



BANDO DESIGN LTD. [NEW BUILDING]

PURBA NARSINGHAPUR, EARPUR UNION PARISHAD ROAD, ASHULIA, SAVAR, DHAKA-1349
(23.560502N, 90.181293E)

20th November 2017

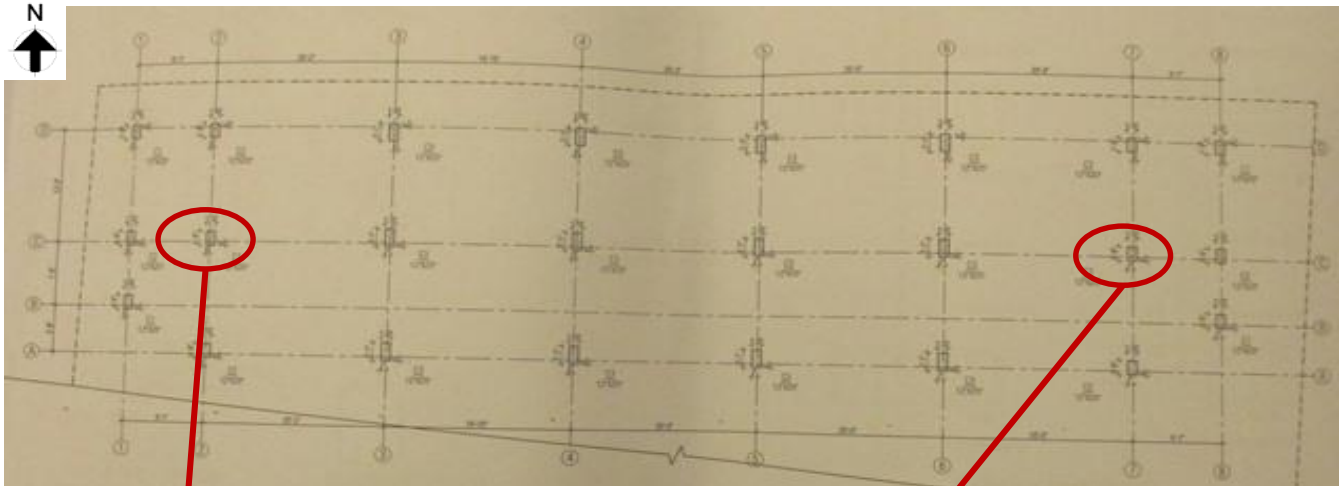




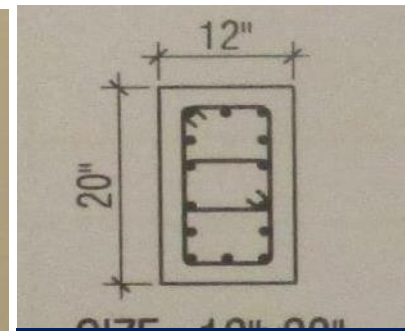
Observations



