



Mega Washing & Dyeing Ltd

BK Bari, Taltoli, Hotapara, Mirzapur, Gazipur

(24.120566N, 90.378093E)

06th March, 2017





Observations

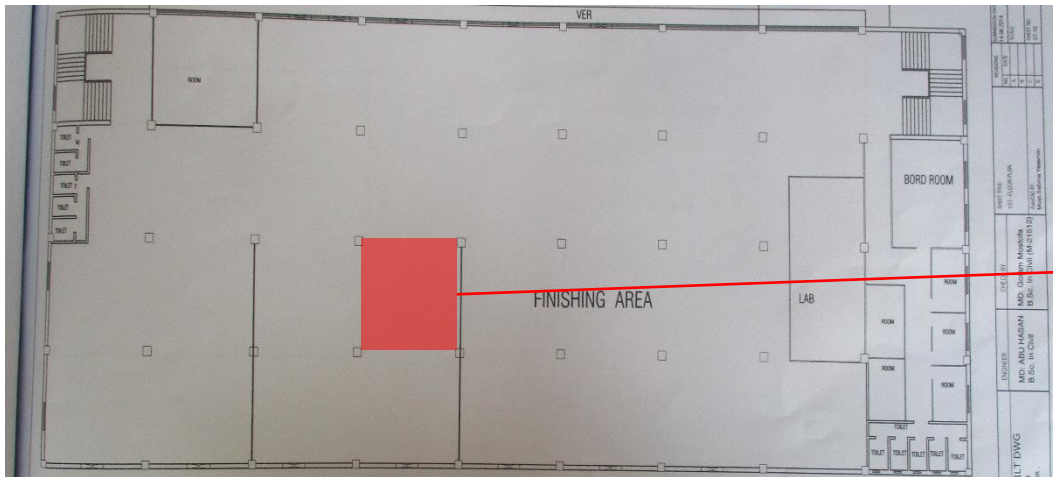


Production Building



Hairline cracking on 1st floor slab soffit

Observations: Production Building



1st Floor layout plan.



Cracking to soffit of 1st floor slab

Hairline cracking was observed on the soffit of 1st floor slab in several location. Building Engineer to investigate extend of crack and suggest remedial actions as required.



Cracking to soffit of 1st floor slab

Observations: Production Building



Apparently inadequate connections of steel shed on roof

Observation : Production Building



Apparently non-engineered steel shed



Truss to pipe connections



Connection with wall

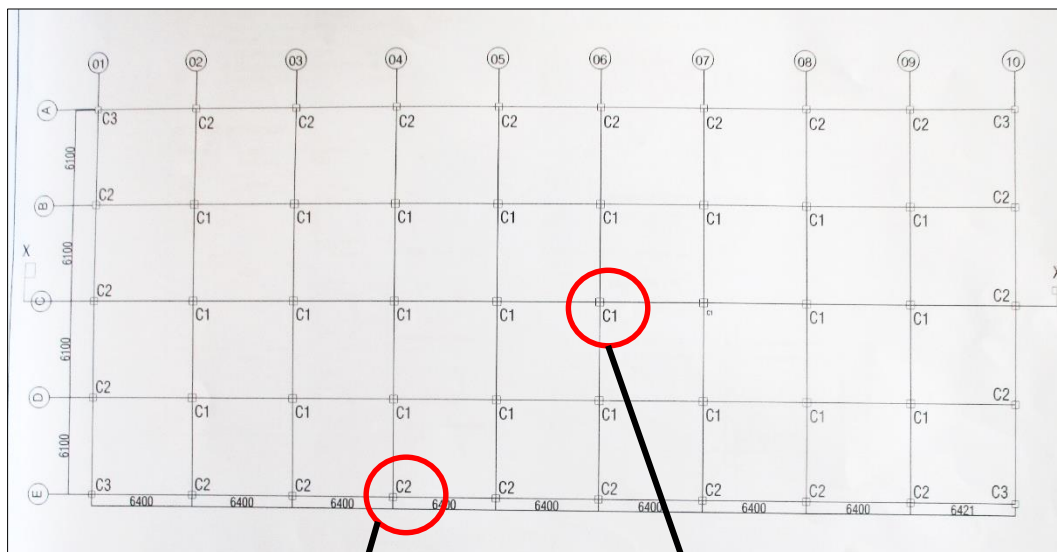
There is no structural drawings and documents of steel shed. Additionally connections were appeared to be inadequate. Which made the stability of the shed questionable. Factory engineer to check the adequacy of connections as well as the structural member against vertical and wind load.

