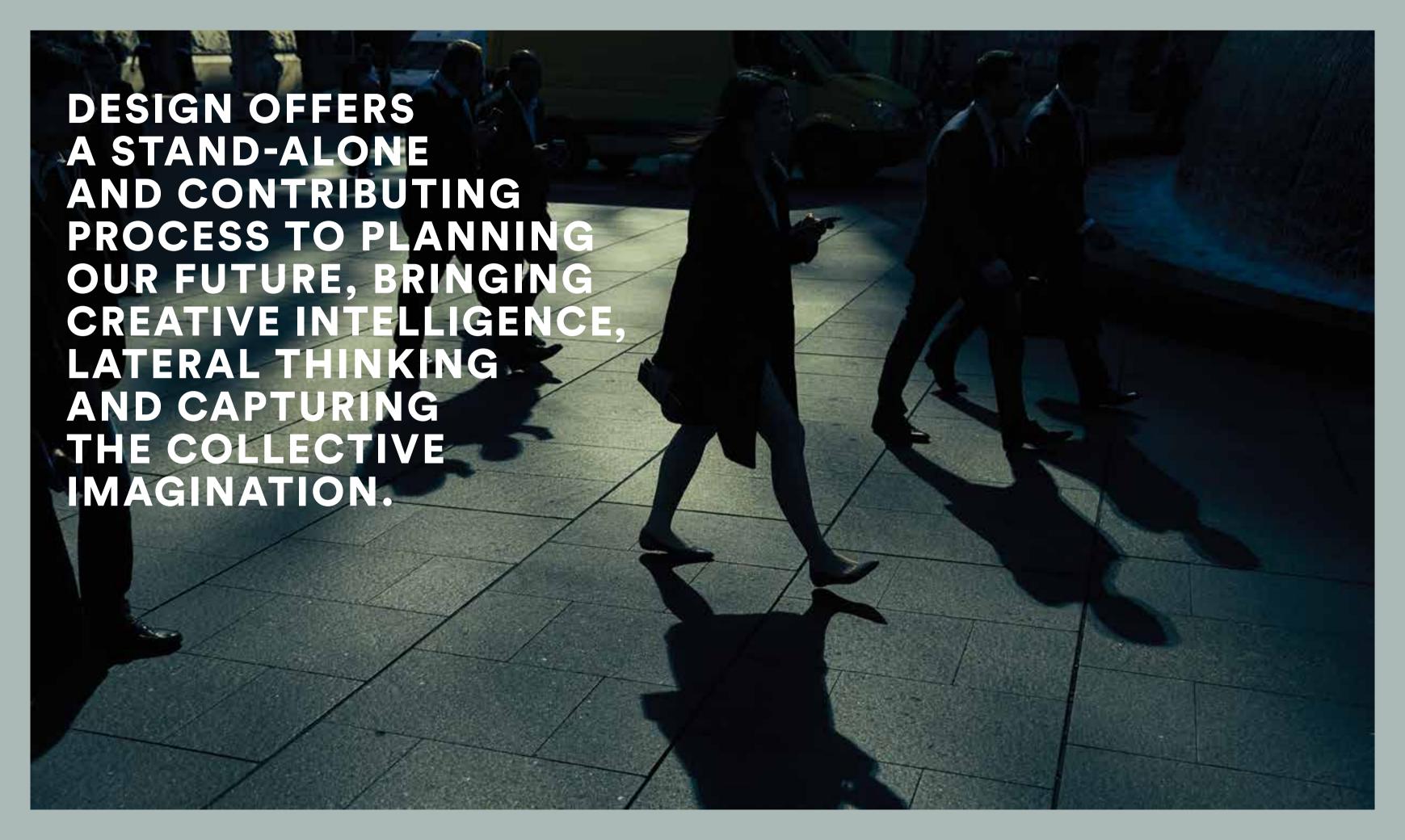


A design led approach: developing an Architecture and Design Policy for New South Wales



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### CONTENIS

Preface	8	Chapter three: Urban design and	
The role of the Government		_	
Architect	9	architecture for	
Status of this document	11	cities and towns	46
Minister's statement	14		
Government Architect's foreword	15	Part one	
Executive summary	16	Context and directions	50
		Part two	
Chapter one:		Delivering design excellence	
Towards great design		in cities and towns — process	60
•		Part three	
in New South Wales	18	Delivering design excellence	
		in cities and towns — outcomes	66
Purpose of this Draft Policy	21		
Principles	23	Chapter four	
Where does this Draft Policy		Chapter four:	
fit in?	25	Urban design and	
Why does New South Wales		architecture for	
need this Draft Policy?	28		74
Delivering on this Draft Policy	29	the public realm	/4
Chamtautuus		Part one	
Chapter two:		Context and directions	77
Design excellence	30	<u>Part two</u> Delivering design excellence	
The case for design excellence	33	in the public realm — process	86
The value of design excellence	41	Part three	
Structure of this Draft Policy	45	Delivering design excellence	
		in the public realm — outcomes	90
		Chapter five:	
		Urban design	
		_	
		and architecture	

hapter three: rban design and rchitecture for		Chapter six: GA200+  GA200+ The Bicentennial	118
ities and towns	46	of the Government Architect	121
art one			
ontext and directions	50	Chapter seven:	
art two elivering design excellence		Next steps	126
cities and towns — process	60	Cantribution to the	
<u>art three</u>		Contributing to the	
elivering design excellence		development of the document	128
cities and towns — outcomes	66	Next steps	
		Future projects	
		Credits	129
hapter four:			
rban design and			

74

77

86

96

98

108

114

CONTENTS

for buildings

Context and directions

Delivering design excellence in buildings — process

Delivering design excellenc in buildings—outcomes

Part one

Part two

Part three



### PREFACE

### THE ROLE OF THE GOVERNMENT ARCHITECT

The Government Architect NSW provides leadership for the New South Wales Government in architecture, urban design, landscape architecture and design thinking. In providing this role, the Government Architect NSW supports the government in delivering quality, managing risk and fostering innovation to maximise public value of investment in the built environment.

The role of the Government Architect NSW is critical in helping to deliver world-class design and planning outcomes in New South Wales as it continues to grow. Located within the Planning Cluster, the strategic advisory role of the Government Architect NSW provides opportunity to work across government, the private sector and the community to improve social, environmental and economic outcomes for New South Wales and its communities.



### The responsibilities of the Government Architect

- Champion design excellence for government
- Provide independent, professional and impartial strategic advice across design, planning and development, and on the design and delivery of public projects to:
  - Cabinet, Ministers and senior government executives
- Government departments and agencies
- Local government
- Industry
- Community
- Establish policy and practice frameworks for achieving design quality and effectiveness
- Promote and advocate for the value and benefits of design excellence by:
  - Ensuring government has the ability to make informed design decisions

- Developing, supporting and leading design-led processes and building capability by:
  - Strategic commissioning, including ongoing management of the Government Architect's Pre-qualification Scheme for Strategy and Design Excellence
  - Providing advice on performance, procurement and commissioning
  - Publishing design guides, standards and manuals
  - Leading design review for key and/or strategic public urban renewal, precincts and buildings
- Undertake research and provide thought leadership on design and the built environment
- Foster collaborative approaches across government and with industry and academia
- Support and nurture design culture and the sharing of local and global best practice.

As author and steward of this Draft Policy, the Government Architect is charged with leading its implementation and supporting government agencies and local government to create and deliver quality in our built environment.

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### STATUS OF THIS DOCUMENT

This is a draft document prepared following a review of similar policies produced nationally and internationally and after a series of workshops to identify key issues to be considered in the NSW context. It leverages the GA200+ series of forums, workshops and discussions delivered to date, and anticipates further consultation and discussion. As New South Wales Government's champion and key advisor for architecture and design, the Government Architect has developed this Draft Policy for peer review and consultation with government, industry and the community.

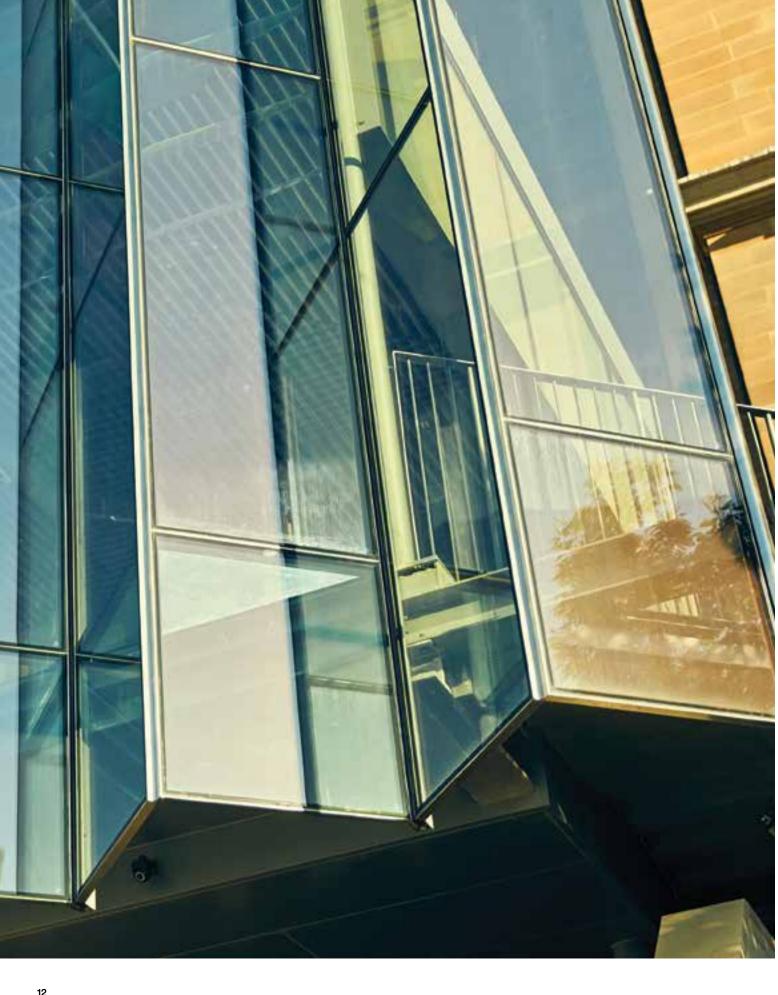
This is a working document shared early in the process to set the scene for and enable discussion to identify priorities, issues requiring further work, additional best practice and case studies and possibly even issues that are being covered elsewhere by others.

The Government Architect NSW welcomes feedback on the document and will be undertaking a process of consultation including:

- Discussion by Government
   Architects Network of Australia
- International and national peer review workshop
- Planning Cluster workshops
- Government agencies and local government workshops
- Industry workshops
- Community consultation.

The Government Architect NSW will also be developing a Design-Led Planning Strategy and consult with community, industry and council stakeholders in early 2017. The strategy will establish design-led planning methodologies to assist planning system users in achieving well-designed places.

While relevant in its own right, this Draft Policy exists as the first step in development of the strategy.



"TO MAKE PEOPLE'S LIVES BETTER THROUGH SUSTAINABLE **AND INCLUSIVE** GROWTH **WE NEED** TO ELEVATE THE ROLE OF **DESIGN**"

Rob Stokes,Minister for Planning

#### MINISTER'S STATEMENT



In 1900, only 10 per cent of the global population lived in cities, today it is five times that amount. By 2050, more than 70 per cent of people on earth are expected to live in cities. While Australia is already one of the most urbanised countries in the world, we won't be immune from the impacts of mass urbanisation during the coming decades.

Our state is projected to grow by more than 100,000 people every year until 2036. During that period, we will need to provide homes for an additional 2.1 million residents. Sydney alone will need 725,000 new homes over the next 20 years to keep pace with demand.

The NSW Government recognises the importance of good design in making cities and towns more amenable, enjoyable and liveable for their inhabitants as we continue to grow. The Draft Policy outlines the government's current position on architecture and urban design, recognising they are critical in helping deliver the Government's planning purpose: to make people's lives better through sustainable and inclusive growth.

2016 marks the bicentenary of the role of the Government Architect NSW. As we reflect on the contribution the Government Architect NSW has made in shaping some of the most valued buildings and spaces in our state over the past 200 years, it's also time to start the conversation about how we see the Government's champion for design excellence shaping our future. By bringing the Government Architect NSW into the Department of Planning and Environment, the NSW Government is striving to improve social, environmental and economic outcomes for communities by supporting design quality in our built environment as we undertake strategic planning.

To celebrate this bicentenary year, the Government Architect NSW has led "GA200+" — a series of forums, workshops and discussions for government, industry, researchers and the public to look towards the next 200 years: what's next? The GA200+ series has already built a network and a knowledge base to inform this Draft Policy. Key themes and ideas that have been explored and incorporated include themes "What is great design and how do we get it?", "How do we live?" and "Making and measuring innovation".

In addition to the GA200+ dialogue informing the Draft Policy, the Government Architect's team has also researched best practice design policy examples from around the world in preparing this Draft Policy. The next steps are to undertake a process of peer review and consultation. Experts from Europe, the United States, Australia and New South Wales will critically review the Draft Policy before broader consultation across government, industry and the community.

While NSW has a strong tradition of architecture and design, the NSW Government recognises the challenges we face as we continue to grow and become a more highly urbanised society. This Draft Policy has been developed to manage the challenges ahead and anticipates a series of design guides to help address the opportunities and challenges of the future.

My expectation is that the Government Architect NSW will continue to build a strong and lasting relationship across government, industry and academia to assist in the consolidation of this policy and the delivery of excellence and effectiveness in our landscape, built and urban environments.

Rob Stokes
Minister for Planning

#### GOVERNMENT ARCHITECT'S FOREWORD



As we celebrate 200 years of the position of Government Architect in NSW and the achievements of our predecessors, it's time to begin a conversation about the future and the importance of our built environment and public domain for the wellbeing, longevity and resilience of our communities.

This Draft Policy seeks to capture our collective aspiration and expectations for the architecture, public places and environments we inhabit and those that we make for the future.

It articulates the means and methods to value and improve our built environment and public domain, so that we can be proud of the cities, towns and public places we inhabit.

Design plays a critical role in achieving the aspiration we have for our future, because good design is about deep understanding and a creative synthesis of ideas, issues and people. Design offers a stand-alone and contributing process to planning our future — bringing creative intelligence, lateral thinking and capturing the collective imagination. Importantly, design is an iterative and inclusive process with much to offer to decision making and planning in government.

The Government Architect office holds a unique position in government as people who are experts in design thinking and processes, and who are tasked with making the connection between government priorities, industry expertise and capability, academia and our future creative thinkers and communities.

Celebrating 200 years of the role of the Government Architect in NSW, the GA200+ series is about finding more integrated ways of working across government agencies. It's about bringing together the key stakeholders who are or will be part of the Government Architect design excellence programs. GA200+ aims to create opportunities for built environment industry leaders to engage directly in discussions with government on policy direction. It also aims to include the public in a conversation about how the State is addressing the global issues that impact us all.

This Draft Policy, when finalised, will confirm our collective wishes for the future design of our infrastructure, architecture, public spaces and public domain. The future Urban Design and Architecture Policy will use the power of design to enable a better and resilient future for our communities.

Peter Poulet Government Architect

**EXECUTIVE SUMMARY** 

<sup>1</sup> UK National Planning

#### Introduction: Towards great design in NSW

This Draft Policy sets out the NSW Government's position on design in the urban environment. It is not a set of guidelines, or a 'how to' instruction manual. Instead, it:

- Establishes the objectives and expectations in relation to design and creating good places
- Provides principles and direction to achieve these
- Provides a framework for examining places and reviewing proposals, from a design perspective.

It articulates the necessary role design plays in achieving liveable, productive and resilient environments and focusses on ensuring the investment in projects adds up to create great places that people want to live, work, visit and invest in.

Importantly it champions the need for design excellence in the NSW built environment and starts the discussion on how we deliver and assess design excellence.

#### **Establishing the Principles**

Developing a Draft Policy on Urban Design and Architecture alongside planning presents the opportunity to focus on the kinds of urban places we collectively aspire to, how we deliver these and ultimately move towards better understanding, measuring and capturing the benefits of good design.

This Draft Policy outlines a series of seven distinct Principles applicable at any scale:

- 1. Contextual, local and of its place
- 2. Sustainable, efficient and durable
- 3. Equitable, inclusive and diverse
- 4. Enjoyable, safe and comfortable
- 5. Functional, responsive and fit for purpose
- 6. Value-creating and cost effective
- 7. Distinctive, visually interesting and appealing

#### Where does this Draft Policy fit in?

Great places and cities don't happen by chance and as such it is essential that design excellence is front and centre as we manage the transformation of our cities.

This Draft Policy is positioned amongst a range of other current and future policies, at a national, state, city and local government level. It will frame future discussion of a 'Design-led Planning Strategy for NSW' and it is intended that the principles in this document will inform design guidance and review panels.

It is anticipated the ongoing development of the Draft Policy and its subsequent Design Guidelines will reference existing State Environmental Planning Policies, Local Environment and Development Control Plans and influence the development of new ones.

#### Why does NSW need this Draft Policy?

NSW's population is rapidly growing and changing in the context of new technologies all impacting on how we live work and play. There is also a growing demand for more compact city living in locations well served with public transport with good access to jobs and other opportunities.

