

MASHIYAT APPAREL LTD

Holding no: 33/1, Durgapur, Mondolpara, Zirabo, Ashulia, Dhaka-1341, Bangladesh
(23.903359, 90.302952)

12 August 2025



1. Building Information

There are ten (3) structures on the factory premises. The names of the structures are mentioned below,

1	Admin Building	Two-storied (G+1) RC building.
2	Production Shed	Single-storied prefabricated steel shed.
3	Utility Building	Single-storied RC structure.

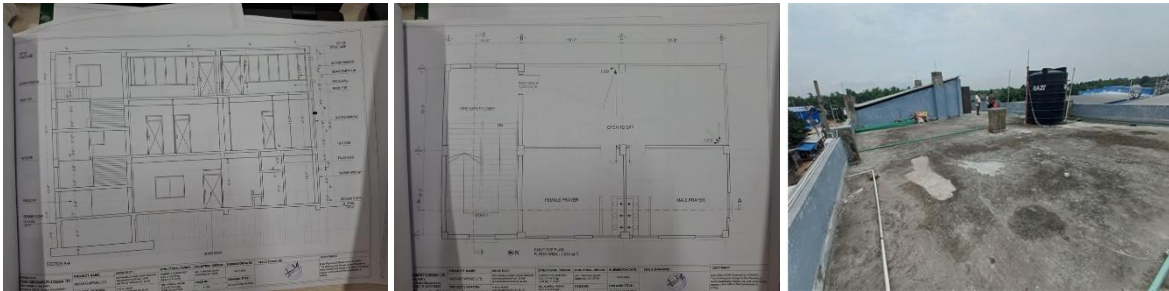
2. Observations

Observation 01: Lack of load plan & management system - Admin Building



Description: Floor load plan not found posted on suspended floors. Prepare and post the floor load plan on each suspended floor and maintain accordingly.

Observation 02: Mismatch in as-built drawing- Admin Building



Description: The building is two storied where drawing shown partially 3 storied. Also, the plastic water tank and stair roofing detail were not shown in the drawing. Update as-built drawing.

Observation 03: Water ponding on roof - Admin Building



Description: During inspection, minor water ponding observed on the roof due to improper slope and inadequate number of water outlets. Improve the roof drainage system.

Observation 04: Exposed rebar in stair landing – Admin Building



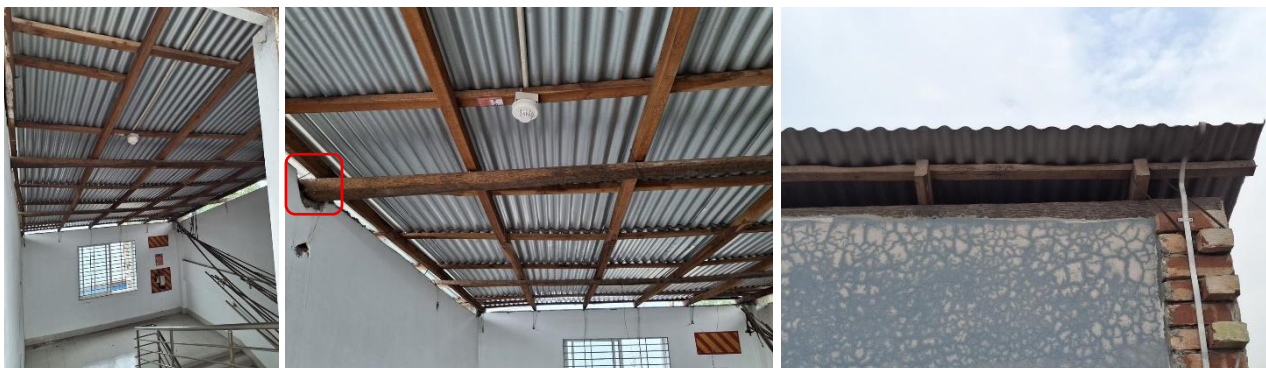
Description: During inspection, exposed rebar observed on stair landing. Provide coating on exposed rebar.

Observation 05: Potential falling hazard due to low height parapet - Admin Building



Description: Parapet wall height was found less than 750mm (30 inches) on the roof. Increase the parapet wall height.

Observation 06: Improper anchorage for lightweight stair roof – Admin Building



Description: Light weight roof was braced with some wires which seemed to be improper. Provide necessary anchorage following engineer’s suggestion.

Observation 07: Minor damage on cornice slab due to vehicle impact – Admin Building



Description: Minor damage was observed to the cornice due to vehicle impact on it. Repair the damage area and install a proper mechanism to avoid further impact.

