Pioneer Denim Limited (Garments Division)

Horitola, Shahpur Bazar, Madhabpur, Habiganj

(24.226827680640884, 91.36526673712727)

4 January 2024

RSC RMG SUSTAINABILITY COUNCIL

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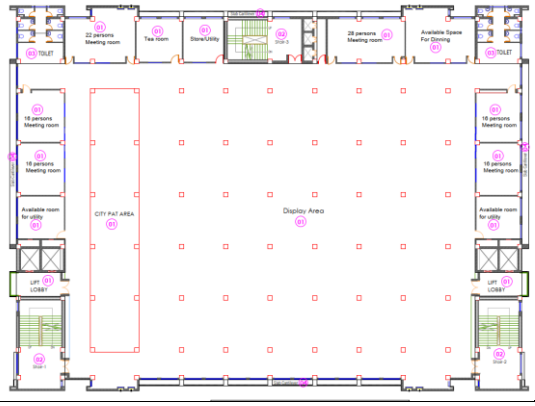
1. Building Information:

Building-6 (R&D Building): 6-storied (G+5) reinforced concrete (RC) building.
Boiler & Compressor Shed: Single-storied steel shed.
Gate Building -01: Two-storied (G+1) reinforced concrete (RC) building.
Gate Building -02: Two-storied (G+1) reinforced concrete (RC) building.
Fire Hydrant Shed: Single-storied shed which is being used for Fire Hydrant.

2. Observations

Observation-1: Undesignated storage on 4th floor (Building-6: R&D Building).



Description: Undesignated storage found on the 4th floor. The building engineer is required to update the load plan considering 6 kPa for storage areas and check the design accordingly.

Observation-2: Building needs to be checked against lateral loading (Building-6: R&D Building).

Description: At the time of inspection, a design report was available on site. The building engineer is required to check the structural members against lateral loading and the prepared design report is to be submitted to RSC for review.

Observation-3: Falling hazard at the roof (Building-6: R&D Building).

Description: No parapet/railing was found on the north side of the roof. The building engineer is required to provide edge protection to avoid falling hazards.

Observation-4: Nonstructural elements found not anchored/braced (Building-6: R&D Building).

Description: Nonstructural elements (storage racks) were found not anchored/braced. The building engineer is required to anchor/brace all nonstructural elements within the factory.
Observation-5: Poor connection between steel members (Boiler & Compressor Shed).

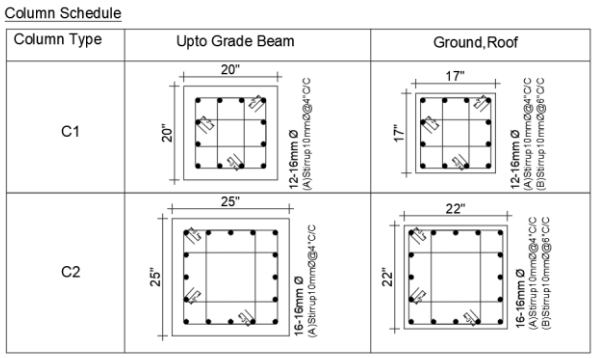
Description: Poor connection was found between the rafter and the column. The building engineer is required to provide proper anchorage to resist uplift forces.

Observation-6: Lack of design report (Gate Building -01)

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 documents shall include geotechnical investigation report, as-built drawings and a design report which shall be prepared in compliance with section 1.9.1, part-6 of BNBC.

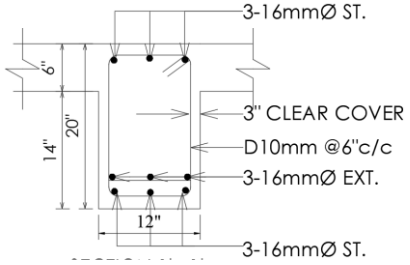
During inspection, the design report was not available on site. The building engineer is required to prepare a design report based on in-situ material strength & software-based analysis and submit it to RSC for review.

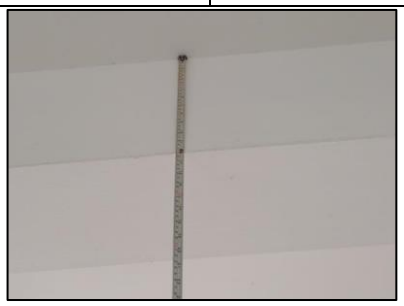
Observation-7: Inconsistencies in as-built drawing. (Gate Building -01)



C1 column size found 15”x15” instead of 17”x17”

C2 column size found 20”x20” instead of 22”x22”

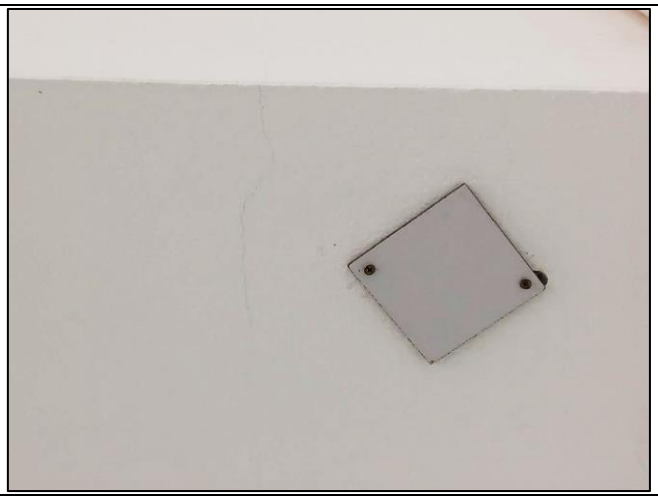




The floor beam found 12”d/s instead of 14” d/s.