There is significant demand for new development and the renewal of our cities, towns and suburbs. To support this growth, government has embarked on an ambitious infrastructure and urban renewal program.

In this context NSW Government has tasked the Government Architect NSW to lead and deliver initiatives and strategies to promote design excellence in the built environment and strengthen the culture of design in NSW. This Draft Policy is just one of these initiatives and provides the context for others to be developed further.

#### What is design?

'Good design is a key aspect of sustainable development, is indivisible from good planning and should contribute to making places better for people."

Design is both an approach, and a process of creating the built environment, as well as an outcome or set of outcomes, in terms of a proposal or built place.

#### What makes design excellence?

Every new development has the potential to transform people's quality of life, stimulate the economy and enhance the environment. The design of built environment shapes the places in which we live, work and meet. The quality of design affects how spaces and places function, what they contribute to the broader environment, and which kind of end-user or audience they attract.

By contrast, 'poor design' or even 'business as usual', is likely to have significant adverse environmental, social and even economic effects. Poor urban design can undermine amenities delivered through planning gain, in the worst cases turning them into liabilities rather than public benefits.

Design excellence is about shaping great places by working to the principles outlined in this document.

### Why design excellence is particularly important in NSW

Design excellence must be at the centre of planning for and delivering growth at this pivotal time in NSW because:

- We have a unique history and heritage that must be reflected and 'remembered' in our built environment and open spaces.
- We enjoy relatively high levels of liveability, and need to protect it into the future.
- Our cities and towns are changing through wider 'macro' forces and influences.
- We have a distinctive design and architectural heritage.
- Government has committed to collaborating to deliver a network of green infrastructure to provide increased amenity, improved accessibility and support biodiversity, the open space and an active transport system.
- There is need for resilience and efficiency to respond to changing economic social and environmental conditions.
- We want to make great places for NSW people.

#### **Structure of this Draft Policy**

Chapter one: Towards great design Introducing the draft policy.

Chapter two: Design excellence
Outlining the case for design excellence, design as a process, and the value of design excellence.

This Draft Policy is applicable to the built environment across all project types and sizes, and encapsulated in the following three focus areas. The principles apply equally to all of these, but have more specific detail according to their spatial and organisational requirements.

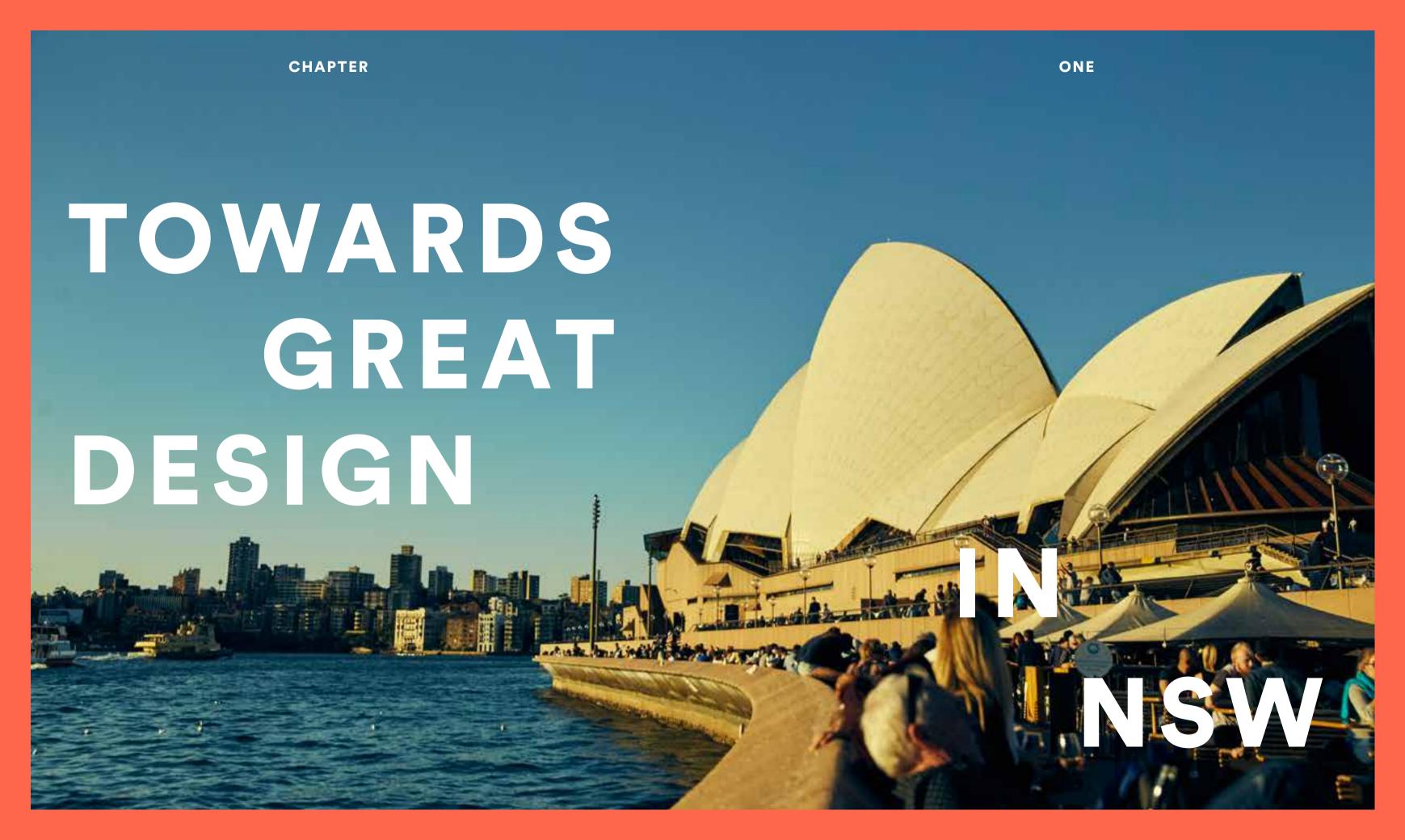
Chapter three: Cities and towns
Precincts, suburbs and large urban areas.

**Chapter four: The public realm** Streets and spaces.

Chapter five: Buildings
Offices, apartments, houses, schools, industrial buildings and hotels.

Chapter six: GA200+
The celebration of the bicentennial of the role of Government Architect.

**Chapter seven: Next steps and credits** 



#### TOWARDS GREAT DESIGN



This Draft Policy sets out the New South Wales Government's position on design in the urban environment, with a focus on cities, towns, streets, open space, public spaces, infrastructure, buildings and public domain — the spaces between that are essential to our quality of life.

This Draft Policy is not a set of guidelines, or a 'how to' instruction manual. Instead. it:

- Establishes the objectives and expectations in relation to design and creating good places
- Provides principles and direction to achieve these
- Provides a framework for examining places and reviewing proposals, from a design perspective.

It spans all scales of the built environment, from cities and towns, to public spaces, infrastructure and buildings. It articulates the necessary role design plays in achieving liveable, productive and resilient environments. It is focussed on ensuring that investment in these places adds up to create great places that people want to live, work, visit and invest in.

This Draft Policy builds on our unique design heritage, including:

- 200 years of the role of the NSW Government Architect
- Department of Planning's Design Excellence Guidelines
- Design Excellence provisions in Sydney, Parramatta and other local government areas

- Design policy and legislation in the State Environmental Planning Policy No 65 – Design Quality of Residential Apartment Development with a supporting Apartment Design Guide and local government design review panels
- Roads and Maritime Services' Urban Design Policy 'Beyond the Pavement'
- A history of design review panels for transport, infrastructure, master planning and significant precincts and projects including Sydney Olympic Park, North West Rail and Sydney Metro.

Importantly, it sets a new and encompassing agenda for design excellence in the New South Wales built environment.

### PURPOSE OF THIS DRAFT POLICY

This document is not a design guide or instruction manual. Its focus is on people and about how New South Wales communities live, work and enjoy the urban environment. Great architecture, landscape architecture and urban design are ultimately about providing spaces and places that perform well and provide a comfortable, enjoyable and safe experience for people. This Draft Policy seeks to reinforce this basic premise and to set benchmarks for achieving better places for the people of **New South Wales.** 

#### Objectives of the Draft Policy: what are we trying to achieve?

The overarching objective of this Draft Policy is to establish and communicate a clear and strong NSW Government position on design, establishing new benchmarks for the future of our built environments. It expands awareness of urban design principles and encourages ongoing discourse on design quality and public benefit.

This Draft Policy provides key directions and actions to support productivity, environmental management and liveability in NSW – particularly fostering quality processes and outcomes in the delivery of housing, employment, infrastructure, open space and the public domain.

It seeks a safe, equitable, sustainable built environment, which is distinctive and of its place, creates value and is fit for purpose.

# Establishing the principles: what kind of built environment do we want?

Developing a Draft Policy on urban design and architecture alongside planning presents the opportunity to focus on the kinds of urban places we collectively aspire to, how we deliver these and ultimately move towards better understanding, measuring and capturing of the benefits of good design.

This Draft Policy outlines a series of seven distinct principles, which capture the key considerations and measures relating to the built environment. It is helpful to consider, discuss and assess design proposals and outcomes through this series of distinct yet inter-related lenses.

The principles are applicable at any scale, from the city to the building or space, and address the broad range of issues, considerations and parameters that should be taken into account.

#### 1

### Contextual, local and of its place

Great design in the built environment is informed by and derived from its location, context and social setting. It is place based and is relevant to and resonant with local character, heritage and communal aspirations.

#### 5

### Functional, responsive and fit for purpose

Design excellence reflects a considered, tailored response to the program or requirements of a building or environment, allowing it to meet usage demands efficiently, with the potential to adapt to changes over time.

#### 2

### Sustainable, efficient and durable

Design excellence must incorporate environmental sustainability and responsiveness in its construction and usage, meeting the highest performance standards for living and working. Sustainability is no longer an optional extra, but a fundamental aspect of functional, liveable design.

#### 6

### Value-creating and cost effective

Design excellence generates ongoing value and reduces costs over time. It is an essential component of achieving durable, resilient and cost effective urban buildings and places. As the arena for daily life, the built environment can dramatically improve value creation if

effectively designed.

#### 3

### **Equitable, inclusive** and diverse

**PRINCIPLES** 

By creating accessible, inclusive and welcoming environments, the design of the built environment can contribute to addressing economic and social inequity. Incorporating diverse uses, housing types and economic opportunities will support engaging places and resilient communities.

#### 7

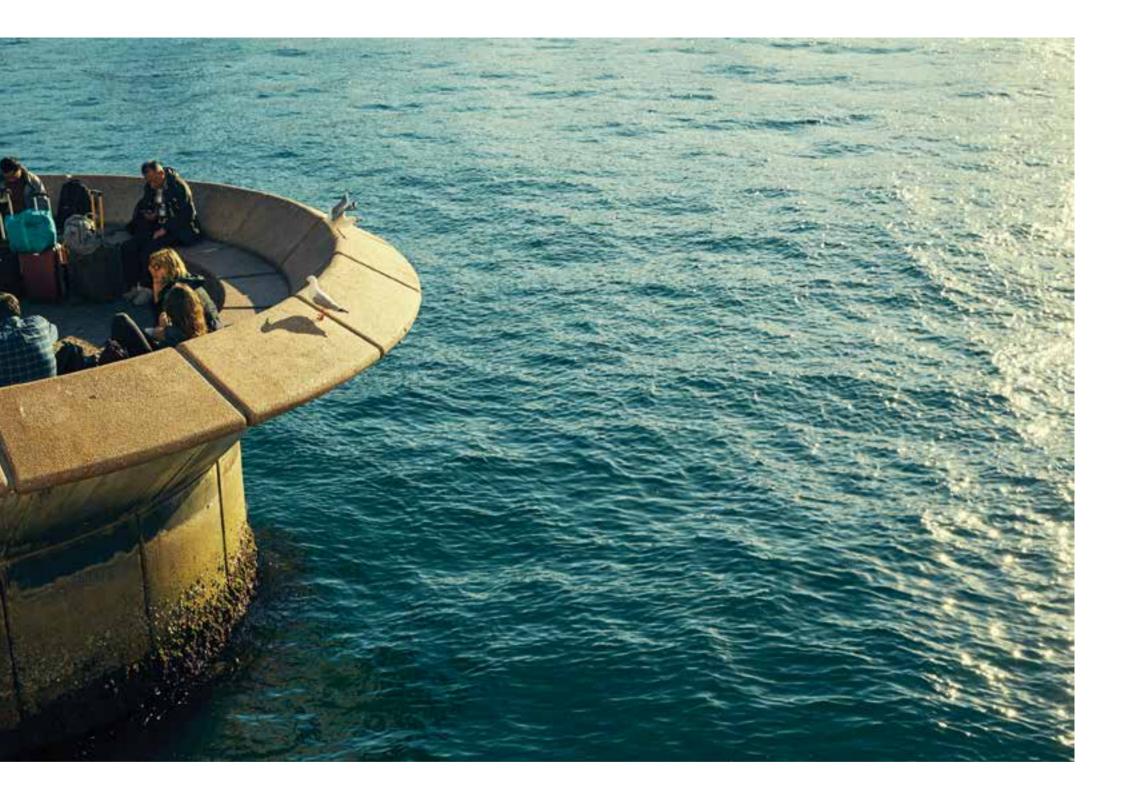
### Distinctive, visually interesting and appealing

The appearance and visual quality of the built environment is essential to conveying quality, character and community identity. The visual environment has a substantial impact on our feelings of wellbeing, comfort, safety and community identity. Design excellence is the fundamental determinant of these outcomes.

#### 4

### Enjoyable, safe and comfortable

The built environment must be designed for people to enjoy using and inhabiting. The many aspects that affect the vibrancy, character and 'feel' of a place must be addressed to support good places for people.



### WHERE DOES THIS DRAFT POLICY FIT IN?

This Draft Policy specifically champions the importance of design and recognises that it approaches the world in a comprehensive way with an interest on how things impact and influence society and individuals. Design seeks to answer how things perform and work, not just how things look. It recognises that design is both a process and an outcome. That the creative intelligence offered by design is most valuable and effective when used early in the creation of strategies, plans and projects, and that design is not an optional extra.

In this context, the role of design in the built environment is more important and valuable than ever before. Great places and cities don't happen by chance and, as such, it is essential that design excellence is front and centre as we manage the transformation of our cities.

This Draft Policy is positioned among a range of other current and future policies, at a national, state, city and local government level.

At a national level, policy directions include Our Cities, Our Future (2011), which provides a useful and valuable overarching framework for cities. Alongside this, the national Urban Design Protocol provides a concise guide to effective urban design processes and outcomes.

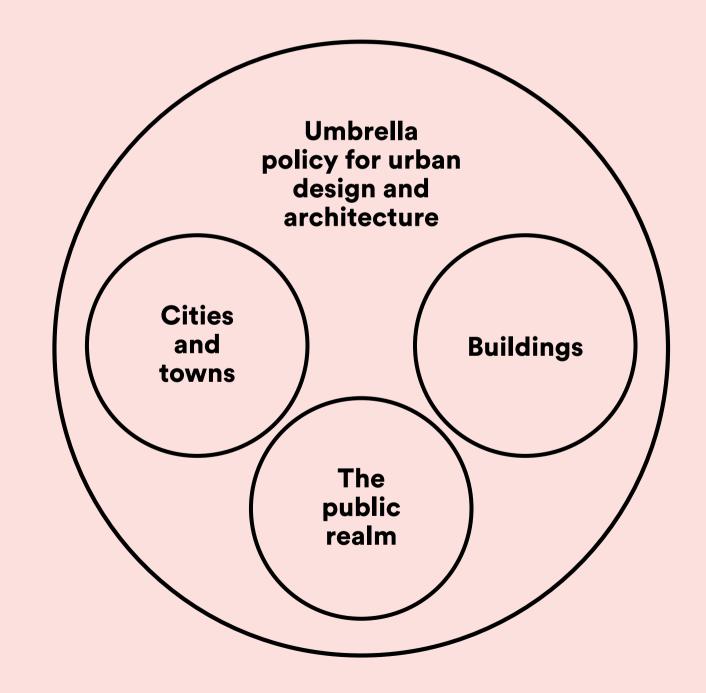
It is envisaged that this Draft Policy will inform a broad range of policies and approaches across government and industry including project formation and development. It will guide the development of guideline documents, design manuals and strategic frameworks, while also serving as a high-level reference for master planning, urban design, landscape architecture and architectural projects.

This Draft Policy will frame discussion of a Design-led Planning Strategy for New South Wales, which will explore opportunities and seek to establish a design-led planning methodology. It is anticipated this will support strategic planning projects to assist planning system users in achieving well-designed places.

As an agent of change, design offers alternative ways of thinking and working. In this context, this Draft Policy may challenge existing policies, plans and approaches.

However, with design being a creative process looking to changing existing situations into preferred ones, the consultation will use any differences or tensions that arise to explore opportunities and possibilities.

It is anticipated the ongoing development of the Draft Policy and its subsequent guidelines will reference existing State Environmental Planning Policy, Local Environment and Development Control Plans, and influence the development of new ones.



