

Mac-Tex Industries Ltd.

77/20 Dagormora, Crp, Road, Savar- Dhaka.

(23.855476, 90.263562)

11 March 2024

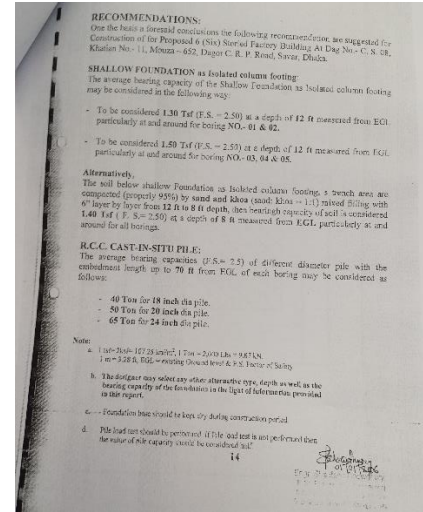
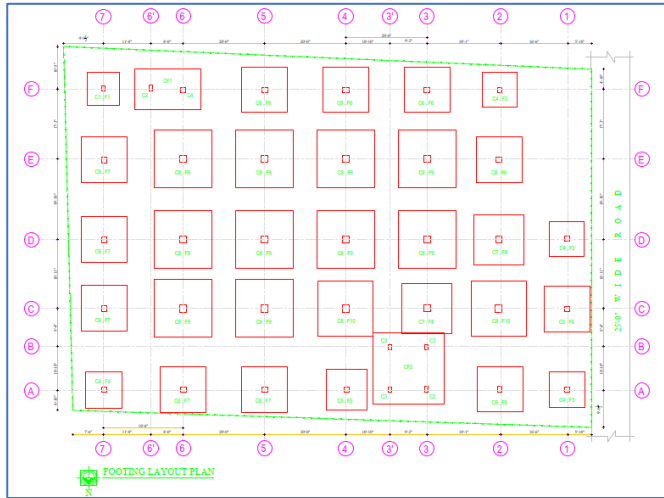


1. Building Information

- i) Production Building
- ii) Boiler Building
- iii) Security Building.

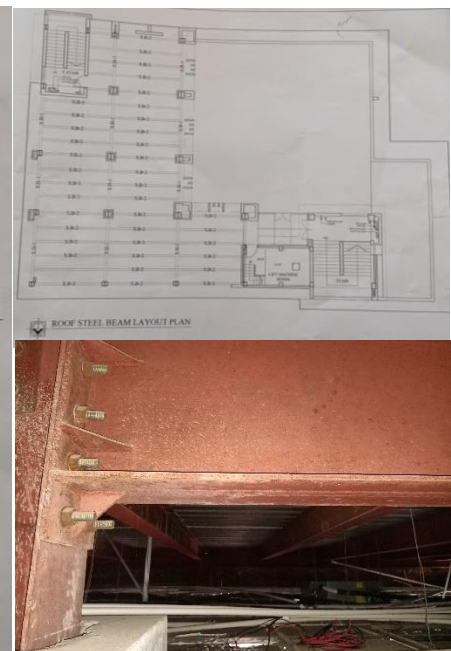
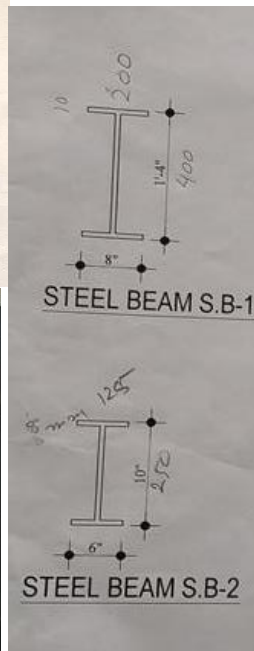
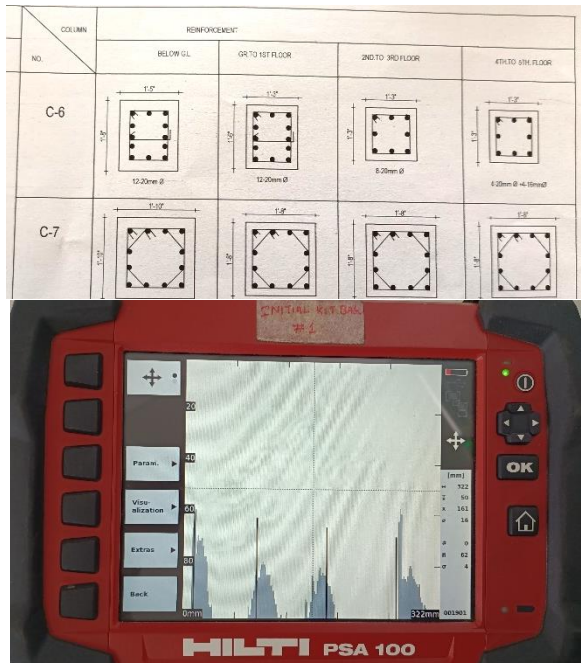
2. Observations

