

Chapter 6 CONSTRUCTION METHOD FOR FLAT PLATE SYSTEM

6.1 GENERAL CONSIDERATIONS

The following are the key factors to be considered before adopting the use of the concrete flat plate with steel/concrete column system:

- Architectural layout should be well planned to fully enhance the main area where high flat ceiling with neatly arranged steel/concrete columns are required in the design
- Spacing of columns
- Punching shear checks at column areas
- Long term deflection of the flat plate
- Early planning of routing for M&E services, opening for voids and location of staircase

With the use of flat plate system, no complicated formwork is needed for beams. The formwork for slab can be recycled with repetition in floor layout. The use of prefabricated reinforcement for slab is recommended to achieve higher productivity on site.

6.2 CONSTRUCTION ON SITE



Figure 6.1 Construction of circular steel hollow section with cast in-situ flat plate



Figure 6.2 Flat ceiling with ease in formwork installation



Figure 6.3 Services through slab with provision for opening



Flat plate system with circular columns

Flat plate system with circular columns

