

TOPFLOOR COMPOSITE CONSTRUCTION

The term 'composite' refers to structures where Topfloor slabs and in-situ concrete work together to form an integral structural component.

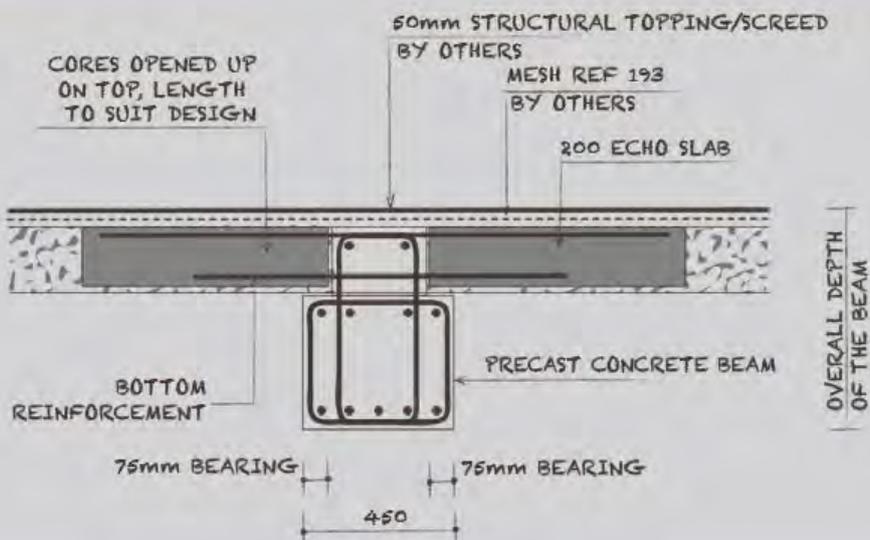


The Topfloor slab can be made composite with the supporting beams to increase the overall structural depth of the supporting beams.

Topfloor have a versatile approach in that various schemes may be proposed using prestressed hollow-core slabs in conjunction with the following:

- Reinforced precast beams supplied by Topfloor
- Cast in-situ reinforced, prestressed or post tensioned beams.
- Structural steel framework with shear connectors welded to the beam to provide composite action.
- Mixed Use – Load bearing masonry perimeter walls with internal in-situ columns and precast beams in composite action with Topfloor slabs.

PRECAST BEAM DESIGN IN COMPOSITE ACTION WITH TOPFLOOR SLABS



TOPFLOOR

PRECAST HOLLOWCORE FLOORS

Structural steel beams are provided with shear connectors on the top flange in the form of channels or welded studs to provide the shear interaction.

The support framework is generally designed to support the loads imposed by the prestressed hollow-core floor panels and a nominal construction loading with or without the use of props, depending on the budget. Provision is made for continuity steel in the slab across the support beams to accommodate the increased mass imposed by finishes, partitions and super-imposed loading.

