Hamid Tex Fashion Ltd.

203, Habirbari, Seed Store Bazar, Bhaluka, Mymensingh-2240, Bangladesh
(24.339661, 90.375837)
17th June 2021

RSC RMG SUSTAINABILITY COUNCIL

Buildings Information

1. Main Building (G+1)
2. Generator Building (G+1)
3. Sample Building (single storied)
4. Dining Shed (single storied)

Observations

Heavy loading on 1st floor

Observations: Main Building

Heavy loading on 1st floor

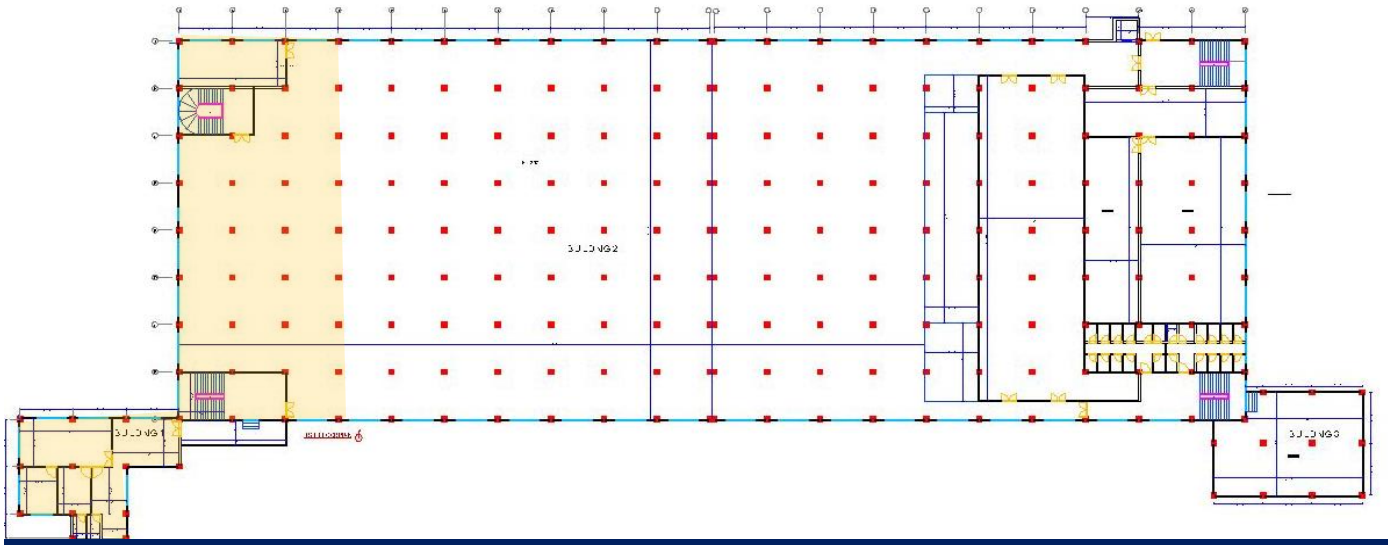
5 to 6 kPa loading was found in storage

5 to 6 kPa loading was found in storage area(1st floor). Load plan of the building was not produced. Also, load management program was not implemented. Reduce the load to 2kpa immediately. Produce and actively manage a loading plan for all floor plates within the factory considering the floor capacity and column capacity.

