



Australian Government

National Capital Authority

DESIGN QUALITY MANUAL

PRINCIPLES FOR ARCHITECTURE,
LANDSCAPE AND URBAN DESIGN
WITHIN CANBERRA'S CENTRAL
NATIONAL AREA

NATIONAL CAPITAL AUTHORITY © 2012

Apart from any use as permitted under the Copyright Act 1968,
no part may be reproduced by any process without written
permission from the National Capital Authority.

National Capital Authority
February 2012

WWW.NATIONALCAPITAL.GOV.AU

CONTENTS

INTRODUCTION	5
THE NATIONAL CAPITAL AUTHORITY	5
THE VALUE OF DESIGN	5
PRINCIPLES FOR ARCHITECTURAL, URBAN AND LANDSCAPE DESIGN	5
CONTEXTUAL ANALYSIS.....	6
RESPONSIVENESS TO LOCAL AND REGIONAL INFLUENCES	6
ORIENTATION AND VIEW.....	6
PUBLIC SPACE.....	7
QUALITY OF THE PUBLIC DOMAIN.....	7
LANDSCAPE DESIGN.....	7
BUILT FORM, MASSING AND SCALE	8
SIZE AND SCALE	8
ARTICULATION AND GRAIN.....	8
LAND USE AND DENSITY MIX	9
COMPLEMENTARY MIXED USE	9
DENSITY IMPACTS AND INFRASTRUCTURE.....	9
ACTIVATION AND VIBRANCY.....	10
ACTIVE FRONTAGES	10
BUILDING INTERFACES, ENTRIES AND ACCESS.....	10
AESTHETICS	11
IDENTITY	11
ARCHITECTURAL AMBITION	11
EXPRESSION, CHARACTER AND AUTHENTICITY.....	12
ORDER AND CLARITY	12
COMPLETENESS.....	13
ENVIRONMENTAL PERFORMANCE	14
ADAPTABILITY, FLEXIBILITY AND REUSE	14
SUSTAINABILITY AND PERFORMANCE.....	14
BUILDING FACADE PERFORMANCE	15
MATERIALS	16
MATERIALS AND FINISHES.....	16
CONSTRUCTION AND DETAILING	16
INCLUSIVE, SAFE DESIGN.....	17
UNIVERSAL DESIGN	17
SAFETY AND SECURITY	17
MOVEMENT.....	18
INTEGRATED MOVEMENT DESIGN	18
PARKING.....	18
URBAN ART	19
ACTIVITY AND INTERACTION	19
INTEGRATION	19

[THIS PAGE LEFT INTENTIONALLY BLANK]

INTRODUCTION

THE NATIONAL CAPITAL AUTHORITY

The National Capital Authority (NCA) is established under the Australian Capital Territory (Planning and Land Management) Act 1988. The statutory functions of the NCA comprehensively establish the Australian Government's continuing interest in the strategic planning, promotion, development and enhancement of Canberra as the National Capital.

THE VALUE OF DESIGN

The built environment affects the daily lives of everyone; the design and quality of our surroundings can have a lasting impact on our culture, identity and quality of life. Design is a deliberate change within a set of constraints in response to a need. Design has the potential to create new meanings and balance competing needs through innovation and rigour. It creates increased value: an inspiring place; a cultural symbol; a shared identity.

Good design in the built environment improves our quality of life, uplifting individuals and communities, positively influencing how people feel and behave, and uses resources effectively, efficiently and imaginatively. Good design comes in many forms and is not solely defined by aesthetics. Good design in the built environment means buildings and spaces that are:

- > fit for purpose, efficient and enduring;
- > in the right place and responsive to their surroundings – local character, cultural heritage, the natural environment;
- > designed to promote community inclusion and cohesion;
- > ecologically sustainable; and
- > places people will enjoy and be proud of.

Excellence in design is an essential requirement for any new development in the National Capital. Within this context, matters of design quality can take on an elevated level of significance beyond any particular time or purpose. The design principles set out in this document are intended to foster design excellence in the National Capital.

PRINCIPLES FOR ARCHITECTURAL, URBAN AND LANDSCAPE DESIGN

Design quality can't be measured against a checklist, but it can be evaluated through experienced and skilled design review. The review process can identify strengths and weaknesses in design proposals, and is most effective in guiding better outcomes when commenced early in the design process. Assessing quality is a process of informed judgment and does not need to refer to questions of style or taste.

