

# AKH Knitting & Dyeing Limited (Extension)

92, Phulbaria, Tetuljhora, Saver, Dhaka-1347

(23.8099400, 90.248954)

1 November 2023



## 1. Building Information

1. Building-10 (Dinning and Store): A five storied (G+4) prefabricated steel building.
2. Building-12 (Utility 02): A two storied (G+1) RC building.
3. Building-14 (Fair price shop): A single storied shed structure.
4. Building-16 (ETP): Partially two storied (G+1) RC building.
5. Building-17 (Kitchen Shed): A single storied shed structure.
6. Building-18 (EGB Boiler & Compressor): This is a two storied (G+1) RC building.
7. Building-19 (Wastage Store): A single storied shed structure.
8. Building-24 (Guard House-4): This is a single storied masonry structure with tin shed

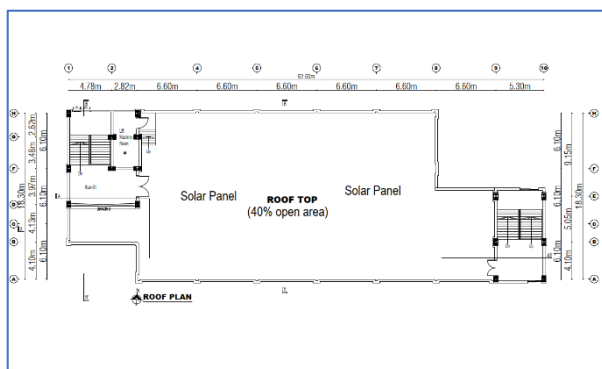
## 2. Observations:

### Observation-01: Absence of design report (Store & Dinning Building)



**Description:** As per BNBC, every building or structure designed shall have its design documents prepared in accordance with 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. At the time of inspection, only as-built drawing and geotechnical report were available, but no design report & load plan were available which are required to be prepared in compliance with section 1.9.1.1 (part-6, BNBC).

### Observation-02: Floor layout mismatch (Store & Dinning Building)



Roof layout



Plastic water tank 2 X 5000 L

**Description:** Plastic water tank on the roof not shown in the drawings. Also, partition walls on the second floor not shown in the floor layout. Building engineer is required to update the as built drawings as per on site condition.

**Observation-03:** Non-structural elements not anchored or braced. (Store & Dinning Building)



Racks on floor



Plastic water tank on roof

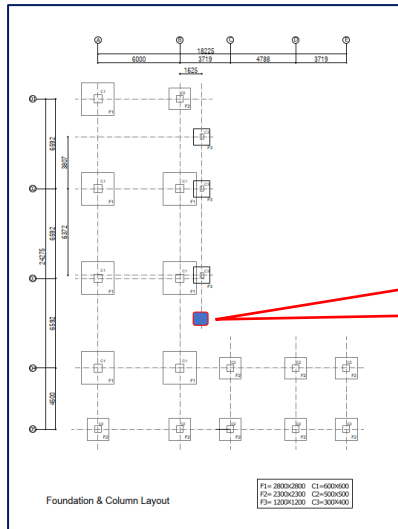
**Description:** Some racks on floors are not anchored and plastic water tank not braced to resist lateral (earthquake) forces. Building is required to anchor/brace all non-structural elements adequately to resist earthquake forces.

**Observation-04:** Absence of design report (Utility Building-2).



**Description:** As per BNBC, every building or structure designed shall have its design documents prepared in accordance with 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. At the time of inspection, only as-built drawing and geotechnical report were available, but no design report & load plan were available which are required to be prepared in compliance with section 1.9.1.1 (part-6, BNBC).

**Observation-05:** Lack of information in drawings. (Utility Building-2)



Column layout of GF



Undocumented column on GF

**Description:** A newly constructed column on GF not shown in the column and footing layout. Also roof beam layout was not found in the provided as-built drawings. Building engineer is required to update the as built drawings as per on site condition. Also, vertical load path needs to be confirmed for that column.

**Observation-06:** Insufficient discharge point on the roof. (Utility Building-2)



Insufficient discharge point



Sign of water clogging

**Description:** Sign of water clogging, and insufficient discharge point was observed on the roof. Building engineer is required to provide adequate discharge point on the roof for drain out rainwater.

**Observation-07:** Absence of design report (ETP Building).



ETP Building



ETP Building

**Description:** As per BNBC, every building or structure designed shall have its design documents prepared in accordance with 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. At the time of inspection, only as-built drawing and geotechnical report were available, but no design report & load plan were available which are required to be prepared in compliance with section 1.9.1.1 (part-6, BNBC).