#### WHY DOES NEW SOUTH WALES NEED THIS POLICY?

**Current challenges:** 

### Rapidly changing and growing populations

The populations of many of our cities and urban areas are rapidly growing and evolving and will continue to into the future. In contrast, some regional towns are experiencing unique demographic and economic challenges and in some cases experiencing population and/or economic decline.

### Demand for more compact cities

There is also increasing demand for a more compact city model particularly among 'Gen Ys' and the state's growing number of 'Baby Boomers' enjoying retirement, looking to downsize or relocate. This compact city model is denser, better connected and walkable and benefits from a mix of uses on the doorstep, facilitating better access to employment, public transport, entertainment and other opportunities. There is also a growing body of evidence that a compact city is both more liveable and productive.

#### Rapidly changing technology

Technology is changing the way we live, work and enjoy our cities. It is providing us with new tools to make our cities, infrastructure and buildings 'smarter', liveable and more resilient.

#### Ambitious infrastructure and urban renewal program

Government, together with the private sector, also has an ambitious program to upgrade and deliver additional infrastructure including transport, education facilities and hospitals together with a program of urban renewal on major government owned sites. A focus on design will assist in maximising the benefits from this investment and ensure that new infrastructure builds on existing places and creates even greater ones.

#### Focus on resilience

There is an increased focus on creating resilient cities and places that mitigate and adapt to the effects of a changing climate while retaining our renowned liveability. The challenge is to ensure that the pressure for development and investment in new and improved infrastructure creates better places and benefits existing communities and those moving to the area. Decisions made now will continue to affect our lifestyles for decades into the future.





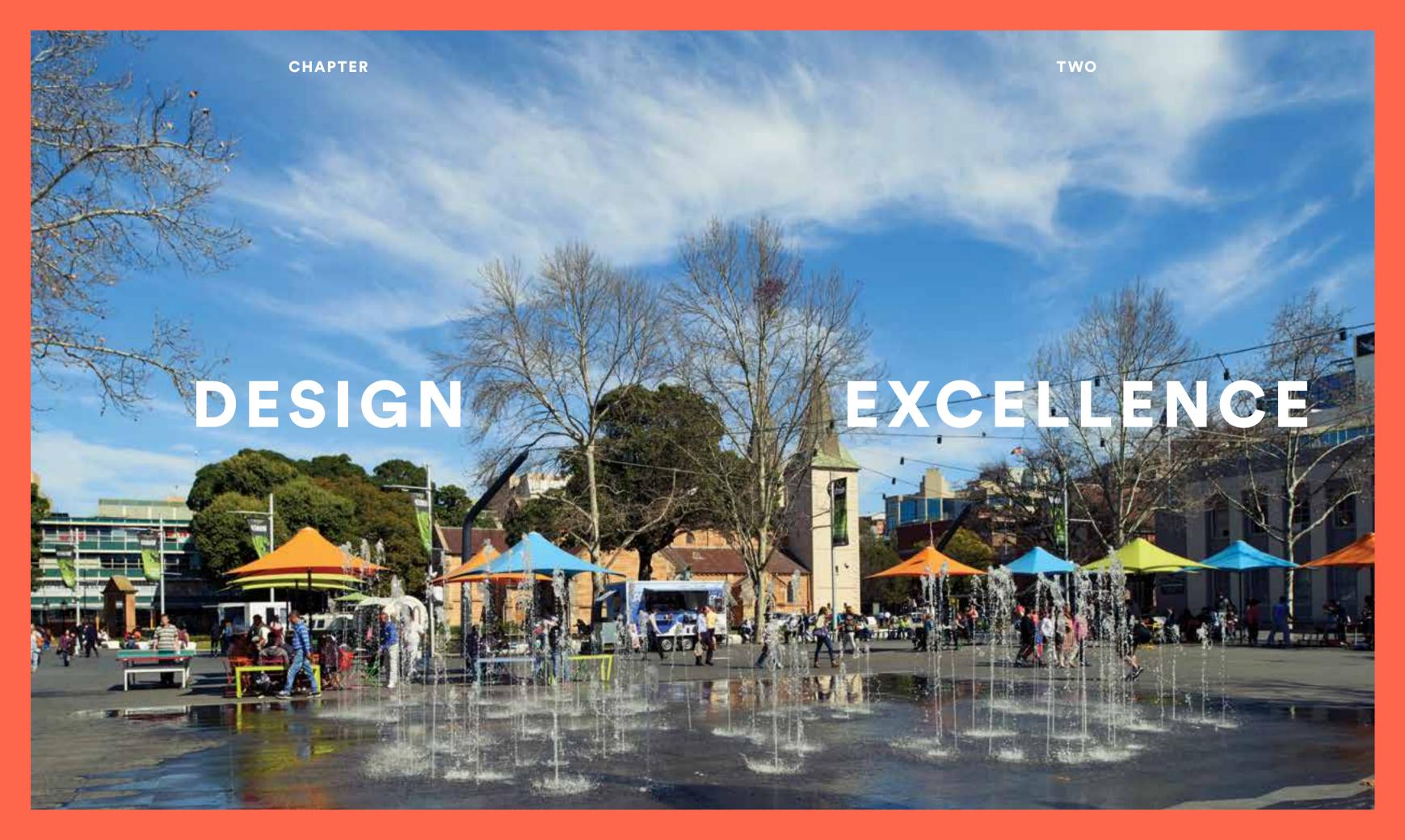
#### DELIVERING ON THIS DRAFT POLICY

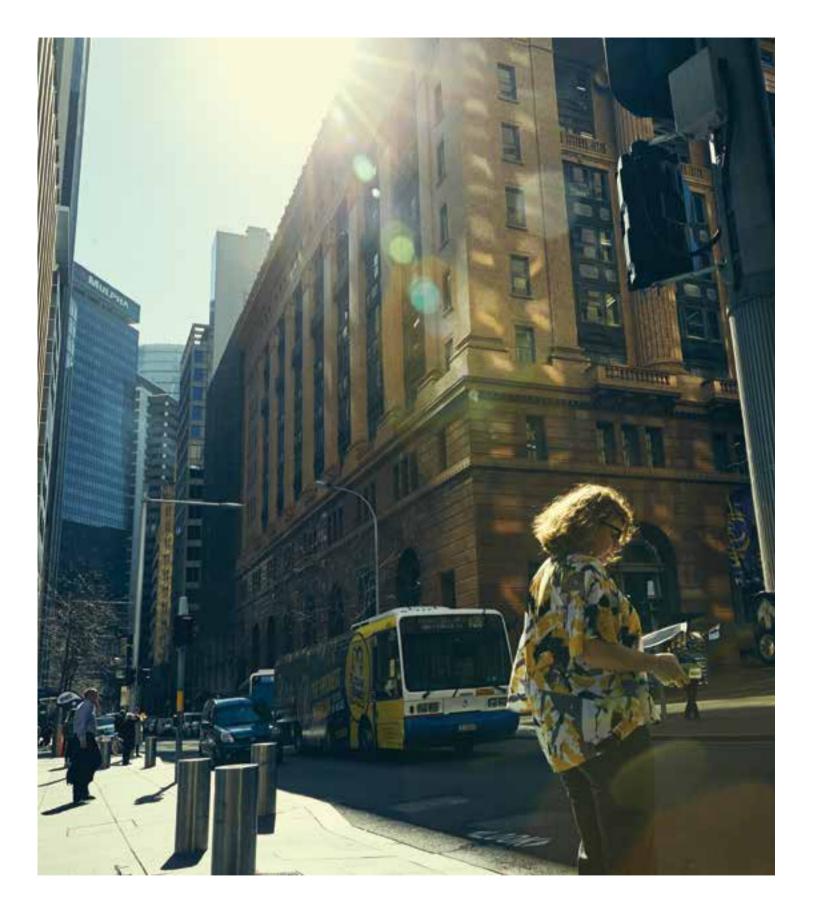
To deliver design excellence, government has tasked the Government Architect NSW to lead and deliver initiatives and strategies to promote better outcomes in the built environment and strengthen the culture of design, including:

 Providing leadership in developing a Design-led Planning Strategy

- Establishing a NSW Architecture and Urban Design Policy (this document is the first draft) that will provide principles and criteria for design, as well as direction and tools to guide activities with regard to design outcomes
- Establishing a NSW State Design Advisory Panel chaired by the Government Architect for key State significant projects
- Reinvigorating the Design
   Excellence Guidelines and
   governance framework in light
   of the establishment of the
   Greater Sydney Commission
   and other regional and urban
   growth centres
- Working with local government in consolidating, supporting or establishing design review panels and city architects

- Green Grid policy and implementation
- Establishing a range of design standards, design guidance and design manuals to support good design practice and outcomes
- Working across government to embed the principles of this document into all relevant policy areas and decision making processes including investment planning and the appraisal of projects
- Encouraging the community and key stakeholders to engage and participate in the discussion and debate about design and creating great places
- Providing government with an annual report on the state of design in New South Wales
- Implementation of a Policy and its objectives.





### THE CASE FOR DESIGN EXCELLENCE

### What is design?

'Good design is a key aspect of sustainable development, is indivisible from good planning and should contribute to making places better for people.'

Design is both an approach and a process of creating the built environment, as well as an outcome or set of outcomes in terms of a proposal or built place. The design process encapsulates numerous layers of consideration: respecting and responding to the place, addressing the functional needs, managing any detrimental impacts, controlling costs and building value, and creating places of enjoyment and delight.

Good design requires considerable commitment, collaboration and skill, but delivers great value to investors, end users and the wider community.

Design can be implemented at any scale – from urban or regional planning strategies to the considered detailing of a handrail for comfort and amenity – and design excellence can have important and meaningful effects at all of these scales.

Design is not only about objects or buildings. It is also about the structure of the urban environment and the spaces within and between. The routes and pathways through our environments, as well as destinations within them. The infrastructure, large and small, which help us to navigate our environments and to feel safe and comfortable within them.

The design process is rarely linear or direct, but requires multiple attempts, iterations, reviews, feedback and testing of proposals. Design excellence results from processes that embrace uncertainty and diversity, and can filter inputs and reviews to continually refine design outcomes.

### What makes design excellence?

Every new development has the potential to transform people's quality of life, stimulate the economy and enhance the environment. The design of built environment shapes the places in which we live, work and meet. The quality of design affects how spaces and places function, what they contribute to the broader environment, and which kind of end-user or audience they attract. Each year authorities see hundreds of new proposals that have the power to do just that - to create better quality places.

One of the four major findings of The Value of Urban Design report<sup>2</sup> was that 'poor design' or 'business as usual', is likely to have significant adverse environmental, social and even economic effects. Poor urban design can undermine amenities delivered through planning gain, in the worst cases turning them into liabilities rather than public benefits.

<sup>&</sup>lt;sup>1</sup> UK National Planning Framework

<sup>&</sup>lt;sup>2</sup> Commission for Architecture and the Built Environment, 2012

### What is expected?

This Draft Policy does not seek to simplify the challenge of design in the urban context. Urban interventions are achieved through complex processes over extended periods and incorporate many inputs. The final design 'product' is the result of a variety of factors including the design approach and process, the procurement and implementation strategies, and the quality of the brief and engagement with stakeholders.

Design synthesises a range of various perspectives, commitments and concerns. To realise the potential of design processes, productive collaborations and partnerships across government and the private sector need to be fostered. Design can support a co-ordinated approach to the decision making that shapes the state's built environment if processes exhibit good leadership and partnerships, are supported by a robust evidence base, and demonstrate co-ordinated decision making focused on long-term benefit.

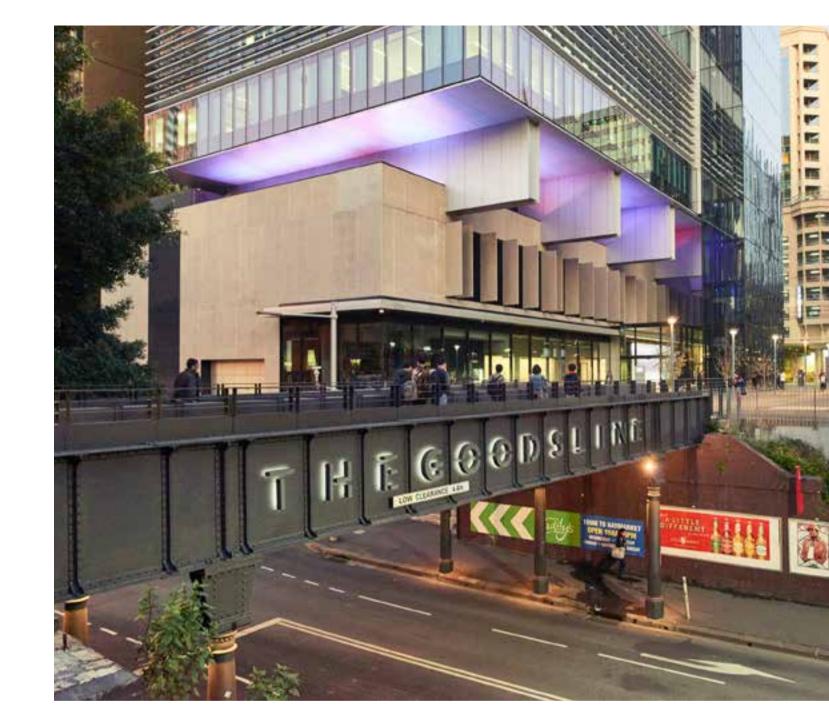
### How to support design?

Design thinking and the consideration of the built environment can contribute to the effective development and implementation of broader strategy and policy by:

- Exploring how design and spatial strategies can assist with achieving broader policy outcomes
- Understanding the design potential of wider situations and policies
- Identifying potential impacts on the built environment arising from other policy and strategy
- Facilitating strategic thinking about project outcomes.

The process of procuring design can have a significant impact on the quality of the design outcome. This means that the quality of design outcomes can be improved through developing better procurement and delivery practices. To fully realise the benefits of design, it needs to be embedded in the early stages of a project and championed throughout the life of a project. Embedding design effectively can be achieved by:

- Identifying opportunities, formulating briefs and ensuring that design quality is articulated in a project from its inception and throughout the course of the project
- Establishing appropriate selection criteria and processes that will help foster outstanding design outcomes
- Identifying and supporting design champions.



## What tools will be used to support, measure and evaluate design excellence?

Rigorous testing and evaluation of design proposals, focused on improving outcomes, supporting design excellence and mitigating the risk of poor outcomes are essential. A variety of tools and mechanisms exist. The following are under consideration to support this Draft Policy.

#### **Design Review panels**

Design Review is a tried and tested method of promoting good design and is a cost effective and efficient way to improve quality. It offers independent, impartial advice on the design of new buildings, infrastructure, landscapes and public spaces. When carried out by panels made up of leading cross-disciplinary built environment experts providing independent assessment of proposals early, Design Review promotes good quality developments that help create better places and avoid the cost of poor design.

Design Review panels are regularly established at a local government level or for specific projects and precincts. The role and input of Design Review panels will be increasingly prevalent in New South Wales, leveraging the strong tradition to date and keeping in line with other states and internationally.

#### Competitive design processes

Design competitions are commonly utilised by both the public and private sector to drive quality design outcomes, including within the City of Sydney, Liverpool and Parramatta for major projects. It is envisaged that this format will be adapted and applied more broadly for major projects, to identify optimal design solutions and encourage innovative and strategic design.

### Stakeholder and community workshops and participation

Stakeholder and community involvement in project definition, design processes and reviews enables broad-based input, the creation of shared visions and assessment of proposals as they are developed. This contributes to more considered and inclusive proposals, better suited to place and people. Design processes are well suited to enable participation and consultation.

#### Skills development

Expertise in and support of design for state government agencies and local government is essential in developing a better design culture in New South Wales.

#### Guidelines, standards and manuals

Following this Draft Policy, new and enhanced design tools will be developed, spanning a range of development, planning and building types, to inform the design process and outcomes and assist authorities in the assessment of design proposals.

#### Research

Design as research is the process of thinking divergently and creatively to derive opportunities and options to a defined challenge or complex issue. Undertaking design testing is a way to develop strong research that can underpin decision making processes. It is a way of guaranteeing that the future decisions consider the complexities of each project. The role of design professionals in the process is crucial to forming an expert knowledge base that can inform co-ordinated decision making and policy development.

### Who is responsible?

Achieving design excellence in the built environment is a shared responsibility that we all contribute to. All project participants, authorities and the community share a responsibility to take part, contribute, respond and do things differently. Each can contribute individually, understanding the greater whole that is achievable. Benefits are also cumulative – they have the potential to reinforce and enhance each other.

Design excellence needs to be underpinned by good support and quality needs to be understood as a key factor in all stages of making and assessing a project. Government at all levels has enormous influence over the design of the built environment in multiple ways - as a procurer of design services, as a funder, developer and sponsor of projects, as an approval body and as a leader in demonstrating best practice. Government and its agencies therefore play significant roles in improving the design quality of the built environment.

All members of society can play a role in encouraging and developing excellent places and spaces. Design needs to be championed by all – government agencies, politicians, statutory authorities, consultants, professional and industry bodies, community organisations and members of the public.

