FNF Trend Fashion Ltd.

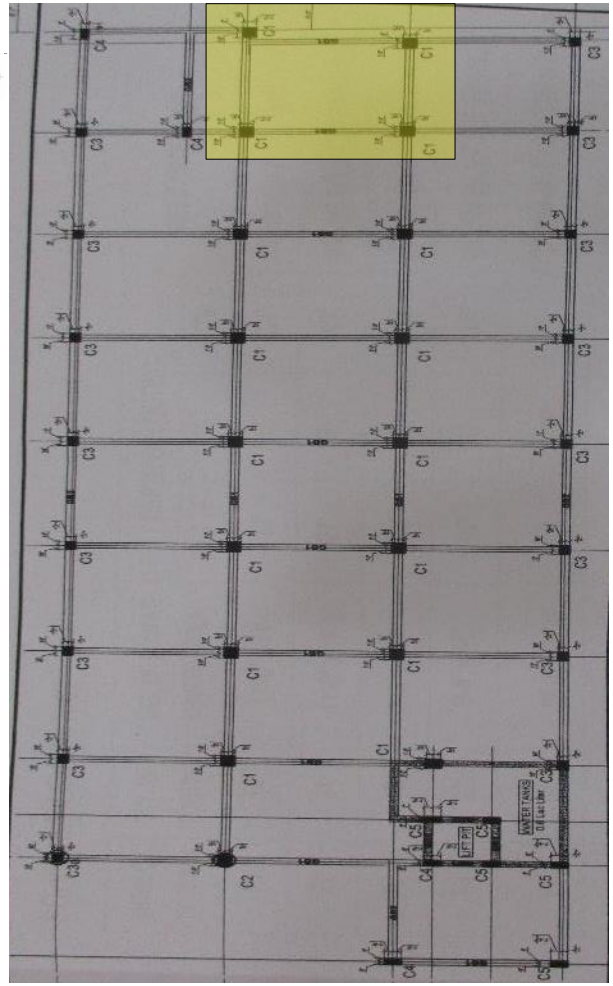
H -2282/1 NOBI ULLAH MIR MANSION, HAZI LIAKAT ALI MIR ROAD, JAMGORA, ASULIA, DHAKA.
(23.934778N, 90.289052E)
27th December 2017

