

# Mouchak Knit Composite Ltd.

Mouchak, Kaliakoir, Gazipur, Dhaka.

(24.022947, 90.28874)

07 March 2015



# Non Structural Observation

# Fall protection for areas under construction

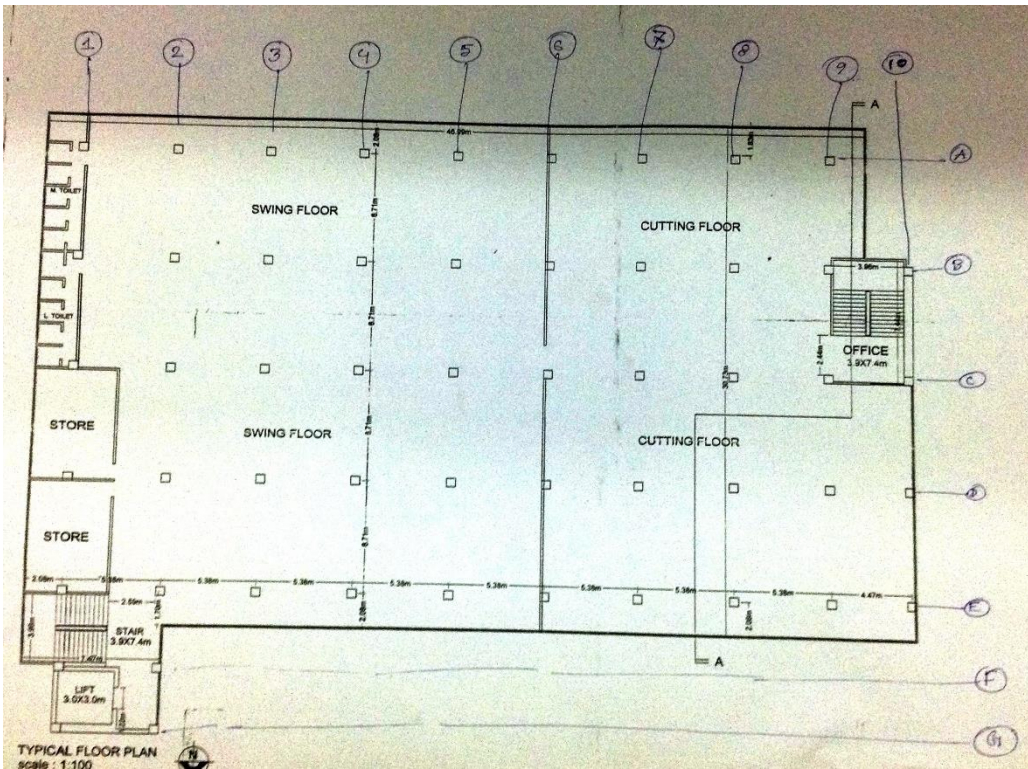


**No fall protection on roof and stair areas under construction**

## **Non Structural Observation**

# Observations

**Cursory calculation indicate columns to be stressed in excess of design limit**

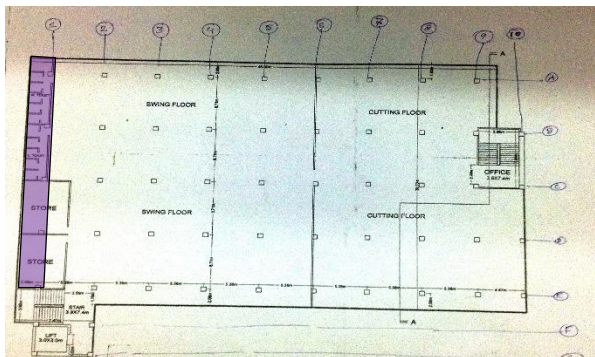


Typical floor plan

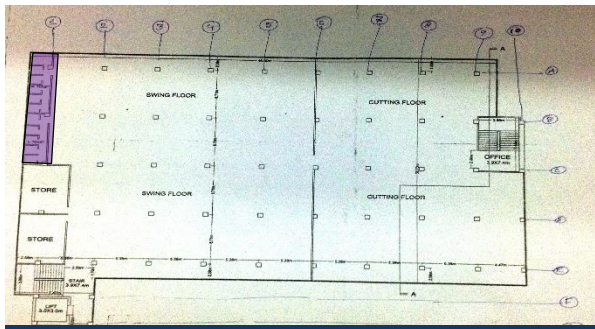
Cursory calculations indicate some columns in toilet areas will be stressed in excess of design limits, when all floors are fully occupied. The additional roof top structure and water tank above stair case will cause other columns to be stressed in excess of design limits. Before continuing the construction of the roof and fully occupying all floors, consult with design engineer and seek approval from building authorities.



