Tonsley

Innovation District

Urban Design Protocol

Urban Form & Public Realm

RenewalSA   Government of South Australia

"The issue of good urban design is not about some abstract ideal, it's about creating the right conditions to make places work"

Contents

ADELAIDE CBD

12 KM

TONSLEY

Maps, illustrations and images depicted throughout this document are indicative and may or may not reflect actual development of the site.

Overview and Scope

i. Purpose

Urban design is concerned with the liveability of our neighbourhoods, 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 Tonsley Urban Design Protocol describes the objectives for the urban design elements included within the Tonsley redevelopment site. These elements can be categorised under the following headings:
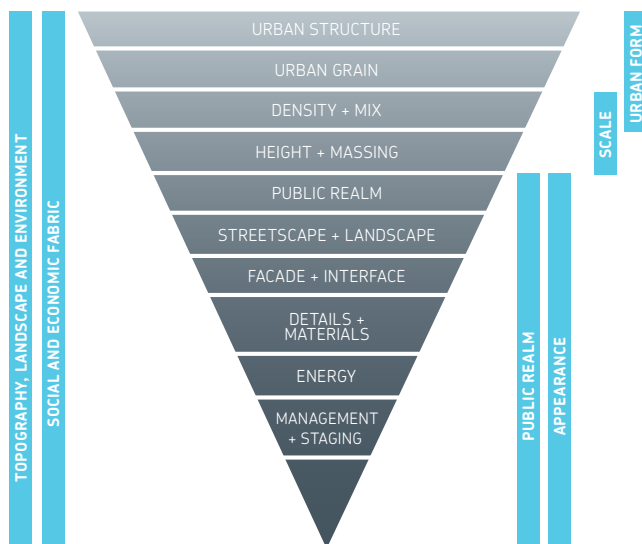

This document is informed by the Australian Government's national policy *Creating Places for People – An Urban Design Protocol for Australian Cities*. The protocol is a collective commitment to best practice urban design in Australia, developed in collaboration with peak community groups and industry 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 Tonsley 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 by those developing public and private buildings, streetscapes and landscape, as part of the redevelopment of Tonsley. Encumbrances are established that enforce the guidelines and development applications will be reviewed against them. Applications will be assessed on merit understanding that not all developments are 'one size fits all' in nature.

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 Tonsley.
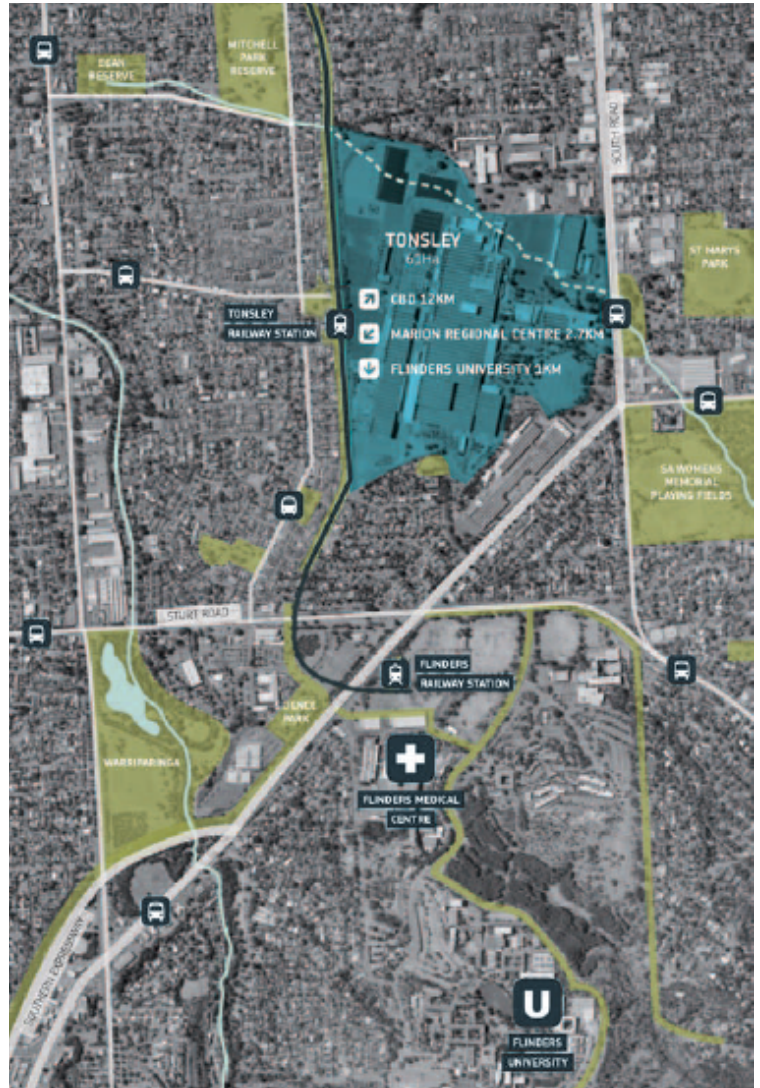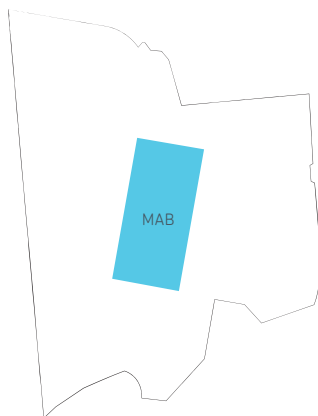
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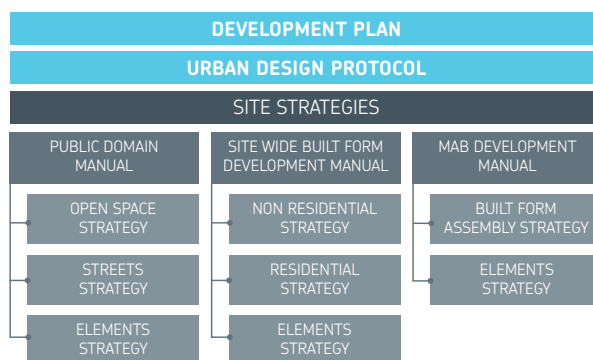
iii. The Site

