

Ahsan Apparels Ltd.

M S Tower-2, Siddhirgonj, Narayanganj.

(23.68956, 90.51505)

25th January 2021

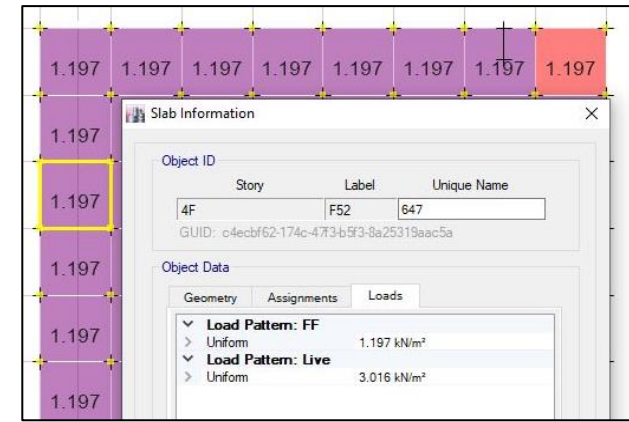
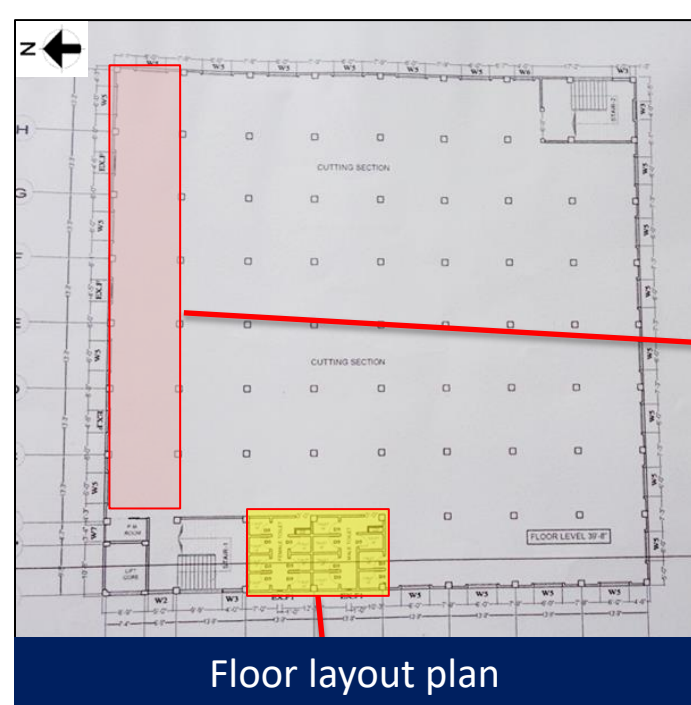


Building Information

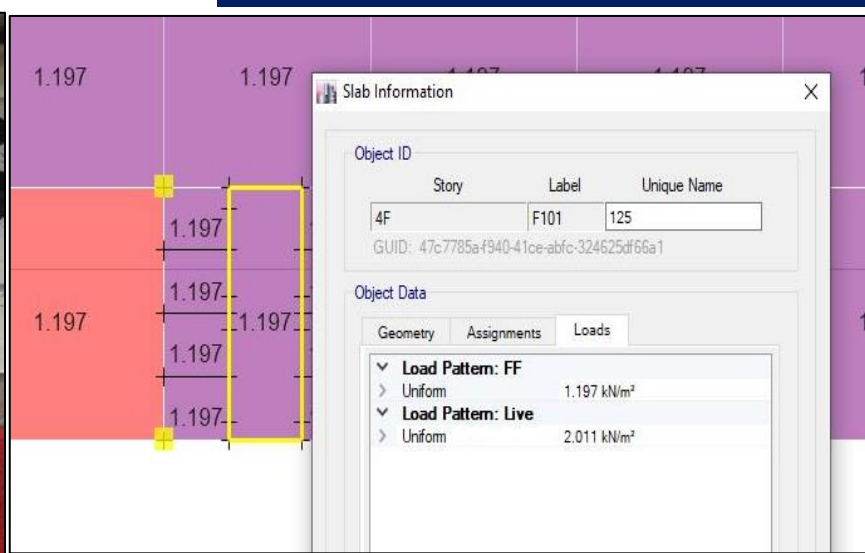
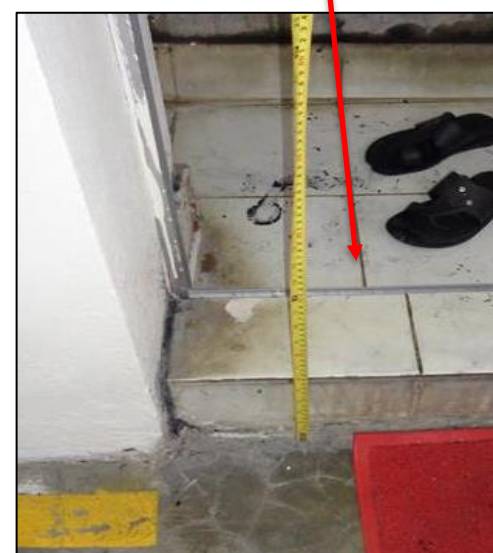
1. Building-1 (Garments): (G+4).
2. Shed-1 (Boiler & Generator): (single storied)
3. Shed-2 (Finished Goods Storage): (single storied)

