

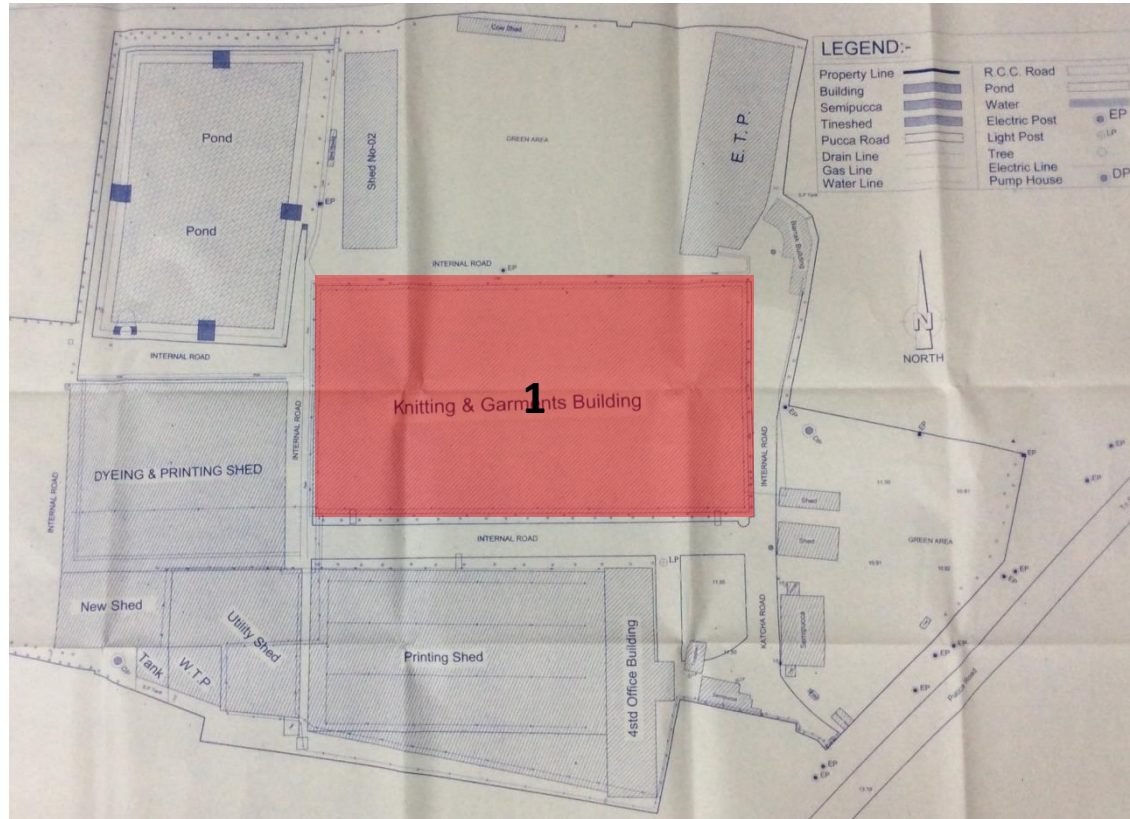
# A-One Polar Ltd

Bhulta, Rupgonj, Narayangonj.  
(23.754782, 90545710)  
27th April 2014



# Observations

# Observations Knitting & Garments building Building 