The design principles and requirements set out in this document are to be addressed in the design of spaces, built form and landscape works throughout the Central National Area. The principles should be adopted early in the design process and may be used iteratively during design development, as a basis for assessing design quality.

CONTEXTUAL ANALYSIS

RESPONSIVENESS TO LOCAL AND REGIONAL INFLUENCES

The natural and built features of each site and its surroundings should be analysed and addressed in design proposals which respond to scale, character, and details of the surrounding urban fabric and landscape.



The central landscape feature of Canberra is Lake Burley Griffin

ORIENTATION AND VIEW

Developments should be oriented to optimise controlled solar gain and ventilation, balanced with consideration of urban design issues. Views into and out of the site, privacy, and key vistas, should be considered and protected to enhance the experience for users of both the public realm and the buildings.



Surry Hills Library and Community Centre (Francis-Jones Morehen Thorp) Photo: Andrew Chung

PUBLIC SPACE

QUALITY OF THE PUBLIC DOMAIN

The design of public spaces should be focussed on creating useful and delightful environments for people. Buildings and elements within the public domain should contribute to places that are inclusive, safe, legible, and engaging. The quality of elements within the public domain should be exceptional to ensure their civic relevance and graceful endurance.



Geelong Youth Activities Area (Convic Design)

LANDSCAPE DESIGN

Excellent landscape design is an essential component of good developments, and should be an integral aspect of the spatial, formal, functional and detailed development proposal. The relationship between built form, built spaces (interior and exterior) to the immediate and greater landscape must be well-considered.



Humanities & Science Campus (lahznimmo and Spackman Mossop Michaels) Photo: Brett Boardman

BUILT FORM, MASSING AND SCALE

SIZE AND SCALE

Built form and silhouette should contribute to a diverse skyline. Building size, scale and proportion should relate well to surrounding buildings, as well as the local and greater landscape in terms of bulk, height and relationship with the street. Adverse impacts on adjacent places such as overshadowing and overlooking should be minimised.



National Centre of Indigenous Excellence (Tonkin Zulaikha Greer) Photo: Brett Boardman

ARTICULATION AND GRAIN

The pattern (or 'grain') of a development should be developed through its formal elements to respond to its setting, and to be robust and engaging. Building articulation and modulation should be integral to a building's design, and influenced by the use and configuration of the building's internal spaces. Careful articulation creates vibrancy, depth and appropriate scale, and allows for integration with landscape. A finer grain at street level should respond to human scale.



Melbourne Terrace apartments (Nonda Katsalidis)

LAND USE AND DENSITY MIX

COMPLEMENTARY MIXED USE

Complementary mixed uses, which are appropriate to their location and support synergies between them, are encouraged. A range of land uses within a development can enhance public safety and vibrancy by maintaining human presence and activity during the day and after hours.



New Acton East (Fender Katsalidis) Photo: Dianna Snape

DENSITY IMPACTS AND INFRASTRUCTURE

Density increases which balance yields with social and aesthetic impacts are encouraged in areas where there is good access to public transport and community services, and where the existing infrastructure can support the new yields. A well-considered mix of densities and building typologies can contribute to improved levels of social and economic interaction and engagement.



SW1 South Bank Urban Village, Brisbane (Allen Jack+Cottier)

ACTIVATION AND VIBRANCY

ACTIVE FRONTAGES

Building street frontages should encourage activity and animation in balance with other design principles, through land use at street level, location and design of building entrances, visual permeability at street level, and overlooking of the street from higher levels. Integration of built form with landscape elements and features, transport facilities, street furniture and public art, will contribute to the creation of a vibrant, dynamic urban street..



Myer Bourke Street Redevelopment (NH Architecture) Photo: Dianna Snape

BUILDING INTERFACES, ENTRIES AND ACCESS

Public spaces within and between developments should create a sense of comfortable enclosure, offering controlled solar access and a level of protection from heat, wind and rain. Outlook and view opportunities should be balanced with privacy through building and landscape design. A high degree of visual permeability and legibility is necessary to support activation and safety. Primary building entries should be clearly apparent and accentuated through design to support legibility and navigation. Building entry points should consider and facilitate future urban connections to support pedestrian permeability within precincts.



