

# Southport

## Broadwater Parklands

GOLD COAST, AUSTRALIA  
ROSA BARBA PRIZE



# Fast Facts

## Location

Southport, Gold Coast, Australia

## Client

City of Gold Coast

## Budget

AU\$57 million (Stage One and Stage Two)

## Completed

Stage One in August 2009

Stage Two in October 2010

Stage Three currently in detailed design





**The Broadwater Parklands project presented a once in a generation opportunity to create a world class foreshore park on Australia's Gold Coast.**

# Overview

**Great public spaces make great cities. The Broadwater Parklands project presented a once in a generation opportunity to create a world class foreshore park on Australia's Gold Coast. Spanning over 2.6km along the edge of one of Queensland's most beautiful marine parks, the redevelopment has re-established the historic connection between Southport and its waterfront. This project has fulfilled the foreshore's potential as a high quality, unique, dynamic and memorable coastal parkland and to create a legacy for future generations.**

Southport has a dynamic local economy and is experiencing unprecedented urban growth. This growth is focused toward the water's edge, as is the pattern throughout the city. The Broadwater Parklands has the potential to be to Southport what Central Park is to Manhattan – an iconic green space famous for its outstanding landscape qualities. The parklands project has re-established the lost physical and historical connection between Southport and its waterfront. This project has fulfilled its aim to be distinctive, vibrant and memorable.

The Broadwater Parklands is a state-of-the-art recreational asset for Gold Coast residents as well as regional, national and international visitors. Situated on The Broadwater in Southport, it has become a gateway feature for the Gold Coast and has seen the redevelopment of a poorly used precinct into a high quality, active and popular destination for the region. It is a park where events, history and water combine to create an active green waterfront. With its spectacular Broadwater frontage and proximity to the Southport CBD, the Parkland has attracted the attention of the entire city. The Gold Coast community is proud of its new asset and the end result has stimulated an awareness of high quality design with a sustainability overlay.

The development of this \$57 million project was led by City of Gold Coast, the Local Authority, with AECOM's Design + Planning practice as the lead consultant and White Architecture as the project architect. The project design team incorporated a small, skilled and passionate team from Council working closely with AECOM, White Architecture and construction manager Abigroup. The outcome of the design team working closely together is a high quality public space that is functional, maintainable, sustainable and has resulted in a significant community asset for the city.

The Parklands hosts major sporting and cultural events to engage the community and encourage tourism. Some of the main features of the Parkland include: event lawns, bathing boxes, barbeque shelters and play equipment, a central community pavilion, extensive walking and cycling network, a new Anzac Park, a new 100m+ pier and the incredibly popular 'Rockpools' (children's bespoke waterplay space).

The site's numerous environmental initiatives include an urban wetland and water 'treatment' system that collects and cleans the Southport CBD's stormwater runoff before releasing it into the Broadwater. Solar shelters distributed along the central spine emphasise the main Nerang Street axis and provide shaded rest spots. The shelters are lined with 266 photovoltaic panels to generate energy for use within the park and all runoff is treated through bio-filtration basins at the base of the shelters.

The project was jointly funded by the State Government and the City of Gold Coast through Queensland's 150th Legacy Infrastructure Program – a program that was set up to celebrate Queensland's separation from New South Wales over 150 Years ago.



Spanning over 2.6km along the edge of one of Queensland's most beautiful marine parks, the redevelopment has re-established the historic connection between Southport and its waterfront.

## The Design Process

From the earliest phases of the project's inception, a strong emphasis was placed on working together as client and consultant team to deliver environmentally sustainable design (ESD) solutions that incorporated the aspirations and ideas of the broader community. While the project was jointly funded by City of Gold Coast and the State Government, the project design team incorporated Council, AECOM Planning + Design, White Architecture, working closely with Abigroup as the construction managers to ensure 'buildability' and functionality of the final product.

Extensive rounds of community and stakeholder consultation fed directly into the design process and revealed strong support for sustainable investment in the parklands. Transferring local knowledge to the project from Council and key stakeholders was critical to the project's success. Beyond weekly coordination meetings, informal 'open-house' studio design sessions were held as work progressed. Some of the most insightful and beneficial feedback came from informal, unstructured dialogue during these studio sessions. Masterplanning of the site was supported within the design team by a Peer Review group which met regularly from inception, to ensure development of the master plan was based on a fully informed and creative approach satisfying all elements of the brief.

