Moonlux Knit Garments Ltd
Safa Knitwear Ltd.

B/11, MS Tower-3, Siddhirgonj Pool, Siddhirgonj, Adamji, Narayanganj
(23.689641, 90.51467)
28th August 2016

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Observations

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Insufficient documents and discrepancies between drawings & site observations

Observation : Factory Building

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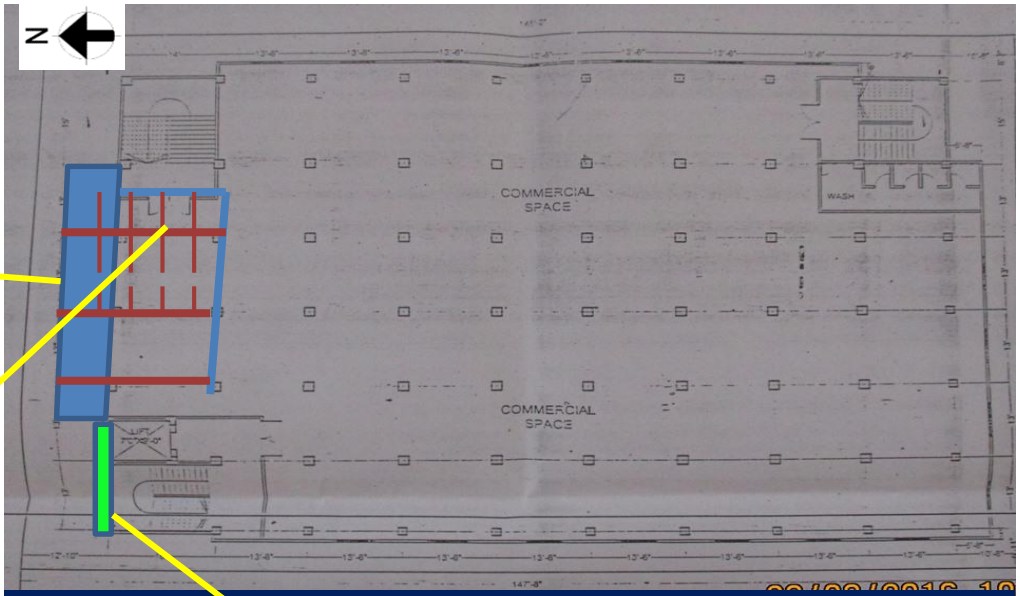

Typical floor layout plan

Beam layout plan on stair portion does not match with drawings.

The North side cantilever of the factory building does not shown in both drawings. The toilets and walls position do not match with drawings.

Observation : Factory Building

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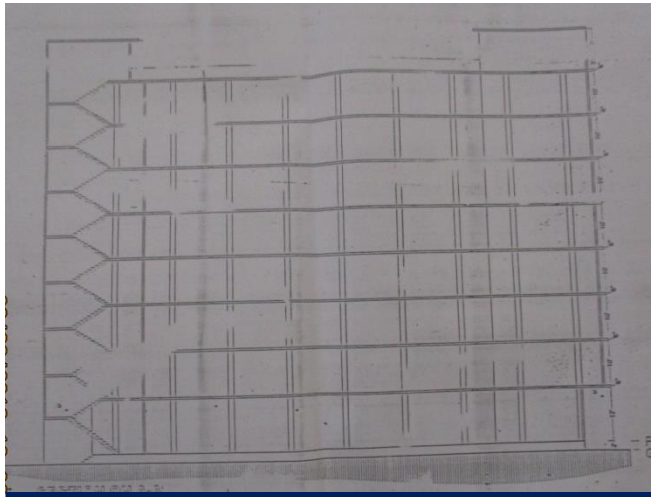
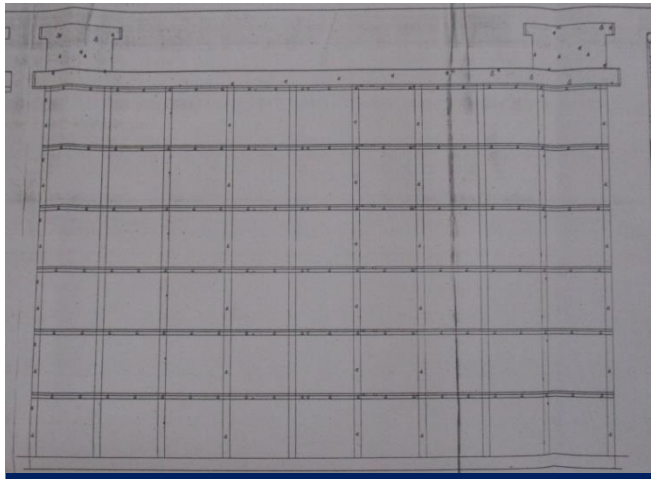


Local authority Permit drawing shown 8 storied building



industrial permit drawing shown 6 storied

Factory Building 4 storied

The floor layout plan and section does not match with industrial permit and local authority permit drawings. The architectural drawings of the building wasn't available during inspection. The factory building was constructed only 4 storey.