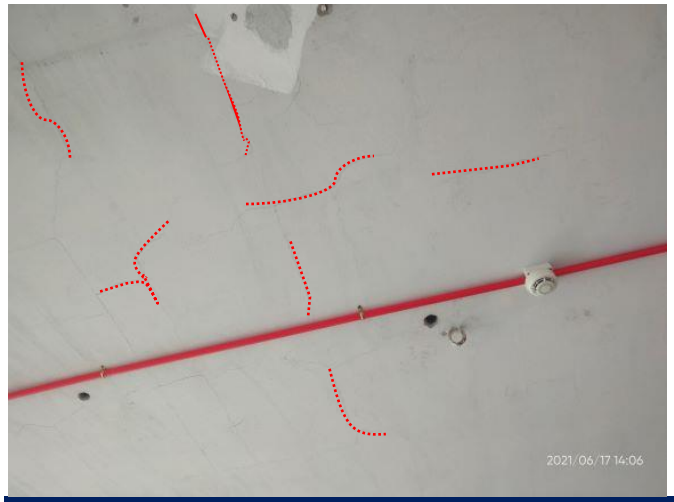
Observations: Main Building

Hairline crack on 1st floor flat plate

Observations: Main Building



1st Floor Roof Slab Layout Plan

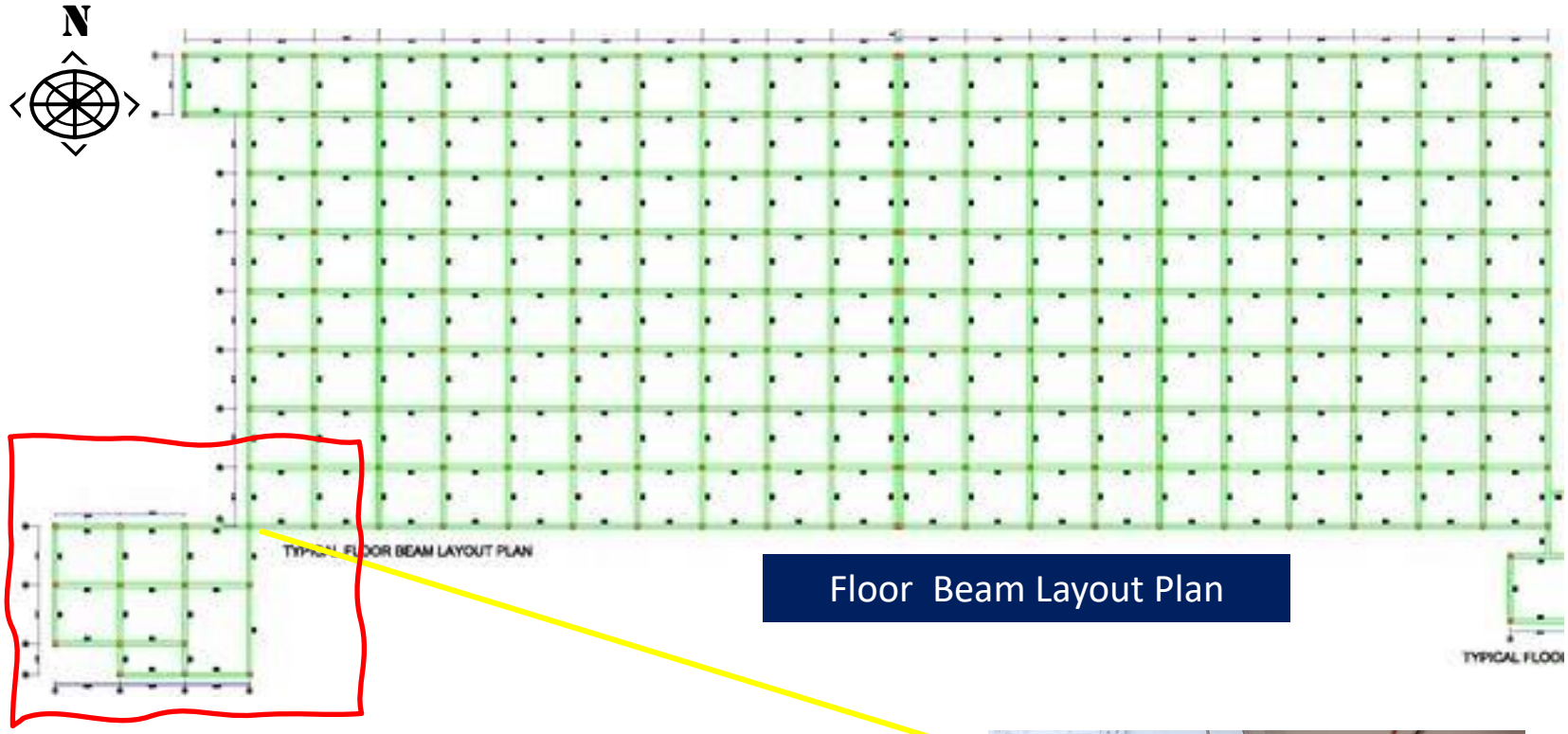


Hairline cracks observed in 1st floor roof flat plate slab soffit. Building engineer is required to check the extent of crack and suggest remedial action.