Observations

Additional super imposed dead load on floors



At 4th floor additional 50mm floor finishes was found applied on floor slab along the last grid of north side which increases the dead load. In as-built architectural drawing, the information has not been shown. Additionally, the build-up loading has not been incorporated in FEA model.



Undocumented 100 mm build up was found at toilet zone area. The build-up information has not been shown in as-built drawing. Also the loading from the build-up has not been incorporated in FEA model.

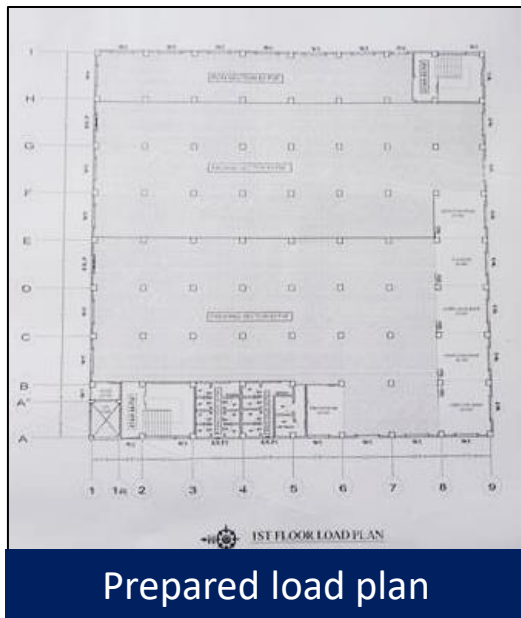
Building engineer is required to check the slab adequacy for this additionally imposed dead loads.

Hairline cracks in beams



Hairline crack was found in the several beams. Building engineer is required to investigate the crack and carry out suitable repair works.

Load plan not posted on floors



Prepared load plan



Storage loading

Factory prepared the floor live load plan. But load plan was not found posted in floors. Factory is required to post load plan in each of floor and load management program is required to implement effectively.



Floor loading

Water dampness due to leakage in water supply line



Dampness in Beam & Column



Dampness in roof top slab



Dampness in roof top slab

Due to leakage in the water supply line, water ponding found at rooftop and dampness was found at beam, column and roof top slab. Building engineer is required to take necessary measures to prevent the leakage in the water supply line. Also investigate the damp beam & column to verify if any damaged occurred due to the presence of the moisture in structural members.

Cracks in brick wall

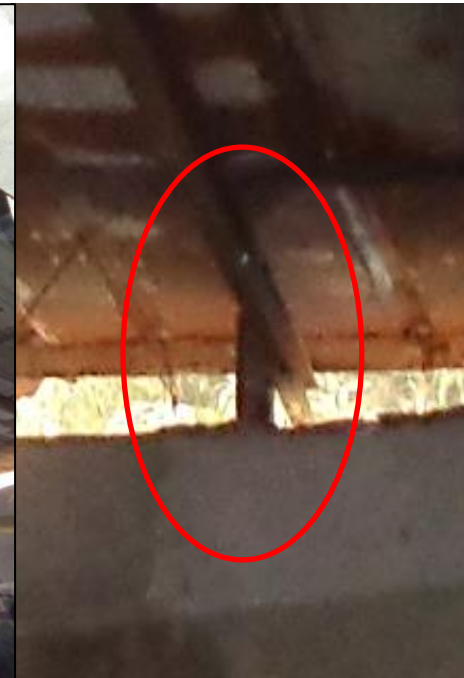


Crack in brick wall



Crack was found in several locations of brick wall. Factory engineer is required to investigate the cause of crack and repair the crack as per recommendation from investigation report.

