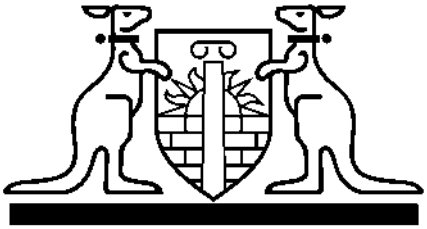

THE PRODUCTIVITY COMMISSION INQUIRY

REVIEW OF LEGISLATION REGULATING THE ARCHITECTURAL PROFESSION

A SUBMISSION BY THE ROYAL AUSTRALIAN INSTITUTE OF ARCHITECTS

8 DECEMBER 1999

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and Documentation Quality and its Impact on the Construction Process, Proceedings of the Joint Triennial Symposium Customer Satisfaction: A focus for research & practice, Cape Town, 5-10 September 1999.

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1. INTRODUCTION

This submission in Parts 2 and 3 responds to the Issues Paper prepared by the Productivity Commission. Part 4 provides the Royal Australian Institute of Architect's (RAIA) recommendations for the future registration and regulation of architects in Australia.

The practice of architecture consists of the provision of professional advice and services in connection with town planning and the design, construction, enlargement, conservation, restoration, or alteration of a building or group of buildings. These professional services include, but are not limited to: strategic and land-use planning; urban design; provision of preliminary studies, designs, models, drawings, specifications and technical documentation prepared by others as appropriate and without limitation (consulting engineers, landscape architects and other specialist consultants); construction economics; contract management; monitoring of construction and project management. Therefore the architectural profession and people trained as architectural technicians provide the services that enable society to create the urban environments inhabited by the vast majority of Australians. These services impact not only on the interests of the direct customers of architects but also on environmental sustainability and the health, safety, welfare and amenity of the broad community.

It is therefore essential that legislation provides for the public interest to be safeguarded by ensuring the people providing these services are appropriately qualified and required to maintain adequate standards of skill and knowledge. Occupational legislation relating to architects should be framed to ensure that, whilst protecting the public interest, it sustains the principles of the National Competition Policy Agreement by enabling architects to compete on the basis of professional knowledge, skill and capability.

The objective of legislation controlling the registration and regulation of architects and architectural technicians should be;

1. to ensure that architectural services are of a standard that will protect and enhance the public's health, safety and welfare, economic, social, cultural and environmental interests;
2. to ensure that architectural services are provided by and under the control of architects appropriately qualified by virtue of education, training and experience and who have the necessary competence and resources.

No person should be permitted to engage in the practice of architecture unless registered or otherwise permitted to practice under the legislation. No person should be permitted to use the title 'architect' or otherwise represent to the public that they are architects unless they are registered to practice architecture.

Architectural technicians also have an important role in assisting architects in the provision of architectural services. Technicians generally receive their education and qualifications in the TAFE system. The RAIA believes that a statutory system, which controls architectural services in the public interest, should also recognise the role of architectural technicians.

Australia currently enjoys an important position in the global market for architectural services. (It is estimated that 22% of the gross fees of Australian architects are earned offshore[1]). Whilst this is a significant export earning activity in its own right, the impact on gross overseas earnings is even more significant because of the "pull through" effect to Australian contractors, materials manufacturers and suppliers.

The recognition of Australian architects in overseas markets is largely due to the architectural education available in Australia, the skill and ability of Australian architects and the current statutory system of registration and regulation. A statutory system is seen to demonstrate government commitment to the maintenance of standards of education, entry and service in respect to the architectural profession. This system also attracts large numbers of overseas architectural students into Australian universities.

1 IBL Insurance Brokers Limited

In this context it should be noted that practically all the developed countries have statutory backed systems of registration and regulation and the current system of 'Title' legislation in Australia requires to be upgraded to a form of 'Practice' legislation adopted by most other countries– refer to the following table.

Regulation of the Architectural Profession

COUNTRY	STATUTORY REGULATION OF PRACTICE	TITLE	STAT. RECOGNITION OF QUALIFICATION ONLY
Australia		Y	
Austria	Y	Y	
Belgium	Y	Y	
Bermuda	Y	Y	
Brazil	Y	Y	
Canada	Y	Y	
China	Y		
Colombia	Y	Y	
Czech Republic	Y	Y	
Denmark			
Egypt	Y	Y	
El Salvador	Y	Y	
Finland			Y
France			Y
Germany	Y	Y	
Greece	Y	Y	
Guatemala	Y	Y	
Honduras	Y	Y	
Hong Kong	Y	Y	
Hungary	Y	Y	
Iceland	Y	Y	
India	Y	Y	
Indonesia	Y		
Ireland			
Israel	Y	Y	
Italy	Y	Y	
Jamaica	Y	Y	
Japan	Y	Y	
Jordan	Y	Y	
Kenya	Y	Y	
Korea	Y	Y	
Lebanon	Y	Y	
Luxembourg	Y	Y	
Malaysia	Y	Y	
Mexico	Y	Y	
Netherlands		Y	
New Zealand		Y	
Nicaragua	Y	Y	
Norway			
Panama	Y	Y	
Peru			Y
Philippines	Y	Y	
Poland	Y	Y	
Portugal			Y
Romania	Y	Y	
Russia	Y		
Saudi Arabia	Y	Y	
Singapore	Y	Y	
South Africa	Y	Y	
Spain	Y	Y	
Sweden			
Switzerland	Y	Y	
Taiwan	Y	Y	
Turkey	Y		
United Kingdom		Y	
United States of America	Y	Y	
Venezuela	Y	Y	
	Y	Y	

Source: Architects Overseas Practice Standards
A Guide to Selected Countries, National Council of Architectural Registration Boards
United States of America

In respect to the global market for architectural services, it should be noted that, following the establishment of the General Agreement on Trade in Services (GATS), the International Union of Architects (UIA) has prepared and adopted an Accord on Recommended International Standards of Professionalism in Architectural Practice.

A copy of that Accord and Guidelines forms Appendix 1 to this submission as it sets international best practice benchmarks for the architectural profession and is therefore germane to the issues to be addressed in this Inquiry.

2 FRAMEWORK

2.1 The market for architects

An understanding of the architectural profession and the market in which it operates is integral to a comprehensive national review of regulation. In particular, the extent and nature of competition and the case for regulation must be clearly defined.

Architects provide 'professional' services. The Australian Council of Professions has defined a 'profession' as:

"… a disciplined group of individuals who adhere to high ethical standards and uphold themselves to, and are accepted by, the public as possessing special knowledge and skills in a widely recognised, organised body of learning derived from education and training at a high level, and who are prepared to exercise this knowledge and these skills in the interests of others. (ACP 1997, p,5)" [2]

Is this an appropriate definition of a profession as it applies to architects? (Issues Paper p.5)

Yes, this definition is appropriate as it applies to architects.

The UIA (Union Internationale des Architectes • International Union of Architects) Accord on Recommended International Standards of Professionalism in Architectural Practice (Appendix 1) which was adopted at the XXI UIA Assembly in Beijing earlier this year, and to which the RAIA is a signatory, includes the following statement:

> *"Principles of Professionalism*
>
> *Members of the architectural profession are dedicated to standards of professionalism, integrity, and competence, and therefore bring to society unique skills and aptitudes essential to the sustainable development of the built environment and the welfare of their societies and cultures. Principles of professionalism are established in legislation, as well as in codes of ethics and regulations defining professional conduct:*
>
> *<u>Expertise:</u> Architects possess a systematic body of knowledge, skills, and theory developed through education, graduate and post-graduate training, and experience. The process of architectural education, training, and examination is structured to assure the public that when an architect is engaged to perform professional services, that architect has met acceptable standards enabling proper performance of those services. Furthermore, members of most professional societies of architects and indeed, the UIA, are charged to maintain and advance their knowledge of the art and science of architecture, to respect the body of architectural accomplishment, and to contribute to its growth.*
>
> *<u>Autonomy:</u> Architects provide objective expert advice to the client and/or the users. Architects are charged to uphold the ideal that learned and un-compromised professional judgement should take precedence over any other motive in the pursuit of the art and science of architecture.*

[2] Productivity Commission Issues Paper, Review of Legislation Regulating the Architectural Profession, November 1999, p.5

Architects are also charged to embrace the spirit and letter of the laws governing their professional affairs and to thoughtfully consider the social and environmental impact of their professional activities.

Commitment: Architects bring a high level of selfless dedication to the work done on behalf of their clients and society. Members of the profession are charged to serve their clients in a competent and professional manner and to exercise unprejudiced and unbiased judgement on their behalf.

Accountability: Architects are aware of their responsibility for the independent and, if necessary, critical advice provided to their clients and for the effects of their work on society and the environment. Architects undertake to perform professional services only when they, together with those whom they may engage as consultants, are qualified by education, training, and/or experience in the specific technical areas involved." [3]

The Australian Council of Profession's definition of professional services, which refers to high ethical standards and the use of special knowledge and skill in the interests of others, is highly appropriate to the delivery of professional architectural services. The information asymmetry that exists between architects and the consumers of their services presents architects with the opportunity to either maximise their own commercial interests or alternatively to ensure that the end project bestows the optimum benefit on the consumer of the service and the community at large. For example, an architect who maintains professional and ethical standards will, in the process of design, research and investigate a number of potential options before settling on the one that produces the optimum benefit to the consumer and the project. Whereas the provider of architectural services who operates solely on commercial principles, will seek to provide the minimum amount of research and design investigation necessary to produce an adequate solution in order to maximise the profit on the available fee.

The professional and ethical standards for the architectural profession in Australia were established by the Institutes of Architects and later State and Territory legislation following precedents developed by the Royal Institute of British Architects and earlier British legislation. Their purpose was to counteract some of the unscrupulous practices, or what would now be termed "market failures" that were commonplace in the largely unregulated nineteenth and early twentieth century building industry in both Britain and Australia.

These unscrupulous practices included 'kick-back' payments from contractors and subcontractors which, while enabling providers of architectural services to minimise fees charged to clients, resulted in design, specification and tendering decisions that were often not made in the interests of the client but rather, in the commercial interest of the provider of the architectural services, the contractor and subcontractors.

The introduction and continued requirement of statutory registration and regulation of architects has ensured that these practices no longer exist to any significant degree in building projects in Australia where architects are engaged as principal consultants providing comprehensive design, documentation tendering and contract administration services.

What differentiates the market for architectural professional services from non-professionals? (Issues Paper p.5)

3 UIA Accord on Recommended International Standards of Professionalism in Architectural Practice, Union Internationale des Architectes • International Union of Architects, 1998, p.3

The market for an architect's services is differentiated from the market for similar non-architects' services, by consumer recognition of the levels of expertise and integrity that they can expect from architects registered under existing legislation regulating the profession. Throughout this submission we identify why services provided by non-architects do not meet the levels provided by architects.

That consumers continue to seek out the services of architects registered under existing legislation despite the existence of "unregulated" competitors providing allegedly similar services suggests widespread public perception of benefit associated with such regulation.

How broadly (or narrowly) should the market in which architects compete be defined? For example, should it be defined broadly as the market for 'building' services, narrowly as the market for 'architectural design' services, or should an intermediate position be adopted, such as the TPC definition of 'building design' services? (Issues Paper p.6)

As stated in the Issues Paper, *"An understanding of the architectural profession and the market in which it operates is integral to a comprehensive national review of regulation."*[4] A failure to adequately identify the market/s in which architects compete was a major fault of NCP reviews previously carried out at the State and Territory level. The market for architects was often too narrowly defined as being associated only with the design of buildings. Architects provide a broad range of advice and services and effectively compete in a number of markets.

To give a perception of the broad nature of architectural services, it is appropriate to quote the UIA definition of the practice of architecture:

> *"The practice of architecture consists of the rendering of professional services in connection with town planning and the design, construction, enlargement, conservation, restoration or alteration of a building or group of buildings. These professional services include, but are not limited to: planning and land use planning, urban design, provision of preliminary studies, designs, models, drawings, specifications and technical documentation, co-ordination of technical documentation prepared by others (consulting engineers, urban planners, landscape architects and other specialist consultants), as appropriate and without limitation, construction economics, contract administration, monitoring of construction, and project management."* [5]

The document 'Scope of Architects Services' (Appendix 2) which is used to identify the specific services to be provided under standard Royal Australian Institute of Architects /Association of Consulting Architects (RAIA/ACA) Client and Architect Agreements, provides further appreciation of the breadth of services which may be provided by architects. Services falling into the following categories are identified in this document:

A.1 Pre-Design Services
A.2 Site Analysis Services

4 Productivity Commission Issues Paper, Review of Legislation Regulating the Architectural Profession, November 1999, p.5

5 UIA Accord on Recommended International Standards of Professionalism in Architectural Practice, Union Internationale des Architectes • International Union of Architects, 1998, p.4

A.3 Schematic Design/Development Application Services
A.4 Design Development/Development Application Services
A.5 Contract Documentation Services
A.6 Tendering and Negotiation Services
A.7 Contract Administration: Construction Services
A.8 Contract Administration: Post-Construction Services
A.9 Supplementary/Special Services

Not all the services within these categories are provided directly by the architect. In many cases sub-consultants will provide specialist services, but the architect is required to possess a broad understanding of all aspects of the project in order to recognise what specialist services are required and to integrate the contribution made by sub-consultants into the overall project design.

The breadth of architectural services results in architects competing at a number of market levels.

1. Architectural Services Market - competition with other architects.

2. Consultant Services Market - competition with consultants providing similar or overlapping services, e.g. Building designers, draftspersons, town planners, quantity surveyors, project managers, facilities managers.

3. Building Services Market - competition with providers of alternative building service procurement methods, e.g. project managers, package dealers, design/construct contractors.

Although architects are not directly involved in the provision of building construction services, their professional role involves them in the market as consumer advisers, facilitators of fair competition through the contract documentation and tender process, and as impartial inspectors and contract administrators who ensure that works are in compliance with contracts between consumers and builders.

It should be noted that Table 1 in the Issues Paper is not correct because many architects are registered in more than one State. A more accurate indication of the number of architects in Australia is shown in Appendix 4.

What occupations compete with architects? In which market sectors (eg commercial, residential) do they compete? Do the functions performed by architects differ according to market sector? Please provide examples where possible. (Issues Paper p.6)

As noted above, because of the broad range of services that architects provide, many occupations compete over a range of services and market sectors. For example, at a macro scale architects may be involved as lead consultants in the design of whole cities and at a micro scale, architects are involved in preparing drawings for alterations to domestic pergolas or sheds. Thus although architects may work in collaboration with town and urban planners, quantity surveyors, civil engineers, mechanical engineers, electrical engineers, draftspersons, landscape architects, acoustic engineers, project managers, builders etc they may also compete with many of these occupations from time to time for particular projects.

The 1992 Trade Practices Commission Study of the architectural profession found that the market for architectural services in Australia is highly competitive. There is no evidence to support any change in this situation since that study.

The traditional analysis of the building and construction industry that divides it into market segments of residential building, non-residential building and engineering construction has been identified as flawed. A recent report prepared for the National Building and Construction Committee (NatBACC) by the Department of Industry, Science and Resources (DISR) as part of the Building and Construction Industry Action Agenda process noted:

> *"This approach has a number of weaknesses. These include:*
> - *The scope of the industry being limited to firms directly involved in the construction process and the interaction between them. This does not recognise the significance of the professional and consulting services sector and the building materials sector."*[6]

The services required of an architect are determined by the nature of the particular project rather than the market sector. For example, the problem solving, design and technical skills required on a commercial project may in many ways be similar to those required on a residential project.

What is the geographic area in which architects compete? For example, is competition in the residential sector mainly at the local level, while for large commercial buildings is there national competition from interstate and other countries? In which segments of the market (eg residential, commercial) is this competition focused? (Issues Paper p.6)

Geographic location is less of a determinant in competition for architectural services than reputation, expertise and connections. Clients will often use the services of an architect in whom they have confidence, on interstate and overseas projects. In addition architectural firms often form collaboratives and/or entities, across State, national and international boundaries, to bring special skills and knowledge together for single projects or as an ongoing arrangement.

3 ISSUES

3.1 Clarifying legislative objectives

What are the objectives of the Architects Act in each State and Territory? (Issues Paper p.8)

The objectives of State and Territory Architects Acts as the Institute understands them are set out in Appendix 5.

Are the existing objectives appropriate? If not, what should they be? (Issues Paper p.8)

As is noted in the Issues Paper, the RAIA believes that the objectives of occupational legislation relating to architects should be:

[6] p.9, Building for Growth – An Analysis of the Australian Building and Construction Industries, Department of Industries, Science and Resources, 1999

1. to ensure that architectural services are of a standard that will protect and enhance the public's economic, social, cultural and environmental interests.

2. to ensure that architectural services are provided by and under the control of architects appropriately qualified by virtue of their education, training and experience and who have the necessary competency and resources.

In the global market for architectural services these objectives should be consistent throughout Australia. Given the nature of architectural services it is difficult to conceive a case for differences between jurisdictions.

Is it important that there is consistency of objectives across jurisdictions? (Issues Paper p.8)

Yes, to maximise the potential benefit to Australian consumers of architectural, consultant and building services it is important that there is consistency of objectives of all legislation regulating the provision of these services across all Australian jurisdictions.

3.2 Identifying restrictions on competition and their effects

Restrictions on market structure

Criteria for registration

Throughout Australia there is agreement within all jurisdictions that the minimum requirement for registration is 5 years of undergraduate education in an accredited course plus 2 years of practical experience or equivalency established by competency assessment. It is remarkable that this complies with the standard set in the International Union of Architects 'Accord on Recommended International Standards of Professionalism in Architectural Practice'. In this circumstance the age requirement contained in some legislation is regarded by the RAIA as being unnecessary.

There is no barrier to overseas architects practicing in Australia. There is a barrier to overseas architects using the title 'architect' but this is generally overcome by established procedures for registering authorities to assess and recognise overseas qualifications. There are in fact many notable examples of overseas architects practising in Australia on projects such as the Sydney Opera House, the National Parliament House, Federation Square – Melbourne, the Aurora Building – Sydney etc.

Without an architects' registration system any immigrant to Australia could claim to be a qualified architect. Consumers would find it difficult to ascertain the credentials of suppliers of architectural services and it is often the case in architecture that incompetent service is not discovered until the consumer has suffered loss or damage.

To what extent, if any, do registration requirements restrict the supply of architects? For example are training and other requirements appropriate? Does the minimum age requirement constrain entry to the profession? (Issues Paper p.8)

There is no evidence that registration requirements restrict the supply of architects in any manner adverse to the interests of consumers. By virtue of their broad architectural education many graduates prefer to pursue careers beyond architecture.

Existing Australian requirements for education, accreditation and practical experience for architects prior to registration are recognised by the UIA and the Commonwealth Association of Architects as representing international best practice.[7]

The minimum age requirement contained in the Architects Legislation of some states does not constrain entry into the profession in the context of the contemporary education system. This requirement is a remnant of the articled pupil process that existed in the 19th and early 20th Century when most members of the profession began their training in architects' offices in their early teens. For example, J.J. Clark, architect of the Old Treasury Building in Melbourne, commenced work with the Public Works Department at the age of 13 and was 19 when he signed the drawings as architect for this building in 1857. This limitation may also have been introduced for legal reasons in relation to contractual matters since 21 was the age of majority at the time legislation of the architectural profession was introduced.

To what extent do any of these restrictions impede architects from other countries practising in Australia? ? (Issues Paper p.8)

Existing registration requirements do not appear to significantly impede architects from other countries practicing in Australia.

Examples of overseas architects practising in Australia are numerous and include Joern Utzon, architect of the Sydney Opera House, Romaldo Guirgola, architect of the National Parliament, Renzo Piano, architect of the Aurora Building, currently under construction in Sydney and Lab Architects, designers and architects in association with Australian firm Bates Smart of Federation Square, currently under construction in Melbourne.

A mutual recognition agreement exists with the architects' accreditation and the regulatory authority of New Zealand. Currently Australia is exploring the possibility of establishing multi-lateral or bi-lateral reciprocity agreements with countries of the APEC region.

Are all registration requirements necessary to achieve the legislation's objectives? ? (Issues Paper p.8)

Yes, with the exception of some redundancies such as the age restriction in some States' legislation, existing Australian registration requirements are recognised by the UIA as representing international best practice in respect to the establishment and maintenance of standards of admission and practice by placing restrictions on the use of the title 'architect'.[8]

Restriction on use of the title 'Architect'

What effect does the restriction on the use of the title 'architect' have on the supply of architectural and similar services to the market? (Issues Paper p.9)

None. Restriction of the use of the title 'architect' identifies to the market practitioners recognised by statute as possessing levels of knowledge, experience and ethical standards sufficient to put themselves forward as architects or architectural practices. As such it creates a market for architectural services.

[7] UIA Accord on Recommended International Standards of Professionalism in Architectural Practice, Union Internationale des Architectes • International Union of Architects, 1998, pp.6,7
[8] UIA Accord on Recommended International Standards of Professionalism in Architectural Practice, Union Internationale des Architectes • International Union of Architects, 1998, pp.7,8

However, individuals and entities providing similar services competing in the markets for consultant or building services are not prevented from competing with architects in the provision of these services.

The existence of an unregulated sector providing similar services can be argued to result in the delivery of positive externalities to the market. The efficiency of the architectural profession is assured by the existence of competition with unregulated service providers and the standards of knowledge, experience and ethics of the regulated architectural profession provide a benchmark for consumer assessment of unregulated service providers.

Ownership and control restrictions on partnerships and companies that can use the title 'Architect'

How do these type of restrictions affect the provision of architectural services? For example, could alternative forms of organisation provide architectural services more efficiently? (Issues Paper p.9)

These restrictions ensure that architectural services are provided by or under the control of architects possessing adequate levels of knowledge, experience and ethical standards.

As most architectural services are delivered through a partnership or some form of corporate structure it is logical that registration provisions should extend to registration of these entities.

Consumers of architectural services thus benefit from the knowledge that they are obtaining advice and services from an entity that is bound by statute to comply with the same registration provisions applying to individual architects.

This reduces the possibility of confusion resulting from the employment of architects or their involvement as minority partners, directors or shareholders in commercial organisations such as project managers, building contractors and developers. In these instances, a conflict between the commercial interests of the employer or the majority of non-architect partners, directors or shareholders and the interests of the consumer may exist. In these circumstances an employee architect or a minority architect partner, director or shareholder is not in a position to act independently in the interests of the consumer.

The major cost of producing architectural services is the human cost of highly trained, knowledgeable and skilled people applying their time to the demands of the architectural commission or project. As a rule of thumb, personnel costs in an architectural practice account for 40%-50% of the costs, with the next highest item of cost being rent at approximately 15%. No alternative forms for the delivery of architectural services have been put forward that clearly demonstrate greater efficiencies than the existing arrangements.

Recent research appears to indicate that reductions in architects' fees as a result of fee tendering and competition between architects based on minimising fees, has been to the detriment of consumers of architectural and building services. A paper released by the CSIRO reports a perceived decline in the quality of architectural documentation during the last fifteen years, which has coincided with the increase in fee-based competition and the increasing use of alternative methods of project procurement during the same period. This has led to tenderers for building projects, either as head contractors or subcontractors, including allowances for additional time and materials in their prices to cover unforeseen problems in construction and rectification of work as a result of insufficient information being included in contract documentation. An increase in end cost for a building of just over 11%

as a result of very poor quality documentation and 2.5% for average quality documentation is reported. [9]

> *"By reducing design fees to minimise costs, clients and developers were by their own actions, contributing to the problems which lead to inefficiencies in the construction process and increases in overall project costs."*[10]

In order to compete in the market for architectural services while still remaining profitable, architects have in many instances reduced documents to include only the information to obtain a Building Permit. This is often at the request of the consumer or, in the case of alternative methods of procurement, the project manager or the building contractor. While such documentation is arguably sufficient to assure the health and safety of building and construction services' consumers and the public, it is demonstrably not resulting in buildings which serve the best interests of consumers and the public in terms of end cost or design quality.