Observation-01: Foundation found to be stressed. (Production Building)



Description: Cursory calculation indicates the footing is stressed for Punching. The loading is considered 3 kPa for a typical floor and minimum concrete strength (16.3 MPa) based on aggregate type. The building engineer is required to verify in-situ material strength and review the design load and foundation stresses.

Observation-02: Mismatches in as-built drawings. (Production Building)



Description: The number of rebars in the periphery column (C-6 type) was found to be 5 nos on the long face instead of 5 nos. On the other hand, steel member thickness and connection details were not found in the provided drawings for the roof shed. The building engineer is required to survey the whole structure and prepare full set of as-built drawing.

Observation-03: Dampness found on the walls. (Production Building)



Description: Dampness was found on the roof of the water tank's side walls. The building engineer is required to investigate the cause of the dampness and repair it using a suitable method.

Observation-04: Non-structural elements not anchored or braced. (Production Building)



Description: Some racks on floors are not anchored or braced to resist lateral (earthquake) forces. The factory is required to anchor/brace all non-structural elements adequately to resist earthquake forces.

Observation-05: Absence of design documents. (Boiler Building)



Description: As per BNBC, every building or structure designed shall have its design documents prepared following the provision of Section 1.9.1. The design document shall include a design report, and a set of structural drawings, which shall be prepared in compliance with section 1.9.1.1 and section 1.9.1.2, part 6 of BNBC.

Observation-06: Wastage material on the roof. (Boiler Building)



Description: Wastage material was found almost everywhere on the roof. The factory is required to remove all kinds of waste/debris from the roof.

Observation-07: lack of as-built drawing. (Security Building)



Description: As-built drawings were unavailable for the security building at the inspection time. The building engineer is required to prepare complete as-built (structural & architectural) drawings.

Observation-08: Absence of building permit. (Steel Roof-Production Building; and Boiler Building)



Description: The production building was permitted for 5 stories. During the inspection, a partial steel roof structure was found above 5 stories, used for office space. Also, no permit drawing was found for the boiler building.

The building engineer is required to collect a building permit from the local government authority.

3. Action Plan

Observation	Action Plan	Timeline
Foundation found to be stressed. (Production Building)	The building engineer is required to review the design load and foundation stresses.	within 6 weeks
	Verify in-situ material strength.	within 6 weeks
	Produce and actively manage a loading plan for all floor plates within the factory, considering floor, column, and foundation capacity.	within 6 weeks
	Carry out the suggested remedial works if required.	within 6 months
Mismatches in as-built drawings. (Production Building)	The building engineer is required to survey the whole structure and prepare full set of as-built drawing.	within 6 weeks
Dampness found on the walls. (Production Building)	The building engineer is required to investigate the cause of the dampness and repair it using a suitable method.	within 6 weeks
Non-structural elements are not anchored or braced. (Production Building)	The factory is required to anchor/brace all non-structural elements adequately to resist earthquake forces.	within 6 weeks
Absence of design documents. (Boiler Building)	The building engineer is required to prepare the design documents, including a design report and a set of structural drawings in compliance with section 1.9.1.1 and section 1.9.1.2, part-6 of BNBC, and submit it to RSC for review.	within 6 weeks
	Implement remediation work if required.	within 6 months
Wastage/Debris on the roof. (Boiler Building)	The factory is required to remove all kinds of waste/debris from the roof.	within 6 weeks
Lack of as-built drawing. (Security Building)	The building engineer is required to prepare complete as-built (structural & architectural) drawings.	within 6 weeks
Absence of building permit. (Steel Roof-Production Building, and Boiler Building)	The building engineer is required to collect building permit from the local building authority.	within 6 months

Survey Limitations and Assumptions

This report is for the private and confidential use of RSC for whom it was prepared together with their professional advisors as appropriate. It should not be reproduced as a whole or in part or relied upon by third parties for any use without the express written permission of RSC.

This report can be used in discussion with the supplier or factory owner 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 generalized 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 relied 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, 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 construction. 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.