Tonsley 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 inner southern suburbs presents a unique development opportunity for the state and one of national significance.

The physical characteristics of the site include:

› A 61Ha site with existing layers of agricultural and industrial heritage, the 5Ha former Mitsubishi Motors Main Assembly Building (MAB) being the most obvious reminder.

› Close proximity to the Adelaide CBD– within 12km.

› Close proximity to Flinders University, Flinders Medical Centre and the Marion Regional Centre.

› Passenger rail connection to the CBD including an new station on the western side of the site (Tonsley).

› Direct access from South Road (Adelaide's main heavy vehicle north-south route) and the Southern Expressway connecting Adelaide's southern suburbs.

› An open site well serviced by power and connected to the Oakland's Park ASR (stormwater re-use) scheme with treated recycled water available throughout the site.

iv. Project Vision

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

1. Economic Growth and Development

› Growth of clean-tech, sustainable technologies and high value, advanced manufacturing industries.

› Curation of the Tonsley business community through the application of a business suitability policy that reflects Tonsley's economic development objectives. Businesses wanting to locate at Tonsley are required to meet the Suitability Assessment criteria or must otherwise be exempt from the criteria.

› 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.

› Adaptable site for future flexibility.

2. Liveable Communities

› Vibrant, safe and integrated mixed use community with a diverse range of business and employment opportunities, education and training, living options, retail and recreation.

› Inclusion within the mix of medium-density housing consistent with the Government's broader objectives for urban consolidation.

› Well connected community both internally (pedestrians, cycles and public transport) and to the surroundings (Flinders University, Marion Regional Shopping Centre, 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 and materials.

› Flexibility for adaption to changes in market conditions and technological advances.

› Minimisation of waste and maximisation of water and energy efficiency through the implementation of a District Energy Scheme delivered by CleanPeak Energy.

› Achievement of a 6 Star rating and "World Leadership" outcome through the Green Star Communities assessment tool.

4. Place Making

› Distinctive, recognisable and marketable 'sense of place'.

› Well-designed streets for walking and cycling.

› Active streets, parks, plazas and squares.

› 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 topology, open space design, and adjacent built form.

› A safe public realm is achieved through passive surveillance, active interfaces and attractive and safe landscaping.

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vi. Place Creation

Creative Places:

› Embrace innovation.

› Have their own 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 street.

› Work with the adjacent built form.

› 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 for Adelaide.

2. Support active use and cultural/community programming.

3. Cater for diverse user groups.

4. Provide for short term uses and activities and build in flexibility until parcels of land are developed and final uses known.