Observation : Production Building



Discrepancy between as built drawing and site observation

Observation : Production Building



Column Layout

COLUMN SCHEDULE		
COLUMN NO.	COLUMN SIZE BELOW P.L.	COLUMN SIZE ABOVE P.L.
C1	500x500	500mm 500mm 19-20mm Ø
C2	500x500	450mm 450mm

Column schedule in as built drawing



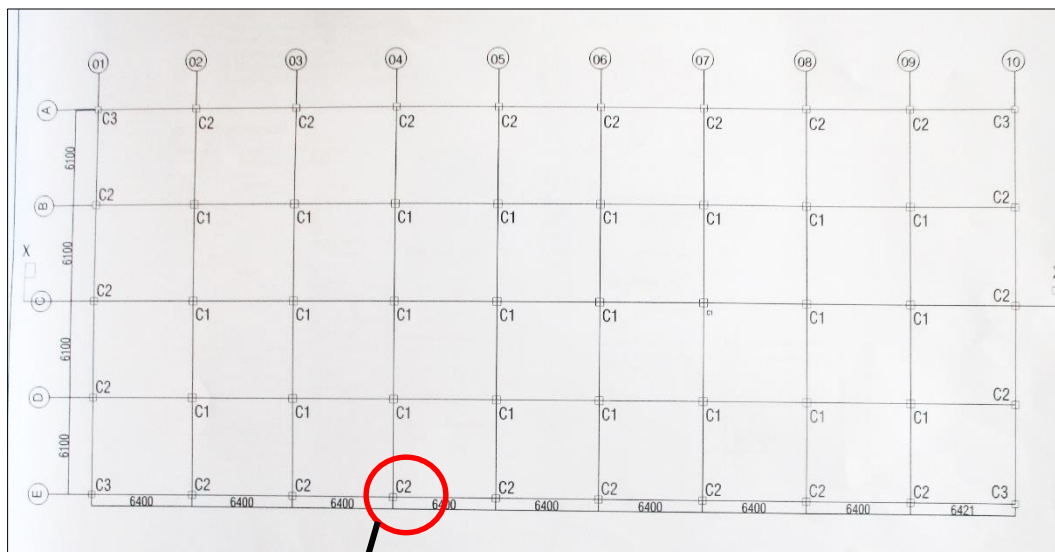
C2 type column



C1 type column

Dimensions of all columns were found 480mmX480mm with render on 1st floor where column schedule indicates that the dimensions of C1 type column should be 500mm x 500mm and C2 type should be 450mmx 450mm

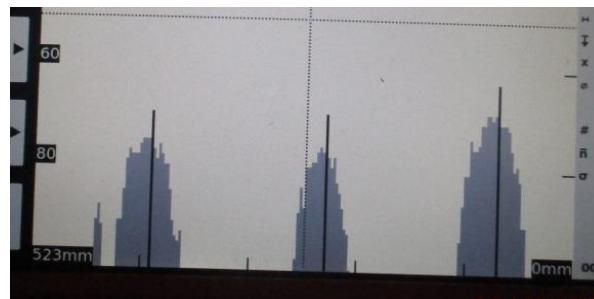
Observation : Production Building



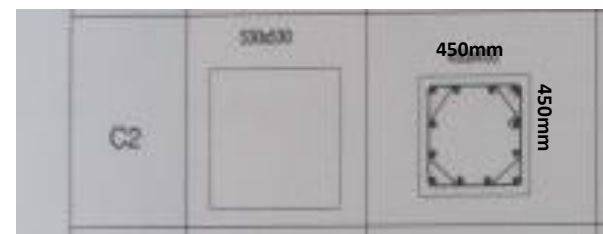
Column Layout



C2 type column



3 nos. bar was found on each side with ferro scanning.



Column schedule in as built drawing

From the column schedule of as-built structural drawing C2 type column has 4no's rebar at each side. But from ferro scanning Image it was confirmed that there is 3 no's of rebar in each side of this type of column.

