

Perceived Deficiencies and the Policing of the Building Regulations: An Australian Perspective

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SUMMARY

It is now over a decade since the Building Regulations administered in Victoria Australia by the Building Commission were changed by the Building Act 1995 and the Building Regulations 1994 (Building Commission, 2006). Along with other developed countries Australia replaced a prescriptive based system by a performance based regulations system (Zillante and Wilkinson, 2006) embodied in the Building Code of Australia (BCA). The performance based BCA was developed to allow and encourage alternative solutions to building design and construction whilst at the same time to retain the prescriptive framework for simple straightforward projects or for those unwilling to demonstrate compliance through calculations. The new approach was heralded as a model system, however in the 12 years since their introduction what are the flaws in the system? This literature review has identified that other countries with performance based systems, namely, the Netherlands, have experienced some issues with the effectiveness of their system and have started to address these issues. Some of the issues are similar to those in Australia and that some of the potential flaws that have been identified are potentially serious, given the purpose of the regulations are life safety and health and hygiene. For example, full enforcement of compliance is in question due to the under recruitment and retention in the Building Surveying profession and issues associated with privatisation of the role of building control. Other potential flaws relate to the ability of the regulatory watchdog or policeman to identify and enforce all breaches of the code by building surveying practitioners and registered builders. To date no empirical research has been undertaken to quantify the extent of the problem within Australia and it is suggested that an investigation is undertaken as a precursor to further change to ensure the community is provided with buildings that are healthy, safe and amenable to occupants.

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1. ABSTRACT

The Building Regulations administered in Victoria Australia by the Building Commission resulted from changes introduced by the Building Act 1995 and the Building Regulations 1994 (Building Commission, 2006). Along with other developed countries Australia replaced a prescriptive based system by a performance based regulations system (Zillante and Wilkinson, 2006) embodied in the Building Code of Australia (BCA). The performance based BCA was developed to allow and encourage alternative solutions to building design and construction whilst at the same time to retain the prescriptive framework for simple straightforward projects or for those unwilling to demonstrate compliance through calculations. The new approach was heralded as a model system, however in the 12 years since their introduction what are the flaws in the system? Some flaws are potentially serious, given the purpose of the regulations are life safety and health and hygiene. For example, like the Netherlands full enforcement of compliance is in question (van der Heijden, 2006) consequently this paper explores some of the perceived deficiencies in the current system and identifies some possible reasons for these perceived deficiencies.

2. INTRODUCTION

Since 1994 Australia switched from a prescriptive form of building regulation and control to a descriptive performance based approach. Performance based regulations were supposed to achieve buildings that were healthy, safe and sustainable at a lower cost than otherwise and in a manner that would encourage technological innovation (ABRB, 2007:17). When introduced there was the chance of resistance to change from those comfortable with the status quo. Research into current practitioner views on sustainability within the BCA does reveal some evidence of this resistance to change in the BCA (Dong & Wilkinson, 2007). Currently anecdotal evidence from practising builders who have worked under both systems has given rise to questions of whether the new system has resulted in a reduction in the policing of the system and the authority of the inspector in Australia. A similar situation has occurred in Netherlands building control (van der Heijden, 2007) and this makes for uncomfortable reading where as a community we strive to improve the quality, safety, amenity and health of our buildings. Practitioners have observed that since the privatisation of building surveying (building control) in Australia, building inspections have become less stringent for example, many, previously rigorously inspected details, are passed over. Consequently discrepancies such as built work from plans and defective or incomplete work are not picked up during inspections, again this confirms the Dutch issues which triggered van der Heijdens work (2007).

In Australia another consequence of privatisation of building surveying or building control has been a reduction in the perceived authority of the building surveyor. Previously where municipal building inspections were undertaken there was clear separation of inspecting authority from the builder and this separation protected the building owner, however under private certification this is no longer the case. In Australia the term building owner is given to the person or persons building the property. Since privatisation this role has become clouded and with the result that the Registered Building Surveyor (RBS) may be perceived to be in the employment of the builder even if in theory she/he is independent (Reddaway, 2006). Australian building owners have become uneasy and have looked out for alternative authority to give them piece of mind and some have found that building consultant in their employment is an alternative. The situation is compounded by a shortage of qualified building surveyors noted by Wilkinson & Zillante (2006). It is considered that this state of affairs has allowed the private inspection business to flourish, whereby independent qualified building inspectors undertake building inspections on behalf of RBS's.

