

# Arcorp Denim Ltd.

Holding#332 Road#2 Ward#5 Block#B  
Kumkumari, Gazipur, Ashulia, Savar, Dhaka  
23.8827N, 90.3269E

20 October 2015



# Observations

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- Water tanks on roof
- Minor cracks on walls perpendicular to cantilever on 5<sup>th</sup> floor
- Cantilevers appear to have deflected
- Non Engineered steel roof to stair core
- Uncontrolled loading on the floor plates
- Columns on loading bay unprotected from traffic impact
- Stone Aggregate noted in ground floor columns

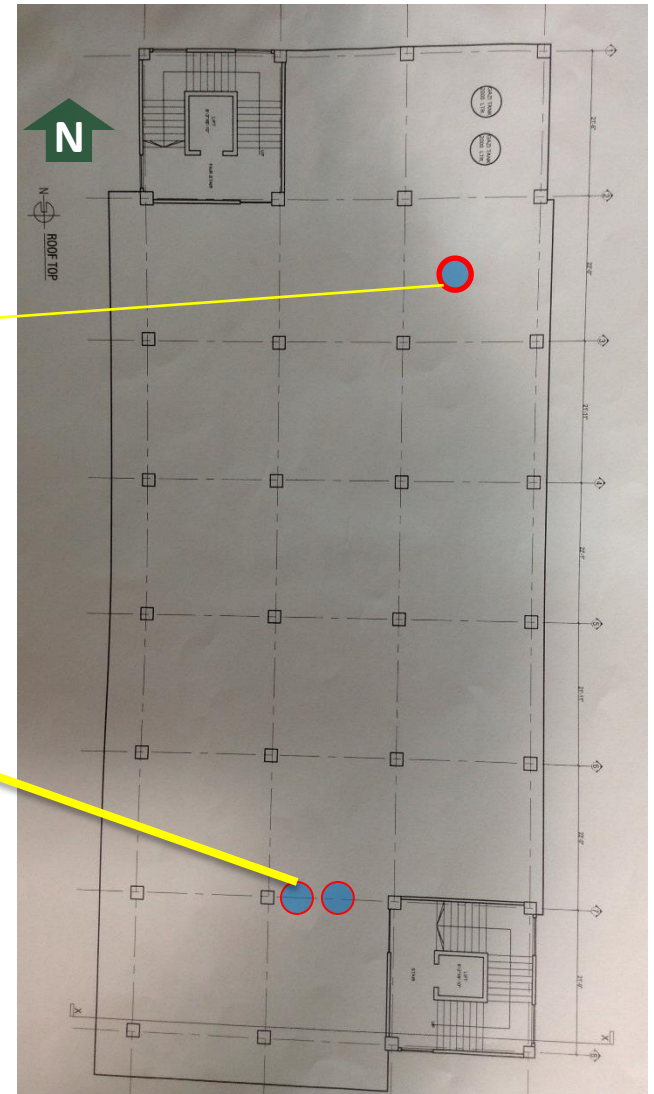
# Water tanks on roof



Water tank on roof.  
Capacity 2 x 2000L

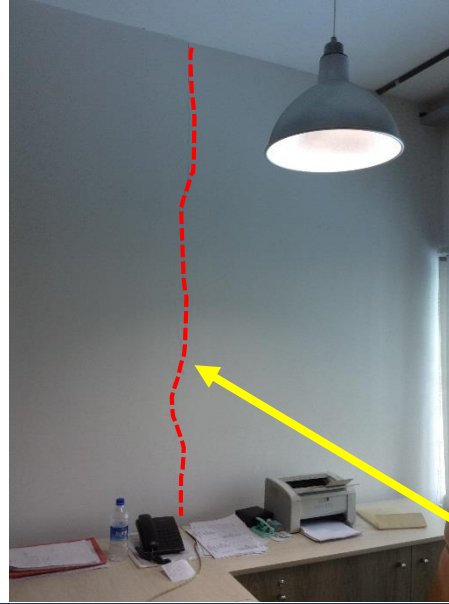


Empty water tank –  
5000L

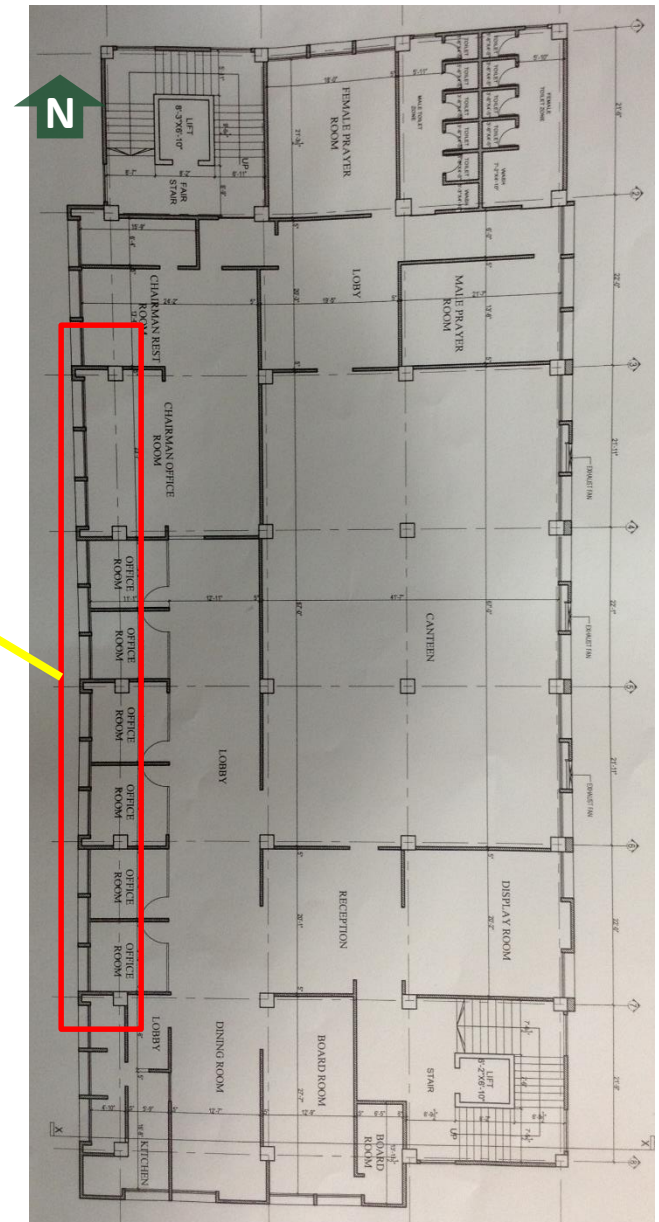


Roof plan

# **Minor cracks on walls perpendicular to cantilever on 5th floor**



Minor cracks on walls perpendicular to cantilever on 5th floor



Typical 5th floor plan

**Cantilevers appear to have deflected**

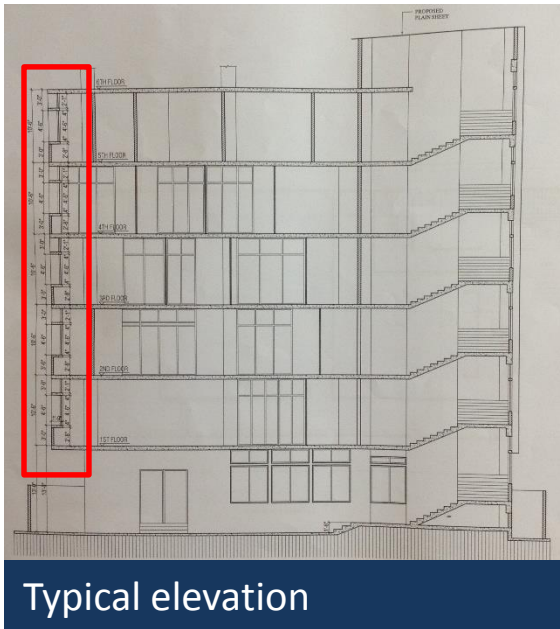




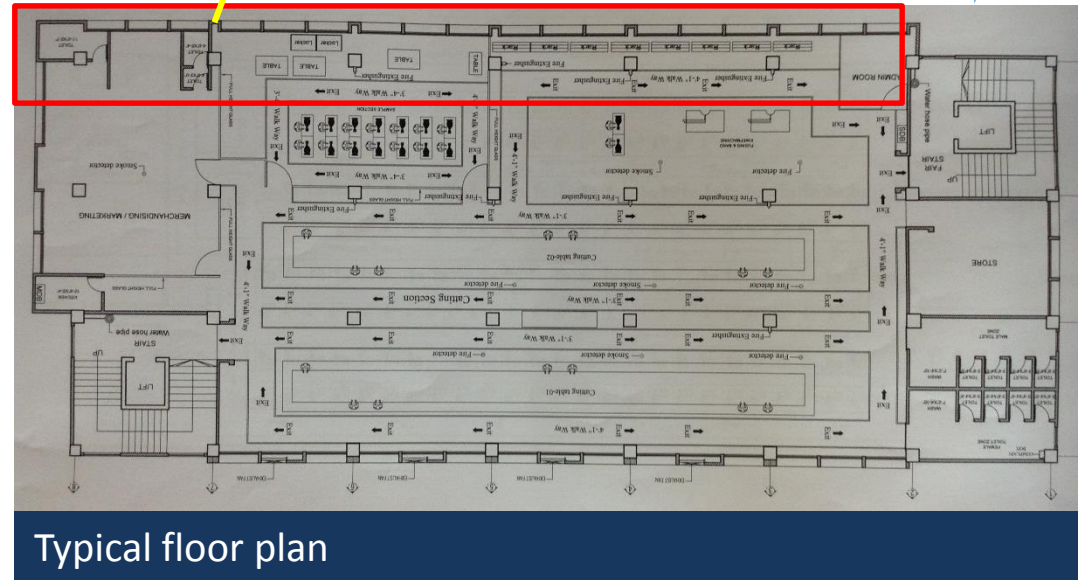
Building engineer to verify reason for cracking.

