

Masco Industries Ltd. (Composite Unit)

221-223 Khartail, Shataish Road, Tongi, Gazipur.
(23.9212132N), (90.3870028E)

3rd November, 2015



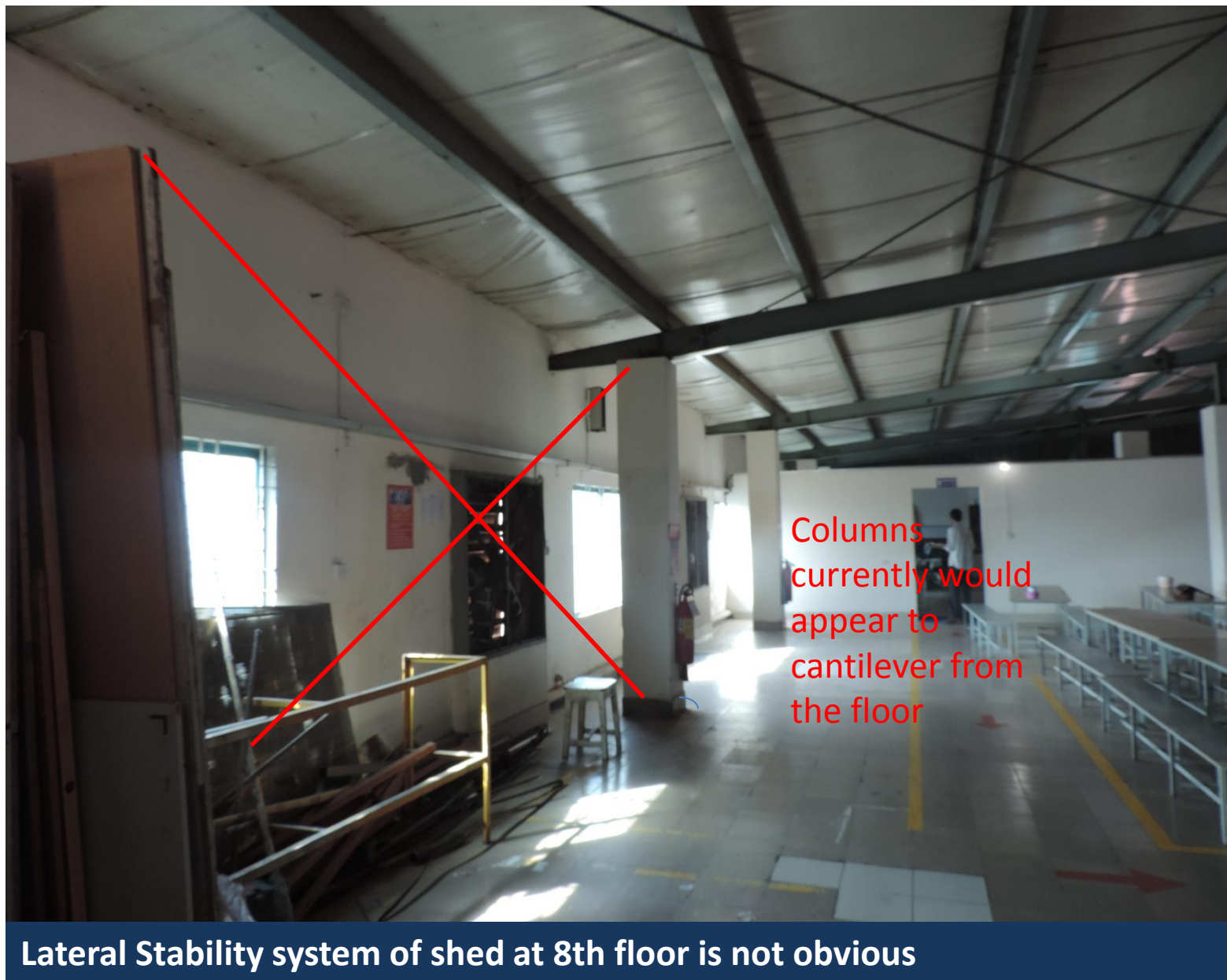
Observations

- Ground floor columns appear to be overstressed with their working loads
- Concrete Water tanks on the roof
- Lateral Stability system of shed at 8th floor is not obvious
- Stability of external wall.
- Toilets are on cantilever slab
- Cracking noted on downstand beams over the 3rd 6th and 7th floor
- Heavy loading on 1st and 2nd floor plates
- Minor difference between layout drawings and as built
- Stone chip in columns