This is an example of market failure caused by the asymmetry of information amongst consumers regarding the importance of design consultant input and thus causing them to make decisions which, while apparently economically rational, are demonstrably to their detriment.

The International Cost of Construction Study, commissioned by the Department of Industry Science and Resources, reported in publications promoting the Building and Construction Industry Action Agenda, that the German construction industry, despite a more highly regulated environment and a more conservative approach to alternative organisations of the building procurement process than the other countries studied, was the most cost efficient.[11]

It can be argued that conventional analysis of the performance of the construction industry in Australia as has been applied to the development of regulatory policy for the industry has been flawed. There has been a concentration on the head contractor (builder) as the core of the industry. The effect of this has been that the significance of the professional and consulting services sector has not been adequately recognised.[12] In many respects decisions taken at this "front end" of the industry have a significant effect on contracting and sub-contracting parts of the industry.

Pressure for access to the titles 'architect' and 'architectural' is greatest from the commercial sector of the industry. Given that there is no barrier to alternative forms of organisation providing similar services to the market, only a barrier to access to the titles 'architect' and 'architectural' in relation to these services. Given the high public status the title 'architect' enjoys, it may be inferred that the commercial sector is merely seeking to capture these titles in order to maximise the commercial benefit to it. A feature of most forms of alternative project procurement is the absence of independent professional verification of compliance with the contract between the consumer and the commercial provider of building services.

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9 P.A. Tilley, S.L McFallan and S.Tucker, Division of Building, Construction and Engineering, Commonwealth Scientific and Industrial Research Organisation, Brisbane, Australia, 1999, Design and Documentation Quality and its Impact on the Construction Process, Proceedings of the Joint Triennial Symposium Customer Satisfaction: A focus for research & practice, Cape Town, 5-10 September 1999, p9

10 ibid, p10

11Building for Growth – An Analysis of the Australian Building and Construction Industries, Department of Industries, Science and Resources, 1999 pp.27-33

12 ibid. p.9

What effect do these restrictions have on innovation within the profession? (Issues Paper p.9)

These restrictions have had minimal effect on innovation within the architectural profession. Those members of the profession who have wished to extend their services to include provision of building or property services in addition to architectural services have been able to do so. Existing legislation has provided clear guidelines to them as to the manner in which their activities must be structured and consumers and the public adequately informed of their dual role.

Nonda Katsalidis and Clare McCallister are notable examples in Melbourne of architects who have adopted this path of innovation with outstanding success.

Restrictions on conduct

Has this type of restriction (prescriptions of conduct in relation to advertising and promotion in South Australian and Western Australian Architects Acts) impeded competition between architects in practice? What has occurred in those jurisdictions where advertising restrictions have been removed? (Issues Paper p.10)

Without commenting on the specifics of the existing State Acts, the RAIA makes the following general comments:

1. the Institute does not support constraints on architects advertising, however
2. restrictions on the conduct of professionals with associated disciplinary arrangements are essential tools in maintaining standards and the public has a strong expectation that transgressions of these standards will be disciplined.

Restriction on advertising is a relatively minor impediment to competition between architects in practice and it could be argued that, since all architects are subject to the same restriction, competition between them is not impeded. It does however significantly impede competition between architects and other providers of similar services.

Most commissions come to architects through word of mouth, by architects responding to calls for submissions or architectural competitions, so advertising is largely irrelevant because it is not seen to be cost effective.

Have these restrictions acted to restrict competition within the profession? What is their effect in practice? (Issues Paper p10)

These restrictions apply uniformly across the architectural profession and are generally similar in all jurisdictions; consequently they do not restrict competition within the profession.

Their effect in practice has been the effective elimination of unscrupulous practices, or what would now be termed “market failures” that were commonplace in the largely unregulated nineteenth and early twentieth century building industry in both Britain and Australia.

These unscrupulous practices included, in particular, ‘kick-back’ payments from contractors and subcontractors which while enabling providers of architectural services to minimise fees charged to clients, resulted in design, specification and tendering decisions that were often not made in the interests of the client but rather, in the commercial interest of the provider of the architect, the contractor, subcontractors and materials suppliers. In fact some of these

practices continue today amongst some of the associated unregulated occupational groups. It is not unusual for example, for interior decorators to receive a fee from the client as well as payments from suppliers of goods and materials. The client is generally not aware of these other payments. Because of the regulatory system in Australia, this practice no longer exists amongst architects. There is little doubt, however that it would re-emerge if the regulatory system were abandoned in favour of a free market for architectural services.

Disciplinary Proceedings

Could cases of misconduct be adequately handled by means other than the Architects Acts, for example, by the RAIA or the Trade Practices Act 1974 (Parts ivA & v)? (Issues Paper p,11)

Cases of misconduct and transgressions against Architects Legislation are best handled by an authority that is, and is accepted by the public as being independent from the profession.

Whilst it always will be appropriate for the RAIA to have a disciplinary regime in place to maintain standards for its members, this should not be confused with the need to protect the public interest. The public requires protection, through a statutory system, from the unqualified who hold themselves out to be qualified and from the qualified who fail to meet the required standards of service.

Are there any other restrictions in the Architects Acts, and related regulations or by-laws, which impede competition? (Issues Paper p,11)

No.

Are there restrictions in other State or Territory legislation (eg building acts or by-laws), which impede competition in the market in which architects practise? (Issues Paper p,11)

Yes. State and Territory Building Acts restrict competition in markets in which architects practice. Competition is restricted through measures such as builders' registration provisions that restrict access to the building services market, and requirements that inspection and certification of compliance with building regulations only be carried out by building inspectors and building surveyors (with the exception of the Northern Territory) and recognition of engineers and not architects for provision of specialist certification in relation to aspects of building construction which restrict access to the consultant services market.

The architectural profession generally accepts these restrictions as necessary to protect the public interest. In some instances architects have also obtained qualifications as building surveyors or engineers in order to carry out their functions.

3.3 Legislation regulating architects and the public interest

Market information problems

In the absence of Architects Acts and in particular, restrictions on the use of title, would there be information problems in the provision of architectural services? If yes, in which market sectors? Who would be affected? (Issues Paper p.12)

Yes. The absence of Architects Acts or similar legislation would lead to the market failures of negative externalities and information asymmetry.

Negative externalities occur because architectural services impact on other people as well as the initial consumer. Poor architectural services may not only impact on the cost to the client (see Appendix 3) but also establish ongoing life cycle costs and potential failures which become burdens on future owners and to the community.

Information asymmetry occurs because the inexperienced and uneducated consumer does not have the ability to determine the appropriate cost and quality trade-off when purchasing complex architectural services. To obtain the necessary information would be expensive (ie consumers would face high transaction costs) and will deter consumers from purchasing. This, in turn, will lead to resource misallocation in the provision of architectural services compared with a perfectly informed market.

One of the criticisms of having a regulation regime for architects is that it creates a monopoly which results in a reduction in the amount of architectural services produced and increased prices. Critics of government intervention are wary about implementing a registration scheme even when it may be justified. This is because they consider that the profession captures the government regulators over time and extends the monopoly to areas where the costs outweigh the benefits. While this may have been argued it has never been demonstrated to have occurred as a result of the registration system which has been in place in Australia for over 70 years.

Do the Architects Acts resolve all information problems? If not, what information problems are unresolved and how should they be addressed? (Issues Paper p.12)

The major information problem arises out of the infrequent use of architectural services by most consumers and the difficulty of determining where to place information in the market place. The general member of the community is not receptive to information until he or she is about to become a consumer and it is difficult to identify intending consumers. A general program to inform the community at large would be extremely costly and not as effective as the recognised system of identifying qualified and able providers through a registration system.

Is there other consumer protection legislation (eg the Trades Practices Act 1974 (Part v) and Fair Trading Acts? What are the advantages and disadvantages of each? (Issues Paper p.12)

Yes, there is other consumer protection legislation.

The major disadvantage of consumer protection legislation which does not include provisions which regulate access to the role of service provider is that they are re-active rather than pro-active in their approach. This form of consumer protection responds to market failure after it has occurred. In markets where information asymmetry between service or product providers and consumers is not a significant factor and where the economic cost of rectifying problems arising out of any market failure is relatively minor, this form of consumer protection legislation is appropriate because it minimises restriction of competition and involves low administrative costs.

In markets such as the provision of architectural services, design consultant services and building construction services there are:

- high levels of information asymmetry between consumers and service providers,

- complex interrelationships between service providers,
- services are essentially in the nature of experience goods and
- costs of rectifying problems arising out of market failure are high.

Additionally the problems of externalism such as problems arising out of poor services not being evident until long after the service has been provided and affecting the interests of subsequent building owners and the community. In view of this, the additional restrictions on competition and additional administrative costs involved in regulation which restricts access to the role of service provider can be justified.

Are there significant additional guarantees of competence and quality that purchasers receive from using the services of an architect registered under an Architects Act which are not received from a member of the RAIA? If yes, please elaborate. If not, from a consumer protective perspective, what is the advantage of the Architects Acts? (Issues Paper p.12)

Since qualification for registration as an architect is a precondition of corporate membership of the RAIA, this question is not relevant. Members of the RAIA have access to services and resources, which assist them in their practice as architects. Membership of the RAIA is not obligatory. Architects' legislation provides consumers with the assurance that architectural services are based on adequate levels of expertise and integrity and that there is access to disciplinary procedures should architectural services not reach these standards.

What is the most effective and efficient way of addressing information problems? Alternatives to the Architects Acts might include the provision of information targeted to specific market sectors in consumer publications, media reports or on the Internet. Could the information problems be resolved by enhancing the information provision activities of the RAIA? (Issues Paper p.13)

The nature of architectural, consultant and building services as experience goods and the infrequent market participation of most consumers makes addressing the high level of information asymmetries in the market difficult and very expensive. Most consumers are not aware of the need for information and may not recall information that they may have been provided with at some earlier time. In addition information not updated regularly may become outdated due to the changes in the market.

The complexity of even a relatively simple building project in terms of the relationships between consumers, regulatory authorities, design consultants, building contractors, subcontractors and materials suppliers can rapidly leave even relatively knowledgeable consumers out of their depth. There is no shortage of plausible information in relation to the building procurement process and not all of it is given strictly in the interests of the consumer. In these circumstances architects' occupational legislation is probably the most successful avenue of addressing information problems in a proactive manner. They do this by allowing consumers access to independent expert professional advisors.

Due to the relatively infrequent requirement of most consumers for architectural services and the broad scope of potential problems, it has been the experience of the RAIA that the provision of information to consumers through advertising campaigns, media reports etc. is difficult to target and expensive to maintain.

The RAIA has had an excellent response to Archicentre, a subsidiary company owned by the RAIA, which concentrates on providing advice to homeowners. Initially commencing operation in Victoria in 1981, this service has expanded to operate on a national basis.

Although architectural services have traditionally not been heavily utilised in the detached housing area, Archicentre has been an outstanding success. This is because it makes available the advice of independent expert professional architects in areas such as house inspections and design of new houses and renovations,

Spillover effects

What are the risks associated with the provision of architectural services? What are the potential consequences of those risks? Who bears those risks? What mechanisms are in place to manage or reduce them? (Issues Paper p.13)

The risks of the identified market failures in the provision of architectural services can be divided into two areas; risks to the consumer and to the general public.

For the consumer, the risk depends on their access to information. The more knowledgeable they are, the more they can judge the quality-price trade off. The one-off consumer of architectural services is the least knowledgeable and the one facing the greatest risk. The actual number of consumers who have inadequate information is not known and is not easily ascertainable.

For the general public, the risk of inadequate architecture depends on their exposure to architectural services. Every person's lifestyle is dependent on architecture, at home or in the work place or in the street. Therefore every person has some risk exposure to architectural services. The effect of architectural works extends to those who have no role in the selection of the architect for the project. A comprehensive and effective registration system significantly limits the incidence of failures that may be caused by unqualified or incompetent practitioners.

The risks associated with the provision of architectural services are economic, social, cultural and infrequently catastrophic. Because even small building projects are relatively expensive, the cost of poor architectural services can involve significant expense to consumers. The level of information asymmetries in the architecture and building service market may result in consumers suffering economic loss without being aware that it has occurred.

The provision of architectural services also involves risks to building service providers. The preparation and submission of a tender for a building project involves significant expense. If the standard of documentation is poor, tenderers must make a decision whether to absorb consequent costs or include them in their tender. This results in the risk of diminished profits or losses due to the cost of preparing unsuccessful tender submissions.[13] If the tender process is not conducted in an ethical manner there is further risk of expense to unsuccessful tenderers (see Appendix 3).

Given existing building and planning regulations, can Architects Acts be justified on the grounds of correcting a market failure in terms of health and safety effects? (Issues Paper p.13)

[13] P.A. Tilley, S.L McFallan and S.Tucker, Division of Building, Construction and Engineering, Commonwealth Scientific and Industrial Research Organisation, Brisbane, Australia, 1999, *Design and Documentation Quality and its Impact on the Construction Process,* Proceedings of the Joint Triennial Symposium Customer Satisfaction: A focus for research & practice, Cape Town, 5-10 September 1999, pp. 8,9

Yes. Existing building and planning regulations provide a base level of protection against market failure in terms of health and safety. However the additional expense imposed on consumers by prescriptive regulations in these areas has been recognised as a form of market failure. Consequently regulation in these areas is increasingly becoming performance-based to encourage innovation and the development of improved or more economical solutions than those required under older proscriptive forms of regulation.

Architects Acts assist in maximising the potential public benefit available in the shift to performance-based building and planning regulations by ensuring that providers of architectural services maintain high levels of knowledge and experience. Architects can apply these high levels of knowledge and experience in the interests of consumers and the public to innovative design of buildings that maximise the potential benefit of performance based regulation and indeed compete with each other to excel in this respect.

Are there other potential public interest benefits of the legislation of architects, for example, social or cultural benefits? In what way does the legislation provide for these outcomes? (Issues Paper p.13)

Yes. As a profession, architects recognise that they have an obligation to the community that extends beyond their own and even their client's immediate interests.

The regulation of architects underpins a system of accreditation of architects' education that seeks to ensure that architects are provided with an understanding of the social and cultural implications of their professional activities.

The architectural courses in Australian universities under the existing legislation are jointly accredited by the RAIA and the relevant State Registration Boards. This statutory-backed accreditation system establishes a high level of credibility for these courses and results in a high level of overseas' student enrolments.

Currently there are approximately 1000 overseas students enrolled in the Australian architecture courses paying a minimum of $10,000 each per annum in tuition fees. It is estimated that each student spends at least $15,000 in living expenses. So it is probable that overseas' architecture students are injecting at least $25m. each year into the Australian economy.

The abandonment of a statutory system of registration and regulation would almost certainly result in overseas' students going to other countries in which a national regulation system is maintained. The loss to Australia would be economic, social, cultural and international goodwill.

The existence of regulation of architects also provides a means for the community, through government, to influence the priorities of the profession. For example, there is a move towards a requirement for compulsory continuing professional development for registered architects.

A largely unrecognised benefit of architects' legislation is that many of the applications for planning and building approvals are prepared by architects. These applications are, by virtue of the architect's education, training and experience, generally of a significantly higher standard than those produced by untrained and unqualified consultants and therefore are capable of being swiftly and efficiently processed.

Anecdotal evidence from relevant authorities such as local councils, indicates that significant

losses are incurred by authorities in advising and assisting under-qualified consultants in the preparation of adequate documentation to support an application. Authorities are not permitted to reject an application on the basis of poor or inadequate documentation and are therefore forced to persist with a protracted process of extracting adequate documents from the applicant. This public cost would be significantly reduced if architects' legislation was extended to cover the practice of architecture.

An important public benefit of architects legislation is that a statutory register makes it unnecessary for public client agencies to maintain their own registers of competent 'architectural service providers'.

In a deregulated market, these agencies would need to invest significant resource into researching establishing and maintaining a register of competent providers of architectural services.

3.4 Assessing the net public benefit

For example, to what extent do private gains accrue to architects because they are registered under Architects Acts? Do current restrictions result in higher fees being paid by (some or all) purchasers of architectural services? If yes, to what extent? (Issues Paper p.14)

There is no evidence that registration under Architects Acts results in architects enjoying a higher level of private gains than providers of similar services. Fees paid to architects tend to be dependent on the reputation and expertise of the individual architect.

Research by the CSIRO has found evidence that competition between architects based on provision of services for minimum fees has resulted in increased overall cost of building projects to consumers.[14] (see Appendix 3).

What are the costs to architects of registration (fees, training etc)? (Issues Paper p.14)

Costs of registration are in the order of $100 per year. As such they are insignificant when compared to the cost of training to qualify to practice as an architect.

In the absence of Architects Acts, what would be the level of service quality and architectural fees? How would consumers inform themselves about the quality of particular architects? (Issues Paper p.14)

The level of service quality in the absence of Architects Acts is a matter of conjecture. It might reasonably be assumed that it would extend from poor to excellent with the majority of architects somewhere in the middle.

In view of the detrimental effect on service of low fees it is possible that fees paid to architects by informed consumers might be expected to increase in the future.

[14] P.A. Tilley, S.L McFallan and S.Tucker, Division of Building, Construction and Engineering, Commonwealth Scientific and Industrial Research Organisation, Brisbane, Australia, 1999, *Design and Documentation Quality and its Impact on the Construction Process,* Proceedings of the Joint Triennial Symposium Customer Satisfaction: A focus for research & practice, Cape Town, 5-10 September 1999,

The assurance of minimum levels of expertise and integrity they can expect from an "architect" which are currently provided by Architects Acts would not be available. Consumers would be forced to rely on their own enquiries or the representation of individual architects they approach to inform themselves about the quality of particular architects. Poorly informed consumers would be placed at greater risk of receiving low quality services.

Consumers in offshore markets would be significantly disadvantaged in assessing the expertise of Australian architects in comparison to those from countries which require registration of architects under Architects Acts or similar legislation, with consequent disadvantage to Australian architects active in the world market for architectural services.

3.5 Alternatives

Which, if any, of these alternatives would be preferable to existing arrangements and why? Please elaborate by providing information on the cost and benefits as outlined in Section 3.4. For example, to what extent, if any, would enhancing legislation to regulate practice benefit the public? (Issues Paper p.15,16)

Refer to recommendations under Section 4.

What impact do these alternatives have on the ability of Australian architects to compete in world markets? (Issues Paper p.16)

Provided a level of regulation of architects equivalent to that existing under existing Architects Acts is retained, Australian architects ability to compete in world markets will not be compromised.

Are there other alternatives which would be more appropriate? If yes, please provide the information on costs and benefits. (Issues Paper p.16)

No.

Are there examples of similar instances where the risks are unacceptably high in the provision of architectural services? If yes, you may wish to incorporate these in your alternative option. (Issues Paper p.16)

No.

3.6 Consistency between jurisdictions

To what extent is a lack of legislative consistency across jurisdictions a problem? Which areas of the Acts pose problems (eg registration, restraints on ownership of businesses) and what costs are imposed? Do inconsistencies create particular difficulties for architectural companies with branches in more than one State or for overseas based architects wishing to practice in Australia? (Issues Paper p.17)

Current lack of legislative consistency across State and Territory jurisdictions requires architects wishing to practice in a number of States and Territories to register in those jurisdictions and pay multiple registration fees. This is inconvenient, unnecessarily bureaucratic and produces no discernible benefit.

How many architects have been registered under mutual recognition? (Issues Paper p.17)

A comparative analysis of the eight registration lists would be necessary to answer this question. Appendix 4 however gives an indication of the level of multiple registrations.

How well is the process working? For example, is the process costly and time consuming? Has mutual recognition overcome problems raised by inconsistencies in registration? If not, why? (Issues Paper p.17)

The existing mutual recognition provisions are working adequately only because all jurisdictions adopt similar standards.

Would extending mutual recognition beyond registration of occupation overcome any problems arising from inconsistencies between jurisdictions? (Issues Paper p.17)

No.

Are there more appropriate solutions to these problems than mutual recognition, for example, uniform or harmonised legislation? (Issues Paper p.17)

See Section 4 in this submission.

International considerations

To what extent, if any, do inconsistencies impede Australian architects' ability to compete in the world market? (Issues Paper p.17)

Existing inconsistencies between State and Territory Architects Legislation do not significantly impede Australian architects' ability to compete in the world market.

Removal of regulation and registration of architects by legislation on the other hand is likely to significantly impede Australian architects' ability to compete in the world market.

Adverse international reaction to Australian deregulation of meat inspection procedures in the export market provides an example of the likely response.

It should also be noted that the UK decision to retain architects' legislation was strongly influenced by the European Economic Union's resistance to their proposed deregulation.

4. RECOMMENDATIONS

Having responded to the matters raised in the Issues Paper, the RAIA makes the following recommendations in respect to the future registration and regulation of architects in Australia.

4.1 Form of Regulation

There are a number of models for the registration and regulation of professions. Generally they come under three groupings:

Self Regulation
Co-regulation
Statutory Authority Regulation

The RAIA does not believe that a system of self-regulation would be acceptable to the Australian community and it would not meet the standards adopted internationally.

In the global market, the State-based system of regulating the architectural profession has the potential to disadvantage Australian architects. Whilst mutual recognition overcomes many of the problems of State legislation controlling professional occupations, there is little doubt a national regulation system or a uniform or harmonised State system would avoid duplication and be more efficient.

The RAIA realises the difficulties associated with the constitutional reform required to achieve some of the models set out below, however it believes that if reform of existing legislative arrangements is contemplated then the following four models should be considered:

1 Government Administered Models:

1A National Legislation

The States cede to the Commonwealth their powers to legislate in respect to the registration and regulation of the architectural profession.

The Trade Practices Act is amended to provide for the national regulation and registration of architects. Legislation administered by a statutory board appointed by the Australian Competition and Consumers Commission, much in the same way as State Registration Boards currently operate.

1B State Legislation

The States agree to adopt uniform or harmonized legislation and to administer that legislation through State Registration Boards in a manner similar to the current arrangements.

2 Co-regulation Models:

2A National Legislation

The States and Territories cede to the Commonwealth their powers to register and regulate architects. The Trade Practices Act is amended to provide for The Royal Australian Institute of Architects to be the recognised authority to register and regulate architects.

The Commonwealth establishes an administrative tribunal or tribunals to deal with offences under the Act or under the regulations set by the regulating authority.

2B State Legislation

The State and Territory Governments adopt uniform legislation providing for The Royal Australian Institute of Architects to be the recognised authority to register and regulate architects.

The States and Territories establish administrative tribunals to deal with offences under the legislation or under the regulations set by the regulating authority.

Recommendation 1

Whilst any of the above models would provide a workable statutory system of registration and regulation, the RAIA recommends the adoption of the national co-regulation system described in Model 2A.

4.2 Titles Legislation/Practice Legislation

While the current Architects Acts in Australia have many similarities, they are all "titles" Acts or certification systems that reserve the title "architect" and its derivatives. It would appear that many other countries either have, or are moving towards, a system of "practice" regulation under which only individuals and groups of individuals who meet specific legislated criteria may perform the services of the profession. These systems acknowledge that the most effective means of protecting the public interest, in respect to the quality and performance of the constructed environment, requires legislation to control the practice of architecture, rather than merely limiting access to the title "architect".

Recommendation 2
The RAIA recommends that a national system of legislation should provide that no person be permitted to engage in the practice of architecture unless registered, or otherwise permitted to practice under the legislation. No person should be permitted to use the title 'architect' or otherwise represent to the public that he or she is an architect unless he or she is registered to practice architecture.

4.3 Education

Architectural education should ensure that all graduates have knowledge and ability in architectural design, including technical systems and requirements as well as consideration of health, safety, and ecological balance. It should also ensure that they understand the cultural intellectual, historical, social, economic, and environmental context for architecture and that they comprehend thoroughly architects' roles and responsibilities in society.

