

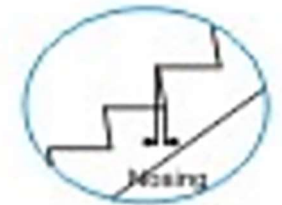
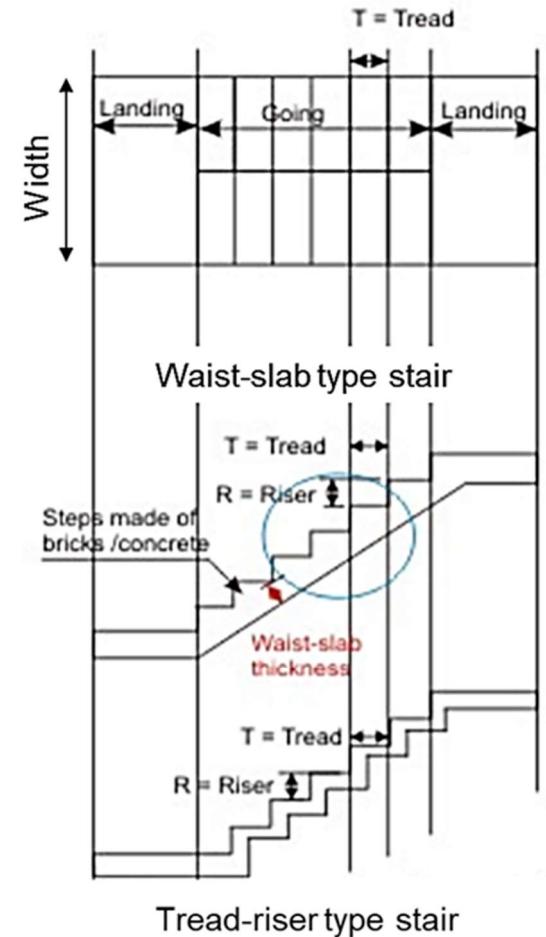
Stairs Details

Chapter 3
Section

3.8

Staircase components

Staircase is an important component of a building providing access to different floors and roof of the building.