Observations



Concrete Water tanks on the roof

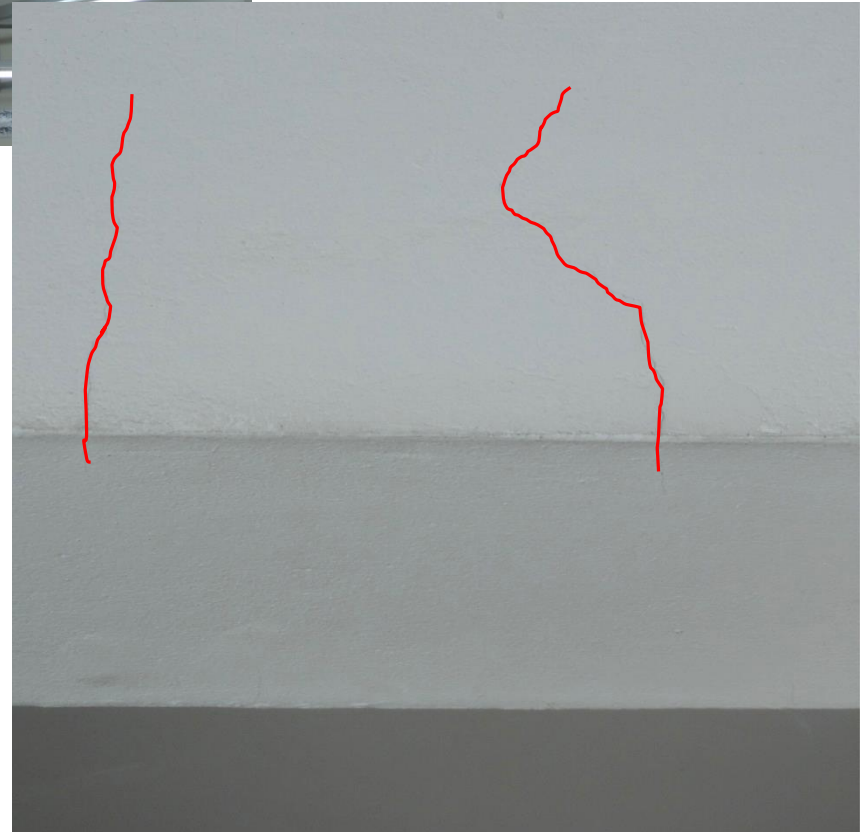
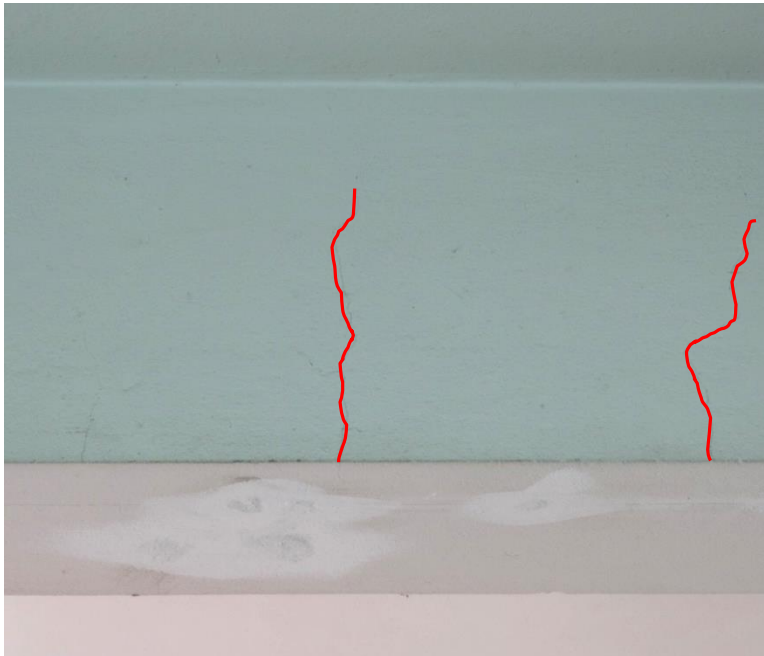




Lack of head restraint to external wall. The walls currently appear to cantilever from the floor slab



Toilets are on cantilever slab



Cracking noted on downstand beams over the 3rd 6th and 7th floor



Heavy loading on 1st and 2nd floor plates

Observations – 6



Minor difference between layout drawings and as built



Stone chips observed in column

Problems Observed

ITEM 1: The columns appear to be loaded in excessive of normal working stresses

ITEM 2: Lateral Stability system of the shed on the 8th floor

ITEM 3: Stability of external wall on the 8th Floor

ITEM 4: Cracking noted on downstand beams over the 3rd 6th and 7th floor

ITEM 5: Heavy loading on 1st and 2nd floor plates

ITEM 6: Minor difference between layout drawings and as built

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	The columns appear to be loaded in excessive of normal working stresses	Factory Engineer to review design, loads and columns stresses in area identified above.	6-weeks
2	The columns appear to be loaded in excessive of normal working stresses	Verify insitu concrete strengths (using min. 4 no. 100mm dia. Cores) and existing reinforcement for all columns.	6-weeks
3	The columns appear to be loaded in excessive of normal working stresses	Produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor capacity and column capacity.	6-weeks
4	The columns appear to be loaded in excessive of normal working stresses	Implement the loading plan as required by the above study	6-months

Item No.	Observation	Recommended Action Plan	Recommended Timeline
5	Lateral Stability system of shed 8th floor	The engineer to review by calculation the 8th floor structure and its ability to resist lateral loads	6-weeks
6	Lateral Stability system of shed 8th floor	Carry out remedial work in accordance with the above study	6-months
7	Stability of external wall on the 8th Floor	Engineer to access by calculation the stability of the external walls to the 8th floor, in particular the head restrain of the wall	6-weeks
8	Stability of external wall on the 8th Floor	Implement the recommendations from the above assessment	6-months

Item No.	Observation	Recommended Action Plan	Recommended Timeline
9	Cracking noted on downstand beams over the 3rd 6th and 7th floor	The Engineer to carry out investigation into the cracking noted on the downstand beams.	6-weeks
10	Cracking noted on downstand beams over the 3rd 6th and 7th floor	Reduce loading or carry out remedial actions as required from the above study.	6-months
11	Heavy loading on 1st and 2nd floor plates	The floor slabs to be accessed by calculation by the engineer to carry the substantial storage loading from the storage of fabric and other materials.	6-weeks
12	Heavy loading on 1st and 2nd floor plates	Produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor capacity and column capacity	6-weeks
13	Heavy loading on 1st and 2nd floor plates	Remove all uncontrolled loading	6-weeks

Item No.	Observation	Recommended Action Plan	Recommended Timeline
14	Heavy loading on 1st and 2nd floor plates	Reduce the loading in accordance with the above study	6-months
15	Minor difference between layout drawings and as built	Building engineer to update the as-built drawings to reflect the newly built walls on the 2nd floor	6-months