

Incredible Fashions Ltd. (Extension)

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(24.048490,90.268618)

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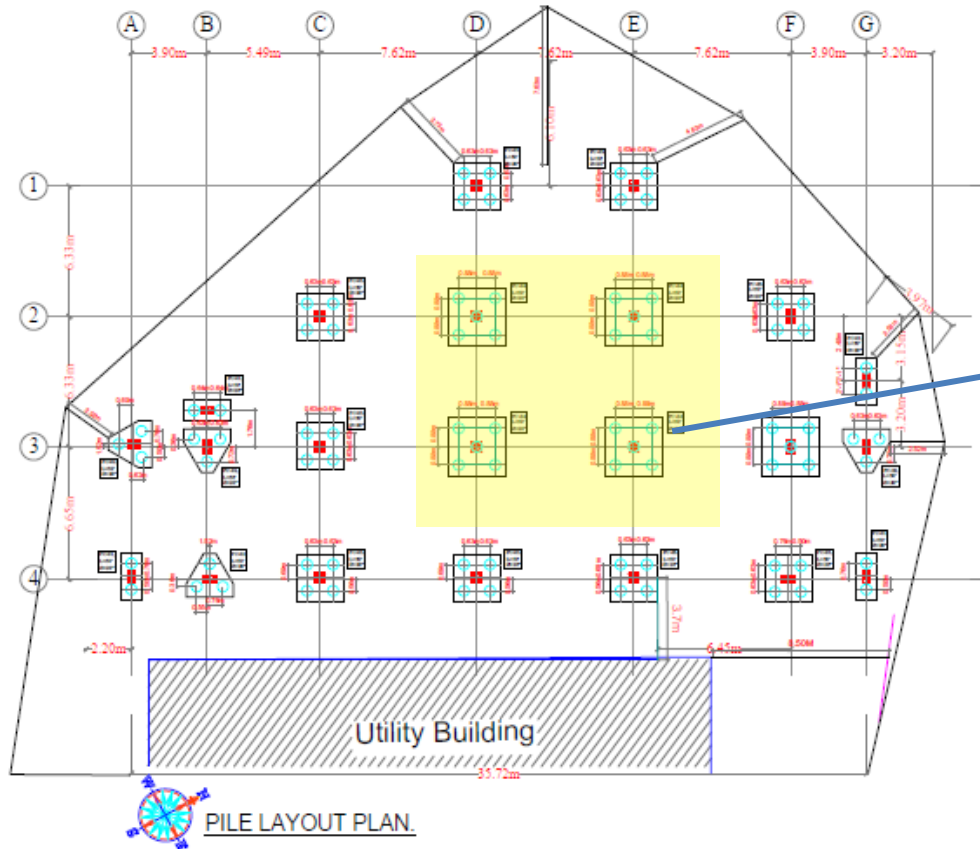


Building information:

Storage Building: This structure is a five storied (G+4) reinforced concrete (RC) building.

Observations

**Foundation stressed above
normal design limit**

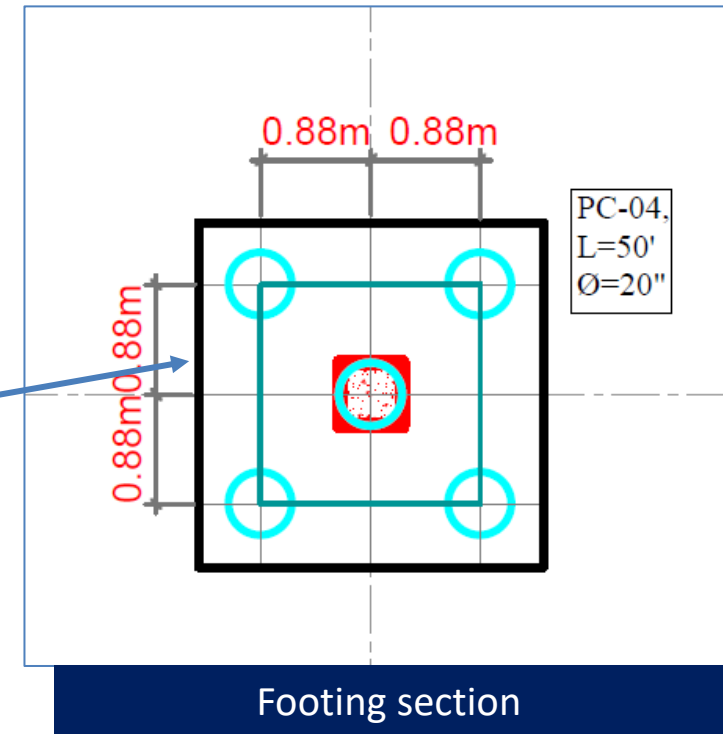


Pile Layout Plan

R.C.C. CAST-IN-SITU PILE:

The average bearing capacities (F.S.= 2.5) of different diameter pile with the embedment length up to 50 ft from EGL of each boring may be considered as follows:

- 40 Ton for 18 inch dia pile.
- 50 Ton for 20 inch dia pile.
- 70 Ton for 24 inch dia pile.