Cantilevers appear to have deflected

N



Typical elevation

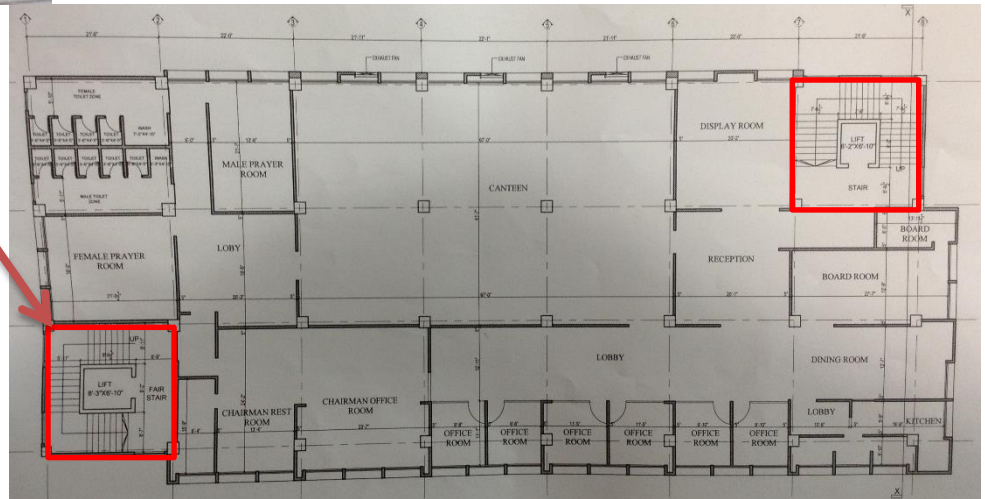


Typical floor plan

# **Non Engineered steel roof to stair core**



Non Engineered steel roof to stair core



Typical roof plan

