

RIPON KNITWEAR LTD (EXTENSION)

Jarun, Konabari, Gazipur

(23.99421288, 90.32304191)

7 May 2026

Color Category
Amber

Category Red
if Cap item 22,
23 & 24
are not
immediately
progressed.

DEA



1. Building Information

- 1. Building-4 (Utility)**
- 2. Building-5 (Production)**
- 3. Building-6 (Production)**

2. Observation

Observation-01: Slender Column and Lack of Design Documents (Building-4).



Description: Column of Building-4 found to be slender on the ground floor. Also, design documents were not available for Building-4. The building engineer is required to review the design, load, seismic requirements, framing system, and incorporate necessary measures (if necessary) as per Section 1.3.4; Section 1.3.5; Section 1.5.4.2; Section 1.5.4.3 & Section 2.5.5 of BNBC 2006 and update the analysis and design report in accordance with Section 1.9.1 of BNBC 2006. Also, the building engineer is required to incorporate necessary remedial works (if required).

Moreover, the necessary documentation for the confirmation of material strength was not available. The building engineer is required to verify the concrete strength by taking cores (100 mm dia, at least 4 nos for each type of member) from the columns, beams, & slabs of Building-4.

Observation-02: Discrepancy and lack of information in as-built drawings (Building-4).



Description: The thickness and height of the brick wall, built up for the machine anchorage, are not shown in the drawing. In addition, the detailed dimensions of the wall, wall thickness, cantilever extension length, and details of the stair & stair top framing are not shown clearly in the drawings. The building engineer is required to survey the as-built condition and prepare an accurate set of as-built drawings (including verification of foundation size and thickness; verification of column & beam rebar) and submit them to RSC for review.

Observation-03: Lack of a proper load-management plan (All Structure).



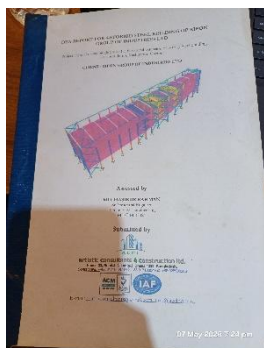
Description: No load markings and proper load management were evident. The building engineer is required to prepare the load plan following NTPA guideline section 4.13; post the floor load plan on each floor, provide load restriction height markings, signage on the storage area, and manage the floor load plan as per the acceptable load limits of BNBC.

Observation-04: Water ponding, Dampness on Wall & lack of a proper drainage system on the roof of Building-4.



Description: Water ponding was evident on the roof of Building-4. Also, water-related dampness was observed on the wall. Provide a waterproofing layer on the roof and maintain the necessary slope to improve the roof drainage system. Also, seal the source of water and repair the water-related dampness with a suitable method.

Observation-05: Stress in columns and lack of appropriate design documents & building separation (Building-5).



Description: The columns were found to be stressed above the normal design limit in cursory calculations. A Detailed Engineering Assessment (DEA) is required to commence. Moreover, a stair was observed to be connected structurally between Building-5 & Building-6. A design report was found for the Building-5 only. However, it doesn't satisfy the requirements of the BNBC 2006 provisions. Also, no material test reports were available. The building engineer is required to review the design, load, seismic requirements, framing system, and incorporate necessary measures as per Section 1.3.4; Section 1.3.5; Section 1.5.4.2; Section 1.5.4.3 & Section 2.5.5 of BNBC 2006 and update the analysis and design report in accordance with Section 1.9.1 of BNBC 2006. Moreover, the necessary documentation for the confirmation of material strength was not available. The building engineer is required to verify the steel grade by necessary testing.

In addition, the building engineer is required to ensure the necessary separation gap from the nearby structures in accordance with section 1.5.6.2 of BNBC 2006.

Observation-06: Retrofitting works incomplete & inconsistent (not indicative of available remedial drawings) and poor construction quality (Building-5).



Description: An engineering assessment report with remedial recommendations was available on-site. However, the remediation work has been found incomplete & inconsistent with respect to the available retrofitting outline. A building engineer is required to verify the carried out remedial works and the quality of the remedial works. The building engineer is required to complete the remediation work (if required) upon DEA acceptance from RSC.

Observation-07: Inadequate member size & connection of vertical posts (Building-5).



Description: Additional vertical posts were observed with a non-engineered connection to support the cantilever floor member at the stair location and the stair landing locations. Also, the vertical posts are of an inadequate size. The building engineer is required to assess those members and connections for all types of loading (required vertical and lateral loadings) as per BNBC and incorporate remedial action (if required).

Observation-08: Stress in connection (missing bolts & significant connection gaps) (Building-5).



Description: Stresses are observed in many connections along with missing bolts and connection gaps. The building engineer is required to assess all the connections, incorporate remedial action where required, and submit to RSC for review. Also, the building engineer is required to install the missing bolt and remove the connection gap with a suitable method.

Observation-09: Discrepancy and lack of information in as-built drawings (Building-5).



