MUAZUDDIN KNIT FASHION (NEW)

B-31, East Chandura, Shaipur, Kaliakoir, Gazipur
(24.033288N, 90.272368E)
16th March 2017

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Observation

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Inconsistent and missing documents

Observation:

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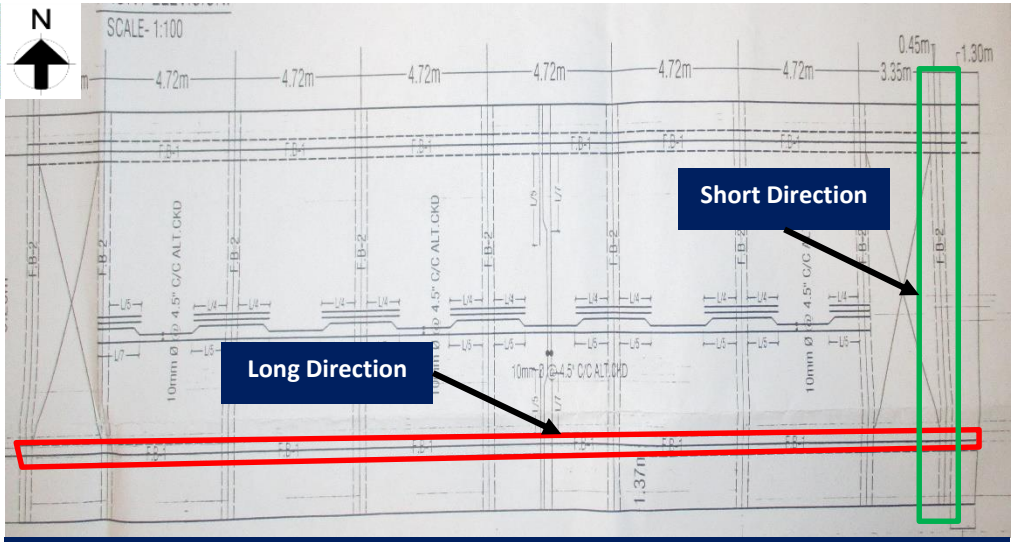
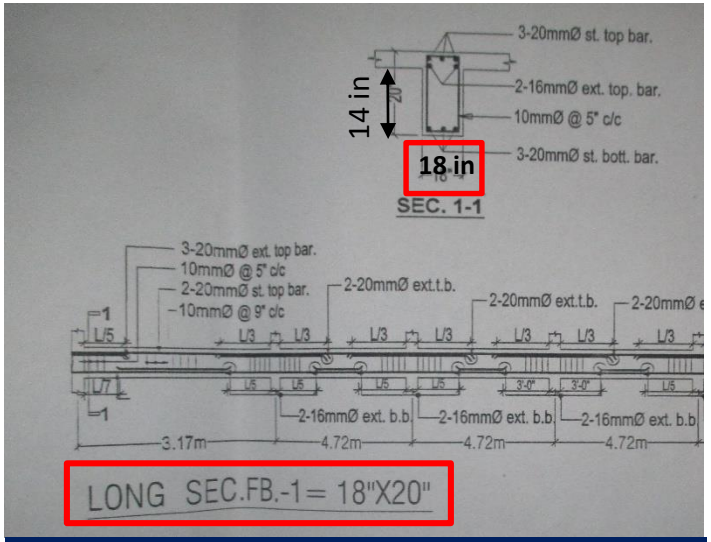
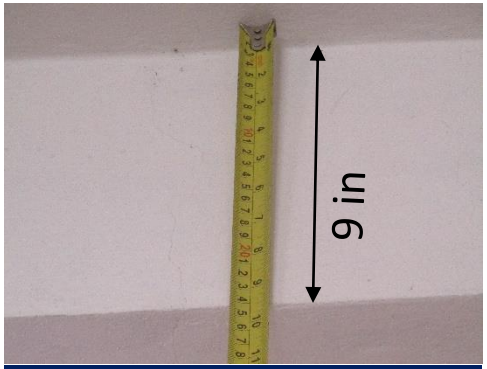