ACCORD
on Fire and Building Safety in Bangladesh

Observations

Columns appeared to be stressed in excess of normal design limits

Observations- Production building



RC water tank on roof top having capacity 50000 liter

Toilet zone on the marked area on every floor

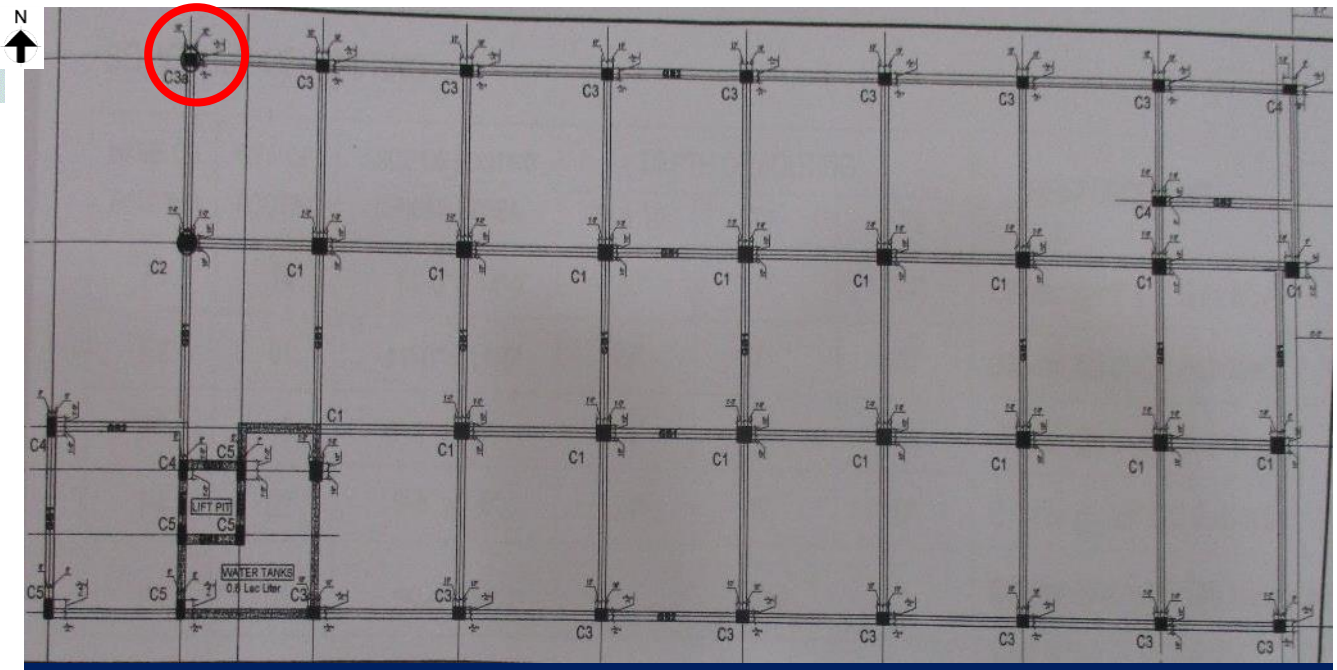
Cursory calculation indicates that highlighted columns appear to be stressed above normal design limits. Factory engineer need to check column stress and an Engineering Assessment(EA) must be carried out and factory should take necessary action according to report.