1



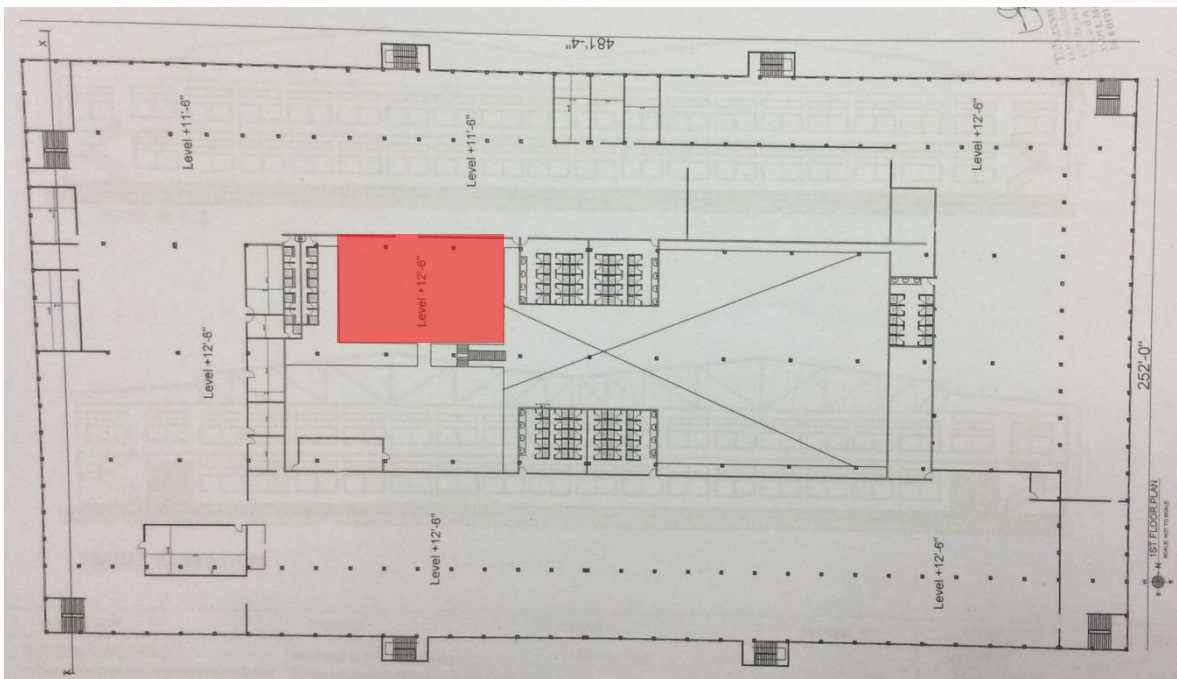
# Roof structure: no roof bracing



Stability: No roof bracing observed  
Structure relies on roof deck for  
transferring horizontal loads to  
façade walls.