5. Connect with surrounding pedestrian, cycle and public transport networks and the surrounding existing neighbourhoods.

viii.   Urban Design Objectives

The following objectives summarise the urban design approach to Tonsley:

› **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.
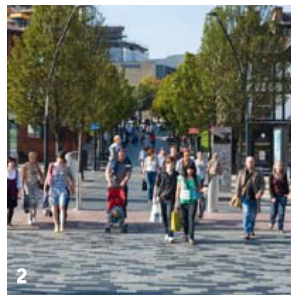
› **Connectivity**
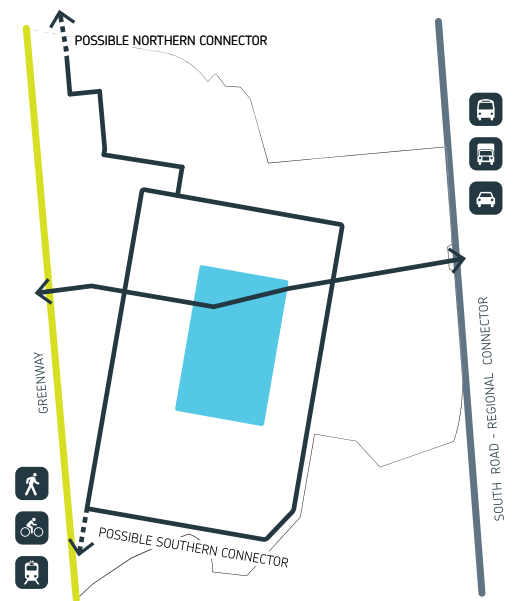Tonsley connects to surrounding land uses and movement networks.

› **Legibility**
The overall site layout, buildings, streets and open spaces promote easy navigation within the site.

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01. Urban Structure

The design must create an identifiable unified precinct with connections to surrounding neighbourhoods and pedestrian and cycle networks. This will create an environment conducive to walking and cycling and increasing the use of public transport. One unifying element is establishing a strong east–west link across the site, connecting bus stops on South Road with the new Tonsley Railway Station on the western edge of the site. The urban structure must lay the foundation for a safe and inclusive environment that encourages pedestrian activity and delivers a dynamic new place to live, study and work.

POSSIBLE NORTHERN CONNECTOR

POSSIBLE SOUTHERN CONNECTOR

GREENWAY

SOUTH ROAD - REGIONAL CONNECTOR

1/Ragless family farmers
2/The Gold Route, Sheffield
3/Chrysler factory workers
4/Charles Ragless pumping water, 1935
5/Manufacturing Assembly Building

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Appreciation of Context

Heritage	› The original inhabitants of the site were the Kaurna people.
	› Early European settlers included the Ragless family who farmed the land from 1868-1954. The site was used for agriculture from 1839, only 3 years after the colony of South Australia was established.
	› Chrysler purchased the land in 1955 and established a car manufacturing plant on the site in 1964. In 1980 Mitsubishi took over manufacturing until closure of the plant in 2008.
	› 8Ha of the original 11Ha Main Assembly Building (MAB) remains (5Ha is the new MAB and 3Ha is now TAFE SA), amongst other buildings.
Innovation and Technology	› The Ragless family were known for their innovation in agriculture and horticulture, including developing new Almond and Peach varieties and machinery aids to improve efficiency in harvesting and preparation of produce for sale.
	› Chrysler and Mitsubishi were innovative in the development of new fuel efficient engines and the adoption of new technologies and work practices.
Community and Culture	› Chrysler and Mitsubishi employees considered themselves as 'one big family' with social and recreational activities occurring on the site.
	› Many of the workers were migrants, thus the workforce was highly multicultural.
	› Residential areas, as well as a variety of education, industrial and commercial land uses, neighbour the site.

Movement Framework

The design should:
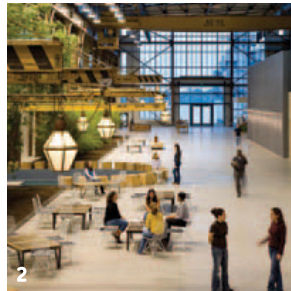
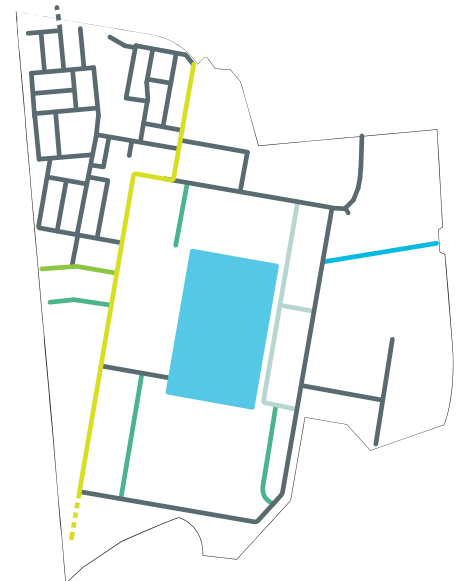› Connect with the existing pedestrian and cycle networks and strategies.

› Provide a strong east-west link through the site.

› Facilitate connections to public transport.

› Design for ease of walking.

› Design for ease of cycling.

› Cater for heavy vehicle (B-double) access from South Road on the south-eastern side of the site.

