

# Talisman Ltd. (Extension)

Plot # 7-10, 13-16, DEPZ, Ganakbari, Ashulia, Savar, Dhaka-1349.

(23.949660, 90.278668)

27 February 2024



## 1. Executive Summary

1. Single storied (G+Mz) Warehouse Building with mezzanine.
2. Single storied Substation Building.
3. Single storied Security Building.

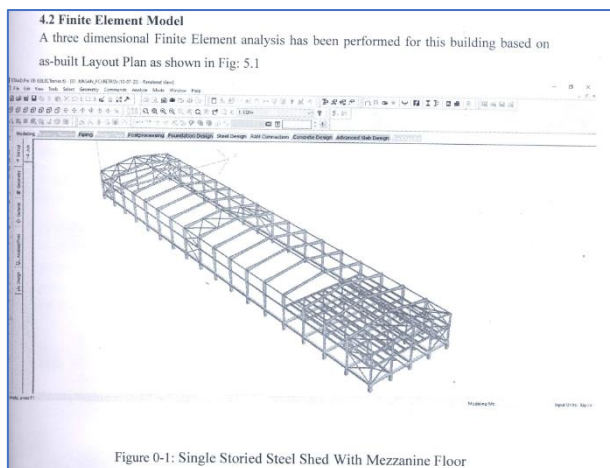
## 2. Observations:

### Observation-1: Mismatch in as-built drawing. (Warehouse Building)



**Description:** Grid dimensions between 17 & 18 were found to be 6.5 m instead of 6 m. Also, a single vertical bracing was found onsite whereas drawings show cross bracing. Moreover, connection details were not found in the drawings.

### Observation-2: Lateral stability needs to be checked for existing bracing system. (Warehouse Building)



**Description:** Concentric bracing frames were considered in the FEA model, but on-site eccentric bracings were found. Building engineer is required to check the lateral stability of the shed for existing condition.

**Observation-3: Quality of Retrofitting work. (Warehouse Building)**



**Description:** Retrofitting works were carried out for steel columns and rafters. No documents or quality control certificates were found. During the inspection, some newly steel section were found poorly welded with existing section.

**Observation-4: Non-structural elements not anchored or braced. (Warehouse Building)**



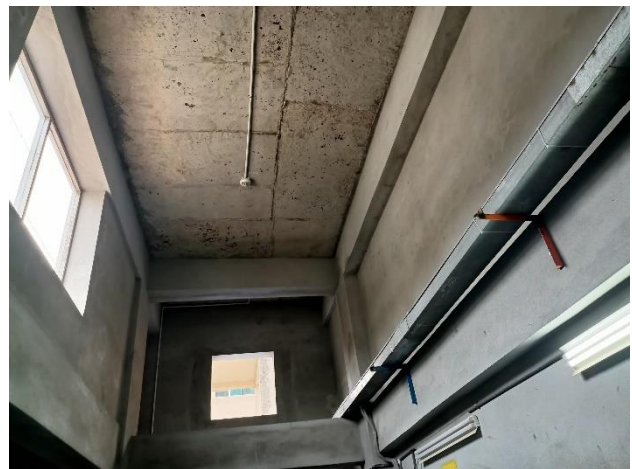
**Description:** Some racks on floors are not anchored or braced to resist lateral (earthquake) forces. The factory is required to anchor/brace all non-structural elements adequately to resist earthquake forces.

**Observation-5:** Undocumented non-engineered adjacent structure (Warehouse Building).



**Description:** Undocumented non-engineered lightweight steel structure was found adjacent to the Warehouse Building at South and East (partial). Building engineer is required to separate the structure from the Warehouse Building and replace it with an engineered one.

**Observation-6:** Absence of design documents. (Substation 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 as per BNBC. At the time of inspection, a design report was not available which is required to be prepared in compliance with BNBC 2020.

**Observation-7: Lack of as-built drawings. (Security Building)**



**Description:** Structural and architectural drawings were not found for the Security Building. The building engineer is required to survey the structure and prepare a full set of as-built drawings.

### 3. Action Plan:

Observation	Action Plan	Timeline
Mismatch in as-built drawing. (Warehouse Building)	The building engineer is required to update as-built drawing with necessary connection details.	within 6 weeks
Lateral stability needs to be checked for existing bracing system. (Warehouse Building)	Building engineer is required to check the lateral stability of the shed for existing condition.	within 6 weeks
Lateral stability needs to be checked for existing bracing system. (Warehouse Building)	Implement remediation work if required.	within 6 months
Quality of retrofitting work. (Warehouse Building)	Quality of retrofitting work needs to be checked and verified by building engineer.	within 6 weeks
Non-structural elements not anchored or braced. (Warehouse Building)	The factory is required to anchor/brace all non-structural elements adequately to resist earthquake forces.	within 6 weeks
Undocumented non-engineered adjacent structure. (Warehouse Building)	Building engineer is required to separate the structure from Warehouse Building and replace it with an engineered one.	within 6 months
Absence of design documents. (Substation 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 documents. (Substation Building)	Carry out remediation work if required.	within 6 months
Lack of as-built drawings. (Security Building)	The building engineer is required to survey the structure and prepare a full set of as-built drawings.	within 6 weeks