

Bando Design Ltd

Purbo Narsinghapur, Earpur Union, Parishad Road, Ashulia, Dhaka
(23.560502, 90.181293)
29th March 2014



Observations

Building 1: Cracking in Beams and Slabs

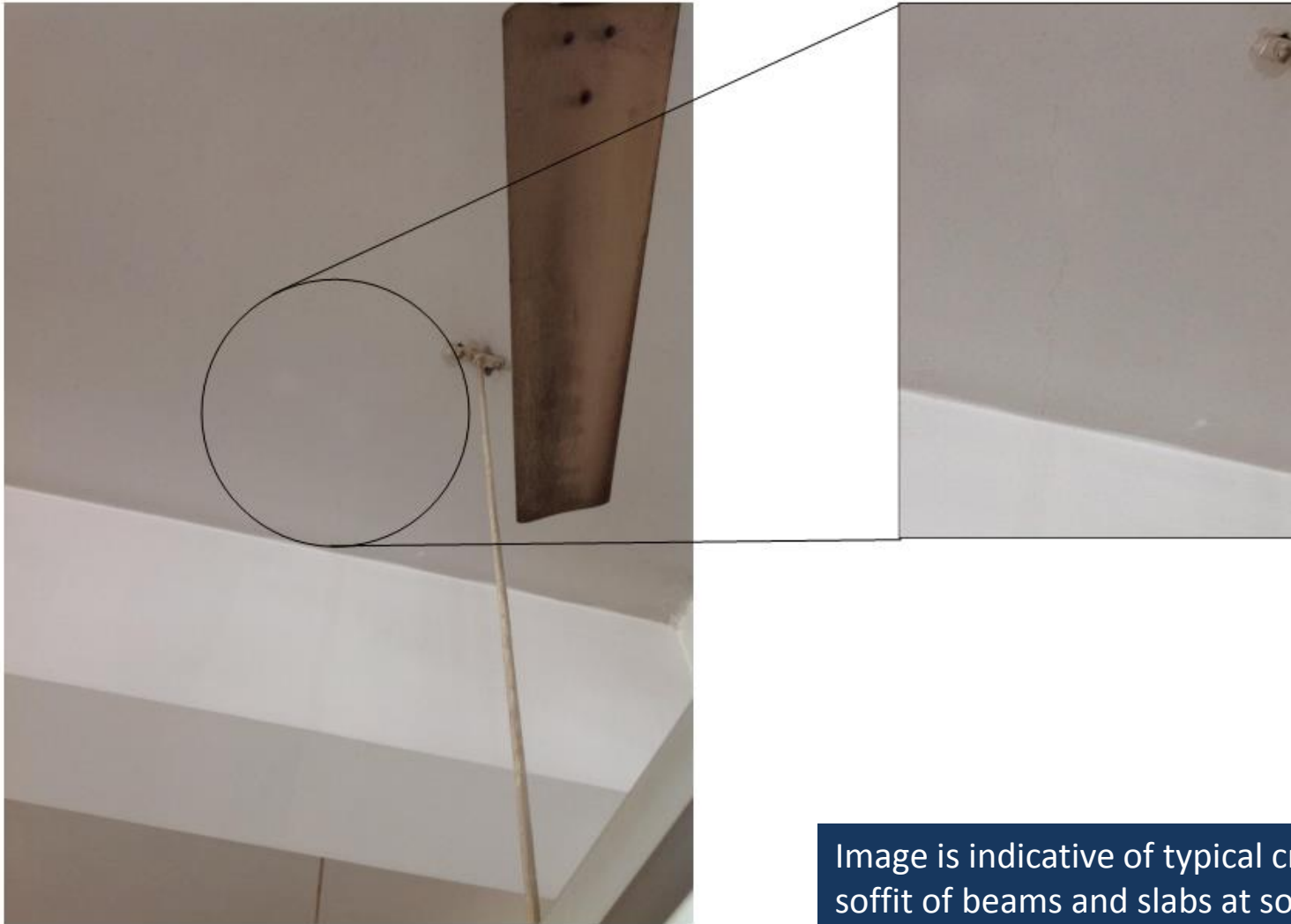
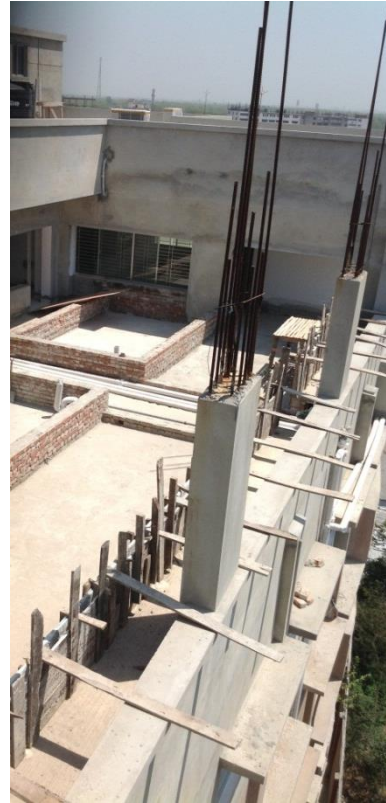


