

# 5F Apparels Ltd

Zirabo Bazar, Ashulia, Savar, Dhaka.

(23.914915N, 90.319821E)

28<sup>th</sup> January 2015



# Non Structural Observation

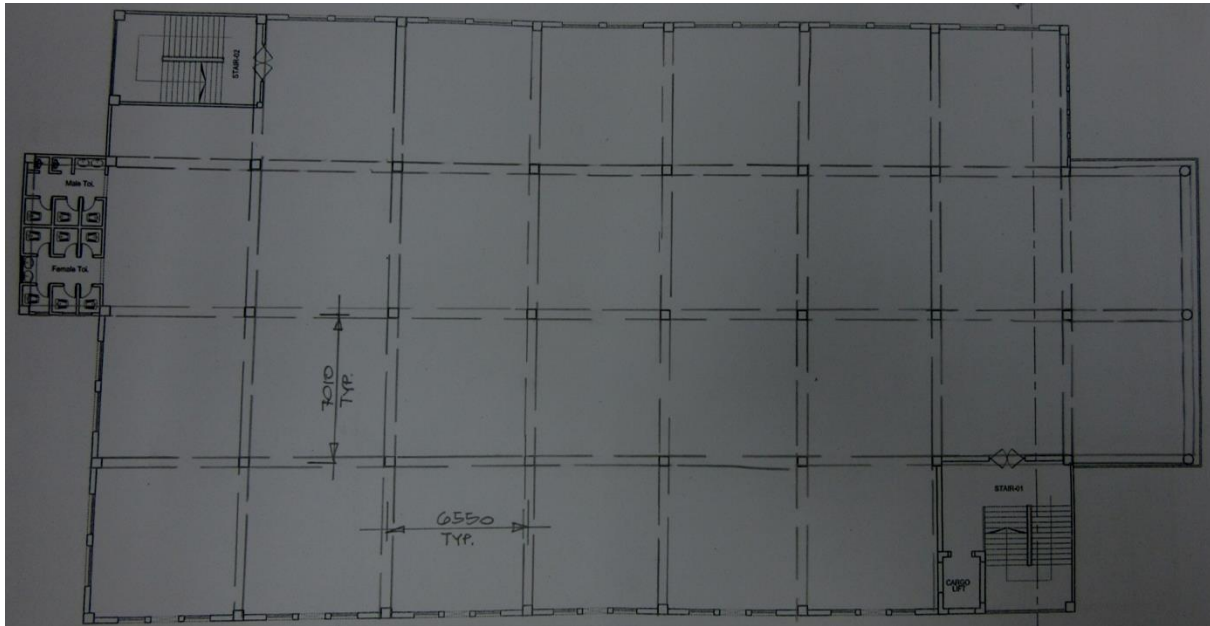


No edge protection was provided on the roof

## Lack of edge protection

# Observations

**High stress levels will exist  
in columns when all floor levels have been  
constructed**



The structural certificate provided indicates that the building design loads are :

Live Load 80psf

Typical floor finishes 25psf

Roof finishes 40psf.

Cursory calculations indicate that columns at Ground Floor level will be highly stressed when all floors (up to roof of 5<sup>th</sup> storey) have been constructed and are subjected to the floor loading noted above.

## High stress levels in columns

# Apparently non-engineered structures



Temporary corrugated steel sheeted structure over stair

## Apparently non-engineered structures



# Columns Vulnerable to Impact Damage



Columns Vulnerable to Impact Damage on North Elevation

## North Elevation Columns

# Priority Actions

# Problems Observed

**ITEM 1: High stress levels in columns will exist when all floor levels have been constructed**

**ITEM 2: Apparently non engineered roof structures**

**ITEM 3: Impact vulnerability to columns supporting 2<sup>nd</sup> / 3<sup>rd</sup> floor structure on North Elevation**

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	High stress levels in columns when all floor levels have been constructed	Factory Engineer to review design, floor loads and column stresses in all columns for the 6 storey building.	6-months
2	High stress levels in columns when all floor levels have been constructed	Use existing concrete test data or take 100mm diameter cores from a minimum of 4 columns at Ground Floor level to verify insitu concrete strength.	6-months
3	High stress levels in columns when all floor levels have been constructed	Produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor capacity and column capacity.	6-months
4	Apparently non-engineered roof to stairs	Building engineer to check the capacity of the lightweight roofs to the stairs and dining areas and make any necessary alterations.	6-months
5	Impact protection to columns	Building Engineer to review column design and potential for vehicle impact to columns at northern end of factory. If appropriate impact protection to be provided.	6-months