› Accommodate semi-trailer access along the inner ring route.
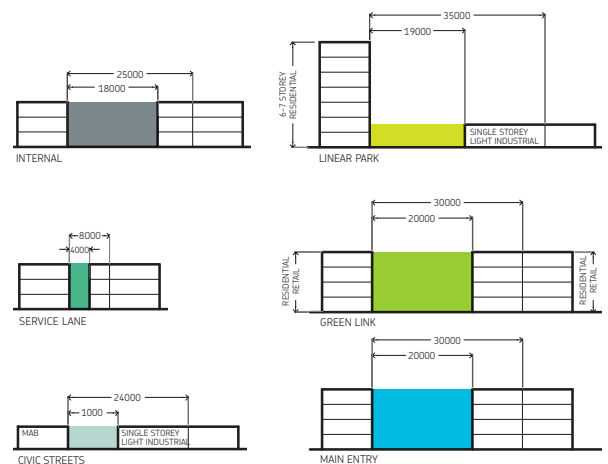
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02. Urban Grain

Urban grain refers to the street pattern, size and distribution of blocks and the inter-relationship between these elements. Urban grain takes into consideration the hierarchy of street types, 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 Tonsley is developed, and can support a variety of activities and events that enliven and enrich the diverse community of students, workers and residents.

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

1/Streetscape, Copenhagen
2/Urban Outfitters, Philadelphia
3/Australian Technology Park, Sydney

INTERNAL — 25000 / 18000

LINEAR PARK — 35000 / 19000 — 6-7 STOREY RESIDENTIAL — SINGLE STOREY LIGHT INDUSTRIAL

SERVICE LANE — 8000 / 4000

GREEN LINK — 30000 / 20000 — RESIDENTIAL RETAIL

CIVIC STREETS — 24000 / 1000 — MAB — SINGLE STOREY LIGHT INDUSTRIAL

MAIN ENTRY — 30000 / 20000

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Blocks as defined by the Street Network

The design should:

Perimeter Blocks	› Ensure blocks face and front the street. › Encourage continuity of street frontages and rhythms.
Block Size	› Keep blocks small. › Provide block sizes that allow for future change.
Block Interiors	› Provide for internal flexibility of uses and layout. › Respect visual and acoustic privacy by the arrangement of buildings (residential).
Unit Size	› Keep commercial units narrow on the ground floor. › Keep the grain fine.

Streets and Traffic

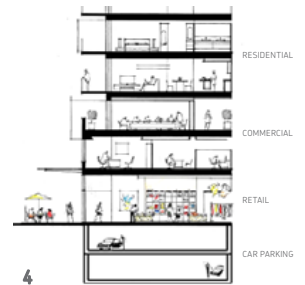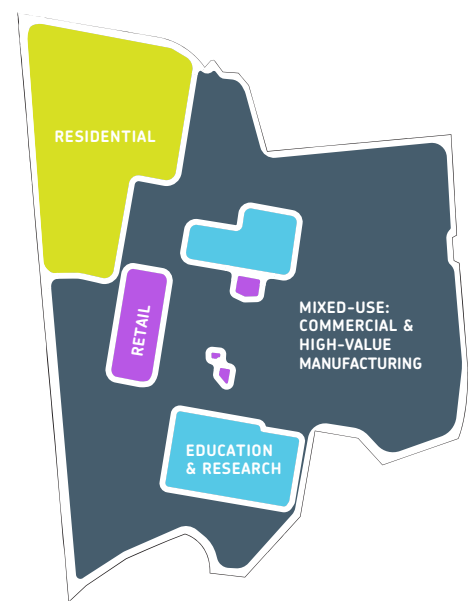The design should:

Street Types	› Define street types by capacity and character. › Ensure the hierarchy is clear. › Support the key pedestrian and cycle connections into Tonsley connecting destinations and favouring routes with less vehicle traffic.
Street Address	› Make the streets an address, encouraging ground floor building activation and use of the public realm. › Provide for access by everyone.
Streets as Social Places	› Provide places, not roads! › Put urban space 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.

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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, residents and visitors attracted to the site by a range of employment, retail, industrial, commercial, educational, community and residential opportunities.

The provision of a range of land uses within a single building or distinct area presents opportunities for more vibrant neighbourhoods 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 residents, workers and students. The interface of industrial land uses with other areas requires careful consideration to ensure a harmonious relationship.

Higher density residential development takes advantage of Tonsley's location adjacent to high frequency public transport (both train and bus) and helps add to the economic and social vibrancy of the neighbourhood and community and retail facilities located in and around the Town Square.