Image is indicative of typical cracking to soffit of beams and slabs at some levels.

Building 1: Beam and Slab Loading to Level 5 Garden



Structural arrangement to Roof level does not reflect drawings. It is understood that a roof-top garden is currently under construction to Level 5, with a thickness of soil to be added. In addition, within toilets adjacent to garden, building materials have been stored. Engineer to carry out assessment for slab and columns to carry roof garden (not on permit drawings) no further development to be carried out until study is completed

Building 1: Beam and Slab Loading

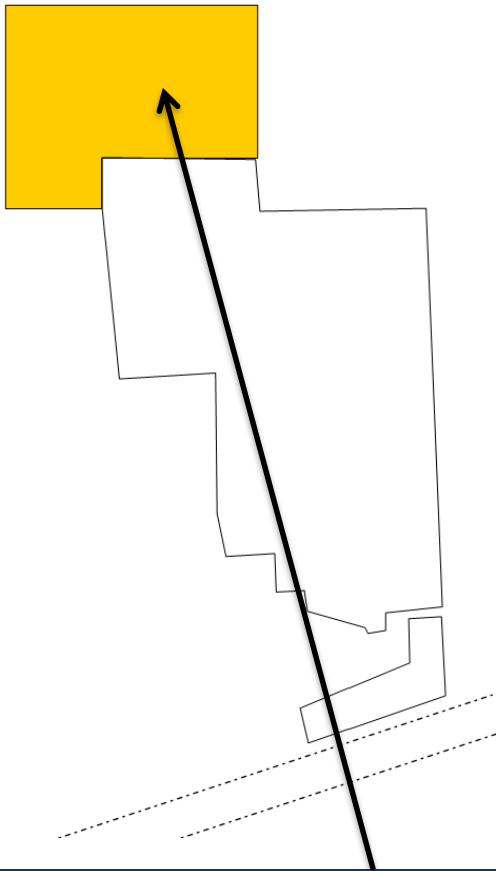
Building 2: Cracking in Facade



Some horizontal cracking is present in the main elevation of Building 2. It is understood to be at the interface between the reinforced slab and masonry wall above.

Building 3: Cracking in Facade

Building 3: Assumed Non-Engineered Steelwork Shed



Building 3 appears to consist of a lightweight steelwork trussed roof supported by steelwork columns or masonry walls. Structure appears to be 'non-engineered', as indicated by the structural form and some connection details, and unclear stability system.



Building 3: Steelwork Shed

Priority Actions

Problems Observed

BUILDING 1

ITEM 1: Cracking on Beams at Upper Levels.

ITEM 2: Loading from Roof Garden at Level 5.

BUILDING 2

ITEM 1: Facade cracking.

BUILDING 3

ITEM 1: Apparently non-engineered roof structures.

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	BUILDING 1 Cracking on Beams at Upper Levels	Monitor cracks on beams. Engage an engineer to investigate if cracks are only in the plastering.	6-months
2	BUILDING 1 Cracking on Beams at Upper Levels	Engage an engineer to advise on load reduction and repair and strengthening of the beams if required.	6-months
3	BUILDING 1 Loading from Roof Garden at Level 5	Construction of roof Garden to be halted	6-weeks
4	BUILDING 1 Loading from Roof Garden at Level 5	Building engineer to check the structures and made proposals for the reduction of loads, if required Engineer to carry out assessment for slab and columns to carry roof garden (not on permit drawings) no further development to be carried out until study is completed	6-months
5	BUILDING 2 Facade cracking	Engage an engineer to investigate if cracks are only in the plastering	6-months
6	BUILDING 2 Facade cracking	Engage an engineer to advise on load reduction and repairs and strengthening if required	6-months
7	BUILDING 3 Apparently non-engineered roof structures	Building engineer to check the structures and propose additional strengthening and bracing as required	6-weeks