In most countries, architectural education is conventionally delivered by 4-6 years full-time academic education at a university (followed in some countries, by a period of practical experience), though there are important variations (part-time, work experience etc.).

Recommendation 3
The RAIA recommends that education for architects (apart from practical experience), be of no less than 5 years duration, delivered on a full-time basis in an accredited architectural program in an accredited university, while allowing for variety in pedagogic approach, response to local contexts, and flexibility for equivalence.

4.4 Accreditation, Validation, Recognition

This is the process that establishes that an educational program meets an established standard of achievement. Its purpose is to assure the maintenance and enhancement of an appropriate educational foundation.

Validated criteria and procedures for accreditation by an independent organisation help to develop well-integrated and coordinated programs of architectural education. Experience shows that standards may be harmonised and promoted by regular external monitoring in addition to internal quality assurance audits.

Recommendation 4

The RAIA recommends that architectural courses be accredited by an independent authority, external to the course provider at reasonable time intervals (usually no more than 5-years). The RAIA, in association with the regulating authority and the relevant educational bodies, should continue to develop standards for the content of an architect's professional education that are academically structured, intellectually coherent, performance-based and outcome-orientated, with procedures that are guided by good practice.

4.5 Examination & Assessment

Every applicant for registration as an architect must be required to demonstrate an acceptable level of professional knowledge and ability to the State registration authority.

The public is assured of an architect's knowledge and ability only after he or she has acquired the requisite education and practical experience and demonstrated minimum knowledge and ability in the comprehensive practice of architecture. Examination and/or other evidence must demonstrate these qualifications.

Recommendation 5

The RAIA recommends that the required knowledge and ability of an architect be proven by providing adequate evidence. This evidence must include the successful completion of at least one examination at the end a period of practical experience. Necessary components of professional knowledge and ability that are not subject to an examination have to be proven by other adequate evidence. These include such subjects as business administration and relevant legal requirements.

4.6 Registration

Registration is the official legal recognition of an individual's qualification allowing her or him to practice as an architect, associated with regulations preventing unqualified persons from performing certain functions.

Given the public interest in a quality, sustainable built environment and the dangers and consequences associated with the development of that environment, it is important that architectural services are provided by properly qualified professionals for the adequate protection of the public.

Recommendation 6

The RAIA recommends that the registration of the function of architects in Australia be maintained. In the public interest, provisions for such registration/ licensing/certification should be by statute and should be extended to include 'practice' regulation in addition to regulation of access to the title 'architect'.

4.6.1 Partnership and Corporate Practice

As most architects operate through a partnership or some form of corporate structure it is logical that registration provisions should extend to registration of these entities.

Consumers of architectural services would benefit from the knowledge that they were obtaining advice and services from an entity which was bound by statute to comply with the registration provisions applying to individual architects.

This would reduce any possibility of confusion resulting from the employment of architects by, or their involvement as, minority partners, directors or shareholders in commercial organisations such as building contractors or developers. In these instances, a conflict between the commercial interests of the employer or the majority of non-architect partners, directors or shareholders and the interests of the consumer may exist, where an employee architect or an architect partner, director or shareholder is not in a position to act independently in the interests of the consumer.

Recommendation 6.1
The RAIA recommends that in respect of entities that are registered as architectural practices:
1. The services provided should be carried out by or under the control and supervision of architects, and
2. Control of the practices be in the hands of architects as a majority of partners, directors or shareholders with majority voting rights.

4.7 Regulation

It is not sufficient for legislation to define only the basic entry standards as a permit to practice architecture.

Recommendation 7
The RAIA recommends that, in order to protect fully the consumers of architectural services, it is essential to monitor the standards of ongoing architectural practice. Legislation must therefore provide for the establishment of standards of practice that all architects are required to uphold and for significant penalties for those who fail to maintain those standards.

4.8 Code of Conduct

The public is entitled to expect that architects will maintain a high standard of conduct and ethics in their professional activities. These standards should include obligations not only to the direct clients of architects but also to the community at large and to professional colleagues in architecture and related disciplines.

Recommendation 8
The RAIA recommends that legislation should provide for the establishment of a mandatory Code of Ethics and Conduct based upon the Recommended Guidelines for the UIA 'Accord International Standards of Professionalism in Architectural Practice policy on Ethics and Conduct'.

4.9 Discipline

Regulations, which set standards of practice and conduct, require that a disciplinary system is established to deal with those who transgress the requirements of the regulations.

In order to establish and maintain public confidence in these arrangements they must be, and be seen to be, administered by an authority independent of the architectural profession.

Recommendation 9
The RAIA recommends that architects' legislation requires that a government agency or tribunal deals with architects and others who transgress against the provisions of the legislation.

4.10 Professional Development

The practice of architecture encompasses such a vast range of knowledge and skills that an architect must engage in a life long learning process. Further, in a society in which change has become the norm it is increasingly important for architects to keep abreast of new developments in technology and new methods of practice as well as changes in social and ecological conditions.

Recommendation 10
The RAIA recommends that it be mandatory for architects to devote time to maintaining their existing skills and broadening their knowledge through a structured system of formal professional development which may include a range of activities including reading, attending seminars and lectures, and undertaking formal courses and so on.

4.11 Professional Indemnity Insurance

Architects have obligations to their clients to carry out their work competently with due skill, care and diligence. Clients have the right to expect protection against costs incurred as a result of negligence by their architect.

The RAIA is concerned that some architects currently choose to practice without any professional indemnity insurance or with only a limited amount of cover. This practice exposes their clients to an unacceptable risk.

Recommendation 11
The RAIA recommends that it should be mandatory for architects to carry Professional Indemnity Insurance cover at a level appropriate to the scale of work which they undertake. Such cover should be taken out in the name of vehicle through which the architect practices, that is either as an individual architect or as a partnership, limited company or corporation. It is not practical to require every individual architect to take out personal cover except where that architect practices as an individual.

APPENDICES

1. UIA Accord on Recommended International Standards of Professionalism in Architectural Practice, Union Internationale des Architectes • International Union of Architects, 1998
2. Scope of Architects Services, Royal Australian Institute of Architects /Association of Consulting Architects, October 1991
3. P.A. Tilley, S.L McFallan and S.Tucker, Division of Building, Construction and Engineering, Commonwealth Scientific and Industrial Research Organisation, Brisbane, Australia, 1999, Design and Documentation Quality and its Impact on the Construction Process, Proceedings of the Joint Triennial Symposium Customer Satisfaction: A focus for research & practice, Cape Town, 5-10 September 1999,
4. Size of the architectural profession - Australia 1999
5. Objectives of existing architects Acts

Union Internationale des Architectes • International Union of Architects

UIA Accord on Recommended International Standards of Professionalism in Architectural Practice

April 1998
Second Edition

Union Internationale des Architectes • International Union of Architects

UIA Accord on Recommended International Standards of Professionalism in Architectural Practice

First Edition Adopted by the XX UIA Assembly
Barcelona, Spain, July 7, 1996
Text Approved by the 86th Session of the UIA Council Meeting
in Chandigarh, India, January 17-19, 1997
revised by the drafting panel on May 29, 1997; in August 1997; and
again in April 1998
Second Edition

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Introduction

Following some 25 months of intensive activity by the UIA Professional Practice Commission during the 1993-1996 triennium, the UIA Council unanimously recommended and the UIA Assembly adopted "Resolutions regarding the Proposed UIA Accord on International Recommended Standards of Professionalism in Architectural Practice" prepared by the commission (see Appendix A for full text of the resolutions).

By this action, the UIA Assembly establishes the provisions of the Accord as policy to guide the ongoing work of the UIA and the UIA Professional Practice Commission; provides that the Accord will be transmitted to all member sections of the UIA with the request for their cooperation and participation in the further development of the documents for presentation to the XXI UIA Assembly in Beijing, China, in 1999; and approves the document as the basic policy framework regarding international standards of professionalism for architects and invites the continuing cooperation of the World Trade Organization and other international agencies and organizations as this work of the UIA proceeds.

This policy document will serve as a guide for the commission's work with the national architectural registration/licensing/certification agencies and accreditation agencies of the UIA member sections in the drafting of more detailed recommended guidelines that can become standards of the profession when adopted by the UIA and its member sections. As this work continues, it will be imperative that the sovereignty of each UIA member section be respected and that the recommended guidelines allow flexibility for principles of equivalency and be structured to allow for the addition of requirements reflecting local conditions of a UIA member section.

The Accord begins with a statement of "Principles of Professionalism," followed by a series of policy issues. Each policy issue opens with a definition of the subject policy, followed by a statement of background and the policy.

In view of the guidelines agreed for mutual recognition of agreements or arrangements in the accountancy sector, it is proposed that this Accord provide practical guidance for governments, negotiating entities, or other entities entering mutual recognition negotiations on architectural services. These guidelines are non-binding and intended to be used by member sections on a voluntary basis.

The objective of these guidelines is to make it easier for parties to negotiate recognition agreements. The most common way to achieve recognition has been through bilateral agreements, recognized as permissible under Article VII of the GATS. There are differences in education and examination standards, experience requirements, regulatory influence etc., all of which make implementing recognition on a multilateral basis extremely difficult. Bilateral negotiations will facilitate focus on key issues relating to two specific environments. However, once achieved, bilateral agreements can lead to others, which will ultimately extend mutual recognition more broadly.

UIA Accord on Recommended International Standards of Professionalism in Architectural Practice

Principles of Professionalism

Members of the architectural profession are dedicated to standards of professionalism, integrity, and competence, and thereby bring to society unique skills and aptitudes essential to the development of the built environment and the welfare of their societies and cultures. Principles of professionalism are established in legislation, as well as in codes of ethics and regulations defining professional conduct:

Expertise: Architects possess a systematic body of knowledge, skills, and theory developed through education, training, and experience. The process of architectural education, training, and examination is structured to assure the public that when an architect is engaged to perform professional services, that architect has met acceptable standards enabling proper performance of those services. Furthermore, members of most professional societies of architects and indeed, the UIA, are charged to maintain and advance their knowledge of the art and science of architecture, to respect the body of architectural accomplishment, and to contribute to its growth.

Autonomy: Architects provide expert advice to the client and/or the users, independent of any self-interest. Architects are charged to uphold the ideal that learned and uncompromised professional judgment should take precedence over any other motive in the pursuit of the art and science of architecture.

Architects are also charged to embrace the spirit and letter of the laws governing their professional affairs and to thoughtfully consider the social and environmental impact of their professional activities.

Commitment: Architects bring a high level of selfless dedication to the work done on behalf of their clients and society. Members of the profession are charged to serve their clients in a competent and professional manner and to exercise unprejudiced and unbiased judgment on their behalf.

Accountability: Architects are aware of their responsibility for the independent and, if necessary, critical advice provided to their clients and for the effects of their work on society and the environment. Architects undertake to perform professional services only when they, together with those whom they may engage as consultants, are qualified by education, training, or experience in the specific technical areas involved.

The UIA, through the programs of its national sections and the Professional Practice Commission, seeks to establish principles of professionalism and professional standards in the interest of public health, safety, and welfare, and supports the position that inter-recognition of standards of professionalism and competence is in the public interest as well as in the interest of maintaining the credibility of the profession.

The principles and standards of the UIA are aimed at the thorough education and practical training of architects so that they are able to fulfill their fundamental professional requirements. These standards recognize different national educational traditions and, therefore, allow for factors of equivalency.

Policy Issues

Practice of Architecture

Definition:

The practice of architecture consists of the rendering of professional services in connection with town planning and the design, construction, enlargement, conservation, restoration, or alteration of a building or group of buildings. These professional services include, but are not limited to, planning and land-use planning, urban design, provision of preliminary studies, designs, models, drawings, specifications and technical documentation, coordination of technical documentation prepared by others (consulting engineers, urban planners, landscape architects and other specialist consultants) as appropriate and without limitation, construction economics, contract administration, monitoring of construction (referred to as "supervision" in some countries), and project management.

Background:

Architects have been practicing their art and science since antiquity. The profession as we know it today has undergone extensive growth and change. The profile of architects' work has become more demanding, clients' requirements and technological advances have become more complex, and social and ecological imperatives have grown more pressing. These changes have spawned changes in services and collaboration among the many parties involved in the design and construction process.

Policy:

That the practice of architecture as defined above be adopted for use in the development of UIA International Standards.

Architect

Definition:

The designation "architect" is generally reserved by law or custom to a person who is always professionally qualified and generally registered/licensed/certified to practice architecture in the jurisdiction in which he or she practices and is responsible for advocating the fair and sustainable development, welfare, and the cultural expression of society's habitat in terms of space, forms, and historical context.

Background:

Architects are part of the public and private sectors involved in a larger property development, building ,and construction economic sector peopled by those commissioning, conserving, designing, building, furnishing, financing, regulating, and operating our built environment to meet the needs of society. Architects work in a variety of situations and organizational structures. For example, they may work on their own or as members of private or public offices.

Policy:

That the UIA adopt the definition of an "architect" as stated above for use in developing UIA International Standards.

Fundamentals of an Architect

Definition:

The fundamental requirements for registration/licensing/certification as an architect as defined above, are the knowledge, skills, and abilities listed below that must be mastered through recognized education and training, and demonstrable knowledge, capability, and experience in order to be considered professionally qualified to practice architecture.

Background:

In August 1985, for the first time, a group of countries came together to set down the fundamental knowledge and abilities of an architect (*). These include:

- Ability to create architectural designs that satisfy both aesthetic and technical requirements, and which aim to be environmentally sustainable;
- Adequate knowledge of the history and theories of architecture and related arts, technologies, and human sciences;
- Knowledge of the fine arts as an influence on the quality of architectural design;
- Adequate knowledge of urban design, planning, and the skills involved in the planning process;
- Understanding of the relationship between people and buildings and between buildings and their environments, and of the need to relate buildings and the spaces between them to human needs and scale;
- Understanding of the profession of architecture and the role of architects in society, in particular in preparing briefs that account for social factors;
- Understanding of the methods of investigation and preparation of the brief for a design project;
- Understanding of the structural design, construction, and engineering problems associated with building design;
- Adequate knowledge of physical problems and technologies and of the function of buildings so as to provide them with internal conditions of comfort and protection against climate;
- Necessary design skills to meet building users' requirements within the constraints imposed by cost factors and building regulations;
- Adequate knowledge of the industries, organizations, regulations, and procedures involved in translating design concepts into buildings and integrating plans into overall planning;
- Adequate knowledge of project financing and cost control.

Policy:

That the UIA adopt a statement of fundamental requirements as set out above as the minimum basis for development of UIA International Standards and seek to ensure that these particular requirements are given adequate emphasis in the architectural curriculum. The UIA will also seek to ensure that the fundamental requirements will be constantly kept under review so that they remain relevant as the architectural profession and society evolve.

(* cf. Directive 85/384/EEC of the Commission of the European Communities)

Education

Definition:

Architectural education should ensure that all graduates have knowledge and ability in architectural design, including technical systems and requirements as well as consideration of health, safety, and ecological balance; that they understand the cultural, intellectual, historical, social, economic, and environmental context for architecture; and that they comprehend thoroughly the architects' roles and responsibilities in society, which depend on a cultivated, analytical and creative mind.

Background:

In most countries, architectural education is conventionally delivered by 4-6 years full-time academic education at a university (followed, in some countries, by a period of practical experience/training/internship), though historically there have been important variations (part-time routes, work experience etc.).

Policy:

That the UIA advocate that education for architects (apart from practical experience/training/internship) be of no less than 5 years duration, principally delivered on a full-time basis in an accredited/validated/recognized architectural program in an accredited/validated/recognized university, while allowing variety in their pedagogic approach and in their responses to local contexts, and flexibility for equivalency.

Accreditation/Validation/Recognition

Definition:

This is the process that establishes that an educational program meets an established standard of achievement. Its purpose is to assure the maintenance and enhancement of an appropriate educational foundation.

Background:

Validated criteria and procedures for accreditation/validation/recognition by an independent organization help to develop well integrated and coordinated programs of architectural education. Experience shows that standards may be harmonized and promoted by regular, external monitoring, in some countries, in addition to internal quality assurance audits.

Policy:

That courses must be accredited/validated/recognized by an independent relevant authority, external to the university at no more than 5-year intervals, and that the UIA, in association with the relevant national organizations of higher education, develop standards for the content of an architect's professional education that are academically structured, intellectually coherent, performance-based and outcome-oriented, with procedures that are guided by good practice.

Practical Experience/Training/Internship

Definition:

Practical experience/training/internship is a directed and structured activity in the practice of architecture during architectural education and/or following receipt of a professional degree but prior to registration/licensing/certification.

Background:

To complement academic preparation in order to protect the public, applicants for registration/licensing/certification must integrate their formal education through practical training.

Policy:

That graduates of architecture will be required to have completed at least 2 years of acceptable experience/training/internship prior to registration/licensing/certification to practice as an architect (but with the objective of working towards 3 years) while allowing flexibility for equivalency.

Demonstration of Professional Knowledge and Ability

Definition:

Every applicant for registration/licensing/certification as an architect is required to demonstrate an acceptable level of professional knowledge and ability to the relevant national authority.

Background:

The public is assured of an architect's knowledge and ability only after he or she has acquired the requisite education and practical experience/training/internship, and demonstrated minimum knowledge and ability in the comprehensive practice of architecture. These qualifications have to be demonstrated by examination and/or other evidence.

Policy:

That the acquired knowledge and ability of an architect have to be proven by providing adequate evidence. This evidence must include the successful completion of at least one examination at the end of the practical experience/training/internship. Necessary components of professional practice knowledge and ability that are not subject to an examination have to be proven by other adequate evidence. These include such subjects as business administration and relevant legal requirements.

Registration/Licensing/Certification

Definition:

Registration/licensing/certification is the official legal recognition of an individual's qualification allowing her or him to practice as an architect, associated with regulations preventing unqualified persons from performing certain functions.

Background:

Given the public interest in a quality, sustainable built environment and the dangers and consequences associated with the development of that environment, it is important that

architectural services are provided by properly qualified professionals in order to provide adequate protection for the public.

Policy:

That the UIA promote the registration/licensing/certification of architects in all countries. Provision for such registration/licensing/certification should be by statute.

Procurement

Definition:

The process by which architectural services are commissioned.

Background:

Architects (through their codes of conduct) uphold the interests of their clients and society at large before their own interests. In order to ensure they have adequate resources to perform their functions to the standards required in the public interest, they are traditionally remunerated in accordance with either mandatory or recommended professional fee-scales.

There are international rules, such as the General Procurement Agreement (WTO) and the EU Services Directive, that aim to guarantee the objective and fair selection of architects. However, there has been an increasing tendency recently to select architects, for both public and private work, on the basis of price alone. Price-based selection forces architects to reduce the services provided to clients, which in turn compromises design quality and therefore the quality, amenity and social/economic value of the built environment.

Policy:

To ensure the ecologically sustainable development of the built environment and to protect the social, cultural, and economic value of society, governments should apply procurement procedures for the appointment of architects that are directed to the selection of the most suitable architect for projects. This is best achieved by one of the following methods:

- direct negotiation based on a complete brief defining the scope of architectural services;
- a qualification based selection (QBS) procedure as set out in the UIA guidelines;
- architectural design competitions conducted in accordance with the principles defined by the UNESCO-UIA international competitions guidelines and approved by national authorities and/or architectural professional associations.

Ethics and Conduct

Definition:

A code of ethics and conduct establishes a professional standard of behavior that guides architects in the conduct of their practices. Architects should observe and follow the code of ethics and conduct for each jurisdiction in which they practice.

Background:

Rules of ethics and conduct have as their primary object the protection of the public, caring for the less powerful and the general social welfare, as well as the advancement of the interests of the profession of architecture.

Policy:

The existing UIA International Code of Ethics on Consulting Services remains in force until such time as the Accord and the Recommended Guidelines for the Accord Policy on Ethics and Conduct are adopted by the UIA Council and Assembly in Beijing. A copy of the full text of the proposed new Code is attached in Appendix B. Member Sections of the UIA are encouraged to introduce into their own codes of ethics and conduct a requirement that their members abide by the codes of ethics and conduct in force in the countries and jurisdictions in which they provide professional services, so long as they are not prohibited by international law or the laws of the architect's own country.

Continuing Professional Development

Definition:

Continuing Professional Development is a lifelong learning process that maintains, enhances, or increases the knowledge and continuing ability of architects.

Background:
More and more professional bodies and regulatory authorities require their members to devote time (typically at least 35 hours per year) to maintaining existing skills, broadening knowledge, and exploring new areas. This is increasingly important to keep abreast with new technologies, methods of practice, and changing social and ecological conditions. Continuing professional development may be required by professional organizations for renewal and continuation of membership.

Policy:

That UIA urge its member sections to establish regimes of continuing professional development as a duty of membership, in the public interest. Architects must be sure they are capable of providing the services they offer, and codes of conduct must oblige architects to maintain a known standard in a variety of areas described under the "Fundamental Requirements" and in future variations thereof. In the meantime, the UIA must monitor the developments in continuing professional development for registration renewal, recommend guidelines among all nations to facilitate reciprocity and continue to develop policy on this subject.

Scope of Practice

Definition:

This is the provision of design and management services in connection with land-use planning, urban design, and building projects.

Background:

As society has evolved, the creation of the urban and built environment has become more complex. Architects have to deal with an increasingly wide range of urban, aesthetic, technical, and legal considerations. A coordinated approach to building design has proved to

be necessary to ensure that legal, technical, and practical requirements are met and that society's needs and demands are satisfied.

Policy:

That the UIA encourage and promote the continuing extension of the boundaries of architectural practice, limited only by the provisions of codes of ethics and conduct, and strive to ensure the corresponding extension of the knowledge and skills necessary to deal with any extension of boundaries.

Form of Practice

Definition:

The legal entity through which the architect provides architectural services.

Background:

Traditionally, architects have practiced as individuals, or in partnerships or in employment within public or private institutions. More recently, the demands of practice have led to various forms of association, for example: limited and unlimited liability companies, cooperative practices, university-based project offices, community architecture, although not all are allowed in all countries. These forms of association may also include members of other disciplines.

Policy:

That architects should be allowed to practice in any form legally acceptable in the country in which the service is offered, but always subject to prevailing ethical and conduct requirements. The UIA, as it deems necessary, will develop and modify its policies and standards to take account of alternative forms of practice and varied local conditions where these alternatives are thought to extend the positive and creative role of the architectural profession in the interests of society.

Practice in a Host Nation

Definition:

Practice in a host nation occurs when an individual architect or corporate entity of architects either seeks a commission or has been commissioned to design a project or offer a service in a country other than his/her/its own.

Background:

There is an interest in increasing the responsible mobility of architects and their ability to provide services in foreign jurisdictions. There is also a need to promote the awareness of local environmental, social, and cultural factors and ethical and legal standards.

Policy:

Architects providing substantial architectural services on a project in a country in which they are not registered shall collaborate with a local architect to ensure that proper and effective understanding is given to legal, environmental, social, cultural, and heritage factors as may be necessary. The conditions of the association should be determined by the parties alone in accordance with UIA ethical standards and local statutes and laws.

Intellectual Property/Copyright

Definition:

Intellectual property encompasses the three legal areas of patent, copyright, and trademark. It refers to the right (sometimes guaranteed under the law of some nation states) of designers, inventors, authors, and producers, to their ideas, designs, inventions, works of authorship, and the identification of sources of products and services.

Background:

While many countries have some legal protection covering the architect's design, that protection is often inadequate. It is not unusual for the architect to discuss ideas and concepts with a prospective client, subsequently not be hired, and later find that the client has used the architect's ideas with no recompense. The intellectual property of architects is, to some extent, protected by international regulations. In the context of the GATS, this is the agreement on trade-related aspects of intellectual property rights, including trade in counterfeit goods (TRIPS). The World Copyright Convention of September 16, 1955, is also of international significance. In Europe, the Revised Berne Agreement of 1886 is binding in most states.