Observations- Production building

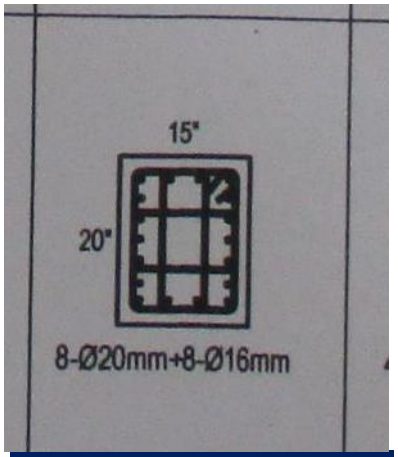
4

Discrepancies between provided drawing and on site condition

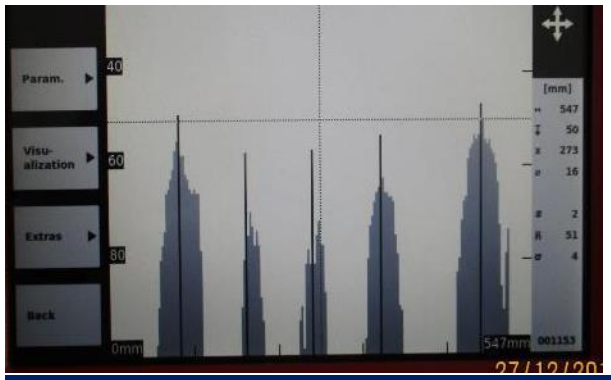
Observations- Production building

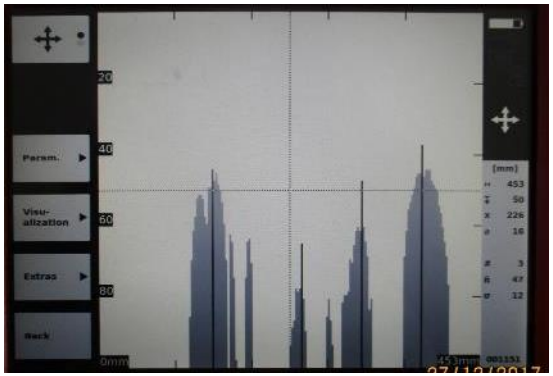


Provided Column Layout



16 nos. rebar were shown in column schedule for C-3a type column in 1st floor

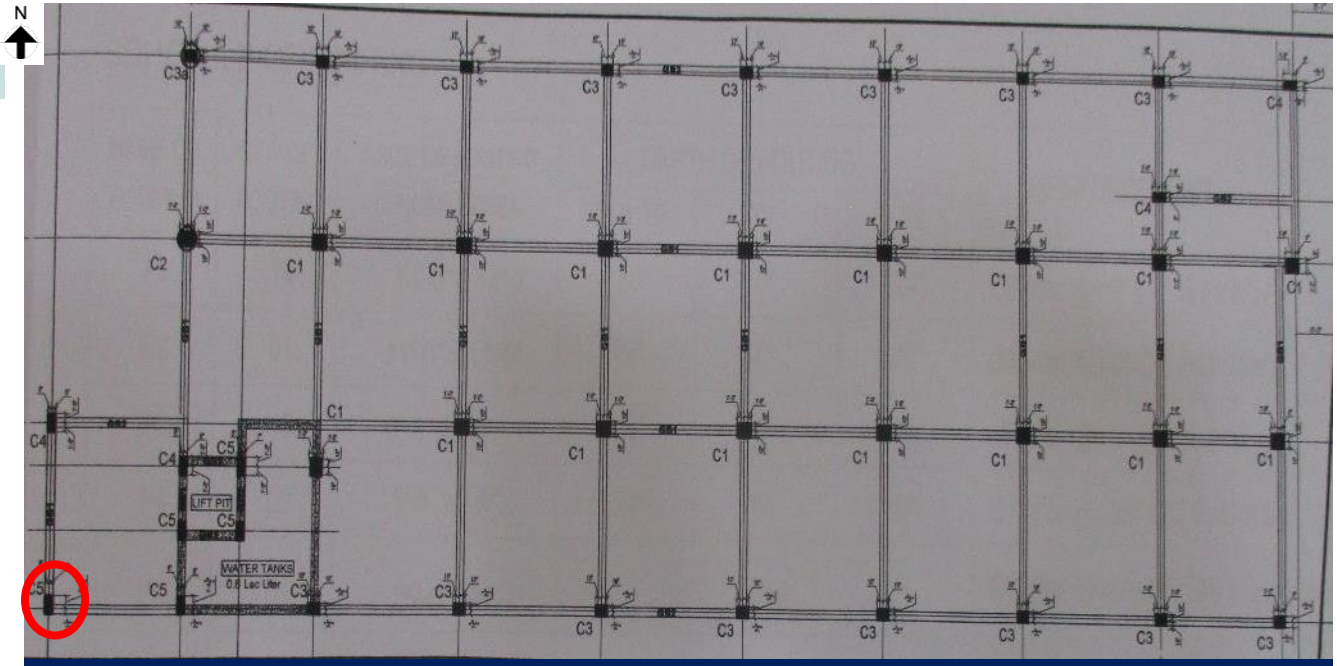




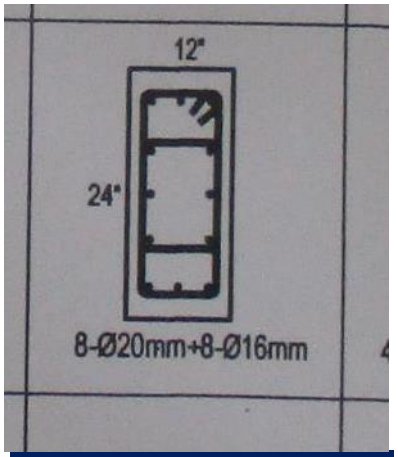
Ferro Scanning Image of marked column

14nos. (5x4) rebar was observed by ferro scanning of C-3a type column on 1st floor. But as per column schedule of the provided drawing, there are 16 nos. rebar

