

Urban Design Protocol

Version 3.0



Innovation districts constitute the ultimate mash up of entrepreneurs and educational Institutions, start-ups and schools, mixed use development and medical innovations, bike sharing and bankable investments all connected by transit, powered by clean energy, wired for digital technology and fuelled by caffeine

Brookings Institute

Document Control

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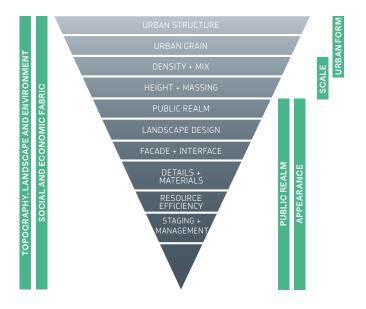
Lot Fourteen Site Location

Overview and Scope

i. Purpose

Urban design is concerned with the liveability of our precincts, towns and cities, and contributes to our economy and the sustainability of our natural and built environments. Quality urban design attracts people to visit, live and work, allows businesses to develop and prosper, and considers built and natural systems in an integrated, connected way. It also facilitates vibrant communities by supporting social interaction, activities and events. Urban design influences our physical and mental health and has the ability to promote community interaction, adopt healthy lifestyles and be a positive catalyst for social change.

The Lot Fourteen Urban Design Protocol describes the objectives for the urban design elements included within the Lot Fourteen redevelopment site. These elements can be categorised under the following headings:



This document is informed by the Australian Government's national policy Creating Places for People – An Urban Design Protocol for Australian Cities. The protocol is a collective commitment to best practice urban design in Australia, developed in collaboration with peak community groups and industry organisations.

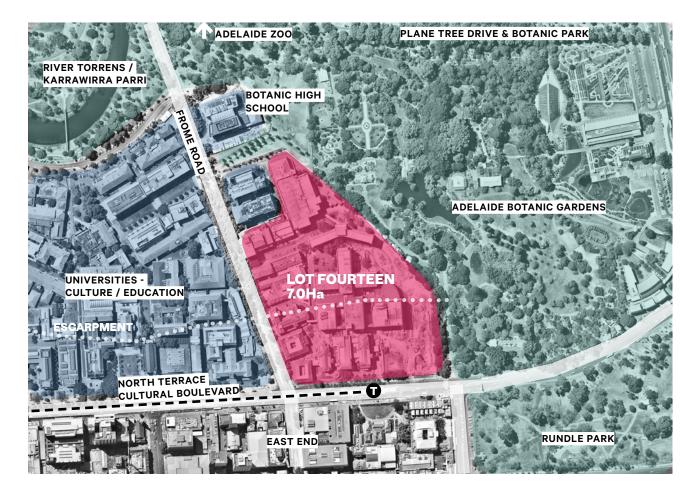
The protocol is designed to guide public and private development and provides a set of goals, objectives and broad underlying principles to guide decision making. The Lot Fourteen Urban Design Protocol follows the national model by articulating broad principles for urban design that consider the project's unique characteristics.

ii. How to Use the Guidelines

The following guidelines should be used to inform those developing built form, site infrastructure and the public realm as part of the redevelopment of Lot Fourteen. All proposed development at Lot Fourteen, including works in partnership between the public and private sectors, should be assessed against them.

It is intended that the guidelines will be reviewed periodically to ensure they are relevant and current to service the needs of future development at Lot Fourteen.





iii. The Site

Lot Fourteen is a key part of the South Australian Government's employment, training and smart technology industries. The site's physical size and strategic location within the Adelaide CBD presents a unique development opportunity for the state and one of national significance.

The physical characteristics of the site include:

- A 7.0Ha site with layers of heritage existant from the former use as the Royal Adelaide Hospital.
- Adjacent to the Adelaide Botanic Gardens, and in close proximity to Adelaide's East End and the Universities of SA and Adelaide.

- Frontage onto the North Terrace boulevard, contributing towards a streetscape of central importance to the civic and cultural life of SA.
- Connected to the future extension of the Frome Road cycleway.
- Adjacent to the Botanic tram stop.
- A site sitting on the River Torrens escarpment overlooking the Adelaide Botanic Gardens, Botanic Park and River Torrens to the north.



iv. Project Vision

Lot Fourteen will deliver an exemplar interconnected and intelligent mixed use precinct that integrates industry, education, training, research and community amenities. It will be supported by low carbon and climate resilient infrastructure, technology and systems that will demonstrate innovation and excellence in urban design, governance and delivery models.

