



The BCA made simple – Part 3

Jerry Tyrrell concludes his three-part overview of the Building Code of Australia (Volumes 1 and 2), and invites all readers to familiarise themselves with this vital reference work.

(TABLE 1) BCA PRINCIPAL SECTIONS AND CONTENTS

BCA SECTION	WHAT IT CONTAINS
SECTION A General provision	Mainly classification of buildings and definitions
SECTION B Structure SECTION C Fire resistance SECTION D Access and egress SECTION E Services and equipment	Relates mainly to fire safety, including safe access and escape
SECTION F Health and amenity	Useful content about sizes and rules for healthy spaces, including ventilation and acoustic requirements
SECTION G Ancillary provisions	Mainly swimming pool fencing and cool rooms, fireplace safety and building in bushfire and alpine areas
SECTION H Special use buildings	Mainly about theatres and halls
SECTION I Maintenance	Good when things get technical
SECTION J Energy efficiency	

(TABLE 2) THE BUILDING PROCESS – EASY STEPS

	WHAT YOU NEED TO DO	BCA REFERENCE
Step 1	Identify the class of building	A3
Step 2	Work out the number of storeys in the building	C1.2
Step 3	Identify the type of construction required – either Type A, B or C	C1.1 and Table C1.1
Step 4	Identify what exits and fire safety measures are required – number of exits, type of exits (fire or non-fire-protected)	Section D
Step 5	Add the relevant services – fire alarm systems, hose reels, smoke management systems	Section E
Step 6	Add the remaining stuff. Some of this will be quite technical such as sound rating between separate areas and thermal performance of materials. Others will usually be covered in standard design, eg: natural light and ventilation	Sections F, H, I & J

WHAT THE ABCB IS DOING

Trent Bourne from the Australian Building Code Board (ABCB) has kindly sent me copies of their recent educational training kits, which they are giving to TAFEs and universities. These are called Introduction to the BCA and Understanding the BCA's Performance Requirements. More are planned on Energy Efficiency and Fire Safety. Can you help me provide feedback to Trent? Please email me comments about your experiences with the BCA and thoughts about its ease of use.



CPD Academy is a new series of 'lessons in print' for Building Connection readers. It is designed to help you improve your trade skills and business know-how so that you can keep your edge in today's competitive marketplace. Well-known Sydney consultant Jerry Tyrrell, co-founder of Tyrrells Property Inspections, shares his insights into the basic principles of building practice – what to do, what not to do and where to go to find out more.

The story so far ...

Part 1 told you how the BCA comprises two volumes and that there are 10 different classes of buildings.

Part 2 explained the relevant definitions in Volume 2, and then concentrated mainly on the rules for Class 2 buildings – that is units.

I have received some comments from the producers of the BCA; I will talk about that later.

In this final article on the BCA, I will concentrate on Volume 1 again.

The guts of Volume 1

I repeat that you will only use Volume 1 if you are NOT building houses. Volume 1 packages information into 10 main sections.

How the BCA 'builds' your building

When you build, you start with the footings, add floors and walls, blend in the services, build the roof, etc. It's all step by step. Believe it or not the BCA 'builds' your building too. It draws from modules of information to allow you to find out the minimum requirements you MUST include in order to comply with the BCA.