RESIDENTIAL

RETAIL

MIXED-USE: COMMERCIAL & HIGH-VALUE MANUFACTURING

EDUCATION & RESEARCH

RESIDENTIAL

COMMERCIAL

RETAIL

CAR PARKING

1/Red Bull Music Academy, Madrid
2/Southern Cross Station, Melbourne
3/Queen street, Brisbane
4/Mixed Use
5/Kings Cross Station, London
6/Masonic Amphitheatre, Virginia
7/Parco Dora, Torino

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A place to Work, Learn, Live and Play

The design should:

Variety of uses	>	Integrate a variety of land uses, including education and research, commercial, high value manufacturing, housing, retail, community facilities and recreational facilities.
	>	Incorporate 'vertical' (multi-storey mixed use development) and 'horizontal' mix of uses (traditional stand-alone buildings clustered together but with different and complementary purposes).
Accessibility	>	Provide facilities to service daily needs.
Active and vibrant	>	Create synergies between activities during day and night.
	>	Provide safety for residents, workers and students.
Sensitive to type of use	>	Ensure appropriate noise and odour reduction techniques between uses to limit conflict, particularly at the interface with industrial land uses.
Housing Diversity	>	Include medium-to-high density residential development for different markets.
	>	Include affordable housing, student housing and a variety of dwelling types (terraces, townhouses, apartments).
	>	Incorporate different dwelling types integrated within buildings.
	>	Be accessible.

Use of Space

The design should:

Compact	>	Include compact low-medium rise built forms that make efficient use of space and provide for generous landscaping and pedestrian pathways.
	>	Include medium-high density housing, in locations close to the new Tonsley Railway Station.
	>	Provide buildings with relatively high worker/resident/student to floor space ratios.

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04. Height and Massing

Height and massing is concerned with the scale of buildings in relation to building height and floor area, and their relationship with surrounding buildings, the streetscape and surrounding landforms. It also incorporates the building envelope, site coverage, solar access and orientation. Building form, height and massing influence the 'look and feel' of the neighbourhood, access to sunlight, privacy, and the quality, amenity and useability of internal and external spaces.

1/Jardin de Fonderies, France
2/NEO Bankside, London
3/Rag Appartments, Philidelphia
4/Ex-Michelin urban project, Trento Italy
5-6/Zahner Factory Expansion, Missouri
7/Brooklyn Navy Yard Centre, Brooklyn

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Quality Streetscapes

The design should:

| Human Scale | > Comprise low-to-medium rise buildings with consistent setbacks to reinforce the public realm. |
	> Create a pleasant pedestrian environment with access to sun, shade and shelter.
	> Clearly define private, communal and public realms.
Contextually Sensitive	> Positively contribute to the street character.
	> Provide appropriate response to the size, shape and orientation of the site.
	> Achieve height and massing reflective of the industrial character of the site (for non-residential development).
Prominent Sites	> Achieve more prominent massing and architectural treatments on corner and other important sites.
Solid to Void	> Limit expansive blank walls or reduce impact by architectural treatments.

Pleasant Environments

The design should:

Access to Sunlight	> Provide access to sunlight for building occupants, neighbouring sites and the public realm.
Privacy	> Ensure privacy where needed.
Spaces Between	> Include spaces between blocks for tree planting, landscaping, pedestrian movement and amenity.

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05. Public Realm

The public realm is integral to creating an attractive environment where people want to visit, work and live. Public realm design focuses on the needs of the people who use Tonsley – students, workers, residents 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 streets will focus on making streets safe and comfortable places that encourage social interaction and community spirit.
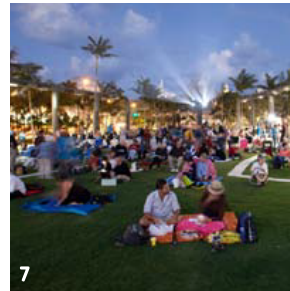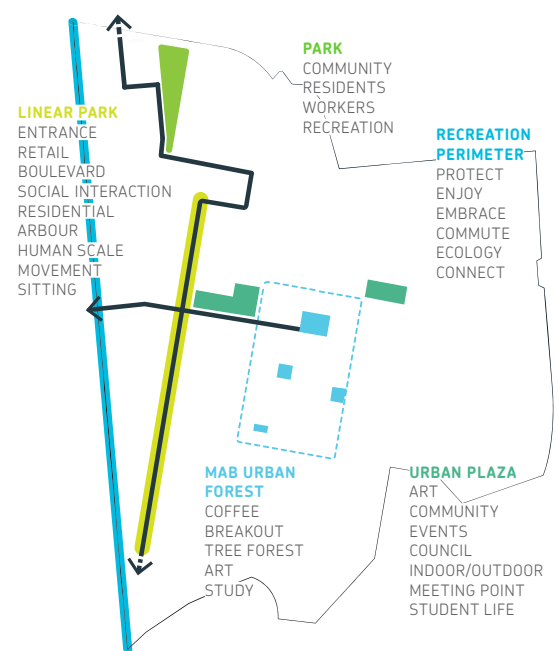