It is anticipated that:

State Government will champion design excellence across all sectors and will provide the policy framework and tools to support good design processes and outcomes. It will also lead by example demonstrating design excellence as part of the development of state sponsored projects.

Local Government will build and develop design and assessment skills internally, while advocating for design excellence in all local projects including its own. It is also responsible for developing tools and locally based policies and initiatives.

<u>Developers</u> will promote and support design excellence in their projects, understanding the short and long-term benefit. They will proactively manage interfaces with the precincts they are located in and seek outstanding outcomes for people as a key priority.

Architects and design professionals will promote the importance and value of design excellence, and will work with clients to develop improved outcomes through appropriate investment of time and resources. They will extend and apply their design and collaboration skills toward design excellence.

<u>Planners</u> will support and advocate for design excellence through both the statutory and strategic planning process, and will build professional capabilities to better assess and understand design proposals.

<u>Builders</u> will work with design teams to deliver design excellence and quality in an effective way.

The community will participate positively and proactively in design and review processes, and will provide insights within the wider strategic context.

<u>Politicians</u> at all levels will champion design excellence in the projects they are conceiving and sponsoring.

# Why design excellence is particularly important in New South Wales:

### We have a unique history and heritage:

NSW's unique history is reflected and 'remembered' in our built environment and open spaces. The potential to continue this heritage and contribute to our shared environments is an important responsibility that requires excellent design inputs and built outcomes.

### We enjoy relatively high levels of liveability and need to protect them into the future:

Protecting the character and enhancing the liveability of our built environment requires considered, sensitive and responsive design.

While conditions vary markedly across NSW (including climate, access to services and economic opportunities, community engagement and socio-economic factors), we generally enjoy high levels of liveability by international standards. NSW benefits from outstanding natural beauty with access to beaches, harbour, bush and countryside, which have traditionally been key factors in measuring liveability and essential to our brand and reputation. However, expectations of liveability are changing locally and globally.

There is increased interest in the offer of urban areas and how they function. Surveys of global talent<sup>3</sup> place an increasing importance on indicators of liveability such as housing affordability, access to a range of employment opportunities and efficient public transport. As such, a focus on designing and delivering great places that are accessible, affordable and provide a diverse range of opportunities will be essential to maintain our liveability in a globally competitive market.

### Our cities and towns are changing through wider macro' forces and influences:

Major forces are driving change and staying 'as we are' is not an option. Our cities and towns are evolving through population growth, changing demographics, rapid changes in technology, development, climate change and economic conditions. Accordingly, the built environment is evolving rapidly and design is the integrating framework that can support effective responses and collaboration across interests to these external forces. Design, alongside planning and investment in infrastructure, will allow us to positively harness the demand for growth and development, ensuring we create more liveable and productive places.

### We have a distinctive design and architectural heritage and pedigree:

The NSW context of historic buildings, development patterns, streets and open spaces is unique and distinctive internationally. This includes regional towns, rural buildings and our major cities. This is a result of both public and private sector design, planning, development and investment.

Contemporary design in this context must be responsive, sensitive and contextual, while also contributing new layers to the built fabric that create our future heritage.



### Network of green infrastructure:

Green infrastructure is the term for the network or system of green open spaces and corridors in urban areas, which provide for active transport and access, recreation, ecology/natural habitat, stormwater drainage and retention. While the Green Grid is predominantly a public realm and open space initiative, it is also an infrastructure project.

To provide increased amenity, improved accessibility and support biodiversity, the open space and active transport system outlined in the Green Grid need to have continued support.

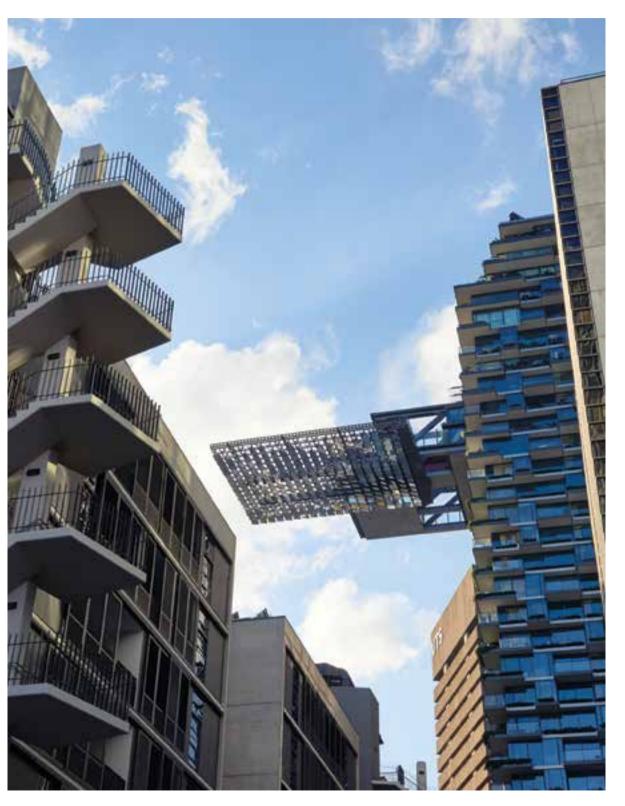
### Need for resilience and efficiency:

To respond to changing economic social and environment conditions and expectations, we need to plan and design in resilience for our cities, places, infrastructure and buildings so that they are adaptable and can accommodate new ways of working, technology, family and household structures and changing climate conditions.

### We want to make great places for NSW people:

The NSW Government is committed to building, improving and enhancing the built environment for the common benefit of all NSW residents. All of our daily lives are carried out in the built environment and so it is essential that we refocus and continue to work for better, more sustainable and more valuable places.

<sup>&</sup>lt;sup>3</sup> Committee for Sydney, City of Choice, 2013



### THE VALUE OF DESIGN EXCELLENCE

Buildings, public spaces and infrastructure are expensive and represent major investments for individuals, families, businesses and government bodies, with long-term implications. The design of these buildings, facilities and spaces has a lasting and significant impact on their value – economically, socially, culturally and environmentally.

Early investment in design excellence delivers value to investors, purchasers, end users and the broader community and ultimately saves money. Research shows that a well-designed building can help patients to recover from illness more quickly or encourage better learning among school children. It can also benefit the service deliverers who work within buildings, by contributing to staff recruitment, retention and motivation. The design of public buildings and spaces is not just a functional issue or a matter of taste. Design excellence improves the quality of services provided by the public sector.

<sup>4</sup> Improving Standards of Design in the Procurement of Public Buildings, Office of Government Commerce and CABE, October 2002, p6.

While design excellence is sometimes seen as a costly, 'optional extra', it is actually a cost-effective necessity. Done well, design builds in resilience, safety and security, longevity of investment, reduced operating costs and increased land value in the wider precinct. It has a positive impact on reputation and brand and therefore on the ability to attract talent and visitors to our cities – to live, work and invest.

The perception that design is expensive can be easily dispelled if the breakdown of a building's whole-life costs is understood. Well-designed buildings can cost less. Over the lifetime of a building, the construction costs are unlikely to be more than 2-3 per cent of total costs, but the operating costs will often constitute 85 per cent of the total. On the same scale, the design costs are likely to be 0.3-0.5 per cent of the whole-life costs, and yet it is through the design process that the largest impact can be made on the 85 per cent figure4.

The benefits of design excellence run deep, well beyond functionality and aesthetics. Great design enhances our lifestyle and personal health, as well as our productivity and enjoyment.

### Valuing design excellence in cities and towns

### Valuing design excellence in the public realm

The design of our urban places and precincts is the starting point for how they ultimately function and perform for all. Urban design excellence delivers value in numerous ways:

- Embedding accessibility via walking, cycling and public transport, reducing travel costs for all, and boosting the economic viability of local businesses and services
- Delivering a people-friendly public realm, which supports community development and social interaction and provides enhanced recreation opportunities
- Supporting conditions for social interaction
- Supporting businesses and economic performance through a 'critical mass' of local residents, and easy access between home and work
- Enabling housing, living and working diversity and choice
- Embedding opportunities for affordable housing and living
- Reducing energy and water costs through compact, accessible development patterns.

Conversely, poorly designed urban precincts can create long-term costs:

- Limiting the public to expensive, car-only transport with impacts on amenity, liveability and the cost of development
- Limiting access and interaction, and contributing to social isolation
- Limiting opportunities for local small business to access local populations
- Increasing infrastructure and resources costs substantially.

The experience and 'feel' of streets and public spaces are essential in supporting a vibrant, safe, engaging and interesting urban environment. Physical design is essential, as well as location, size, maintenance, edge activation and programming, in maintaining ongoing quality in public spaces.

Design excellence in the public realm delivers greater value in the short and long-term:

- Higher amenity and more attractive streetscapes, which supports business and economic performance
- Greater durability and lower maintenance costs over time
- Increased tendency for the public to walk, cycle and use public transport, saving energy/ transport costs, increasing footfall, reducing congestion as well as offering health benefits
- Increased health and happiness, through social interaction and recreation
- Potential for more compact development patterns, offset by a useable public environment, which reduces land take, protects productive land and enhances accessibility and sustainable transport
- Increased land value and rents in surrounding areas.

Design has a particular role in the planning and delivery of major urban infrastructure. While these projects are often high-cost, long-term and state or nationally significant, with a myriad of technical requirements and challenges, a strong design-based approach and user experience focus can significantly enhance the useability and value of infrastructure for the public.

Design excellence in infrastructure increases value in various ways:

- Enhanced user experience, and so increased potential patronage
- Enhanced amenity and safety for people
- Reduced maintenance costs and disruptions, through enhanced durability
- Pride and a sense of ownership among the community and users
- Supporting modal shift to sustainable transport and having long term impact on reducing congestion.

### Valuing design excellence in buildings

Design excellence is perhaps most clearly played out in our buildings – our homes, offices, community facilities, schools and public buildings.

Design excellence in buildings increases value in various ways:

- Enhanced liveability and comfort
- Increased productivity in workplace buildings
- Reduced energy and water demands, and subsequent cost savings
- Potential increased market value of better-designed homes and workplaces, and the precincts in which they are located
- Increased adaptability and flexibility to respond to changing uses and demands over time.



# STRUCTURE OF THIS DRAFT POLICY

This Draft Policy is applicable to the built environment across all project types and sizes, encapsulated in the following Focus Areas. The principles apply equally to all of these focus areas, but have more specific detail according to their spatial and organisational requirements.

FOCUS ONE

Cities and towns

Precincts, suburbs and large urban areas

**FOCUS TWO** 

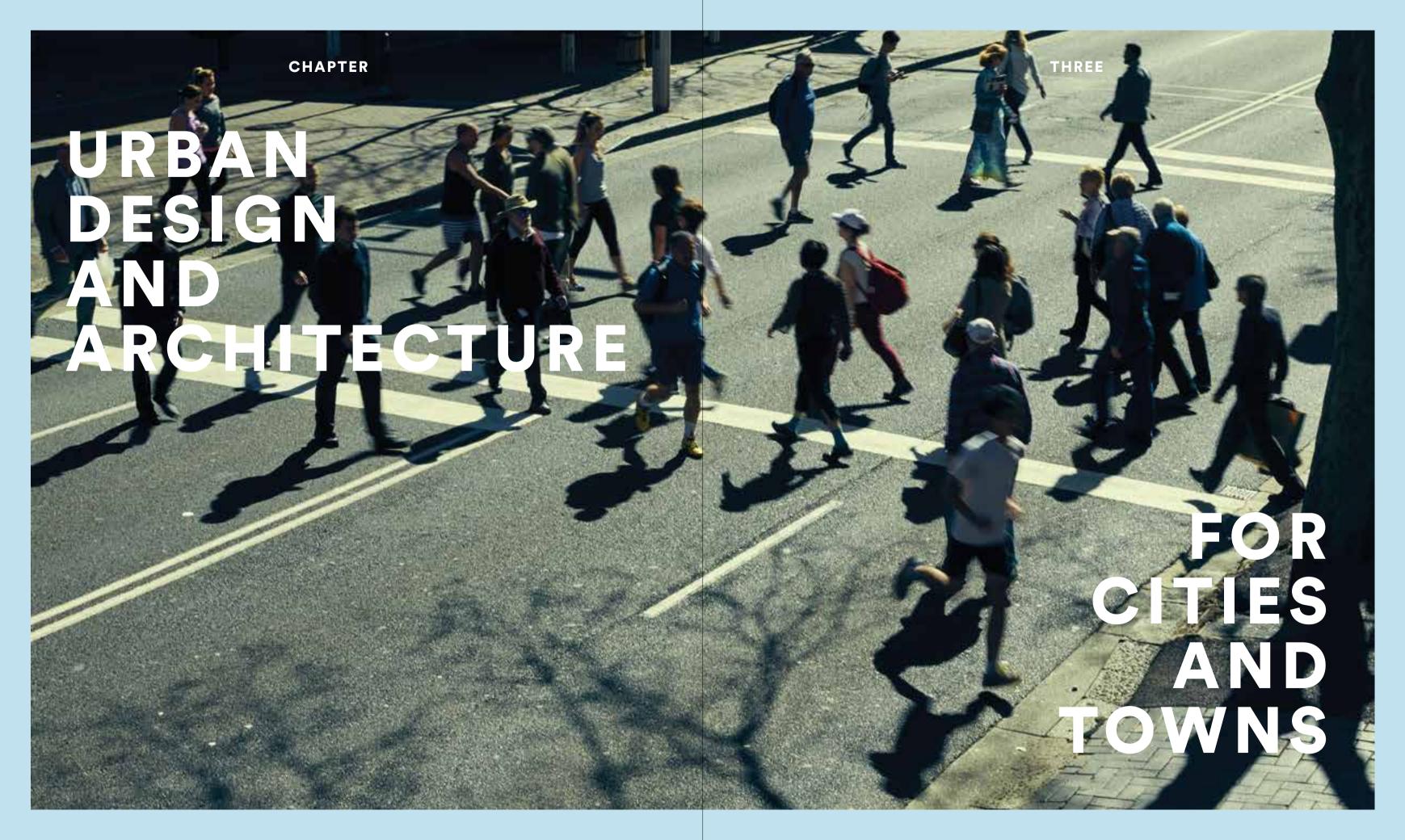
The public realm

Streets, spaces and places

**FOCUS THREE** 

**Buildings** 

Offices, apartments, houses, schools, industrial buildings and hotels



Indicators of successful cities and towns include liveability, productivity, equity and sustainability.

The urban structure, patterns of development, layout, edges, quality of spaces, integration of transport and access to essential infrastructure all contribute to the experience of living, working, moving around and relaxing in our cities and towns and to the measures of successful cities.

While inherently more complex than single buildings in terms of size, ownership, participants, modes of use and activity, the role of design in achieving successful cities and towns is increasingly important, valued and recognised. Cities and towns are bound up in economic factors: they support industry and commerce, employment and services. Accommodating an agglomeration of people and activity well is key to a city or town's productivity.

Collectively, urban development is responsible for significant environmental and greenhouse impacts, energy use and displacement of ecological and agricultural land.

Cities and towns welcome and house people and communities. The coming together of people in urban places plays an essential <u>social</u> function in accommodating relationships.

The role of urban design and architecture is essential to all three of these factors and is a key determinant of successful urban places.

8 CHAPTER THREE / CITIES AND TOWNS

### CONTEXT AND DIRECTIONS



## The current state of play in New South Wales cities and towns

This Part outlines observations and learnings about current circumstances in cities and towns across NSW, and how these urban conditions are affecting lifestyles and personal experiences.

While our cities and towns range in size, levels of population and economic growth, development activity, cultural diversification, affordability challenges and infrastructure needs and delivery, these factors all affect the daily functioning of our urban areas in large cities and small towns alike.

The historic, social and cultural aspects of our cities and towns face challenges from growth and change. This is particularly the case in Sydney and some other regional centres.

Sydney and other major centres including Wollongong, Newcastle, Central Coast, and the Mid North Coast are experiencing dramatic change due to growth, extensive redevelopment activity and investment in infrastructure, particularly transport. Smaller towns tend to be focussed on maintaining essential services and economic opportunities. They are often more connected with their heritage and are socially cohesive. Many have more marginal economic roles, resulting in decline in population and economic activity resulting in both opportunities and challenges in terms of the built environment.



### Emerging directions for cities and towns

#### 3.1.1 Urbanisation and agglomeration

Australia is among the most highly urbanised countries in the world, with a large proportion of Australians living in cities or towns, and this proportion continues to increase as we seek out the social, economic and cultural opportunities that urban living offers.

The agglomeration of people in jobs is focussing in more compact and highly accessible locations across our cities.

### 3.1.2 Productive cities

Building a sound, long-term employment base and local economic systems to support local opportunities and prosperity is a key function of urban agglomerations. Economic activity is one of the fundamental 'reasons for being' of urban areas. The design of cities and towns has a significant bearing on the economic potential.

#### 3.1.3 Infrastructure and city shaping

As our cities and towns increase in size and population, transport infrastructure is seen as 'city shaping' and provides a focus for development and urban renewal – particularly around stations and interchanges. Supporting productivity and liveability, it is seen as a vital, city-shaping investment.