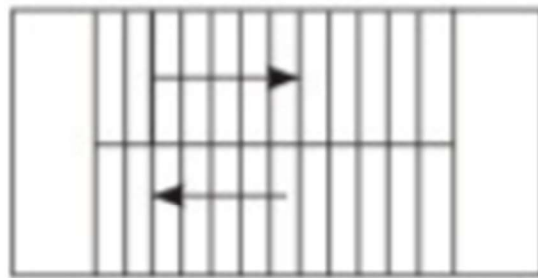


Terminology

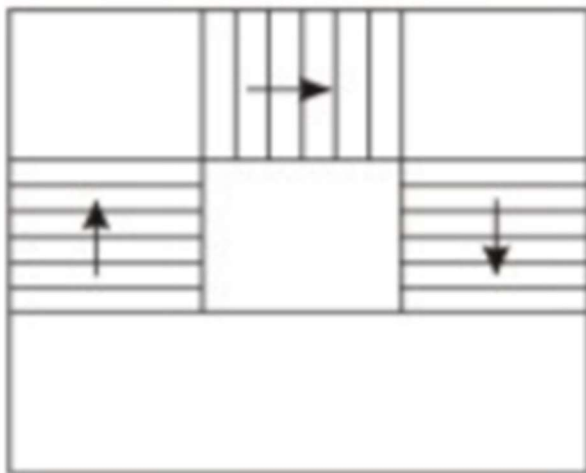
Types of staircases



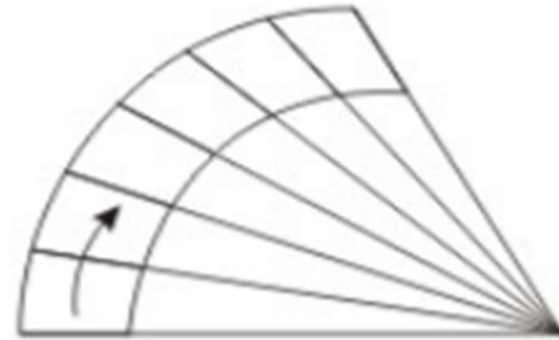
Single flight staircase



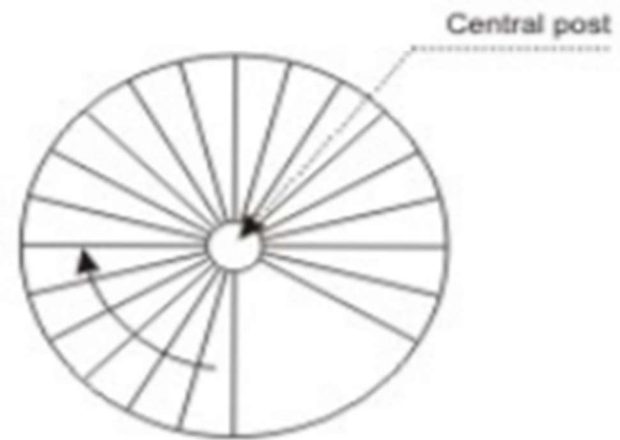
Double flight staircase



Open-well staircase



Helicoidal staircase



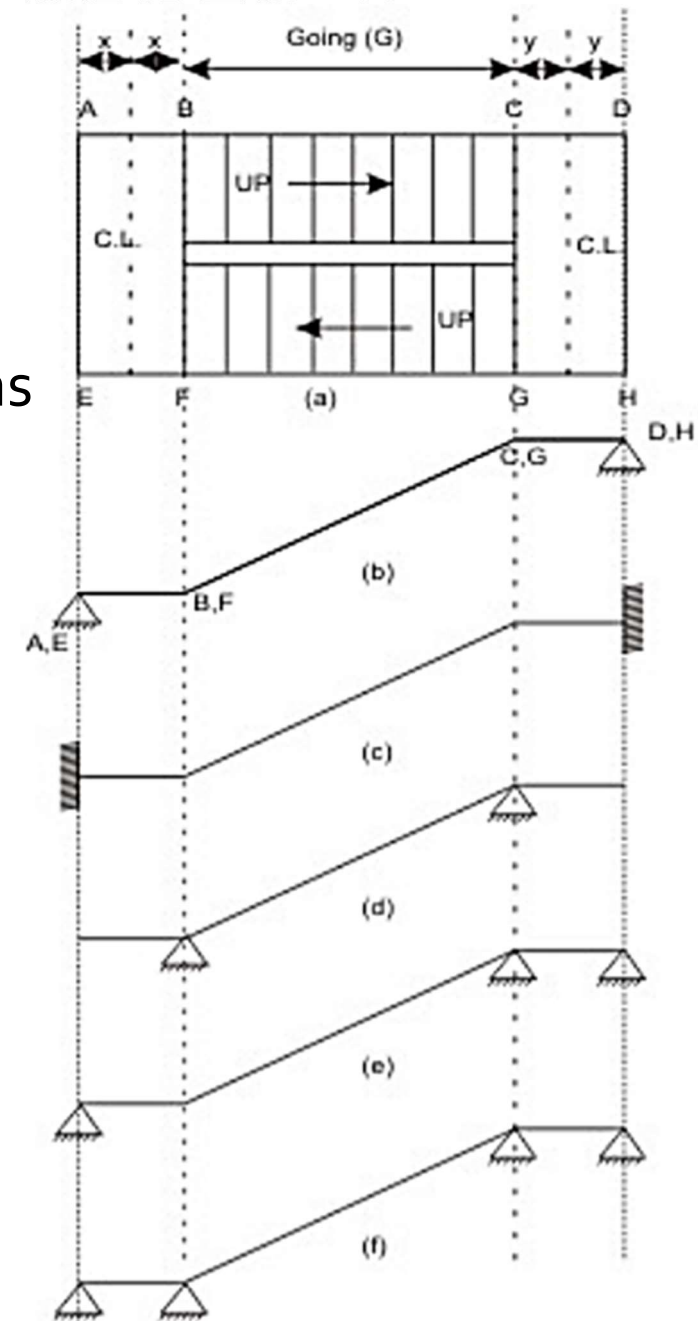
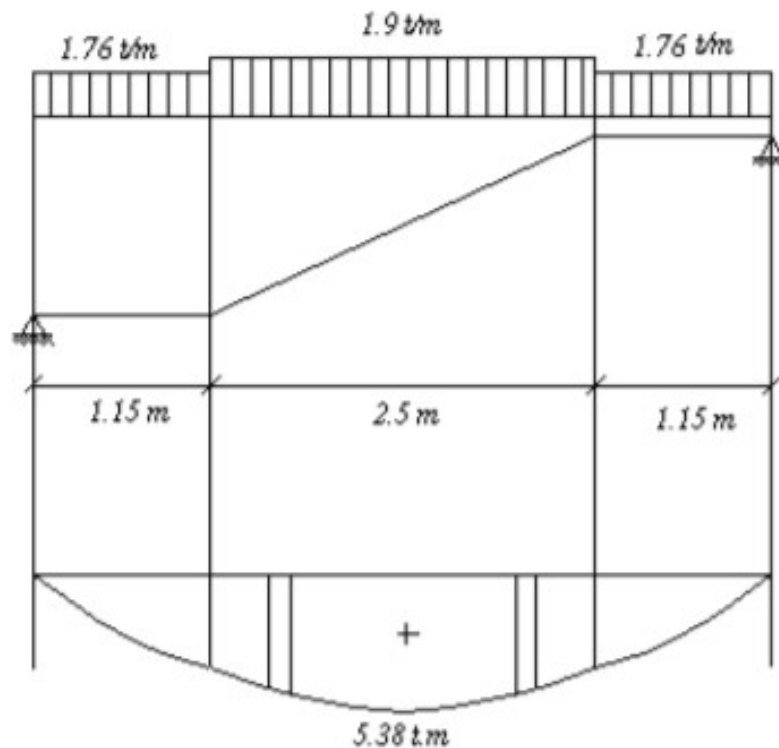
Spiral staircase