1/Kings Cross, London
2/La Familia, Malmö
3/Open space, San Francisco
4/Beaulieu Shopping Centre, Loire France
5/Confeti Light, Madrid
6/Kings Cross, London
7/SoundScape Lincoln Park, Miami Florida

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A Vibrant Public Realm

	The design should:
Social Spaces	› Provide areas within the public realm that concentrate various activities.
	› Ensure an active interface to adjacent land uses.
	› Allow for flexibility and adaptability.
	› Be comfortable to be in, safe and aesthetically stimulating.
Distinctive Places	› Create a distinctive Tonsley identity.
	› Acknowledge Tonsley's heritage.
	› Embrace the Adelaide climate and soils.
	› Consider longevity, robustness and whole of life.
	› Integrate public art within the public realm design as a key contributor to making distinctive, memorable places.
Safety and Security	› Focus on natural passive surveillance.
	› Create active interfaces between the public realm and adjacent buildings.
	› Follow 'Secured-by-Design' principles, by the Association of Chief Police Officers[1], and 'Healthy-by-Design' principles, by the Heart Foundation[2].
	› Avoid long lengths of blank walls adjacent to streets and open spaces.
	› Create secure service yards and loading docks with carefully designed fences and grills that are integrated with the building's architecture.
Cohesive Whole	› Consider the site infrastructure design integrated within the public realm design.
Street design	› Incorporate stormwater management (WSUD) and utility servicing within the street cross-sections.

PARK
COMMUNITY
RESIDENTS
WORKERS
RECREATION

LINEAR PARK
ENTRANCE
RETAIL
BOULEVARD
SOCIAL INTERACTION
RESIDENTIAL
ARBOUR
HUMAN SCALE
MOVEMENT
SITTING

RECREATION PERIMETER
PROTECT
ENJOY
EMBRACE
COMMUTE
ECOLOGY
CONNECT

MAB URBAN FOREST
COFFEE
BREAKOUT
TREE FOREST
ART
STUDY

URBAN PLAZA
ART
COMMUNITY
EVENTS
COUNCIL
INDOOR/OUTDOOR
MEETING POINT
STUDENT LIFE

[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 (VIC Division), 2004. *Healthy by Design: a planners' guide to environments for active living,* National Heart Foundation of Australia. Available at: www.heartfoundation.org.au/SiteCollectionDocuments/Healthy-by-Design.pdf

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06. Streetscape and Landscape

Streetscape and landscape refers to design of public spaces such as streets, 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 street 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 design remains attractive and flexible as the planting matures with time.
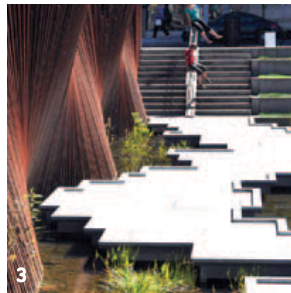
1/Martin Luther King Jr. Gateway, Portland
2/Brooklyn Navy Yard Centre, Brooklyn
3/Tanner Springs Park, Portland
4/Paris Luxembourg Gardens
5/Ashwin Street Terrace, London
6/Streetscape, Rotterdam

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Landscape

The design should:

Open Space	› Provide a variety of quality open space types: active and passive catering also for all abilities. › Ensure the location, distribution and organisation of open space complements the built form arrangement. › Ensure that parks are within easy walking distance of 200m. › Connect open spaces as a continuous network. › Provide connection to existing open space and recreational social infrastructure.
Wildlife & Ecology	› Include opportunites for biodiversity across the site.

Street Furniture

The design should:

Street Furniture	› Provide a consistent palette of furniture for the public realm reflecting the sites cultural heritage. › Allow for bespoke design items (designer, artist) supporting place identity. › Ensure materials and design detail are of a high quality to minimise whole life of costs. › Ensure maintenance is minimised.

Public Art

The design should:

|	
Public Art	› Incorporate public art within the design as an integrated component. › Make public art a memorable part of experiencing the site, both for first time and repeat visitors. › Ensure public art is relevant for the site reflecting its origins and history, and contemporary use.

Wayfinding Signage

The design should:

Lighting	› Be co-ordinated with the placement of other public realm elements such as trees. › Consider the appearance of light poles and luminaires during the day as well as night. › Be strategic and dramatic, highlighting focal points. › Consider the use of energy efficient luminaires.
Wayfinding	› Propose wayfinding signage that is integrated with other architectural elements and the public art strategy.