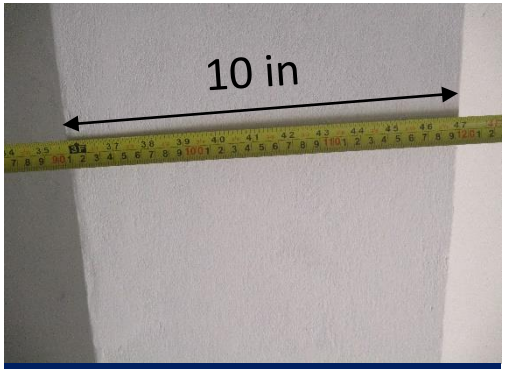
Beam Layout



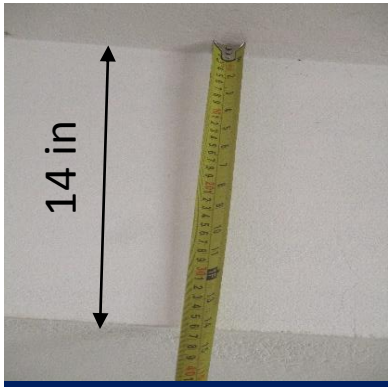
Beam Schedule



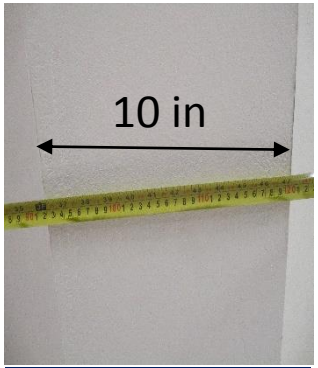
9 inch depth found under slab of long direction beam



10 inch width found of long direction beam



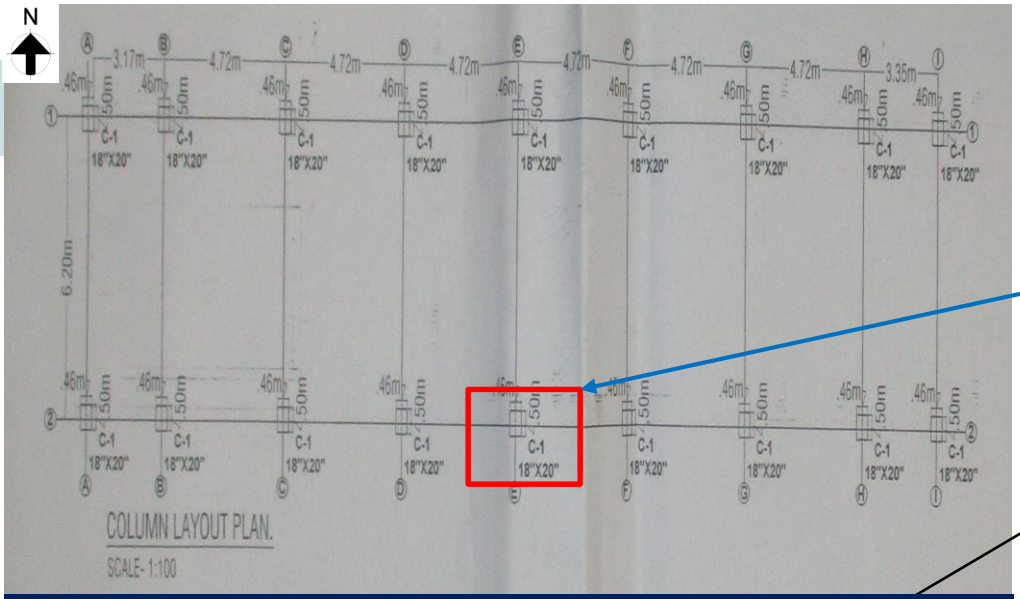
14 inch depth found under slab of short direction beam



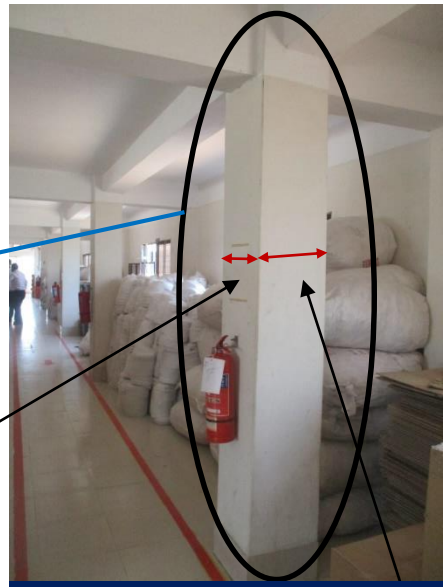
10 inch width found of short direction beam

Depth of beam found from under slab was 9inch instead of 14inch and width was found 10 inch instead of 18 inch for long direction beam. However, no information was found regarding the short direction beams in provided drawing.