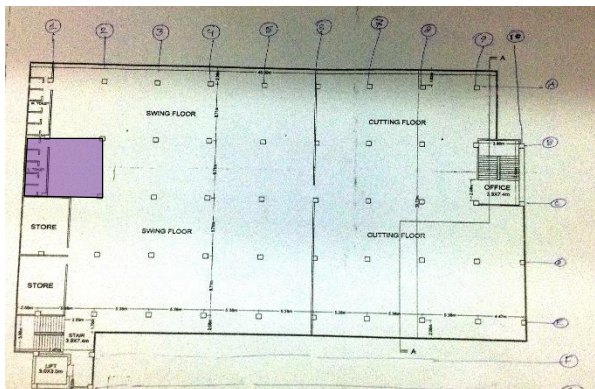
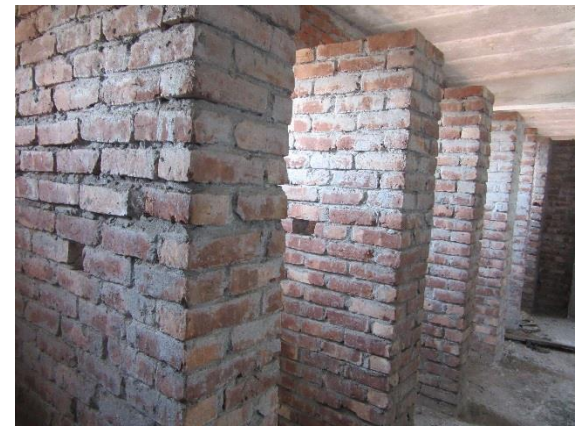
# Localised areas of high loading



**5<sup>th</sup>, 4<sup>th</sup>, 3<sup>rd</sup> floor - Typical floor plan**



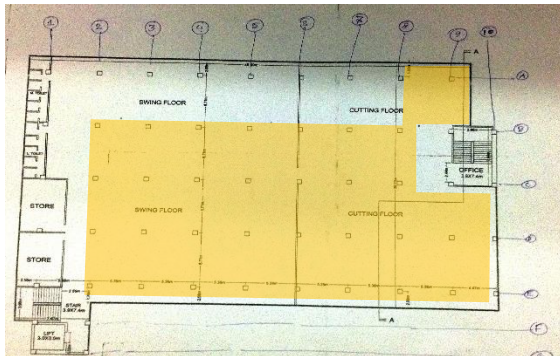
**2<sup>nd</sup> floor - Typical floor plan – toilet**



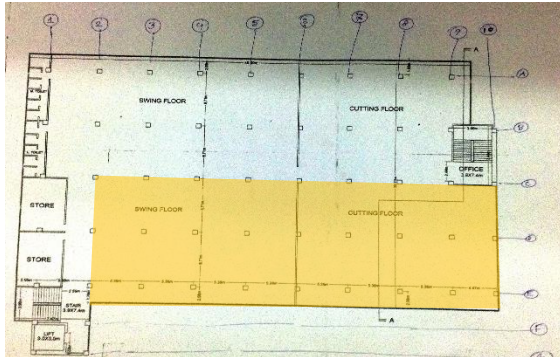
**1<sup>st</sup> floor - Typical floor plan**



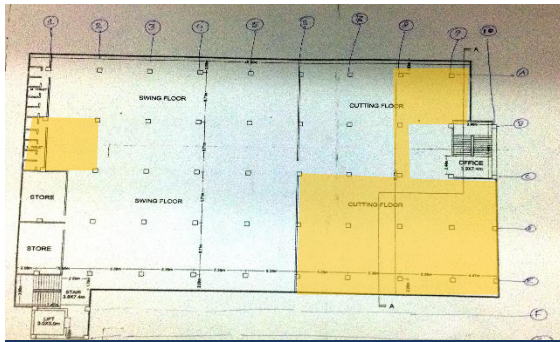
**Toilet build up 300mm**



5<sup>th</sup>, 4<sup>th</sup> floor - Typical floor plan



2<sup>nd</sup> floor - Typical floor plan



1<sup>st</sup> floor - Typical floor plan



# Observations

# Discrepancy between permit drawing and as-built/future planned structure



# Problems Observed

1. High stress levels in the columns
2. Localised areas of high loading
3. Discrepancies between building permit drawings, and the construction of the roof top

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	High stress levels in the columns	Factory Engineer to review design, loads and columns stresses in columns supporting toilet, water tank and additional roof top loads.	6-weeks
2	High stress levels in the columns	Verify insitu concrete strengths either by taking 100mm diameter cores from 4 columns at Ground Floor (min) or by using existing cylinder strength data for Ground floor columns if available.	6-weeks
3	High stress levels in the columns	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	High stress levels in the columns	Continue to implement the load management plan.	6-months
5	Localised areas of high loading	Building Engineer to confirm design loading of slabs and incorporate it into the loading plan for all floor plates within the Building.	6-weeks
6	Localised areas of high loading	Continue to implement the load management plan	6-months
7	Discrepancies between building permit drawings, and the construction of the roof top	Seek approval from building authorities for additional roof top construction.	6-weeks
8	Discrepancies between building permit drawings, and the construction of the roof top	Building Engineer to produce accurate as-built drawings	6-months