

KDS Washing Plant

251-252, Nasirabad I/A, Baizid Bostami Road, Chattogram, Bangladesh
(22.392529, 91.819859)
15 September 2022

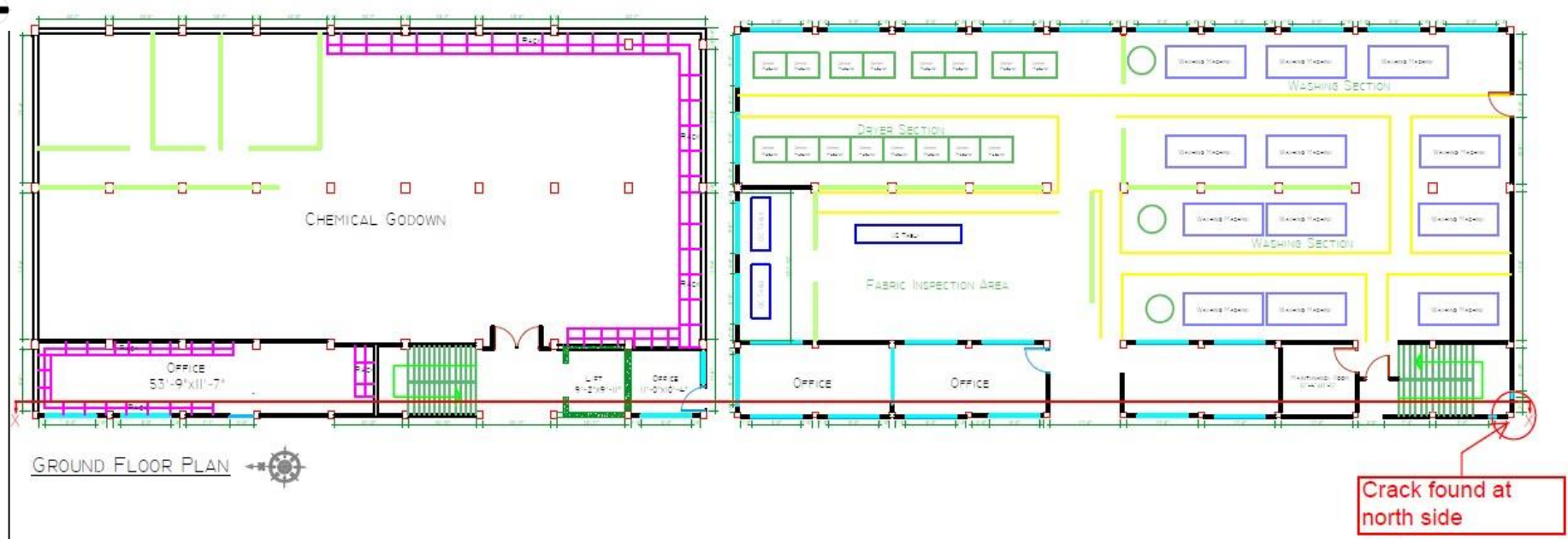


Buildings Information

1. Block-B Building seven (G+6) reinforced concrete building.

Observations

Damaged column found at Factory Building



Damaged Column

Damaged column was found on the south-west corner of the ground floor at the stair area (Marked in Figure-1) of the 7-storied factory Building (Block-B).

The factory must immediately engage a consultant to investigate the damaged column. Any safety measures, if required as suggested by the consultant must be taken immediately to ensure safety.