The following project objectives are key to realising the Government's broad strategic vision for Lot Fourteen:

1. Economic Growth and Development

- Growth of technology-based and creative industries.
- Diverse and resilient employment community.
- Layered economy that includes large and small businesses, start-ups and supportive businesses such as cafés and other retail and service providers that create community and destinations.
- Focal point for development of industry clusters including opportunity for collaboration between educational institutions and industry.
- Strong site brand focused on innovation and clean technology.

2. Liveable Communities

- Vibrant, safe and integrated mixed use community with a diverse range of business and employment opportunities, education and training, retail and recreation.
- Well connected community both internally (pedestrians, cycles and public transport) and to the surroundings (Universities, Adelaide CBD, Adelaide Botanic Cardens, etc).
- Seamless management of the interfaces between adjacent land uses: a workable and consistent mix.

3. Sustainability

- High level of resource efficiency with great environmental outcomes and new business models utilising smart technology.
- Adaptive re-use of existing buildings formerly part of the Royal Adelaide Hospital.
- Flexibility for adaption to changes in market conditions and technological advances.
- Minimisation of waste and maximisation of water and energy efficiency.
- Achievement of a 6 Star rating and "Australian Excellence" outcome through the Green Star Communities assessment tool.

4. Place Making

- Distinctive, recognisable and marketable 'sense of place'.
- A well-designed public realm that favours pedestrian use over vehicles.
- An active public realm both during the day and at night.
- Built form and public realm that work together.
- Integrated and site-specific public art.

v. Context and Design Excellence

The public realm and built form should work together to achieve an integrated, mixed use development that displays excellence in design.

- Building height, alignment, form, grain and massing are appropriate to the site topography, open space design, and adjacent built form.
- A safe public realm is achieved through passive surveillance, active interfaces and attractive and safe landscaping.

vi. Place Creation

Creative Places:

- Embrace and nuture innovation.
- Have a unique identity recognisable in the built form and public realm design and public art.
- Attract and call for a broad diversity of users and activities.
- Bring people and communities together.
- Promote sustainable transport options and healthy lifestyles.
- Interpret and reflect the site's former uses and history while embracing contemporary uses.

vii. Built Form and Public Realm

Buildings must:

- Reinforce the scale and volumetric proportions of the overall site and adjacent public realm.
- Work with the existing heritage buildings that are retained.
- Address the public realm.
- Reach a high standard of design quality.
- Adhere to current planning legislation and controls.

The public realm must:

- 1. Achieve a contemporary aesthetic and distinctive place within the Adelaide CBD.
- Support active uses and cultural/community programming.
- 3. Cater for diverse user groups.
- 4. Provide for short term uses and activities and build in flexibility so that future uses and facilities can be accommodated.
- 5. Connect with surrounding pedestrian, cycle and public transport networks.

viii. Urban Design Objectives

The following objectives summarise the urban design approach to Lot Fourteen:

Place creation

The built form and public realm work together.

Identity

 A distinct character evident in design reflects the cultural heritage and history of the site whilst embracing new contemporary uses.

Flexibility

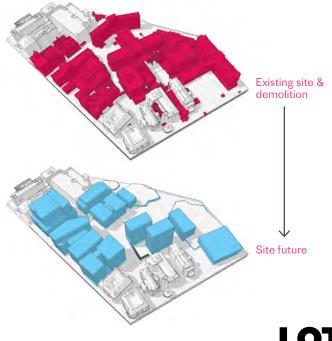
 Not everything is known and planned from Day One - buildings and spaces are designed to evolve and accommodate change over time.

Connectivity

 Lot Fourteen connects to surrounding land uses and movement networks.