## Staircore Roof

# Uncontrolled loading on the floor plates

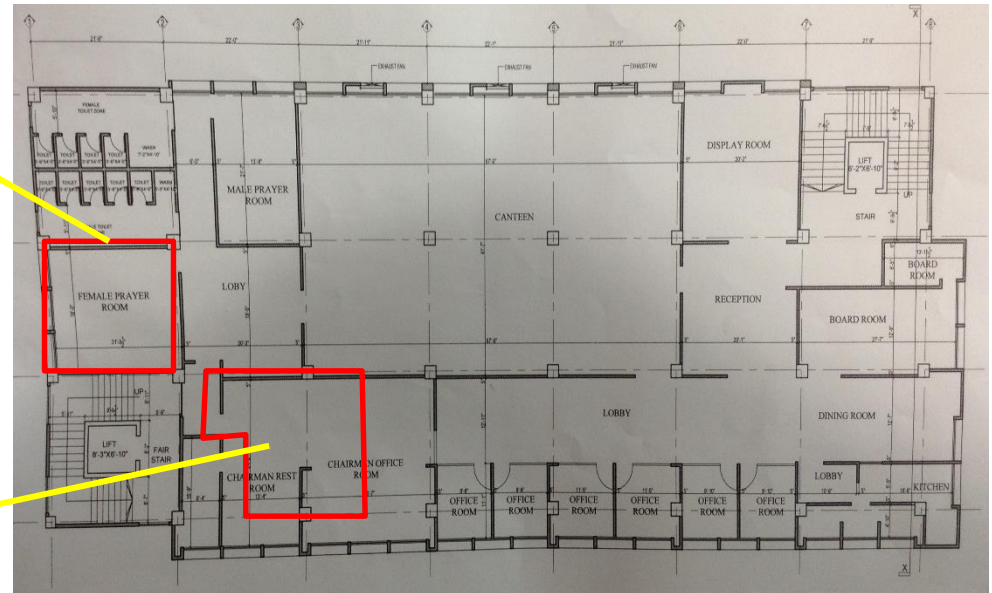




Waste storage



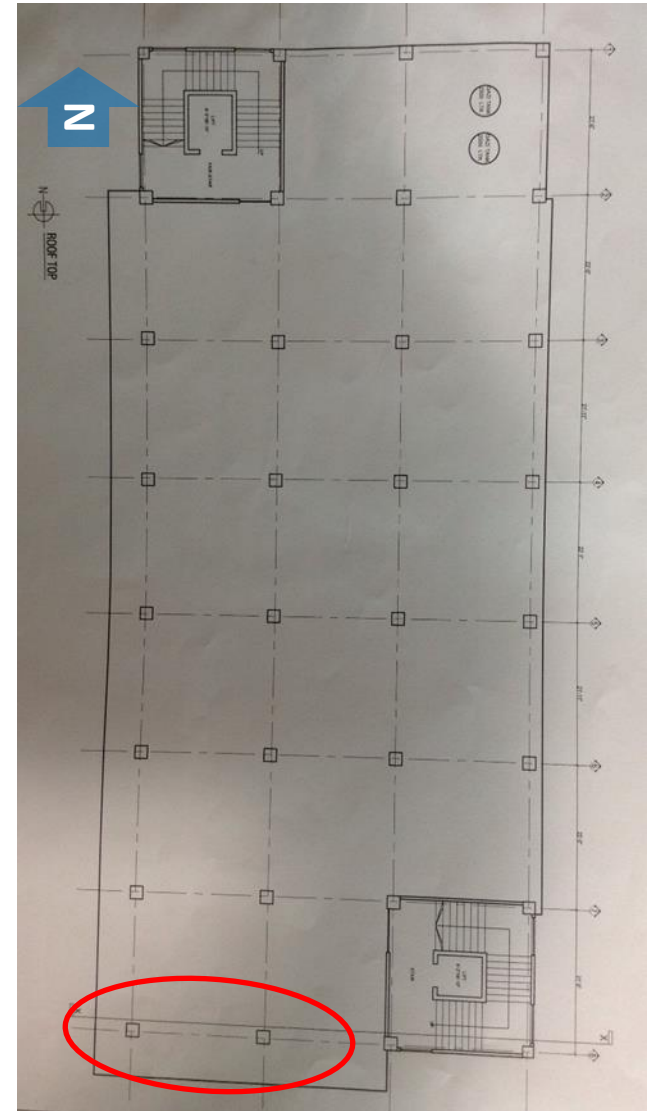
Fabric roll and loose garments



Columns on loading bay unprotected from traffic impact.