Description: C1 & C2 column size and floor beam size mentioned in the as-built drawing, does not match with on-site condition. The building engineer is required to survey the whole structure and update the as-built drawing.

Observation-8: Hairline crack on beam. (Gate Building -01)



Description: Hairline crack found on floor beam. The building engineer is required to identify the reason for the crack and take remedial measures to repair the beam accordingly.

Observation-9: Adequacy of steel stairs need to be checked. (Gate Building -01)

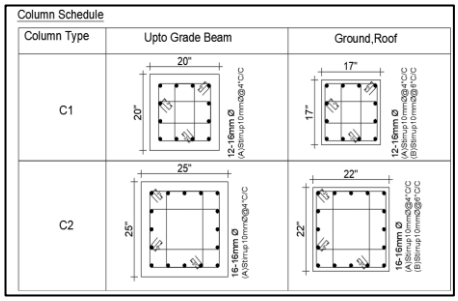
Description: Inadequate structural connection details were found in the steel stairs. Building engineer is required to check the adequacy of the steel stair.

Observation-10: Lack of design report (Gate Building -02)

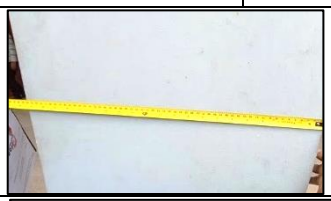
Description: As per BNBC, every building or structure designed shall have its design documents prepared following the provision of Section 1.9.1. The design documents shall include geotechnical investigation report, as-built drawings and a design report which shall be prepared in compliance with section 1.9.1, part-6 of BNBC.

During inspection, the design report was not available on site. The building engineer is required to prepare a design report based on in-situ material strength & software-based analysis and submit it to RSC for review.

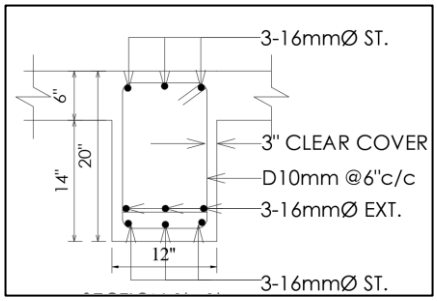
Observation-11: Inconsistencies in as-built drawing. (Gate Building -02)



a.C1 column size found 15”x15” instead of 17”x17”.
b.8-nos of rebar found instead of 12 nos



C2 column size found 20”x20” instead of 22”x22”



Floor beam found 10” d/s instead of 14” d/s.

Description: C1 & C2 column size, rebar number and floor beam size mentioned in as-built drawing, did not match with on-site condition. The building engineer is required to survey the whole structure and update the as-built drawing.

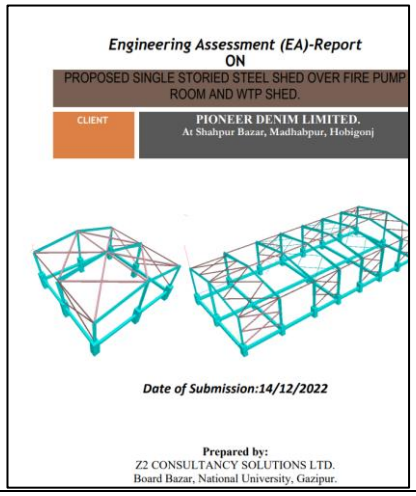
Observation-12: Crack on wall. (Gate Building -02)

Description: Crack found on wall. The building engineer is required to identify the reason for the crack and take remedial measures to repair the wall accordingly.

Observation 13: Adequacy of steel stairs need to be checked. (Gate Building -02)

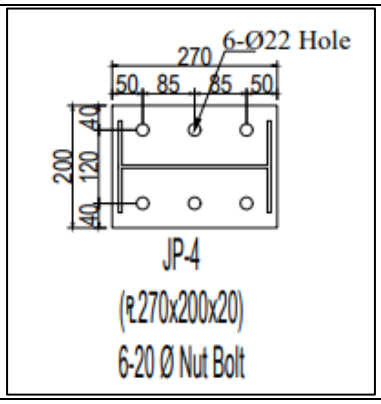
Description: Inadequate structural connection details were found in the steel stairs. Building engineer is required to check the adequacy of the steel stair.