The Peer Review group included representatives from industry and academia, working closely with the designers and the client to ensure a valid and sustainable outcome.

The natural beauty of the 'Broadwater' environment was recognised as the key attraction for visitors to Southport and four characteristics were identified as key foci for design, with a strong emphasis on ensuring the preservation of the park's natural assets. These included: water (both marine and freshwater); beach (clean coastal environment); climate (warm subtropical); and ecology (terrestrial and aquatic).

The design draws on natural and urban cues, creating a place that is both legible and functional, while layered in sculptural and poetic forms. Bold geometric forms frame up major gathering spaces and circulation routes, while dunal landforms and planting enclose more intimate spaces. Vantage points allow varying experiences of the environment, while the more intimate details of the park chart its history and natural processes. The emotive experience of the beach is referenced with fun elements, an example is the striped beach towel stripe motif reflected in the colourful furniture sprinkled across the parkland.





**Paying homage to the local beach culture, the main events square features a bold striped beach towel paving pattern.**

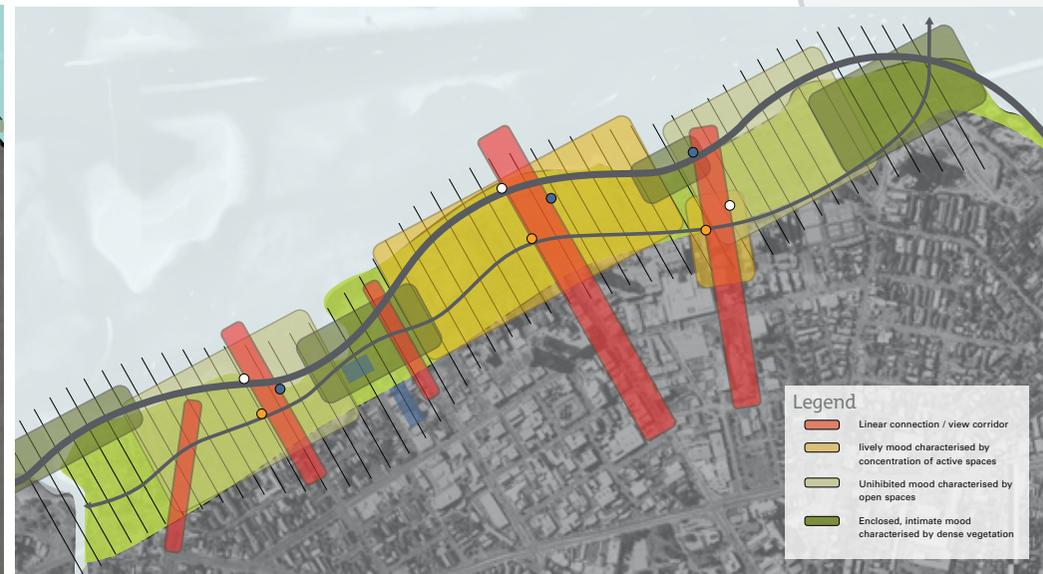
The following conceptual diagrams have been included to demonstrate the initial analysis undertaken for the site.

### Concept: Civic + Ecology Overlay



The pairing of clear 'civic' or urban program within the park with the everpresent riparian condition defines a strong sense of this park's role as a place for major community gatherings.

