MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

BUILDING CODE

The Building Code – Protection from Fire Verification Method C/VM2

The requirements of the Building Code clauses for Protection from Fire (C1 - C6) aim to protect people in buildings, limit fire spreading to other buildings, and help firefighting and rescue.

The Verification Method, C/VM2, supports the Building Code clause for Protection from Fire. The Verification Method can be used for the specific fire design of most buildings.

Certain simple building designs are covered by Acceptable Solutions, provided they do not have complex features.

The aim of the Verification Method is to provide a robust and consistent design verification method for specific design that allows creative and flexible fire engineering solutions.

You must read this with Information Sheet Amendment 4: www.dbh.govt.nz/c-fire-info

Verification Method C/VM2 for Protection from Fire is suitable for use by design professionals with specific fire engineering expertise, such as Chartered Professional Engineers.

The Verification Method C/VM2 (amendment 4) is included in the latest edition of the Protection from Fire (C) supporting documents, which can be downloaded from www.dbh.govt.nz/compliance-documents.

A companion document "Commentary on the Verification Method for Protection from Fire" provides:

- additional guidance in applying the Verification Method, and
- insight into the development of the Verification Method.

Download the companion document from www.dbh.govt.nz/compliance-documents.

IMPORTANT

If any aspect of a new design, or its features or systems is outside the scope of the Protection from Fire Acceptable Solutions C/AS1 – C/AS7, then:

- **Verification Method C/VM2 can generally be used for that building or firecell, and**
- **The expertise required to apply the Verification Method is likely to be held only by a recognised fire design engineer, such as a Chartered Professional Engineer.**

Refer to the information sheet for the Protection from Fire Acceptable Solutions for examples of designs outside the scope of the Acceptable Solutions: www.dbh.govt.nz/c-fire-info

Protection from Fire
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Ten design scenarios in Verification Method C/VM2

Fire engineers must achieve the required outcomes for the design fire scenarios that are provided.

Some scenarios require quantitative analysis and modelling, eg, to ensure that the available safe egress time (ASET) exceeds the required safe egress time (RSET). Others can be satisfied either by inspection or by the provision of specific features, eg, appropriate sprinkler systems or a second means of escape.

Fire scenarios	Explanation
Blocked exit	This scenario addresses the situation where an escape route is blocked. In that event, sufficient exits must still be available.
Normally unoccupied room	This scenario addresses the situation where a fire starts in a normally unoccupied room and can potentially endanger a large number of occupants in another room.
Concealed space	This scenario addresses the situation where a fire starts in a concealed space that can potentially endanger a large number of people in another room.
Smouldering fire	This scenario addresses the situation where a fire is smouldering in close proximity to a sleeping area.
Horizontal fire spread	This scenario addresses the situation where a fully developed fire in a building exposes the external walls of a neighbouring building or firecell.
Vertical fire spread	This scenario addresses the situation where flames external to the building exposes the external wall and leads to significant vertical fire spread.
Surface linings	This scenario addresses the situation where interior surfaces are exposed to a growing fire that potentially endangers occupants.
Helping firefighters	This scenario tests the safe operation of firefighters in a building.
Challenging fire	This scenario addresses the situation where a fire starts in a normally occupied space and presents a challenge to the building's fire safety systems, threatening the safety of its occupants.
Robustness check	This scenario checks that the failure of one fire safety system will not result in failure of the whole building design.

Want to know more? www.dbh.govt.nz/compliance-documents

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What is a Verification Method (VM)?

A Verification Method is a design method that will show a design complies with Building Code requirements. It is often a test or calculation method. A specific design that follows and meets the requirements of a Verification Method must be accepted by a Building Consent Authority as complying with the related Building Code provisions.

IMPORTANT

Changes were made to the Verification Method C/VM2 on 1 July 2014. This information is still valid but you must read it with Information Sheet Amendment 4: www.dbh.govt.nz/c-fire-info

Want to know more? **www.dbh.govt.nz/compliance-documents**