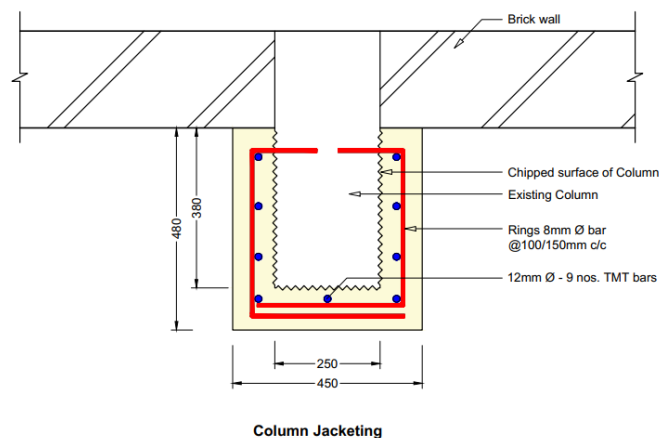


ASUGGESTED VARIOUS STRATEGIES FOR REPAIRS OF STRUCTURAL MEMBERS

Action-A (RCC Column Jacketing)

- a) Support the surrounding structure with steel support (probes).
- b) Clean all corroded steel bars with mild nitric acid. Apply zinc primer on the steel bar.
- c) Fill up the big cavity with grouting chemical.
- d) Apply 12mm “L” bar as shear connectors in zigzag pattern on column faces, at 2’ c/c.
- e) Apply clean all surfaces with a wire brush.
- f) Apply SBR slurry with a brush on old concrete surfaces
- g) Apply polymer treatment (1:1:0.14, i.e., Cement: White Sand: SBR) up to 22 mm each layer by hand pressing and create a rough surface for proper bonding of the outer new jacketing. (Polymer mortar plaster).
- h) Create a new pad foundation 400mm thick with M:30 concrete, with 125 gm – 12mm long triangle shape polypropylene fibre with super plasticizer, 1.2 m × 1.2 m foundation size with two-layer mesh of 12mm @ 75mm c/c. (Top & bottom mesh) with a 40mm cover at ground. Erect new jacketing steel from the pad foundation.
- i) Put extra steel for four nos. 16mm tor TMT and four nos. 12mm TMT vertical bars with L-shape 10mm stirrups at 100mm c/c, with 10 times the diameter of the hook, to be bent at 135 °.
- j) Apply jacketing of a minimum of 100 mm thick around the old column with the following mixer. M:30 micro concrete plus Recron-3s (12mm long fibre) plus an appropriate dose of super plasticizer concrete admixtures. Treatment must be carried out up to the top of the parking floor.
- k) The RCC jacketing should be carried out up to the terrace level.
- l) Apply proper curing

For Jacketing of Column (ACTION-A)