Cursory calculation indicates that bearing capacity of few piles exceeds the normal design limit considering 6 kPa live load on typical floors. Building engineer to review design, loads and foundation stresses.

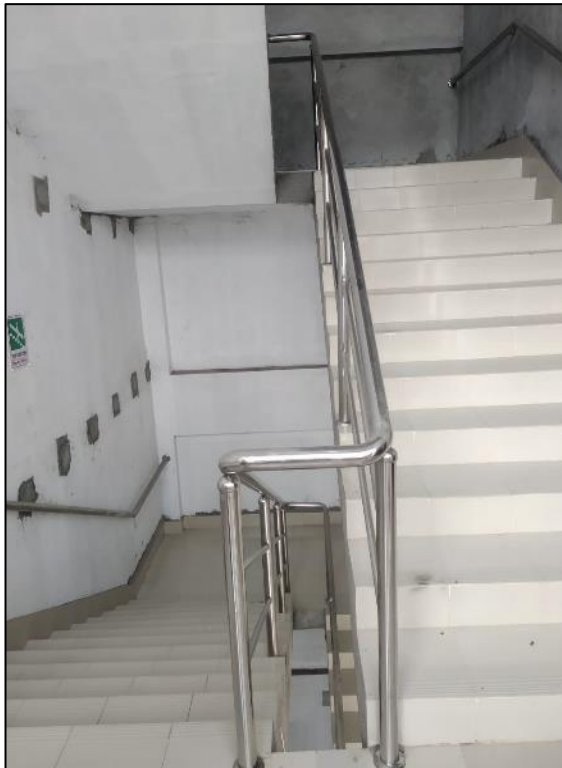
Corrosion on exposed rebar



Exposed rebar was observed at the roof of the utility building.

Building engineer is required to provide protective coating on the exposed rebar to protect from corrosion.

Inadequate protection in the handrail of the stair



The hand railing of the stair was found inadequate to protect falling hazards. Building engineer is required to provide more steel members at the handrail to avoid possible falling hazard.

Inadequate parapet wall at the stair opening



The parapet wall of the stair opening was found inadequate to protect falling hazards. Building engineer is required to increase the height of the parapet wall of the stair opening to avoid possible falling hazard.

**Non-structural elements not
anchored or braced**



Racks on floor level

Racks without anchoring

Some racks on different floors are not adequately anchored or braced to resist lateral (earthquake) forces. Building is required to adequately anchor and brace all non-structural elements to resist earthquake forces to comply with the BNBC.

Problems Observed

Storage Building:

Item 01: Foundation stressed above normal design limits.

Item 02: Corrosion on exposed rebar.

Item 03: Inadequate protection in the handrail of the stair.

Item 04: Inadequate parapet wall at the stair opening.

Item 05: Non-structural elements not anchored or braced.

Priority Actions

Item No.	Observation	Recommended Action Plan	Recommended Timeline
01	Foundation stressed above normal design limits.	Building Engineer to review design, loads, and footings stresses.	6-weeks
02	Foundation stressed above normal design limits.	Produce and actively manage a loading plan for all floor plates within the factory, considering floor, column and foundation capacity.	6-weeks
03	Foundation stressed above normal design limits.	Complete implementation of any remedial works.	6-months
04	Foundation stressed above normal design limits.	Continue to implement loading plan.	6-months
05	Corrosion on exposed rebar.	Building engineer is required to provide protective coating on the exposed rebar to protect from corrosion.	6-weeks
06	Inadequate protection in the handrail of the stair.	Building engineer is required to provide more steel members at the handrail to avoid possible falling hazard.	6-weeks
07	Inadequate parapet wall at the stair opening.	Building engineer is required to increase the height of the parapet wall of the stair opening to avoid possible falling hazard.	6-weeks
08	Non-structural elements not anchored or braced.	Building engineer is required to adequately anchor and brace all non-structural elements to resist earthquake forces to comply with the BNBC.	6-weeks