

Ahsan Composite Ltd. (Extension 2)

Ward No-08, Holding No99/D, Chandra Pollibidyut Road, Kalikoir, Gazipur.

(24.042918, 90.259508)

7 August 2025

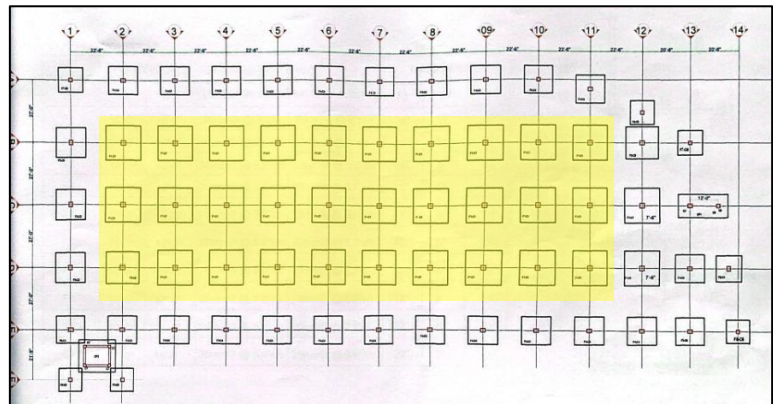


1. Building Information

- Building-15
- Shed-16
- Shed-17
- Turning Shed
- Wastage Shed

2. Observation:

Observation 01: Punching Stress in the foundation exceeds the normal design limit. (Building-15)



Description: The cursory calculation indicates that punching shear of the typical foundation exceeds the normal design limit, considering the observed live load of 3 kPa for the typical production area & 6 kPa for the store area, minimum concrete strength of concrete & rebar, and minimum soil bearing capacity. The building engineer is required to review the design load and punching stress of the foundation.

Observation 02: Discrepancy in the as-built drawings. (Building-15)



Description: During inspection, mismatch was found on the beam layout between grid 12B & 13B. Also, build-up area was found in the compressor room & toilet area, which was not mentioned in the as-built drawing. The building engineer is required to update the as-built drawing as per the actual site condition.

Observation 03: Uncontrolled loading on all floors. (Building-15)



Description: During inspection, dedicated storage was found on several floors, and a heavy loading (5,000-litre water tank) was found on the roof. But, no load plan, no load height Marking & no load management program were found for Building-15. The building engineer is required to post the load plan, load height marking, and maintain the loading accordingly.

Observation 04: Poor construction quality. (Building-15)



Description: During inspection, segregation, honeycomb, popout & bug holes of concrete were found in several locations. The building engineer is required to identify the locations and carry out NDT and/or DT tests to check the quality of the concrete.

Observation 05: Perforation through the slab. (Building-15)



Description: During inspection, perforation was found through the slab in several locations. The building engineer is required to identify the locations and check the adequacy & rebar requirements of the perforated slab and repair accordingly.

Observation 06: Vibration observed on the floors. (Building-15)



Description: During inspection, vibration was observed on several floors. The building engineer is required to install adequate anti-vibration rubber pads to reduce the vibrations.

Observation 07: Water leakage on the ceiling of the 4th floor and water ponding on the roof.
(Building-15)



Description: During inspection, water leakage was found on the 4th floor ceiling, and water ponding was found on the roof. The building engineer is required to apply a waterproofing membrane on the roof for the MCAC concrete with an adequate slope.

Observation 08: Falling hazard on the roof. (Building-15)



Description: During inspection, falling hazard was found on the roof & around the lift cores. The building engineer is required to provide an adequate barrier to avoid the falling hazard.

Observation 09: Lack of lateral stability. (Shed-16 and Shed-17)



Description: During inspection, no lateral load transfer media were found on Shed-16 and Shed-17 to resist the lateral load. The building engineer is required to check the lateral stability of the Sheds and prepare an Engineering Assessment (EA) as per BNBC (sec 1.9.1).

Observation 10: Lack of as-built drawing. (Shed-16, Shed-17, Wastage shed, and Turning shed)



Description: During inspection, no as-built drawing was found for all sheds. The building engineer is required to prepare an as-built drawing with foundation and connection details as per the actual site condition.

Observation 11: Lack of lateral stability and inadequate member size. (Wastage shed and Turning shed)



Description: During inspection, no lateral load transfer media were found on Wastage shed and Turning shed to resist the lateral load. Also, member sizes and their connections were found to be inadequate. The building engineer is required to prepare a safety check report along with connection and member adequacy and propose remediation where required.