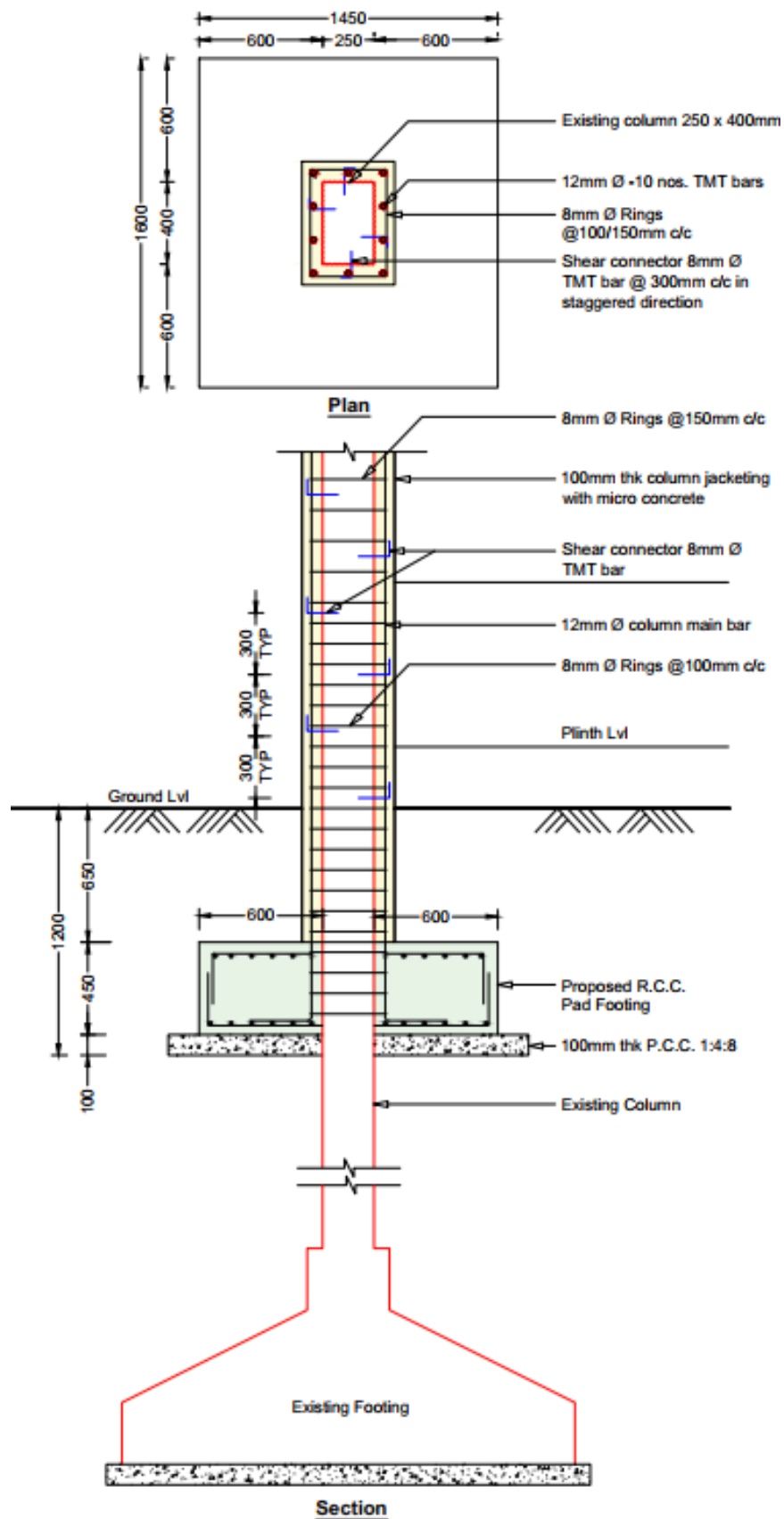


Fig. 1 RCC square column jacketing

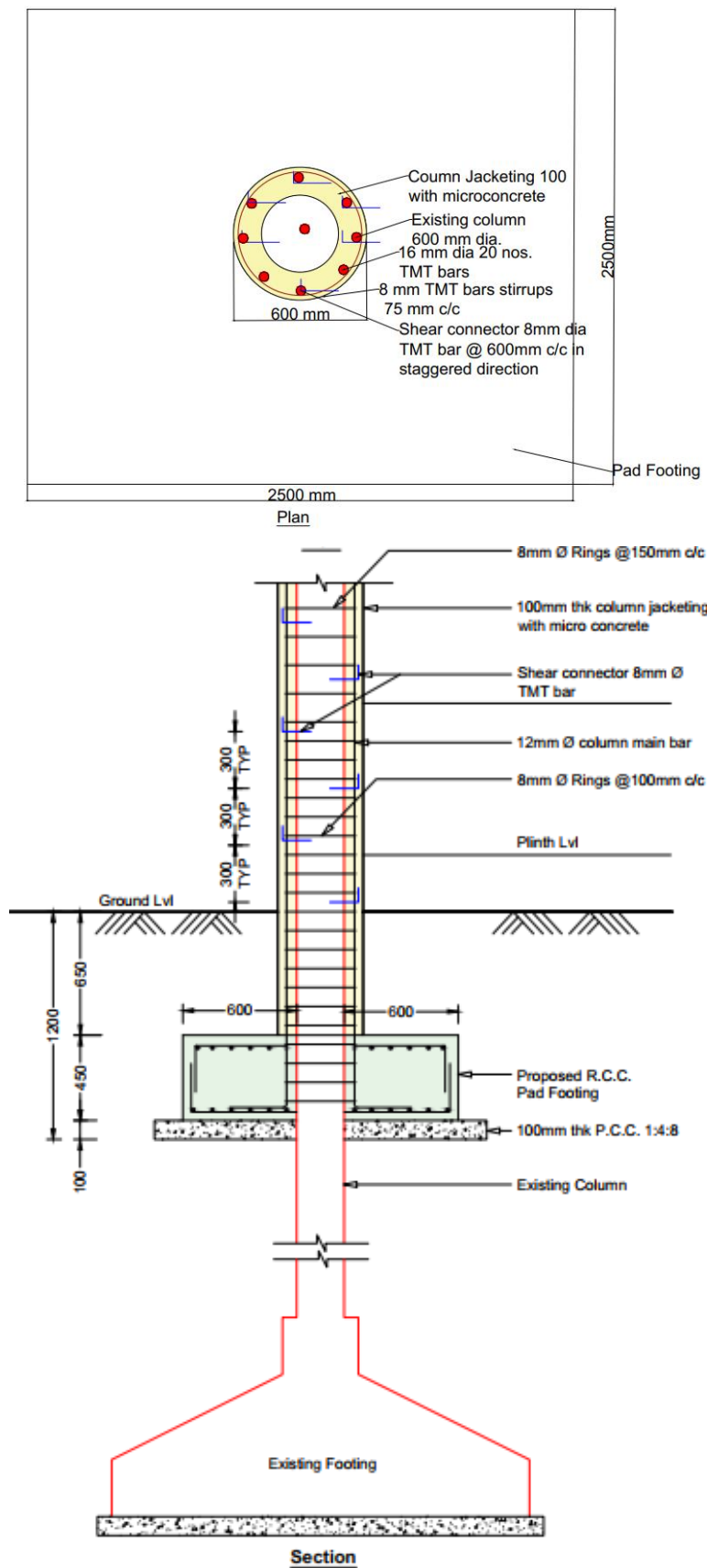


Fig. 2 RCC circular column jacketing