

Slab Spanning

Civil Engineering

What decides which way a slab spans.

One-way slab

- Held on two opposite edges
- Or a panel with span ratio over 2
- Bends one way, like wide shallow beams
- Main steel one way, distribution across
- Simplest to analyse and to detail

Two-way slab

- Held on all four edges
- Panel span ratio under about 2
- Load shares between both directions
- Main steel needed in both directions
- Thinner slab for the same clear span

THE DIFFERENCE THAT MATTERS

The long-to-short span ratio decides where the load actually chooses to go.

Educational reference. Slab design, punching shear included, follows the code and a qualified engineer.