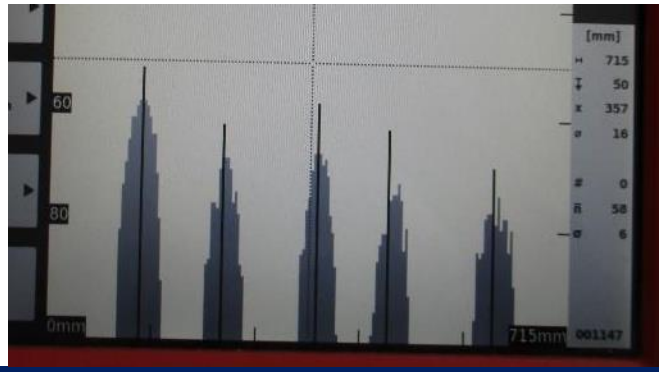
Observation: Production building



Provided Column Layout



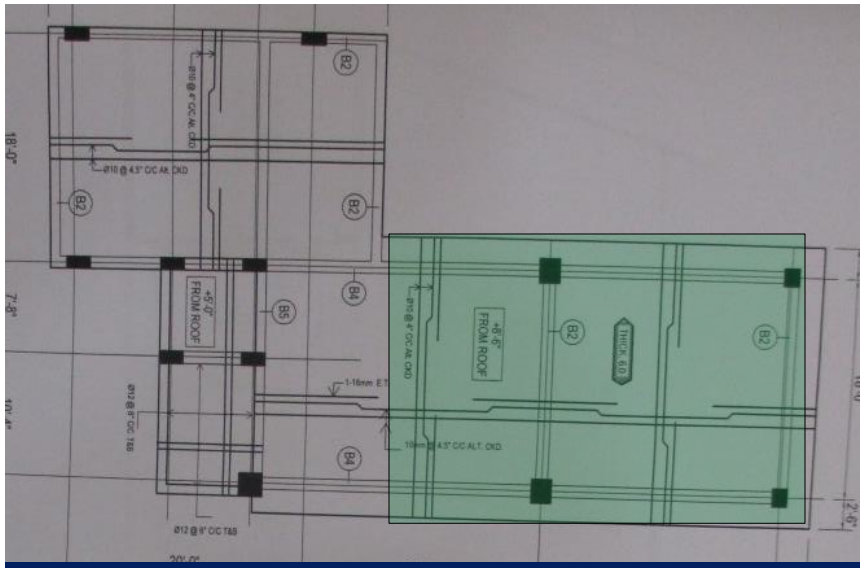
16 nos. rebar were shown in column schedule for C-5 type column in 1st floor



Ferro Scanning Image of marked column

12nos. (5x3) rebar was found by ferro scanning in C-5 type column in 1st floor. But in column schedule, 16 nos. rebar was mention in column schedule in provided drawing.