# Heavy loadings on first floor



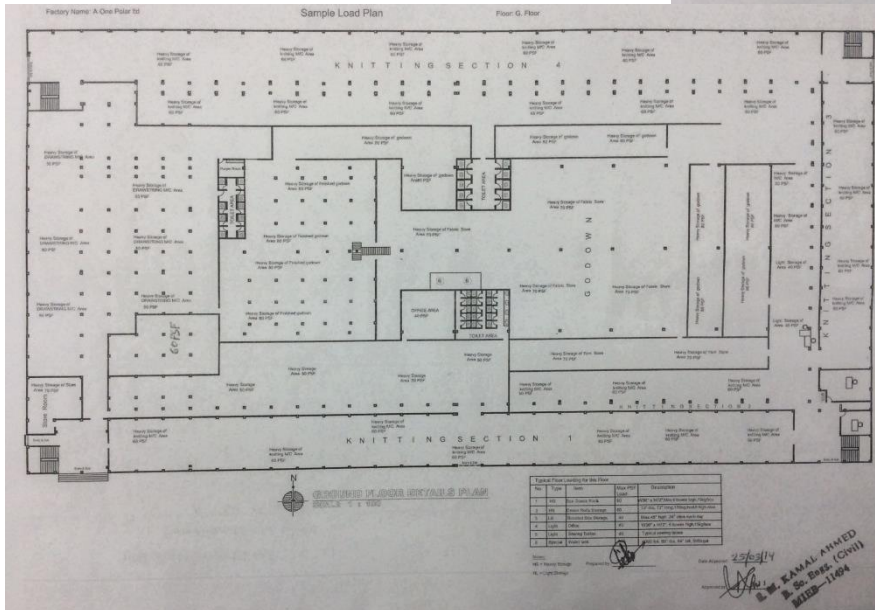
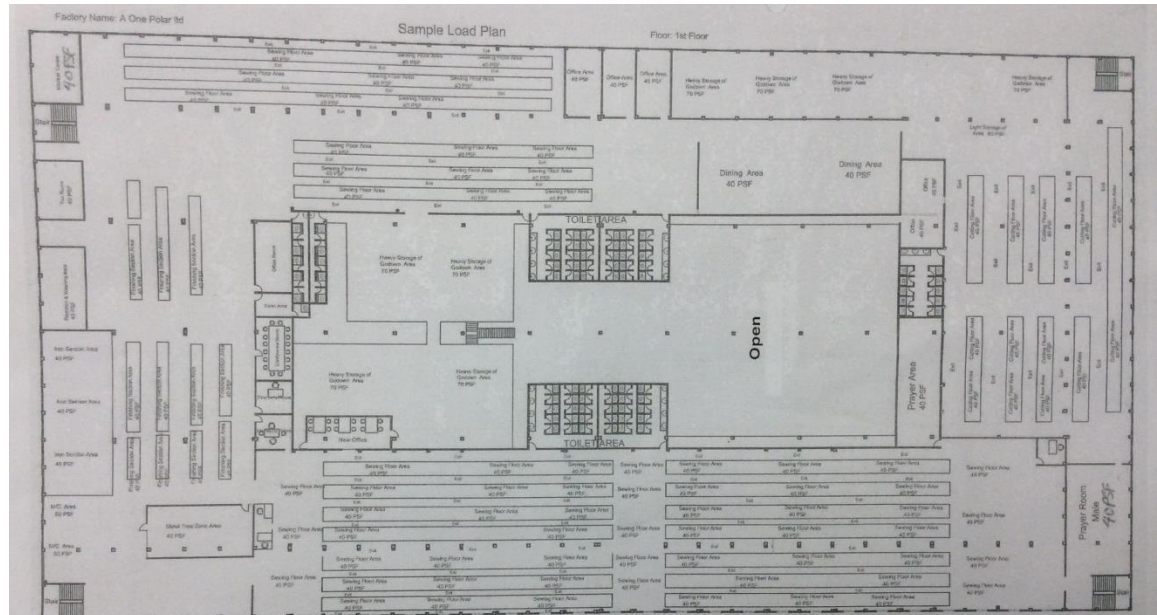
**1st floor**