Observations: Main Building

Torsional effect on the building

Observations: Main Building



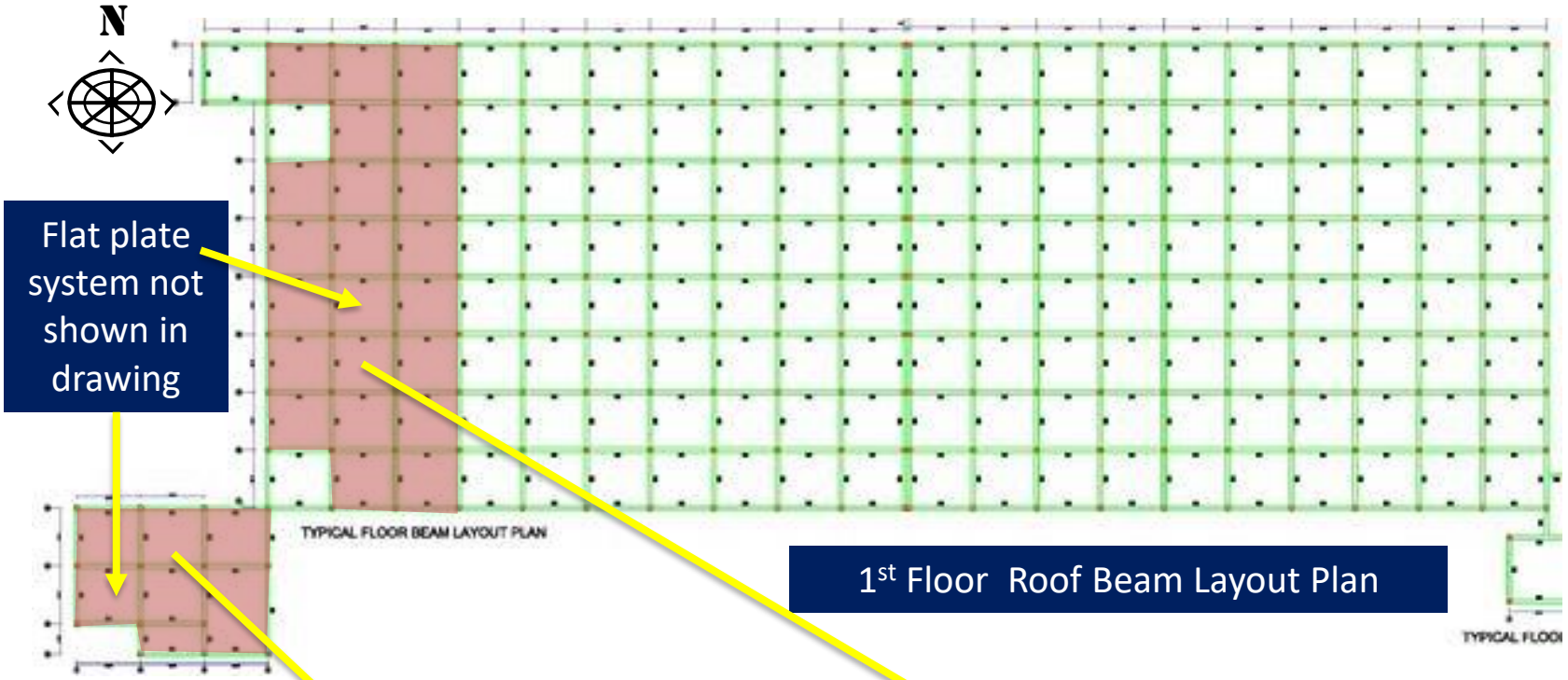
Floor Beam Layout Plan

The building is geometrically irregular shaped. Due to lateral forces the building might be affected for torsional irregularity. Building engineer is required to check the torsional effect of the building due to lateral forces.