Observation : Production Building

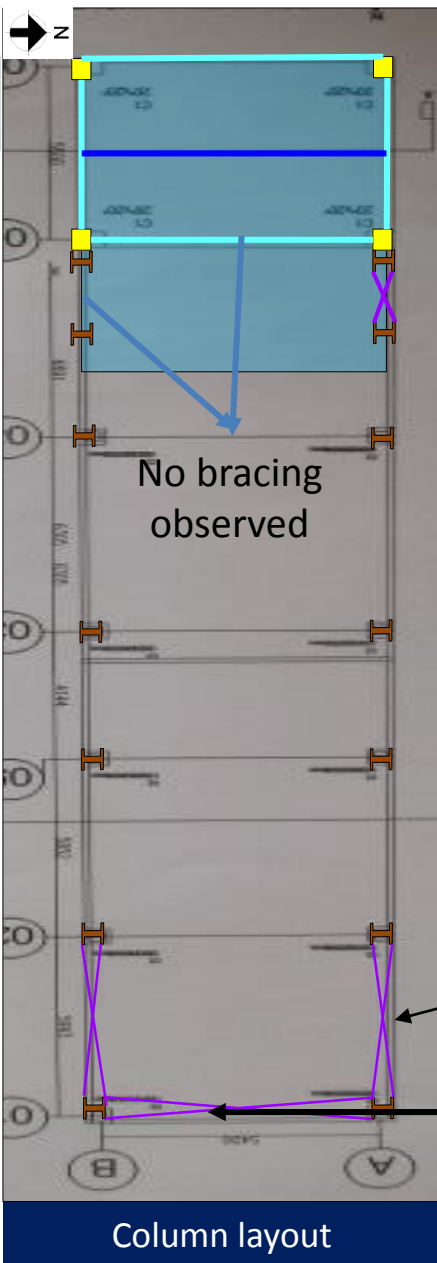


Utility Shed



Untied bracings and Corrosion in Structural steel member

Observations: Utility shed

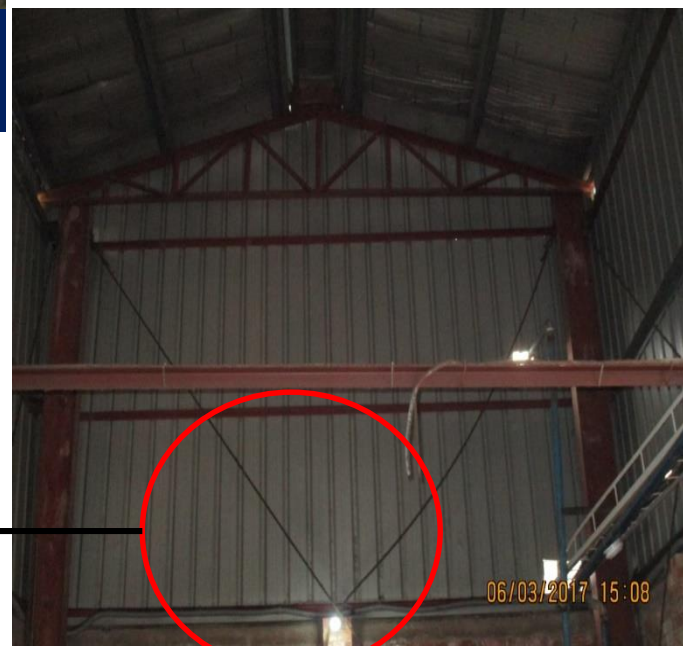


Corroded steel column at support.



Untied vertical bracings at North side

Vertical bracings were found untied and loosely connected with columns. Bracings were missing at west side of the structure. Corrosion were observed at support of the columns. Factory engineer to review the design for lateral stability and suggest proper remedial action regarding corrosion and stability.



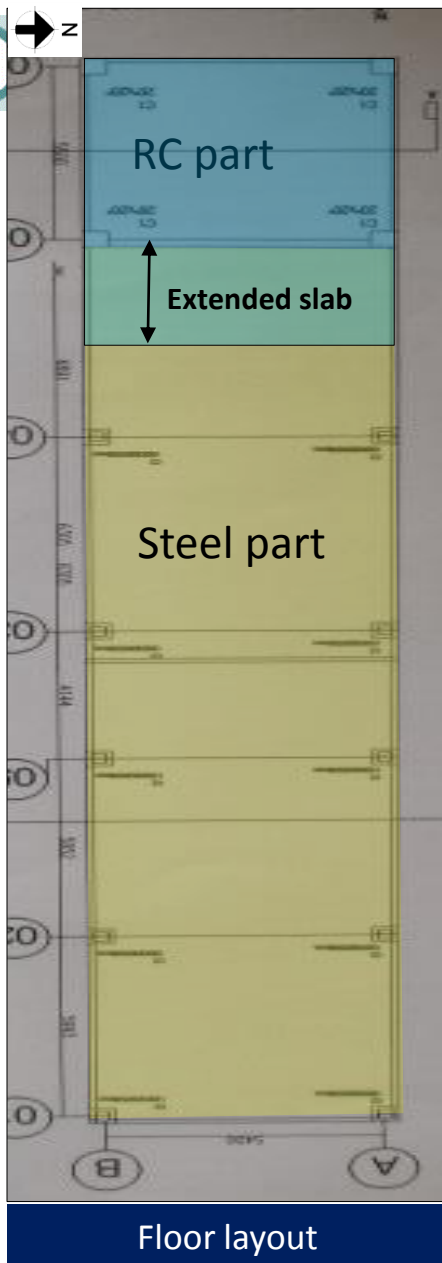
Untied and loose vertical bracing at east side.