**Heavy loadings on 1<sup>st</sup> floor slab**

**Storage ± 3 kN/m<sup>2</sup>**



Loading plan provided dated 25-03-14



1st floor

Ground floor

# Observed Aggregate

**Brick aggregate was observed in columns  
at ground floor and in slab 1<sup>st</sup> floor**



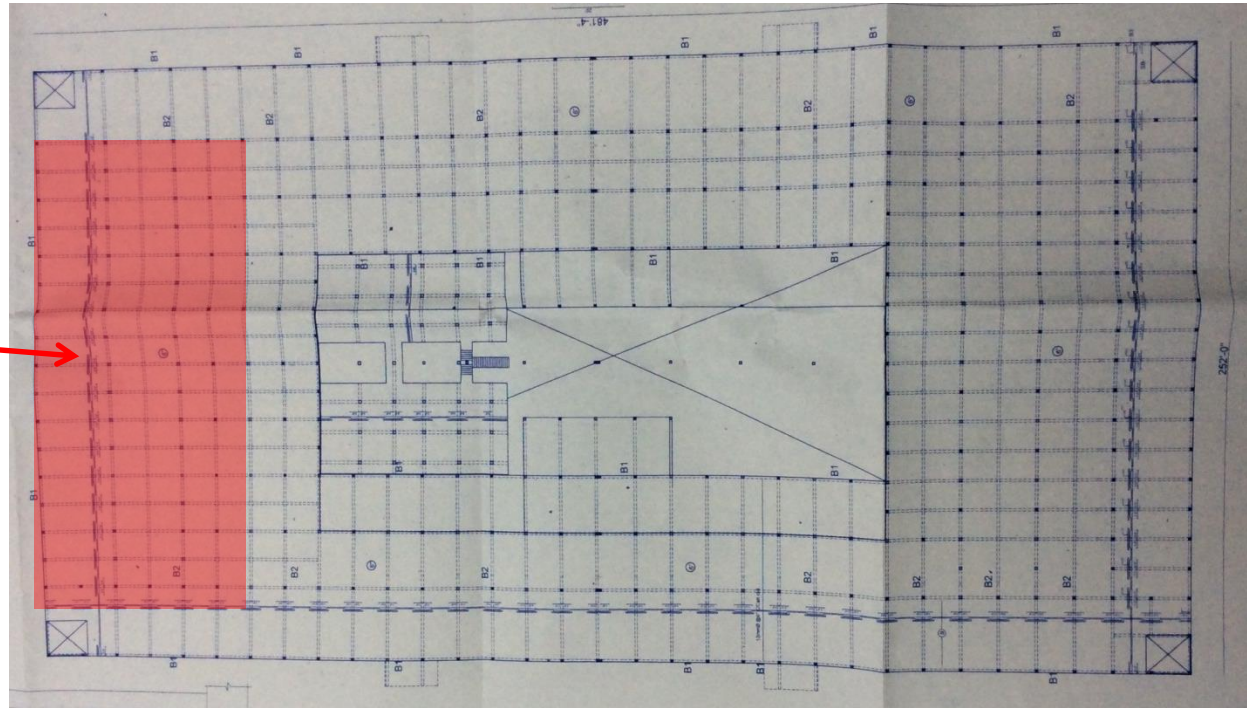
**Brick aggregate in slab 1<sup>st</sup> floor**