Poor practice



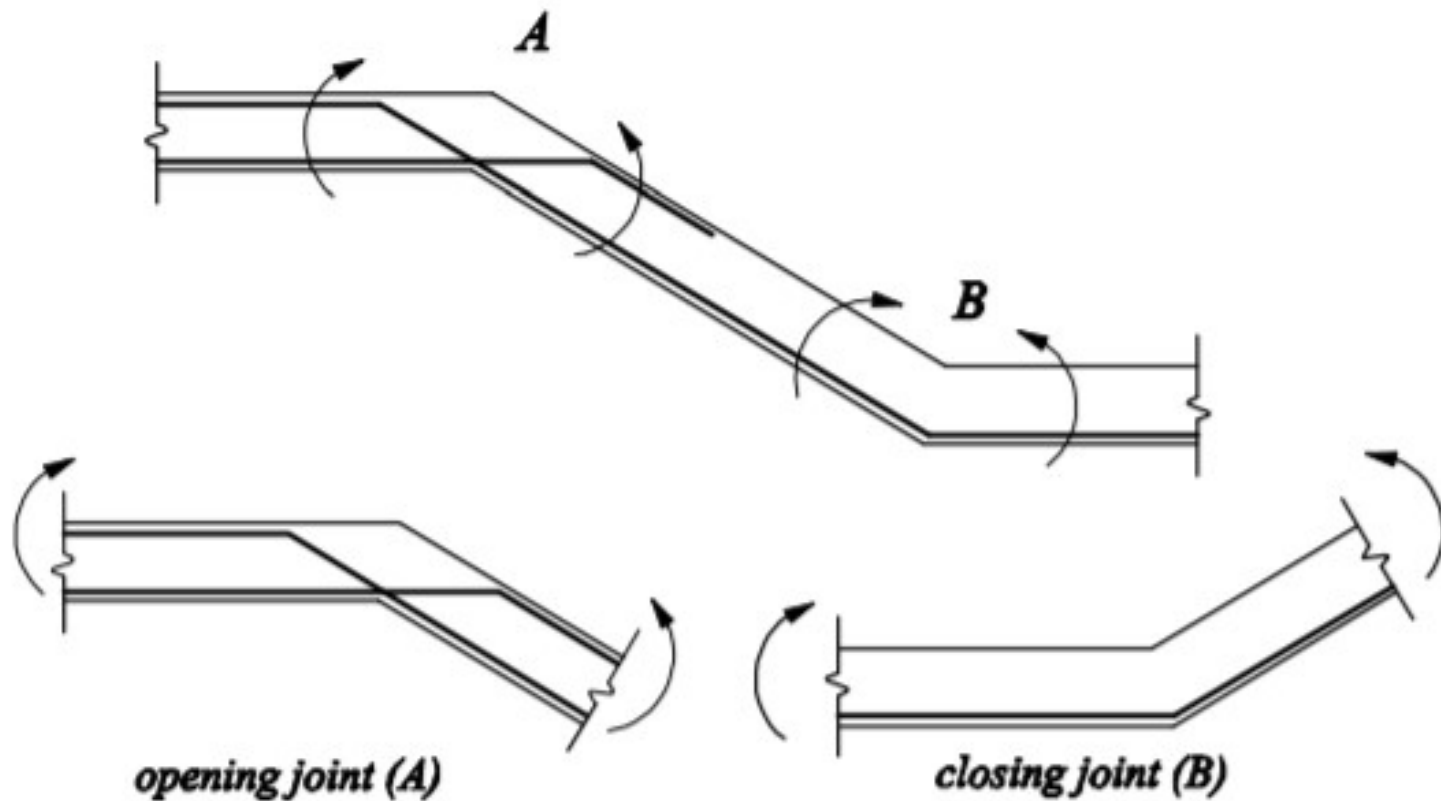
Modeling of Stairs

- The stairs slab is designed for maximum shear and flexure similar to beams and one way slabs.
- Main reinforcement runs in the longitudinal direction, while shrinkage reinforcement runs in the transverse direction.