National Portrait Gallery (Johnson Pilton Walker) Photo: Brett Boardman

AESTHETICS

IDENTITY

Beautiful and engaging places contribute positively to human well-being and sense of place. Urban elements should be composed to respect and respond to the visual and spatial language of Canberra's landscape and built form. New development should enhance Canberra's urban character and contribute to its enrichment through delightful and sensitive design.



Australian War Memorial Eastern Precinct (Johnson Pilton Walker) Photo: Brett Boardman

ARCHITECTURAL AMBITION

Architectural ambition should be appropriate for its context, being responsive to the immediate and greater context. In landmark building locations, architectural character should be ambitious and highly innovative



Melbourne Recital Centre and Melbourne Theatre Company (ARM) Photo: Peter Bennetts

EXPRESSION, CHARACTER AND AUTHENTICITY

Building designs should be contemporary and authentically unique responses to the context and brief. Character and expression should be formed by the design as a whole. Design choices for expression, language, scale and modulation should seem compelling and inevitable, with a recognisable relationship to the broad conception of the project and its setting, and should derive from careful contextual analysis including heritage and landscape values of the surrounding urban environment.



Project: Albury Library Museum (ARM) Photo: John Gollings

ORDER AND CLARITY

Order, clarity and diversity in design should be balanced to aid comprehension and interpretation of the environment, while offering stimulation through variety.



Kings Avenue Overpass (Johnson Pilton Walker) Photo: Brett Boardman

COMPLETENESS

A building and the spaces it surrounds should be designed as an integrated whole, with careful consideration given to how it will be viewed and experienced from all sides and aspects, including the roof. The design of building roof spaces should balance the opportunities presented by the location, visual impact to and from surrounding areas, potential uses and environmental sustainability.



DPI Queenscliff Centre (Lyons) Photo: John Gollings

ENVIRONMENTAL PERFORMANCE

ADAPTABILITY, FLEXIBILITY AND REUSE

Building design and construction methods should balance flexibility with user needs to support adaptive reuse for changing occupants, land uses and technologies over time to create enduring urban elements. Existing building forms and materials should be retained and reused where feasible.



Paddington Reservoir Gardens (Tonkin Zulaikha Greer Architects in conjunction with James Mather Delaney Design Pty Ltd) Photo: Eric Sierens

SUSTAINABILITY AND PERFORMANCE

Public spaces, buildings, urban landscape and transport infrastructure should be designed to promote social, economic and environmental sustainability through high energy efficiency, low embodied energy, non-toxic materials, and minimisation of water use and wastage. The use of renewable resources in building construction and operation should be optimised



Council House 2 (CH2) (City of Melbourne + DesignInc Melbourne) Photo: Dianna Snape

BUILDING FACADE PERFORMANCE

Passive systems that assist in regulating temperature and minimising energy use, should be incorporated into building facades. Facades should optimise controlled solar access and outlook opportunities whilst assisting in minimising energy and water use. Facades should be designed to assist with weather and wind amelioration at street level. Sun-shading, screening, natural lighting and ventilation should form an integral part of facade design. Green walls should be considered to assist with thermal regulation and create visual interest.



School of the Arts, Singapore (WOHA) Photo: Patrick Bingham Hall

MATERIALS

MATERIALS AND FINISHES

Materials should be high quality, robust and carefully chosen to be suitable for their use and consistent with the expressive intent of the architecture. Materials should be sustainable, durable and non-toxic, with a low level of embodied energy. Materials should age in a manner that enhances their appearance, and reduces their requirement for cleaning and maintenance. Where texture and colour are used in finishes, they should ideally be integral to the material rather than applied.



*Craigieburn Bypass (Taylor Cullity Lethlean, Tonkin Zulaikha Greer + Robert Owen)
Photo: John Gollings (courtesy of Vic Roads)*

CONSTRUCTION AND DETAILING

Design and construction detailing should extend and enhance the overall design, and should be excellent in execution.



Kings Avenue Overpass (Johnson Pilton Walker) Photo: Brett Boardman

INCLUSIVE, SAFE DESIGN

UNIVERSAL DESIGN

All places should be designed and constructed to be accessible to all people and enable inclusiveness and interaction as equals.



