

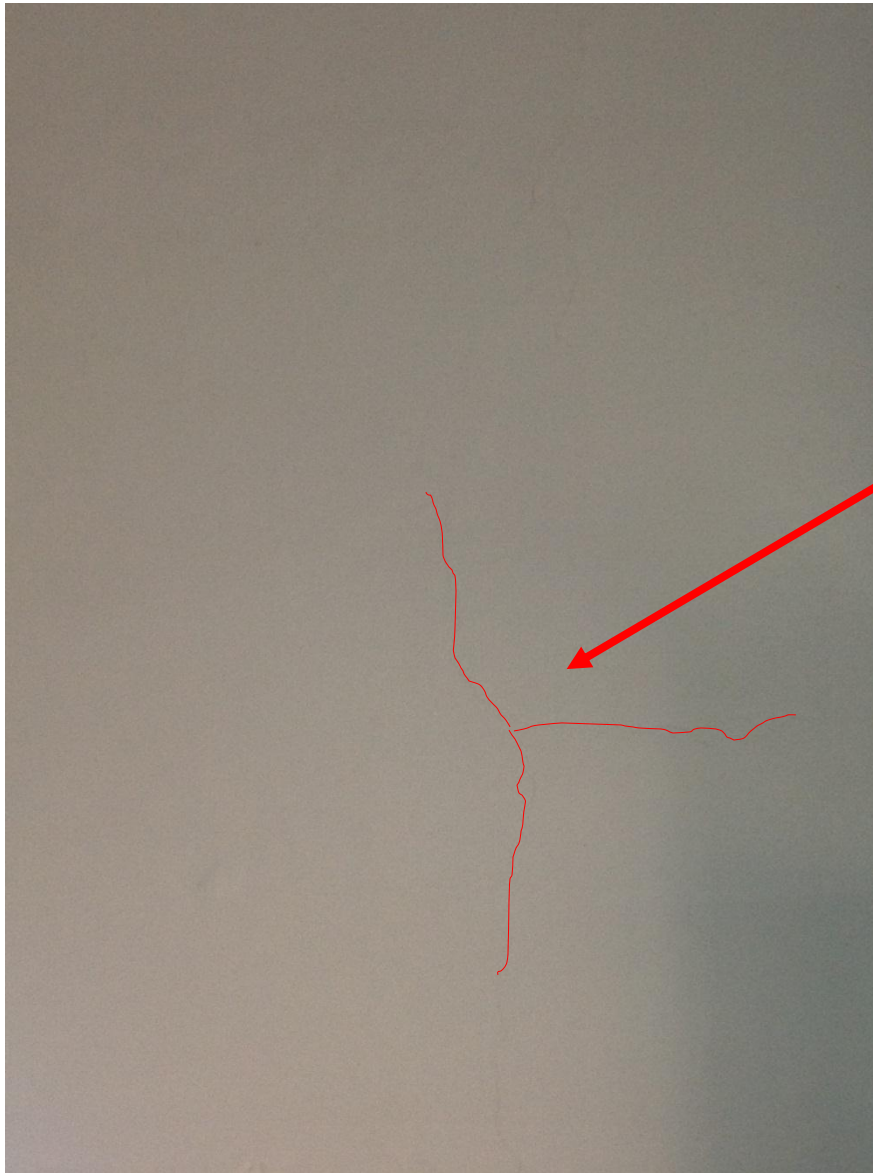
Karooni Knit Composite Ltd.

Ratanpur, Shafipur, Kaliakoir, Gazipur
(+24.040104N, 90.277323E)

02 October 2013



Flexural cracks to slab



Flexural cracks (hairline) to slab

Engineer to verify that slab has been designed to accommodate existing loading, and (if required) loading is to be reduced.

Flexural cracks to slab

Water causing damage and corrosion to slabs



Water causing external and internal damage to slabs.

Repair internal and external water damage, upgrade roof drainage and install adequate water proofing system.

Water causing damage and corrosion to slabs

Load management



Load management: Plan and height restrictions to be introduced to prevent future overloading.

Restriction to be based on design floor loading.



Load management

Stability of Northern external wall



Engineer to verify stability and capacity of Northern external wall and (if required) propose strengthening.

Stability of Northern external wall

Water causing damage and corrosion to facades



Water damage



Plaster has fallen off

Water causing damage and corrosion to facades

Roof maintenance



- Water tanks to be removed
- Construction debris to be removed
- Parapet to be installed
- Roof drainage and water proofing to be improved

Roof maintenance

Priority Actions

Problems Observed

1. Verify in-situ concrete strengths and compare to column stresses for typical internal columns
2. Flexural cracking to slab panels observed throughout building
3. Water causing damage and corrosion at roof slab – water ingress through cracks
4. Stability of external brick panels – fan/window interface
5. Damage to façade – plaster has fallen off and some water damage
6. No parapet to new roof slab and construction debris on roof; water tanks planned to be removed (currently empty)

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Verify in-situ concrete strengths and compare to column stresses for typical internal columns	Factory Engineer to review design, loads and columns stresses in area identified above.	6-weeks
2	Verify in-situ concrete strengths and compare to column stresses for typical internal columns	Verify insitu concrete stresses either by cores or existing cylinder strength data	6-weeks
3	Verify in-situ concrete strengths and compare to column stresses for typical internal columns	Produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor capacity and column capacity.	6-Months

Item No.	Observation	Recommended Action Plan	Recommended Timeline
4	Flexural cracks (hairline) observed on two-way spanning slabs throughout building – an initial check would suggest that the slab thickness is marginal for flexural capacity for industrial live loads	Slab panels to be verified by the Building Engineer and the loading reduced if necessary to suit the slab capacity	6-weeks
5	Flexural cracks (hairline) observed on two-way spanning slabs throughout building – an initial check would suggest that the slab thickness is marginal for flexural capacity for industrial live loads	Prepare and maintain load management plan for all slabs	6-Months
6	Water causing damage and corrosion at roof slab – water ingress through cracks.	Engineer to inspect water damaged structure and propose a suitable repair/ roof water proofing system. Roof drainage system to be upgraded.	6-weeks

Item No.	Observation	Recommended Action Plan	Recommended Timeline
7	Stability of external brick panels around fans/windows	Building Engineer to review design and restraint to panels and propose a suitable strengthening measure if required	6-Months
8	Damage to façade – plaster has fallen off locally and some water damage	Building Engineer to inspect damaged facade and propose a suitable repair.	6-Months
9	No parapet to new roof slab and construction debris on roof; water tanks planned to be removed (currently empty) - Empty water tanks and construction debris to be removed from roof; no parapet to new roof structure	Remove empty water tanks and construction debris	6-weeks

Item No.	Observation	Recommended Action Plan	Recommended Timeline
10	No parapet to new roof slab and construction debris on roof; water tanks planned to be removed (currently empty) - Empty water tanks and construction debris to be removed from roof; no parapet to new roof structure	Construct parapet to new roof structure	6-Months