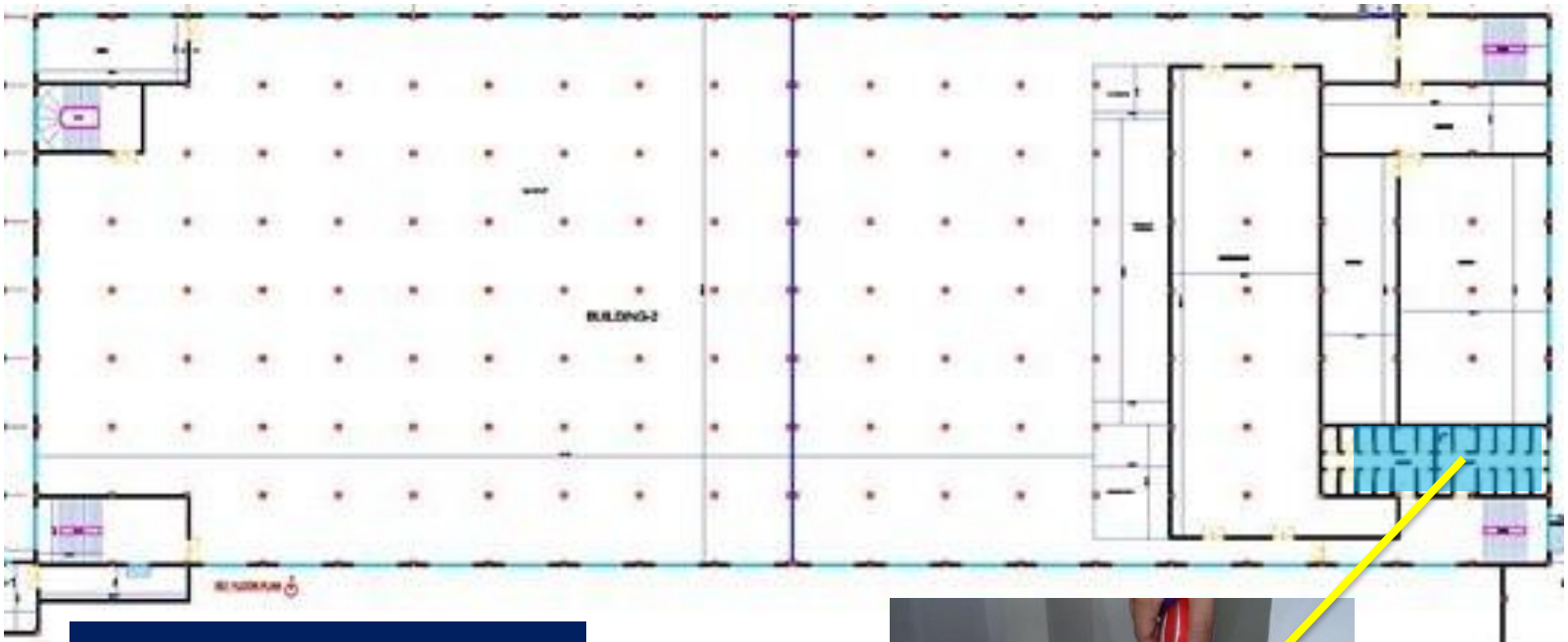
Observations: Main Building

Discrepancies in as-built drawing

Observations: Main Building



Observations: Main Building



Floor Layout plan

500 mm Buildup at 1st Floor Toilet Block.

Observations: Main Building

Water Ponding on Roof

Observations: Main Building

Water ponding observed on the roof. Building engineer is required to develop proper drainage system on roof with adequate slope and apply water proofing compound on roof slab to resist water ingress.