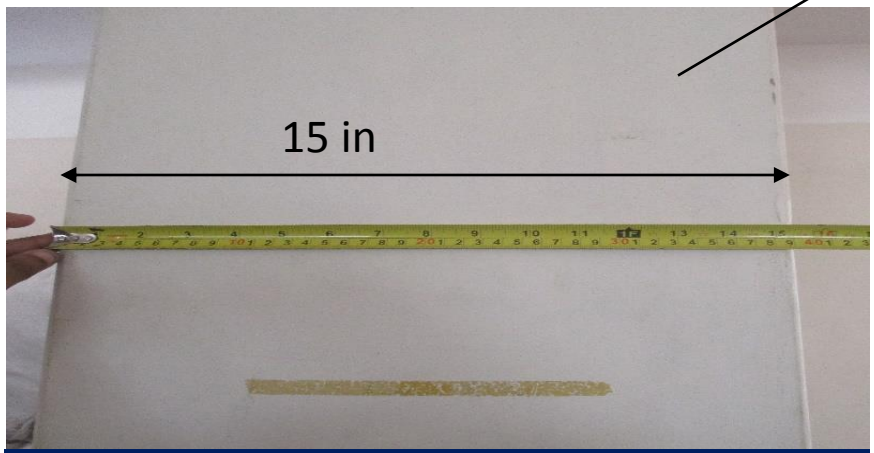
Observation:



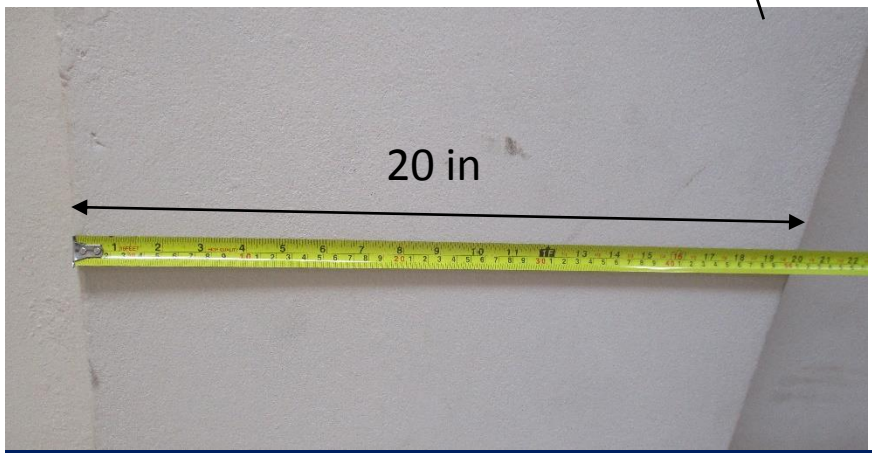
Column Layout



C-1 column type on 3rd floor



Column dimension was found 15 inch with plaster on short direction



Column dimension was found 20 inch with plaster on long direction

C-1 type column dimension was found 15inch x 20inch with plaster instead of 18inch x 20inch which was in provided drawing.

Observation:

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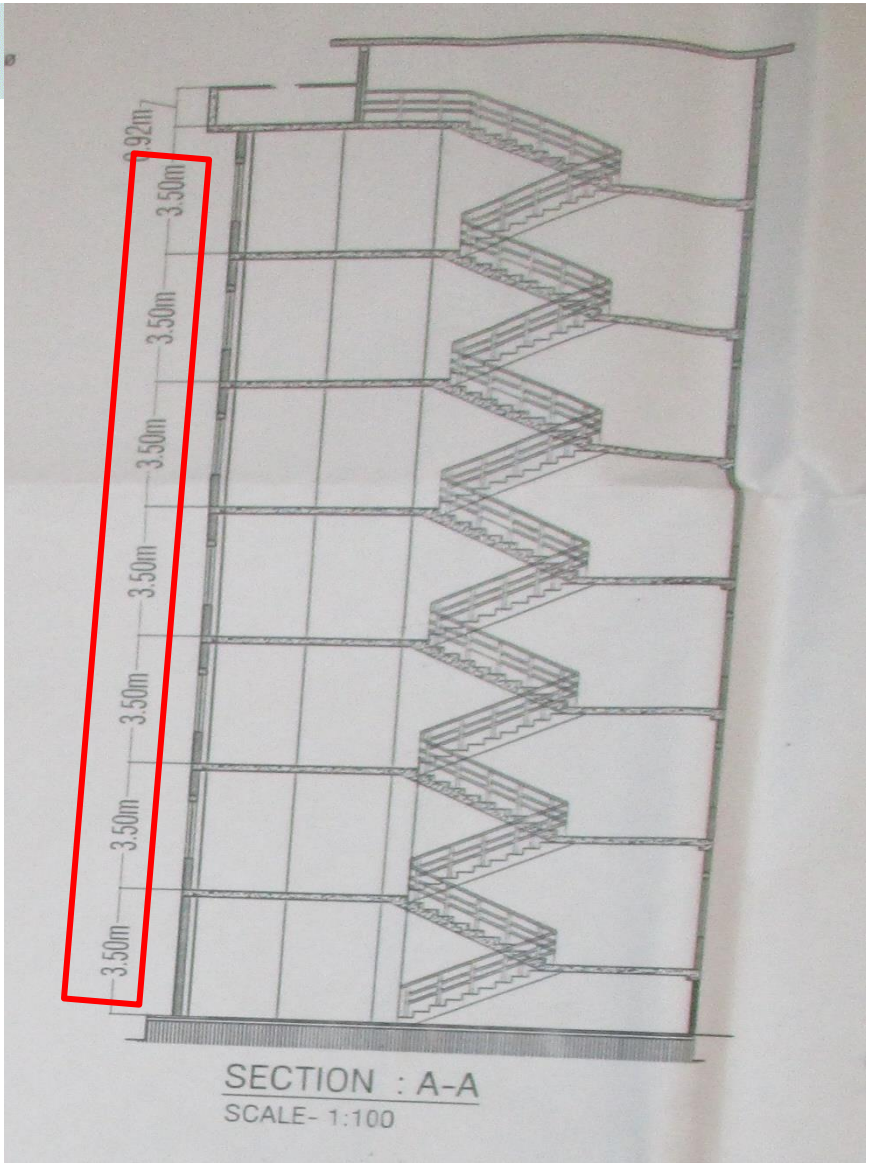