Policy:

That the national law of a UIA member section should entitle an architect to practice his/her profession without detriment to his/her authority and responsibility, and to retain ownership of the intellectual property and copyright of his/her work.

Role of Professional Institutes of Architects

Definition:

Professions are generally controlled by a governing body that sets standards (e.g. of education, ethical rules, and professional standards to be observed). The rules and standards are designed for the benefit of the public and not the private advantage of the members. In some countries, certain types of work are reserved to the profession by statute, not in order to favor members but because such work should be carried out only by persons with requisite education, training, standards and discipline, for the protection of the public. Institutes have been established for the advancement of architecture, promotion of knowledge and--by ensuring that their members perform to a known standard--protection of the public interest.

Background:

Depending on whether a country enjoys protection of title or function, (or both, or neither), the role and responsibilities of professional institutes varies considerably. In some countries, the statutory bodies also represent the profession; in others, these functions are be separate.

It is customary for members of professional institutes to be expected to maintain a known standard. This is achieved by adhering to codes of conduct promulgated by the professional institutes, and fulfilling other requirements of membership, e.g. continuing professional development.

Policy

In countries where professional institutes do not exist, the UIA should encourage members of the architectural profession to form such institutes in the public interest.

Professional Institutes should seek to ensure that their members adhere to the UIA international standards, the minimum requirements of the UIA-UNESCO architectural education charter, and UIA International Code of Ethics and Conduct; keep up to date their knowledge and skills as required by the list of “Fundamental Requirements” (both current, and as they evolve in the future); and generally contribute to the development of architectural culture and knowledge as well as the society they serve.

Appendix A

RESOLUTIONS REGARDING THE PROPOSED UIA ACCORD ON RECOMMENDED STANDARDS ON PROFESSIONALISM IN ARCHITECTURAL PRACTICE

Barcelona, Spain, July 1996

The UIA Assembly decides:

to adopt the proposed UIA Accord on International Minimum Standards of Professionalism in Architectural Practice as policy recommendations to guide the ongoing work of the UIA and the UIA Professional Practice Commission, and

that the Accord be transmitted to all the UIA Member Sections with the request for their cooperation and participation in the further development of this policy framework for presentation to the XXIth Assembly in Beijing, and

that the President of the UIA be requested to transmit this Accord to the World Trade Organization (WTO-OMC) as a basic Policy framework regarding standards of professionalism for architects, to be further developed by the UIA and invite the continued cooperation of the World Trade Organization as this work of the UIA proceeds.

Union Internationale des Architectes • International Union of Architects

Recommended Guidelines for the UIA Accord On Recommended International Standards of Professionalism in Architectural Practice Policy on Registration/Licensing/Certification of the Practice of Architecture

September 5, 1997
Revised March 4, 1998
Revised April 17, 1998
Revised December 10-12, 1998

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Accord Policy on Registration/Licensing/Certification of the Practice of Architecture

That the UIA promote the registration/licensing/certification of the function of architects in all countries. In the public interest, provision for such registration/licensing/certification should be by statute.

Introduction

Registration/Licensing Certification

Registration/licensing/certification is the official legal recognition of an individual's qualification allowing her or him to practice as an independent architect, associated with regulations preventing unqualified persons from performing certain functions. Given the public interest in a high-quality, sustainable built environment and the dangers and consequences associated with the construction industry, it is important that architectural services are provided by properly qualified professionals in order to provide adequate protection for the public.

Registration/licensing/certification is based on minimum standards of competency relative to education, experience, and examination to ensure that the public interest is served. Occupational licensure is an exercise of the state's inherent police power to protect the health, safety, and welfare of its citizens. Five generally accepted criteria indicate when licensure is appropriate: 1) unregulated practice of the occupation poses a serious risk to a consumer's life, health, safety, or economic well-being and the potential for harm is recognizable and likely to occur; 2) the practice of the occupation requires a high degree of skill, knowledge, and training; 3) the functions and responsibilities of the practitioner require independent judgment and the members of the occupational group practice independently; 4) the scope-of-practice of the occupation is distinguishable from other licensed and unlicensed occupations; 5) the economic and cultural impact on the public of regulating this occupational group is justified. The practice of architecture meets these classic criteria.

Practice Regulation vs. Title Registration

"Practice regulation" i.e. regulation of the practice of a profession, means that only those individuals who meet specific legislated criteria (of education, training, and testing) may perform the services of a profession.

Practice regulation or licensure--because of its cost to the state and consumers and because it limits entry into a profession--is traditionally reserved for professions and occupations that if unregulated pose a serious threat to public health, safety, and welfare. In evaluating whether a profession should be regulated by practice regulation, most states apply a set of objective criteria, which include: Is the public being harmed by lack of regulation and can such harm be documented? Are there alternatives to state regulation? Is the public protected by existing laws, codes, or standards, and would strengthening such laws solve the problem? What is the cost to the state and the public of regulating the profession and will the public benefit from such regulation?

"Title registration" means individuals must still meet specific qualifications criteria, but only the use of the title is controlled. Individuals who do not have the title may continue to perform the services. Title registration should confer only a protected title. A title bill should not affect the scope of that group's practice or permit those individuals to do anything they were not already legally entitled to do. (NOTE: Title registration is called "certification" in most states. The word "licensing," though often used as an umbrella term for state regulation, is used by most states to mean practice regulation.)

Title registration is intended to provide a means that the public can use for distinguishing trained/qualified practitioners or providers of a service from untrained or unqualified individuals. Title registration does not prevent other less qualified individuals from providing the services; it simply establishes a measuring stick against which their qualifications can be judged. Title registration is considered appropriate when no serious threat to the public is involved, but consumers may be confused and misled about providers' qualifications.

Title registration achieves the goal of enabling the public and consumers of services to differentiate, with minimal cost to the state and consumers, trained, qualified individuals from those who are untrained. With title registration, those individuals who do not meet the registration requirements are not deprived of their livelihoods. These individuals can continue to provide services; they are simply constrained from using a protected title.

Proposed Legislative Guidelines

The International Union of Architects recommends that legislation or statutes regulating the profession of architecture should be based on regulation of the practice of architecture. The following guidelines reflect that recommendation and set forth provisions to deal with a limited number of problem areas of state regulation that have implications beyond the boundaries of an individual state. For the sake of brevity, the term "registration" is used throughout the guideline to denote "registration/ licensing/certification." It should be noted that in any mutual recognition agreement between national and international jurisdictions, the UIA takes the position that only registered architects (whether with practice registration or title registration) are recognized.

Guidelines rather than draft statutory language are recommended because the laws of states represented by the member sections of the UIA contain language, organization, and provisions reflecting the unique political and cultural characteristics of those states. It would undoubtedly be disruptive and confusing to try to suggest exact statutory language on an international basis.

1. Definition

1.1 Practice of Architecture: For the purpose of a registration statute, the definition of the practice of architecture should be the definition adopted by the UIA in the Accord on Recommended International Standards of Professionalism in Architectural Practice:

> *The practice of architecture consists of the provision of professional services in connection with town planning and the design, construction, enlargement, conservation, restoration, or alteration of a building or group of buildings. These professional services include, but are not limited to planning; strategic and land-use planning; urban design; provision of preliminary studies, designs, models, drawings, specifications, and technical documentation; coordination of technical documentation prepared by others as appropriate and without limitation (consulting engineers, landscape architects, and other specialist consultants); construction*

economics; contract administration; monitoring of construction (referred to as supervision in some countries); and project management.

This definition of the practice of architecture covers the wide variety of services that architects normally furnish and for which they are specifically trained and in which they are required to demonstrate professional competency. In some jurisdictions where the education and training and competency standards are more narrowly drawn, the UIA Accord definition may need to be amended to reflect these narrower standards.

No person should be permitted to engage in the practice of architecture unless registered or otherwise permitted to practice under the registration statute. No person should be permitted to use the title "architect" or otherwise represent to the public that he or she is an architect unless he or she is registered to practice architecture.

In some instances, state statutes may exempt various categories of related design professionals from the purview of the statute to the extent that the exercise of their profession may incidentally involve them in the practice of architecture. It is important that these exemptions be carefully thought out to serve as a means for setting off other legitimate design activities from the practice of architecture.

In many jurisdictions, engineering registration laws permit the engineer to design structures as well as a multitude of other projects. The architectural profession is often restricted by law to designing only buildings and ancillary facilities "for human habitation." The UIA advocates that statutes regulating the profession of architecture should not unduly narrow the scope of practice and should recognize that architects, through their practices, express the roots of a society's cultural and aesthetic values through the architecture they design.

2. Regulation of Conduct of Registrants

2.1 Authorization: Clearly the authorization of an architectural registration agency to adopt rules or regulations governing the conduct of architects should be covered by statute. Rule-making power coupled with a power of revocation or suspension of registration based on misconduct implicitly requires further description by the rule-making process of what will constitute misconduct.

2.2 Rules of Conduct: The statute should authorize the architectural registration agency to promulgate, as part of its regulatory function, rules of conduct governing the practice of registered architects. The statute should contain standards for the scope and content of such rules. The statute should also provide that violation of the rules of conduct promulgated by the architectural registration agency is one of the enumerated grounds for revocation or suspension of registration or for the imposition of a civil fine.

3. Qualification for Registration

Qualification criteria for registration should be objective and transparent. For the purpose of a registration statute, care should be taken to assure that the statute appropriately reflects the "UIA Accord on Recommended International Standards of Professionalism in Architectural Practice" policies and guidelines on fundamental requirements of an architect, education, accreditation/validation/recognition, practical experience/ training/internship, and practical

examination/demonstration of professional knowledge and ability. It is not appropriate that statutes contain requirements for citizenship or residency to enter into the profession.

3.1 Degree: An applicant for registration should be required to hold an accredited professional degree in architecture. The UIA recommends that the UIA/UNESCO Charter for Architectural Education be established as the minimum criteria for architectural education.

3.2 Practical Training: The UIA recommends that an applicant for registration have such practical training as set out in the Accord Policy.

3.3 Examination: To be registered, the applicant should be required to pass examinations covering such subjects and graded on such basis as the registration agency shall, by regulations, decide.

3.4 Personal Interview: Registration agencies may require a personal interview with a candidate for registration.

3.5 Moral Character: If the state wishes to invest its registration agency with discretion to reject an applicant who is not of "good moral character," the statute should specify only the aspects of the applicant's background germane to the inquiry, such as:

- Conviction for commission of a felony;
- Misstatement or misrepresentation of fact by the applicant in connection with his or her application;
- Violation of any of the rules of conduct required of registrants and set forth in the statutes or regulations;
- Practicing architecture without being registered in violation of registration laws of the jurisdiction in which the practice took place.

If the applicant's background includes any of the foregoing, the registration agency should be allowed, notwithstanding, to register the applicant on the basis of suitable evidence of reform.

4. Reciprocity Procedure

The statute should make provision for registering nonresident applicants in addition to the provisions outlined in the section 3, Qualifications for Registration, and to any provisions in the statute providing other forms of reciprocity.

4.1 Nonresident Applicant Seeking to Practice: Every nonresident applicant seeking to practice architecture in a jurisdiction should be registered, if the applicant:

- Holds a current and valid registration issued by a registration authority recognized by mutual recognition agreement by the jurisdiction;
- Files an application with the jurisdiction, on a form prescribed by the jurisdiction, containing such information satisfactory to the jurisdiction concerning the applicant as the jurisdiction considers pertinent.

4.2 Nonresident Applicant Seeking a Commission: A nonresident applicant seeking an architectural commission in a jurisdiction in which he or she is not registered should be admitted

to the jurisdiction for the purpose of offering to render architectural services and for that purpose only without having first been registered by the jurisdiction, if the applicant:

- Holds a current and valid registration issued by a registration authority recognized by mutual recognition agreement by the jurisdiction;
- Notifies the board of the jurisdiction in writing that (a) he or she holds a current valid registration issued by a registration authority recognized by mutual recognition agreement by the jurisdiction but is not currently registered in the jurisdiction and will be present in the jurisdiction for the purpose of offering to render architectural services, (b) he or she will deliver a copy of the notice referred to in (a) to every potential client to whom the applicant offers to render architectural services, and (c) he or she shall apply immediately to the board for registration if selected as the architect for a project in the jurisdiction.

The applicant should be prohibited from actually rendering architectural services until he or she has been registered.

4.3 Design Competition: A person seeking an architectural commission by participating in an architectural design competition for a project in a jurisdiction in which he or she is not registered should be permitted to participate in the competition, if the person:

- Holds a current and valid registration issued by a registration authority recognized by mutual recognition agreement by the jurisdiction;
- Notifies the jurisdiction in writing that he or she is participating in the competition and holds a current and valid registration issued by a registration authority recognized by mutual recognition agreement by the jurisdiction;
- Undertakes to apply to the jurisdiction for registration immediately on being chosen as an architect for the project.

5. Form of Practice

If architectural services are provided by corporate entities, they should be required to be under the effective control of architects and required to conform to and maintain the same professional standards of service, work, and conduct as individual architects.

A majority of member sections responding to the UIA Professional Practice Commission questionnaire indicated that their states permitted the practice of architecture in partnerships and conventional corporate forms. The restrictions placed on corporate practice and the newer limited-liability company are often onerous. The great variety of these restrictions suggest that a guideline is needed to seek a reasonable, international provision respecting firm practice while assuring the public of the integrity of architectural services performed.

5.1 Practice Structure: The UIA guidelines recommend that statutes provide that a partnership (including a registered limited liability partnership), a limited liability company, or a corporation should be admitted to practice architecture in a jurisdiction if:

- At least two-thirds of the general partners, if a partnership; or two-thirds of the directors, if a limited liability company or a corporation, are registered under the laws of any state or country to practice architecture;

- The person having the practice of architecture in her or his charge is herself or himself a general partner, if a partnership; a director, if a limited liability company; or a director, if a corporation, and registered to practice in that jurisdiction.

The statute should empower the registration agency to require, by regulations, any partnership, limited liability or unlimited company, or corporation practicing architecture in that state to file information concerning its officers, directors, managers, beneficial owners, and other aspects of its business organization on such forms as the agency prescribes.

5.2 Firm Name: A firm otherwise qualified to practice in a state or country should be permitted to practice in that state or country under a name that does not include the names of every director, if a corporation; every manager, if a limited liability company; or every general partner, if a partnership, registered in any state or country to practice architecture, provided the firm complies with reasonable regulations of the registration agency requiring the firm to file the names, addresses, and other pertinent information concerning the directors, managers, or general partners of the firm.

6. Engagement of an Architect During Construction of a Project

Construction administration services, including periodic site visits, shop drawing review, and reporting violations of codes or substantial deviations from the contract documents constitute an important responsibility of the architect and assure the public health, safety, and welfare. The following guidelines are intended to ensure that at least the minimum of construction services are provided by the design architect:

- 6.1 An owner who proceeds to have constructed a project having as its principal purpose human occupancy or habitation shall be deemed to be engaged herself or himself in the practice of architecture unless she or he has employed an architect to perform at least minimum construction administration services, including periodic site visits, shop drawing review, and reporting to the owner and building official any violations of codes or substantial deviations from the contract documents that the architect observed.

- 6.2 It shall be the project design architect's obligation to report to the registration jurisdiction and to the building official if he or she is not engaged to provide construction administration services described in Paragraph 1, above.

- 6.3 A registration jurisdiction may waive these requirements with respect to a particular project or class of projects if it determines that the public is adequately protected without the necessity of an architect performing the services described in Paragraph 6.1.

7. Regulation of Unregistered Persons Practicing Architecture

The unregistered practice of architecture can endanger the public health, safety and welfare. The following guidelines provide a basis and means for enforcing the statute:

- 7.1 Although violation of the architectural registration statute by unregistered persons should be a crime, the registration agency should also be authorized, after a hearing, to impose civil fines of up to a stated amount and to issue orders to cease against unregistered persons and persons aiding and abetting unregistered persons. The registration agency as well as the government's attorney general and other local law enforcement authorities, should be authorized to seek injunctions against practice by unregistered persons and the aiding or abetting of such practice, and judicial enforcement of civil fines imposed by the registration agency.

- 7.2 All plans, specifications, and other technical submissions prepared in the course of practicing architecture (as defined in Guideline 1) required to be filed with the state of local building or public safety officials should be sealed by an architect. If state law provides certain exceptions to the general requirement that technical submissions be sealed, then the person filing the technical submissions should specify on them the state law exempting the preparation of those technical submissions. Any permit issued on the basis of technical submissions not complying with these requirements shall be invalid.

Union Internationale des Architectes • International Union of Architects

Recommended Guidelines for the UIA Accord On Recommended International Standards of Professionalism in Architectural Practice Policy on Ethics and Conduct

November 1997
Revised April 1998
Revised December 10-12, 1998

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Accord Policy on Ethics and Conduct

The existing UIA International Code of Ethics on Consulting Services remains in force. Member Sections of the UIA are encouraged to introduce into their own codes of ethics and conduct the recommended Accord Guidelines and a requirement that their members abide by the codes of ethics and conduct in force in the countries and jurisdictions in which they provide professional services, so long as they are not prohibited by international law or the laws of the architect's own country.

Recommended Guidelines for the Accord Policy on Ethics and Conduct

Introduction

At the meeting of the commission in Washington in December, 1998, there was broad agreement that the amended code evolving from the Barcelona meeting should be put to the Assembly in Beijing for adoption as the Accord Guidelines for Ethics and Conduct for subsequent adoption by member sections within their own codes.

The drafting panel, drawing on principles and policies articulated in the accord and the codes of ethics and conduct from member sections around the world, recommend to the council and assembly the following:

Preamble

Members of the architectural profession are dedicated to the highest standards of professionalism, integrity, and competence, and to the highest possible quality of their output, and thereby bring to society special and unique knowledge, skills, and aptitudes essential to the development of the built environment of their societies and cultures. The following are principles for the conduct of architects in fulfilling those obligations when undertaking a consulting service. They apply to all professional activities, wherever they occur. They address responsibilities to the public, which the profession serves and enriches; to the clients and users of architecture and the building industries, who help to shape the built environment; and to the art and science of architecture, that continuum of knowledge and creation which is the heritage and legacy of the profession and of society.

Principle 1
General Obligations

Architects possess a systematic body of knowledge and theory of the arts, science, and business of architecture developed through education, training, and experience. The process of architectural education, training, and examination is structured to assure the public that, when an architect is appointed to perform professional services, that architect has met acceptable standards enabling proper performance of those services. Architects have a general obligation to maintain and advance their knowledge of the art and science of architecture, respect the body of architectural Accomplishment and contribute to its growth, and give precedence to learned and uncompromised professional judgement over any other motive in the pursuit of the art, science, and business of architecture.

1.1 **Standard:** Architects shall strive to continually improve their professional knowledge and skill in areas relevant to their practices.

1.2 **Standard:** Architects shall continually seek to raise the standards of aesthetic excellence, architectural education, research, training, and practice.

1.3 **Standard:** Architects shall, as appropriate, promote the allied arts and contribute to the knowledge and capability of the building industries.

1.4 **Standard:** Architects shall ensure that their practices have appropriate and effective internal procedures, including monitoring and review procedures, and sufficient qualified and supervised staff such as to enable them to function efficiently.

1.5 **Standard:** Where work is carried out on behalf of an architect by an employee or by anyone else acting under an architect's direct control, the architect is responsible for ensuring that that person is competent to perform the task and, if necessary, is adequately supervised.

Principle 2
Obligations to the Public

Architects have obligations to the public to embrace the spirit and letter of the laws governing their professional affairs, and should thoughtfully consider the social and environmental impact of their professional activities.

2.1 **Standard:** Architects shall respect and help conserve the systems of values and the natural and cultural heritage of the community in which they are creating architecture. They shall strive to improve the environment and the quality of the life and habitat within it in a sustainable manner, being fully mindful of the effect of their work on the widest interests of all those who may reasonably be expected to use or enjoy the product of their work.

2.2 **Standard:** Architects shall neither communicate nor promote themselves or their professional services in false, misleading or deceptive manners.

2.3 **Standard:** An architectural firm shall not represent itself in a misleading fashion.

2.4 **Standard:** Architects shall uphold the law in the conduct of their professional activities.

2.5 **Standard:** Architects shall abide by the codes of ethics and conduct and laws in force in the countries and jurisdictions in which they provide or intend to provide professional services.

2.6 **Standard:** Architects shall as appropriate involve themselves in civic activities, as citizens and professionals, and promote public awareness of architectural issues.

Principle 3
Obligations to the Client

Architects have obligations to their clients to carry out their professional work faithfully, conscientiously, competently, and in a professional manner, and should exercise unprejudiced and unbiased judgement with due regard to the relevant technical and professional standards when performing all professional services. Learned and professional judgement should take precedence over any other motive in the pursuit of the art, science, and business of architecture.

3.1 **Standard:** Architects shall only undertake professional work where they can ensure that they possess adequate knowledge and abilities and where adequate financial and technical resources will be provided in order to fulfil their commitments in every respect to their clients, for any one commission.

3.2 **Standard:** Architects shall perform their professional work with due skill care and diligence.

3.3 **Standard:** Architects shall carry out their professional work without undue delay and, so far as it is within their powers, within an agreed reasonable time limit.

3.4 **Standard:** Architects shall keep their client informed of the progress of work undertaken on the client's behalf and of any issues that may affect its quality or cost.

3.5 **Standard:** Architects shall accept responsibility for the independent advice provided by them to their clients, and undertake to perform professional services only when they, together with those whom they may engage as consultants, are qualified by education, training, or experience in the specific areas involved.

3.6 **Standard:** Architects shall not undertake professional work unless the parties have clearly agreed in writing to the terms of the appointment, notably:

- Scope of work;
- Allocation of responsibilities;
- Any limitation of responsibilities;
- Fee or method of calculating it;
- Any provision for termination.

3.7 **Standard:** Architects shall be remunerated solely by the fees and benefits specified in the written agreement of engagement or employment.

3.8 **Standard:** Architects shall not offer any inducements to procure an appointment.

3.9 **Standard:** Architects shall observe the confidentiality of their client's affairs and should not disclose confidential information without the prior consent of the client or other lawful authority; for example, when disclosure is required by order of a court of law.

3.10 **Standard:** Architects shall disclose to clients, owners, or contractors significant circumstances known to them that could be construed as creating a conflict of interest, and should ensure that such conflict does not compromise the legitimate interests of such persons or interfere with the architect's duty to render impartial judgement of contract performance by others.

Principle 4
Obligations to the Profession

Architects have an obligation to uphold the integrity and dignity of the profession, and shall in every circumstance conduct themselves in a manner that respects the legitimate rights and interests of others.

4.1 **Standard:** Architects shall pursue their professional activities with honesty and fairness.

4.2 **Standard:** An architect shall not take as a partner and shall not act as a co-director with an unsuitable person, such as a person whose name has been removed from any register of architects otherwise than at his own request or a person disqualified from membership of a recognised body of architects.

4.3 **Standard:** Architects shall strive, through their actions, to promote the dignity and integrity of the profession, and to ensure that their representatives and employees conform their conduct to this standard, so that no action or conduct is likely to undermines the confidence of those for and with whom they work and so that members of the public dealing with architects are protected against misrepresentation, fraud, and deceit.

4.4 **Standard:** Architects shall, to the best of their ability, strive to contribute to the development of architectural knowledge, culture, and education.

Principle 5
Obligations to Colleagues

Architects should respect their rights and acknowledge the professional aspirations and contributions of their colleagues and the contribution made to their works by others.

5.1 **Standard:** Architects shall not discriminate on grounds of race, religion, disability, marital status, or gender.

5.2 **Standard:** Architects shall not appropriate the intellectual property of nor unduly take advantage of the ideas of another architect without express authority from the originating architect.

5.3 **Standard:** Architects shall not, when offering services as independent consultants, quote a fee without receiving an invitation to do so. The must have sufficient information on the nature and the scope of the project to enable a fee proposal to be prepared that clearly indicates the service covered by the fee in order to protect the client and society from unscrupulous under-resourcing by an architect.

