

TECHNICAL MEMORANDUM 023

Suspended timber floor construction general guidance

(This document offers general guidance, based upon requirements contained within Part C Approved Document – You should seek the guidance of your professional designers for all related design and construction issues)

A suspended timber floor next to the ground may be built as follows (Figure 1 below). You should during the scope of your work remove any vegetable matter from beneath the proposed building location (treating the ground and or incorporating root control / vapour control membranes. Two of the most common scenarios is detailed below. You are expected to provide thermal insulation within the floor construction (which is not shown in our details) :

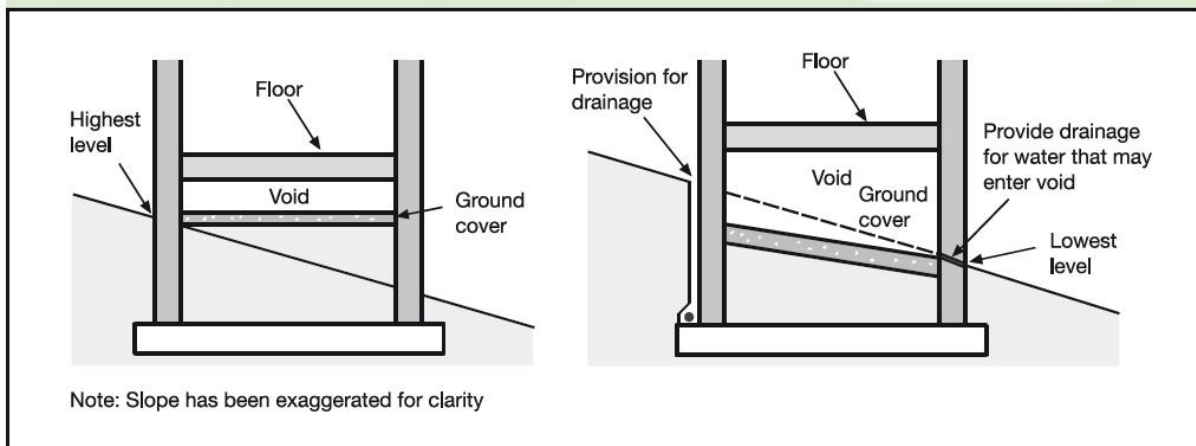
a. Ground covering either :

i. unreinforced concrete at least 100mm thick to mix ST 1 in BS 8500-1 :2002 Concrete. (Complementary British Standard to BS EN 206-1 Method of specifying and guidance for the specifier). The concrete should be laid on a compacted hardcore bed of clean, broken brick or any other inert material free from materials including water-soluble sulphates in quantities which could damage the concrete; **or**

ii. concrete, composed as described above, or inert fine aggregate, in either case at least 50mm thick laid on at least 300µm (1200 gauge) polyethylene sheet with sealed joints, and itself laid on a bed of material which will not damage the sheet.

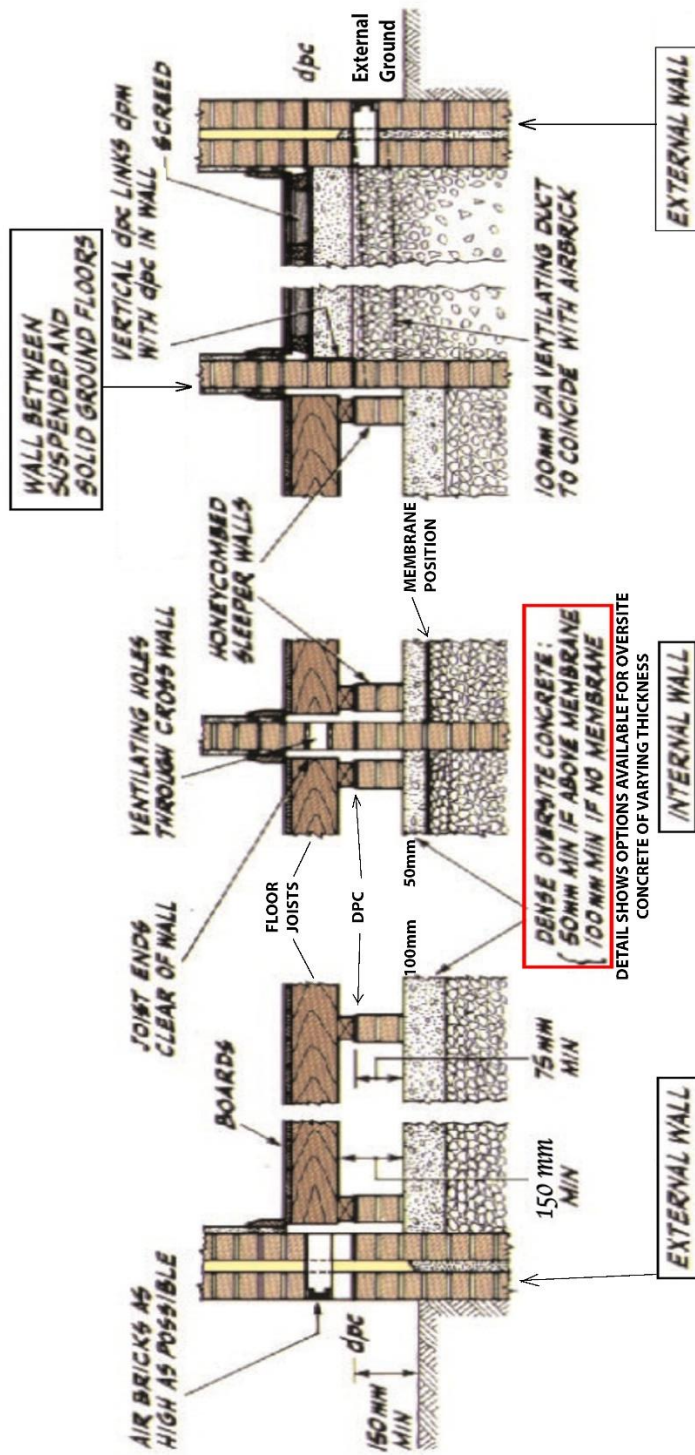
To prevent water collecting on the ground covering, either the top should be entirely above the highest level of the adjoining ground or, on sloping sites, consideration should be given to installing drainage on the outside of the up-slope side of the building (see Diagram 6).

Diagram 6 **Suspended floor – preventing water collection**



(extract image from Approved Document Part C)

b. Ventilated air space measuring at least 75mm from the ground covering to the underside of any wall-plates and at least 150mm to the underside of the suspended timber floor (or insulation if provided). Two opposing external walls should have ventilation openings placed so that the ventilating air will have a free path between opposite sides and to all parts. The openings should be not less than either 1,500mm²/m run of external wall or 500mm²/m² of floor area, whichever gives the greater



SECTIONAL VIEW THROUGH A TYPICAL GROUND FLOOR SUSPENDED FLOOR LAYOUT

Fig.1