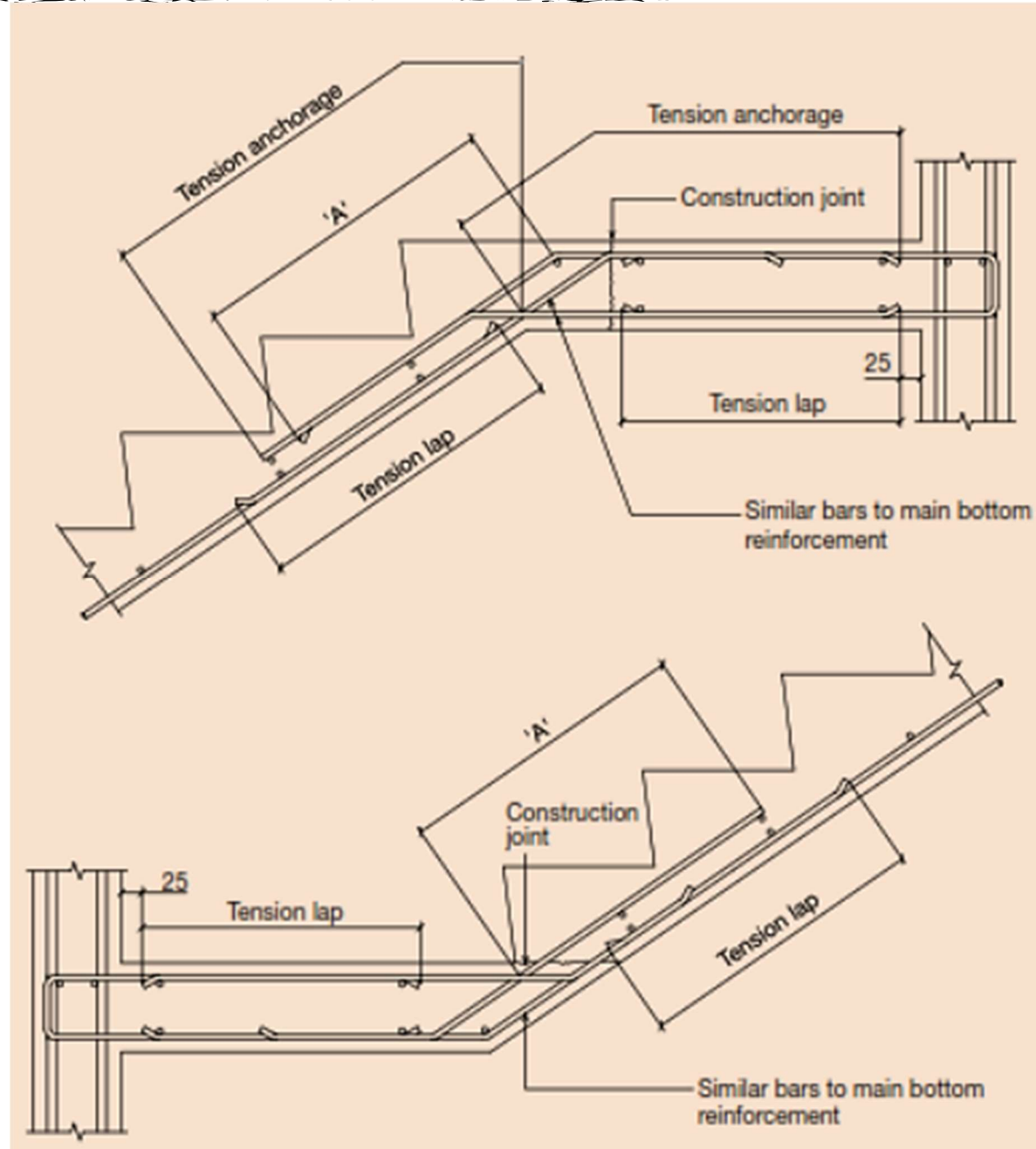
Stairs Joints

Special attention has to be given to reinforcement detail at opening joints, as shown bellow.