**Brick aggregate in column**

# Discrepancies between structural drawings and as-built situation

**Observed area**

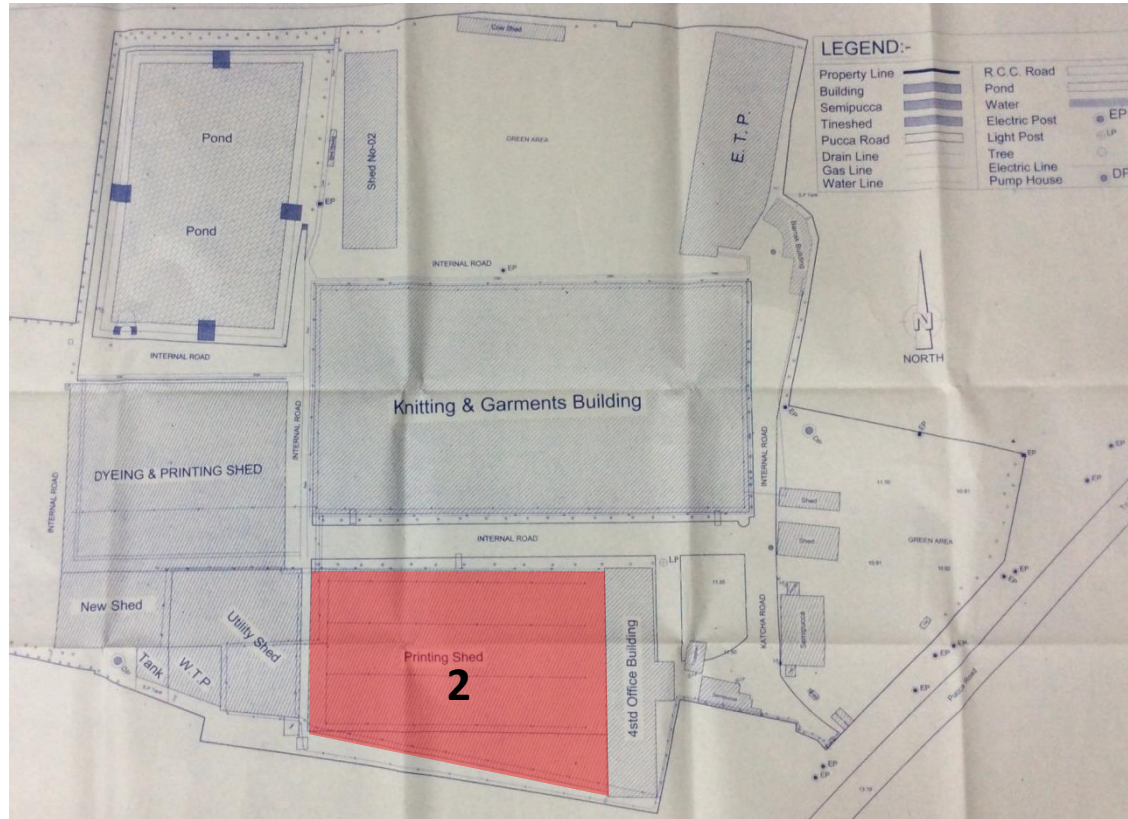


**Discrepancies between structural drawings and as-built situation:**

- Flat slab used instead of beam and slab used in two bays
- Grid and column location on ground floor do not match drawings



# Observations Printing Shed Building 2



# Roof structure: no roof bracing



**Stability: No roof bracing observed  
Structure relies on roof deck for  
transferring horizontal loads to  
façade walls.**