Apparently non-engineered shed



The steel roof made of C channel & angle section is supported by brick wall. Inadequate structural member, poor connection details observed. Apparently non-engineered shed.

Lack of lateral stability



Truss roof System



Poor connection details

The steel roof truss is supported by steel pipe column. There is no apparent load path to transfer the lateral loading along the long direction. The vertical & roof bracing was found missing. Poor connection details observed in the joints. Building Engineer is required to check the lateral stability of the steel shed.

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 as per BNBC. During the inspection, the as built drawings & design report has not been found. Now, the building engineer is required to prepare Engineering Assessment (EA) for the structure. which compliance with section 1.9.1 (part-6, BNBC).



Purlin was found sagging

Lack of as-built drawings



There were no credible as-built drawings and documents to review for the steel shed.

Factory engineer is required to survey the structures and prepare as-built drawings that are in compliance with section 1.9.1.2 as per BNBC.



Corrosion in steel section



Corrosion in steel column

Corrosion was found in the steel truss members. Factory is required to apply rust proofing on the corroded areas to protect the steel members from corrosion.

Priority Actions

Problems Observed

Building -1:

Item 01: Additional super imposed dead load on floors.

Item 02: Hairline cracks in beams.

Item 03: Load plan not posted in floors.

Item 04: Water dampness due to leakage in water supply line.

Item 05: Cracks in brick wall.

Shed -1:

Item-06: Apparently non-engineered shed.

Shed -2:

Item-07: Lack of lateral stability.

Item-08: Lack of as-built drawings.

Item-09: Corrosion in steel section.

Item No.	Observation	Recommended Action Plan	Recommended Timeline
01	Additional super imposed dead load on floors (Building -1).	Building Engineer to survey the structure and update the as-built (architectural and structural) drawings.	6-weeks
02	Additional super imposed dead load on floors (Building -1).	Building engineer is required to check the slab adequacy for this additionally imposed dead loads.	6-weeks
03	Hairline cracks in beams (Building-1)	Factory engineer is required to investigate the cause of crack and repair the crack as per recommendation from investigation report.	6-weeks
04	Load plan not posted in floor (Building -1).	Post the floor live load plan in each of the floors and Implement the load management programs effectively.	6-weeks

Item No.	Observation	Recommended Action Plan	Recommended Timeline
05	Water dampness due to leakage in water supply line (Building-1).	Factory management is required to take necessary measures to proof the leakage in water supply line.	6-weeks
06	Water dampness due to leakage in water supply line (Building-1).	Improve the roof drainage system.	6-weeks
07	Water dampness due to leakage in water supply line (Building-1).	Factory engineer is required to investigate the damp beam & column to verify if any damaged occurred due to the presence of the moisture.	6-weeks
08	Cracks in Brick wall (Building-1)	Factory engineer is required to investigate the cause of crack and repair the crack as per recommendation from investigation report.	6-weeks
09	Apparently non-engineered shed. (Shed-1)	Building engineer is required to check the adequacy of the rooftop sheds for gravity and lateral forces. or Replace with the engineered sheds.	6-weeks
10	Apparently non-engineered shed. (Shed-1)	Carry out remedial works where required.	6-months

Item No.	Observation	Recommended Action Plan	Recommended Timeline
11	Lack of lateral stability (Shed-2)	Building Engineer is required to check the lateral stability of the steel shed.	6-weeks
12	Lack of lateral stability (Shed-2)	Building engineer to prepare the Engineering Assessment (EA) including a design report, and a set of structural drawings in compliance with section 1.9.1.1 and section 1.9.1.2 as per BNBC.	6-weeks
13	Lack of as-built drawings (Shed-2)	Building Engineer to survey the structure and prepare accurate as-built (both architectural & structural) drawings in compliance with section 1.9.1.2 as per BNBC.	6-weeks
14	Corrosion in steel column (Shed-2)	Factory is required to take necessary actions to protect the steel members from corrosion.	6-weeks