5.4 **Standard:** Architects shall not, when offering services as independent consultants, revise a fee quotation to take account of the fee quoted by another architect for the same service in order to protect the client and society from unscrupulous under-resourcing by an architect.

5.5 **Standard:** The architect shall not attempt to supplant another architect from an appointment.

5.6 **Standard:** Architects shall not enter any architectural competitions that the UIA or their member sections have declared to be unacceptable.

5.7 **Standard:** Architects shall not when appointed as competition assessors subsequently act in any other capacity for the work.

5.8 **Standard:** Architects shall not maliciously or unfairly criticise or attempt to discredit another architect's work.

5.9 **Standard:** The architect shall, on being approached to undertake a project or other professional work upon which he/she knows or can ascertain by reasonable inquiry that another architect has a current appointment with the same client for the same project or professional work, notify the other architect.

5.10 **Standard:** Architects shall, when appointed to give an opinion on the work of another architect, notify the other architect, unless it can be shown to be prejudicial to prospective or actual litigation to do so.

5.11 **Standard:** Architects shall provide their associates and employees with a suitable working environment, compensate them fairly, and facilitate their professional development.

5.12 **Standard:** Architects shall ensure that their personal and professional finances are managed legally and prudently.

5.13 **Standard:** Architects shall build their professional reputation on the merits of their own service and performance and should recognise and give credit to others for professional work performed.

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Recommended Guidelines for the UIA Accord On Recommended International Standards of Professionalism in Architectural Practice Policy on Continuing Professional Development

October 31, 1997
Revised March 11, 1998
Revised April 17, 1998
Revised December 10-12, 1998

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Accord Policy on Continuing Professional Development

The UIA encourages its member sections to advocate continuing professional development as a duty of membership in the public interest. Architects must be sure they are capable of providing the services they offer, and codes of conduct must oblige architects to maintain a known standard in a variety of areas described under the "Fundamental Requirements of an Architect" and in future variations thereof. In the meantime, the UIA must monitor the development in continuing professional development for registration renewal, recommend guidelines among all nations to facilitate reciprocity, and continue to develop policy on this subject.

Recommended Guidelines for the Accord Policy on Continuing Professional Development

Continuing professional development does not refer to formal education leading to a more advanced degree, but to a life-long learning process that maintains, enhances, or increases the knowledge and skills of architects to ensure their knowledge and ability relevant to the needs of society.

The policy of the UIA encourages its member sections to advocate continuing professional development as the responsibility of each individual architect. Continuing professional development for architects is also in the public interest.

The UIA continuing professional development guidelines are intended to provide UIA member sections with a set of standards by which they can judge their existing professional development policies. This will ensure compatibility of polices and will provide for reciprocity and portability of professional development credits across member sections in the future.

One of the initial goals of the UIA continuing professional development guidelines will be to provide a framework for interrecognition of continuing professional development credits among the UIA member sections.

Key elements of a UIA member section continuing professional development system should include:

- Recommended procedures for identifying, screening, and evaluating continuing professional development services and courses;
- Recommended program criteria covering both self-study programs and registered continuing professional development providers' programs;
- Recommended criteria for incorporating research and needs assessments into the design and delivery of continuing professional development programs;
- Recommended procedures to assure that emphasis of the learning is placed on the learner and knowledge gained, including incentives for learning activities that increase interaction between the participant and the provider, e.g., interactive programs may give more credit for the same amount of time spent than that given for noninteractive programs;
- Recommended program quality levels and standards as a tool to assess the actual learning that occurs during a program and as an incentive to providers and participants to increase

interaction that takes place and to involve the participants in the learning; participants should earn credits based on the educational quality of a program as well as the length of the program (seat time);

- Recommended procedures by which providers will give feedback to users and collect course evaluations to monitor the effectiveness of the activity
- A recommended record-keeping system that is timely and accurate for both providers and users that provides proven portability of continuing professional development credits and reporting to permit worldwide program availability to architects by registered providers and a credible basis for meeting the demands of registration agencies and professional societies that require continuing professional development credits for maintaining registration or membership;
- Recommendations for requirements of number of learning units to be earned each calendar year;
- Recommendations for minimum requirements of continuing professional development credits in subjects related to the protection of public health, safety, and welfare.

The UIA continuing professional development system should set high-quality educational standards for participating UIA member sections with a large number of registered providers contributing their knowledge, skills, and research to a successful endeavor.

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Recommended Guidelines for the UIA Accord On Recommended International Standards of Professionalism in Architectural Practice Policy on Accreditation/Validation/Recognition

March 29, 1998
Revised April 28, 1998
Revised December 10-12, 1998

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Accord Policy on Accreditation/Validation/Recognition

That courses must be accredited/validated/recognized by an independent relevant authoritiy external to the university at reasonable time intervals (usually no more than five-years), and that the UIA, in association with the relevant national organizations of higher education, develop standards for the content of an architect's professional education that are academically structured, intellectually coherent, performance-based, and outcome-oriented, with procedures that are guided by good practice.

Introduction

Accreditation of educational programs in architecture, whether sought voluntarily by the educational institution or exacted by relevant authorities, seeks primarily to ensure, in the public interest, that the standards attained by succesful graduates of the program are adequate with regard to the design, technical, and professional skills and ethical formation required for competent architectural practice.

The principles in any accreditation policy permit flexibility of approach while ensuring independent standards for the accrediting body and the pursuit and maintenance of high standards in educational endeavor and in the accrediting process itself.

The critical criteria in a satisfactory educational program involve thorough assessment in accordance with previously defined and agreed criteria, by a group of assessors external to the school of architecture who are competent by training and experience to evaluate architecture programs and make recommendations for their direction or modification. External assessors may be appointed by the state in which the architectur program is run, by an independent professional architectural organization, nominated as external examiners by the school of architecture itself, or by some other satisfactory method. The system of appointing the assessor may vary depending upon whether the educational institution is publicly or privately run. An independent relevant authoritiy can comprise representatives of a professional body, such as an institute or chamber of architects, ~~or~~ a nongovernmental organization of architects or schools of architecture; it can be a national or state government, or its delegated representatives, or an organization of external examiners. The process of validation of programs will occur periodically, and a satisfactory method of accreditation will involve the review of the work of all students passing through a school of architecture on at least one occasion during their educational program. Recognizing the differences between governance of public and private institutions, consistency must be provided both in the accreditation/recognition/validation process and the end result.

Accreditation procedures vary depending on whether the education programs in question are proposed for establishment, recently set up and not previously accredited, or the subject of proposed change. In every instance, the assessors will be provided with documentation in advance of their visit to the school; review examination papers and scripts, studio programs and studio work; course syllabus and examples of course work; and meet with students and staff. They may also look at the pedagogic, professional, and research output of the faculty/staff. On conclusion of such review, the assessors will provide the school with a program report that will make recommendations for accreditation and may make suggestion for changes in the educational program or impose conditions for accreditation.

1. Criteria for Accreditation Courses, Programs, and Examinations in Architecture

The core knowledge and skills required of a competent architect, set down by the relevant organizations for higher education and recognized in the UIA Accord on Recommended International Standards of Professionalism in Architectural Practice, are as set down in the Fundamental Requirements of an Archtitect from the Accord.

These skills are mastered by the architect through education, training, and experience, and educational programs in architecture set out to help the student of architecture acquire such ability, knowledge, unterstanding, and skills to the extent that these may be required within such a program.

The UIA advocates that education for architects should be of no less than five years duration, principally delivered on a full-time basis in an accredited architectural program in an accredited/validated university, while allowing flexibility for equivalency. In some countries, education is followed by a period of practical experience/training/internship. During this education and training process, the levels of ability reached by the student of architecture in the fundamental requirements listed will advance in line with the progress of the student's study, and validation of the relevant educational program will take account of the varying levels of attainment reasonably to be expected at the appropriate moments.

The knowledge and abilities required of architects have changed and will continue to change to reflect society's expectations. The UIA will review its Recommended Guidelines for the Accord Policy on Accreditation/Validation/Recognition from time to time to ensure its continual relevance.

The relative weighting ascribed to the different criteria listed and the relative degree of importance of skill to be attained will vary from country to country and from time to time. In different countries, for reasons of tradition and deliberate choice, educational institutions may themselves ascribe different weighting to the various criteria, which, in turn, will be influenced by the precise missions generally untertaken by architects within that country. In every instance, the educational program will be based on a syllabus that will incorporate topics and subjects derived from or comparable to those listed. The accreditation criteria will include a review of the syllabus. The syllabus will vary depending on the stage of studies, whether at intermediate or final examination level and whether before or after any period of practical training.

2. Methods of Accreditation

Accreditation is carried out by properly constituted authorities that are independent of the institution housing the program to be accredited. Accrediting authorities must be competent by way of training and experience. This will indicate that persons untertaking accreditation work have experience in architectural design, practice, ethical standards, and training. Frequently an accreditation panel will comprise nominees of more than one of the types of organizations listed and, in every instance, involves accreditation by established members of the architectural profession. This will help promote both objective evaluation and a broad and inclusive view of architecure.

In every instance, when educational institutions participate in accreditation procedures, the educational institiution cannot participate in the procedure for accrediting its own program.

3. Procedures for Accrediting Educational Programs in Architecture

The nature and detail of procedures to be adopted by an accrediting board will vary depending on the culture and educational practices of the country concerned. They will also vary on whether an educational program is being considered in advance of its establishment; examined for the first time; has been established for some time and has previously been accredited; or, having either failed to achieve accreditation or having had a previous accreditation withdrawn, is presented for accreditation afresh for a further time.

Accreditation procedures will also vary depending on whether one or more stages in the process are to be accredited. In some countries, accreditation procedures involve a three-stage process: after three and five years respectively in the acadamic educational program and on conclusion of an agreed period of practical training. In other countries the process will involve one or two stages.

Accreditation procedures involve the review by the assessors of the content of an educational program and of the standards achieved within that program. The assessment is made on the basis of information provided by the educational institution with regard to the program, syllabus, details of studio programs and examination scripts, and reports of external examiners; a self-appraisal by the educational institution; and, during a visit to the institution, on meetings with the head of the school program staff and students and inspection of student work and facilities

Where an institution is proposing major changes to an existing course or proposing to introduce a new course, it may be helpful to undertake a preliminary assessment by an independent relevant authority as to whether the content, structure, and resources of the proposed program are such as to be likely to achieve accreditation of the course and its graduates. Information that will be useful in such an assessment would include a description of the context of the proposal, philosophical approach proposed, and proposed academic program. Such a description might include a course diagram, details of the course framework, requirements to complete the course, and details of lecture syllabi and contact hours for each subject.

4. Documentation and Visiting Methods

Where accreditation is being sought either on an initial or ongoing basis for an already-established educational program, documentation to be provided by the educational institution to the accrediting authority might include:

- A brief description of the parent educational institution, with a statement of factors within the national, regional, and urban context that influence the nature of the educational institution;
- A brief description of the history of the course;
- The philosophical approach, mission, and vision to architectural education;
- An indication of any characteristics in the background of students that influence the direction of courses offered;
- A summary of academic staff profile, including nonteaching activities and other duties including research, publications, professional work, and community involvement;
- A statement of physical resources, including studios, teaching space and equipment, laboratory and workshops, library facilities and resource centers, computers, and information systems;

- A note of decision-making networks and management structure;
- A complete description of the academic program, including a description of the program framework, requirements to complete the program, and other requirements for graduation; lecture syllabi; details of studio programs; and copies of course handbooks;
- Statistical information on student enrollment numbers, numbers of graduations, staff numbers, and the staff/student ratio;
- A self-appraisal by the school of its education policy--taking account, where appropriate, of reports provided by previous accreditation boards and discussing development since any previous accreditation--to cover issues in external examiners' reports, changes in resource provisions, critical evaluaton of course objectives, special features of the course, and other relevant matters.

The accrediting authority visits the educational institution and reviews the program *in situ*. During the visit, an exhibition of work completed by students over a period of at least 12 months prior to the visit will be helpful. Such exhibition should comprise a range of studio work, with programs attached for each year of the course arranged as far as possible to show the development of the curriculum throughout the program. A range of the written and drawn work in each year of the program should be exhibited so that the level of attainment of students in each of the areas as set out as fundamental requirements for an architect can be assessed. Presented work should include a representative sample of studio portfolios and examination scripts for the highest, average, and lowest pass grades in each subject, and these should be complemented by records of examination and assessment results for all years of the course in all subject areas.

When inspecting the educational program *in situ*, the accrediting authority may wish to untertake meetings and discussions with the program teachers, including the head of the school or department, studio and specalist staff, and external examiners. The authority may also talk with students of the program, both as a body and/or individually. Subject for discussion as part of the assessment process might include methods of educational assessment; the content of project work and lecture courses; and the relation of lecture courses to project work, the use of specialist teachers, and future developments.

5. Reporting Procedures

An accrediting authoritiy will provide a written report on the educational program on conclusion of the visit to the program. Such a report will validate and supplement the written information provided by the educational institution and convey the accrediting authority's view of the quality of education in terms of student performance in the course under review. Procedures might include methods of ensuring such report is free from factual error, is treated confidentially, and is seen by all relevant parties. An accrediting report will normally recommend accreditation of the educational program for a fixed period of no more than five years' duration.

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Recommended Guidelines for the UIA Accord On Recommended International Standards of Professionalism in Architectural Practice Policy on Practical Experience/Training/Internship

April 1998
Revised December 10-12, 1998

UIA Professional Practice Program Joint Secretariat

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Accord Policy on Practical Experience/Training/ Internship

That graduates of architecture will be required to have completed at least two years of acceptable experience/training/internship prior to registration/licensing/certification to practice as an architect (but with the objective of working towards three years) while allowing flexibility for equivalency.

Guidelines

1. PERIOD OF PRACTICAL EXPERIENCE/TRAINING/INTERNSHIP

The experience set out below should be demonstrated prior to applying for registration/licensing/certification and should be gained over the period defined in the Accord Policy. At least half of that period should occur following the basic academic prerequisites and in any case should not imply a reduction of the academic period referred to under the Accord Education Policy.

2. OBJECTIVES OF THE PERIOD OF PRACTICAL EXPERIENCE/TRAINING/ INTERNSHIP

The objectives of the period of practical experience/training/internship (here after referred to as internship) are:

- To provide interns with the opportunity to acquire basic knowledge and skill in the practice of architecture;
- To ensure the practices, activities, and experience of interns is recorded by a standard method;
- To enable interns to attain a broad range of experience in the practice of architecture.

3. CATEGORIES OF EXPERIENCE

An intern should receive practical experience and training under the direction of an architect in at least half of the areas of experience nominated under each of the following four categories:

3.1 Project and Office Management

Meeting with clients
Discussions with clients of the brief and the preliminary drawings
Formulation of client requirements
Pre-contract project management
Determination of contract conditions
Drafting of correspondence
Coordination of the work of consultants Office and project accounting systems
Personnel issues

3.2 Design and Design Documentation

Site investigation and evaluation
Meetings with relevant authorities
Assessment of the implications of relevant regulations
Preparation of schematic and design development drawings
Checking design proposals against statutory requirements
Preparation of budgets, estimates, cost plans, and feasibility studies

3.3 Construction Documents

Preparation of working drawings and specifications
Monitoring the documentation process against time and cost plans
Checking of documents for compliance with statutory requirements
Coordination of subcontractors documentation
Coordination of contract drawings and specifications

3.4 Contract Administration

Site meetings
Inspection of works
Issuing instructions, notices, and certificates to the contractor
Client reports
Administration of variations and monetary allowances

4. RECORD OF PRACTICAL EXPERIENCE/TRAINING/INTERNSHIP

Interns should maintain a written record, in a standard form or a logbook, of all periods of training, experience, and supplementary education received during the internship period.

This record should be set out under the areas of training nominated in Part 2 above. It should describe the nature and duration of activities undertaken, and each of these should be signed by the supervisor architect as a true record of the experience gained by the intern.

The standard form or logbook is to be presented to the registering/licensing authority on request, as evidence that the required practical experience/ training/ internship is being undertaken or has been completed.

5. SUPERVISORS

Interns should gain their experience under supervision. Supervisors are to be registered or licensed architects in the jurisdiction in which the internship is undertaken, and will either be the employer or the architect to whom the intern reports during each recorded period of experience.

6. CORE KNOWLEDGE AND ABILITY REQUIREMENTS

At the completion of the period of practical experience/training/internship, the intern should have demonstrated or be able to demonstrate knowledge and/or ability in the following:

6.1 The Practice of Architecture

- An overview of the architectural profession in the national and international community
- A knowledge and appreciation of ethical standards
- Knowledge of the local architectural association
- An overview of the local construction industry and construction law
- Direction and coordination of consultants
- Office management and systems
- Legal aspects of practice
- Liability, risk management, and insurance

6.2 Project Management

- Establishing and managing client agreements
- Scheduling of project activities and tasks
- Assessing codes, regulations, and legislation
- Project financing and cost control
- Project procurement and contractual systems
- Dispute resolution
- Management of subcontractors
- Project administration and monitoring systems

6.3 Pre-design and Site Analysis

- Establishing, analyzing, and recording environmental issues relevant to the project
- Establishing and clearly defining a design brief
- Establishing, analyzing, and recording site conditions

6.4 Project Services and Systems

- Coordinating the design and documentation of project services and systems into the project design and documentation process

6.5 Schematic Design

- Analyzing the client brief and producing potential project design solutions through a process of hypothesis, evaluation, and reappraisal
- Graphically representing alternative project designs
- Presenting and agreeing preliminary design proposals with clients and other interested parties

6.6 Design Development and Design Documentation

- Investigating and establishing the specific spatial, organization and circulation requirements within and around a project
- Considering and deciding upon the disposition of construction and project services systems, materials, and components
- Developing drawings and documents to fully describe the developed design proposal for the approval of the client and other interested parties
- Analyzing possible effects on the context, users, etc.

6.7 Construction Documentation

- Researching, analyzing, and selecting appropriate materials and systems for a project
- Preparing accurate consistent and complete construction drawings, specifications, and schedules that describe the extent and location of construction elements, components, finishes, fittings, and systems

6.8 Contract Administration

- Preparing documents to invite bids or tenders
- Evaluating and making recommendations in respect of bids or tenders received
- Finalizing project contracts
- Administering project contracts
- Monitoring compliance with contract conditions and the requirements of relevant authorities
- Inspecting and evaluating construction works to ensure that they comply with the requirements of the contract documents

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Recommended Guidelines for the UIA Accord On Recommended International Standards of Professionalism in Architectural Practice Policy on Demonstration of Professional Knowledge and Ability

April 1998
Revised December 10-12, 1998

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Accord Policy on Professional Knowledge and Ability

That the acquired knowledge and ability of an architect have to be proven by providing adequate evidence. This evidence must include the successful completion of at least one examination at the end of the practical experience/training/internship. Necessary components of professional practice knowledge and ability that are not subject to an examination have to be proven by other adequate evidence. These include such subjects as business administration and relevant legal requirements.

Introduction

Professional learning involves both study in an academic institution at university level and structured, monitored and assessed experience in the workplace. The demonstration of professional knowledge and ability may require collaboration between education and practice, and between the academic institute and qualified practicing architects.

The broad list of knowledge and abilities is published in the UIA/UNESCO Charter on Education and in other Guidelines. Levels of learning vary, from an "awareness," to an "understanding" to "an ability to" do a particular professional task. Some subject areas are usually learned in the university environment, while others are often learned while working in an architect's office or in other areas of the built environment.

Methods of assessment of knowledge and ability vary. University courses may be examined by a critical assessment of project work, written documents, multiple choice or essay examinations, and in other ways. Experience in aspects of professional practice may be examined through the evaluation of case studies, the assessment of learning experience recorded in a record of professional practice (logbook), in written and design examinations, and/or in a professional interview with experienced members of the profession. The appropriate mix of techniques will vary from country to county based on institutional structures and other cultural differences. However, it is important that the title "architect" is only conferred upon individuals who can demonstrate the successful completion of a university level academic program and a period of assessed practical training or the equivalent.

There is a view that architecture is an holistic discipline. The ability to assess and integrate a range of knowledge and skills is often assessed through the design studio. The aim of the studio is both to develop skills in producing an appropriate and attractive design and also to learn and demonstrate skills, for example, of critical reasoning and architectural professional judgment.

The UIA Recommended Model

1. Academic Professional Education

Candidates for registration as architects should complete an academic professional education at university level as recommended in the UIA/UNESCO Charter on Education.

The precise form for the assessment of knowledge and ability is usually left to the provider of the program, and in most cases this is the university. Standards of academic assessment should be

ensured through the application of the policies recommended in the Commission Guideline on Accreditation/Validation /Recognition.

2. Internship/Professional Experience

Accord policy identifies the need for a period of monitored and assessed professional experience prior to registration

Techniques for the examination of professional experience vary widely among jurisdictions. In many countries it takes the form of recording the time spent in an office under the supervision of an architect. In some jurisdictions the emphasis is now shifting to systems which assess and record learning outcomes, rather than just time spent. Techniques for recording learning may include monitored and assessed logs of candidate activity, critical case studies of paradigm projects, case studies of projects undertaken by the candidate, examinations of professional practice knowledge and ability, and/or interviews with experienced professional practice examiners.

3. The Final Professional Examination/Assessment

In some jurisdictions an assessment of knowledge and ability takes place in the form of a centrally administered written paper, examination, specific design exercises and/or an interview with professional practice examiners. Professional experience should be assessed to determine learning outcomes in accordance with UIA recommendations. Centrally administered assessment systems should avoid imposing unnecessarily complex or redundant systems on students. In countries which have validated and broadly compatible academic professional programs, the UIA favors a final examination/assessment providing its scope is restricted to areas which have not already been assessed through other means, whether prior to the award of a recognized academic qualification in architecture, or through assessed professional experience. In countries which have a broad range of academic courses which may not be externally validated by the profession, the UIA favors a comprehensive final professional examination/assessment which tests core knowledge and ability as well as professional maturity. All candidates for registration must submit to an assessment of professional knowledge and ability or be able to demonstrate the equivalent of a qualification achieved in their home jurisdiction.

4. Learning Outcomes

Competency relates mainly to knowledge and ability which are relevant irrespective of where or when an architect practices, as reflected in the adoption of the UIA/UNESCO Charter on Education. However, there are differences in the knowledge base, which is required for competent practice at a particular time or location. For example, while an awareness of the existence of contract law may be globally relevant to architects in practice, the knowledge of a particular country's legal system may by domain specific; while an understanding of "lateral stability" is global in its relevance, knowledge of geo-technical conditions and methods for design against earthquakes may be domain specific.

The UIA believes that the demonstration of professional competence should focus on the development of general and transferable knowledge and skills, for these are the learning outcomes

which remain relevant to the professional over time and irrespective of the location of practice. The need for continuing professional development is acknowledged by the UIA and the architect's code of conduct usually requires that architects should only undertake commissions where the required knowledge and ability are present. The UIA does not favor the re-examination of knowledge and ability, which have already been examined.

5. Examination/Assessment Requirements Should Be Competency Based

The UIA opposes restrictions on Examination/Assessment, which are not competency based.

6. Incremental Assessment Versus Repeat Examinations

While acknowledging that architecture is in a sense an holistic discipline involving complex professional judgments, the UIA believes that examination can be undertaken at planned stages in the student's development. It is usual that these stages are:

- During and at the end of the period of academic professional study, marked by the award of academic degrees;
- At the end of the professional experience period; and/or
- Through a final examination which, depending on the character of previous assessments, may be of a general nature or restricted to domain specific knowledge.

7. Demonstrating Competence to a Relevant Authority

The relevant authority will need to be satisfied that the required standards have been met before allowing registration of title, function and/or membership of the professional institute. This will require the authority to:

- Adopt standards for competency, such as those recommended by the UIA, other multinational documents, or an internationally compatible national standard;
- Assess standards of competency of academic achievement in architecture, internship/professional experience, and domain specific knowledge, either through participation in or through the receipt of recommendations from an independent accreditation/validation agency.