Columns in loading bay unprotected from traffic impact.



Typical ground floor layout

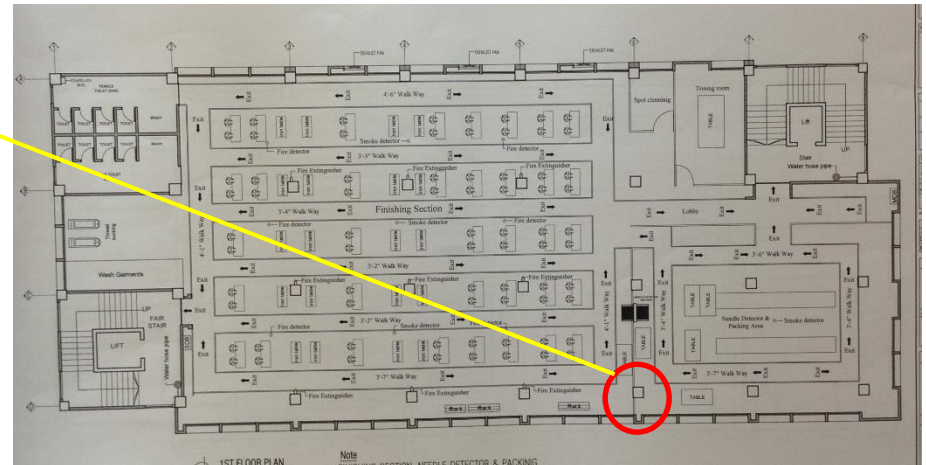
## Columns in Loading Bay

Stone Aggregate noted in ground floor  
columns





**Stone Aggregate noted in ground floor columns**



**Typical ground floor layout – tested column**

# Priority Actions

# Problems Observed

**ITEM 1:** Water tanks on roof

**ITEM 2:** Minor cracks on walls perpendicular to cantilever on 5th floor and cantilevers appear to have deflected.

**ITEM 3:** Non Engineered steel roof to stair core

**ITEM 4:** Uncontrolled loading on the floor plates

**ITEM 5:** Columns on loading bay unprotected from traffic impact

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Water tanks on roof	Empty 5000 ltr. tank on the roof to be removed. The engineer to check the roof slab under the two full tanks. (2-2000ltr tanks.)	6-weeks
2	Water tanks on roof	Remove tanks if required.	6-months
3	Minor cracks on walls perpendicular to cantilever on 5th floor and cantilevers appear to have deflected	Building Engineer to check cantilever design for the wall loading and live load. Engineer to confirm likely deflection and its impact on the external wall.	6-weeks
4	Minor cracks on walls perpendicular to cantilever on 5th floor and cantilevers appear to have deflected	Restrict loading on the cantilevers to the design capacity from the engineering check.	6-months
5	Non Engineered steel roof to stair core	Engineer to review the steel roof structure to both stair cores and design a stable roof structure.	6-weeks
6	Non Engineered steel roof to stair core	Construct engineered roof to stair core	6-months

Item No.	Observation	Recommended Action Plan	Recommended Timeline
7	Uncontrolled loading on the floor	Limit loading on the floor plate to 2kPa	6-weeks
8	Uncontrolled loading on the floor	Produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor capacity and column capacity	6-months
9	Uncontrolled loading on the floor	Continue to implement load plan.	6-months
10	Columns on loading bay unprotected from traffic impact	Engineer to review loading bay columns and their vulnerability to impact from truck. Design column protection.	6-weeks
11	Columns on loading bay unprotected from traffic impact	Implement design	6-months