Construction Standards

Why is the construction standard of the building important?

Building construction and design can be used to minimise the impact of ember attack and radiant heat on a building. Construction requirements for buildings are expressed as a Bushfire Attack Level (BAL) as prescribed in AS3959 or the NASH Standard.

What is a Bushfire Attack Level?

A Bushfire Attack Level (BAL) is a way of measuring the ability of a building to withstand attack from bushfire. The form of bushfire attack and the severity will vary according to the conditions on the site. There are different BAL ratings. The following diagram illustrates the predicted bushfire attack and levels of exposure for each of the BAL ratings that may be applied in the Bushfire Management Overlay[1].

CLAUSE 53.02-5 SETBACK DISTACNE TABLE	Table 1 Column A Table 1 Column O	Table 1 Column B	Table 1 Column C	Table 1 Column D	Table 1 Column E
CONSTRUCTION STANDARD (BUSHFIRE ATTACK LEVEL)	BAL 12.5	BAL 19	BAL 29	BAL 40	BAL FZ

Relationship with the building system

The BAL requirements are linked to the building system.

The National Construction Code (NCC) contains the overarching objectives and performance requirement in relation to achieving an appropriate construction standard to improve the ability of the building to withstand bushfire attack.

The NCC allows an applicant to meet the requirements in AS 3959-2018 or NASH Standard (otherwise known as deemed to satisfy response). Alternatively an applicant may prepare an alternative solution to achieve the same performance requirement (i.e. not a deemed to satisfy response).

1. Note that, whilst under AS3959 a BAL- Low rating exists, this will not apply in any area within the Bushfire Management Overlay.

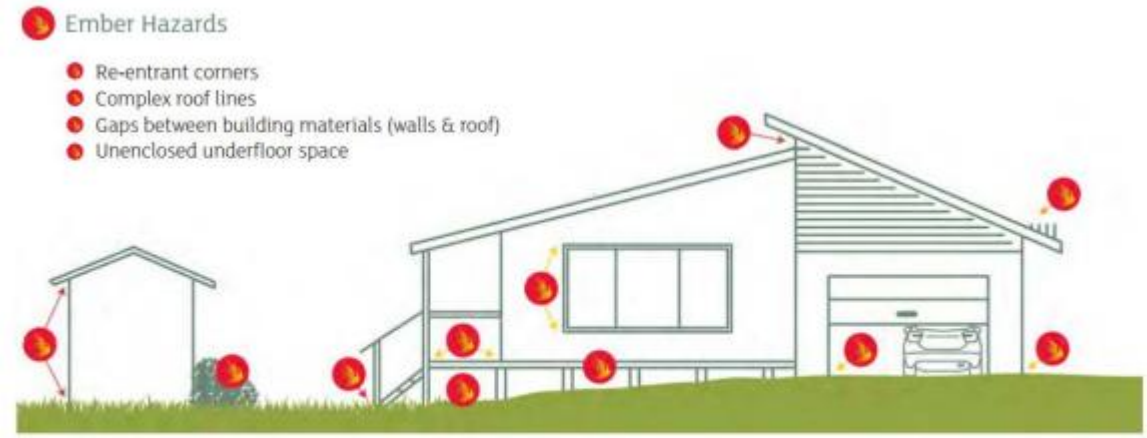
Can the design of the building also increase resilience to bushfire?

In addition to the materials and construction standard of the building, the layout and design of a building can reduce the impact of bushfire on the building.

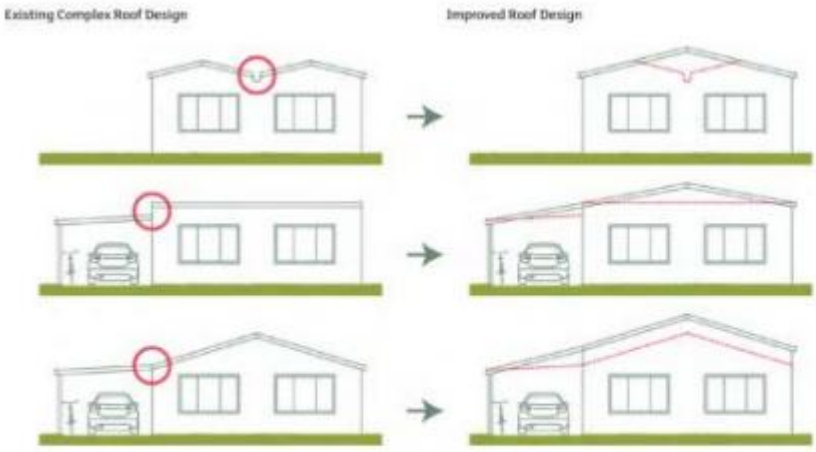
Design should avoid creating spaces where debris can accumulate in re-entrant corners, complex roof lines, gaps between building materials and unenclosed underfloor spaces

Further guidance can be found in the CSIRO Bushfire Best Practice Guide at research.csiro.au .

The location of outbuildings should also be considered as they can act as a fuel source to the main building. Outbuildings should be located at least 10 metres* from the main building.



Complex house design where embers can lodge.



Complex roof designs can be improved to reduce accumulation of debris and entry of embers.

* Note that in a Bushfire Prone Area (under the building system) a six (6) metre separation is recommended, a greater separation is recommended in the BMO given the increase risk of bushfire.

What construction standard do I need to meet?

To establish the appropriate construction standard, you will need to conduct an assessment in accordance with Clause 53.02 of the planning scheme.