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07. Facade and Interface

An active and well-designed relationship between the built form and public realm is crucial in achieving an integrated and safe environment. Blank walls at ground level alienate people using the public realm, eliminate opportunities for passive surveillance and discourage pedestrian use of adjacent footpaths. Interesting facade treatments and an active interface at ground level attract attention and use, adding to the character of Tonsley overall, its legibility to visitors and the marketing of individual businesses. Individual building facades, interface elements such as fences, walls and landscaping, and the design of the public realm need to be considered in tandem. These elements create distinctive place that build in character as new development occurs.
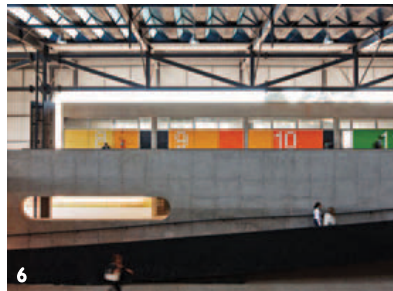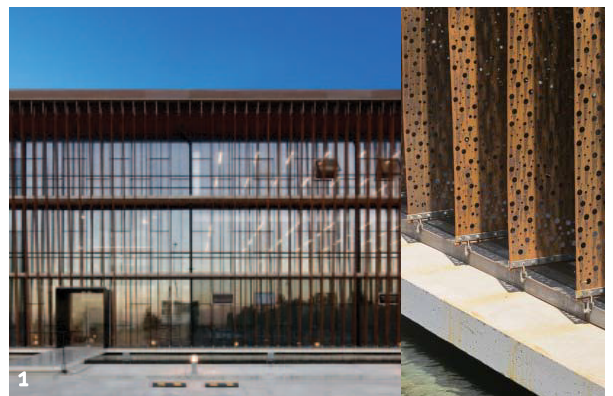
1/Ferreteria O´Higgins, Chile
2/Carriage works, Sydney
3/Ciclovia de Lisboa, Portugal
4/Małopolska Garden of Arts, Krakow, Poland
5/Storefront, Amsterdam
6/The Wyckoff Exchange, New York
7/Center of Arts and Education of Pimentas Sao Paulo, Brazil

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| 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 industrial heritage character of Tonsley.
Quality of Environment	›	Keep the design visually rich from near and afar.
	›	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.

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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 contribute 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 industrial character by analogy, transposition and contrast.

Materials selection takes into account energy efficiency, environmental sustainability, whole–of–life costs and ease of maintenance.
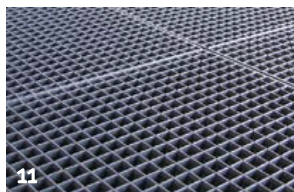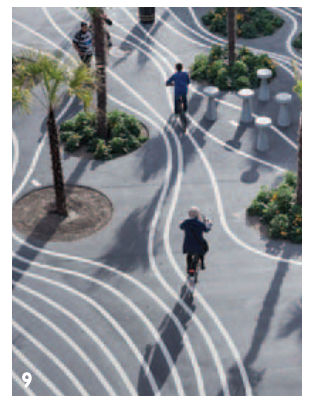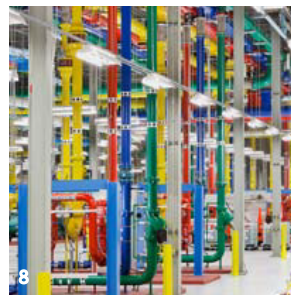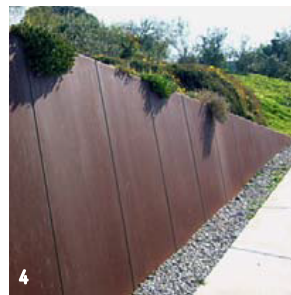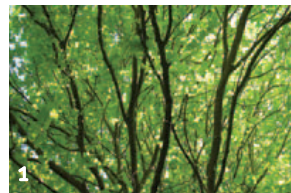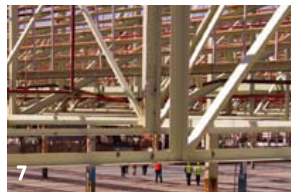
1/Light & shade
2/Tonsley site signage
3/Tonsley site artefacts
4/Barcelona Botanic Garden
5/Bilbao Jardin, Bilbao
6/Paving Detail
7/Tonsley site
8/Google headquaters
9/Superkilen, Denmark
10/Tonsley site
11/Deck grating, Rotterdam
12/Steel & timber decking, Rotterdam

Tonsley
Innovation District

Character and Identity

The design should:

Expression of Values
- › Demonstrate relevance or continuity with the site's industrial legacy.
- › Express enterprise and innovation.
- › Commit to excellence.
- › Utilise materials that are appropriate to use.
- › Utilise materials in configurations that facilitate a sense of engagement with the public realm.
- › Ensure detailing is visually well resolved and functionally effective.