Observation 12: Corrosion on the steel member. (Shed-16, Shed-17, Wastage shed, and Turning shed)



Description: During inspection, corrosion was found on steel member of all sheds. The building engineer is required to remove corrosion and provide anti-corrosive coating.

3. Action Plan:

Item No.	Observation	Action Plan	Timeline
1.	Punching Stress in the foundation exceeds the normal design limit. (Building-15)	Verify in-situ concrete material strength by taking concrete cores (minimum 100 mm diameter) from lower-tier columns and beam-slabs of different floors.	within 6 weeks
2.		The building engineer is required to conduct a Detail Engineering Assessment (DEA) and review the design, loads, and column stresses in the area identified above.	within 6 weeks
3.		Produce and actively manage a loading plan for all floor plates within the factory, considering floor capacity and foundation capacity.	within 6 weeks
4.		Carry out remedial work if required.	within 6 months
5.	Discrepancy in the as-built drawings. (Building-15)	The building engineer is required to update the as-built drawing as per the actual site condition.	within 6 weeks
6.	Uncontrolled loading on all floors. (Building-15)	Continue implementing the load management plan (allowable load plan posting, storage area and marking, load maintaining).	within 6 weeks
7.	Poor construction quality. (Building-15)	The building engineer is required to carry out NDT/DT tests to check the quality of the concrete and produce a report with pictorial evidence & with remedial measures.	within 6 weeks
8.		Carry out remedial work if required.	within 6 months
9.	Perforation through the slab. (Building-15)	The building engineer is required to identify the locations and check the adequacy & rebar requirements of the perforated slab and repair accordingly.	within 6 weeks
10.	Vibration observed on the floors. (Building-15)	The building engineer is required to install adequate anti-vibration rubber pads to reduce the vibrations.	within 6 weeks
11.	Water leakage on the ceiling of the 4 th floor and water ponding on the roof. (Building-15)	The building engineer is required to apply a waterproofing membrane on the MCAC roof with an adequate slope and provide an adequate number of water outlets.	within 6 weeks

12.	Falling hazard on the roof & lift cores. (Building-15)	The building engineer is required to provide an adequate (height & spacing) barrier to avoid the falling hazard.	Immediate
13.	Lack of lateral stability. (Shed-16)	The building engineer is required to check the lateral stability of the Shed-16 and prepare a Detail Engineering Assessment (DEA) as per BNBC (sec 1.9.1).	within 6 weeks
14.		Carry out remedial work if required.	within 6 months
15.	Lack of as-built drawing. (Shed-16)	The building engineer is required to prepare an as-built drawing with foundation & connection details as per the actual site condition.	within 6 weeks
16.	Corrosion on the steel member. (Shed-16)	The building engineer is required to remove corrosion and provide anti-corrosive coating.	within 6 weeks
17.	Lack of lateral stability. (Shed-17)	The building engineer is required to check the lateral stability of the Shed-17 and prepare a Detail Engineering Assessment (DEA) as per BNBC (sec 1.9.1).	within 6 weeks
18.		Carry out remedial work if required.	within 6 months
19.	Lack of as-built drawing. (Shed-17)	The building engineer is required to prepare an as-built drawing with foundation & connection details as per the actual site condition.	within 6 weeks
20.	Corrosion on the steel member. (Shed-17)	The building engineer is required to remove corrosion and provide anti-corrosive coating.	within 6 weeks
21.	Lack of as-built drawing. (Wastage shed)	The building engineer is required to prepare an as-built drawing with foundation & connection details as per the actual site condition.	within 6 weeks
22.	Lack of lateral stability and inadequate member size. (Wastage shed)	The building engineer is required to prepare a safety check report for the Wastage shed, along with connection and member adequacy and propose remediation if required.	within 6 weeks
23.		Carry out remedial work if required.	within 6 months
24.	Corrosion on the steel member. (Wastage Shed)	The building engineer is required to remove corrosion and provide anti-corrosive coating.	within 6 weeks
25.	Lack of as-built drawing. (Turning shed)	The building engineer is required to prepare an as-built drawing with foundation & connection details as per the actual site condition.	within 6 weeks

26.	Lack of lateral stability and inadequate member size. (Turning shed)	The building engineer is required to prepare a safety check report for the Turning shed, along with connection and member adequacy and propose remediation if required.	within 6 weeks
27.		Carry out remedial work if required.	within 6 months
28.	Corrosion on the steel member. (Turning shed)	The building engineer is required to remove corrosion and provide anti-corrosive coating.	within 6 weeks