The scope and standard of competency at all stages of an architect's education and professional training should be subject to regular accreditation/validation by an objective panel which can sanction programs and report its findings to registration bodies/professional institutes.

8. Monitoring the Changing Requirements for Architectural Education and Training

Architectural education and professional training must undergo continuous change and review if it is to keep pace with the changing nature of practice and expectations of the public. Concern with sustainability, health and safety, and access for the disabled are all examples of education and practice, which have changed significantly in a decade. The scope and method of demonstrating competency must be reviewed regularly if it is not to risk stagnating development within the profession. Overly prescriptive competence guidelines which are not reviewed regularly run the risk of discouraging vitality and innovation in architectural education. Overly vague guidelines

provide little in the way of consumer protection in determining the scope or level of competence that the public may expect from a practicing architect.

The UIA recommends that in order to ensure contemporary relevance a comprehensive review of the criteria and procedures for accreditation/validation of architectural education and professional training should take place about every 5 years.

Appendix B

TEXT OF THE RECOMMENDED GUIDELINES FOR THE ACCORD POLICY ON ETHICS AND CONDUCT RECOMMENDED FOR ADOPTION AS “THE UIA CODE OF ETHICS AND PROFESSIONAL CONDUCT FOR CONSULTING SERVICES.”

DESIGN AND DOCUMENTATION QUALITY AND ITS IMPACT ON THE CONSTRUCTION PROCESS

Design and documentation quality impacts

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Abstract

The quality of design and documentation has a major influence on the overall performance and efficiency of construction projects. As designers provide the graphic and written representations which allow contractors and subcontractors to transform concepts and ideas into physical reality, it is the efficiency with which this transformation occurs that determines the level of project performance and efficiency achieved.

Poor design and documentation quality is a major cause of construction process inefficiency, leading directly to delays, rework and variations, and contributing to increases in project time and cost, for both client and contractors alike.

This paper outlines an Australian study that was undertaken to investigate not only the causes for a perceived decline in the quality of design and documentation being provided to Australian contractors, but also the effects that poor quality design and documentation have on construction process efficiency. The paper outlines the overall aims of the study and highlights the results achieved from a national survey of designers and contractors. The main factors affecting design and documentation quality, as well as their impact on the construction process and the industry as a whole, are identified. Approaches to improve the levels of design and documentation quality are also proposed.

Keywords: Construction process efficiency, design and documentation quality, design fees.

1 Introduction

Currently, the quality of design and documentation being produced in Australia is of major concern to many parties within the construction industry [1]. As the quality of the design and documentation produced has a major influence on the overall performance and efficiency of construction projects [2, 3], it is vitally important that issues affecting design and documentation quality be identified and addressed.

Designers provide the graphic and written representations which allow contractors and subcontractors to transform concepts and ideas into physical reality. However it is the quality of the design and documentation provided which determines how effectively and efficiently this transformation occurs. Inadequate and deficient design and documentation impacts directly on the efficiency of the construction process by leading to delays, rework and variations, which in turn, contribute to increases in project time and cost [4].

As part of its focus on construction process re-engineering (CPR), Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO) has undertaken to investigate the issues affecting design and documentation quality and their impact on the efficiency of the construction process. To carry out this task, a national survey, targeting designers, main contractors and trade contractors, was undertaken. This paper outlines the overall aims of the study and highlights some of the results achieved. The main factors affecting design and documentation quality, as well as the most significant impacts on the efficiency of the construction process, are identified. Approaches to minimise design and documentation deficiency and improve overall construction process efficiency are also proposed.

2 Background

In an ideal world, the design and documentation provided for construction projects would be complete, precise and unambiguous. Unfortunately, contractors are often supplied with project documentation that is considered to be substandard or deficient due to incomplete, conflicting or erroneous information. Design and documentation quality is greatly determined by the level of professional services provided, with the quality of these services generally being determined by how the services are selected and how the fees are negotiated [5]. Where designers are selected on the basis of low design fees, then the level and quality of the service provided is likely to be limited and generally translates into additional project costs to the owner.

A recent study of the relationship between fee structure and design deficiency showed that design deficiency had a non-linear inverse relationship with project design fees [6] and that project costs due to design deficiency increase sharply when design fees are reduced below their optimal level [6, 7]. The concept of reducing total project costs by increasing expenditure on the design process has also been well documented through the principles of value engineering [8] and value management [9]. It would appear therefore, that the truism, *'you get what you pay for'*, is very appropriate when it comes to procuring design services. But what is design and documentation quality and how is it measured? One definition relating to design quality [7] states:

> *"a good design will be effective (ie, serve the purpose for which it was intended) and constructible with the best possible economy and safety."*

However, while the design itself needs to be "effective", it also needs to be communicated effectively through the documentation (*i.e.*, drawings, specifications, Bills of Quantities). When documentation quality is considered, a number of attributes – such as timeliness, accuracy, completeness, coordination and conformance – are looked at to determine the level of quality achieved [10]. Therefore, by measuring the extent to which attributes of design and documentation quality are incorporated, we can determine the quality of design and documentation achieved [10].

The study described in this paper was designed to not only investigate the changes in design and documentation quality over the past fifteen years but also to determine whether there is a causal relationship between reduced design fees and increased project costs due to a reduction in design quality causing excessive problems downstream in the construction process. A national survey of designers, main contractors and trade contractors, aimed to identify the main factors causing design and documentation deficiency and quantify their effect on construction process efficiency.

3 Methodology

With the above purpose in mind, the survey examined the changes within the building construction industry over the past 12 to 15 years in the following areas:

- design fees
- design and documentation quality
- the workload of personnel
- information and communication flows
- variations, delays and rework
- changes on project time and costs

To ensure that the survey addressed only pertinent issues, two industry workshops – one for contractors and one for design professionals – were undertaken as part of the background investigation stage of the study. These workshops were designed to obtain a cross-section of up-to-date industry opinion on the issues and provided valuable industry information that was used to develop two survey questionnaires.

From the results of the workshops, a number of design and documentation attributes were identified as having a direct impact on the quality of design and documentation achieved [4]. By asking both designers and contractors to provide their perceptions as to the level of incorporation of each of the attributes at different time periods, an assessment of design and documentation quality could be determined. Listed in Table 1 are the attributes of design quality identified, while in Table 2 are the attributes of documentation quality.

Table 1 Design quality attributes

N°	Attribute	N°	Attribute
1	Functionality	7	Material selection
2	Relevancy	8	Aesthetics
3	Proper examination of design proposals	9	Material efficiency
		10	Ecological sustainability
4	Constructability	11	Life-cycle costs
5	Site compatibility	12	Innovation
6	Economy	13	Expressiveness

Table 2 Documentation quality attributes

N°	Attribute	N°	Attribute
1	Accuracy	6	Timeliness
2	Clarity	7	Conformity
3	Final Checking	8	Certainty
4	Coordination	9	Relevance
5	Completeness	10	Standardisation

3.1 The survey

The designers' questionnaire was distributed to just under 3000 design and related consultancy firms nationally, including architects, engineers, landscape architects, quantity surveyors and land surveyors and achieved an overall response rate of just under 17%. The contractors' questionnaire was distributed to just under 2500 contractor and sub-contractor firms nationally, including head contractors, electrical contractors, plumbing and drainage contractors, air-conditioning and mechanical contractors and steel fabrication and detailers and achieved an overall response rate of just under 13.5%. For this type of survey these are considered acceptable response rates. Responses from both designers and contractors were received from all states and territories, thereby ensuring that this was a truly national survey.

4 Results

4.1 Design and documentation quality

As part of the survey, designers were asked to indicate the level of importance that the quality attributes listed, had in determining the overall project design and documentation quality. The design attributes in Table 1 and the documentation attributes in Table 2 are listed in order of importance as determined by the responses from the designers.

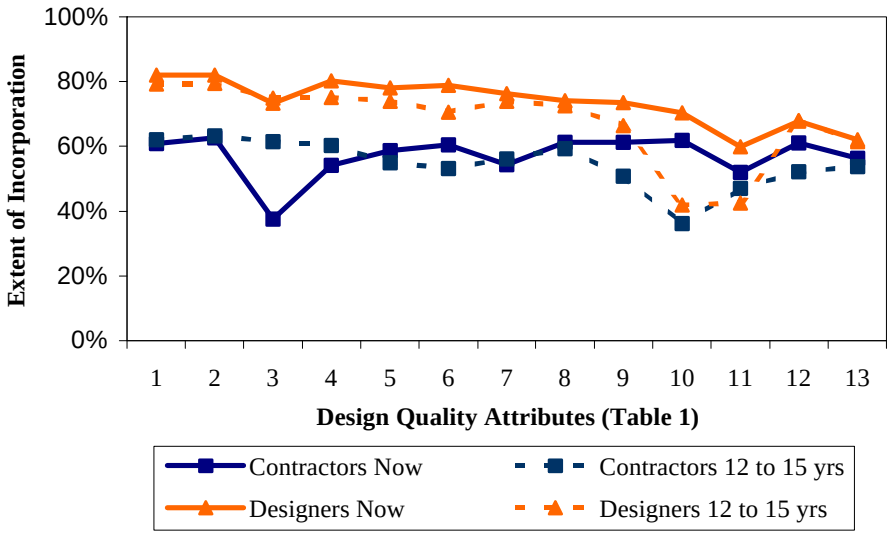


Figure 1 Average level of incorporation of design quality attributes

Designers and contractors were asked to indicate the extent of incorporation attained for each of the design quality attributes for each time period, within the range from *Not At All* (0) to *Completely* (10). The combined response for all issues raised indicated that the overall level of incorporation of design quality attributes – as perceived by both designers and contractors – has improved over the past 12-15 years. As the overall extent of the improvement is only marginal, the difference in the perceived level of incorporation between designers and contractors becomes more important. Figure 1 shows that contractors have a lesser opinion of the level of incorporation than do the designers.

Analysing the responses to the individual issues, highlighted that some issues were of more concern to designers and contractors than were others. Figure 1 also shows that in the opinion of designers the only attributes to have declined over the past 12-15 years were attribute 3, *proper examination of design proposals* and attribute 12, *innovation*, with the level of decline being small. In the view of the contractors however, *proper examination of design proposals* was one area where there has been a major decline over the past 12-15 years. The only other area where contractors perceived there to be a significant decline was attribute 4, *constructability*. All other attributes either showed little change or increased in their level of incorporation over the period. Interestingly, the designers' perceptions of the levels of incorporation also reflected the relative importance they placed on each attribute.

When considering documentation quality attributes, Figure 2 indicates that both designers and contractors agree there has been an overall decline in incorporation over the past 12-15 years. However, while there is a high level of correlation between the designers and contractors with regards to the specific attributes, the extent of the problem is in dispute. The combined response for all issues provided by contractors indicates a major decline over the past 12-15 years, with the only

attribute to improve being attribute 10, *standardisation*. In contrast to this, the designer's perception is that the decline has only been marginal.

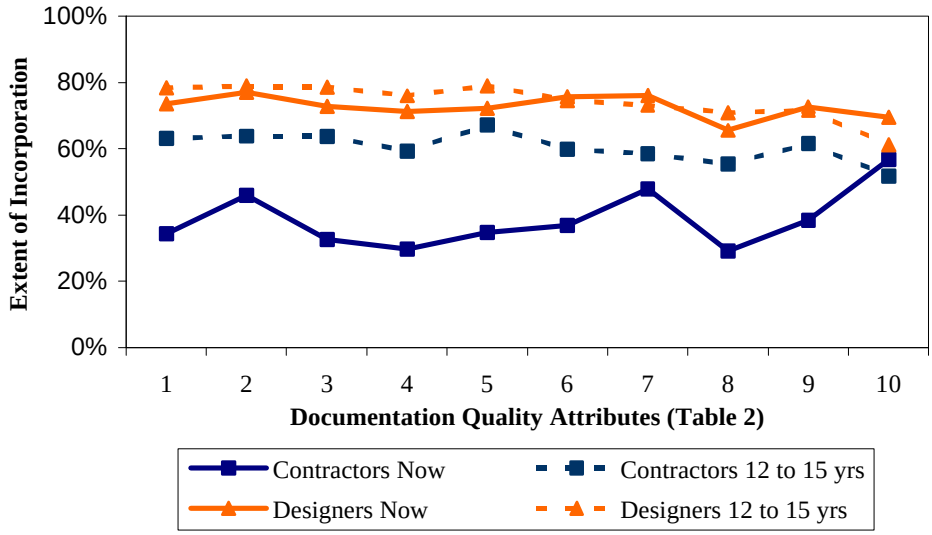


Figure 2 Average level of incorporation of documentation quality attributes

In addition to looking at the attributes affecting design and documentation quality the survey also asked respondents specifically whether they considered there had been a decline in the quality of both design and documentation over the past 12-15 years. While 52% of designers and 69% of contractors felt that design quality had declined, 68% of designers and 88% of contractors felt that documentation quality had declined. Both groups also agreed that the decline in documentation quality had been greater than that of design.

4.2 Design fee levels

To examine changes in design fee levels, designers were asked to indicate the project fee percentage required to provide a proper service, produce quality design and documentation and make a reasonable profit for projects of differing sizes/price ranges and complexity over the specified time periods. However, in order to simplify the trend analysis, the responses have been averaged over all project price ranges. Figure 3 shows that according to designers, the level of design fees required to provide a proper service, have only declined marginally over the past 12 to 15 years, with the required level of fees for *simple* projects declining the most at just under 5%. These decreases in the required fee levels are most likely due to improved information technologies, which allow for improved efficiencies within the design processes.

However, when designers were also asked to indicate the fee levels needed to be submitted to actually win the work, the responses revealed an average decline of approximately 21% for all three project complexity levels over the past 12 to 15 years. Similarly, when comparing the difference between the fee levels submitted now to the fee levels required now, the responses revealed that the disparity between the two fee levels represented an average decline in real designer fee income of approximately 24% for all three project complexity levels. It would appear therefore, that the levels of fees being obtained are well below those required to provide quality design and documentation services.

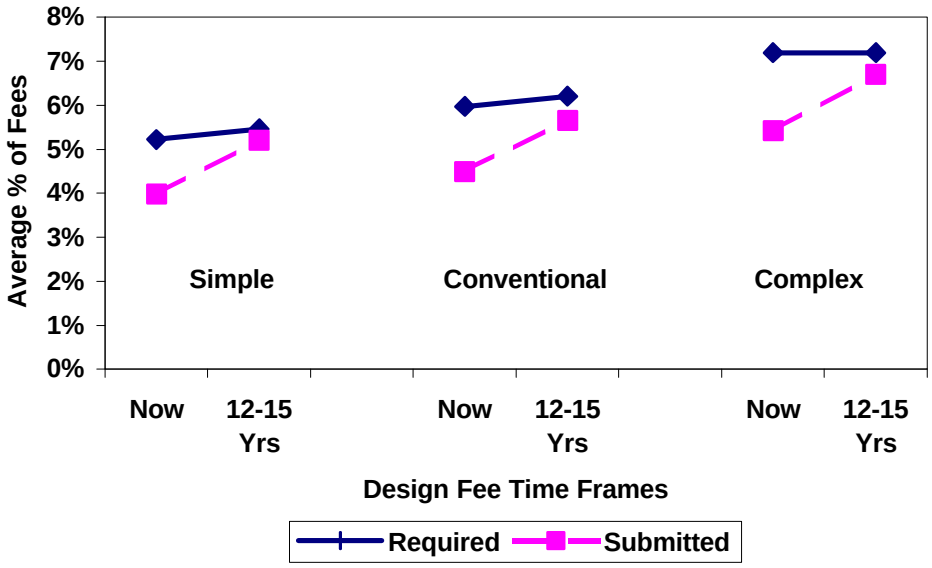


Figure 3 Average decline in design fee levels over the past 12-15 years

4.3 Impact of reduced design fees

Designers confirmed anecdotal evidence [4] that the reduction in fees over the past 12 to 15 years has directly impacted on the quality of design and documentation. In the designers' questionnaire, respondents were asked to indicate the impact of reduced design fees on design and documentation quality. The responses provided indicate that lower design fees have had a highly detrimental effect on most design attributes, with the two attributes affected most being *proper examination of design proposals* and *innovation*. When asked to consider documentation issues the designers indicated that the reduced levels of design fees have detrimentally affected documentation *completeness*, *certainty*, *coordination* and *final checking*. These results correspond directly with the design and documentation quality attributes considered by designers to have declined most in the level of incorporation, and shown previously in Figures 1 and 2. Other significant impacts of reduced design fees include:

- a reduction in the quality of the service being provided;
- insufficient personnel to carry out the work, causing an overload on those available;
- a greater use of junior and inexperienced staff;
- a lack of profit, that leads directly to a reduction in the levels of in-house training and research and development.

According to designers the reduced levels of fees has affected documentation issues more than design issues. Designers also felt that the areas where the decline in levels of service were greatest, were the provision of complete and accurate documentation and design detailing.

Problems identified by contractors as occurring most often and having a detrimental effect on the construction process were a lack of *coordination*, documentation *clarity*, and the use of *catch all clauses*, which require the contractor to make allowance for items not designed or specified.

4.4 The impact of design and documentation deficiencies

A good measure of construction process efficiency can be gauged by the extent of occurrence of the non-desirable elements of construction, such as rework, variations, cost overruns, extensions of time, programme delays, contractual disputes and requests for information (RFIs) [4]. In trying to determine the impact that design and documentation quality has on the extent of these elements, contractors were asked to indicate what proportion were considered to be directly attributable to design and documentation deficiencies. Table 3 provides the results of this analysis and quite clearly shows that design and documentation deficiencies account for almost half of the non-desirable elements of construction identified.

Table 3 Average proportion of non-desirable construction elements due to design and documentation deficiencies

Issue N°	Description	%	Issue N°	Description	%
1	Requests for Information	58.0%	5	Programme Delays	38.1%
2	Variations	51.6%	6	Extensions of time	38.0%
3	Contract Disputes	50.3%	7	Rework	37.6%
4	Cost Overruns	45.6%			

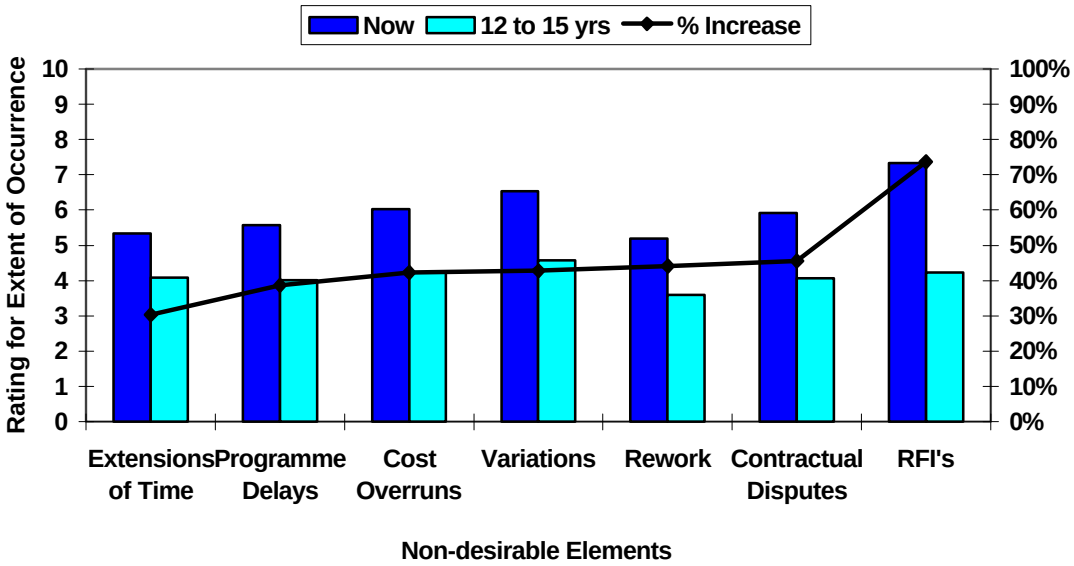
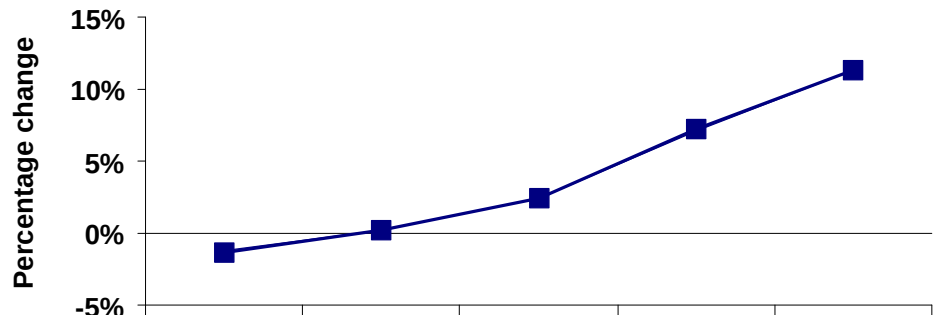


Figure 4 Average change in extent of occurrence of non-desirable construction elements

Construction process efficiency can be severely affected if the extent of these non-desirable elements is excessive. To determine the extent to which these elements have changed over the past 12-15 years, contractors were asked to indicate their perceptions as to the level of occurrence – from *Nil* (0) to *Extremely Excessive* (10) – at each time period. In Figure 4, the responses show the frequency of occurrence for all issues has risen an average of 46% compared with 12-15 years ago, with RFIs showing the greatest overall increase of nearly 74%.

Contractors were also asked whether the level of design and documentation quality directly influenced project cost and time at tender stage. In response to these questions, 93% of contractors indicated that design and documentation quality did influence the price submitted for a tender, while 75% of contractors indicated that it also had an influence on the time allowed for a project.

To determine the extent to which design and documentation quality influences project cost and time at tender stage, contractors were asked to indicate what allowance – either negative or positive – would generally be incorporated within their tenders, based on differing quality levels. As can be seen in Figure 5, when design and documentation quality is considered to be *very poor* an average of just over 11% was added to both the estimated project cost and time allowance. Even when the standard of quality is considered average, an additional allowance of approximately 2.5% on average, is included. However, at the other end of the scale an average reduction of over 1% in the tender allowances is given when design and documentation is considered to be of an excellent standard. As the impact of poor quality design and documentation on project costs and durations are almost identical, a table is included with the graph in Figure 5, to show the actual figures along with the overall trend line for additional project costs and time.



	Excellent	Good	Average	Poor	Very Poor
Time	-1.2%	0.2%	2.4%	7.1%	11.3%
Cost	-1.3%	0.3%	2.5%	7.2%	11.4%

Standard of design and documentation

Figure 5 Average time and cost allowance included at tender stage

5 Conclusions

The survey results indicate that all sections of the industry agree that there are major problems with the design and documentation process in the Australian construction industry and that these problems are leading to construction inefficiencies and increased project costs.

From a contractor's perspective, the deficiencies occurring in design and documentation being provided by consultants, have been steadily increasing over the past 12–15 years and are causing corresponding increases in the extent of inefficiency within the construction process. As a consequence, decreases in project quality and increases in overall project costs result. Of major concern are the additional costs – which to a large degree end up being absorbed by contractors – caused by the delays and disruption in trying to clarify inadequate, impractical, conflicting or ambiguous design and specification documentation.

The designers, whilst also acknowledging this reduction in design and documentation quality and the services being provided, consider the primary causes to be reducing design fees, decreasing project design and delivery times, and an increasing number of clients with unrealistic expectations and an inability to properly define project objectives and requirements. Both contractors and designers indicated the increasing use of junior and inexperienced staff to carry out the design function. Designers suggested that this was a direct result of reduced fees and inadequate design time, limiting the type of staff available and the extent of supervision and in-house training provided. Concern is raised that if, due to modern design firm pressures, adequate supervision and

in-house training from senior staff is not supplied, the knowledge base of future designers may be diminished.

