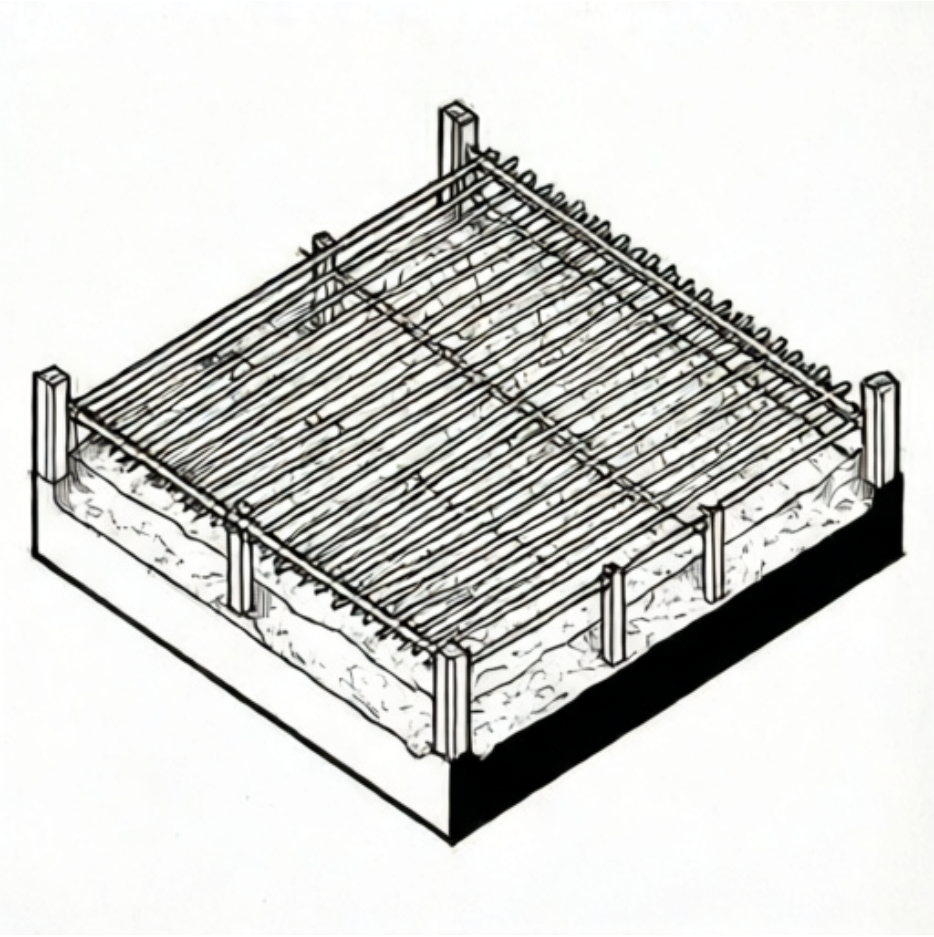
Isometric Drawing of a Grillage Foundation: A Clear Step-by-Step Guide

Ordinary topic reference / separately checked pixels



Isometric Drawing of a Grillage Foundation: A Clear Step-by-Step Guide

Original worked example / unchanged complete key

Prompt: Draw an isometric view of a grillage foundation with a 3000 mm by 2000 mm grid, beams at 1000 mm spacing, and footings 600 mm by 600 mm by 300 mm deep. Use a scale of 1:50. Label axes and dimensions.

Answer: On paper, the grid is 60 mm by 40 mm (3000/50 and 2000/50). Draw X and Y axes at 30 degrees. Mark beam centerlines every 20 mm along each axis. Draw lower beams along X and Y as parallel lines. Draw upper beams raised vertically above the lower layer, crossing over the lower beams at the same intersection grid, breaking lower lines where they pass above. Draw footings at each lower-layer intersection, offset 6 mm downward (300/50) and 12 mm wide (600/50). Label axes, scale 1:50, and dimensions in millimetres. Check that there are 4 by 3 = 12 footings and that all vertical lines are parallel.