### 3.1.4 Value of public transport

The value and importance of public transport in cities and towns is increasingly recognised by communities and civic leaders alike. The many costs of traffic congestion, and the relative efficiency of high-capacity public transport, explain the ongoing investment in train, light rail and bus infrastructure in our cities and towns.

Integrating the planning and design of transport infrastructure with surrounding development and urban design is essential to leveraging maximum value for money from infrastructure investment.

### 3.1.5 Value capture and sharing opportunities through infrastructure investment

The concept of 'value capture' or 'sharing' is increasingly being considered as a potential contributor to funding new infrastructure in areas of growth. The principle of value capture is that part of the financial value 'uplift' that individual property owners experience as a result of new infrastructure, can be 'captured' and 'shared' to help fund that infrastructure. Quality design will help secure even greater uplift in value in precincts adjacent to investment in public transport infrastructure.

In NSW, major metropolitan initiatives such as the Sydney Metro North West are providing enhanced transport access, reduced commute times, reduced traffic congestion and increased community mobility. While not yet complete, this project is contributing to major increases in property values along the route.



#### 3.1.6 Housing

Growing populations are perhaps most influential in the urban housing context, with 'ripple effects' in the areas of housing demand and affordability, housing quality and city planning.

The economic and social challenges of dispersed, cardependent development patterns are increasingly recognised in contemporary western cities. In parallel, there is an emerging shift in preferences towards higher-density housing (townhouses, units and apartments) in locations that enjoy access to facilities and services. This is driven both by strategic policy, which recognises the benefits of this approach in terms of productivity, liveability and equity, and importantly by increasing consumer preferences for living in highly accessible locations in more compact communities.

#### 3.1.7 Liveability

Building cities and urban places to support community activity, interaction and mutual support is also an essential function of successful. attractive cities and towns. Urban places should be safe, accessible. welcoming and supportive of a range of social activities. The primacy of the public environment (streets and spaces) is a key aspect of the Sociable City. Liveability is increasingly linked to productivity and liveable cities and places are attracting global talent and knowledge workers and the benefits they bring to the local and national economy.

### 3.1.8 Employment and global competition

Major cities, in particular, compete globally to attract global talent and investment, major companies and organisations, events and gatherings, international students and media recognition. A city's liveability ranking has become an important marketing tool. Assessment criteria include access to a range of jobs and other economic opportunities, ease of moving around a city by public transport and housing affordability.

#### 3.1.9 Urban renewal

As the economic role of cities evolves in the global economy, the need to revitalise and find new uses for areas undergoing economic transition - including former industrial areas and locations of disadvantage or decay - is being addressed in a variety of ways. Initiatives in NSW, such as Green Square, Renew Newcastle and The Gosford Challenge, take different approaches to urban renewal, but with a focus on strategic, integrated and long-term initiatives to re-establish sustainable cityscale economies and great places.

#### 3.1.10 Prioritising the 'local'

Alongside globalisation forces, there is an increasing interest and commitment to the 'local' economy and social setting, as a foundation for happy urban living. Also important is local access, realised by walking and cycling to local facilities, opportunities and transport hubs.

### 3.1.11 Street-based town centres

There has been a return to invigorating traditional town centres, by improving the amenity and creating additional demand for retail and services, thus increasing the number of people living in and around centres.

#### 3.1.12 Affordability

Housing affordability and access to housing has emerged as a defining issue of our major cities in the early 21st century. Simply increasing supply is no longer considered enough. There has been an increased focus on diversifying the mix of housing types and tenures in location where people have access to transport and the opportunities our cities offer.

### 3.1.13 Increasing inequality

Urban inequality remains an endemic and worsening phenomenon globally and, increasingly, in NSW. Across the globe, we see high levels of urban poverty, unemployment and substandard housing, contrasting with wealthy districts in the city centre and gated communities in the suburbs. More prosperous areas tend to be concentrated in more accessible locations close to employment, public transport and other opportunities.

### 3.1.14 Place-making and place management

There has been increasing emphasis on the management and stewardship of places. Community participation, responsibility and leadership in creating and renewing urban places is an increasingly recognised and valued approach to revitalisation and management of urban places, both new and old. Building an understanding of the local place is an essential foundation for the design process, whether for urban planning, open space or building design.

The establishment of Business Improvement Districts (BIDs), used both here in Australia and internationally, is one approach to governance and funding place management that focuses on engaging local businesses and key stakeholders in the process.

#### 3.1.15 Environmentally sustainable cities

Achieving a shift in major population centres from non-renewable to renewable energy sources is a challenging and longer-term proposition. However, communities are increasingly conscious of, and demanding responses to, the growing urgency for cities to use our natural resources more efficiently, reduce climate impacts, and to adapt in response to these impacts.

Developing our cities and towns to be more efficient, resource-effective and less impactful on natural systems is an essential outcome and is a fundamental design consideration.

Globally, cities are restricting further urban sprawl, supporting more compact city models, investing in enhanced public transport networks, promoting local energy production and onsite water retention and recycling.

#### 3.1.16 Resilient cities

Our cities and towns need to become adaptable and prepared for change: population growth, natural events, economic shocks and social changes. In terms of great uncertainty and increasing risks and impacts from natural and social events, it is more important than ever that places of concentrated populations, economic activity and social infrastructure are strengthened in terms of their resilience in the face of these events.

Plough and Harrow, Western Sydney Parklands. Design by GroupGSA with Ric McConaghy. Image by Simon Wood Photography.



4 CHAPTER THREE / CITIES AND TOWNS / PART ONE / CONTEXT AND DIRECTIONS

Principles and requirements: what are we trying to achieve in New South Wales cities and towns?

Cities and towns are highly complex and multi-faceted from a design perspective, and are typically the result of many inputs and decisions.

A well-planned and designed urban area provides a sustainable, effective 'canvas' for enjoyable, prosperous and effective lives.

The principles and requirements applied to urban design in cities and towns are as follows:

1

**PRINCIPLE** 

### Contextual, local & of its place

The urban environment is where most of us live, work and recreate.

A city, town or urban locality should be designed to be of its location, connected to its landscape setting, and integral with local people and cultures. In this way, it will be distinctive, resonant and engaging.

#### REQUIREMENTS

The city, town or urban plan should:

Contain a demonstrated response to the local landscape setting and climate

Make reference to cultural traits of the area

Reflect and build on existing built, landscape and cultural values

Incorporate elements unique to this place

Support community interaction and local trade

Create a distinctive, defined urban character and 'feel'

New investment, development and infrastructure projects should generate benefits for existing communities and development opportunities to improve local conditions. 2

**PRINCIPLE** 

### Sustainable, efficient & durable

Cities, towns and the infrastructure they require have both a positive and negative impact on environmental quality and factors that influence climate change.

An urban area should be designed to be accessible and compact, minimise consumption of energy, water and natural resources, and to avoid detrimental impacts on natural systems. It should be designed to respond and adapt to changes over time.

#### **REQUIREMENTS**

The location, layout and density of development in cities should maximise accessibility and support sustainable transport modes including walking, cycling and access to public transport.

A broad mix of activities should be accommodated, mixed horizontally and vertically.

The structure should have the capacity to accommodate change while retaining cohesion.

Development in urban areas should enhance the provision of a network of green spaces and links (the Green Grid).

Urban plans should support resource efficiency.

Opportunities for precinct-based energy distribution and water retention and recycling should be embedded in new development and retrofitted where possible.

3

PRINCIPLE

### Equitable, inclusive & diverse

The city represents the coming together of the full spectrum of society in a mutually beneficial arrangement.

Cities and towns must accommodate and provide access to opportunities for all. Urban design should provide equitable access to housing, employment, public transport, public space and social opportunities.

#### **REQUIREMENTS**

The layout and density should support eligibility for walking, cycling and accessing services and public transport.

The quality of the public realm should be the primary driver – welcoming, safe and accessible for all.

Equitable access to diverse range of housing types and tenures should be supported.

Improved access to a range of economic opportunities, services and facilities should be provided for all.

56 CHAPTER THREE / CITIES AND TOWNS / PART ONE / CONTEXT AND DIRECTIONS 57

4

**PRINCIPLE** 

### Enjoyable, safe & comfortable

How people experience cities,
towns and the infrastructure required
to make them work has a daily impact
on people's lives, and investment
in development and new infrastructure can have an impact for decades
and generations.

Design should be people focussed, providing environments that are user-friendly, enjoyable, accessible and dignified.

#### **REQUIREMENTS**

Provides safe, interesting and comfortable environments for pedestrians, cyclists and people using public transport.

Supports a broad range of social and community activities.

Facilitates and encourages comfortable walking between different activities.

New areas and infrastructure should be well integrated within the urban environment to facilitate visual interaction and passive surveillance.

5

**PRINCIPLE** 

### Functional, responsive & fit for purpose

As the setting for our daily lives, the urban environment must work well for a wide range of purposes.

Urban design can influence the functionality and workability of urban areas permanently, and so design quality at the outset is essential.

#### **REQUIREMENTS**

Accommodates and responds to daily needs and activities.

Supports a broad range of activities.

Housing is located to encourage usage of local shops, services and public transport.

Layout is accessible, easily navigable and prioritises pedestrians.

Structure is flexible and adaptable over time.

6

DDINICIDI E

### Value-creating & long-term cost effective

Substantial investment goes into the urban environment and infrastructure from a range of sources.

Well-designed urban places have the potential to be highly cost effective, creating ongoing and increasing value for all.

#### **REQUIREMENTS**

Different land uses are well connected and accessible.

Diverse housing stock supports accessibility and affordability.

A range of economic and entrepreneurial opportunities for local places should be accommodated to optimise the investment in infrastructure development.

Accommodates small business and entrepreneurial activity

Compact and walkable with a complex mix of activities.

Town centre supports visual interaction and commerce/trade.

Cost considerations should take a whole-of-lifecycle approach and should consider wider public benefits over time.

7

PRINCIPLE

### Distinctive, visually interesting and appealing

For most NSW people, the urban environment is the place in which we live out our daily lives.

The design of the city or precinct is fundamental to how it looks, feels and works for people. Poor design has a lasting, negative impact, while good design provides ongoing benefits for all.

#### **REQUIREMENTS**

Cities and towns should provide a series of connected, interesting and distinct places.

Cities and places should be designed to support a range of diverse uses which activate centres day and night, inside and out.

Prominent building and places should be designed to the highest standards.

Tall and large buildings should contribute to the skyline and contribute to city legibility.

Landmark buildings should be encouraged in a series of strategic and appropriate locations.

The architecture and urban design in cities should reinforce the positive and distinct brand of NSW and its cities.

CHAPTER THREE / CITIES AND TOWNS / PART ONE / CONTEXT AND DIRECTIONS 55

### DELIVERING DESIGN EXCELLENCE IN CITIES AND TOWNS PROCESS

Urban projects can take many forms, from strategic plans to precinct or site master plans. The process of design and implementation is a key determinant of success in the ultimate built outcomes.

For design at the urban scale, implementation 'on the ground' may happen many years after the urban design work is done. Therefore, it is essential that strategic urban plans are resilient, adaptable and flexible, while providing strong directions for incremental implementation over extended periods.

This section sets out the essential aspects of the design process for cities and towns.

3.2.1 3.2.2

3.2.3

3.2.5

3.2.6

### Set a strong vision and clear goals

By establishing an agreed vision and goals for the project early in the process, participants build a common understanding of what is collectively sought and what the expected outcomes are. The vision also provides a reference for constantly testing and reviewing scenarios and proposals along the way.

It is essential that the base foundations or drivers of a project are clearly established from the outset and strongly focussed on social, environmental and economic outcomes and benefits for local communities.

When other drivers become sole considerations, such as cost minimisation or the demands for vehicle access and parking, the ultimate quality, longevity and ongoing efficiency of the urban place is likely to be compromised.

### Focus on the human experience

Urban projects should focus on the human experience, and on achieving comfortable, safe, attractive environments that people enjoy. People are highly sensitive and responsive to their environment, and great design creates places which are easy and enjoyable to use.

### Engage with multiple disciplines

Effective design processes involve multiple disciplines, including engineers, planners, artists, designers, place makers, politicians, government officials and local community members. Multi-disciplinary approaches are particularly applicable at the scale of cities and towns, which are highly complex by nature, and which benefit from the balanced integration of diverse views and approaches. Design is the process that effectively integrates these varied inputs.

### Make the process iterative and non-linear

3.2.4

From the vision, the process is rarely linear or direct, but requires multiple attempts, iterations, reviews, feedback and testing of proposals. Design excellence results from processes that embrace uncertainty and diversity, and can filter inputs and reviews to continually refine design outcomes.

### Develop and test multiple scenarios

Key to arriving at the 'right' design solution is the rigorous testing of scenarios or options with stakeholders, and potentially merging or combining alternatives for further review, before further developing particular scenarios. Inform and support decision making with robust evidence.

#### Involve the community

Involving communities in the urban design process brings many benefits. It allows teams to tap into extensive local knowledge and social/cultural perspectives of the place. Done well, it can also embed meaning and identity in the design for local communities.

Co-design or co-creation is an increasingly important approach that acknowledges the value of local inputs and participatory processes.

3.2.8

3.2.9

### Tap into local knowledge

The local community is the source of unparalleled knowledge of local places, and so is a great resource for designing locally resonant, place-based urban precincts.

### Balance competing forces

The complex multi-disciplinary process of planning and designing urban environments requires the understanding and resolution of many competing influences.

Effective design processes offer a way to balance and optimise multiple agendas.

"DESIGNING
A DREAM
CITY IS EASY;
REBUILDING
A LIVING
ONE TAKES
IMAGINATION."

- Jane Jacobs

### Interrogate and understand value

Value is not only related to cost of construction or implementation. Value to users and the wider city or town is a long-term, permanent outcome and is not static. Projects where the social, environmental and long-term economic value and performance are balanced and optimised, ultimately deliver greater value for money from the up-front investment.

Well-designed urban environments continue to produce value over time and proposals should be considered with this potential in mind.



#### **PART THREE**

### DELIVERING DESIGN EXCELLENCE IN CITIES AND TOWNS OUTPUTS

Best practice urban design processes will help ensure excellent design outcomes in the urban environment.

The challenging aspect of design at the scale of urban areas or entire towns is that the final outcomes 'on the ground' are likely to be the product of many other subsequent, more detailed design processes.

That is, the outputs at this scale are likely to be plans and proposals, design frameworks and guidelines, rather than physical outcomes. However these outputs form the underlying basis of the physical outcomes and are made manifest through multiple site-based projects over time.

CHAPTER THREE / CITIES AND TOWNS / PART THREE / OUTCOMES

**3.3.1 3.3.2 3.3.3 3.3.4 3.3.5** 

### Certainty and clarity

Great urban design provides clear direction for the essential structural elements of an urban place.

Urban planning and design should identify and 'lock in' the essential aspects of the urban place, to ensure these are established and retained for the long term. This structure can then be built upon with greater flexibility to respond to circumstances over time. The urban plan should determine what aspects are fixed and essential, and what others are flexible.

### Balance of 'fixed' and flexible aspects

An effective balance of fixed elements, and the potential for flexibility and change over time, will give an urban plan the appropriate level of longevity and applicability. Plans should identify where flexibility can be provided for in the ultimate outcomes, to allow the implementation process to remain current and responsive over an extended period. Assumptions should be clearly articulated, to inform decisions. This is essential to ensuring the longevity of urban plans, allowing them to continue to guide decisions over many years.

### Supporting economic activity

Opportunities for local employment, small business activity and local production and trade should be emphasised in urban plans, through the compact and intensive integration of different uses, and by establishing strong local catchments and 'critical mass' populations around urban centres.

### Compactness and accessibility

Compact urban development involves accommodating more activity (homes, shops, workplaces, community facilities) in a smaller amount of space. This brings things closer together, allowing for walkable or cycling access for daily trips to work, school and shops.

Compact urban development is supported by higher-density housing, management of car parking provisions (such as centralised or structured parking rather than surface parking), vertical integration of uses (such as housing and offices above shops), and reduced street space, creating more intimate, human-scaled environments.

### Community and interaction

The design of urban areas can support, or hinder, the potential for community development, engagement and social activity. Plans and precincts should be configured to support and facilitate social interaction, chance meetings, life on the street and usage of an attractive and functional public realm for a range of passive, active, informal and programmed activities.

### **Equality and fairness**

3.3.6

Social equity (or inequity) is often made manifest in cities and towns and is the product of forces well beyond design, such as economics and politics. However, urban design has a major influence on equity and fairness in cities and towns.

Precincts should be inclusive, welcoming and provide opportunities to access employment, social connections, education and recreation.

CHAPTER THREE / CITIES AND TOWNS / PART THREE / OUTCOMES 69

3.3.7

3.3.8

3.3.9

3.3.10

3.3.11

3.3.12

### Structure: centres, links, neighbourhoods, catchments

The urban plan should reflect a clear and strong urban structure of nodes or activity centres, catchments or neighbourhoods around these centres, with linkages into and between centres and strong urban edges.

Urban form should be considered with urban structure to effectively manage density and accessibility.

## Capacity for change

Urban plans should ensure their resilience and ongoing value, by allowing for change and adaptation over time, while retaining a strong structure of fundamental elements. Urban plans should balance current market demands with projected future requirements.