Observations: Main Building

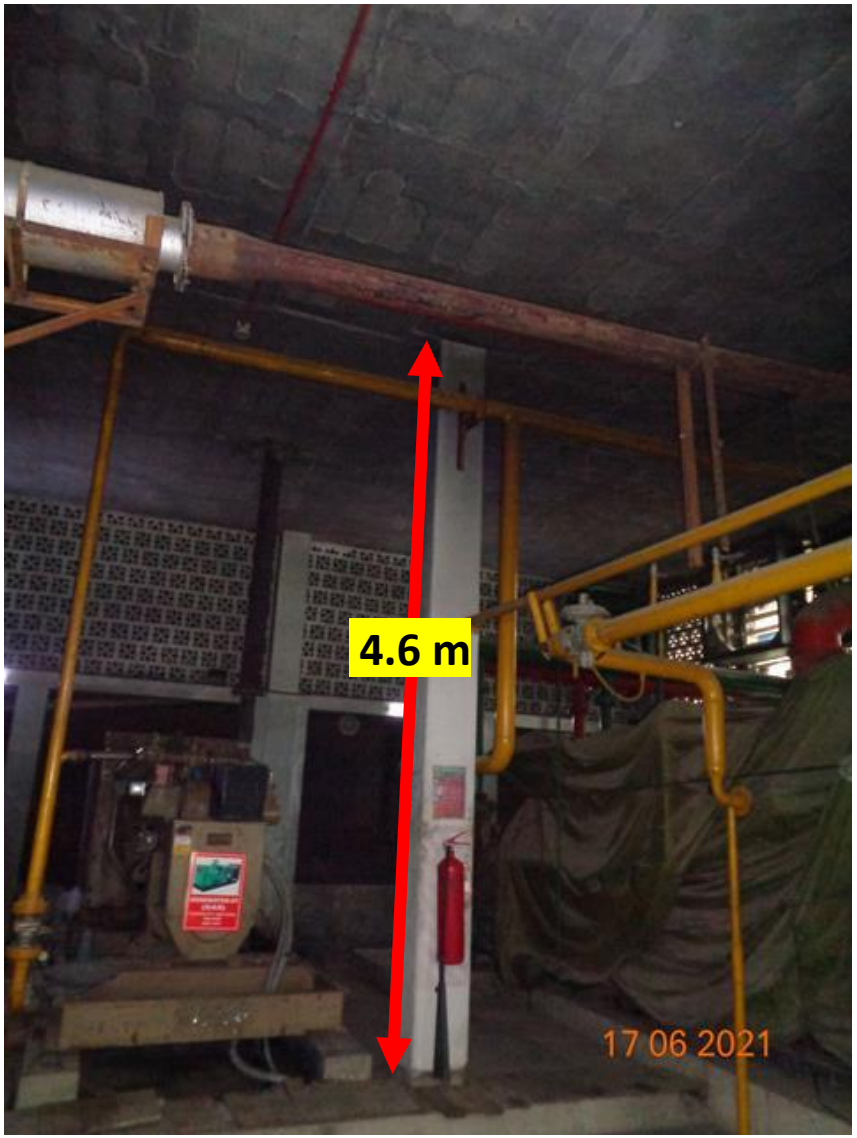
Exposed Rebar at Roof

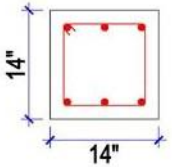
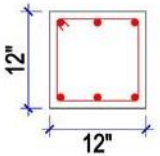
Exposed rebar observed in the roof. Remove the exposed rebar or provide rust proof paint on rebar.

Observations: Main Building

Columns Susceptible to be overstressed due to slenderness effect

Observations: Main Building



Type of Column	Bellow Parking Level	Ground Floor & Above Floor's
CA	 14" 14" 6 - 16mm Ø	 12" 12" 6 - 16mm Ø