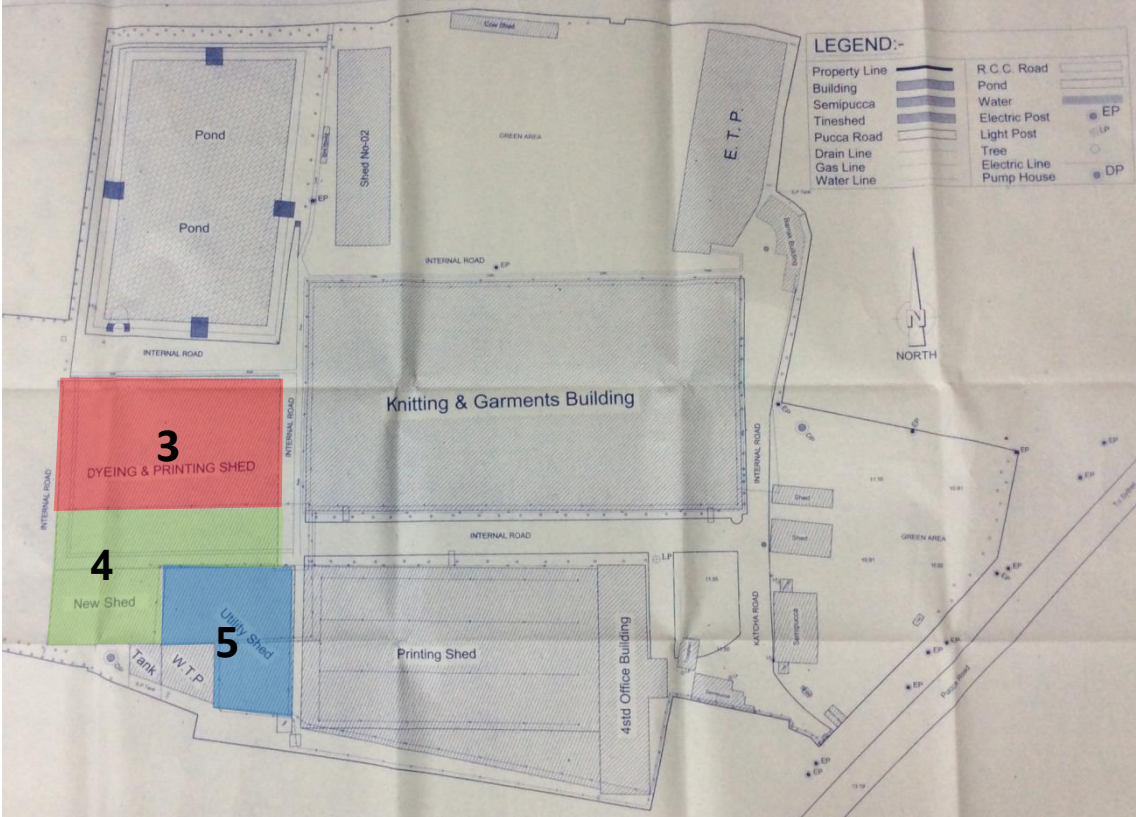


**Façade wall**



**Roof deck**

# Observations Dyeing & Printing Shed, New Shed and Utility Building Buildings 3, 4 and 5



# Roof structure: no roof bracing



New shed

Stability: No roof bracing observed  
Structure relies on roof deck for  
transferring horizontal loads to  
façade walls.