Observation : Factory Building

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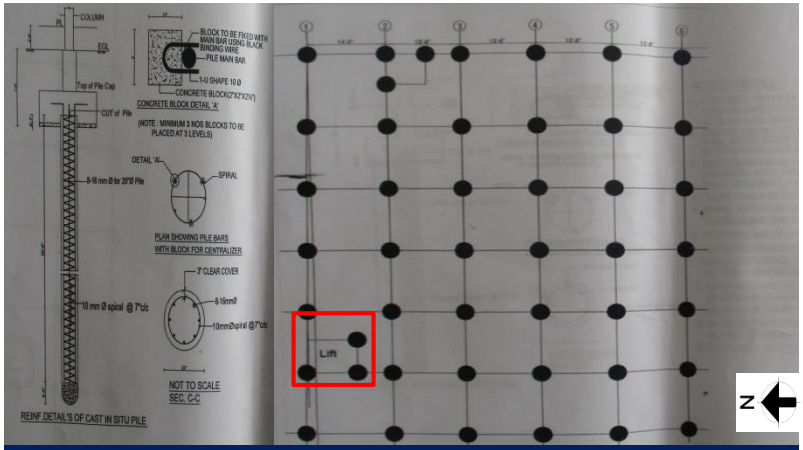
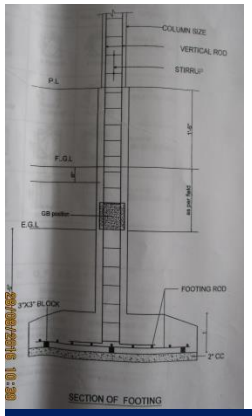
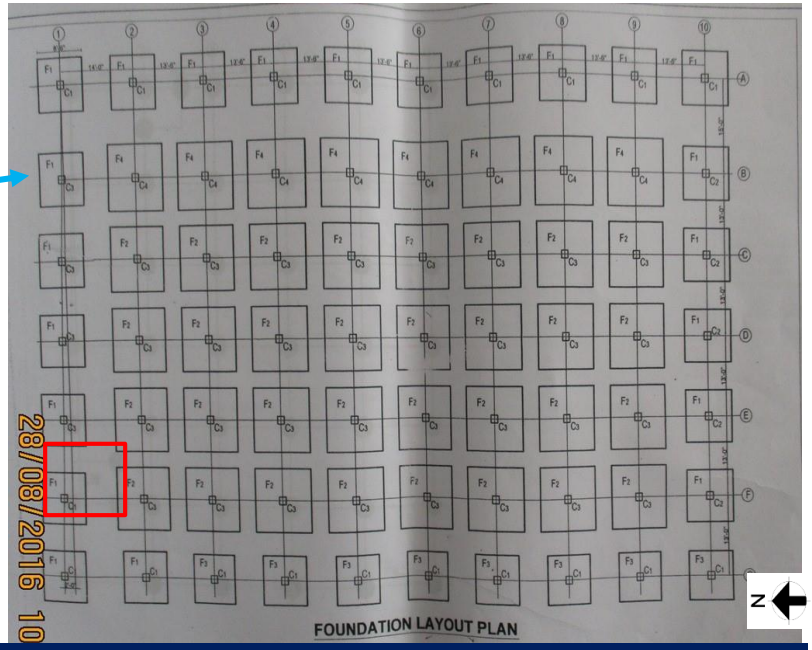


Section and Layout plan of Pile foundation

We were provided a set of structural drawings in which two type of foundation drawing was found which is vague. The lift core column and foundation drawing was not found in those drawings.