Discrepancies between provided drawing and on site condition



Provided Column Layout



C-2 column size shown 300mm x 500mm in provided drawing

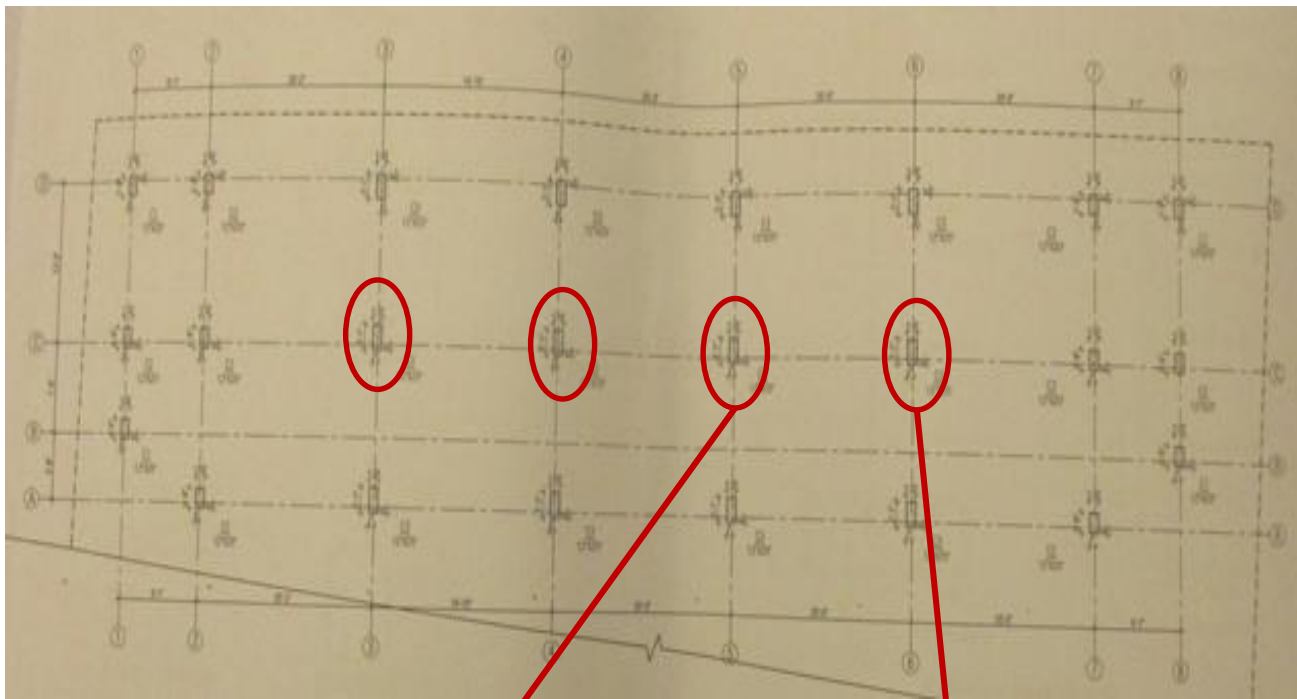


Marked Columns size found 300mm x 680mm which are denoted as C2 (300mm x 500mm) type column in column layout

