



Natural Denim Ltd (new building)

532, Tongabari, Savar, Dhaka

(23.901082 N, 90.325489 E)

9th October, 2016

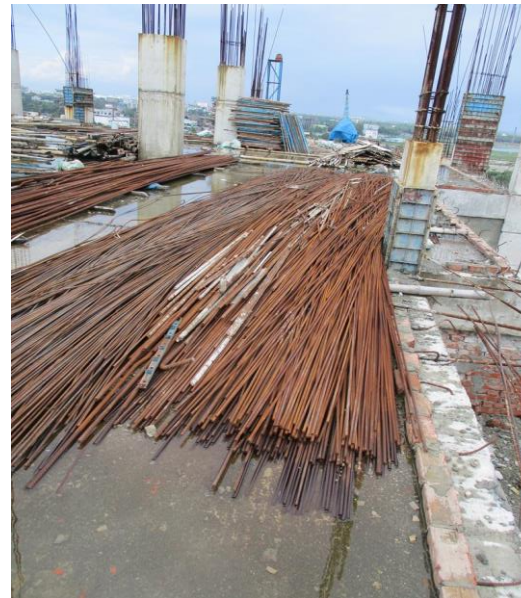




Observations



Construction debris and material was piled up in roof, exceeding design loading for current roof



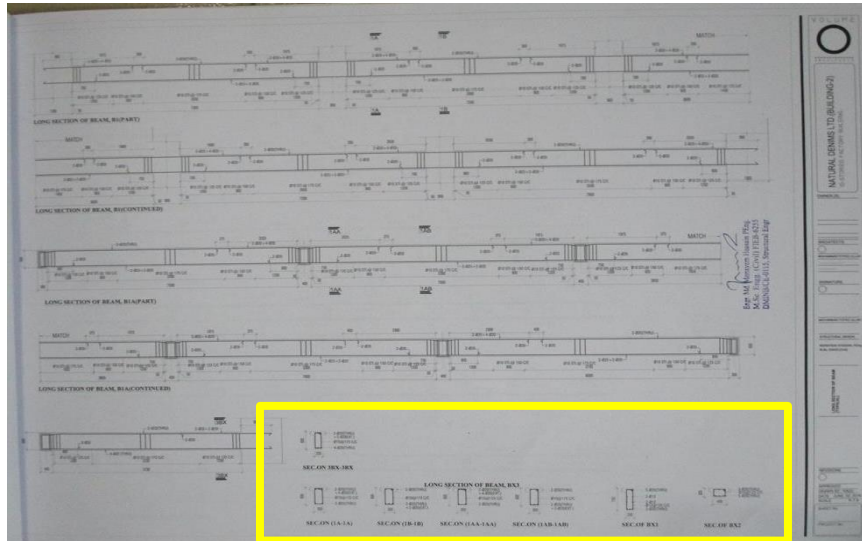
Construction debris and material piled up at current roof, which may exceed the design loading of floor capacity. Building engineer requires to actively maintain the construction material that not exceed the floor capacity.



Discrepancies between drawings & on-site observations



As built structural drawing shows main beam and sub/Secondary beams are same depth. It was observed that sub/secondary beams are minimum of 20 mm shorter than main beam.

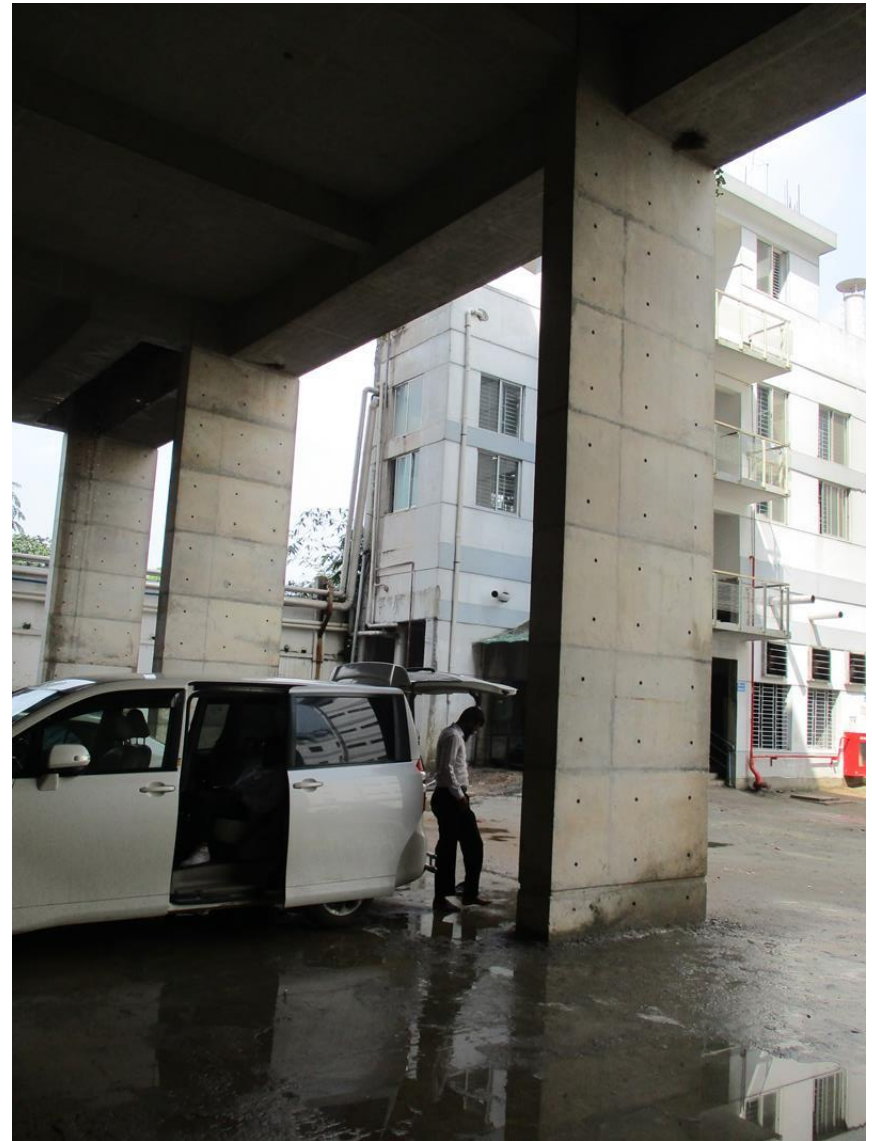




Columns susceptible to impact loading



Columns at Loading Bay are susceptible to impact loading from vehicles.