Section and Layout plan of pad foundation

Observation : Factory Building

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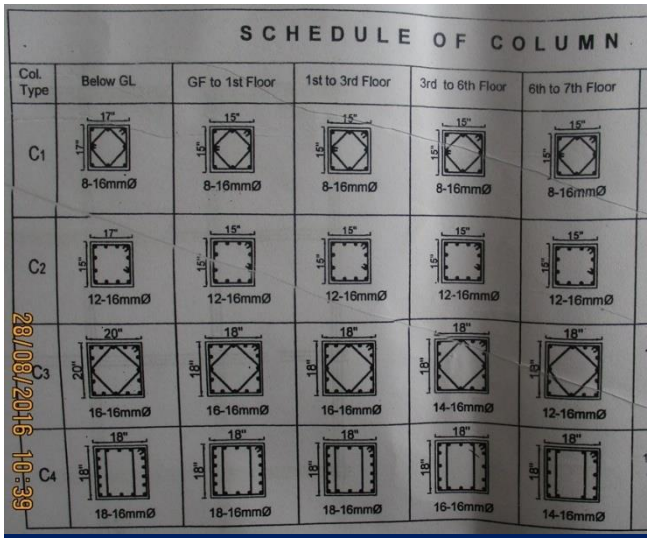
Column layout plan



Column Schedule

L-shape column

- 4x4 no. of rebar
- 6x5 no. of rebar
- 5x5 no. of rebar
- 3x3 no. of rebar
- 3x4 no. of rebar
- 8 no. of rebar (16mm)

L-shape columns shown as red mark does not exist in column schedule and layout plan. The no. of column reinforcement marked by yellow circle on column layout plan does not match with mentioned column schedule.

Observation : Factory Building

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Unsupported masonry wall above door opening

Observation : Factory Building

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The masonry wall above door opening is not supported at ground floor. There is a probability of falling wall due to unsupported wall. Factory engineer is require to support the wall with proper load transfer system.

Observation : Factory Building

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Falling hazards on the roof and protect reinforcement from corrosion.

Observation : Factory Building

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Falling hazards due to unprotected edge of under construction building. All exposed reinforcement must have adequate protection from the elements. Currently the exposed reinforcement is prone to corrosion.

Observation : Factory Building

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Dampness and cracks observed on walls

Observation : Factory Building

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Cracks on wall was observed under cantilever beam at south-west corner of the building on 2nd floor.

South façade walls are not plastered yet. Due leakage of water through pipe dampness causes in different floor of the building.

Observation : Factory Building

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Apparently non-engineered roof at generator shed

Observation : Utility Shed (Generator)

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Non-engineered roof connected with cantilever

CI sheets are poorly connected with thin column and no lateral stability.

Observation : Utility Shed (Generator)

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Problems Observed

Factory Building

Item 1: Insufficient documents and discrepancies between drawings & site observations

Item 2: Falling hazards on the roof and protected reinforcement from corrosion.

Item 3: Dampness and cracks observed on walls

Item 4: Unsupported masonry wall above door opening

Item 5: Apparently non-engineered roof shed

Item 6: Excessive column stresses in fully completed building (8 storeys)

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Inadequate documents and discrepancies between drawings & site observations	Factory engineer to detail investigate the foundation system of the building and update the drawings accordingly.	**6-weeks**
2	Inadequate documents and discrepancies between drawings & site observations	Building Engineer to survey as constructed building and prepare a set of as-built drawings.	**6-weeks**
3	Falling hazards on the roof and protected reinforcement from corrosion	Secure constructed area around the perimeter wall to exclude any possible falling hazard.	**Immediate - Now**
4	Falling hazards on the roof and protected reinforcement from corrosion	All exposed reinforcement is to be protected from corrosion which may cause degradation of the concrete.	**6-weeks**
5	Dampness and cracks observed on walls	Sections of plaster finish to columns and beams to be removed to investigate if cracks penetrate the building structure at all cracked areas.	**6-weeks**
6	Dampness and cracks observed on walls	Factory engineer to identify the cause of dampness & suggest appropriate remedial action.	**6-weeks**
7	Dampness and cracks observed on walls	Continue to monitor structural elements for cracking and carry out remedial work if required as directed by the Building Engineer.	**6-months**

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Item No.	Observation	Recommended Action Plan	Recommended Timeline
8	Unsupported masonry wall above door opening	Factory engineer to investigate the door opening under unsupported masonry wall and install lintel to support the wall.	**6-weeks**
9	Apparently non-engineered roof at Generator shed	Engage a qualified structural engineer to confirm satisfactory structural performance of the buildings under wind loading.	**6-weeks**
10	Excessive column stresses in fully completed building (8 storeys)	Factory Engineer required to carry out Details Engineering Assessment (DEA) to adding additional floors to building following BNBC-2006 code.	**6-months**