Four Design (Pvt.) Ltd.

Plot#S-7,S-8, BSCIC, Hosiery I/E, Shashongaon, Fatullah, Narayanganj, Bangladesh.
(23.626458N, 90.480142E)
8th February 2021

RSC RMG SUSTAINABILITY COUNCIL

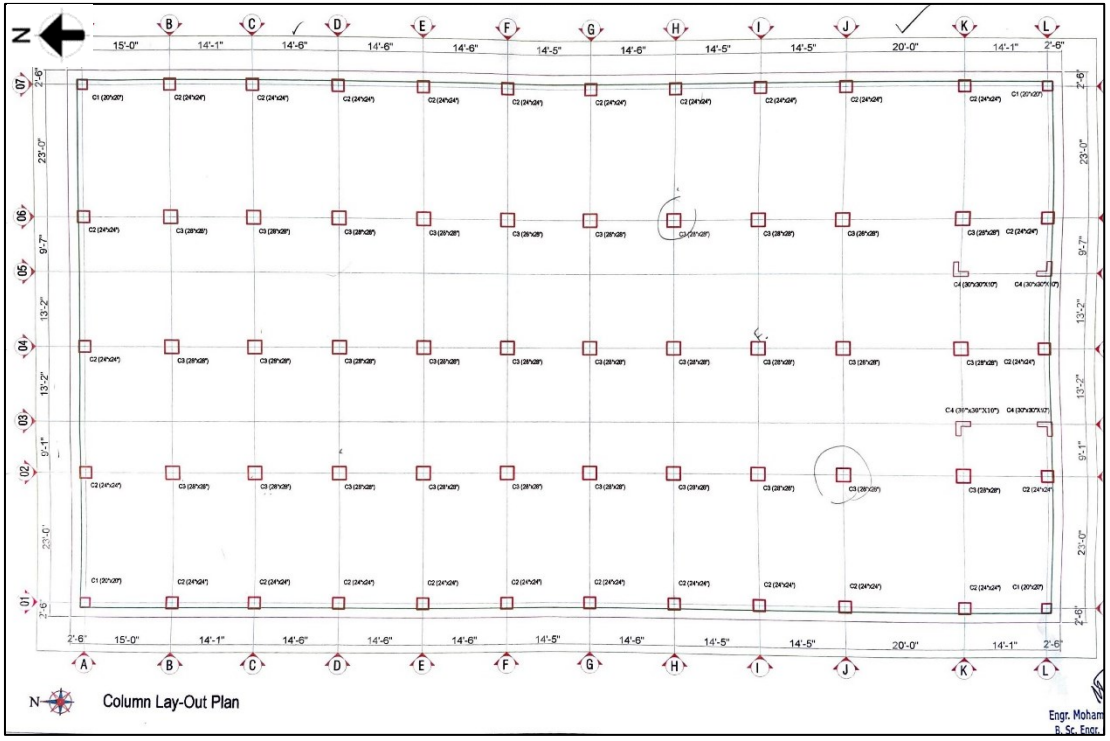
Buildings Information

1. Garments Building (G+9)
2. Utility Building (Single storied)

Observations

Column to be stressed exceeds normal design limit

Observations: Garments Building



Column Layout Plan

Helipad Loading

O.W.T Loading

Toilet partition wall Loading

Floor Loading

Cursory calculation indicates that columns are stressed above normal design limit considering prepared live load plan and minimum concrete strength based on aggregate type. Factory engineer is required to review design, load & column stress.

Observations: Garments Building

Lack of information in as-built drawing

Observations : Utility Building

There was a partial construction drawing to review. Factory engineer is required to survey the structures and prepare as-built drawings, in compliance with section 1.9.1.2 as per BNBC 2006.

Observations: Utility Building

Exposed rebar at roof

Observations: Utility Building

Corrosion was observed on exposed reinforcements at roof top columns. All exposed reinforcements are to be protected from corrosion which may cause degradation of the concrete.

Observation : Utility Building

Problems Observed

Garments Building:

Item-01: Column to be stressed exceeds normal design limit.

Utility Building:

Item-02: Lack of information in as-built drawing.

Item-03: Exposed rebar at roof.

Priority Actions

Item No.	Observation	Recommended Action Plan	Recommended Timeline
01	Column to be stressed exceeds normal design limit. (Garments Building)	Factory Engineer to review design, loads and columns stresses.	6-weeks
02	Column to be stressed exceeds normal design limit. (Garments Building)	Verify in situ concrete stresses either by 100mm dia. cores or existing cylinder strength data or [100mm dia. cores from 4 columns].	6-weeks
03	Column to be stressed exceeds normal design limit. (Garments Building)	Factory Engineer to prepare design report as per BNBC (part 6; Article 1.9.1) by reviewing design, loads and capacity of structural members	6-weeks
04	Column to be stressed exceeds normal design limit. (Garments Building)	Produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor capacity and column capacity.	6-weeks
05	Column to be stressed exceeds normal design limit. (Garments Building)	Carry out remedial works where necessary.	6-months

Item No.	Observation	Recommended Action Plan	Recommended Timeline
06	Lack of as-built drawings. (Utility Building)	Building Engineer to survey the whole structure and prepare accurate as-built drawings in compliance with section 1.9.1.2 as per BNBC.	6-weeks
07	Exposed rebar at roof. (Utility Building)	Remove rust from exposed rebar and apply anti-corrosive paint.	6-weeks