Observation-14: Structure needs to be checked against lateral loading (Fire Hydrant Shed)



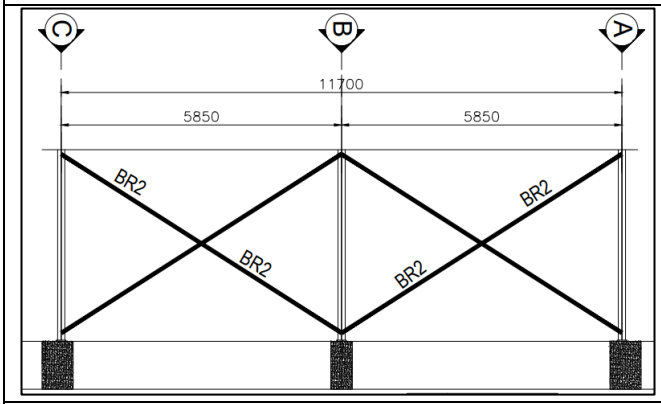
Description: At the time of inspection, a design report was available on site. The building engineer is required to check the structural members against lateral loading and the prepared design report is to be submitted to RSC for review.

Observation-15: Inconsistencies in as-built drawing. (Fire Hydrant Shed)



Description: In Joint JP4, 8 nos bolts are found instead of 6 nos and bolt orientation is also different from as-bult drawing. The building engineer is required to survey the whole structure and update the as-built drawing.

Observation 16: Wall bracing is not installed. (Fire Hydrant Shed)



Description: Wall bracings were not installed at the time of inspection. The building engineer is required to install the wall bracing according to the design drawing to complete the lateral stability. system.

3. Action Plan

Item No.	Observation	Action Plan	Timeline
1	Undesignated storage on 4th floor (Building-6: R&D Building).	The building engineer is required to update the load plan considering 6 kPa for storage areas and check the design accordingly.	within 6 weeks
2	Building needs to be checked against lateral loading (Building-6: R&D Building).	The building engineer is required to check the structural members against lateral loading and the prepared design report is to be submitted to RSC for review.	within 6 weeks
3	Building needs to be checked against lateral loading (Building-6: R&D Building).	Implement any remediation work if required.	within 6 months
4	Falling hazard at the roof (Building-6: R&D Building).	The building engineer is required to provide edge protection to avoid falling hazards.	within 6 weeks
5	Nonstructural elements found not anchored/braced (Building-6: R&D Building).	The building engineer is required to anchor/brace all non-structural elements.	within 6 weeks
6	Poor connection between steel members (Boiler & Compressor Shed).	The building engineer is required to provide proper anchorage to resist uplift forces.	within 6 weeks
7	Lack of design report (Gate Building -01)	The building engineer is required to prepare a design report based on in-situ material strength & software-based analysis and submit the documents to RSC for review.	within 6 weeks
8	Lack of design report (Gate Building -01)	Carry out suggested remedial works if required.	within 6 months
9	Inconsistencies in as-built drawing. (Gate Building -01)	The building engineer is required to survey the whole structure and update the as-built drawing.	within 6 weeks
10	Hairline crack on beam. (Gate Building -01)	The building engineer is required to identify the reason for the crack and take remedial measures to repair the beam accordingly.	within 6 weeks
11	Adequacy of steel stairs need to be checked. (Gate Building -01)	Building engineer is required to check the adequacy of the steel stair.	within 6 weeks
12	Adequacy of steel stairs need to be checked. (Gate Building -01)	Carry out suggested remedial works if required.	within 6 months

13	Lack of design report (Gate Building -02)	The building engineer is required to prepare a design report based on in-situ material strength & software-based analysis and submit it to RSC for review.	within 6 weeks
14	Lack of design report (Gate Building -02)	Implement any remediation work if required.	within 6 months
15	Inconsistencies in as-built drawing. (Gate Building -02)	The building engineer is required to survey the whole structure and update the as-built drawing.	within 6 weeks
16	Crack on the wall. (Gate Building -02)	The building engineer is required to identify the reason for the crack and take remedial measures to repair the wall accordingly.	within 6 months
17	Adequacy of steel stairs need to be checked. (Gate Building -02)	Building engineer is required to check the adequacy of the steel stair.	within 6 weeks
18	Adequacy of steel stairs need to be checked. (Gate Building -02)	Carry out suggested remedial works if required.	within 6 months
19	Structure needs to be checked against lateral loading (Fire Hydrant Shed)	The building engineer is required to check the structural members against lateral loading and the prepared design report is to be submitted to RSC for review.	within 6 weeks
20	Structure needs to be checked against lateral loading (Fire Hydrant Shed)	Carry out suggested remedial works if required.	within 6 months
21	Inconsistencies in as-built drawing. (Fire Hydrant Shed)	The building engineer is required to survey the whole structure and update the as-built drawing.	within 6 weeks
22	Wall bracing is not installed. (Fire Hydrant Shed)	The building engineer is required to install the wall bracing according to the design drawing to complete the lateral stability.	within 6 weeks