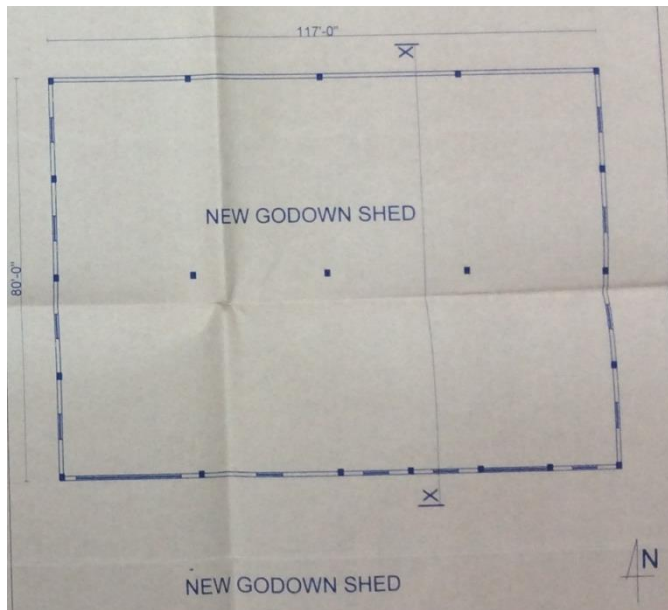


Dyeing & Printing shed



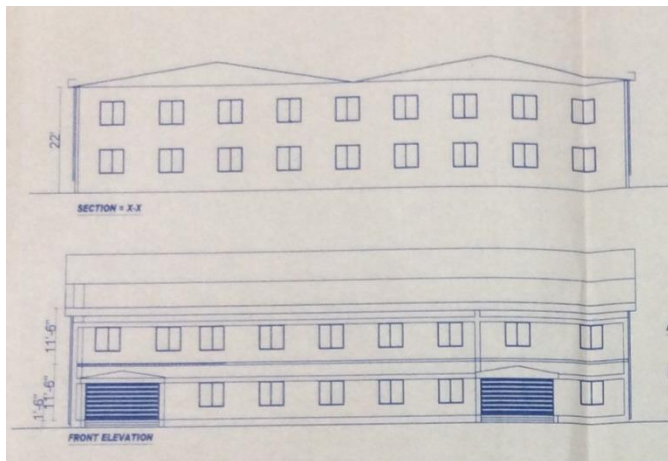
Utility shed

# Structural drawings do not match as built situation



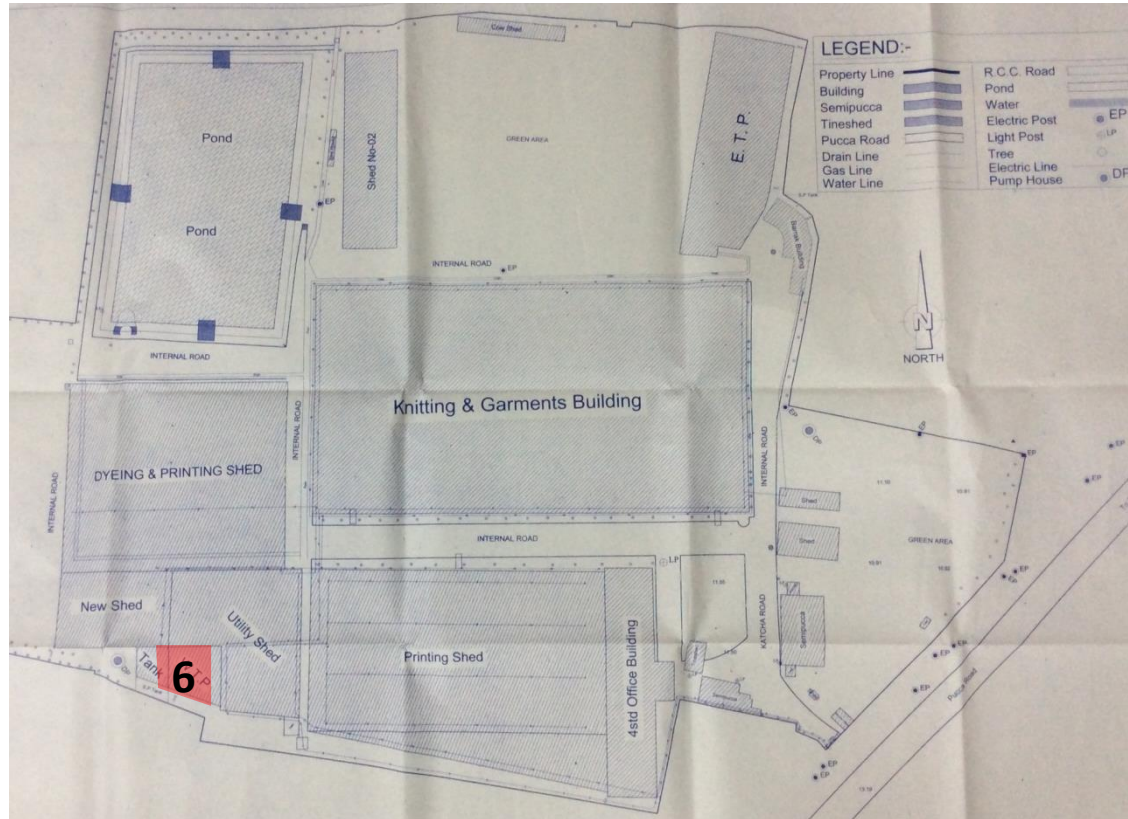
## Discrepancies between structural drawings and as-built situation of New Shed:

