

ECHOTEX LTD. (New Building)

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(24.037672, 90.258341)

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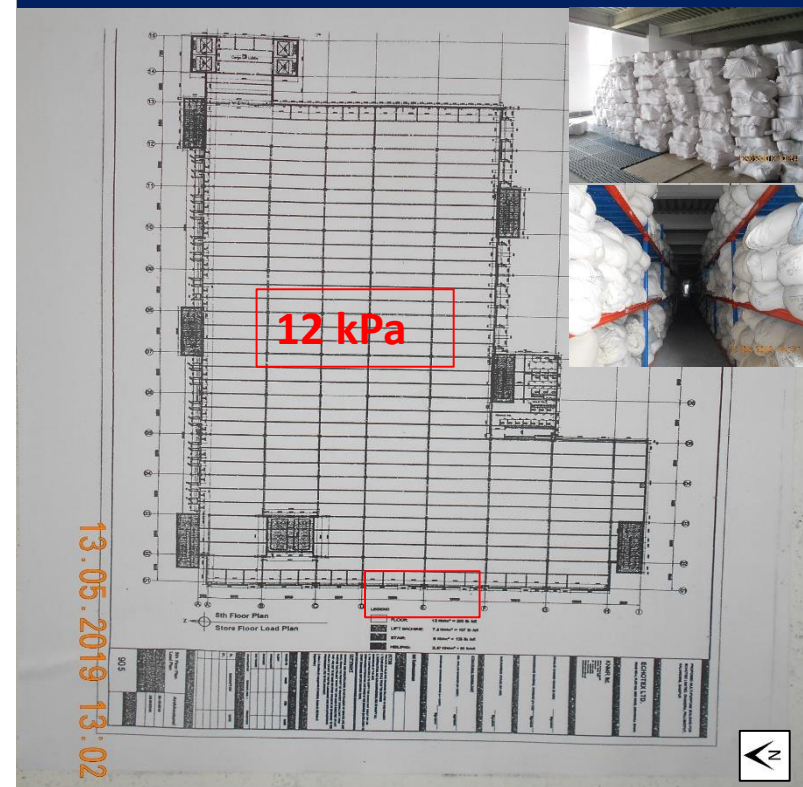
Observations



Confirmation of steel grade & stability system



Prepared live load plan considered 12 kPa on general floors.



During inspection, steel plate test report was not available. Cursory calculation indicates that the working stress of ground floor steel columns (considering $f_y=248$ MPa (36 ksi)) are above the normal design limits. However, considering the $f_y=345$ MPa (50 ksi) the working stress of ground floor steel columns are satisfactory. We have considered the provided drawings for calculation as we weren't able to measure the steel column size & thickness. Building engineer is required to carryout plate load test to confirm the steel grade and review the design based on material strength & as-built sectional properties.

Observation



Connection between steel beam and shear wall

Steel beams are connected to the RC shear walls. Design report/calculation was not available to determine the contribution of shear walls and diaphragm action in lateral stability system.



Flexible/partially fixed connections at beam-column joint are assumed.

Building engineer is required to check the overall stability system of the building.



Problems Observed

1. Confirmation of steel grade & stability system.



Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Confirmation of steel grade & stability system	Building engineer is required to perform the steel plate test to confirm the steel grade.	6-weeks
2	Confirmation of steel grade & stability system	Factory engineer is required to determine the contribution of shear walls and diaphragm action in lateral stability system.	6-weeks
3	Confirmation of steel grade & stability system	Review the design based on the test report.	6-weeks
4	Confirmation of steel grade & stability system	Produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor capacity and column capacity. Also comply the loading according to BNBC.	6-weeks
5	Confirmation of steel grade & stability system	Implement floor load management program.	6-months
6	Confirmation of steel grade & stability system	Carryout remedial works arise from Engineering Assessment where necessary.	6-months