Description: The thickness and height of the brick wall, built up information, are not shown in the drawing. In addition, the detailed dimensions of the wall, wall thickness, cantilever extension length, and details of the stair & stair top framing are not shown clearly in the drawings. The building engineer is required to survey the as-built condition and prepare an accurate set of as-built drawings (including verification of foundation size and thickness; verification of short column rebar & grade beam size and rebar) and submit them to RSC for review.

Observation 10: Corrosion on steel columns & bracing (Building-5).



Description: During inspection, severe corrosion was observed on steel columns and bracings. The building engineer is required to investigate the corrosion and the section loss from the column and the bracing member and repair it with a suitable method (if required). Also, the building engineer is required to remove rust and apply anti-corrosive coating where required.

Observation 11: Non-engineered stair top shed (Building-5).



Description: A non-engineered & rusty stair top canopy was observed. The building engineer is required to assess the stair top canopy for all types of loadings and replace it with an engineered one as part of remediation (if required) and submit the required assessment along with the remedial plan to RSC for review. Upon acceptance from RSC, carry out required remedial works (if required).

Observation-12: Water ponding, & lack of a proper drainage system on the roof of Building-5 & Building-6.



Description: Water ponding was evident on the roof of Building-5 & Building-6. Provide a waterproofing layer on the roof and maintain the necessary slope to improve the roof drainage system.

Observation 13: High stress in the column, and lack of design documents (Building-6).



Description: The columns were found to be highly stressed above the normal design limit in cursory calculations. Building engineer is required to review the design load and column stress **immediately**. A Detailed Engineering Assessment (DEA) is required to commence **immediately**.

No material test reports were available. The building engineer is required to review the design, load, seismic requirements, framing system, and incorporate necessary measures as per Section 1.3.4; Section 1.3.5; Section 1.5.4.2; Section 1.5.4.3 & Section 2.5.5 of BNBC 2006 and update the analysis and design report in accordance with Section 1.9.1 of BNBC 2006. Moreover, the necessary documentation for the confirmation of material strength was not available. Verify concrete strength by taking 100 mm diameter cores from the lower-tier column, beam-slab, **immediately** (Min 4 nos from each type of member).

Also, no as-built drawings were found on-site. The building engineer is required to produce accurate and detailed as-built drawings, including foundation size and thickness verification, rebar scan, and verification of column and beam rebar diameter **immediately**.

Observation-14: Offset beam on the ground floor roof (Building-6).



Description: Offset beams' adequacy and detailing need to be incorporated in the DEA report.

Observation-15: Poor Concrete Quality (honeycomb & segregation were observed) (Building-6).



Description: Honeycomb and segregation were found on the column and beam; construction quality is required to be verified through appropriate NDT tests.

Observation 16: Damaged column due to trolley/vehicle impact (Building-6).



Description: Repair the damaged column and provide necessary safety guards and impact protection barrier to the column at all concerned locations.

Observation 17: Lack of anchorage/brace of non-structural element (Water tank) (Building-4).



Description: Provide necessary safety guards (anchor/brace) to the water tank at the ground floor.

Observation 18: Exposed rebar (Building-6).



Description: During the inspection, exposed rebar was found to be corroded. The building engineer is required to remove rust and apply anti-corrosive coating to all exposed rebar.

3. Action Plan

Item No	Observation	Action Plan	Timeline
1.	Slender Column and Lack of Design Documents (Building-4).	The building engineer is required to review the design, load, and seismic requirements of the slender column (observed), and review all requirements of the overall framing system, and incorporate necessary measures (if necessary) as per Section 1.3.4; Section 1.3.5; Section 1.5.4.2; Section 1.5.4.3 & Section 2.5.5 of BNBC 2006 and update the analysis and design report in accordance with Section 1.9.1 of BNBC 2006 and submit to RSC for review.	within 6 weeks
2.		Verify the concrete strength by taking cores (100 mm dia at least 4 nos for each type of member) from the column, beam, and slab.	within 6 weeks
3.		Implement remediation work if required.	within 6 months
4.	Lack of a proper load-management plan (Building-4)	The building engineer is required to prepare the load plan following NTPA guideline section 4.13, & post the load plan, provide load restriction height markings and signage for the storage area, and manage floor loading as per the load plan.	within 6 weeks
5.	Discrepancy and lack of information in as-built drawings (Building-4).	The building engineer is required to survey the as-built condition and prepare an accurate set of as-built drawings (including verification of foundation size and thickness; verification of column & beam rebar) and submit them to RSC for review.	within 6 weeks
6.	Water ponding, dampness on wall & lack of a proper drainage system on the roof of Building-4.	Provide a waterproofing layer on the roof and maintain the necessary slope to improve the roof drainage system. Also, seal the source of water and repair the water-related dampness with a suitable method.	within 6 weeks
7.	Lack of anchorage/brace of non-structural element (Water tank) (Building-4)	Provide necessary safety guards (anchor/brace) to the water tank at the ground floor.	within 6 weeks
8.	Stress in columns and lack of appropriate Design Documents & building	The building engineer is required to review the design, load, seismic requirements, framing system, and	within 6 weeks