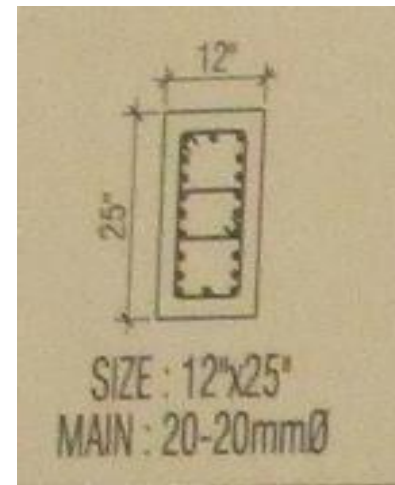


Marked column size in long direction was measured 680mm

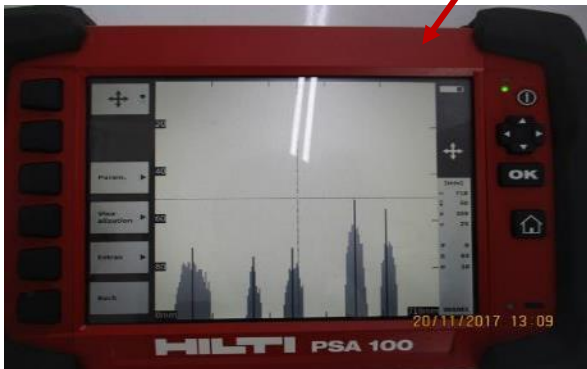
Observation: New Building



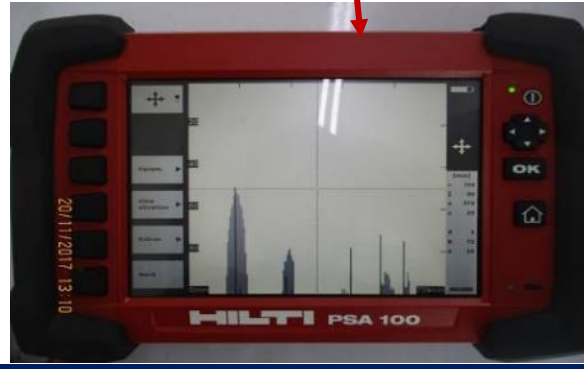
Provided Column Layout



9 nos. rebar were shown on long direction of C3 column in ground floor



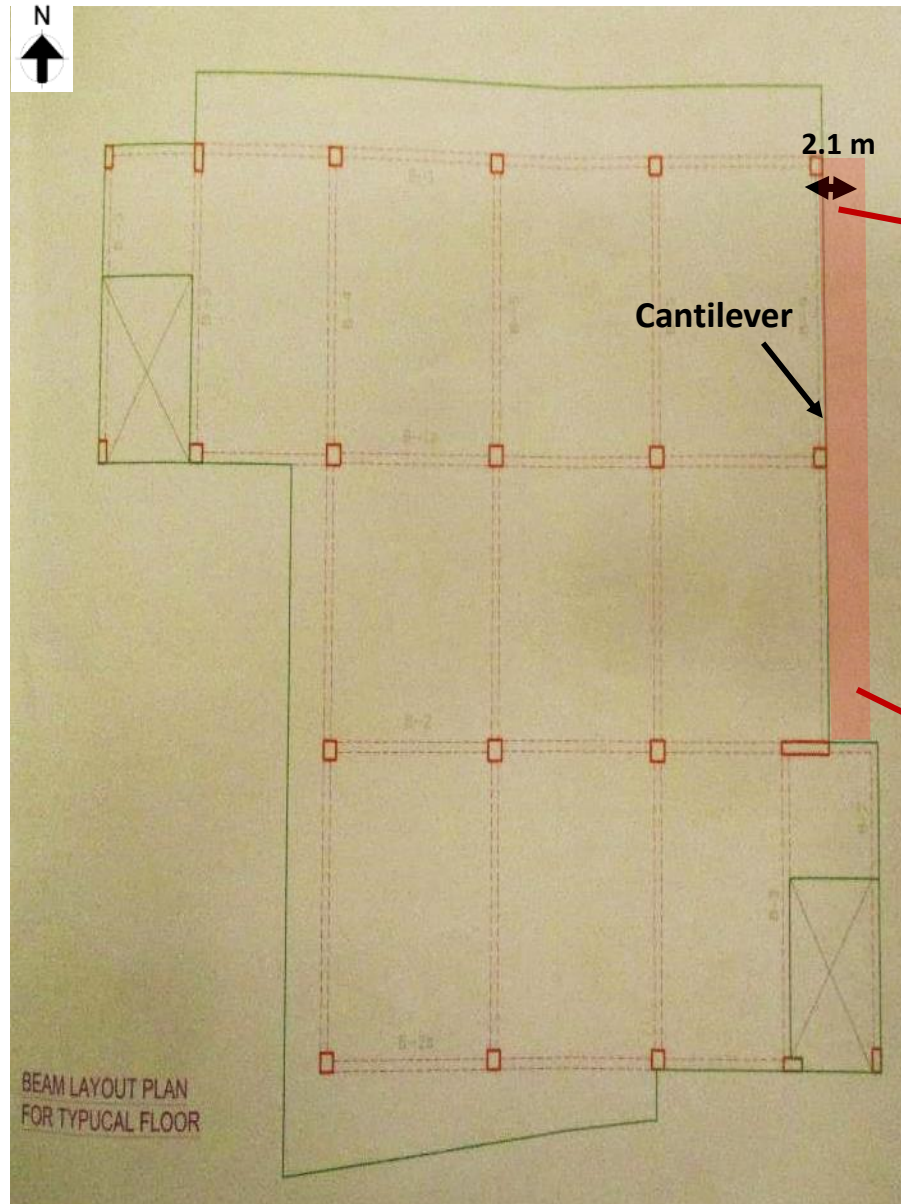
Ferro Scanning Image of marked column



5 Nos of reinforcement found in long direction of C3 type columns at ground floor and 1st floor. But in column schedule, 9 nos of rebar shown for same direction of C3 type column.