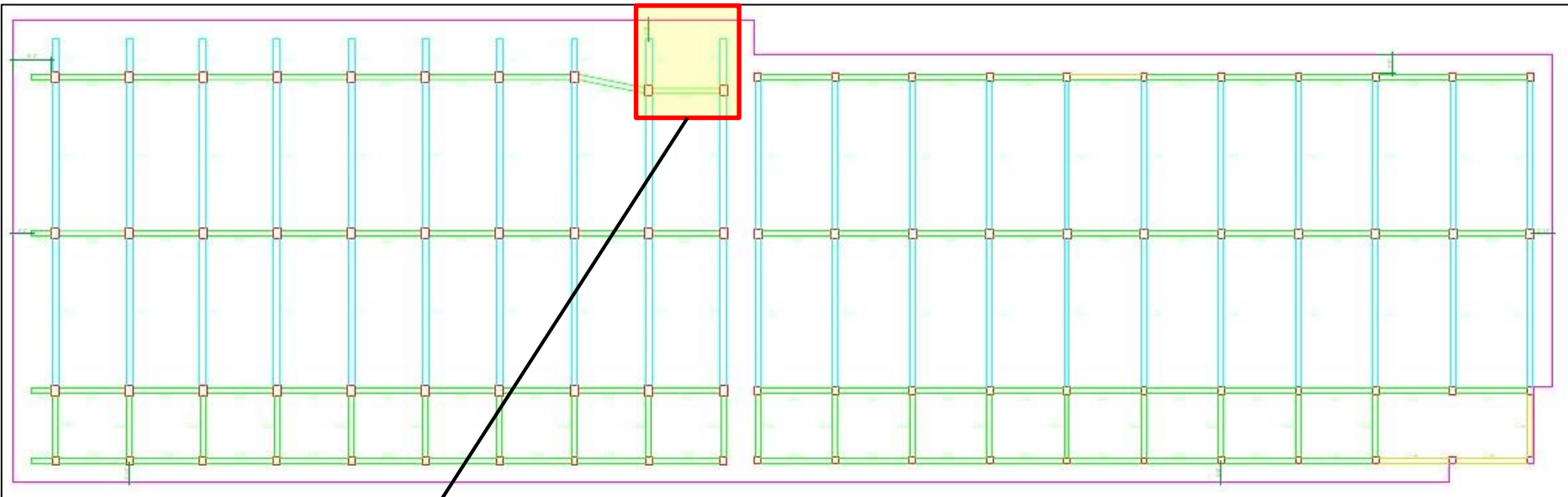
Load plan not posted on floors



Storage loading

The floor load plan was accepted by Alliance as part of DEA. Factory completed the required retrofitting works. But load plan was not found posted in each floor. Factory engineer is required to post final load plan in each floor and maintain the floor loading accordingly.

Mismatch in as-built drawings



Beam Layout Plan



Additional room in front of stair

Undocumented toilet block was found at marked location. The toilet block was found with 225mm build up supported by cantilever beam. Factory engineer is required to update the as-built drawing and provide the adequacy of the cantilever beam and slab against the super imposed load from toiler block.

Non-structural elements not anchored or braced



Rack on floor level

Racks on different floors are not adequately anchored or braced to resist lateral (earthquake) forces. Adequately anchor and brace all non-structural elements (all buildings) to resist earthquake forces to comply with the BNBC.

Trolly impact on Column



RC Column was found damaged due to the impact with trolley. Factory engineer is required to investigate the damage and suggest a remedial action as well as provide suggestion to prevent such damages in future. Factory is required to follow the suggestion of the engineer for remedial actions.

Water ponding at roof

Observation: Block- B



Water ponding at Roof

Water ponding was found on the roof slab due to inadequate slope. The factory is required to develop proper drainage system with adequate slope and water outlet on the roof.

Observation: Block- B

Test Carried Out



Rebar Scan



Brick chips at column (Block-B)

Problems Observed

Block-B:

Item-01: Damaged column found at Factory Building.

Item-02: Load plan not posted on floors.

Item-03: Mismatch in as-built drawings.

Item-04: Non-structural elements not anchored or braced.

Item-05: Trolley impact on Column.

Item-06: Water ponding at roof.

Priority Actions

Item No.	Observation	Recommended Action Plan	Recommended Timeline
01	Damaged column found at Factory Building. (Block-B)	Factory is required to engage a qualified engineer to investigate the damaged column.	(Immediate - Now)
02	Damaged column found at Factory Building. (Block-B)	Factory engineer is required to investigate the adequacy of damaged column suggest for props if required.	(Immediate - Now)
03	Damaged column found at Factory Building. (Block-B)	Factory is required to provide props as per recommendation of investigation report.	(Immediate - Now)
04	Damaged column found at Factory Building. (Block-B)	Factory engineer is required to investigation the damage column including reason of damage, extend of damage and suggest proper remedial action.	6-weeks
05	Damaged column found at Factory Building. (Block-B)	Remediation work must be completed as per the recommendation of investigation report.	6-months

Item No.	Observation	Recommended Action Plan	Recommended Timeline
06	Load plan not posted in floor (Block-B).	Post the floor live load plan in each of the floors and Implement the load management programs effectively.	6-weeks
07	Mismatch in as-built drawings (Block-B)	Building engineer is required to prepare accurate as-built drawing in compliance with section 1.9.1.2 (part-6, BNBC).	6-weeks
08	Non-structural elements not anchored or braced (Block-B)	Adequately anchor and brace all non-structural elements (all buildings) to resist earthquake forces to comply with the BNBC.	6-weeks
09	Trolley impact on Column. (Block-B)	Factory engineer is required to investigate the damage and suggest a remedial action as well as provide suggestion to prevent such damages in future.	6-weeks
10	Trolley impact on Column. (Block-B)	Carry out remedial works as per recommendation	6-months

Item No.	Observation	Recommended Action Plan	Recommended Timeline
11	Water ponding at roof. (Block- B)	The factory engineer to develop proper drainage system with adequate slope to resist water ponding on the roof.	6-months