2.1 Building Control Legislation in Australia

Australia, comprises six States and two Territories, divided into Local Government areas and with more than 700 local governments in 2006 (Capetanakis, 2004). Building laws can be developed at all three levels of government (federal, state and local) however there is a national document that relates to the design and construction of buildings; the Building Code of Australia (BCA) which is produced by the Australian Building Codes Board (ABCB, 2004). The Federal Government is the highest tier of the Australian legislative system legislating at national significance level and applying throughout the nation. At this level federal legislation does not control specific items because the Australian constitution delegates that responsibility to the States.

The Australian Building Codes Board (ABCB) sits at this level of Government and is a joint initiative of all levels of Australian government, in co-operation with the building industry. The ABCB is responsible for developing and managing a nationally uniform approach to technical building requirements, developing a simpler and more efficient building regulatory system; and enabling the building industry to adopt new and innovative construction technology and practices (ABRB, 2007:14). A technical Building Codes Committee advises the ABCB on the BCA content comprises of members from the States and Territories. It provides technical advice on reforming, maintaining and upgrading the technical content of the Australian building codes and standards. The ABCB has no legislative power and the BCA is given its regulatory power by legislation enacted in each of the States and Territories (ABCB, 2007). Figure 1 overleaf illustrates the legislative structure in Australia for building legislation.

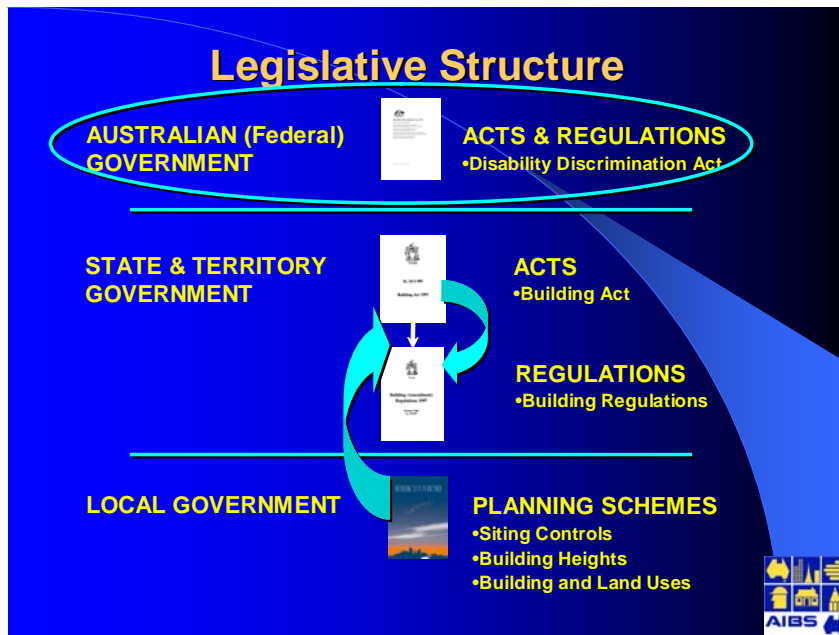


Figure 1 - The Australian Legislative Structure for Building Legislation
(Source: Mitchell & Capetanakis 2004)

2.2 The Building Code of Australia (BCA)

The goal of the BCA is to enable the achievement and maintenance of acceptable standards of structural sufficiency, safety (including fire), health and amenity for the benefit of the community (BCA, 2006). As such this is similar to the goals of building legislation and building control in other countries like England and Wales (Communities and Local Government, 2007). Technical provisions for the design and construction of buildings and other structures, covering structure, fire resistance, access and egress, services and equipment, and certain aspects of health and amenity are included in the BCA. The BCA is a performance document, the structure is shown in the Figure 2 over the page.

The Objectives and Functional Statements are deemed Guidance level provisions and represent the reasons the community desires a matter to be regulated. These statements are expressed in general terms, for example referring to the need to safeguard people and protect adjoining buildings or other property (Mitchell, 2004). The Functional Statements set out how a building could be expected to satisfy the Objectives (Mitchell, 2004) whereas the Performance Requirements outline the level of performance to meet the relevant Functional Statements and the relevant Objectives. As such Performance Requirements constitute the core of the BCA and are the only parts of the code requiring mandatory compliance (Mitchell, 2004). Building Solutions set out the means of achieving compliance with the Performance Requirements and two methods can be used to develop a Building Solution these being a deemed to satisfy (DTS) solution or an Alternative Solution. DTS includes materials, components, design factors and construction methods which, if used will result in compliance with the performance requirements. On the other hand, Alternative Solutions is where another

building solution can be accepted if it can be demonstrated that the design complies with the relevant Performance Requirement (BCA 2005). The intention of the performance based codes was to allow innovative design solutions and, by allowing the 'market' to determine the solution, more cost efficient construction to occur.

