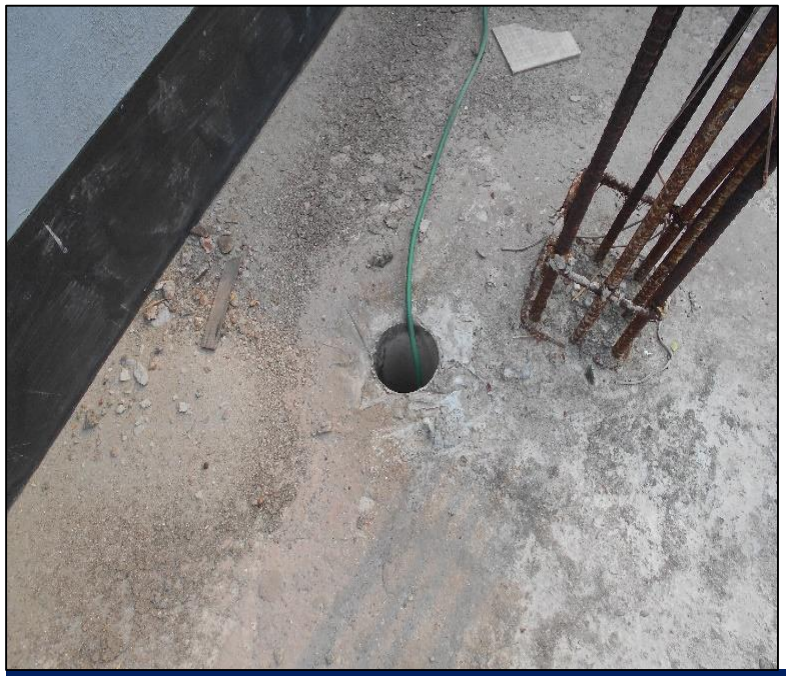

No waterproofing membrane was visible on the concrete roofs of the buildings. This means that any cracks in the surface finishes on the roof will allow water to seep into the concrete slab beneath the finishes, and cause corrosion of the reinforcing steel.

Utility Building

Corrosion in exposed reinforcement. Steel reinforcement projects from roof slab.

Utility Building and Sample Section Building

Problems Observed

Item 1: No obvious stability system of main production sheds

Item 2: Prominent sign of previous sagging of Main production Shed

Item 3: Inconsistencies of drawings and As-built construction

Item 4: Lack of engineered connection in Office Building

Item 5: Apparently non-engineered external steel stairs in Sample Section Building

Item 6: No water proofing membrane appears on roof & Exposed reinforcement of column & slab

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Item No.	Observation	Recommended action plan	Recommended timeline
1	**No obvious stability system of Main Production Sheds**	Carry out design check on the main production sheds to analyze that it is stable under code vertical & lateral loading	6 - Week
2	**No obvious stability system of Main Production Sheds**	Produce and actively manage a loading plan for all the mezzanine floors within the main shed giving consideration to floor capacity and column capacity	6 - Week
3	**No obvious stability system of Main Production Sheds**	Continue to implement load plan	6 - Month
4	**No obvious stability system of Main Production Sheds**	Carry out necessary strengthening work if required after analysis	6 - Month

Item No.	Observation	Recommended action plan	Recommended timeline
5	**Prominent sign of previous sagging of Main production Shed**	Carry out sagging limit check for the trusses.	6 - Week
6	**Prominent sign of previous sagging of Main production Shed**	Carry out necessary strengthening work if required after analysis	6 - Month
7	**Inconsistencies of drawings and As-built construction**	Building Engineer to produce a set of As built drawings incorporating actual condition of all the structures in factory premises	6 - Week
8	**Lack of engineered connection in Office Building**	Building engineer to check the stability of office building & the adequacy of beam-column connection considering code vertical and lateral load	6 - Week

Item No.	Observation	Recommended action plan	Recommended timeline
9	**Lack of engineered connection in Office Building**	Building engineer to check the minimum edge distance of connection bolts	6 - Week
10	**Lack of engineered connection in Office Building**	Carry out necessary remedial action if required after analysis	6 - Month
11	**Lack of engineered connection in Office Building**	Produce and actively manage a loading plan for all the floors within the office building giving consideration to floor capacity and column capacity	6 - Month
12	**Apparently non-engineered external steel stairs in Sample Section Building**	Building engineer to produce As-built drawings	6 - Week

Item No.	Observation	Recommended action plan	Recommended timeline
13	**Apparently non-engineered external steel stairs in Sample Section Building**	Building engineer to check the design adequacy of steel stairs considering code vertical and lateral load	6 - Week
14	**Apparently non-engineered external steel stairs in Sample Section Building**	Carry out necessary remedial action if required after analysis	6 - Month
15	**Apparently non-engineered external steel stairs in Sample Section Building**	Produce and actively manage a loading plan for all the floors within the sample section building giving consideration to floor capacity and column capacity	6 - Month

Item No.	Observation	Recommended action plan	Recommended timeline
16	**No water proofing membrane appears on roof & exposed reinforcement of column & slab**	Necessary measures shall be taken to protect exposed reinforcements from corrosion	6 - Week
17	**No water proofing membrane appears on roof & exposed reinforcement of column & slab**	Cover the concrete roofs with a suitable waterproofing membrane, e.g. waterproof screed.	6 - Month

Survey Limitations and Assumptions

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This report can be used in discussion with the supplier or factory owner as a means to rectify or address any observations made. The report is not comprehensive and is limited to what could be observed during a visual inspection of the building.

This Report is not intended to be treated as a generalised inspection and does not cover the deterioration of structural members through dampness, fungal or insect attack, nor does it deal with problems and defects of a non-structural nature. Other non structural aspects of the building such as fire safety have not been assessed in this survey.

Except as otherwise noted, drains and other services were not viewed or tested during our inspection and are therefore similarly excluded from this Report. We have not inspected any parts of the structure which are covered, unexposed or inaccessible and we are therefore unable to report that any such part of the property is free from defect.

External inspection of the façade walls has generally been carried out from ground level only by visual sighting. No opening up works were carried out (except as noted) and we rely on the Architects and Engineers drawings provided to us for our views on concealed parts of the structure and in particular foundations. Strengths of materials and components are untested and we recommend that the factory owners Building Engineer carries out in-situ testing over and above those suggested to satisfy themselves with the material strengths and component details.

Recommendations, where given, are for the purpose of providing indicative advice only, are not exhaustive, relate solely to identifying key and obvious structural defects as identified in this presentation, and do not take the form of or constitute a specification for works. We take no responsibility for the works as constructed. This report does not interfere with the factory owners Building Engineers responsibility for the structural performance of this building, The Building Engineer remains fully responsible for the structural adequacy of the building.

This report does not comment in detail on the future seismic performance of the building and only highlights the fact that the building may experience significant damage or collapse in a seismic event along with many others in the Dhaka region.

The observations in this report are based on the Engineering Judgement of the lead surveyor/engineer at the time of the survey. We assume in making these observations that no covering up of faults defects, filling or plastering over cracking or significant repair work has been carried out by the building owner. Any future alteration or additional work by the building owner will void this report.