Vintage Denim Ltd. (Extension)

Gilarchala, Sreepur, Gazipur.

(24.192805, 90.424597)

13 November 2023

Structural Inspection Report

RSC RMG SUSTAINABILITY COUNCIL

Level 5, Shanta Forum, 187, 188/B,
Bir Uttam Mir Shawkat Sarak, Tejgaon,
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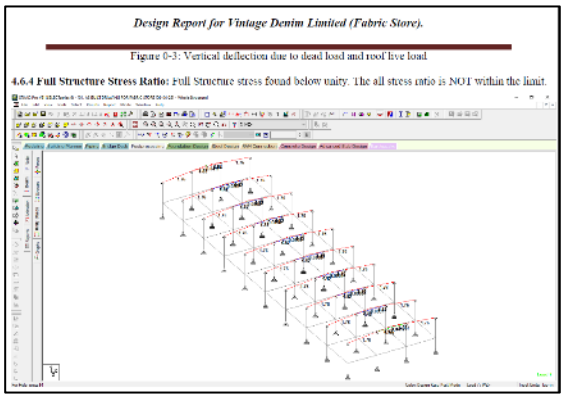
1. Building Information:

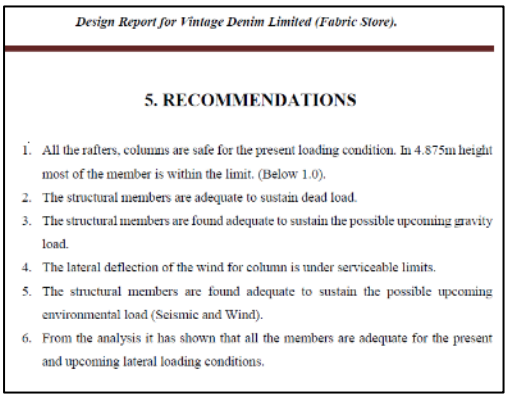
Fabric Store Shed:	Single storied shed.
Gas Generator Building:	Single storied building.
Guard Room:	Single storied building.
RMS Room:	Single storied building.
Kitchen Shed:	Single storied shed.

2. Observations

Observation-1: Inconsistencies between software output and design report. (Fabric Store Shed)



The stress ratio for steel rafters is more than 1.0 in the software analysis.

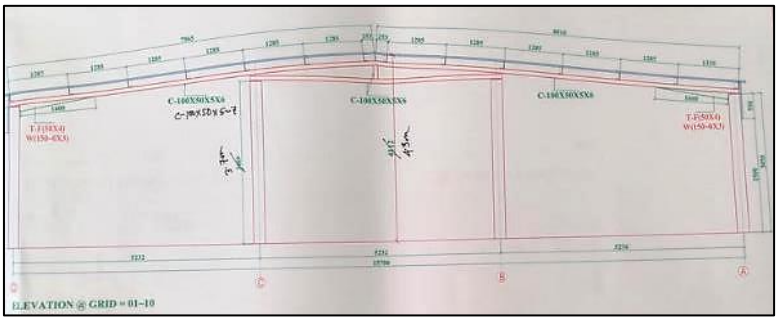


Declared as safe in the recommendation of design report.

Lack of lateral load transfer media in eave & ridge

Description: As per the software output, stress ratio for steel rafters is more than 1.0 (unsafe) but in the design report stress ratio for those members is declared less than 1 (safe). Also, improper connections and lack of lateral load transfer media along eave & ridge was observed on-site which has not been considered in the software based structural analysis. In addition,

Observation-2: Mismatch between drawing & on-site condition. (Fabric Store Shed)



Description: The height of the building found more than as-built drawing. Also, the thickness of rafter (channel) was found varies from 5 mm to 7 mm where average 6mm is shown in the drawing.

Observation-3: Improper connection & steel sections. (Fabric Store Shed)


Description: Discontinuation of web & flange was observed in end portion of the steel rafter. The thickness of marked plates was thinner than the main rafter section. Also, the connection between steel rafter & RC columns were not proper.

Observation-4: Vehicle impact on steel canopy (Store Building). (Fabric Store Shed)


Description: Distress steel angle was found due to impact of vehicle in the steel canopy.

Observation-5: Falling Hazard (Fabric Store Shed)


Description: Falling hazard at the entry/exit of the shed was observed due to lack of steps.

Observation-6: Crack in beam & slab of mezzanine floor (Gas Generator Building).



Description: Structural Crack observed in beam & slab of mezzanine floor of single storied Gas Generator Building which require immediate investigation & action. The factory already provided some props support for slab.

Observation-7: Lack of design documents (Gas Generator Building).

Description: As per BNBC, every structure should have design documents in compliance with section 1.9.1. Design documents consist of design reports, drawings, and software-based analysis. During inspection no design report and as-built drawings were found on-site.

Observation-8: Dampness on wall (Gas Generator Building).


Description: Dampness found on load bearing brick walls.

3. Action Plan

Item No.	Observation	Action Plan	Timeline
1.	Inconsistencies between software output and design report. (Fabric Store Shed)	The building engineer is required to revise the design report based on in-situ material strength & software-based analysis and submit the documents to RSC for review.	within 6 weeks
2.	Inconsistencies between software output and design report. (Fabric Store Shed)	Carry out suggested remedial works if required.	within 6 months
3.	Mismatch between drawing & on-site condition. (Fabric Store Shed)	The building engineer is required to survey the full structure and produce accurate as-built drawings.	within 6 weeks
4.	Improper connection & steel sections. (Fabric Store Shed)	The building engineer is required to check the connections and suggest proper remedial action accordingly.	within 6 weeks
5.	Improper connection & steel sections. (Fabric Store Shed)	Upgrade the connections where required.	within 6 months
6.	Vehicle impact on steel canopy (Store Building). (Fabric Store Shed)	The factory is required to restrict the vehicle access by providing barrier in front to the shed keeping safe distance and repair the damaged steel canopy.	within 6 months
7.	Falling Hazard (Fabric Store Shed)	The building engineer required to build necessary steps in front of exit ways.	within 6 weeks
8.	Structural crack in beam & slab of mezzanine floor (Gas Generator Building).	The factory must immediately engage a consultant to investigate the cracks & existing prop support. Any safety measures, if required as suggested by the consultant, must be taken immediately to ensure safety. The investigation report along with the repair methodology must be submitted to RSC by 20 November 2023.	Immediate
9.	Structural crack in beam & slab of mezzanine floor (Gas Generator Building).	Required remediation work must be completed within 7 days of receiving acceptance from RSC. RSC must be updated with pictorial evidence on work progress.	within 6 weeks
10.	Lack of design documents (Gas Generator Building).	The building engineer is required to prepare design documents in compliance with section 1.9.1 of BNBC (part 6).	within 6 weeks
11.	Lack of design documents (Gas Generator Building).	Carry out suggested remedial works if required.	within 6 months
12.	Dampness on wall (Gas Generator Building).	Seal the source of water and repair the damp areas.	within 6 weeks