**Observation-08:** Information missing in structural drawings. (ETP Building)



Roof Slab



Cantilever slab

**Description:** Roof slab details were found missing in provided as-built drawings. The building engineer is required to incorporate all the missing information in the as-built drawing and submit it to RSC.

**Observation-09:** Absence of design report (Wast Heat Boiler & Compressor Room).



**Description:** As per BNBC, every building or structure designed shall have its design documents prepared in accordance with 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. At the time of inspection, only as-built drawing and geotechnical report were available, but no design report & load plan were available which are required to be prepared in compliance with section 1.9.1.1 (part-6, BNBC).

**Observation-10:** In sufficient discharge point on the roof. (Wast Heat Boiler & Compressor Room)



Insufficient discharge point



Sign of water clogging

**Description:** Sign of water clogging, and insufficient discharge point was observed on the roof. Building engineer is required to provide adequate discharge point on the roof for drain out rainwater.

**Observation-11:** Lack of as-built drawings (Fair Price Shop; Kitchen; Wastage Store; Gate House 04).



**Description:** As-built drawings were not available for the mentioned structures. Building engineer is required to prepare full set of as-built drawings and submit to RSC.

### 3. Action Plan:

| Observation                                                                | Action Plan                                                                                                                                                                                                                       | Timeline        |
|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Absence of design report (Store & Dinning Building)                        | 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  |
| Absence of design report (Store & Dinning Building)                        | Carry out remedial works (if any) after review by RSC.                                                                                                                                                                            | within 6 months |
| Absence of design report (Store & Dinning Building)                        | Implement floor load plan.                                                                                                                                                                                                        | within 6 months |
| Floor layout mismatch (Store & Dinning Building)                           | Building engineer is to survey the whole structure and update as-built drawings representing accurate site condition.                                                                                                             | within 6 weeks  |
| Non-structural elements not anchored or braced. (Store & Dinning Building) | Building is required to anchor/brace all non-structural elements adequately to resist earthquake forces.                                                                                                                          | within 6 months |
| Absence of design report (Utility Building-2).                             | 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  |
| Absence of design report (Utility Building-2).                             | Carry out remedial works (if any) after review by RSC.                                                                                                                                                                            | within 6 months |
| Absence of design report (Utility Building-2).                             | Implement floor load plan.                                                                                                                                                                                                        | within 6 months |
| Lack of information in drawings. (Utility Building-2)                      | Building engineer is to survey the whole structure and update as-built drawings representing accurate site condition.                                                                                                             | within 6 weeks  |
| Lack of information in drawings. (Utility Building-2)                      | Vertical load path needs to be confirmed for the additional column.                                                                                                                                                               | within 6 weeks  |
| Insufficient discharge point on the roof. (Utility Building-2)             | Building engineer is required to provide adequate discharge point on the roof for drain out rainwater.                                                                                                                            | within 6 months |

|                                                                                     |                                                                                                                                                                                                                                   |                 |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Absence of design report (ETP Building).                                            | 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  |
| Absence of design report (ETP Building).                                            | Carry out remedial works (if any) after review by RSC.                                                                                                                                                                            | within 6 months |
| Absence of design report (ETP Building).                                            | Implement floor load plan.                                                                                                                                                                                                        | within 6 months |
| Information missing in structural drawings. (ETP Building)                          | Building engineer is to survey the whole structure and update as-built drawings representing accurate site condition.                                                                                                             | within 6 weeks  |
| Absence of design report (Wast Heat Boiler & Compressor Room).                      | 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  |
| Absence of design report (Wast Heat Boiler & Compressor Room).                      | Carry out remedial works (if any) after review by RSC.                                                                                                                                                                            | within 6 months |
| Absence of design report (Wast Heat Boiler & Compressor Room).                      | Implement floor load plan.                                                                                                                                                                                                        | within 6 months |
| In sufficient discharge point on the roof. (Wast Heat Boiler & Compressor Room)     | Building engineer is required to provide adequate discharge point on the roof for drain out rainwater.                                                                                                                            | within 6 months |
| Lack of as-built drawings (Fair Price Shop; Kitchen; Wastage Store; Gate House 04). | Building engineer is to survey the whole structure and update as-built drawings representing accurate site condition.                                                                                                             | within 6 weeks  |