	separation (Building-5).	incorporate necessary measures as per Section 1.3.4; Section 1.3.5; Section 1.5.4.2; Section 1.5.4.3 & Section 2.5.5 of BNBC 2006 and update the analysis and design report in accordance with Section 1.9.1 of BNBC 2006.	
9.		The building engineer is required to verify the steel grade by necessary testing.	within 6 weeks
10.		The building engineer is required to ensure the necessary separation gap from the nearby structures in accordance with section 1.5.6.2 of BNBC 2006.	within 6 weeks
11.		Implement remediation work if required.	within 6 months
12.	Lack of a proper load-management plan (Building-5)	The building engineer is required to prepare the load plan following NTPA guideline section 4.13, & post the load plan, provide load restriction height markings and signage for the storage area, and manage floor loading as per the load plan.	within 6 weeks
13.	Retrofitting works incomplete, inconsistent (not indicative of available remedial drawings), and the poor construction quality (Building-5).	A building engineer is required to verify the carried out remedial works and the quality of the remedial works. Prepare a set of accurate as-built drawings based on actual site conditions observed.	within 6 weeks
14.		The building engineer is required to complete the remediation work (if required) upon DEA acceptance from RSC.	within 6 months
15.	Inadequate member size & connection of vertical posts (Building-5).	The building engineer is required to assess those members and connections for all types of loading (required vertical and lateral loadings) as per BNBC and incorporate remedial action (if required).	within 6 weeks
16.	Stress in connection (Missing bolts and significant connection gaps) (Building-5).	The building engineer is required to assess all the connections, incorporate remedial action where required, and submit to RSC for review. Also, the building engineer is required to install the missing bolt and remove the connection gap with a suitable method.	within 6 weeks

17.	Discrepancy and lack of information in as-built drawings (Building-5).	The building engineer is required to survey the as-built condition and prepare an accurate set of as-built drawings (including verification of foundation size and thickness; verification of short column rebar & grade beam size and rebar) and submit them to RSC for review.	within 6 weeks
18.	Severe corrosion on steel columns & bracing (Building-5).	The building engineer is required to investigate the corrosion and the section loss from the column and the bracing member and repair it with a suitable method (if required). Also, the building engineer is required to remove rust and apply anti-corrosive coating where required.	within 6 weeks
19.	Non-engineered stair top shed (Building-5).	The building engineer is required to assess the stair top canopy for all types of loadings and replace it with an engineered one as part of remediation (if required) and submit the required assessment along with the remedial plan to RSC for review.	within 6 weeks
20.		Upon acceptance from RSC, carry out required remedial works (if required).	within 6 months
21.	Water ponding, & lack of a proper drainage system on the roof of Building-5.	Provide a waterproofing layer on the roof and maintain the necessary slope to improve the roof drainage system.	within 6 weeks
22.	High stress in the column, and lack of design documents (Building-6).	The building engineer is required to review the design load and column stress immediately . A Detailed Engineering Assessment (DEA) is required to commence immediately .	Immediate
23.		Verify concrete strength by taking 100 mm diameter cores from the lower-tier column, beam-slab immediately (Min 4 no's from each type of member).	Immediate
24.		The building engineer is required to produce accurate and detailed as-built drawings, including foundation size and thickness verification, rebar scan, and verification of column and beam rebar diameter immediately .	Immediate

25.		The building engineer is required to review the design, load, seismic requirements, framing system, and incorporate necessary measures as per Section 1.3.4; Section 1.3.5; Section 1.5.4.2; Section 1.5.4.3 & Section 2.5.5 of BNBC 2006 and update the analysis and design report in accordance with Section 1.9.1 of BNBC 2006.	within 6 weeks
26.		Implement remediation work if required.	within 6 months
27.	Offset beam on the ground floor roof (Building-6).	Offset beams' adequacy and detailing need to be incorporated in the DEA report.	within 6 weeks
28.	Lack of a proper load-management plan (Building-6)	The building engineer is required to prepare the load plan following NTPA guideline section 4.13, & post the load plan, provide load restriction height markings and signage for the storage area, and manage floor loading as per the load plan.	within 6 weeks
29.	Poor Concrete Quality (honeycomb & segregation were observed) (Building-6)	Honeycomb and segregation were found on the column and beam; construction quality is required to be verified through appropriate NDT tests.	within 6 weeks
30.	Water ponding & lack of a proper drainage system on the roof of Building-6.	Provide a waterproofing layer on the roof and maintain the necessary slope to improve the roof drainage system.	within 6 weeks
31.	Damaged column due to trolley/vehicle impact (Building-6).	Repair the damaged column and provide necessary safety guards and an impact protection barrier to the column at all concerned locations.	within 6 weeks
32.	Exposed rebar (Building-6).	The building engineer is required to remove rust and apply anti-corrosive coating to all exposed rebar.	within 6 weeks