- Size and layout building do not match the drawings



New shed

# Observations WTP Building Building 6

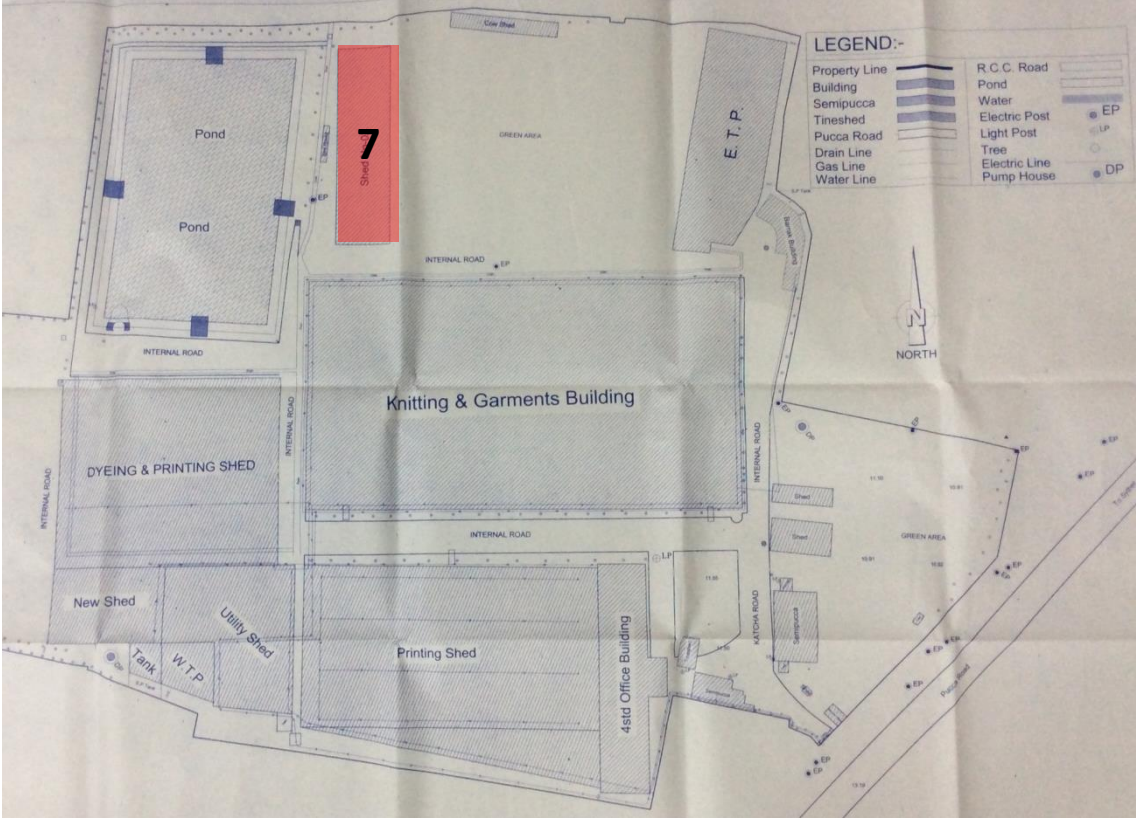


We were informed that as-constructed columns were made larger (collar of concrete cast around original columns) with addition corbels to facilitate higher floor loading. This was to enhance the capacity of the original cast beams and columns.



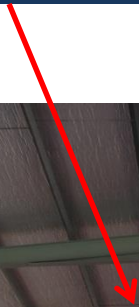
No permit drawing

# Observations Canteen Building 7



# Roof structure: no roof bracing

**Stability: No roof bracing observed  
Structure relies on roof deck for  
transferring horizontal loads to  
façade walls.**



**No permit drawing**

# Problems Observed

1. Differences between the as constructed and the structural drawings
  - Flat slab in area shown and beam and slab
  - Column sizes differ to as constructed
2. The lack of bracing in the roofs of all the building with reliance on the roof sheeting
3. The lack of drawings for the buildings under construction

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Differences between the as constructed and the structural drawings	Building engineer to check, collect information and produce accurate and complete as-built documentation.	6-weeks
2	Differences between the as constructed and the structural drawings	Building Engineer to assess what impact these differences have on the structural integrity of the building.	6-weeks
3	The lack of bracing in the roofs of all the building with reliance on the roof sheeting	Building engineer to review lateral stability of steel roof structure.	6-weeks
4	The lack of bracing in the roofs of all the building with reliance on the roof sheeting	Building engineer to design any additional structure deemed necessary.	6-weeks
5	The lack of drawings for the Water treatment building under construction	Engineer to analysis and design using verified material strengths and as built structural arrangement (E.g. reinforcement grade, concrete compression capacity for the structure prior to any loading of the building	6-weeks
6	The lack of drawings for the Water treatment building under construction	Loading of current constructed floor plates not to exceed the above analysis and justified design.	6-months