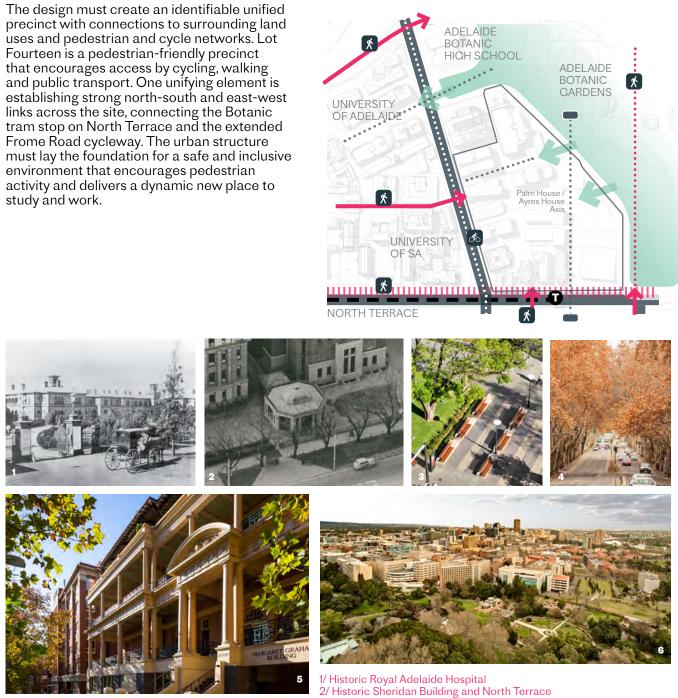
Legibility

 The overall site layout, buildings and public realm promote easy navigation within the site.





01. Urban Structure



- 3/ North Terrace Cultural Boulevard
- 4/ Existing Frome Road
- 5/ State Heritage Margaret Graham Building 6/ Aerial looking at Lot Fourteen / Former Royal Adelaide
- Hospital site from the Adelaide Botanic Gardens

Appreciation of Context		Movement Framework		
Heritage	 The original inhabitants of the site were the Kaurna people. The earliest European uses of the site were for a hospital. Six heritage buildings are being retained and refurbished. 	The design should: - Connect with existing and proposed pedestrian and cycle networks and strategies. - Provide strong north-south and		
Innovation and Technology	 The Royal Adelaide Hospital was South Australia's primary hospital that also included a medical school as part of the University of Adelaide. Other associated research facilities are located on the site, including the University of additional school as and 	 east-west links through the site. Facilitate connections to public transport. Design for ease of walking. Design for ease of cycling. Cater for heavy vehicle access into and through the site to service intermediate in the site to service intermediate in the site to service intermediate in the site to service intermediate. 		
Community and Culture	 including the Hansen Institute and IMVS. The Royal Adelaide Hospital has cultural associations for many South Australians. Their memories, stories and experiences, both good and bad, are part of the life and character of this site. 	internal uses, including any future significant cultural venues.		
	 This applies not only to former patients of the RAH, but also employees who worked there. Many of the former RAH buildings are in the process of being demolished, changing the character of the site from one that is highly institutionalised to one that is welcoming and less foreboding to enter. 			
	 The Adelaide East End, as well as a variety of education, retail and commercial land uses, neighbour the site. 			

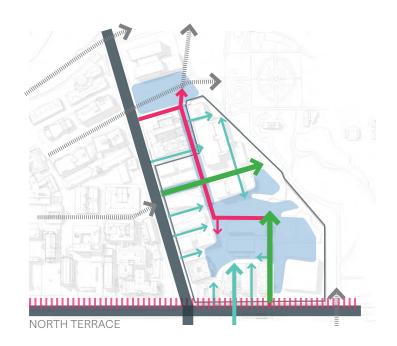


02. Urban Grain

Urban grain refers to the movement pattern, size and distribution of allotments and the inter-relationship between these elements. Urban grain takes into consideration the hierarchy of movement corridors, the physical linkages and movement between locations, and modes of transport.

A fine urban grain creates an attractive and safe place that offers a variety of opportunities and experiences. The design must balance high quality permanent landscape with flexible, well-designed urban spaces that can change as Lot Fourteen is developed, and can support a variety of activities and events that enliven and enrich the diverse community of workers, students and visitors.

Key connections must be established as part of the design. These include the north-south and east-west pedestrian links and a network of internal passages that give priority to pedestrians.