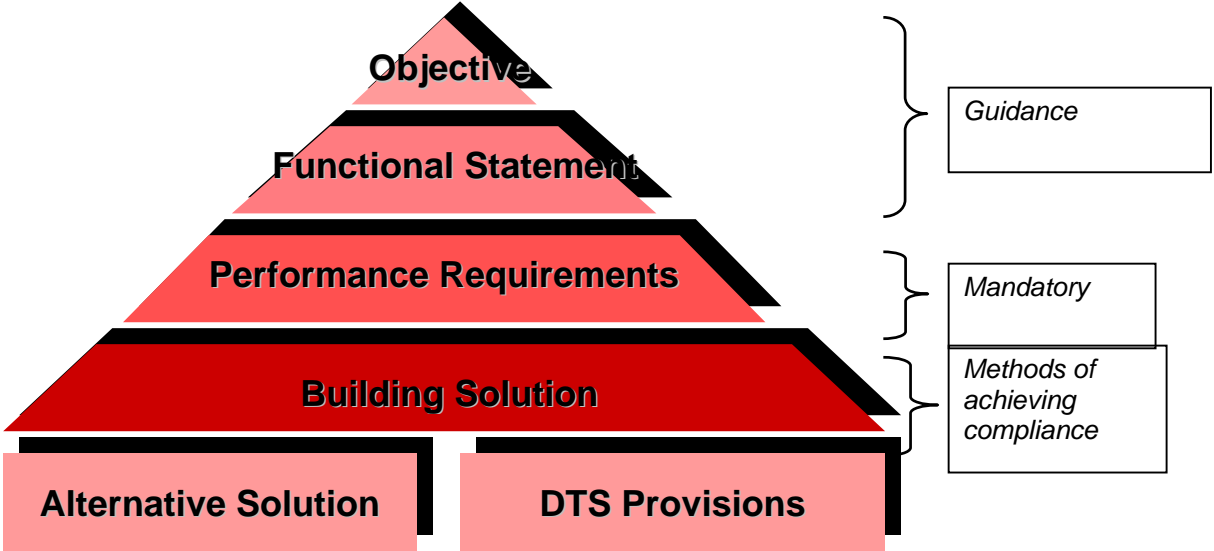


Figure 2 – Structure of the Building Code of Australia. (Source: Capetanakis G 2004).

In Australia, the States and Territories enact legislation that controls buildings, although this legislation is different in each state it is similar in format with the BCA as the primary document (see figure 3 below). These State Acts regulate the Building Approval Systems across the country.

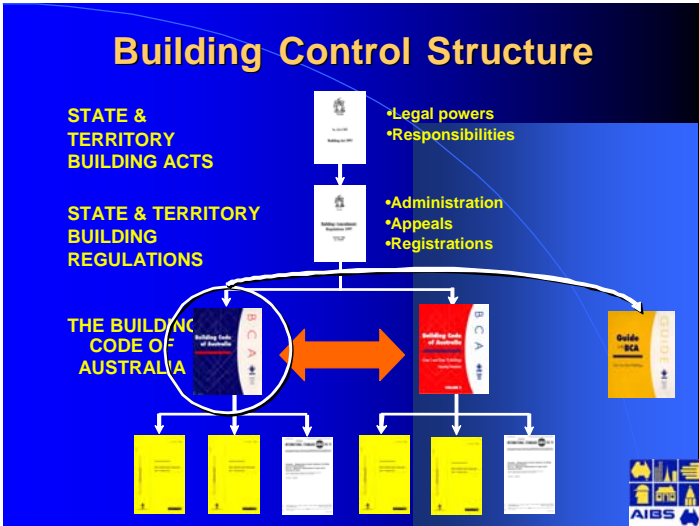


Figure 3 - Building Control Structure (source: Mitchell & Capetanakis, 2004)

2.3 The Regulatory Framework in Victoria

In Victoria, Australia, the Building Act 1993 is the law governing building, with the Building Regulations 2006 is the administration of the law. The regulations call up BCA as the main tool of compliance and the BCA references the appropriate standards. Separately to the above is the Domestic Contracts Building Act 1993 which regulates contracts in the domestic construction.

