



# Subfloor ventilation: suspended concrete slabs

**The purpose of this industry bulletin is to remind industry that ground moisture must be considered in the design and construction of suspended concrete slabs of a building, to ensure the performance requirements of the Building Code of Australia (BCA) are met.**

This industry bulletin identifies issues that have been reported concerning transportable buildings used for dwellings however it must be noted that there are similar requirements in BCA Volume One for Class 2 – 9 buildings.

The BCA Volume Two Performance Requirement P2.2.3 contains requirements in relation to the control of dampness and the effects of moisture. Corresponding Deemed to Satisfy (DtS) provisions under Part 3.4.1 requires subfloor space under all suspended floors to be adequately ventilated. Explanatory information in Part 3.4.1 identifies the provisions applied to all suspended floors including suspended concrete slabs.

## Site issues

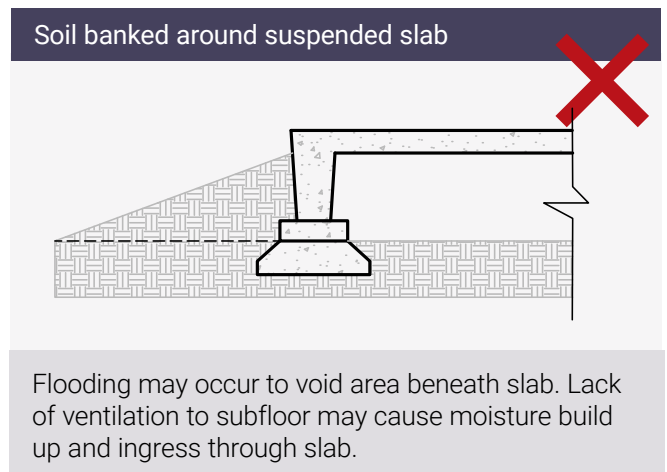
Building and Energy has become aware that subfloor ventilation requirements are not being applied to suspended concrete slabs with the result that damage is being experienced by owners.

Lack of ventilation to the subfloor contributes to water vapour build up. This increases the risk of vapour movement and moisture ingress through the slab.

The most common departures from the DtS provisions are:

- The practice of placing transportable buildings (that include suspended concrete slabs) close to ground level.

- Where the transportable building is placed on existing ground level, the practice of banking fill around the building effectively encloses the subfloor.

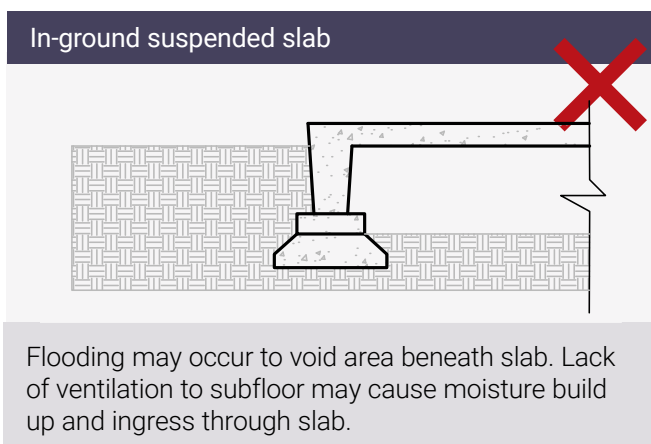


Both these practices as illustrated block the ability to provide adequate ventilation.

Our investigations have shown that these practices have led to undue dampness from the ground which indicates a non-compliance with the Performance Requirement.

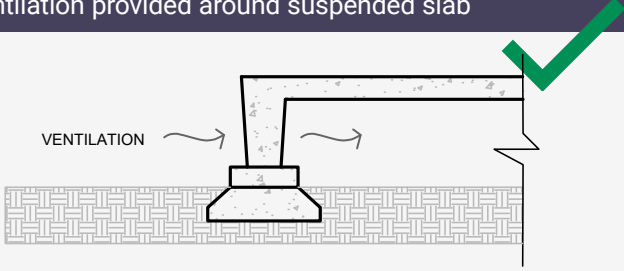
Enclosing the subfloor may lead to it being flooded and increases the risk of moisture ingress through the slab.

Investigations have found that documentation that does not demonstrate how the Performance Requirements are to be met may have contributed to the problems being experienced. It is therefore necessary to ensure the relevant subfloor ventilation system is clearly detailed on the documentation for the Certificate of Design Compliance and the building permit.



In these circumstances allowance must be made to provide subfloor ventilation in accordance with BCA Part 3.4.1 by allowing for sufficient subfloor clearance and provision for ventilation.

**Ventilation provided around suspended slab**



Ventilation to be in accordance with subfloor ventilation requirements including openings in external walls and subfloor walls.

Subfloor clearance to be in accordance with the BCA.

Alternatively a Performance Solution can be developed with relevant evidence of suitability and details documented on plans and specifications.

**Disciplinary action**

Building and Energy may investigate building surveyors and builders for negligence in connection with carrying out a building service.

**Disclaimer** – The information contained in this fact sheet is provided as general information and a guide only. It should not be relied upon as legal advice or as an accurate statement of the relevant legislation provisions. If you are uncertain as to your legal obligations, you should obtain independent legal advice.

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