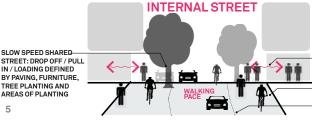






STREET: DROP OFF / PULL IN / LOADING DEFINED BY PAVING. FURNITURE. TREE PLANTING AND AREAS OF PLANTING 5





ACTIVE PEDESTRIAN SCALE FRONTAGE AT GROUND LEVEL VARIED PAVING MATERIALS CONTINUOUS KERBS TO FOR PEDESTRIAN AND CYCLE PERMEABILITY

- 1/Completed Frome Road Cycleway 2/New Acton Precinct, Canberra 3/Barangaroo, Sydney 4/Shared streetscape example, Copenhagen
- 5/Shared internal street typical example

Blocks as defined by Vehicle Movement Network

Streets and Traffic

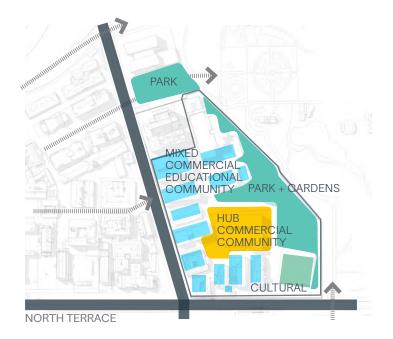
	The design should:		The design should:
Perimeter Blocks	 Ensure blocks and buildings face and front the internal street. 	Routes	 Generally, discourage private vehicle use of the site internally.
	 Encourage continuity of street frontages and rhythms. 		 Define vehicle movement routes by capacity and character.
Block Size	 Keep blocks small where possible. Provide block sizes that allow for future change. 	-	 Ensure the hierarchy is clear. Support the key pedestrian and cycle connections into Lot Fourteen connecting destinations and favouring routes
Block Interiors	 Provide for internal flexibility of uses and layout. Respect visual and acoustic privacy by the arrangement of buildings. 	Building Address	 with no vehicle traffic. Face buildings onto streets, encouraging ground floor building activation and use of the public realm. Provide universal access.
Unit Size	 Keep commercial units narrow on the ground floor. Keep the grain fine. 	Streets as Social Places	 Provide places, not roads! Put the public realm first, providing safe and attractive venues for meeting and active use. Allow for appropriate volumes of vehicle traffic, including heavy vehicle use.
		Junctions	 Keep junctions and intersection radii tight.
		Traffic Calming and Pedestrian Crossings	 Provide wide crossings to assist pedestrian movement Slow traffic down.



03. Density and Mix

Mix and density refers to the different uses and intensity of development. Mixed use development offers adaptable and flexible building stock, providing a diverse range of uses and efficiency in the use of public infrastructure resulting in more liveable communities. Users include students, workers and visitors attracted to the site by a range of employment, lightmanufacturing and fabrication, commercial, educational and community opportunities.

The provision of a range of land uses within a single building or distinct area presents opportunities for a more vibrant preinct and the fostering of a unique "sense of place". Mixed use development encourages activity throughout the day and into the evenings helping to instil a sense of safety for visitors, workers and students.





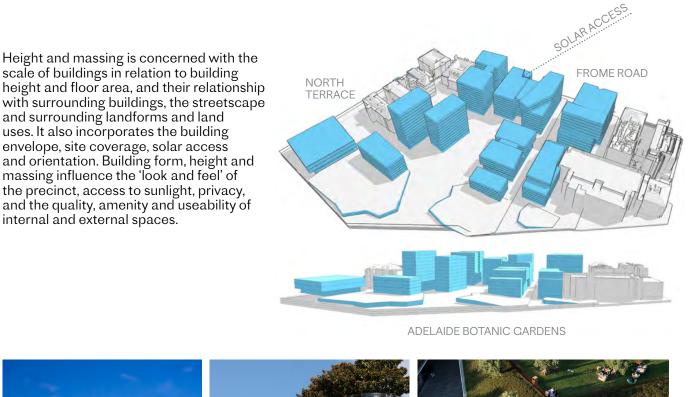
1/M-Pavilion, Melbourne 2/Station F, Paris 3/Example study/relax pod 4/Education opportunity -Eden Project, Cornwall, UK 5/Example event, meeting and exhibition space 6/Healthy and active lifestyles encouraged onsite

A place to Work,	Learn and Play	Use of Space	
	The design should:		The design should:
Variety of uses	 Integrate a variety of land uses, including education and research, commercial, community and recreational facilities. 	Compact	 Include compact low- medium rise built forms that make efficient use of space and provide for generous landscaping and pedestrian
	 Create a purpose designed 'central hub' that will become the heart of the precinct with an active ground plane and diversity of spaces to support the innovation ecosystem. 		pathways.
	 Incorporate 'vertical' (multi- storey mixed use development) and 'horizontal' mix of uses. 		
Accessibility	 Provide facilities to service daily needs. 		
Active and vibrant	 Create synergies between activities during day and night. 		
	 Provide safety for visitors, workers and students. 		
Sensitive to type of use	 Ensure appropriate noise and odour reduction techniques between uses to limit conflict. 		