Observations: Utility shed



Missing information's in provided drawings

Observations: Utility shed



A two storied RC part of utility shed.



4.7m extension of RC slab supported on load bearing wall at east side.

Two storied RC part including 4.7m extension of slab was not included in drawings. Additionally bracings and connection details for steel part of utility shed were not available.

Factory engineer need to produce a set of as-built drawings considering actual condition.



Bolted connection between steel truss and column.

Observations: Utility shed



Sub-station, Doctor & Childcare Building



Missing drawings & documents



Sub-Station



Doctor & Childcare building

No drawings & documents or information's were available on site. Factory engineer is required to prepare a full set of as-built drawing.

Observations: Sub-Station, Doctor & Childcare building



Problems Observed

Production Building:

Item 1: Hairline cracking on 1st floor slab soffit.

Item 2: Apparently inadequate connections of steel shed on roof.

Item 3: Discrepancy between as built drawing and site observation.

Utility Shed:

Item 4: Untied bracings and Corrosion in Structural steel section.

Item 5: Missing information's in provided drawing.

Sub-station, Doctor & Childcare Building:

Item 6: Missing drawings and documents.



Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Production Building Hairline cracking on 1st floor slab soffit	Building Engineer to monitor cracks at slab soffit.	6-weeks
2	Production Building Hairline cracking on 1st floor slab soffit	Building Engineer to investigate the extend of crack, if cracks are only in the plaster.	6-weeks
3	Production Building Hairline cracking on 1st floor slab soffit	Building Engineer to advise remedial actions(if required).	6-months
4	Production Building: Apparently inadequate connections of steel shed on roof	Building engineer to check the adequacy of connections for roof top shed.	6-weeks
5	Production Building: Apparently inadequate connections of steel shed on roof	Building engineer to confirm satisfactory structural performance of the shed under lateral loading.	6-weeks
6	Production Building: Apparently inadequate connections of steel shed on roof	Remedial works to be carried out if required.	6-months



Item No.	Observation	Recommended Action Plan	Recommended Timeline
7	Production Building: Discrepancy between as built drawing and site observation	Building engineer to survey the whole shed and produce as-built documentation reflecting the as constructed condition.	6-weeks
8	Production Building: Discrepancy between as built drawing and site observation	Prepare calculations showing the structural adequacy of the column taking into account the imposed loading.	6-weeks
9	Production Building: Discrepancy between as built drawing and site observation	Remedial works to be carried out if required.	6-months
10	Utility Shed: Untied bracings and Corrosion in Structural steel section	Building Engineer to check the bracing system and stability of the structure against lateral load.	6-weeks
11	Utility Shed: Untied bracings and Corrosion in Structural steel section	Building Engineer to check the extend of corrosion in the structural member and suggest appropriate remedial actions where required.	6-weeks
12	Utility Shed: Untied bracings and Corrosion in Structural steel section	Remedial works to be carried out.	6-months



Item No.	Observation	Recommended Action Plan	Recommended Timeline
13	Utility Shed: Missing information's in provided drawings	Building engineer to survey the whole shed and produce as-built documentation reflecting the as constructed condition.	6-weeks
14	Utility Shed: Missing information's in provided drawings	Prepare calculations showing the structural adequacy of the extended slab taking into account the imposed loading.	6-weeks
15	Utility Shed: Missing information's in provided drawings	Carry out remedial works resulting from engineering assessment if necessary.	6-months
16	Sub-station, Doctor & Childcare Building: Missing drawings and documents	Building engineer to survey the whole structure and produce as-built documentation reflecting the as constructed condition.	6-weeks