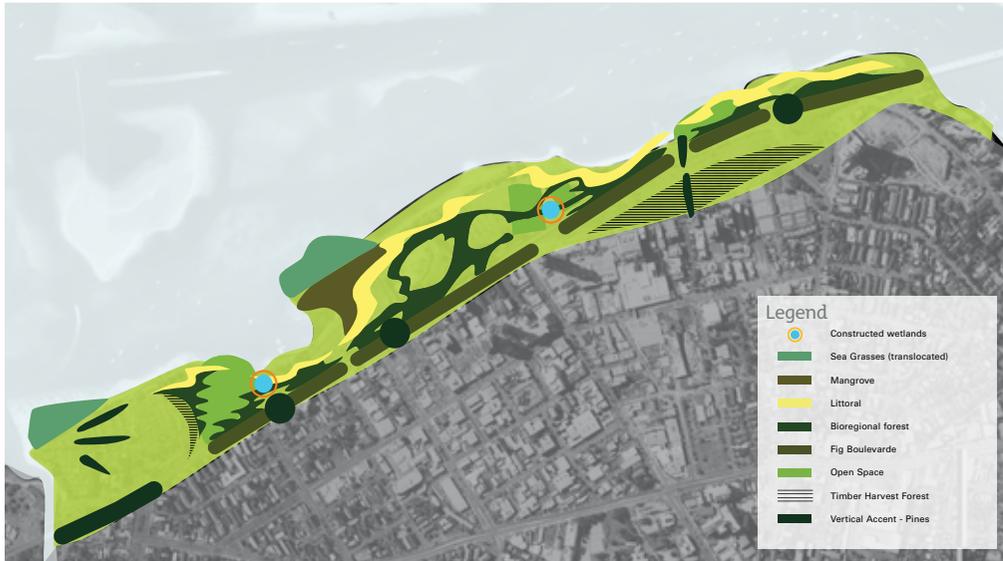
### It is mood-driven...



Moving sequentially through spaces of varying character and spatial qualities is an important existing quality of this parkland.

The new masteplan has continued this quality into the definition of new park program.

## Planting Structure



Integral to the parkland's sustainability agenda is that it perform an educational role, highlighting the importance of local coastal vegetation. This diagram establishes a framework for the parkland to explore a layered palette of coastal vegetation, potentially as an annexe to the City's Botanic Gardens.

## Connectivity



Connections between the CBD and this regional parkland are critical to the ongoing success and enjoyment of both.

## Functionality, Aesthetics and Viability

Incorporating a picturesque landscape with cutting-edge urban design, the Broadwater Parklands is an iconic gateway for the city and a popular recreational destination for people across South-East Queensland and offers a free and relaxed alternative to the beach and the theme parks for visitors to the Gold Coast.

The Broadwater Parklands is one of Australia's most impressive foreshore parks. With the capacity to stage both small and large-scale events from the superb location, the transformation of this former 900-bay carpark to cater for the Gold Coast's growing population and steady stream of visitors has been extraordinary. The area has undergone a dramatic transformation to become a 2600 metre stretch of vibrant green open space and sparkling waterfront.

The broad design intent was for the park to mesh the natural environment with an urban overlay, to cater for large and small events while preserving and enhancing trees, the natural sandy shoreline and coastal feel.

The design team recognised the need to use robust materials in such a harsh environment and in a space that would need to cater for large numbers of people and diverse events. Therefore, materials selected had to be economical, with a variety of finishes and colours to provide pleasing aesthetics, functionality, adaptability, and durability.



Paying homage to the local beach culture, the main events square features a bold striped beach towel paving pattern.



## Respecting the History

“Reflect the Past, Imagine the Future”

The location of the Broadwater Parklands in Southport has an important historical background that has been carefully considered and celebrated in the design and implementation of the space. Many of the features such as the pier, the bathing boxes, the outdoor cinema and the kiosk are reminiscent of facilities that used to exist in the park.

The Broadwater Parklands site was first declared an official public space in November 1928 and was the landing point for tourists coming by boat to Southport in the 1880s to enjoy their holidays at this fashionable seaside resort. The Southport Town Council constructed the Southport Jetty (later known as the Pier) in 1913 and the first picture theatre was built on the pier in 1926. These facilities burnt down and later rebuilt in 1932. Plans to rebuild a subsequent pier were stalled until 1969, when the decision was made to demolish the pier and theatre. A memorable era in Southport recreation and entertainment came to an abrupt end. The redevelopment of the Broadwater Parklands has seen the return of the only pier on the Gold Coast. Where it once cost a penny to stroll along the pier – today it is free for all to enjoy!

A holistic interpretive strategy incorporating signage outlines the parallels between life in Southport in the past compared with today. Specifically, this includes historical references to the original pier, picture theatre, folly, bathing boxes, ‘Life at the Beach’, the sea wall and the process of shifting sands over time.