04. Height and Massing





Quality Streetsca	ipes	Pleasant Envir	ronments
	The design should:		The design should:
Human Scale	 Comprise medium rise buildings that have a direct relationship with the public realm. 	Access to Sunlight	 Provide access to sunlight for building occupants, neighbouring sites and the public realm.
	 Create a pleasant pedestrian environment with access to sun, shade and shelter. 	Privacy	- Ensure privacy where needed.
	 Clearly define private, communal and public realms. 	Spaces Between	 Include spaces between buildings for tree planting, landscaping, pedestrian
Contextually Sensitive	 Positively contribute to the public realm character. 		movement and amenity.
	 Provide appropriate response to the size, shape and orientation of the overall site. 		
	 Achieve height and massing determined in relationship with the Adelaide Botanic Gardens and other adjacent land uses. 		
Prominent Sites	 Achieve more prominent massing and architectural treatments on important sites, including those facing North Terrace and Frome Road, and the Innovation Centre. 	-	
Solid to Void	 Limit expansive blank walls or reduce impact by architectural treatments. 	-	

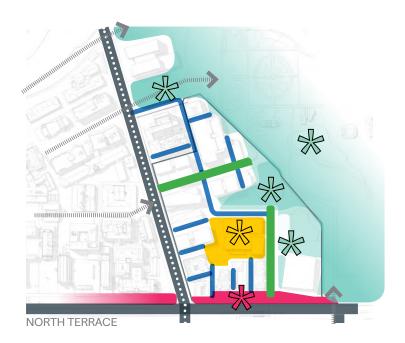


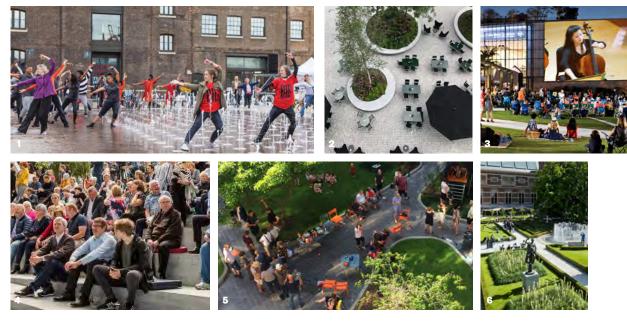
05. Public Realm

The public realm is integral to creating an attractive environment where people want to visit, work and socialise. Public realm design focuses on the needs of the people who use Lot Fourteen - students, workers and visitors, connecting people and places, and facilitating commerce, education and recreation. The design must be flexible enough to bring diverse characters and participants together on the site, and to allow the public realm to become richer and more multi-layered over time.

Pedestrian passages will focus on making routes safe and creating comfortable places that encourage social interaction and community spirit.

The public realm acknowledges the site's formal park land's status and provides a place that supports a wide range of environmental, cultural, recreational and social values. It is available for the use and enjoyment of all South Australians.





1/Kings Cross Cultural District, London 2/Example forecourt with comfort + amenity 3/SoundScape Lincoln Park, Miami Florida 4/Faroe Islands Education Centre 5/Example active, managed public space 6/ Rijksmuseum Gardens, Amsterdam