Discrepancies between provided drawing and on site condition



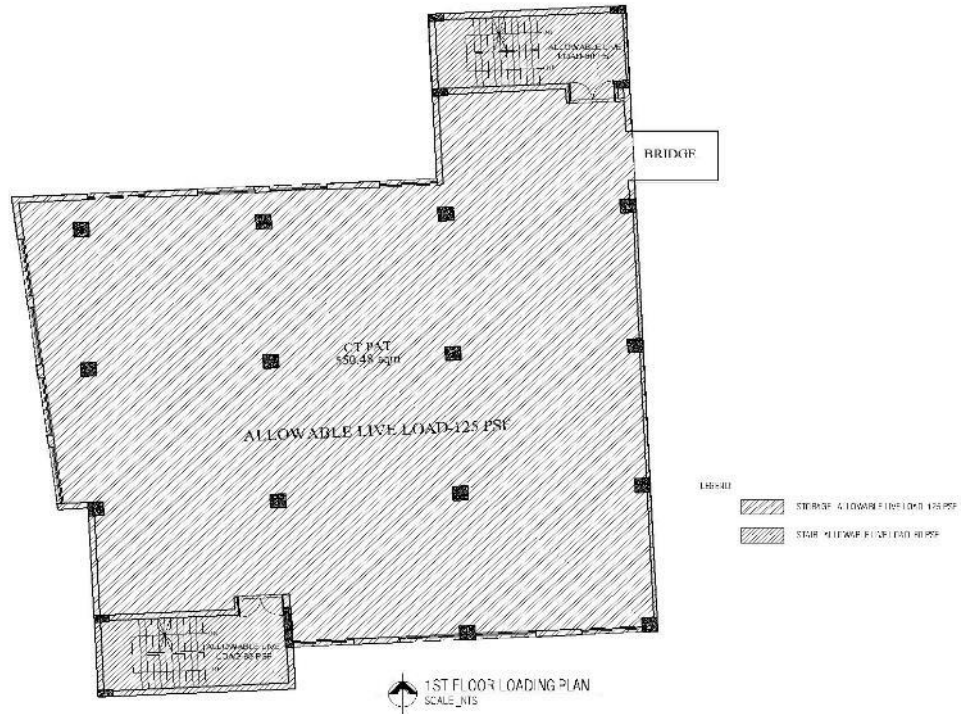
Typical slab layout



2.1m wide cantilever on East side which was not shown in drawing



Prepared load plan required to be verified



Factory engineer prepared a load plan considering 6 kPa allowable floor loading. Design review required if the factory management wants to implement the load plan.

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

During inspection overloading was observed above 5 kPa and FOS calculation for internal column was found satisfactory considering 3kPa allowable floor live loading.



Presence of bridge between the bonded warehouse building and building-2



Connecting bridge was found on the north side of the building

Factory is required to engage a qualified engineer for verify the capacity of the peripheral brick wall of the Bonded Warehouse for the imposed loading of the bridge

Bonded Warehouse



Steel beam was welded with RC beam of the building



Steel member were supported by brick wall with bolt and steel plate

Observation: Bonded Warehouse Building



Lack of as built documentations



Childcare Building



Boiler & Pumphouse Building



Inside Childcare Building



Inside Boiler & Pumphouse Building

No drawing was found during inspection regarding this two structures.

Observation: Childcare Room and Boiler & Pumphouse



Problems Observed:

New Building

Item 1: Discrepancies between provided drawing and on site condition

Item 2: Prepared load plan required to be verified

Bonded warehouse building

Item 3: Discrepancies between provided drawing and on site condition

Item 4: Prepared load plan required to be verified

Item 5: Presence of bridge between the Bonded warehouse building and Building-2

Childcare building and Boiler & Pumphouse building

Item 6: Lack of as-built documentations



Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	(New building) Discrepancies between provided drawing and on site condition	Building Engineer required to prepare As –Built drawings reflecting the actual condition.	6-weeks
2	(New building) Prepared load plan required to be verified	Maintain 3 Kpa load on all floors.	6-weeks
3	(New building) Prepared load plan required to be verified	Produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor capacity and column capacity if loading above 3kpa is considered.	6-weeks
4	(Bonded warehouse building) Discrepancies between provided drawing and on site condition	Building Engineer required to prepare As –Built drawings reflecting the actual condition.	6-weeks
5	(Bonded warehouse building) Prepared load plan required to be verified	Maintain 3 Kpa load on all floors.	6-weeks
6	(Bonded warehouse building) Prepared load plan required to be verified	Produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor capacity and column capacity if loading above 3kpa is considered.	6-weeks
7	(Bonded warehouse building) Prepared load plan required to be verified	Continue to implement load plan.	6-months



Item No.	Observation	Recommended Action Plan	Recommended Timeline
8	(Bonded warehouse building) Presence of bridge between the Bonded warehouse building and Building-2	The factory engineer is to verify the capacity of beams and peripheral wall.	6-weeks
9	(Bonded warehouse building) Presence of bridge between the Bonded warehouse building and Building-2	Carry out remedial works resulting from engineering assessment if necessary.	6-months
10	(Childcare building and Boiler & Pumphouse building) Lack of as-built documentations	Factory engineer is required to survey and produce accurate as-built drawing as per actual condition.	6-weeks