*St Kilda Foreshore Promenade (Site Office Landscape Architecture and Jackson Clements Burrows)
Photo: John Gollings*

SAFETY AND SECURITY

Public spaces should utilise passive surveillance, visual permeability, integrated lighting design and the arrangement of urban elements to create a sense of security, to minimise risk and support safe behaviour. Pedestrian movement should be promoted through networks of clear, safe connections between and through buildings at ground level, with consideration for destinations and travel routes, to support legible pathways and activation of public places.



one40william (HASSELL) Photo: Peter Bennetts

MOVEMENT

INTEGRATED MOVEMENT DESIGN

The movement of people must be integrated into planning and design proposals and encouraged by providing safe, prominently-located and spatially-connected facilities for a mix of all modes, with a priority given to people walking, riding bicycles or using public transport.



Epping to Chatswood Rail Link (HASSELL) Photo: Simon Wood Photography

PARKING

Adequate parking should be integrated into a development for a range of transport modes, to optimise other land use opportunities and link activities with transport movements. At-grade car parking should be minimised, and elevated parking must be screened by high quality facades or building elements which are integral to the design. Car park entry and exit points should respond to traffic impact analysis.



Mixed Use Carpark Development – Eureka Precinct, Melbourne (Fender Katsalidis)

URBAN ART

ACTIVITY AND INTERACTION

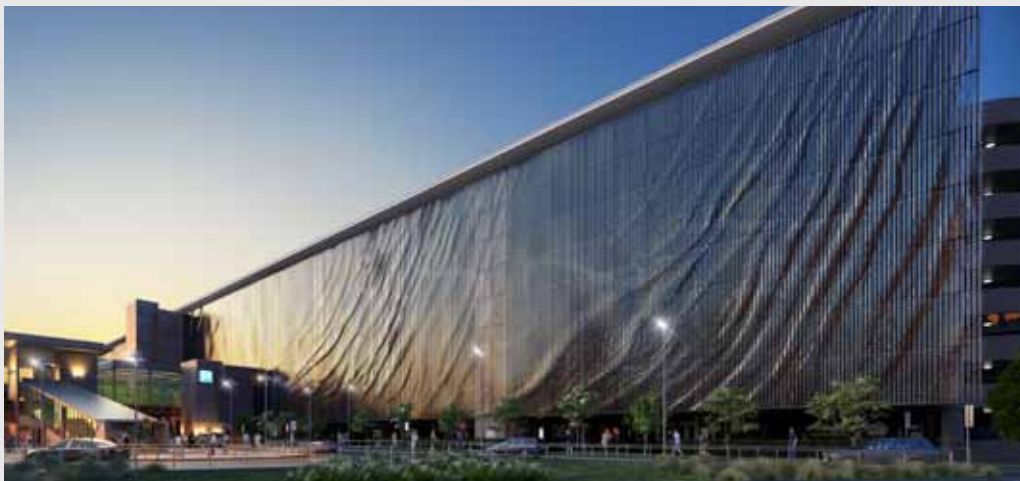
Public art installations should be incorporated into the design of buildings and spaces to generate activity and interest. People of all ages should be encouraged to interact with art objects, which can contribute to identity and amenity, and reinforce the concept of public space as a destination rather than simply a movement corridor.




Rundle Lantern, Adelaide (Fusion)

INTEGRATION

Integration of public art should be considered wherever appropriate through expert curatorial direction and delivery. Public spaces, building facades and foyers, and roof terraces offer opportunities for integration of high quality artworks which can enrich identity, activity, sense of place, and delight in the urban environment.



Brisbane Domestic Terminal Car Park 'Turbulent Line' (Urban Art Projects in collaboration with Ned Kahn, Hassell Sydney and Brisbane Airport Corporation)



The National Capital Authority was established under the
Australian Capital Territory (Planning and Land Management) Act 1988

NATIONAL CAPITAL AUTHORITY

GPO Box 373, Canberra ACT 2601

Telephone: +61 2 6271 2888 **Facsimile:** +61 2 6273 4427

Email: natcap@natcap.gov.au

WWW.NATIONALCAPITAL.GOV.AU