A Vibrant Public	Realm The design should:	Safety and Security	 Focus on natural passive surveillance.
Social Spaces	 Provide areas within the public realm that concentrate various 	-	 Create active interfaces between the public realm and adjacent buildings.
	activities. — Ensure an active interface to adjacent land uses.		 Follow 'Secured-by-Design' principles, by the Association of Chief Police Officers¹, and 'Healthy by Design' principles
	 Allow for flexibility and adaptability. 		'Healthy-by-Design' principles, by the Heart Foundation ² .
	 Be comfortable to be in, safe and aesthetically stimulating. 		 Avoid long lengths of blank walls adjacent to movement routes and open spaces.
Distinctive Places	 Create a distinctive Lot Fourteen identity as South Australia's creative and innovation neighbourhood. 	_	 Integrate secure service yards and loading docks within the building footprint that is also integrated with the building's architecture.
	 Acknowledge Lot Fourteen's heritage as the site of the former Royal Adelaide Hospital. 	Cohesive Whole	 Consider the site infrastructure design integrated within the public realm design.
	 Embrace the Adelaide climate and soils. 	Street design	 Incorporate stormwater
	 Consider longevity, robustness and whole of life in the selection of materials and building techniques. 		management (WSUD) and utility servicing within the street cross-sections.
	 Integrate public art within the public realm design as a key contributor to making distinctive memorable places 		

¹ Association of Chief Police Officers (ACPO), 2004. Secured By Design. Available at: www.securedbydesign.com/pdfs/SBD-principles.pdf

² National Heart Foundation of Australia (SA Division), 20012. Healthy By Design SA: A guide to planning, designing and developing healthy urban environments in South Australia, National Heart Foundation of Australia. Available at: http://saactivelivingcoalition.com.au/wp-content/uploads/2013/04/ Healthy-by-Design-SA-FINAL.pdf



distinctive, memorable places.

06. Landscape Design

The landscape design refers to the design of public spaces such as pedestrian and vehicle routes, open spaces and pathways, and includes consideration of landscaping, microclimate, soils, planting and the environment, physical and social benefits these bring to the community's well-being. The design must support permanent landscape infrastructure, such as mature trees, and spaces that can accommodate activities that are key to achieving a lively and safe public realm.

Landscapes take time to grow and mature; the design must acknowledge and plan for this progression so that it is appealing and functional in the short and long term.

The elements must create a distinctive place that supports the sense of cultural identity and community ownership that results in safe and well used places. Materials must be durable and easily maintained to ensure the landscape design remains attractive and flexible as the planting matures with time.









1/Ground Zero, New York 2/Neo Bankside, London, UK 3/One Central Park, Sydney 4/Example gardens 5/North Terrace Cultural Boulevard



Landscape		Public Art	
	The design should:		The design should:
Open Space	 Provide a variety of quality open space types - active and passive - catering for many interests and abilities. 	Public Art	 Incorporate public art within the design as an integrated component.
	 Ensure the location, distribution and organisation of open space complements the built form 		 Make public art a memorable part of experiencing the site, both for first time and repeat visitors.
	arrangement. — Ensure that the public realm is considered with the built form so that each complements the other.		 Ensure public art is relevant for the site, reflecting its origins and history, and contemporary use.
	 Connect open spaces as a continuous network. 		 Comply with the protocols and guidelines prepared for procurement of public art at
	 Provide connection to existing open space and recreational social infrastructure, including 		Lot Fourteen.
	the Adelaide Botanic Gardens.	Wayfinding S	ignage
			The design should:
Street Furniture)	Lighting	 Be co-ordinated with the placement of other public realm elements such as trees.

The design	should:
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Street Furniture	- Provide a consistent palette of
	furniture for the public realm
	that also makes reference to
	the site's cultural heritage and
	former use as a hospital.
	Allow for loop also also in iterat

- Allow for bespoke design items (designer, artist) supporting place identity.
- Ensure materials and design detail are of a high quality to minimise whole of life costs.
- Ensure maintenance is minimised.
- Incorporate smart technology where possible.

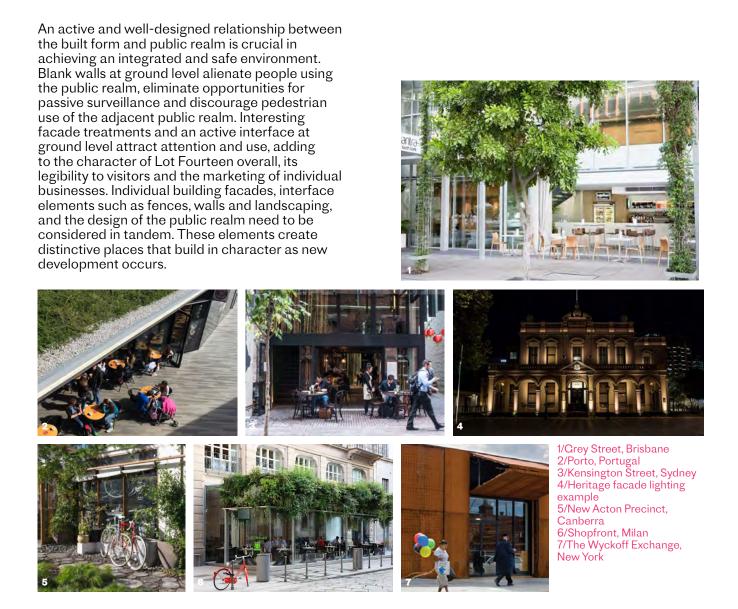
during the day as well as night. Be strategic and dramatic, highlighting focal points. Only use energy efficient lamps and luminaires. Incorporate uplighting of the heritage facades on buildings fronting North Terrace.