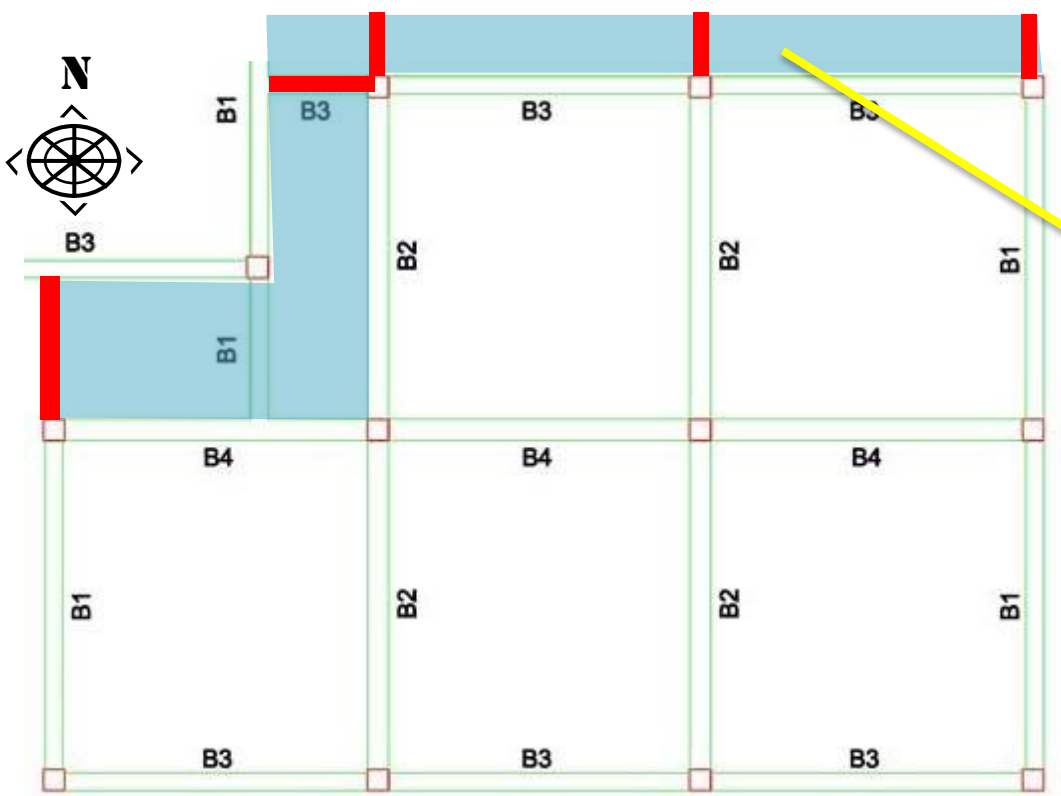
Column Schedule

Ground floor column 4.6 m in length and 300X300 mm in size. The KL/r ratio= 50.27 indicate that the columns are critical for slenderness effect. So, the Building engineer is required to check the column capacity considering slenderness effect.

Observations: Generator Building

Discrepancies in as-built drawing

Observations: Generator Building



1st Floor Roof Beam Layout Plan

Cantilever Slab

Cantilever Beam

Cantilever Portion-Not Shown in Drawing

Observations: Generator Building

Water Ponding on Roof

Observations: Generator Building

Water ponding observed on the roof. Building engineer is required to develop proper drainage system on roof with adequate slope and apply water proofing compound on roof slab to resist water ingress.

Observations: Generator Building

Exposed Rebar at Roof

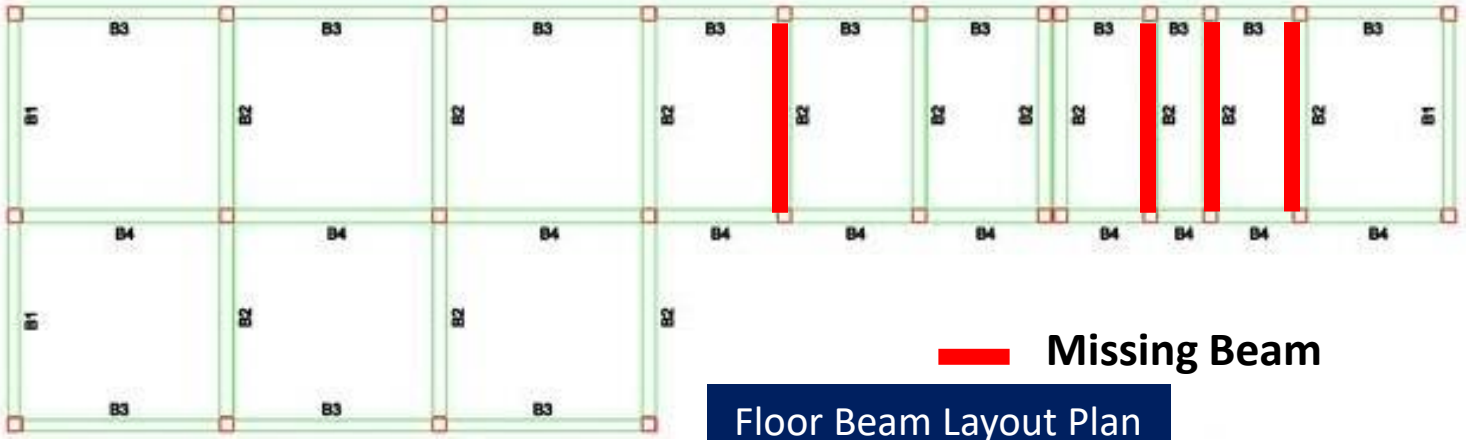
Exposed rebar observed in the roof. Remove the exposed rebar or provide rust proof paint on rebar.