## Green infrastructure

Of equal importance or greater importance than hard infrastructure (roads, railways), green infrastructure is the network of green open spaces and linkages between them, which provide a soft, landscape-focussed structure and high-amenity environments across urban areas.

As cities and towns grow in size and density, the role of green infrastructure is increasingly important and valuable. It is essential to 'lock in' the green system of the city at the early planning stage, so that it is retained and protected over time.

Green infrastructure may include large parks, waterway corridors, urban forests, linear open spaces, coastal areas and 'pocket' parks.

Sydney's Green Grid offers an excellent demonstration of how to consider and integrate green infrastructure.

## **Urban** centres

The presence, location and make up of urban centres, of various sizes and types, is a fundamental aspect of the urban structure.

Centres provide a focus for activity, employment, learning, commerce and social activity for local neighbourhoods or entire cities.

Centres should be planned to accommodate a diverse and integrated range of land uses, mixed horizontally and vertically, including higher-density residential, in a compact, intensive configuration.

Centres should be located and distributed to provide walkable access from the majority of dwellings, with smaller neighbourhoods clustered to support larger urban centres.

### **Neighbourhoods**

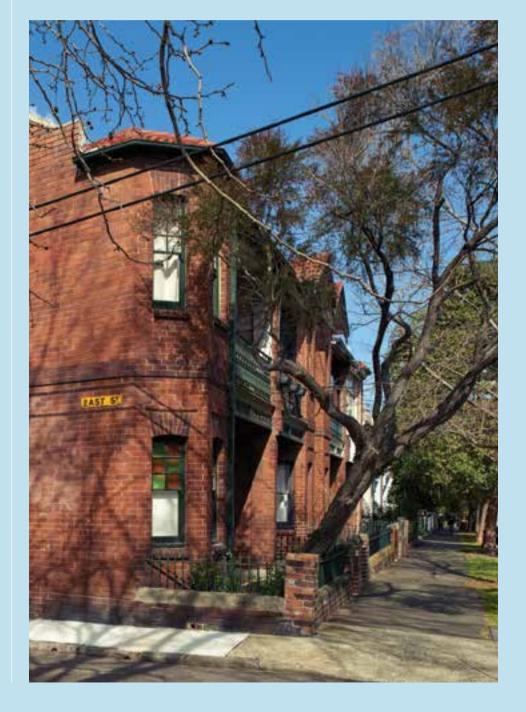
Beyond the centres, neighbourhoods should provide a diverse range of housing along with open spaces, schools and community facilities, in configurations that support walking, social interaction and adaptability over time.

## Balanced user-priorities on roads

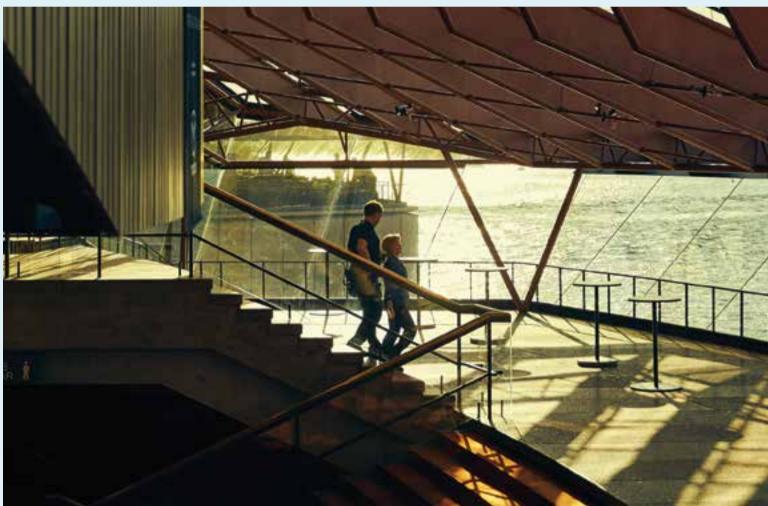
Roads can experience competing user requirements and 'contested space', particularly in higher-density urban areas. Effective design can deliver balance and safety for different transport modes appropriate to the location and function of particular streets or roads.

## Ongoing value and public benefit

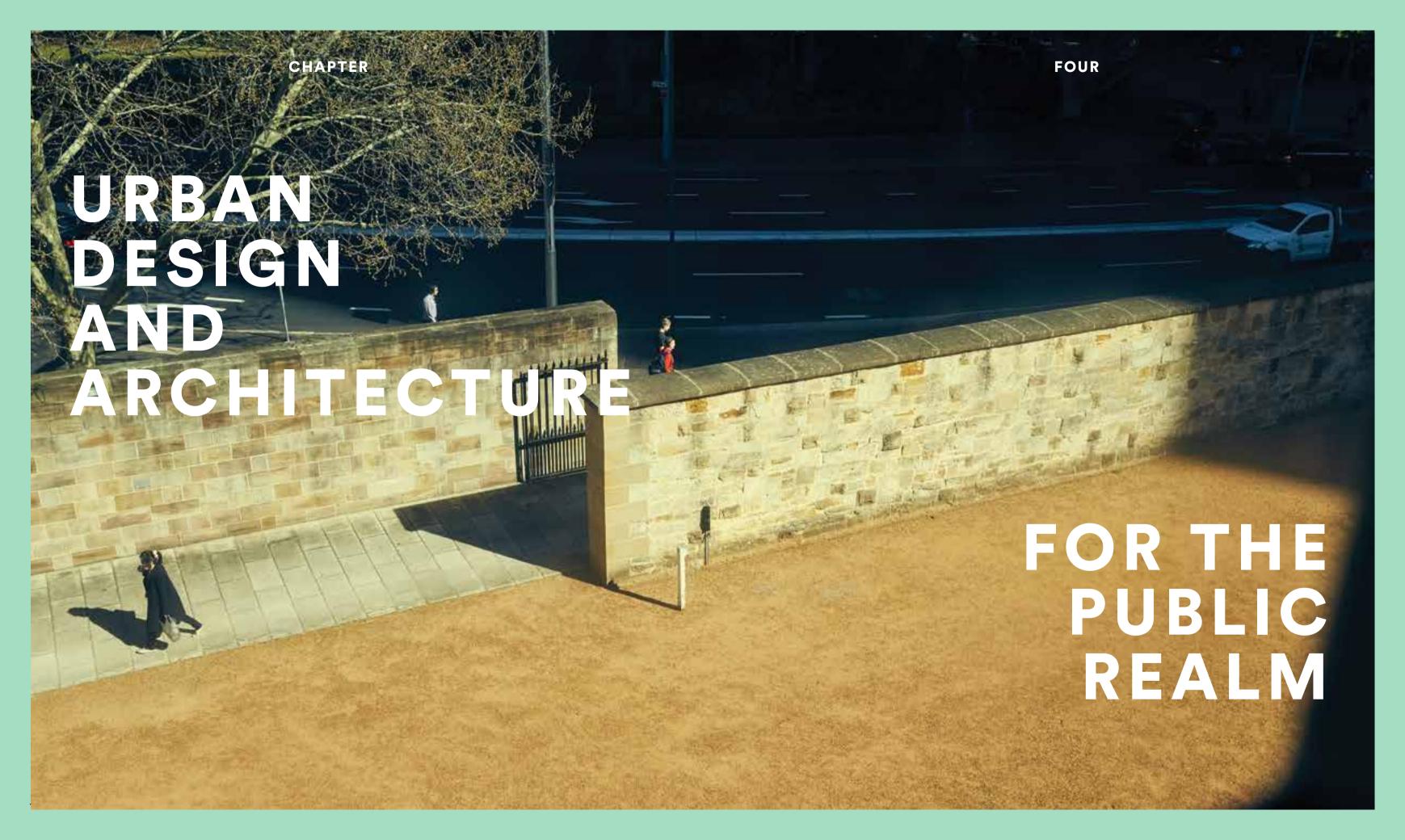
Well-designed infrastructure will continue to deliver benefits to local communities, including shared and individual cost savings, health benefits and social outcomes in the short and long terms. Design excellence is a necessary outcome for achieving optimal value.







CHAPTER THREE / CITIES AND TOWNS / PART THREE / OUTCOMES



PART ONE

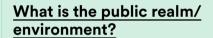
CONTEXT AND DIRECTIONS

The public realm is the collective, communal part of our cities and towns, with shared access for all. It is the space of movement, recreation, gathering, events, contemplation and relaxation.

This includes our streets, parks, plazas, places between buildings and waterways.

As our cities grow, evolve and develop, the public environment takes different forms, including on privately-owned land, on rooftops, below elevated infrastructure and above transport nodes. Developing more compact cities can result in increased usage and pressure on the public realm requiring new models, management, high standards of design and finishing, and design of public space. In some instances, it may also require the creation or allocation of additional open and/or public space.

## The public realm context in New South Wales



Urban environments are agglomerations of people: homes, workplaces, learning environments, commercial spaces, open spaces and movement space. It is where we come together to live, socialise, work, learn and build relationships.

The urban environment (cities and towns) is focussed on the public domain: streets and spaces that are publicly accessible and collectively belong to all of us. These are the shared places in which we recreate, play, socialise, commute, eat, watch, gather and celebrate.

The public domain is egalitarian – it is accessible to all and not controlled by private or commercial interests. Access is not paid and occupation is not reliant on buying drinks or shopping

### Why is it the primary aspect of cities and towns?

As cities and towns function as a collection or coming together of people, the public domain is the place in which this community interaction occurs.

### What makes up the public domain?

It is easy to draw a boundary around the streets and spaces in cities and towns, to demarcate the public domain from privately owned land and buildings.

However the quality and success of the public domain is defined by a myriad of other factors, including:

- Urban structure, accessibility and links between neighbourhoods and important destinations
- Land uses and activities in surrounding buildings
- Form, design and interface of adjoining buildings
- Spatial qualities: size, area, scale
- Design: materials, spatial configuration, landscape.



## Emerging directions for streets and public space

### 4.1.1 Street as place

The streetscape is increasingly seen as a potential useable public space for social interaction, meeting, events, children's play and exercise. However, this multi-use approach requires careful design and management of the interface between people and traffic for effective function as well as safety and amenity in the streetscape.

### 4.1.2 Layering of uses, longer hours

As our cities increase in density, the role of public space gains greater importance, along with demand for usage. Therefore public recreational spaces need to be more intensively used, across longer hours of the day, for a broader range of activities. This informs the design, materials and configuration of the spaces, as well as the ongoing management and programming of the space.

### 4.1.3 Place making

Place making is about creating public spaces that are locally relevant and 'belong' to the local community, reflecting the community's inputs and aspirations. It seeks to make places more relevant, useable and meaningful.

### 4.1.4 Water Sensitive Urban Design (WSUD)

As the effects of climate change gradually increase, the public realm is increasingly charged with managing water in the urban environment. WSUD utilises water run off to support planting, which filters and cleans the water 'on site' before it runs into creeks, rivers or the sea.

WSUD takes the form of green drainage infrastructure of various types, including onsite retention and recycling for wider precincts. The public realm can also form overland flow or retention spaces.

### 4.1.5 Drought tolerant landscapes

Also relating to a changing climate, the use of drought tolerant plant species is seen as increasingly important for longer-term sustainability and maintenance.

### 4.1.6 Digital connectivity

Like our buildings, our public spaces also benefit from digital connectivity in the form of Wi-Fi availability and other digital information sources in public spaces. Digital connectivity can make spaces more user-friendly and accessible.

### 4.1.7 Public space on private land

Major developments and urban renewal initiatives are increasingly responsible for creating public spaces on private land, including laneways, courtyards and street-scapes. These can form an attractive asset to the development and are typically held and maintained by an Owners' Corporation.

### 4.1.8 Multipurpose

Where possible, spaces should be designed to be flexible and multipurpose shared spaces that can be used by a range of groups at different times of the day to ensure maximise benefit is achieved, for example school playgrounds, church yards, forecourts and town squares.





Principles and requirements: what are we trying to achieve in New South Wales?

1

**PRINCIPLE** 

## Contextual, local & of its place

The public realm is the shared local environment for communities.

Streets and spaces should be locally relevant and responsive to place character and context, while also providing for new experiences and enhanced amenity for people.

#### REQUIREMENTS

Landscape design and planting should be specific to the location, including local plant species and materials.

The public realm should be configured to respond to local social and cultural characteristics and activities.

Public realm spaces should respond to context in terms of street patterns, built form and landform/topography.

Existing natural features such as topography, waterways and vegetation should be utilised and reinforced in public realm design.

Local heritage should be reflected in public space design.

Streetscapes should be designed to support local business activity, commerce and active lifestyles.

2

**PRINCIPLE** 

## Sustainable, efficient & durable

The public realm can play a direct role in addressing sustainability objectives.

The design and materials should be robust and permanent, with minimal impact. The public realm should be utilised as a space for water management and harvesting, air cleaning through vegetation, food production, and potential energy generation, bringing these functions into the public perception.

#### **REQUIREMENTS**

Public realm and landscape design should incorporate robust, locally sourced and low-impact materials where possible.

Opportunities to collect, manage and treat stormwater on-site through Water Sensitive Urban Design initiatives should be sought in streets and open spaces.

Resilient, climate-responsive plant species should be utilised in streets and open spaces.

Public realm design should facilitate and encourage walking and cycling, by prioritising these modes over driving on appropriate streets.

The space dedicated to vehicle movements and parking in the public realm should be minimised and focused in the off peak.

3

DDINICIDIE

## Equitable, inclusive & diverse

As the shared, communal part of urban environments, the public realm is the foundation of equitable and inclusive cities and towns.

It should provide for a multitude of uses, activities and preferences, to accommodate all aspects of communities by incorporating a diversity of spatial types, sizes, degrees of openness/enclosure, and designing in accessibility for all users from the beginning.

#### **REQUIREMENTS**

Public realm spaces should be well integrated with existing and new streets and lanes to support equitable access.

A range of spatial types, sizes and configurations should be provided within local areas to accommodate diverse needs and activities.

Streets and public spaces should accommodate multiple, layered uses throughout the day, particularly in higher-density urban locations.

The public realm should invite usage and inhabitation without the need to make purchases. The appropriation of public space by businesses (cafes, shops) should be avoided.

The public realm network or system should be highly legible and navigable for all, to invite access and movement.

4

PRINCIPLE

### Enjoyable, safe & comfortable

The public realm is defined by how it is used and occupied.

The design of streets and spaces should maximise comfort, amenity, safety and opportunities for activity, inviting people to spend time and interact. This activation then supports further activity in what is a self-reinforcing system.

#### **REQUIREMENTS**

Public realm design should afford a range of climatic experiences – shelter, enclosure, openness, solar access and shade – to allow users to find comfortable conditions.

Prevailing weather patterns should inform the design of public spaces.

The spatial configuration, materials, planting and furniture should be designed to invite usage, including sitting gathering, meeting, walking and playing.

The relationship between public spaces and built form edges should be carefully considered to maximise activation, visual interaction and passive surveillance opportunities.

The public realm should prioritise people. Potential conflicts with vehicles or other impacts should be carefully managed in the design.

5

**PRINCIPLE** 

## Functional, responsive & fit for purpose

The public realm typically accommodates a range of uses and activities throughout the day and evening.

Public space design should accommodate many different activities, while also supporting defined characteristics and 'feel' in a particular place. While some spaces will be designed for specific uses, others will be flexible, multipurpose and adaptable. A range of experiences should be provided for within urban areas.

#### REQUIREMENTS

Public realm design should accommodate and respond to potential activities, usage requirements and movement patterns in the wider area, without imposing on or disrupting established patterns.

Public realm spaces should generally avoid specific uses in their design, to maintain flexibility and accommodate multiple uses.

Public realm design should primarily accommodate informal, passive activity, such as walking, sitting, meeting, eating, and should facilitate individuals and small groups in conversation and play.

Spatial layouts should be accessible, legible and easily navigable by people.

6

DDINICIDI D

## Value-creating & cost effective

The public realm provides an essential community function with multiple 'layers' and so achieves value in numerous ways.

While the physical design and maintenance is an important cost factor, well-designed and procured spaces deliver substantial value to local people and continue to generate value over years and decades.

#### **REQUIREMENTS**

The design should incorporate flexibility to respond to changing usage patterns over time, in order to retain value.

Cost considerations should take a whole-of-lifecycle approach and should consider wider public benefits over time.

The public realm should support local business and trade, without being dominated by commercial activity.

Built elements should be resilient and durable to minimise maintenance costs and maintain visual and functional quality over time.

A public realm network that supports and enhances the pedestrian experience will continue to deliver value over time, including health and social benefits and travel cost savings.

7

PRINCIPL

## Distinctive, visually interesting & appealing

The visual quality and physical design of streets and spaces are a major determinant of likely usage and activation.

Places that look great, among other factors, tend to attract people, which makes them look and feel even better.
As long-term interventions, the potential to retain visual quality and durability is essential.

### **REQUIREMENTS**

The public realm provides opportunities for distinctive, community-oriented design acknowledging the past and the future.

Public art, landscape and vegetation, diverse materials and textures and water, should be integrated into the public realm to enhance the experience of places.

The design should be visually appealing and engaging to invite exploration and inhabitation.