By reducing design fees to minimise costs, clients and developers were by their own actions, contributing to the problems which lead to inefficiencies in the construction process and increases in overall project costs. The results of the surveys clearly show a need for clients and developers to allocate adequate funds and time to the planning and design phases of a project, in order to maximise construction process efficiency and minimise overall project costs.

Improvements in construction process efficiency will result from creating an awareness of the value of quality design and documentation and the introduction of selection criteria that includes consideration of the designer's skills and experience. Once developers fully understand the value of quality design and documentation, they would then ensure that sufficient time and fees are available to allow designers to provide the level of service needed to carry out the design function completely. The benefits would be more projects being completed on time, within budget and with a reduced likelihood of legal action due to contractual disputes. Also, with less RFIs, variations and rework, contractors would be able to minimise the management time and cost spent on non-value adding activities. These benefits would be reflected in reduced project and contractual risk and a higher level of profitability for both developers and contractors. More reasonable fee levels would also enable designers to restore staff training programs – to develop a higher standard of designer – and encourage innovation. Increased fees may also stem the outflow of experience designers, which has the potential to diminish the knowledge base of the industry.

6 References

1 Syam, A. (1995) Editorial. *Journal of the Australian Institute of Steel Construction*, Vol. 29, No. 3, p. 1.

2 Burati, J.L., Farrington, J.J. and Ledbetter, W.B. (1992) Causes of quality deviations in design and construction. *Journal of Construction Engineering and Management*, Vol. 118, No. 1, pp. 34–49.

3 Kirby, J.G., Douglas, A. and Hicks, D.K. (1988) Improvements in design review management. *Journal of Construction Engineering and Management*, Vol. 114, No. 1, pp. 69–82.

4 Tilley, P.A. and Barton, R. (1997) Design and documentation deficiency - causes and effects. *Proceedings of the First International Conference on Construction Process Reengineering*, Gold Coast, Australia, pp. 703–712.

5 DeFraites, A.A. Jr. (1989) Fee versus quality, *Journal of Professional Issues in Engineering*, Vol. 115, No. 2, pp. 125–128.

6 Abolnour, M.M. (1994) The relationship of fee structure in engineering offices and design deficiency, *MSc dissertation*, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia.

7 McGeorge, J.F. (1988) Design productivity: a quality problem, *Journal of Management in Engineering*, Vol. 4, No. 4, pp. 350–362.

8 Green, S.D. and Popper, P.A. (1990) *Value engineering - the search for unnecessary cost*, Occasional Paper No. 39, Chartered Institute of Building, Ascot, Berkshire.

9 Barton R.T. (1996) *The application of value management to the development of project concepts*, Proceedings of the Eighth International Symposium on the Organisation and Management of Construction: Shaping Theory and Practice, Vol. 2; Managing the Construction Project and Managing Risk, Glasgow, Scotland, pp. 115–123.

10 Tilley, P.A., Wyatt, A. and Mohamed, S. (1997) *Indicators of Design And Documentation Deficiency*, Proceedings of the Fifth Annual Conference of the International Group for Lean Construction, Gold Coast, Australia, pp. 137–148.

APPENDIX 4

Size of the architectural profession, Australia 1999

Jurisdiction	Resident Registered under Architects Act[d]	Registered under Architects Act[a]	RAIA members[c]	RAIA members[b]
NSW	2,818	3,305	1,830	2,706
Victoria	2,651	3,093	1,399	1,973
Queensland	1,777	2,137	853	1,143
SA	560	714	395	708
WA	892	1,006	480	676
Tasmania	168	224	107	187
NT	61	230	49	68
ACT	285	661	179	262
Australia	**9,212**	**11,370**	**5,292**	**7,723**

Registered under Architects Act[a] – Registered by a Board of Architects under an Architects Act in mid to late 1999. Figures used by the Productivity Commission.

RAIA members[b] – As at October 1999. Includes all member classes, excluding overseas members. Figures used by the Productivity Commission.

RAIA members[c] – As at November 1999. Includes all registrable members (active members, retired architects, and registrable graduates), excluding overseas members and students resident in Australia).

Resident Registered under Architects Act[d] - Registered by a Board of Architects under an Architects Act in mid to late 1999 and resident in the state or territory of registration. Figures provided by the Boards of Architects.

Proportion of registered architects that are RAIA members, Australia 1999

Jurisdiction	RAIA members[c] / Resident Registered under Architects Act[d]
NSW	64.9%
Victoria	52.8%
Queensland	48.0%
SA	70.5%
WA	53.8%
Tasmania	63.7%
NT	80.9%
ACT	62.8%
Australia	**57.5%**

Objectives of Architects Acts

The objectives of State and Territory Architects Acts were identified in the following terms during the generally inconclusive round of State and Territory NCP Reviews which preceded this national (sans Victoria) Productivity Commission Review of Legislation regulating the Architectural Profession:

NSW

"The Architects Act states that it is 'an Act to provide for the registration and to regulate the practice of architects: and for purposes connected therewith'"
The Act establishes and is administered by the Board of Architects of New South Wales. The Act's objectives are elaborated in the Board's mission statement, which sets out the Board's purposes as:

(i) to provide and maintain a register of architects so that members of the public may identify those whose education, training, skills and integrity are of sufficient standard to provide an acceptable level of professional service to the public;
(ii) to define and regulate the profession of architecture and those who practice it;
(iii) to make this service known and readily available to the public."[1]

Northern Territory

These intentions are briefly set out in the Second Reading Speech to the Architects' Bill made on 20 February 1963:
"….to ensure that architects practice their profession with some degree of control over their behaviour:….and….to protect the public from people who are not fully qualified and who, in fact, engage in the work of an architect."[2]

Western Australia

"…….there are two primary objectives of the Act;
(i) provision of a measure of consumer protection in markets for building design and associated services. The concern over protecting the interests of the public is based on the premise that some consumers may need assistance in procuring architectural services because they lack the technical knowledge to identify practitioners with appropriate qualifications, experience and business ethics. The Architects Act and the By-Laws establish standards of competency for those who seek to use the title 'architect' and disciplinary structures are established so as to monitor and maintain standards of services from practitioners registered as architects.
(ii) provision of a means for regulating the architectural profession. The second reading speech acknowledged that the profession was being given "……a certain amount of privilege". This privilege relates to the ability of practitioners to

[1] NCP Review of the Architects Act 1921 – Issues Paper, June 1997,p.9

[2] NCP Review of the Northern Territory Architects Act 1991 – Report of the Review Panel, August 1997, p.4

> influence the nature of the profession, through placing restrictions on the eligibility of people to describe themselves as architects, and by so doing influence the education, training and skills of practitioners." [3]

South Australia

"The objectives of the Act are to provide for the registration of architects and to regulate the practice of architecture. This purpose is stated in the preamble to the Architects Act"[4]

Victoria

Although not formally under reference in relation to this inquiry, the Victorian Architects Act 1991 is the only State or Territory Architects Act to explicitly set out the objectives of the legislation.

"The purposes of the Victorian Architects Act 1991 are expressed as being:

- to provide for the registration of architects;
- to provide for the approval of architectural partnerships and architectural companies;
- to regulate the professional conduct of architects;
- to provide a procedure for handling complaints against architects;
- to regulate the use of the words "architect", "architecture" and "architectural";
- to establish the Architects Registration Board of Victoria." [5]

Queensland

For reasons best known to themselves, the Queensland Government did not undertake an NCP review of Architects Legislation although an Issues Paper was produced by the Queensland Architects Board at the same time as the State and Territory review, contained the following analysis of the legislative objectives of the Architects Act 1985:

"The Architects Act is defined within itself as:
"an Act to consolidate and amend the law relating to the registration and practice of architects and for related purposes".

The purpose of regulation of the architectural profession is to give protection to the public who may rely on the skill implied by the use of the title architect. It serves as a means of distinguishing those who have acquired a known level of competence in the practice of architecture through education, practical experience and examination, from

[3] NCP Review of the Architects Act 1921 and the Architect's Board of Western Australia By-Laws 1965 – Working Paper, pp. 2.1,2.2

[4] NCP Legislation Review Architects Act 1939 – Consultation Draft, p. 5

[5] Freehill Hollingdale & Page, NCP Review of Architects and Building Legislation – Final Report (Yet to be publicly released), February 1999, p.31

semi-trained or unqualified practitioners. It also serves to monitor professional conduct and to protect the consumer against malpractice on the part of those who are registered.

The Act in no way prevents others from preparing drawings for or superintending the erection of buildings." [6]

There appears to be some recognition that existing State and Territory legislation regulating the Architectural Profession addresses market failure in the area of information asymmetry

[6] Review of Architects Act 1985 – A Discussion Paper, Board of Architects of Queensland, December 1997, p. 1

APPENDIX 2

SCOPE OF THE ARCHITECT'S SERVICES

First Published October 1991

[May be used as a more detailed Part A to the 'Client/ Architect Agreement (including Architect's Services, Conditions and Fees), 1991' or as a more detailed Appendix Item N to the 'Client and Architect Agreement, 1993', both published by the RAIA and ACA-Australia.]

Published by

THE ROYAL AUSTRALIAN INSTITUTE OF ARCHITECTS
ACN 000 073 012

A C A
ASSOCIATION OF CONSULTING ARCHITECTS AUSTRALIA

By Architect	By Architect's Consultant (engaged by Architect)	By Client	By Client's Consultant (co-ordinated by Architect)	Basis of Fees †	Amount (%, $)

PART A -
SCOPE OF SERVICES

Complete or delete every item in Part A

A1 PRE-DESIGN SERVICES

A1.01 Preparation of Brief
Establishing with or for the Client a detailed set of requirements for the project:
.01 Design objectives, limitations and criteria;
.02 Space requirements;
.03 Space relations;
.04 Number and functional responsibilities of personnel;
.05 Flexibility and provision for growth;
.06 Special equipment and systems;
.07 Site requirements;
.08 Budget requirements;
.09 Programming.

A1.02 Space Schematics/Flow Diagrams
Studies of:
.01 Internal functions;
.02 Human, vehicular and material flow patterns;
.03 General space allocations;
.04 Analysis of operating functions;
.05 Study of adjacency;
.06 Special facilities and equipment;
.07 Materials handling;
.08 Flexibility and provision for growth.

* **A1.03 Consultation with Authorities**
Study of statutory requirements and if necessary, consultation with relevant local, regional, state and federal authorities regarding their requirements for the project.

A1.04 Marketing Studies
Assisting in determining the social, economic and political need and acceptability of the project and consisting of:
.01 Determination of the scope, parameters, schedule and budget for marketing studies;
.02 Identification, assembly, review and organisation of existing pertinent data;
.03 Arrangement of clearances for use of existing data;
.04 Mail survey studies;
.05 Personal survey studies;
.06 Analysis of data;
.07 Obtaining computerised analysis and modelling;
.08 Preparation of interim reports;
.09 Production of the final report.

* **A1.05 Preliminary Feasibility Study**
Preparation of preliminary feasibility study by:
.01 Analysing the project brief;
.02 Preparing initial area concept;
.03 Preparing an opinion of probable cost;

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† Bases of Fees
%C = Percentage of Cost of Works
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LS = Lump Sum ($)
H = Time Basis (hours)
R = Retainer

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SCOPE OF SERVICES

Complete or delete every item in Part A

A1 PRE-DESIGN SERVICES

By Architect	By Architect's Consultant (engaged by Architect)	By Client	By Client's Consultant (co-ordinated by Architect)	Basis of Fees †	Amount (%, $)	
Page Total (Percentage)						Totals carried forward
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						* **A1.06 Form of Building Contract** Presentation of the available options and recommendations to the Client of the most appropriate form of building contract(s) for the project. * **A1.07 Selection and Engagement of Consultants** Advice to the Client in: .01 Selection of consultants; .02 Establishing Conditions of Engagement; .03 Establishing fees; .04 Engagement of consultants.
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SCOPE OF SERVICES

Complete or delete every item in Part A

A2 SITE ANALYSIS SERVICES

By Architect	By Architect's Consultant (engaged by Architect)	By Client	By Client's Consultant (co-ordinated by Architect)	Basis of Fees †	Amount (%, $)

* **A2.01 Consultation with Authorities**

Consultation with relevant local, regional, state and federal authorities, regarding:

.01 Titles, zoning, legal restrictions and other requirements of the site.

A2.02 Site Selection

Assisting Client in site selection by:

.01 Identification of potential sites or site;
.02 On-site investigations;
.03 Movement systems, traffic and parking studies;
.04 Topographic analysis;
.05 Analysis of title, zoning and other legal restrictions;
.06 Studies of availability of labour force to staff owner's building;
.07 Studies of availability of construction materials, equipment and labour;
.08 Studies of construction market;
.09 Overall site analysis and evaluation;
.10 Comparative site studies.

A2.03 Site Surveys

Site surveys consisting of:

.01 Identification survey, including easements, encroachments, encumbrances, covenants;
.02 Site features;
.03 Levels and contours;
.04 Building configuration;
.05 Outline of building(s) on adjoining sites;
.06 Geotechnical survey;
.07 Location of service mains.

A2.04 Existing Buildings Survey

Existing buildings survey consisting of:

.01 Measurement of existing building(s);
.02 Check survey to establish accuracy of existing drawings;
.03 Preparation of measured drawings;
.04 Analysis of materials and finishes;
.05 Schedule of defects, deficiencies, non-compliance;
.06 Location of services;
.07 Documentary research into history and development of building(s).

* **A2.05 Site Analysis**

Detailed site analysis of existing conditions:

.01 Land utilisation;
.02 Structures placement;
.03 Facilities development;

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SCOPE OF SERVICES

Complete or delete every item in Part A

A2 SITE ANALYSIS SERVICES

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.04 Development phasing;
.05 Movement systems, circulation and parking;
.06 Site Services;
.07 Surface and sub-surface conditions;
.08 Review of geotechnical survey;
.09 Vegetation;
.10 Slope analysis;
.11 Ecological studies;
.12 Landscape forms and materials.

* **A2.06 Detailed Off-Site Services Studies**

Study of off-site services, including:

.01 Confirmation of location, size and adequacy of services serving the site;
.02 Determination of requirements for connection services;
.03 Planning for site services, extensions and facilities;
.04 Design for off-site services, extensions and facilities.

A2.07 Environmental Studies and Reports

Environmental studies and report services, consisting of:

.01 Determination of legal requirements for environmental monitoring, assessment and/or impact statements;
.02 Ecological studies;
.03 Environmental and heritage assessments;
.04 Preparation of environmental impact statements;
.05 Attendance at public meetings and hearings;
.06 Presentations to authorities.

A2.08 Rezoning Applications

Rezoning applications, consisting of:

.01 Preparation of applications;
.02 Development of supporting data;
.03 Preparation of presentation materials;
.04 Attendance at public meetings and hearings.

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SCOPE OF SERVICES

Complete or delete every item in Part A

A3 SCHEMATIC DESIGN/DEVELOPMENT APPLICATION[1] SERVICES

* **A3.01 Consultation with Authorities**

Preparation of material for and consultation with relevant local, regional, state and federal authorities regarding:

.01 Laws, statutes, building codes and regulations affecting the project.

A3.02 Site Master Planning

The preparation of a master plan for overall development and phasing to show its best utilisation.

* **A3.03 Architectural Design**

Architectural design services including, where applicable:

.01 Conceptual site and building plans;
.02 Preliminary sections and elevations (including treatment of internal spaces);
.03 Preliminary selection of building systems and materials;
.04 Development of approximate dimensions, areas and volumes;
.05 Perspective sketch or sketches showing internal spaces and external appearance;
.06 Liaison with and co-ordination of consultants;
.07 Assessment of consultants' recommendations.

A3.04 Structural Design

Structural design services, consisting of recommendations for:

.01 Recommendations regarding basic structural materials and systems;
.02 Preferred structural system;
.03 Approximate dimensions.

A3.05 Mechanical Design

Mechanical design services, consisting of recommendations for:

.01 Energy source or sources;
.02 Energy conservation;
.03 Heating and ventilation;
.04 Air conditioning;
.05 Movement systems;
.06 Fire protection;
.07 Special mechanical systems;
.08 Process systems.

A3.06 Hydraulic Design

Hydraulic design services, consisting of recommendations for:

.01 Water services;
.02 Sanitary plumbing;
.03 Roof plumbing;
.04 Site drainage;
.05 Fire protection services.

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* Core Services

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SCOPE OF SERVICES

Complete or delete every item in Part A

A3 SCHEMATIC DESIGN/DEVELOPMENT APPLICATION[1] SERVICES

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A3.07 Electrical Design

Electrical design services, consisting of recommendations for:

- .01 Power service and distribution;
- .02 Lighting;
- .03 Telephones;
- .04 Fire detection and alarms;
- .05 Security and control systems;
- .06 Electronic communications;
- .07 Special electrical systems;
- .08 Lightning protection.

A3.08 Civil Design

Civil design services, consisting of recommendations for:

- .01 Earth works;
- .02 Water works;
- .03 Drainage systems;
- .04 Paving and roadworks.

A3.09 Landscape Design

Landscape design services, consisting of recommendations for:

- .01 Design objectives;
- .02 Environmental determinants;
- .03 Materials;
- .04 Land forms;
- .05 Lawns and plantings;
- .06 Physical site characteristics;
- .07 Systems and equipment (including irrigation).

* **A3.10 Opinion of Probable Cost and Program**

- .01 Liaison with and co-ordination of cost consultant and programming consultant, or
- .02 Development of opinion regarding:
  - .01 Probable construction cost range for the project;
  - .02 Probable project program.

A3.11 Cost Consultant's Services

The provision of cost consultant's servicing services, including:

- .01 Services based on Standard Method of Measurement;
- .02 Elemental costing;
- .03 Cost control analysis;
- .04 Assessment, measurement and valuation of variations;
- .05 Assessment and valuation of progress payment claims;
- .06 Assessment of "rise and fall" claims;
- .07 Assessment of site loading claims.

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						A3 SCHEMATIC DESIGN/DEVELOPMENT APPLICATION[1] SERVICES
						Page Total (Percentage)
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						Totals carried forward
						A3.12 Preliminary Economic Feasibility Study Preparation of preliminary economic feasibility report based on opinion regarding: .01 Probable construction cost; .02 Other project costs; .03 Probable project income; .04 Probable return on investment.
						A3.13 Presentations Presentation of the schematic design to: • .01 Client; .02 Building owner; .03 Staff committee; .04 User groups; .05 Financier; .06 Owner's consultants.
						A3.14 Development Application[1] Development application[1] consisting of: .01 Preparation of documents by the Architect including plans, sections and elevations showing: .01 Materials, finishes schedule and selections, including selection of colours where applicable; .02 Shadow diagrams; .03 Privacy diagrams; .04 Environmental Impact Statement (EIS) or Statement of Environmental Effects as applicable for lodgement to the relevant authorities for planning approval; .02 Lodgement of documents by the Architect on behalf of the Client to the relevant authorities for planning approval; .03 Appeals.
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By Architect	By Architect's Consultant (engaged by Architect)	By Client	By Client's Consultant (co-ordinated by Architect)	Basis of Fees †	Amount (%, $)

SCOPE OF SERVICES

Complete or delete every item in Part A

A4 DESIGN DEVELOPMENT/DEVELOPMENT APPLICATION[1] SERVICES

* **A4.01 Consultation with Authorities**
Preparation of material for and consultation with relevant local, regional, state and federal authorities, regarding:
.01 Laws, statutes and building codes and regulations affecting the project.

* **A4.02 Architectural Design**
Architectural design services, comprising the development and expansion of architectural schematic design documents by:
.01 Plans, sections and elevations (including treatment of internal spaces);
.02 Typical construction details;
.03 Three dimensional sketches;
.04 Refining materials and finishes schedule and selections, including selection of colours where applicable;
.05 Establishing equipment layouts;
.06 Preliminary design and layout of built-in furniture and fittings;
.07 Liaison with and co-ordination of consultants.

A4.03 Structural Design
Structural design services, consisting of continued development of the structural system in sufficient detail to establish:
.01 Basic structural dimensions;
.02 Final structural design criteria;
.03 Foundation and footing design criteria;
.04 Critical co-ordination clearances;
.05 Materials lists.

A4.04 Mechanical Design
Mechanical design services, consisting of continued development of the mechanical schematic design documents and establishment of design criteria in order to establish:
.01 Energy conservation measures;
.02 Approximate equipment sizes and capacities;
.03 Preliminary equipment layouts;
.04 Required space for equipment;
.05 Required chases, penetrations and clearances;
.06 Acoustical and vibration control;
.07 Visual impacts.

A4.05 Hydraulic Design
Hydraulic design services, consisting of continued development of hydraulic schematic design documents and establishment of design criteria for:
.01 Water services;
.02 Sanitary plumbing;
.03 Roof plumbing;
.04 Site drainage;
.05 Fire protection services.

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SCOPE OF SERVICES

Complete or delete every item in Part A

A4 DESIGN DEVELOPMENT/DEVELOPMENT APPLICATION[1] SERVICES

By Architect	By Architect's Consultant (engaged by Architect)	By Client	By Client's Consultant (co-ordinated by Architect)	Basis of Fees †	Amount (%, $)
Page Total (Percentage)					
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Page Total (Time)					

Totals carried forward

A4.06 Electrical Design

Electrical design services, consisting of continued development of electrical schematic design documents and establishment of design criteria in order to establish:

.01 Criteria for lighting, electrical and communication systems;
.02 Approximate sizes and capacities of major components;
.03 Preliminary equipment layouts;
.04 Required space for equipment;
.05 Required chases, penetrations and clearances.

A4.07 Civil Design

Civil design services, consisting of continued development of schematic design documents and establishment of design criteria for:

.01 Earth works;
.02 Water works;
.03 Drainage systems;
.04 Paving and roadworks;
.05 Networks.

A4.08 Landscape Design

Landscape design services, consisting of continued development of landscape schematic design documents and establishment of design criteria for:

.01 Design objectives;
.02 Environmental determinants;
.03 Materials;
.04 Land forms;
.05 Lawns and plantings;
.06 Physical site characteristics;
.07 Systems and equipment;
.08 Irrigation systems.

* **A4.09 Opinion of Probable Cost and Program**

.01 Liaison with and co-ordination of cost consultant and programming consultant, or
.02 Updating and amending opinion regarding:
  .01 Probable construction cost for the project;
  .02 Probable project program.

A4.10 Cost Consultant's Services

The provision of cost consultant's servicing services, including:

.01 Services based on Standard Method of Measurement;
.02 Elemental costing;
.03 Cost control analysis;

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SCOPE OF SERVICES

Complete or delete every item in Part A

A4 DESIGN DEVELOPMENT/DEVELOPMENT APPLICATION[1] SERVICES

By Architect	By Architect's Consultant (engaged by Architect)	By Client	By Client's Consultant (co-ordinated by Architect)	Basis of fees †	Amount (%, $)
Page Total (Percentage)					
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Page Total (Time)					

Totals carried forward

.04 Assessment, measurement and valuation of variations;
.05 Assessment and valuation of progress payment claims;
.06 Assessment of "rise and fall" claims;
.07 Assessment of site loading claims.

A4.11 Presentations

Presentations to:

* .01 Client;
.02 Building owner;
.03 Staff committee;
.04 User groups;
.05 Boards of directors;
.06 Financier;
.07 Owner's consultants.

A4.12 Development Application[1]

Development application consisting of:

.01 Preparation of documents by the Architect including plans, sections and elevations showing:
  .01 Materials, finishes schedule and selections, including selection of colours where applicable;
  .02 Shadow diagrams;
  .03 Privacy diagrams;
  .04 Environmental Impact Statement (EIS) or Statement of Environmental Effects as applicable;
.02 Lodgement of documents by the Architect on behalf of the Client to the relevant authorities for planning approval;
.03 Appeals.