Water ponding and vegetation at roof



Water ponding at roof was observed and it cause vegetation at roof that also indicates poor drainage system. Building engineer requires to provide water proof coating and improve drainage system.





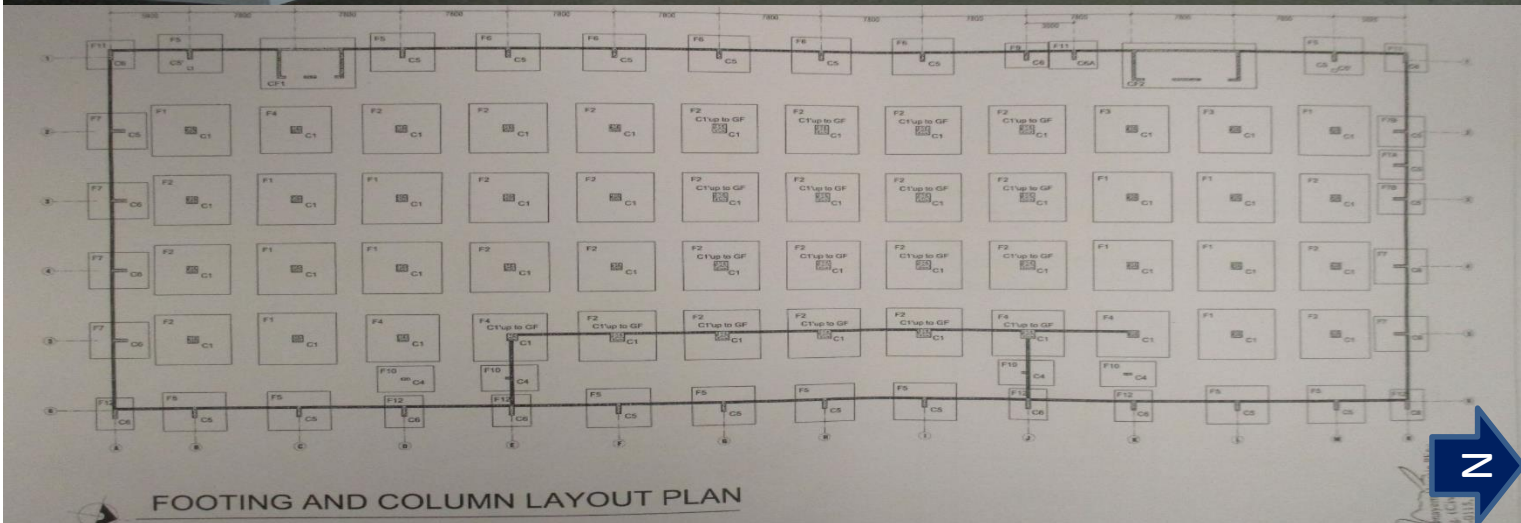
Worker Safety during construction



As construction works on going and will carry out, apply safe procedure to ensure worker safety during construction.



Lack of movement joints



No movement joints for almost 100 m span building.



Falling hazard at 1st floor roof due to boiler duct penetration at utility building



Due to boiler duct penetration at 1st floor surrounding concrete loosen up it may spalling down and its hazards for life safety.



Priority Actions



Problems Observed

1. Construction debris and material was piled up in roof, exceeding design loading for current roof.
2. Discrepancies between drawings & on-site observations.
3. Columns susceptible to impact loading.
4. Water ponding and vegetation at roof.
5. Worker Safety during construction.
6. Lack of movement joints.
7. Falling hazard at 1st floor roof due to boiler duct penetration at utility building.



Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Construction debris and material was piled up in roof, exceeding design loading for current roof floor.	Implement better control to prevent overload of floors by construction materials and derbies.	Immediate - Now
2	Construction debris and material was piled up in roof, exceeding design loading for current roof floor.	Implement better supervision of floor loadings in storage areas.	6-weeks
3	Discrepancies between drawings & on-site observations.	Engage a Building Engineer to survey the structure and update a full set of “as-constructed” drawings for Structural and Architectural.	6-weeks
4	Columns susceptible to impact loading	Building engineer to design appropriate impact protection for critical column within loading dock.	6-weeks
5	Columns susceptible to impact loading	Construct and maintain protection to critical column and continue to assess likelihood of vehicle impact to critical elements.	6-months
6	Water ponding and vegetation at roof	Waterproofing on the roof slab is to be applied. Moreover the roof slab drainage system should be investigated and improved.	6-months



Item No.	Observation	Recommended Action Plan	Recommended Timeline
7	Worker Safety during construction	Carryout construction works in safe manner to ensure worker safety.	Immediate - Now
8	Lack of movement joints	Building Engineer to check the static calculations for thermal and shrinkage effect of the 100m long structure system.	6-weeks
9	Falling hazard at 1st floor roof due to boiler duct penetration at utility building.	Carryout civil works in a safe manner around the penetration to prevent lose concrete Spalling.	6-weeks