Observations: Generator Building

Discrepancies in as-built drawing

Observations: Sample Building

Column Layout Plan



Floor Beam Layout Plan

As-built drawings not matched with the site condition. Building engineer is required to survey the structure and prepare accurate as-built drawing.

Observations: Sample Building

Non Engineered Dining Shed

Observations: Dining Shed

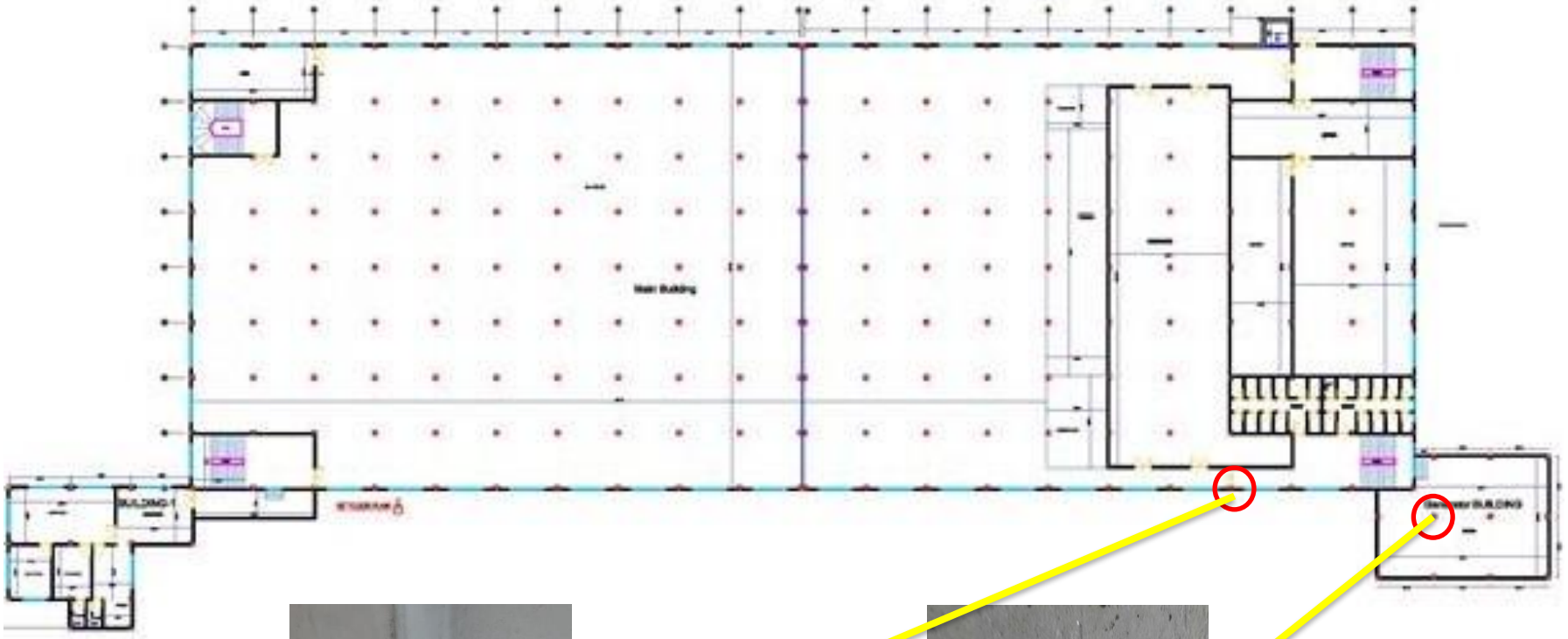
Non-Engineered Shed

Poor Connection

Apparently inadequate steel member, No clear/defined load path, Poor connection details observed. Apparently non-engineered shed. Building engineer is required to check the stability of the shed or replace by an engineered structure.