Observation: Production building

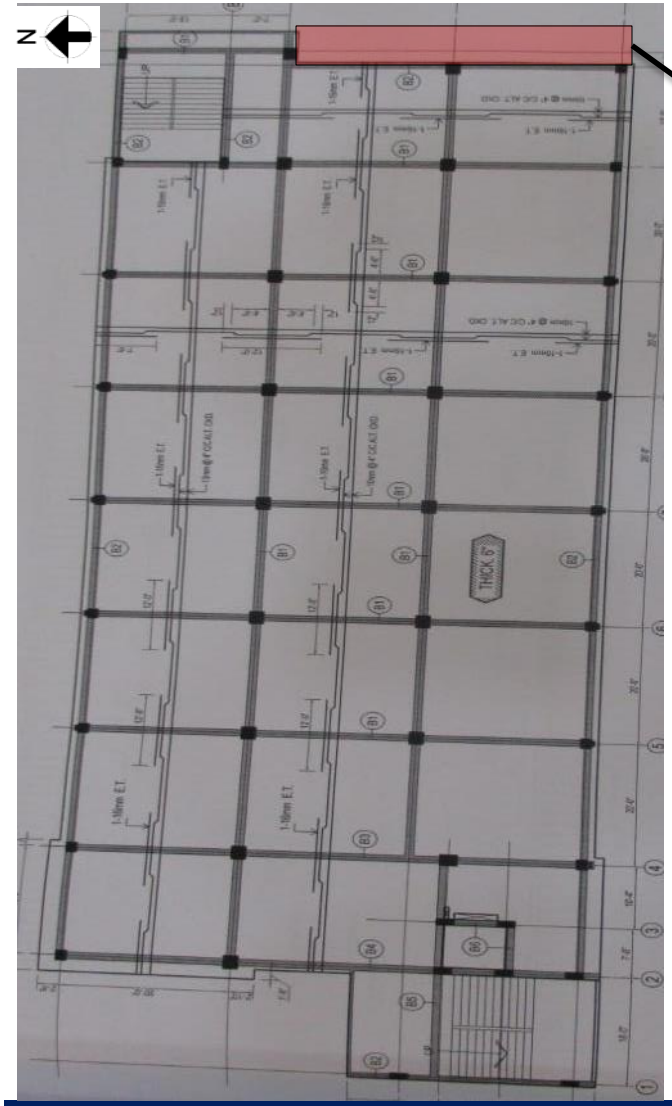


Stair roof detail in provided drawing

The beam- column layout was different than the provided drawing. The highlighted portion of the stair roof slab was not constructed. Also, the red marked column is not shown in the drawing. The column was constructed from the slab.

The marked brick column was not shown in the drawing. The brick column carry the load from the roof slab. Factory engineer is required to assess the capacity of the brick column.

Observations- Production building



475 mm wide cantilever was found on every floor on east side toilet zone.

Observations- Production building

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Corrosion of roof top exposed reinforcement

Observations- Production building

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Corrosion was observed on almost all exposed reinforcement of column on roof top. Factory is required to take proper measures to protect rebars from corrosion.

Observations- Production building

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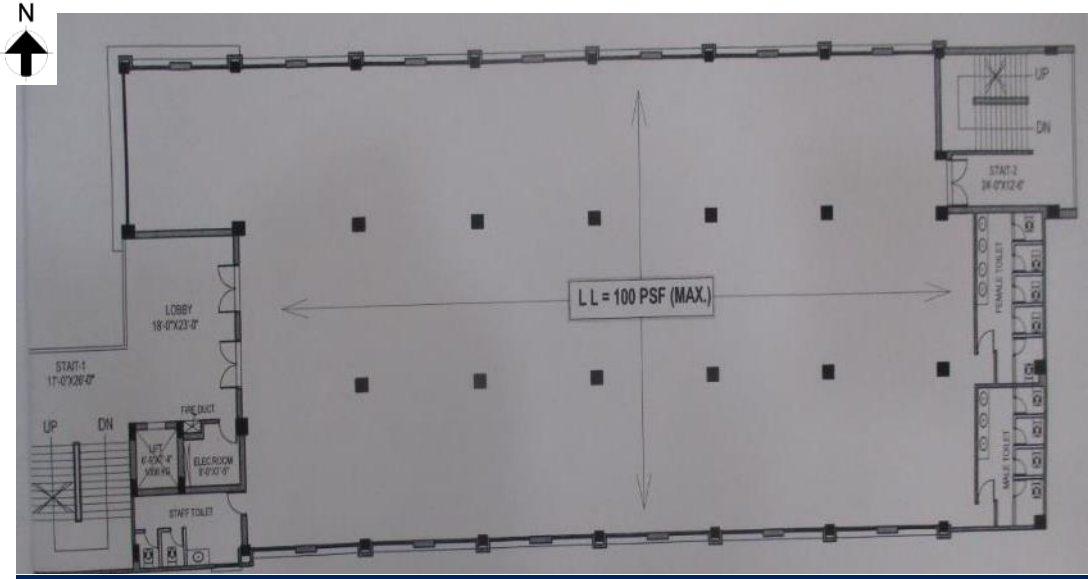
Prepared load plan required to be verified

Observations- Production building



Factory engineer prepared a load plan for 1st to 6th floor considering 4.8 kPa as allowable load. Factory is required to review the load plan as a part of engineering assessment if factory management intends to maintain the load plan.

1st floor finishing goods storage area.

Cutting area

Load was measured below 2Kpa on every floor and FOS calculation for internal column was found satisfactory considering 3kPa allowable floor live loading.