Public spaces should accommodate a range of activities and usage patterns to maintain appeal and interest in communities.

Incorporation of locally-specific design elements such as materials, planting, signage and landform will enhance the distinctiveness of streets and public spaces.

**PART TWO** 

# DELIVERING DESIGN EXCEL LENCE IN THE PUBLIC REALM PROCESS

### 4.2.1

## Understand and respond to place qualities

Consider the underlying characteristics and qualities of the local landscape, topography, landform and vegetation or ecology, and how these might inform the design, location and configuration of streets and public spaces. Investigate the cultural traits of this location – its people, background, socioeconomic circumstances and activities – to inform potential usage of public spaces.

Can the history of the site and locality (pre-contact and post-contact) inform thinking about its future, in a deeper way?

## Integrate with the local (micro-) climate

4.2.2

Investigate what local climatic conditions characterise this area, such as prevailing winds, temperatures, coastal conditions, humidity, rainfall patterns. Allow the design of public space to respond to these conditions, to provide shelter and enclosure, but also consider prospect and solar gain.

## Merge the technical with the cultural

Great public realm design will effectively address technical issues (traffic, drainage, durability, maintenance, cost), while also creating socially and culturally resonant outcomes, and even converting constraints or challenges into opportunities and great design outcomes.

4.2.4 4.2.5 4.2.6

1.2.7

4.2.8

### Respond to circumstances

Different places in NSW are currently experiencing wide ranging economic and social circumstances, and these conditions can change in any place in quite short timeframes. Therefore, it is important that the design of the public realm meets today's requirements, but retains reasonable capacity to adapt to project, or unexpected, changes over time.

### **Observe**

Careful observation and analysis of the site and wider context, and how people use, move through and engage with the place, is a fundamental starting point for design excellence.

## Test the performance

Advanced techniques allow designs to be tested in terms of solar and wind impacts, people movements, water management and even vegetation.

## Test before you invest

Contemporary 'tactical' approaches, implementing lightweight, low-cost public realm initiatives to test the design and usage potential, provide a low-risk approach to design testing and should be encouraged.

## Involve local communities

It is essential that the process of designing public spaces involves the local community – the ultimate end users – in a meaningful, interactive and productive way.

"WELL DESIGNED AND MAINTAINED PUBLIC SPACES SHOULD BE AT THE HEART OF ANY COMMUNITY. THEY ARE THE FOUNDATION FOR PUBLIC INTERACTION AND SOCIAL INTEGRATION, AND PROVIDE THE SENSE OF PLACE ESSENTIAL TO ENGENDER CIVIC PRIDE."

— Lord Richard Rogers, Pritzker Architect and Chairman Urban Task Force

# DELIVERING DESIGN EXCELLENCE IN THE PUBLIC REALM OUTCOMES





Crown Street
Mall, Wollongong
Government
Architect office.

CHAPTER FOUR / THE PUBLIC REALM / PART THREE / OUTCOMES

4.3.1 4.3.2 4.3.3 4.3.4 4.3.5 4.3.6

### **Great streets**

The street is the essential and base unit of the public environment, and its design should not be left to chance. Streets, especially in town centres or urban nodes/focal points, should be designed in the same way as a town square or urban park to provide great places for people to inhabit, enjoy and interact with.

## Responsive design for varied requirements

Within one or multiple spaces, a range of public usage patterns should be accommodated: individuals, small and larger groups, passive and active recreation, short and long periods of activity. The design process should actively explore and address a range of potential and likely usage patterns to ensure these can be accommodated.

In higher-density environments, public spaces are likely to be used for a greater number and variety of activities, for longer periods across the day and evening.

## Diverse, varied experiences

Similarly, different individuals or groups will seek out different experiences in the public realm: quiet/serene, or vibrant/bustling, sheltered/enclosed, or open/exposed, small/intimate, or expansive. Public realm design should demonstrate how these variations can be provided for within one or multiple spaces.

## Street as public space

The street should be designed, not as a vehicle carriageway, but as a usable, people-oriented place. While movement is a key function of streets (for all modes of transport), it also serves as a meeting place, recreation and play space, shopping environment and dining space, among other possible functions. While not all streets will be highly active retail/dining based locations, all streets have a social/community role, particularly in residential areas.

### Great open space as necessary requirement with increased density

Increased housing density and more compact housing results in households relying more on the public realm for recreation, access to sunlight, entertaining, exercise and social activity. While increased density brings many benefits in cities and towns, it needs to be offset by great public spaces, allowing people to expand their sense of 'home' to include the wider local area and shared communal spaces and facilities.

## Integrated landscape

Integrating landscape in the public realm is fundamental to achieving locally relevant, high amenity streets and spaces. This may range from structured planting, to integration with natural habitat areas.

The Green Grid provides a foundational structure for a network of green space/infrastructure across the metropolitan area.

CHAPTER FOUR / THE PUBLIC REALM / PART THREE / OUTCOMES 9

4.3.7

4.3.8

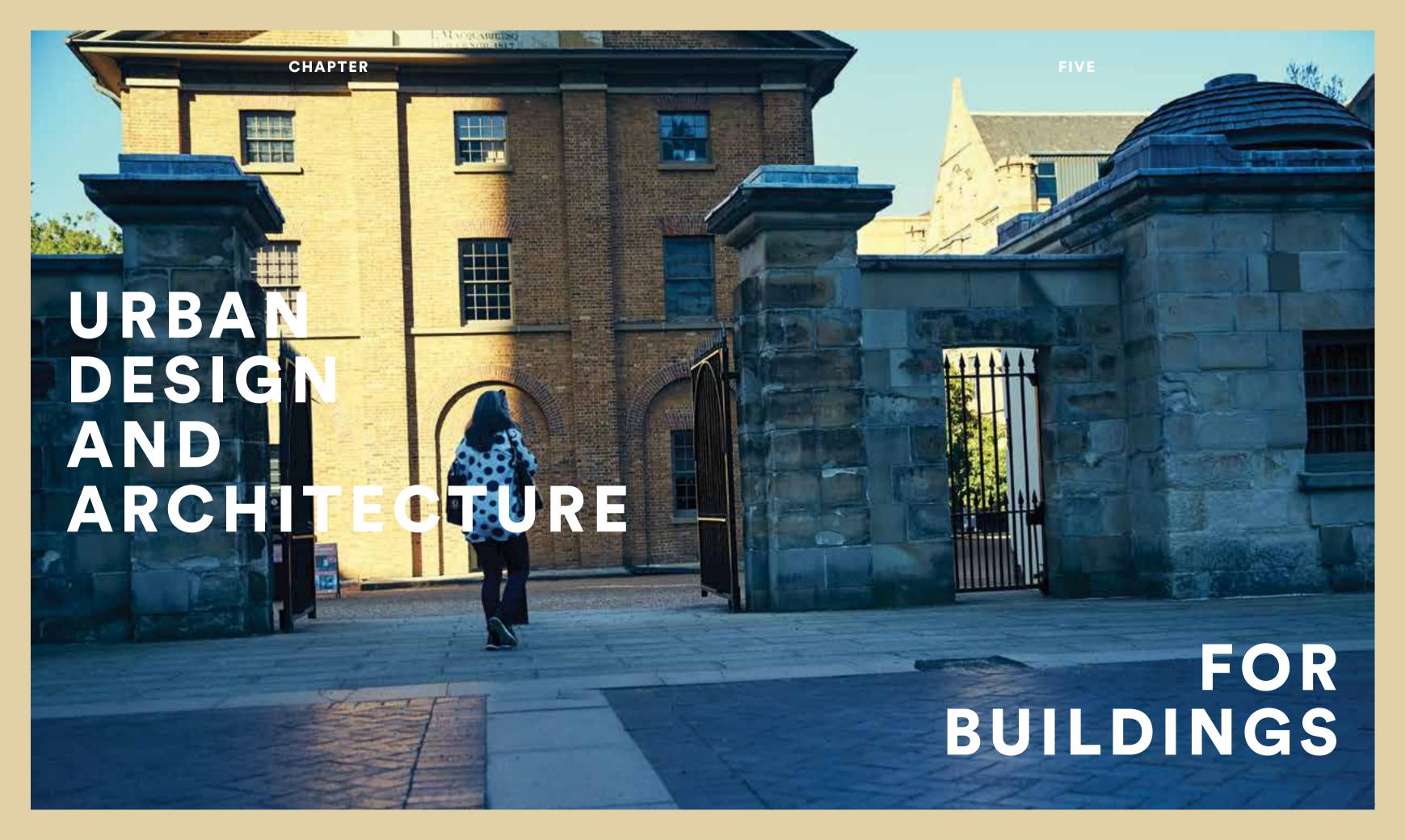
## Legibility and accessibility

Spaces should be well integrated with the local urban structure and street networks, so they are easy to find and navigate and are positioned 'on the way' between destinations to encourage people to use them.

## Hybrid public space

Hybrid forms of public space are an essential part of the contemporary city. Conditions, such as public space on private land or in private developments and public streets that function as recreational open space, reflect efficient and effective modes of public realm design in higher-density urban contexts.





### CONTEXT AND DIRECTIONS

## The architectural context in New South Wales

## Emerging directions for architecture and buildings

This chapter outlines considerations for buildings in NSW. Good design, together with the provision of the necessary infrastructure to support growth, is key to gaining community support for new developments. Conceived, designed and built by a broad range of people, buildings express our values as a society. Across the state a rich history of public buildings form important contributions to cities and towns in terms of services, culture and identity.

With a diversity of uses and types, NSW has a range of quality in its buildings. Excellence in evident in many areas with some well recognised icons, as well as lesser known buildings loved by a range of communities. Notably, since the introduction of SEPP65, there has been a general level of improved quality in residential apartments. However, opportunity exists for further improvement, with many examples of new buildings still being considered in isolation of their context. Buildings play a key role in achieving quality in our cities and towns, and they form a critical interface with the public realm. The design of our buildings today is fundamentally important, as they will be our future heritage.

### 5.1.1 Green buildings

Increasing commitment and demand for high-performance buildings has created a shift from 'green' credentials as a boutique option, to sustainability as a base requirement in all new buildings. New sustainability systems technologies are more accessible and affordable, occupants are demanding better performance, and the broader benefits for health, wellbeing and comfort and workplace productivity are widely recognised.

The sustainability framework informs the location, siting, transport accessibility, orientation, configuration, materials and services systems of a building, whether residential or commercial-focussed.

Importantly, high performance sustainability generally aligns with increased comfort and therefore wellbeing and productivity outcomes.

In NSW, the commercial office sector has led the way in this field, however the SEPP65 Policy and Apartment Design Guide, as well as BASIX standards, support 'green' outcomes through aspects such as orientation, daylight access and natural ventilation, which reduce energy demand and increase internal comfort.

### 5.1.2 Housing to meet changing demographics

Rapid population growth in our urban areas and changing demographics – cultural diversification, ageing population, increasing household diversity and both a reduction in average household size and an increase in intergenerational households – are informing a dynamic housing sector through the delivery of urban housing of all types and locations.

Alongside related challenges, such as housing affordability and building sustainable communities, the design of new and adaptive housing must address these evolving conditions and changing demand.

Design excellence is essential to achieving appropriate, liveable and affordable housing in well-serviced locations, given the range of challenging circumstances. Design is required to navigate the inherent tensions between economics and finance, market demand, liveability, policy and future-proofing to ensure responsive and accessible urban and regional housing.

Many locations across NSW are undergoing change as the increasing demand for housing is addressed through new construction and urban renewal. While SEPP65 provides a nationally-recognised system for ensuring design quality and amenity in apartments, further potential exists to deliver design excellence in a growing city, particularly as medium and high-density living is concentrated in other urban centres outside the central city area.

### 5.1.3 New materials and construction techniques

Advancing technology in materials, systems and construction techniques is informing innovation in the delivery of residential and commercial buildings.

### 5.1.4 Smart buildings

Advanced technology systems are allowing buildings to dynamically adapt to conditions, such as automated windows responding to changing natural light, wind and rain conditions, as well as allowing individual inhabitants to control their personal environment more directly.

Smart building also allows people to work, study and access services from their home.

### 5.1.5 Integrated health and wellbeing

The links between the built environment and personal health and wellbeing are increasingly recognised and building design is seeking to enhance user conditions and support healthier, happier lifestyles.

Factors such as walkable access, outlook and views, access to nature/vegetation, natural light and ventilation, stable/non-toxic materials and finishes, effective mechanical systems and visually stimulating yet relaxing environments are all important considerations in designing healthy buildings.

### 5.1.6 Compact housing and communal amenity

As our cities increase in population and density, and preferences for well-located housing continue to grow, developments are providing innovative responses to communal or shared amenity. Beyond the small gym or swimming pool, apartment dwellers can now have access to shared large kitchens and dining areas for entertaining, rooftop deck spaces and wintergardens, cinema rooms, business/office spaces and meeting rooms, bar and café facilities, wine cellars, lounges and libraries. Other opportunities include 'spare room' or bookable apartments for overnight guests, and shared cars or bicycles.

These facilities provide greater lifestyle flexibility for residents, and make efficient use of space in higher-density urban areas, by sharing amenity space rather than dividing amenity space between all apartments.

### 5.1.7 Multi-use, adaptable and flexible spaces

Uncertainty around commercial demand, retail and business requirements and living patterns, as well as spatial constraints and cost/affordability factors, are informing a shift toward more flexible and adaptable spaces.

Flexible spaces for community use are relatively commonplace – new thinking includes apartments with moveable elements to allow multiple, layered use of space for various functions throughout the day.

### 5.1.8 Real mixed-use

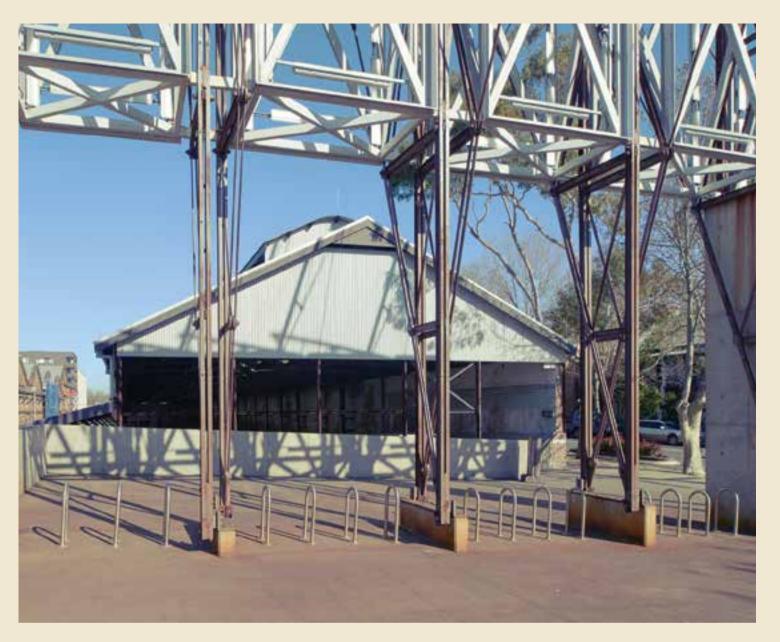
The integrated mixing of different land uses and activities, and the provision of flexible spaces to accommodate a variety of uses, is increasingly prevalent as the design process resolves technical obstacles such as accessibility, security and structural considerations.

Changing models for workplace design, community facilities provision, entertainment and urban housing is driving new thinking around building configuration and adaptability.



Below: The Levee Maitland – McGregorCoxall.







## "WE SHAPE OUR BUILDINGS; THEREAFTER THEY SHAPE US"

- Winston Churchill

### 5.1.9 Adaptive re-use

The majority of the building stock that will be in operation by 2050 in our cities and towns is already built. As populations evolve and grow, and living and working needs change over time, the adaptation and re-use of existing buildings is increasingly prevalent and valuable.

This applies equally in highly sought after, central city locations and heritage contexts, as well as more run-down or declining urban areas that are undergoing revitalisation.

Great design can breathe new life into older building stock and provide the spatial opportunities for new commercial, community and residential activities.

### 5.1.10 (Sub)urban infill

While large, new buildings in major centres are perhaps the most visible aspect of our growing urban populations, the ongoing redevelopment of sites in suburban/residential settings is providing a large proportion of new housing. This context requires more crafted, considered built form interventions in the established urban fabric and careful management of interface conditions with neighbouring properties.

## 5.1.11 Alternative to providing onsite car parking

Control of car parking numbers is moving from a minimum to a maximum for new development to encourage a reduction in space allocated to car parking and therefore reduction in costs. It is estimated that each underground car space adds approximately \$50,000 to a residential unit and may be unnecessary if located close to public transport. Developments are increasingly opting to provide car parking as optional with new units, while providing car and bike share facilities as part of the development.

### 5.1.12 Integrated planting

Techniques for integrating planting and vegetation within buildings and on facades are increasingly sophisticated and the value and benefit of greenery in the built environment is widely recognised. The integration of landscaped spaces and planting within building designs is now commonplace and seen as a valuable aspect of new or adapted buildings.

### 5.1.13 Temporary buildings

As our cities grow and renewal of established urban areas continues over extended periods, the role and potential of temporary buildings and 'pop up' tenancies and activities is increasingly recognised and utilised.