What provisions are made for enforcing and policing the regulatory system in Victoria? The Building Commission is responsible for enforcement of the building laws and can prosecute breaches through the courts. The Building Commission can also hold enquiries against building practitioners where complaints are made. Within the Building Commission there is a Building Appeals Board which hears disputes on the interpretation of the Building Regulations and standards and the conduct of building practitioners (Building Commission, 2007). In addition there is Building and Conciliation Victoria which attempts to mediate building disputes but has no legal enforcement status. Finally there is the Victorian Civil and Administrative Tribunal which can hear building disputes and award legal judgement.

2.4 Regulation of Compliance

The Building Act 1993 in Victoria requires that a Building Surveyor does not issue a building permit unless she/he is satisfied that the proposed works will comply with the Act and the Regulations however the same act also allows the Building Surveyor to issue directions so that the building works substantially or fully complies with the Building Act 1993. This situation of course creates some confusion as it infers that something less than full compliance may be legally acceptable? Furthermore in another section of the Building Act 1993, the occupancy permit or the final certificate is not evidence of compliance with the act and regulations. The act follows on to mandatory inspection stages which may be inadequate in number and scope to ensure full compliance is met.

Again this situation mirrors the Dutch experience whereby two reports showed that from 2003 to 2005 (VROM; 2005; 2006 cited in van der Heijden, 2007) only 12 to 16% of the Dutch municipalities carried out the control of building permit applications adequately and only 7 to 11% carried out the control of construction work to the building permit adequately. To date no empirical studies into the levels of enforcement and compliance post privatisation of building surveying and post introduction of performance based regulations has been undertaken in Victoria. Furthermore, the Dutch reports uncovered that information, needed for evaluating the requirements of the Building Decree was missing from 45% of new-building files for 2003 and 27% for 2004. Finally, the Dutch reports stated that in 2003 and 2004 no (visible) checks were performed for the various elements in the Building Decree in 69% and 47% respectively of permit applications. Large discrepancies were noted in the quality of the checks performed by the different municipalities. It is clear from the evidence in the Netherlands that full compliance is not ensured by the act and therefore building control can be compromised to a substantial degree. What is the implication for Australia, where the

building surveying profession is understaffed and overstretched (Zillante & Wilkinson, 2006)?

2.5 Regulation of Quality Standards

The Building Act 1993 is the relevant law in Victoria Australia and it sets out a regime of statutory requirements otherwise known as mandatory inspections that must take place during building construction. Mandatory inspections are required to ensure safety, health and amenity of the building occupants (a goal of the BCA). However there is an issue here because the law is notably silent on the issue of quality in construction, and aside from reference to Australian Standards and professional standards in the Building Regulations and the Domestic Building Contracts Act 1995 there is nothing of substance for use in every day administration to enforce compliance to a standard. Likewise the Building Regulations 2006 do not deal with quality of construction but only stipulate in Section 1502 the required professional standard required from practitioners. Furthermore the BCA 2006 in its goals excludes quality in its content. This state of affairs begs the questions; is it appropriate and / or acceptable that quality is excluded from the goals of the BCA, and secondly, does this omission compromise the realisation of the goals of the BCA?

The issue of quality in construction is covered elsewhere, for example, the Domestic Building Contracts Act 1995 makes two attempts with regards to a definition of quality. Firstly in Section 8 of the general warranties, the Domestic Building Contracts Act 1995 requires that all work is carried out in a 'tradesman-like standard'. Secondly, in Section 10 Special Provisions the Act provides that where standard of quality is set by a display home, all other new homes on the site are to be 'at least' of the same standard. It is then apparent that quality standards are not part of the current regulation regime and have been omitted. Where work is executed under a building contract it is perceived as the responsibility of the clients architect or contract administrator to ensure building standards and quality in construction and materials are adhered to. However there is an argument that if quality and standards are omitted from the building control role then the building regulations are incomplete at best and potentially in conflict with the client's professional advisers at worst.

In an effort to bridge the gap between the quantification of acceptable standards the Building Commission has produced a Guide to Standards and Tolerances for use where otherwise the specification is silent. The Guide is 24 pages long and is being revised to twice the length, however whilst the expansion of the Guide to Standards will improve the current situation, it has no legal effect at present. It is a guide only and represents the Building Commissions view of reasonable standards and tolerances. However it can be useful in some cases to prove breaches of professional standards required from building practitioners.