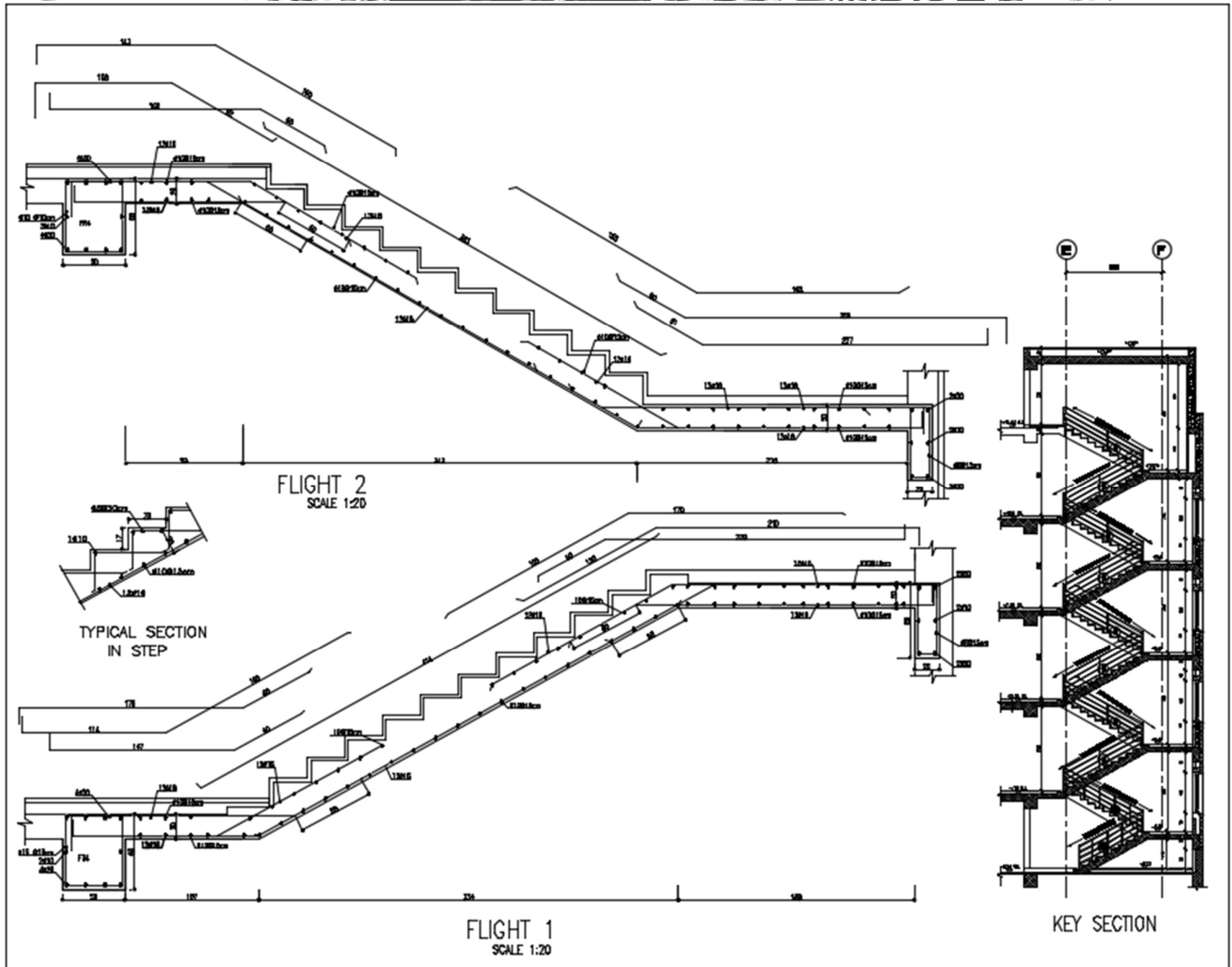


Stairs Typical Details

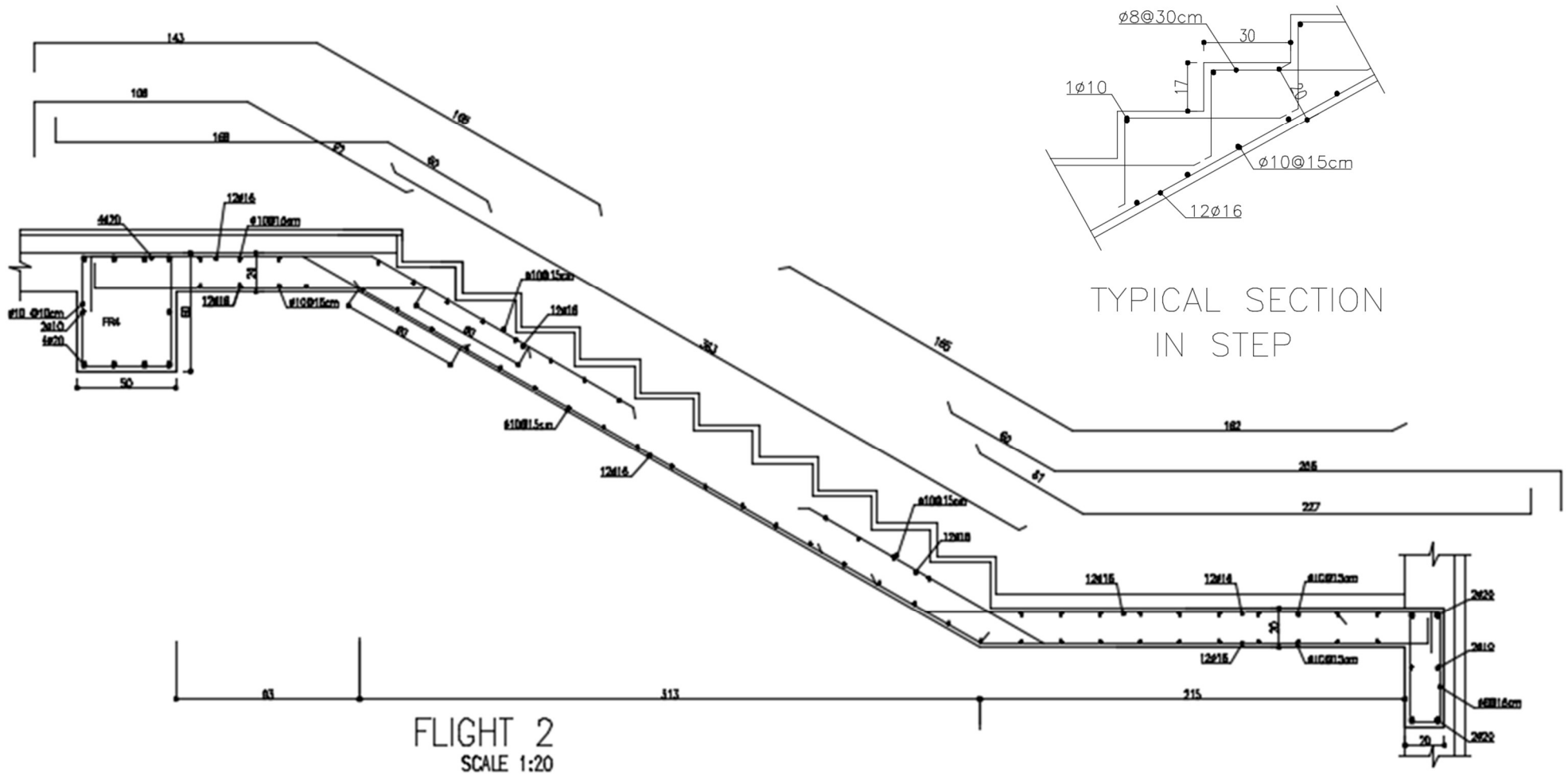
- 'U' bars for both landings to be 50% of the area of the main bottom reinforcement
- 'A' to be the greatest of $0.1 \times$ design span, tension anchorage length or 500mm



Sample Stair Drawing



Sample Stair Drawing



Stairs Details