Temporary buildings and activities provide activation in otherwise empty spaces and can 'fill in' future development sites or public realm spaces, encouraging usage, providing passive surveillance and creating visual interest.

## Principles and requirements: what are we trying to achieve in our buildings?

1

PRINCIPLE

## Contextual, local & of its place

Buildings are the permanent manifestation of our communities.

A building should be designed to be of its location, relevant to its place and integrated with its site, setting and local climate. The design of buildings should reflect and respond to local cultural and social characteristics. The interface with existing development and communities should be well-managed.

#### REQUIREMENTS

Buildings should be socially, culturally and historically responsive, yet appropriate to time and place.

External design should reference the cultural traits and built form context of the

Existing built form and vegetation should be retained and reinforced where practicable.

The physical context, such as streetscape qualities, should be respected and responded to in new building design.

New or modified buildings should be considered in their wider context.

Where appropriate, buildings should reference and contribute to a future changed character.

2

PRINCIPLE

## Sustainable, efficient & durable

Well-designed buildings can avoid detrimental environmental impacts.

Buildings should be designed to minimise consumption of energy, water and natural resources, and to avoid detrimental impacts on natural systems through materials, construction, systems and daily usage. Durability reduces impacts and costs over time.

#### **REQUIREMENTS**

Buildings should be responsive to local climate (sun wind, shelter, enclosure, aspect).

Spatial arrangements, materials and details should be fit for purpose and designed for robustness and durability.

Buildings and internal spaces should provide capacity for change of use over time.

Integrated landscape/planting should be utilised to enhance amenity and building performance.

Buildings should make optimal use of natural light and ventilation.

Advanced energy production and distribution systems should be employed and reliance on mechanical systems minimised.

3

PRINCIPI

## Equitable, inclusive & diverse

The design of buildings dramatically affects behaviours and perceptions in the built environment.

Buildings should be accessible, welcoming, permeable and visually 'open'. While different requirements apply to different building types, urban, mixed-use and public buildings in particular should engage with people and offer a wide range of usage patterns. Design of residential development should allowing ageing in place, multigenerational households and working from home.

### REQUIREMENTS

Building frontages and entrances should be visible, engaging and welcoming.

Building stock should accommodate a diversity of housing and land use types.

Public/community buildings should invite and foster access and usage.

Buildings in town centres, main streets and higher-density areas should have permeable edges.

Gated or secure enclaves should be avoided.

4

PRINCIPLE

### Enjoyable, safe & comfortable

As the setting for our daily lives, the built environment must work well for a wide range of purposes.

Buildings should provide pleasant, engaging and amenable spaces that people enjoy using, and which support daily activities (living, working, relaxing, socialising and dining). Many factors contribute to the enjoyment of interior spaces and are affected by external factors, such as climate, setting and cultural aspects.

#### **REQUIREMENTS**

Spatial dimensions and proportions should support comfort and amenity.

Building layouts should invite exploration and movement.

Flexible spaces that accommodate a range of communal activities should be provided in residential and mixed-use buildings.

Orientation and connection to the outside should be carefully considered to optimise comfort and enjoyment.

Layout arrangements should maximise safety and avoid conflicts between vehicles and people.

5

PRINCIPLE

## Functional, responsive & fit for purpose

Buildings must be designed to support effective inhabitation and usage over time.

Building design can support and facilitate, or even hinder, effective usage patterns. While people adapt to their physical environment and functional requirements can change and evolve over time, buildings should be designed in response to movement, interaction, privacy and spatial programming.

#### **REQUIREMENTS**

Building layouts should accommodate and respond to daily activities, usage requirements and movement patterns.

Internal spaces should be big enough to accommodate appropriate furniture while retaining movement paths.

It is essential that buildings are appropriate to their function/purpose, and that they can adapt to functional changes.

Layouts should be accessible, legible and easily navigable by people.

6

**PRINCIPLE** 

## Value-creating & cost effective

Substantial investment goes into the urban environment from a range of sources.

Well-designed buildings are highly cost effective, delivering ongoing value and savings through high performance and lower maintenance and adaptation costs. Design excellence delivers many valuable benefits to building occupants, spanning comfort, productivity, health and wellbeing.

#### **REQUIREMENTS**

Layouts and facades should optimise fresh air intake and access to controlled daylight to support wellbeing.

Internal spaces should facilitate and encourage social interaction, while also providing for privacy and seclusion where appropriate.

Flexible, dynamic, contemporary work practices should be accommodated.

Design should be resilient and durable to minimise maintenance costs and maintain quality over time.

Buildings should reflect a commitment to and investment in design excellence.

7

**PRINCIPLE** 

## Distinctive, visually interesting & appealing

Buildings constitute our physical environment in urban areas, where most New South Wales people live.

The visual character and quality of the built environment has a significant bearing on perceptions of place and identity. People will seek out engaging, attractive environments when choosing where to live, work, socialise and recreate.

### **REQUIREMENTS**

The design expression should be balanced, refined and sophisticated.

The composition of materials and elements should be rigorously considered.

The design presentation should be of high quality at overall scale and in the details.

Ground floor and street frontage interfaces should engage with the pedestrian visually and in a tactile way.

Refinement, simplicity and appropriate use of materials is generally favoured over decoration or excessive applied elements, although innovation and complexity are supported.

5.2.1

5.2.2

5.2.3

### DELIVERING DESIGN EXCELLENCE IN BUILDINGS PROCESS

**PART TWO** 

### Prepare a clear and robust vision, brief and business case

A strong vision and goals for the project are an essential starting point to guide the process and to maintain clear directions and high aspirations as project challenges arise through the process.

### Identify champions of good design within key agencies

Particularly for public buildings, working with champions of good design in key government agencies is essential to maintaining this focus through a complex and challenging process.

In the design and procurement of buildings, which involve substantial financial investment and therefore carry significant risk, the importance of design excellence faces challenges from other considerations, such as cost and delivery timeframes.

The importance and value of good design must be maintained and key committed project participants are essential.

## Look well beyond the site boundary

Analysis of the site, context, opportunities and constraints must extend well beyond the subject site and current circumstances. Buildings are permanent or very long-term interventions in urban or regional settings, and so should respond and contribute to the wider development patterns and local characteristics.

A thorough understanding of the context is necessary to achieve this response. 5.2.4 5.2.5 5.2.6 5.2.7 5.2.8

## Understand the context deeply

Context analysis is not just about mapping nearby streets and buildings. The underlying character, history, land use patterns, materials and movement/experience patterns are all important aspects of a place, as well as its projected future character. These factors can add greater depth and richness to design outcomes and allow buildings to better respond and 'fit' into local places, but without replicating other buildings.

## Approach investment from a whole-life perspective

Design should take into account, not just initial costs of implementation or construction but, ongoing costs, savings and benefits to building users, in assessing investment and value for money.

An holistic approach to cost analysis, coupled with design excellence, results in continual value creation and cost savings throughout the life of the building, such as through reduced energy/resources demand, lower maintenance costs, increased flexibility and adaptability of use to meet changing needs, and an increased, long-term responsibility in the design process.

## Contribute to the public environment

Buildings should contribute positively to adjoining or nearby streets, lanes and public spaces. This contribution should take the form of thinking beyond the building, site boundaries and land ownership to ensure connections and the creation of great shared places.

## Focus on the occupant

Ultimately, buildings exist to serve the daily needs of their occupants: households, visitors, workers, members of the public, community groups and so on. While the design of buildings requires consideration of many factors (structure, systems, buildability, cost, weather, thermal and acoustic performance and so on), ultimately the design should address and enhance the personal experience of spaces and functions as the overarching priority.

## **Embed** adaptability

As far as possible, adaptability should be embedded in the design of new buildings. The capacity to accommodate changing needs over time (such as alternative land uses, smaller or larger spaces, varied residential configurations, and differing relationships to the public realm) will ensure increased value and functionality over the longer term.

## Access expert design review for key projects

5.2.9

Reviewing and assessing the design process among recognised professionals and experts is highly valuable and increasingly recognised as a method of improving outcomes.

Done well, design review is highly efficient and it often saves time and money. The cost of the service is equivalent to a small proportion of the total development budget and is outweighed by the value it adds. The process adds a layer of expertise that builds on the skills of the design team and the other advice provided by the local authority.

Design review offers many benefits. It supports and encourages good design and innovative proposals and it identifies weak and inappropriate schemes at an early stage when radical changes can be made with a minimum of wasted time and effort.

110 CHAPTER FIVE / BUILDINGS / PART TWO / PROCESS

# Consider and prioritise design excellence in decision making during project planning and delivery

Achieving design excellence should be a key priority and overarching objective throughout the design process. While buildings typically are influenced by a range of considerations and requirements, which are sometimes competing, achieving good design should remain a priority outcome to which other considerations should respond.

### Involve stakeholders, facility managers and users in the design process

Involving future users of the building in the design process not only adds rigour and depth to the process and outcomes by allowing designers to better understand the needs and usage patterns. It also supports 'buy-in' or user investment in the outcomes, building a sense of identity and 'ownership' of the building among its future users.

## Undertake post-occupancy evaluation of projects

Evaluating and understanding how a building is used and occupied, and how it functions and performs, is an important part of building design capability and learning from experience. This evaluation could also inform future configuration and use of that particular building, if it can be adapted, as well as how building systems are deployed.





5.3.1

5.3.2

5.3.3

### DELIVERING DESIGN EXCELLENCE IN BUILDINGS OUTCOMES

**PART THREE** 

## Fit for purpose

Buildings that respond to a strong and clear brief, and for which multiple scenarios have been tested and assessed, will generally achieve optimal outcomes in terms of fitness for purpose, functionality and useability.

Buildings are highly complex, even at small-scale, and so useability is the result of many factors and influences. Buildings that are enjoyable and easy to use, and support wellbeing and social interaction, will be more durable and will generate greater value over time.

## Resonant design

A rigorous, contextually responsive and engaging design process will support architectural outcomes that carry meaning and resonance for local people and places. While buildings will vary in their degree of innovation and departure from conventional building practice, each building adds to the local context, character and setting in a constantly evolving urban fabric. Therefore, a well-designed building should engage, challenge and even delight local people.

## Contextual buildings

Buildings that rigorously respond to context will be socially, culturally and historically responsive, yet appropriate to time and place. Building designs will be referential to local context, climate, heritage and social/cultural characteristics. 5.3.4 5.3.5

5.3.6

5.3.7

## Adaptable spaces

A focus on future-proofing will provide, where possible, internal and external spaces that are flexible and adaptable on a day-to-day basis, or have longer term adaptation potential, to respond to changing requirements.

This approach is consistent with lifecycle cost perspectives and sustainable approaches to building construction.

## **Contributory** buildings

Well-designed buildings will make a positive contribution to the public realm by providing visual interest and meaning, potential for visual interaction between passers-by and building occupants, and potential for passive surveillance or 'eyes on the street' to increase safety.

Buildings should also contribute to and enhance the visual richness, complexity and appearance of the built environment, at any scale or location.

## High performance

Design excellence establishes high levels of performance in terms of energy demand, resource consumption, emissions mitigation and internal comfort in varied climatic conditions. Passive design should be seen as the foundation of strong sustainability performance in buildings, including orientation, thermal envelope, natural ventilation and daylight/sunlight access to interior spaces.

Building systems and operational aspects are another aspect and should also form a key part of the design outcomes to maximise building performance, functionality and comfort.

## Low-maintenance and durable function and appearance

Design excellence and appropriate materials, detailing and construction will ensure durable and robust buildings, which resist decay and retain their visual presentation and function over extended periods. These outcomes serve to enhance local places and reduce maintenance costs for building users.







This page: GA200+ Symposium, 4 May 2016. Image: Adam Hollingworth. Previous page: Pennant Hills High School, 1967 Max Dupain & Associates.

## GA200+ THE BICENTENNIAL OF THE GOVERNMENT ARCHITECT

The Government Architect's bicentenary takes place at a time of momentous change as New South Wales, like the rest of Australia and indeed the world, faces the challenge of creating a sustainable future, particularly in the cities and towns where most of us work, live, learn and play.

For 200 hundred years, the Government Architect and various forms of the role's office have been delivering key public projects across New South Wales. In 2016, the Government Architect NSW celebrates its bicentenary, making it one of the oldest continually operating architecture offices in the world.

20 CHAPTER SIX / GA200+



This page: GA200+ Symposium, 4 May 2016, Images: Adam Hollingworth. Opposite page: The Drafting Office, 1963 Don McPhedran.



In 1816, **Governor Lachlan** Macquarie appointed architect, stonemason and convicted forger **Francis Greenway** as civil architect and assistant engineer to the colony of New South Wales. The appointment established the role of Government **Architect NSW,** which has endured unbroken for 200 years.



From humble colonial beginnings to a thriving modern office, its evolution parallels the history of architecture in Australia since settlement. Responsible for many of the most significant buildings throughout NSW, the Government Architect has also played a major role in creating some of its most important civic spaces. The sheer diversity of projects is extraordinary: courthouses, post offices, universities, schools, art galleries, libraries, lighthouses, zoos, dams and monuments.

The GA200+ program celebrates 200 years of the Government Architect in NSW and aims to find more integrated ways of working across government agencies. It's about bringing together the key stakeholders who are or will be part of the Government Architect's design excellence programs. GA200+ aims to create opportunities for built environment industry leaders to engage directly in discussions with government on policy direction. It also aims to include the public in a conversation about how the State is addressing the global issues that impact us all.

Recent research shows that Australians want good design and understand the consequences of a poorly designed built environment.<sup>5</sup> How do we honour this ambition for better quality in the design of our cities and towns? What sort of places do we want our cities and towns to be? How can we achieve that?

To give shape to this debate, the office of the Government Architect is presenting GA200+, a program of forums, workshops and discussions in Sydney and around New South Wales. The events are designed for government, industry, academics and the public to engage in a conversation about how we can collectively deliver a great built environment for the public good in the years ahead. GA200+ is about

in the years ahead. GA200+ is about building a network and a knowledge base that has and will continue to inform this Draft Policy for Architecture and Urban Design.

22 CHAPTER SIX / GA200+

The Benefit of Design', Galaxy Research for Architects Accreditation Council of Australia,
 June 2015



### Forum summary and synthesis



### Shaping our futures since 1816

200



GA200+ Forum: What is it about living in Sydney? 25 July 2016.

TO MARK THIS BICENTENARY YEAR, GA200+ IS A PROGRAM OF FORUMS, WORKSHOPS AND DISCUSSIONS FOR GOVERNMENT, INDUSTRY, **200 YEARS: WHAT'S NEXT?** AND ARE WE READY FOR IT?



## Contributing to the development of the document

This is a draft document shared early in the process to set the scene for and enable discussion to identify priorities and issues requiring further work.

The draft document will initially be circulated to key stakeholders in:

- the NSW Planning Cluster
- relevant NSW government agencies
- local government
- across industry.

In the following months, focussed workshops will be held with these groups to provide a structured approach to discuss key issues and priorities of the document. The workshops will also focus on the next stage in the program of developing a suite of more focussed guidance documents.

Comments and suggestions can be made to the Government Architect via contact with the office.

We are particularly interested in:

- Existing best practice in terms of guidance and policy that would be useful to reference
- If you or your organisation is working on something that will help with improving design outcomes in NSW
- If you think your organisation should be more involved in the program of policy and guidance development
- Which issues or project types require specific guidance at a state or urban level. For example, mixed-use precincts, town centre development or particular building typologies
- Case studies which illustrate the principles outlined in the document
- Issues that do not need further work as they have been covered elsewhere.

You may also want to focus your response around some or all of the following questions:

- Have we articulated the principles effectively?
- We have applied the principles to three scales of opportunity for design – cities and towns, public realm and buildings. Do these work effectively for the purpose of this document and to set the scene for further work?
- The preface refers to how we can deliver the principles outlined in the document. Are there any additional approaches that you think would be effective?
- Can you provide any additional evidence or case studies of the benefits of applying design excellence to a project?

### **Next steps**

Once we have completed the workshops and received feedback from key stakeholders and interested parties, the Government Architect will rework the Draft Policy document, reflecting comments received and reissue it.

This version of the document will then be issued more widely and further workshops and discussions held to invite feedback.

### Future projects

### Design-Led Planning Strategy

The Government Architect will be developing a Design-Led Planning Strategy and consult with community, industry and council stakeholders in early 2017. The strategy will establish a design-led planning methodology to assist planning system users in achieving well-designed places.

### Design guides, standards and manuals

Following the discussion on this first Draft Policy, and the identification of shared priorities, the Government Architect team will produce a series of design guides for specific issues. These may be developed in collaboration with other agencies or parties and will complement existing work to ensure a coordinated approach to supporting design excellence in NSW.

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129

128 CHAPTER SEVEN

**Built and natural environments** are collectively and ultimately tangible records of history. Both are cultural assets that represent a long-term investment for generations to come. The quality of our environment — everything from products to the planet profoundly affects the quality of our everyday lives. Our regard for nature and the design of the built environment is an expression of our aesthetic, cultural and social values, and a statement of the challenges and expectations we seek to address in shaping a sustainable world for the future.

Laura Lee,Professor of Architecture,Carnegie Mellon University



130

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