Observation 08: Revision of design report- Production Shed

**ENGINEERING ASSESSMENT OF
MASHIYAT APPAREL LTD.**

Building Name: Single Storied Production Shed.
Location: Holding no: 33/1, Durgapur, Mondolpara, Zirabo, Ashulia, Dhaka-1341, Bangladesh.

Submission No: 01
Submission Date: 03-07-2025
Factory ID: 26392

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Table 2-2 : Design Loading

Sl.	Load	Value
1	BNBC Roof Live Load (KN/m ²) Stores	1.0 KN/m ²
2	Floor Load.	Unlimited
3	Wind Speed (m/s)	65.7 m/s
4	Exposure	A
5	Earthquake Zone	2
6	Zone Co-efficient	0.20
7	Importance factor, I	1.25

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Table 2-3 : Design Loading

Design Parameters	Description
Code AISC	360-05
METHOD	LRFD
FYLD	36.0 Ksi (Use in All Steel Members)
FU	58.0 Ksi (Use in All Steel Members)
FRM	(1) Ordinary Moment Frame (OMF) (Use in All Steel Members)
STP	2= Welded Section (Use in All Steel Members)
LZ	11.10 m & 5.55 m (Length in Local Z axis for slenderness value KL/r) (Use in Rafter)
RATIO	1= Permissible Ratio of Actual Load to Section Capacity. (Use in All Steel Members)
UNT	1.3 m Unsupported Length of Top Flange for Calculation Bending Capacity. (Use in Rafter)
UNB	2.6 m Unsupported Length of Bottom Flange for Calculation Bending Capacity. (Use in Rafter)
CHECK CODE	Use in All Steel Members.
STEEL TAKE OFF	Use in All Steel Members.

Description: Seismic design category and detailing requirement checks were not properly addressed in the design report. The building engineer is required to revise Engineering Assessment (EA) for the structure. Submit the EA documents to RSC for review.

Observation 9: Loose cable bracing- Production Shed



Description: Loose cable bracing observed in different locations. Factory should tighten those braces.

Observation 10: Connection Gap, bolt missing, inadequate bolt length- Production Shed



Connection Gap

Bolt Missing

Inadequate Bolt Length

Description: Connection Gap between two plates observed. Bolt missing found in compression strut to column joint and inadequate bolt length observed in several locations. Building engineer is required to identify the locations and re-install/repair with suitable method.

Observation 11: Lack of anchorage /bracing for non-structural elements (storage racks, water tanks) – Admin Building & Production Shed



Description: Storage rack and PVC water tank were found without anchorage to the ground or braces internally.

3. Action Plan

Item No	Observation	Action Plan	Timeline
1.	Lack of load plan & management system – Admin Building	Prepare load plan along with design report & submit it to RSC. Post floor load plan on each floor, mark storage area & height (if any) & maintain floor loading accordingly.	within 6 weeks
2.	Mismatch in as-built drawing – Admin Building	Building engineer is required to survey the structure and prepare accurate as-built drawings.	within 6 weeks
3.	Water ponding on roof - Admin Building	Improve roof drainage system (water proofing layer with proper slope, and adequate water outlets).	within 6 months
4.	Exposed rebar in stair landing – Admin Building	Provide anti-rusting coating on exposed rebar.	within 6 weeks
5.	Potential falling hazard due to low height parapet - Admin Building	Increase the roof parapet wall height as per BNBC-2020 requirements.	within 6 weeks
6.	Improper anchorage for lightweight stair roof – Admin Building	Provide necessary anchorage following engineer’s suggestion.	within 6 weeks
7.	Minor damage on cornice slab due to vehicle impact – Admin Building	Repair the damage area and install a proper mechanism to avoid further impact.	within 6 weeks
8.	Lack of anchorage /bracing for non-structural elements (water tank) – Admin Building	Provide anchorage/braces to the non-structural plastic water tank.	within 6 weeks
9.	Revision of design report – Production Shed	Revise the Engineering Assessment (EA) report with remedial actions considering in-situ material strength. Submit EA documents to the RSC for review.	within 6 weeks
10.		Carry out suggested remedial works if required.	within 6 months
11.	Loose cable bracing – Production Shed	Identify the locations & tighten the loose braces.	within 6 weeks
12.	Connection Gap, bolt missing, inadequate bolt length- Production Shed	Building engineer is required to identify the locations, re-install missing bolts, repair connection gaps with suitable method and replace inadequate length bolt where required.	within 6 weeks
13.	Lack of anchorage /bracing for non-structural elements (storage rack) – Production Shed	Provide anchorage/braces to the non-structural storage racks.	within 6 weeks