Factory is required to maintain the floor live load 3 kPa until further verification by design engineer.

Observations- Production building

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Lack of as-built documentation

Factory could not provide any drawing for the building. Factory Engineer is required to produce a full set of as built drawing reflecting on site condition for the building.

Observations- Sub-station building

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Corrosion on roof top exposed reinforcement

Observations- Sub-station building

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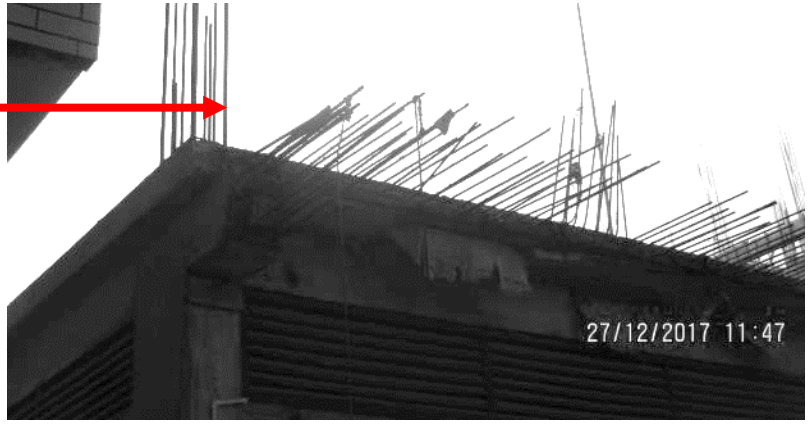

Corrosion was observed on almost all exposed reinforcement of column and slab. Factory is required to take proper remedial measures to protect rebars from corrosion.

Observations- Sub-station building

Problems Observed

Production Building

Item 1: Columns appeared to be stressed in excess of normal design limits

Item 2: Discrepancies between provided drawing and on site condition

Item 3: Corrosion on roof top exposed reinforcement

Item 4: Prepared load plan required to be verified

Sub-station Building

Item 5: Lack of as-built documentations

Item 6: Corrosion on roof top exposed reinforcement

Priority Actions

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	(Production Building) Columns appeared to be stressed in excess of normal design limits	Factory Engineer to review design, loads and columns stresses of all columns.	**Immediate - Now**
2	(Production Building) Columns appeared to be stressed in excess of normal design limits	An Engineering Assessment of Factory to be commenced, see attached Scope.	**Immediate - Now**
3	(Production Building) Columns appeared to be stressed in excess of normal design limits	Produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor capacity and column capacity.	**6-weeks**
4	(Production Building) Columns appeared to be stressed in excess of normal design limits	Engineering Assessment to be completed.	**6-weeks**
5	(Production Building) Columns appeared to be stressed in excess of normal design limits	Make structural alterations as advised by Engineer.	**6-months**
6	(Production Building) Columns appeared to be stressed in excess of normal design limits	Continue to implement load plan	**6-months**

Item No.	Observation	Recommended Action Plan	Recommended Timeline
7	(Production Building) Discrepancies between provided drawing and on site condition	Factory Engineer required to prepare As –Built drawings reflecting the actual condition.	**6-weeks**
8	(Production Building) Corrosion on roof top exposed reinforcement	Factory engineer is required to take proper remedial measures for preventing the corrosion.	**6-weeks**
9	(Production Building) Prepared load plan required to be verified	Maintain 3 Kpa load on all floors.	**6-weeks**
10	(Production Building) Prepared load plan required to be verified	Factory Engineer to review the load plan as a part of engineering assessment if factory management intends to maintain the load plan (4.8Kpa).	**6-weeks**
11	(Production Building) Prepared load plan required to be verified	Continue to implement load plan.	**6-months**
12	(Sub-station Building) Lack of as-built documentations	Factory engineer is required to survey and produce accurate as-built drawing as per actual condition.	**6-weeks**
13	(Sub-station Building) Corrosion on roof top exposed reinforcement	Factory engineer is required to take proper remedial measures to protect rebar from corrosion.	**6-weeks**