 Consider the appearance of light poles and luminaires

Wayfinding - Propose wayfinding signage that is integrated with other architectural elements and the public art strategy.



07. Facade and Interface



Character and Identity		
	The design should:	
Legibility	 Provide obvious, well defined points of access to buildings. 	
	 Make entrances a feature in the facade. 	
	 Utilise detailed massing and facade treatments to welcome, guide and orientate users. 	
	 Separate pedestrian access from vehicle access. 	
	 Integrate signage within the facade design. 	
	 Respect the former hospital and heritage character of Lot Fourteen. 	
Quality of Environment	 Keep the design visually rich from up close and from a distance. 	
	 Result in a scale and texture that pedestrians relate to. 	
	 Achieve positive relationships between facades, ground level portions of buildings and the public realm. 	
High Standards of Design	 Demonstrate high standards of design and construction. 	
	 Commit to innovation and enterprise. 	
Environmental Sustainability	 Commit to energy efficiency in the facade design eg. awnings, louvres and windows. 	



08. Details and Materials

Details and materials work together with form and proportion to define the look and feel of the built environment. The detail, craftsmanship, texture, durability, colour, sustainability, treatment and life cycle cost of materials contributes to the comfort, safety and visual appeal of the environment and its overall feel and character.

Effective selection of materials contributes to character, architectural expression, robustness and longevity. Well thought out material selection communicates creativity and innovation, as well as providing reference to the site's former hospital character.

Materials selection takes into account energy efficiency, environmental sustainability, whole-of-life costs and ease of maintenance.







1/Planting in urban environments 2/Sculptural seat, Lot Fourteen 3/Natural Stone 4/Metal meshes + gratings 5/Textured paving 6/Hertitage fabric 7/Light / water / mist 8/Tree canopies







Character and Identity

Sustainability

The design should: The design should: **Expression of** - Demonstrate relevance or Sustainability - Utilise materials that are continuity with the site's consistent with principles of Values cultural heritage. environmental sustainability. - Express enterprise and - Utilise materials and details that are robust and will innovation. weather well. - Commit to excellence. - Utilise materials that are cost - Utilise materials that people efficient (low whole of life can relate to and feel costs) comfortable using. - Ensure detailing is visually well resolved and functionally effective.

- Be inviting, encourage diversity of users, and reflect the vision for an innovative and creative precinct.



Materials are derived from the rich historic nature and future innovative mixed uses of the site.