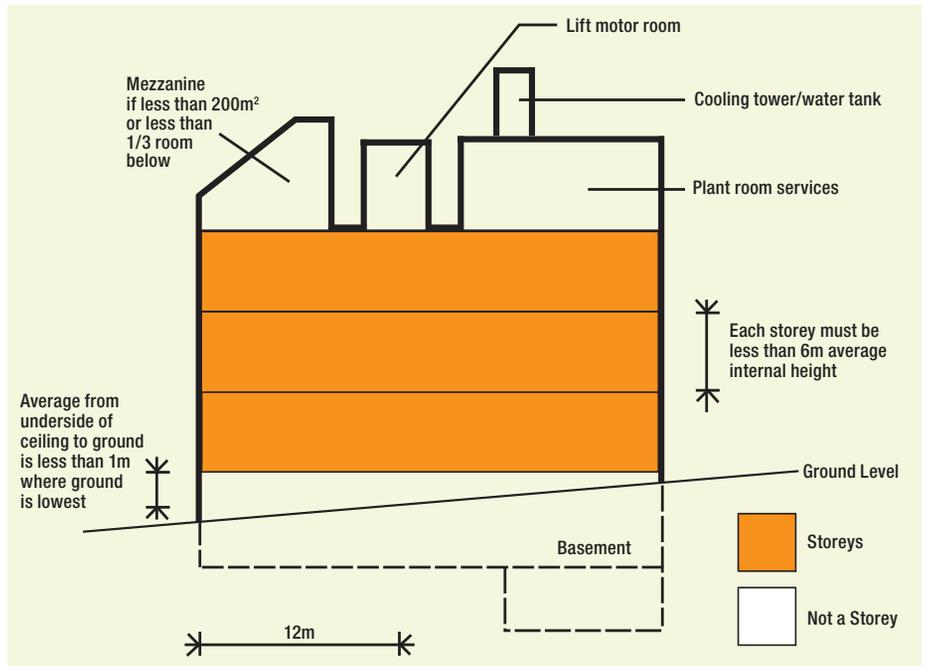
Yes, there are other ways to comply. But you **MUST** achieve the same performance as the stated rules. And you must have consent for the 'alternative solution' **BEFORE** you build it.

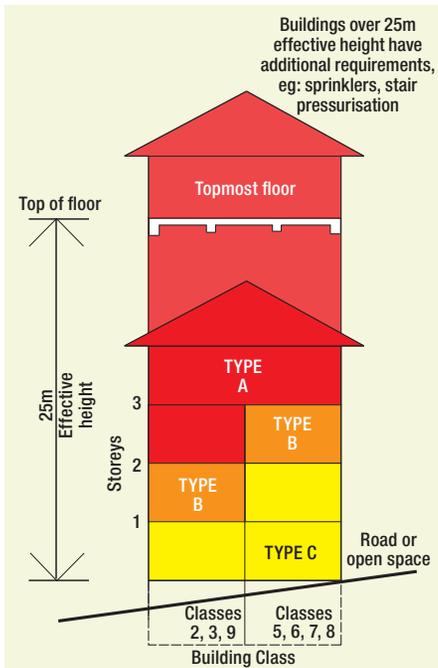
I have prepared a diagram to help you work out what is characterised as a floor or 'storey'. Once you know the number of storeys you can work out what the construction should be. In principle, you will need to use the most fireproof construction when buildings comprise three or more storeys.

The process the BCA uses to 'build' your building is as follows:

Types of construction

The BCA separates construction into 3 types, known as Type A, Type B or Type C. The way it works is very logical.





Structurally, tall buildings have bigger beams and columns and bracing than low-rise ones. When applying the BCA, the higher the fire risk to the occupants, the more vital it becomes for the building to handle any fire. The three types of construction all require you to achieve various degrees of fire resistance. The specific requirements are clearly set out in tables.

Once you know what fire resistance level you must achieve, you can check what system you can use with the manufacturer; for example, plasterboard can achieve a two-hour rating, you can get doors with a four-hour fire rating, and even some sealants are fire-rated. WARNING: good contractors will never take short cuts with construction work that is required to be fire-resistant. So please follow the

manufacturer's specifications to the letter!

I have tried to tempt all of you to look at the BCA as the helpful reference it is designed to be. I agree that the absence of indexing, the technical language and the general confusion of Volume 2 causes difficulties for most of us. However, it is the 'bible' for our industry. And as such, the information contained in my three articles should help you. ■

Jerry Tyrell has over 30 years' experience as a labourer, tradesman, contractor, architect, mediator, building consultant and author, and has been involved with the inspection and building of more than 60,000 properties (including 30,000 timber pest inspections and 3000 disputes). Jerry welcomes feedback at jwtyrrell@tyrells.com

Next issue: movement management.