Floor to celling height was found 2.8m for typical floor and 4.5m for ground floor whereas in provided drawing, all floor height was mention as 3.5m.

Observation:

Lightweight steel structure is appeared to be non-engineered

Observation:

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Roof top shed

Steel member was supported on brick wall

Steel angle was inserted into brick wall and welded with some inserted rod

The support condition of roof top shed was vulnerable and non engineered due to poor detailing.

Observation:

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Presence of bridge between the factory building and adjacent building

Observation:

Connecting bridge was found on the north side of the building.

Steel beam and column of the connection bridge

Steel beam was bolted with RC beam of the building

Factory is required to engage a qualified engineer to verify the capacity of the bridge and the connection between the RC beam and Steel beam. Also evaluate the performance of connection bridge in time of relative movement of both buildings.

Observation:

Overall stability system

Observation:

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Inspected building

The building height was found 13.5 m, width 8.8m and length was 36.3m. Due to poor aspect ration and single bay of the building, factory is required to engage a qualified engineer to investigate the stability against the lateral loads.

Observation:

Excessive column stresses in fully completed building (7 storey)

Observation:

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Reinforcement of columns were found exposed on existing roof top

Reinforcement of Stair slab were found exposed

Exposed reinforcement on roof top and building permission for 7 storey indicate further extension of the building. Any future extension may cause a significant increase in column loads which would require to carry out Detail Engineering assessment as per BNBC.

Observation:

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Problems Observed

Item1 : Inconsistent and missing documents

Item2 : Lightweight steel structure is appeared to be non engineered

Item3 : Presence of bridges between the factory building and adjacent building

Item4 : Overall stability system

Item5: Excessive column stresses in fully completed building (7 storey)

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Inconsistent and missing documents	Building engineer to survey the whole building and produce as-built document reflecting the as constructed condition.	**6-weeks**
2	Lightweight steel structure is appeared to be non engineered	Building engineer to check the adequacy of the lightweight steel roofs under lateral and vertical loading.	**6-weeks**
3	Lightweight steel structure is appeared to be non engineered	Carry out remedial works resulting from engineering assessment if necessary.	**6-months**
4	Presence of bridge between the factory building and adjacent building	The factory engineer is to verify the capacity of beams and columns of the RCC building	**6-weeks**
5	Presence of bridge between the factory building and adjacent building	Check the capacity of connection between bridge and RCC building	**6-weeks**
6	Presence of bridge between the factory building and adjacent building	Carry out remedial works resulting from engineering assessment if necessary.	**6-months**
7	Overall stability system	An Engineering Assessment of the overall building to be carried out against vertical and lateral loads.	**6-weeks**
8	Overall stability system	Carry out remedial works resulting from engineering assessment if necessary.	**6-months**
9	Excessive column stresses in fully completed building (7 storey)	Any extensions or modifications of the existing building needs to be carried out Detail Engineering assessment by a Structural Engineer and in full compliance with the BNBC provision.	**6-months**