BOTANIC GARDENS

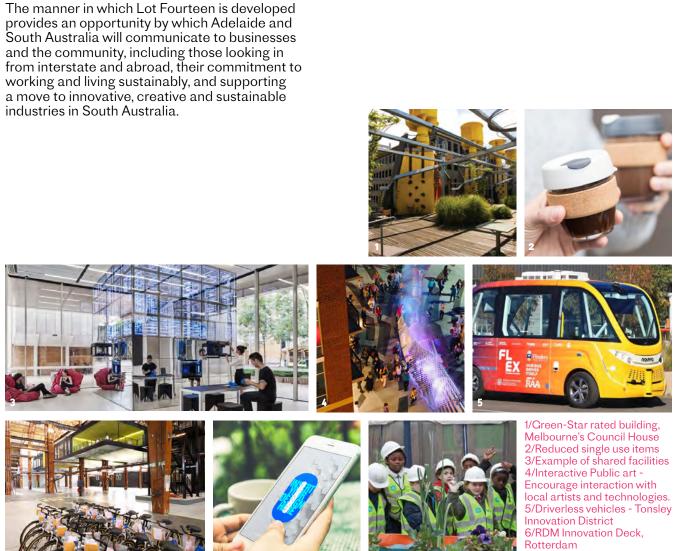


FUTURE

INNOVATION + HIGH VALUE ECONOMY



09. Resource Efficiency



7/Digital app technologies 8/Education opportunities

Sustainable Con	nmunity	Resource Efficie	ncy
	The design should:		The design should:
Embrace Sustainability	 Embrace social, economic, cultural and environmental sustainability. 	Efficiency through design	 Achieve energy efficiency through site selection, passive design and active measures.
Showcase	 Achieve best practice in sustainable development by being one of Australia's first Green Star Communities Bilet prejects The preject is 	-	 Achieve minimal environmenta impact of all tenants through the sharing of infrastructure, resources, and other environmental opportunities.
	Pilot projects. The project is committed to a 6 - Star rating, which signals "Australian Excellence" in the built environment.		 Improve the quality of stormwater before it exits the site.
Responsible	 Commit to the smallest practical impact on the environment during construction. 	Water Use	 Achieve minimal water consumption by utilising non-potable sources such as stormwater, rainwater and recycled water in preference to potable water.
	 Contribute to a sustainable community that is attractive to visitors, workers, visitors and the surrounding community. 	Material Choice	– Utilise materials that are durable, fit for purpose, contain eco-preferred content and are
Educational	 Provide an example of a sustainable mixed use precinct to educate visitors, workers, students and visitors. Encourage a culture of 	Waste	 low maintenance. Achieve minimal waste generation through consideration of reuse and recycling options on site.



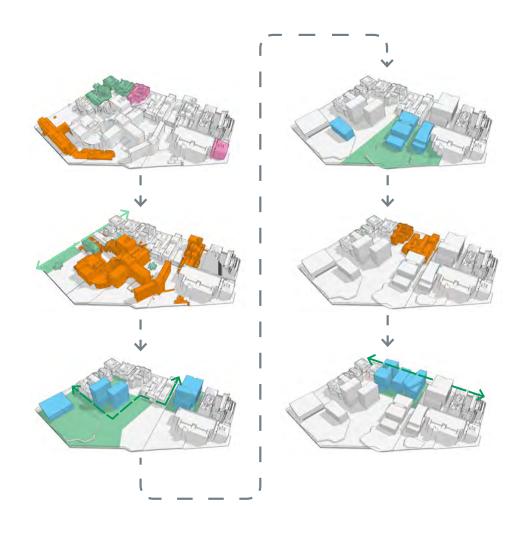
10. Staging and Management

How the Lot Fourteen precinct is managed and adapts over time is crucial to ensure that it remains a vibrant and dynamic place in Adelaide. In the first instance, the scene-setting public realm to be delivered at Lot Fourteen will include an internal circulation route that restricts and directs vehicle traffic, a dynamic public realm that caters not only for workers on the site but visitors to it, and a sensitive and carefully considered interface to North Terrace, Frome Road and the shared boundary with the Adelaide Botanic Cardens. This will be followed by the development of a new Innovation Centre that will act as the central focus for activity on the site.

Following on from these important interventions and developments will be the opportunity for new commercial and visitor projects, developed within usual market forces.

A management plan with a clear focus is essential and will ensure a continuous mix of evolving mixed use development, cultural programming and civic activity through the early years of the site's evolution. The management plan will deliver a contemporary and stimulating program that supports the local economy, environment and community.

	The design should:
	The design should.
Staging	 Provide a framework for systematic development in the future.
	 Provide flexibility for future project scope changes.
	 Provide for intermediate uses on site until land is ready for development.
	 Remain true to the vision of Lot Fourteen.
	 Allow for evolution of the precinct.
Management	 Provide leadership and strength of vision across the whole site.
	 Allow for entrepreneurial and innovative input for the greater good of the project.
	 Provide an economic development focus.
	 Ensure a community / social / cultural development focus.
	 Evolve as an adaptable precinct over time as the community / population changes and builds.



Left/Preliminary site sequencing Below/Management of activities and events in the public realm and across the site









Urban Design Protocol

Prepared by Oxigen with Warren and Mahoney, Tridente, WCA, WSP, Design Flow, Guildhouse



People, nature and space.

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