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Transfer to Schedule C

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SCOPE OF SERVICES

Complete or delete every item in Part A

A5 CONTRACT DOCUMENTATION SERVICES

By Architect	By Architect's Consultant (engaged by Architect)	By Client	By Client's Consultant (co-ordinated by Architect)	Basis of Fees †	Amount (%, $)

* **A5.01 Consultation with Authorities**
The preparation of material for and consultation with relevant local, regional, state and federal authorities, regarding:
- .01 Laws, statutes, building codes and regulations affecting the project.

* **A5.02 Architectural Documentation**
Architectural documentation, consisting of the preparation of documents based on approved design development documents, setting forth in detail the architectural construction requirements of the project. Such documents include:
- .01 Working drawings prepared from the Client-approved design development documents for tendering and construction, including details necessary for the builder to accurately assess the cost, extent and content of the works;
- .02 Specification comprising detailed written descriptions of the content of the project materials, workmanship and schedules which is complementary to the working drawings and details;
- .03 Co-ordination of secondary consultants;
- .04 Liaison with a cost consultant for Bills of Quantities, a specified bill or other methods of analysing the quantities of the materials in the project where applicable.

A5.03 Structural Documentation
Structural documentation, setting forth in detail the structural construction requirements of the project for tendering and construction purposes, consisting of the preparation of:
- .01 Final structural engineering calculations;
- .02 Drawings;
- .03 Specifications and schedules;
- .04 Other documents as agreed.

A5.04 Mechanical Documentation
Mechanical documentation, setting forth in detail the mechanical construction requirements of the project for tendering and construction purposes, consisting of the preparation of:
- .01 Final mechanical engineering calculations;
- .02 Drawings;
- .03 Specifications and schedules;
- .04 Other documents as agreed.

A5.05 Hydraulic Documentation
Hydraulic documentation, setting forth in detail the detailed hydraulic construction requirements of the project for tendering and construction purposes, consisting of the preparation of:
- .01 Final hydraulic engineering calculations;
- .02 Drawings;
- .03 Specifications and schedules;
- .04 Other documents as agreed.

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Page Total (Percentage)					
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SCOPE OF SERVICES

Complete or delete every item in Part A

A5 CONTRACT DOCUMENTATION SERVICES

Totals carried forward

A5.06 Electrical Documentation

Electrical documentation, setting forth in detail electrical construction requirements of the project for tendering and construction purposes, consisting of the preparation of:

.01 Final electrical engineering calculations;
.02 Drawings;
.03 Specifications and schedules;
.04 Other documents as agreed.

A5.07 Fire Services

Fire Services documentation, setting forth in detail the fire services construction requirements of the project for tendering and construction purposes, consisting of the preparation of:

.01 Final Fire Services engineering calculations;
.02 Drawings;
.03 Specifications and schedules;
.04 Other documents as agreed.

A5.08 Transportation/Lifts

Transportation/lifts documentation, setting forth in detail the transportation/lifts construction requirements of the project for tendering and construction purposes, consisting of the preparation of:

.01 Final transportation/lifts engineering calculations;
.02 Drawings;
.03 Specifications and schedules;
.04 Other documents as agreed.

A5.09 Civil Documentation

Civil documentation, setting forth in detail the civic construction requirements of the project for tendering and construction purposes, consisting of the preparation of:

.01 Final civil engineering calculations;
.02 Drawings;
.03 Specifications and schedules;
.04 Other documents as agreed.

A5.10 Landscape Documentation

Landscape documentation, setting forth in detail the landscape requirements of the project for tendering and construction purposes, consisting of the preparation of:

.01 Drawings;
.02 Specifications and schedules.

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A5 CONTRACT DOCUMENTATION SERVICES

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						Page Total (Percentage)
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Totals carried forward

A5.11 Special Materials Research
Finalisation of details of research into special materials and construction methods.

A5.12 Special Tender Documents/Scheduling
Preparation and co-ordination of special drawings and specifications, tender documents and schedules for obtaining tenders or prices:
.01 On Trade Contract packages;
.02 For comparative construction methods, techniques or materials;
.03 For out-of-sequence tendering or pricing of Trade Contract packages;
.04 Provisional or novated contracts.

* **A5.13 Opinion of Probable Cost and Program**
.01 Liaison with and co-ordination of cost consultant and programming consultant, or
.02 Updating and amending opinion regarding:
.01 Probable construction cost for the project;
.02 Probable cost based on figures supplied by cost consultant;
.03 Probable project program.

A5.14 Cost Consultant's Services
The provision of cost consultant's servicing services, including:
.01 Services based on Standard Method of Measurement;
.02 Elemental costing;
.03 Cost control analysis;
.04 Assessment, measurement and valuation of variations;
.05 Assessment and valuation of progress payment claims;
.06 Assessment of "rise and fall" claims;
.07 Assessment of site loading claims.

A5.15 Building Application
Building Application consisting of:
.01 Preparation of documents by the Architect for lodgement to the relevant authorities for building approval;
.02 Lodgement of documents by the Architect on behalf of the Client to the relevant authorities for building approval;
.03 Appeals.

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Transfer to Schedule C

† Bases of Fees
%C = Percentage of Cost of Works
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* Core Services

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A C A

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By Architect	By Architect's Consultant (engaged by Architect)	By Client	By Client's Consultant (co-ordinated by Architect)	Basis of Fees †	Amount (%, $)

SCOPE OF SERVICES

Complete or delete every item in Part A

A6 TENDERING AND NEGOTIATING SERVICES

A6.01 Tender Process

- * .01 Preparation of tender documents; *(for reproduction and distribution refer to Clause "Disbursements")*
- .02 Advertising in the media to the extent requested by, or agreeable to, the Client for registration of tenderers in order to compile a list of selective tenderers;
- * .03 Pre-qualification checking of the technical capacity of proposed tenderers and any meetings required to produce a list;
- * .04 Inviting proposed tenderers to tender and issuing documents for pricing;
- .05 Calling tenders for separate parts of the works where applicable;
- * .06 The preparation and distribution of addenda as may be required during tendering or negotiation and including supplementary drawings, specifications, instructions and notices of changes in the tendering schedule and procedure;
- * .07 Checking the tenderer's compliance with the tender documents; analysing and reporting to the Client;
- * .08 Discussions and meeting to achieve an acceptable contract package with the preferred tenderer.

* **A6.02 Document Revisions**
The revision or modification of tender documents following on from the tender process in order that the documents may be included in the contract documents.

A6.03 Negotiated Contracts
Selecting a builder and negotiating the contract sum.

* **A6.04 Contract Preparation and Execution**

- .01 Notifying the selected builder and unsuccessful tenderers;
- .02 Preparing contract documents for signature by the Client and the builder.†

† *NOTE: This may involve review by each party's legal and insurance advisers*

A6 Total (Percentage)	
A6 Total (Lump Sum)	
A6 Total (Time)	

Transfer to Schedule C

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SCOPE OF SERVICES

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A7 CONTRACT ADMINISTRATION: CONSTRUCTION SERVICES

* **A7.01 Consultation with Authorities**
Preparation of material for and consultation with relevant local, regional, state and federal authorities regarding:
- .01 Laws, statutes, building codes and regulations affecting the project.

* **A7.02 Supplementary Details**
Provision of supplementary details during construction to further explain the contract documents.

* **A7.03 Contract Administration**
Provision of all contract administration required for the project, including:
- .01 The maintenance of records on the cost of the construction and all variations and the evaluation of the amounts owed to the builder, including the certification of payments;
- .02 Preparation and issue of documents to describe and value the work to be added, deleted or modified. This will include a review of the builder's quotations, contract completion time, recommendations to the Client, securing the client's approval to act and instructing the builder;
- .03 Notification to the Client and other parties affected of any change in the contract time;
- .04 The receipt, review and annotation of shop drawings and the return of copies to the builder;
- .05 The review of samples and prototypes and consultations with the Client;
- .06 Periodic site (and shop, where applicable) visits to observe the progress of the works;
- .07 Issuing all instructions to the builder under the contract;
- .08 Issuing certificates for payment resulting from the builder's claims and inspections and issuing of notice of practical completion;
- .09 Liaison with and co-ordination of consultants;
- .10 Convening project co-ordination and site meetings.

A7.04 Structural Project Consultant's Services
Structural consultant's services, consisting of:
- .01 Periodic visits to observe the progress of the works as required;
- .02 Issuing instructions through the Architect as required;
- .03 Issuing of supplementary details through the Architect as required;
- .04 Receipt, review and annotation of shop drawings, and the return of copies to the Architect as required;
- .05 The review of samples and prototypes as required;
- .06 Attending meetings as required;
- .07 Consultation with the Architect.

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A7 CONTRACT ADMINISTRATION: CONSTRUCTION SERVICES

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Page Total (Percentage)					
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Totals carried forward

A7.05 Mechanical Consultant's Services

Mechanical consultant's services, consisting of:

.01 Periodic visits to observe the progress of the works as required;
.02 Issuing instructions through the Architect as required;
.03 Issuing of supplementary details through the Architect as required;
.04 Receipt, review and annotation of shop drawings, and the return of copies to the Architect as required;
.04 The review of samples and prototypes as required;
.05 Attending meetings as required;
.06 Consultation with the Architect.

A7.06 Hydraulic Consultant's Services

Hydraulic consultant's services, consisting of:

.01 Periodic visits to observe the progress of the works as required;
.02 Issuing instructions through the Architect as required;
.03 Issuing of supplementary details through the Architect as required;
.04 Receipt, review and annotation of shop drawings, and the return of copies to the Architect as required;
.05 The review of samples and prototypes as required;
.06 Attending meetings as required;
.07 Consultation with the Architect.

A7.07 Electrical Consultant's Services

Electrical consultant's services, consisting of:

.01 Periodic visits to observe the progress of the works as required;
.02 Issuing instructions through the Architect as required;
.03 Issuing of supplementary details through the Architect as required;
.04 The receipt, review and annotation of shop drawings, and the return of copies to the Architect as required;
.05 The review of samples and prototypes as required;
.06 Attending meetings as required;
.07 Consultation with the Architect.

A7.08 Fire Services Consultant's Services

Fire services consultant's services, consisting of:

.01 Periodic visits to observe the progress of the works as required;
.02 Issuing instructions through the Architect as required;
.03 Issuing of supplementary details through the Architect as required;
.04 The receipt, review and annotation of shop drawings, and the return of copies to the Architect as required;
.05 The review of samples and prototypes as required;
.06 Attending meetings as required;
.07 Consultation with the Architect.

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Page Total (Percentage)					
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SCOPE OF SERVICES

Complete or delete every item in Part A

A7 CONTRACT ADMINISTRATION: CONSTRUCTION SERVICES

Totals carried forward

A7.09 Transportation/Lifts Consultant's Services

Transportation/lifts consultant's services, consisting of:

.01 Periodic visits to observe the progress of the works as required;
.02 Issuing instructions through the Architect as required;
.03 Issuing of supplementary details through the Architect as required;
.04 The receipt, review and annotation of shop drawings, and the return of copies to the Architect as required;
.05 The review of samples and prototypes as required;
.06 Attending meetings as required;
.07 Consultation with the Architect.

A7.10 Civil Consultant's Services

Civil consultant's services, consisting of:

.01 Periodic visits to observe the progress of the works as required;
.02 Issuing instructions through the Architect as required;
.03 Issuing of supplementary details through the Architect as required;
.04 The receipt, review and annotation of shop drawings, and the return of copies to the Architect as required;
.05 The review of samples and prototypes as required;
.06 Attending meetings as required;
.07 Consultation with the Architect.

A7.11 Landscape Consultant's Services

Landscape consultant's services, consisting of:

.01 Periodic visits to observe the progress of the works as required;
.02 Issuing instructions through the Architect as required;
.03 Issuing of supplementary details through the Architect as required;
.04 The review of samples and prototypes;
.05 Attending meetings as required;
.06 Consultation with the Architect.

A7.12 Cost Consultant's Services

The provision of cost consultant's services, including:

.01 Services based on Standard Method of Measurement;
.02 Elemental costing;
.03 Cost control analysis;
.04 Assessment, measurement and valuation of variations;
.05 Assessment and valuation of progress payment claims;
.07 Assessment of "rise and fall" claims;

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SCOPE OF SERVICES

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A7 CONTRACT ADMINISTRATION: CONSTRUCTION SERVICES

By Architect	By Architect's Consultant (engaged by Architect)	By Client	By Client's Consultant (co-ordinated by Architect)	Basis of Fees †	Amount (%, $)	
Page Total (Percentage)						Totals carried forward
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.08 Assessment of site loading claims.

A7.13 Commissioning of Systems/Equipment
Checking that systems and equipment are in working order.

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A C A

SCOPE OF SERVICES

Complete or delete every item in Part A

A8 CONTRACT ADMINISTRATION: POST-CONSTRUCTION SERVICES

Item	By Architect	By Architect's Consultant (engaged by Architect)	By Client	By Client's Consultant (co-ordinated by Architect)	Basis of Fees †	Amount (%, $)
A8.01						
A8.02						
A8.03						
A8.04						
A8.05						
A8.06						

A8.01 Maintenance and Equipment Operation

.01 Preparation of maintenance manuals for buildings, services and plant;

.02 Advice regarding service agreements on equipment and services;

.03 Advice regarding maintenance programs for building fabric.

A8.02 Training of Personnel, Consultations and Start-up Assistance

Assistance provided in the commissioning of systems and equipment, including initial start-up and testing adjustment and balancing.

A8.03 As Constructed Drawings

.01 Provision of drawings of the buildings, services, etc. as constructed, showing significant changes made in the work during construction (either re-drawn or marked up drawings) and/or other data as appropriate;

.02 Provision of drawings in building's Fire Control Room as required by Fire Authorities.

A8.04 Review of Warranties and Guarantees

.01 Consultation and advice resulting from the failure at any time of material or equipment within the period covered by warranty or guarantee.

* **A8.05 Defects Liability Period**

.01 The carrying out of an inspection during the defects liability period and preparation of a list of items for attention by the builder;

.02 Client to keep a list of defects.

* **A8.06 Final Certificate**

Issuing final certificate.

A8 Total (Percentage)		
A8 Total (Lump Sum)		Transfer to Schedule C
A8 Total (Time)		

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SCOPE OF SERVICES

Complete or delete every item in Part A

A9 SUPPLEMENTARY/SPECIAL SERVICES

By Architect	By Architect's Consultant (engaged by Architect)	By Client	By Client's Consultant (co-ordinated by Architect)	Basis of Fees †	Amount (%, $)

A9.01 Project Programming

Establishing with or for the Client a schedule for the development of the overall project, including:

.01 Definition of the architect's services;
.02 Definition of the Client's responsibilities;
.03 Definition of the time sequence involved in provision of the above services;
.04 Definition of the length of time required for the construction process;
.05 Definition of the consultant's services;
.06 Definition of the time taken for the provision of consultant's services;
.07 Provision of cash flow prediction for payment of consultant's fees by the Client;
.08 Provision of cash flow prediction for payment of the builder's accounts by the proprietor.

A9.02 Project Financing

Assisting the Client in:

.01 Lodging submissions for grants;
.02 Lodging applications for subsidies;
.03 Other fund-raising activities;

by means of: reports, opinions of probable cost and consultations with various authorities.

A9.03 Special Presentations

The provision of special presentation material, including:

.01 Drawing of coloured perspective sketch(es);
.02 Drawing of black and white perspective sketch(es);
.03 Arrangement by the Architect of a specialist artist to draw perspective sketch(es);
.04 Construction of model(s);
.05 Arrangement by the Architect of a specialist model maker to construct the model(s).

A9.04 Life Cycle Cost Analysis

Life cycle cost analysis services consisting of the assessment on the basis of established relevant economic consequences over a given period of time of:

.01 A given planning and design solution for the project;
.02 Alternative planning and design solutions for the project;
.03 Selected systems, sub-systems or building components proposed for the project.

A9.05 Cost Consultant's Services

The provision of cost consultant's services, including:

.01 Services based on Standard Method of Measurement;
.02 Elemental costing;
.03 Cost control analysis;

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SCOPE OF SERVICES

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A9 SUPPLEMENTARY/SPECIAL SERVICES

By Architect	By Architect's Consultant (engaged by Architect)	By Client	By Client's Consultant (co-ordinated by Architect)	Basis of Fees †	Amount (%, $)
Page Total (Percentage)					
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Totals carried forward

.04 Assessment, measurement and valuation of variations;
.05 Assessment and valuation of progress payment claims;
.06 Assessment of "rise and fall" claims;
.07 Assessment of site loading claims.

A9.06 Energy Studies

Energy studies services consisting of special analyses of:

.01 Mechanical systems;
.02 Fuel costs;
.03 On-site energy generation;
.04 Energy conservation options;
.05 Other as agreed.

A9.07 Environmental Studies

Environmental studies services to establish existing conditions consisting of:

.01 Monitoring of air, water, noise and other designated components of the environment;
.02 The preparation of reports on recommendations on environmental conditions.

A9.08 Interior Architecture - Tenancy Fit-out Services

Tenancy fit-out services, including:

.01 Space planning;
.02 Partition and furniture locations;
.03 Finished equipment layouts;
.04 Material and colour selections;
.05 Adaptation of services and other building systems;
.06 Provision of opinion of probable cost.

A9.09 Interior Architecture - Furniture and Furnishings

Furniture and furnishings services for tendering and supply purposes of the contract, consisting of:

.01 Preparation of interior concept and layout;
.02 Material and colour selections;
.03 Selection of furniture and furnishings;
.04 Design of furniture and furnishings;
.05 Preparation of documents for furniture and furnishings;
.06 Calling of tenders for furniture and furnishings;
.07 Administering contracts for furniture and furnishings.

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A9 SUPPLEMENTARY/SPECIAL SERVICES

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Totals carried forward

A9.10 Interior Architecture - Graphics Design

Graphics design services consisting of:

.01 Design of interior and exterior signs and identifying symbols;
.02 Design of special logos or graphics for the project;
.03 Documentation of requirements for procurement of graphics work;
.04 Managing procurement of graphics work;
.05 Co-ordination of delivery and installation.

A9.11 Interior Architecture - Artworks

Artworks services consisting of:

.01 The selection of artworks;
.02 Developing agreements with the artists for the creation and provision of artworks;
.03 The design and creation of artworks, including stained glass windows, tapestries, murals, paintings, mosaics, frescoes, sculptures, mobile statuary and other objets d'art.

A9.12 Non-building Equipment Selections

Services relating to the equipment not incorporated into the construction of the project and consisting of:

.01 The establishment of needs and criteria;
.02 Preparation of requirements, specifications and tendering or purchasing procedures;
.03 Management of procurement;
.04 Co-ordination of delivery and installation;
.05 Purchase of non-building equipment on the owner's behalf.

A9.13 Project Promotions/Public Relations

Services relating to the presentation of projects to the public, identifying groups and consisting of:

.01 Preparation of press releases;
.02 Preparation of special brochures and/or promotional pieces;
.03 Assistance in production and distribution of promotional materials;
.04 Presentations at public relations and/or promotional meetings.

A9.14 Leasing Brochures

Services relating to the preparation of special material to assist the owner in leasing the project and consisting of:

.01 Design;
.02 The preparation of illustrations and text;
.03 Arranging for and managing production.

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SCOPE OF SERVICES

Complete or delete every item in Part A

A9 SUPPLEMENTARY/SPECIAL SERVICES

Totals carried forward

A9.15 Expert Witness

Services consisting of preparing material and/or opinions in order to serve and/or serving as an expert witness in connection with any public hearing, arbitration, valuation, assessment, mediation, conciliation, planning or building appeal, or legal proceeding.

A9.16 Materials and Systems Testing and Research

Services relating to the investigation and research into special materials and unusual construction methods, consisting of:

.01 Establishment of requirements;
.02 Procurement of testing services;
.03 Monitoring testing;
.04 Review, analysis and reporting of testing results;
.05 Research into design, construction and operation matters;
.06 Arranging for production of prototypes.

A9.17 Mock-up Services

Services relating to the construction of large scale details of the components of the project for study and testing during the design phases and consisting of:

.01 Design and documentation for the desired mock-up/mock-ups;
.02 Management and co-ordination of pricing and contracting for mock-up services;
.03 Construction administration of mock-up construction activities;
.04 Arrangements for testing and monitoring performance of mock-up/mock-ups;
.05 Administration of testing and monitoring services;
.06 Review, analysis and reporting of results of testing and monitoring services.

A9.18 Adjoining Building Defects Survey

Services consisting of:

.01 Surveying adjoining building(s);
.02 Documenting defects in adjoining building(s) by appropriate means;
.03 Lodging documentation of survey results with Client, adjoining building owner and local authority as required.

A9.19 Demolition Services

Services consisting of:

.01 Consultation with authorities;
.02 Liaison with and co-ordination of other consultants;
.03 Preparation of contract documents for demolition of existing structures;

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Page Total (Time)					

SCOPE OF SERVICES

Complete or delete every item in Part A

A9 SUPPLEMENTARY/SPECIAL SERVICES

Totals carried forward

.04 Managing the tendering/negotiations/acceptance process;
.05 Providing field observation and general administration services during demolition.

A9.20 Photography

Services consisting of:

.01 Documentation of existing conditions;
.02 Aerial site photography;
.03 Photographic recording for study purposes of facilities similar to the project;
.04 Presentation photography of rendering/renderings and model/models for the project;
.05 Periscope photography of models for the project;
.06 Construction progress photography;
.07 Architectural photography of the completed project;
.08 Preparation of promotional/explanatory movies/videos for the project;
.09 Preparation of documentary movie/video of the project during construction;
.10 Preparation of promotional audio-visual presentations for project.

A9.21 Special Opinions of Probable Cost

.01 Providing opinions of probable cost for replacement of buildings and plant for insurance purposes, including (where appropriate) costs of demolition, consultants' services and allowance for inflation;
.02 Repair and/or maintenance of buildings and plant;
.03 Providing preliminary opinions in connection with the re-instatement after damage, i.e., by water, storm, fire, explosion and other causes;
.04 Arranging for valuation of property for sale, valuation of property for lending authorities, valuation of property for rental, valuation of property for redevelopment.

A9.22 Examination of Drawings and Documents

Examination of drawings and other documents in connection with special advices as required.

A9.23 Building and Equipment Maintenance

Providing building and equipment maintenance services, including:

.01 Programming maintenance;
.02 Carrying out periodic maintenance inspections;
.03 Preparing maintenance manuals.

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Page Total (Percentage)					
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Page Total (Time)					

Totals carried forward

A9.24 Planning and Building Appeals
Services provided for the preparation of documents and attendance at planning or building appeals.

A9.25 Post-Occupancy Evaluation
Services provided in the evaluation of existing buildings in the following areas:
.01 Design of the building;
.02 Construction of the building;
.03 Use of the building;
.04 Operation of buildings systems and services.

A9.26 Building Certification Services
(as permitted by Government Regulation)
.01 Advice on interpretation of Building Codes;
.02 Preparation of Appeals;
.03 Certification of Building Application documents.

A9.27 Acoustics
Services consisting of:
.01 Preparation of brief;
.02 Analysis of design with regard to acoustic performance;
.03 Recommendations on materials to achieve;
.04 Preparation of report.

A9.28 Communications
Services consisting of:
.01 Preparation of brief;
.02 Design of communications system(s);
.03 Recommendations concerning communications system(s);
.04 Documentation of communications system(s).

A9.29 Special Disciplines Co-ordination
Services consisting of directing and co-ordinating the work of special disciplines consultants identified from the following list or other sources attached hereto whose specialised training, experience and knowledge relative to the specific elements and features of the project are required for the project:
.01 Audio-visual;
.02 Computer technology;
.03 Facility Management;
.04 Food service;
.05 Insurance;
.06 Legal;
.07 Materials handling;

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.08 Public relations;
.09 Property Management;
.10 Special Lighting;
.11 Theatre;
.12 Traffic/Parking;
.13 Transportation.

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