Sustainability

The design should:

Sustainability
- › Utilise materials that are consistent with principles of environmental sustainability.
- › Utilise materials and details that are robust and will weather well.
- › Utilise materials that are cost efficient (low whole of life costs)

SITE HERITAGE

**FUTURE**

NATURAL

AGRICULTURAL

AUTOMOTIVE MANUFACTURING

INNOVATION + HIGH VALUE MANUFACTURING

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

09. Resource Efficiency

The manner in which Tonsley is developed provides an opportunity by which Adelaide and the southern region will communicate to the community, and to those looking in from interstate and abroad, their commitment to living sustainably, working sustainably, and supporting a move to sustainable industries in South Australia.
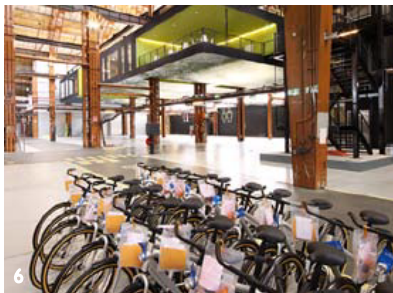
1/Green-Star rated building, Melbourne's Council House
2/Edinburgh Gardens Raingarden, Edinburgh
3/Glassworks, Canberra
4/Jardin des Fonderies, France
5/Trades North at Clarkson TAFE, Western Australia
6/RDM Innovation Deck, Rotterdam
7/Kitakyushu Technology Center, Japan
8/Kings Cross Station, London

Tonsley
Innovation District

Sustainable Community

	The design should:
Embrace Sustainability	› Embrace social, economic, cultural and environmental sustainability.
Showcase	› Achieve best practice in sustainable development by being one of Australia's first Green Star Communities Pilot projects. The project is committed to a 6 Star rating, which signals "World Leading" in the built environment.
Responsible	› Commit to the smallest practical impact on the environment during construction. › Contribute to a sustainable community that is attractive to residents, workers, visitors and the surrounding community.
Educational	› Provide an example of a sustainable mixed use precinct to educate residents, workers, students and visitors. › Encourage a culture of sustainability.

Resource Efficiency

	The design should:
Efficiency through design	› Achieve energy efficiency through site selection, passive design and active measures. › Achieve minimal environmental impact of all tenants through the sharing of infrastructure, resources, and other environmental opportunities. › Improve the quality of stormwater before it exits the site.
Water Use	› Achieve minimal water consumption by utilising non-potable sources such as stormwater, rainwater and recycled water in preference to potable water.
Material Choice	› Utilise materials that are durable, fit for purpose, contain eco-preferred content and are low maintenance.
Waste	› Achieve minimal waste generation through consideration of reuse and recycling options on site.

District Energy Scheme

CleanPeak Energy has been established as the owner and operator of the district energy and recycled water infrastructure at Tonsley and will provide high quality services to every occupier in the development.

The objectives of CleanPeak Energy are to:

Objectives	
	› Provide competitive supply of energy and recycled water.
	› Contribute to Tonsley's high level of environmental sustainability.
	› Optimise energy and water assets across the whole site.
	› Reduce required upfront capital cost by developers related to energy and water infrastructure.
	› Attain high levels of renewable energy generation through installation of rooftop solar photovoltaic panels across the whole site.
	› Create a resilient and reliable energy and water scheme.
	› Create a community scheme to provide Tonsley occupants with greater commercial, environmental and operational efficiencies.

10. Staging and Management

How the 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 delivered at Tonsley includes streets, linear parks and a network of signature urban forests within the Main Assembly Building. This is followed by two key educational institution buildings including TAFE SA and Flinders University's building housing the College of Science and Engineering.

Following these important interventions and developments is the opportunity for commercial, residential and clean industrial and retail 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.

Public Realm		
	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 Tonsley.
	›	Allow for evolution of the site.
Management	›	Provide leadership and strength across the whole site.
	›	Allow for entrepreneurial and innovation for the greater good of the project.
	›	Provide an economic development focus.
	›	Ensure a community / social / cultural development focus.
	›	Evolve as an adaptable structure over time as the community / population changes and builds.

Tonsley
Innovation District

SITE EVOLUTION

SITE HERITAGE

2012 EDUCATION

2013 MAIN ASSEMBLY BUILDING

2013 TRAIN LINE

ART

SPORT & RECREATION

2014 POP UPS / MARKETS

2015 HIGH VALUE MANUFACTURING / COMMERCIAL / TECHNOLOGY / INNOVATION

2018 RESIDENTIAL COMMUNITY

ESTABLISHED TONSLEY COMMUNITY

Tonsley
Innovation District

Tonsley
Innovation District

RenewalSA

Government of
South Australia