Observations: Dining Shed

Tests Carried Out



Brick aggregate
[Main Building]

Brick aggregate
[Generator Building]

Tests Carried Out: Main Building and Generator Building

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Problems Observed

Main Building:

Item 1: Heavy loading on 1st floor.
Item 2: Hairline crack on 1st floor flat plate.
Item 3: Torsional effect on the building.
Item 4: Discrepancies in as-built drawing.
Item 5: Water ponding on roof.
Item 6: Exposed rebar at roof.

Generator Building:

Item 7: Columns susceptible to be overstressed due to slenderness effect.
Item 8: Discrepancies in as-built drawing.
Item 9: Water ponding on roof.
Item 10: Exposed rebar at roof.

Sample Building:

Item 11: Discrepancies in as-built drawing.

Dining Shed:

Item 12: Non-engineered dining shed.

Priority Actions

Item No.	Observation	Recommended Action Plan	Recommended Timeline
01	Heavy loading on 1st floor. (Main Building)	Reduce & maintain the floor live load below 2 kPa.	Immediate
02	Heavy loading on 1st floor. (Main Building)	Building engineer is required to review design loads & column stress considering floor & column capacity.	6-weeks
03	Heavy loading on 1st floor. (Main Building)	Building engineer is required to produce floor loading plan for each floor by design review.	6-weeks
04	Heavy loading on 1st floor. (Main Building)	Implement floor load management program.	6-weeks
05	Hairline crack on 1st floor flat plate. (Main Building)	Building engineer is required to check the extent of crack and suggest remedial action.	6-weeks
06	Hairline crack on 1st floor flat plate. (Main Building)	Building engineer is required to check the slab capacity.	6-weeks
07	Hairline crack on 1st floor flat plate. (Main Building)	Carry out remedial works where required.	6-months
08	Torsional effect on the building. (Main Building)	Building engineer is required to check the torsional effect of the building due to lateral forces.	6-weeks
09	Torsional effect on the building. (Main Building)	Carry out any remedial works if required.	6-months
10	Discrepancies in as-built drawing. (Main Building)	Building engineer is required to survey the structure and prepare accurate as-built (architectural and structural) drawings in compliance with section 1.9.1 of BNBC.	6-weeks

Item No.	Observation	Recommended Action Plan	Recommended Timeline
11	Water ponding on roof. (Main Building)	Building engineer is required to apply water proofing & develop proper drainage system on roof with adequate slope to resist water ingress.	6-weeks
12	Exposed rebar at roof. (Main Building)	All exposed reinforcement is to be protected from corrosion which may cause degradation of the concrete.	6-weeks
13	Columns susceptible to be overstressed due to slenderness effect. (Generator Building)	Building engineer is required to check the column capacity for slenderness effect.	6-weeks
14	Columns susceptible to be overstressed due to slenderness effect. (Generator Building)	Carry out any remedial works if required.	6-months
15	Discrepancies in as-built drawing. (Generator Building)	Building Engineer is required to survey the structure and prepare accurate as-built (architectural and structural) drawings in compliance with section 1.9.1 of BNBC.	6-weeks
16	Water ponding on roof. (Generator Building)	Building engineer is required to apply water proofing & develop proper drainage system on roof with adequate slope to resist water ingress.	6-weeks
17	Exposed rebar at roof. (Generator Building)	All exposed reinforcement is to be protected from corrosion which may cause degradation of the concrete.	6-weeks

Item No.	Observation	Recommended Action Plan	Recommended Timeline
18	Discrepancies in as-built drawing. (Sample Building)	Building Engineer is required to survey the structure and prepare accurate as-built (architectural and structural) drawings in compliance with section 1.9.1 of BNBC.	6-weeks
19	Non-engineered dining shed. (Dining Shed)	Building engineer is required to check the stability of the shed or replace by an engineered structure.	6-weeks
20	Non-engineered dining shed. (Dining Shed)	Carry out remedial works where necessary.	6-months