2.6 Policing of the System

The Building Act 1993 established Building Commission as the responsible body for administration of the act and the policing of the system. Within the commission is the Building Practitioner Board (BPB) which registers building practitioners and may take

disciplinary action in the case of justified complaints. The control is therefore enforced through the threat of conducting an investigation and possibility of a suspension or cancellation of the Building practitioners registration (Building Commission, 2007). In addition the Building Commission may prosecute for breaches of the act and regulations through the court system. Action may be taken against registered building practitioner by BPB and at the same time by the Building Commission in the court system. The commission may take action on its own initiative or as a result of referral or complaint by any other person and must investigate all complaints. The system is a good one in theory, however in practice it requires resources to deliver an effective and comprehensive policing and enforcement system.

One area of activity is the performance of building practitioners. Overall there are conflicting signals regarding the performance of building industry practitioners. Given the number of registered building practitioners and the relatively low number of complaints and prosecutions by the Building Commission, one could assume that all is well in terms of complaints and quality (Building Commission, 2006). In 2005 -2006 for example the Building Commission website lists 24 cases prosecuted in Victoria for breaches of the Act (Building Commission, 2007). The typical breaches recorded were construction without building permits, construction by non registered practitioners and lack of appropriate insurance cover. However is this state a true reflection of the situation or perhaps the complaints reaching Building Commission is only the tip of an ice-berg? Understaffing was the main problem affecting Dutch building control (Van Der Heijden, 2007) and so it is within the Building Commission and building surveying in general in Australia (Zillante and Wilkinson, 2006). With understaffing comes the problem of excessive high work loads for those currently employed, which stretches resources ever further. To date no data exists on the extent of absenteeism or sick leave within building surveying compared to other professions. Overall the quality and number of building inspections being undertaken typically on any project since privatisation of building surveying has reduced with the consequent increased likelihood that any defects will not be noticed during construction. There are suggestions that the feedback on the performance to the construction industry in respect of building control is fragmented and the actual situation represents a decreasing level of service, however these suggestions do require an investigation to ascertain the extent of the problem within Australia.

In Victoria, the Building Commission is the administrator and enforcer of the Building Act 1993 with regards to building regulation and as such, it should be interested in all aspects of building industry performance. Ideally the Building Commission needs to include management of all available data sources and active analysis in real time so that the trends noted above can be monitored, however the current set up makes the Building Commission's situation reactive as involvement occurs after a problem arises.

3. CONCLUSIONS

Overall the problems which are becoming apparent in Victoria and Australia a decade after the change to a performance based regulatory approach and privatisation of building surveying are being experienced in other countries (van der Heijden, 2007). Therefore this

isn't a problem affecting one country but many, however no empirical data has been collected in Australia at this point. The problems are many and include understaffing, an ageing profession (Wilkinson & Zillante, 2006) and increasingly high levels of risk associated with the role of building surveyor, for example, the Toomey legal case in Victoria resulted in many building surveyors reducing their exposure to professional work because of high levels of risk associated with their work and high insurance premiums. Overall these problems are leading to a decrease in the quantity and quality of building inspections on site and represent problem at different levels of the system. From the building surveyor practitioner level - they are typically unable to make the number of inspections they would like to make on their projects thus allowing unscrupulous builders the opportunity to flout the system and ignore the codes and regulations. At the Building Commission level there are difficulties in policing the system, in making sufficient inspections to bring those builders who are flouting the Building Act to the Board and inflict penalties on them. The Dutch have piloted a computer based system to address some of the problems the building control departments were experiencing in terms of inadequate supervision of sites and they report some improvements with the use of the tools. It seems that countries like Australia will have to engage in research which identifies the extent of the problem here prior to engaging in attempts to improve the system. In the final analysis it is the community which loses out when buildings become less safe and amenable to building occupants, thereby compromising the goals of the building regulations.

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BIOGRAPHICAL NOTES

Sara joined the University of Melbourne in January 2005 from Sheffield Hallam University in the UK. She is a Chartered Building Surveyor and a Fellow of the Royal Institution of Chartered Surveyors (RICS). Sara completed an MPhil at the University of Salford in 1995 examining conceptual understanding of green buildings within the UK construction industry and in 2002 she was awarded an MA in Social Science Research Methods. She has published over 80 conference and journal papers and co-edited an RICS/Blackwell Science book on Best Value in Construction. Her research interests include energy efficiency and environmental issues and sustainability in the built environment. Sara is a member of the editorial board of Structural Survey journal and Vice Chair Commission 10 Construction Management Construction Economics of FIG (International Federation of Surveyors).

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