## Sustainability and Ecological Health

The Broadwater Parklands is fast becoming recognised not only for its recreational, events and high design qualities but also for its environmental and sustainability attributes. The community is embracing the Parklands' environmental initiatives and is proud of this park in their city.

The Broadwater Parklands delivers integrated environmentally sustainable design (ESD) solutions, ensuring energy efficiency and integrated water cycle management. These ESD features, combined with the needs for public recreation, create a productive landscape of vibrant community spaces and facilities that incorporate the following:

- / renewable energy sources, such as the 266 photovoltaic solar panels that generate approximately 30,000 kilowatts of solar power to offset the Parklands lighting costs and promote green energy
- / water sensitive urban design (WSUD) measures including an urban wetland and mangrove wetland to treat stormwater from the site and the Southport CBD to replenish the natural water cycle
- / installation for future reticulation of recycled water
- / provision of services and facilities to cater for alternative transport modes, e.g. bicycles and boats

- / furniture constructed predominantly of recycled plastic
- / a water-play facility that uses salt water from the Broadwater to minimise the use of valuable potable water

The water management strategy for Broadwater Parklands is underpinned by the principles of Water Sensitive Urban Design. Stormwater run-off from all impervious surfaces within the park is treated to best practice standards. A variety of treatment elements are wholly integrated into the landscape design of the park, ranging from localised treatments to larger precinct-type elements.

A state-of-the-art stormwater management system uses bio-retention basins and the urban wetland to collect, filter and clean stormwater from the nearby Southport CBD before it enters the Broadwater. This system will reduce the annual gross pollutant load by 90 per cent.



Paved areas are designed so that run-off is directed onto adjacent pervious landscaped areas. This provides passive irrigation for the landscaped areas and effectively disconnects the impervious area from the traditional mainline drainage system, minimising the potential negative impact of urban run-off on the Broadwater.

Bio-retention basins are designed with permeable bases so that treated stormwater infiltrates through the sand soil profile within the park to recharge the local groundwater aquifer.

More than 22,000 mangrove seedlings, covering an area of 1.2 hectares, have been planted to re-create and increase habitat and species diversity along the Broadwater foreshore. Schools and study groups are encouraged to participate in the monitoring and management of this unique area of the Parklands.





**WSUD measures will treat stormwater and upstream catchments, re-use water for non-potable purposes and re-establish the natural water cycle.**

A design response to the existing natural environment demonstrates commitment to ecosystem preservation.

### Sustainability Filter

CO <sub>2</sub>	Energy	Transport	Materials	Vegetation
Towards Carbon Neutral	Energy reduction Energy Efficiencies On site renewable Off site renewable	Enhanced transit links Pedestrian/Cycle access and facilities	Maximum recycling Longevity Low environmental impact	Enhance biodiversity Increase vegetation Maximum microclimatic benefits Additional carbon storage

### Sustainability Filter

Water	Waste	Social	Cultural
Reduction/efficiency Source substitution Recycle Water Sensitive Urban Design	Maximise recycling at source Recycle organic in park Reduce volume to landfill	Increase diversity of recreational provisions More effective community access and use Contribute to local economy	Preserve existing cultural valuables Enhance community value Build new traditions Encourage creative interpretation and education

## Contributing to a wider appreciation of Landscape Design

The redevelopment project has led to an increasing awareness in the community of the difference between a 'local' park design and a nationally significant city asset such as the Broadwater Parklands. The local community was actively engaged in the design development process and welcomed to 'observe' the site under construction. Local residents, Gold Coast businesses and other professional stakeholders were taken on tours of the site during construction. Many were interested in the less obvious environmental features that were being incorporated into the Parkland. Since completion of the project, members of the design team have been conducting professional development tours of the Parklands for architects, landscape architects, planners, engineers and industry groups. This is continuing to raise awareness and a wider appreciation of urban design in the public realm and has also helped educate the local community about good quality design and the benefits of a healthy budget for a project such as this.

## Connections and Access

One of the key objectives of the project was to reconnect the Southport CBD to the Broadwater. This connection has been critical to the success of the parkland and has been boldly achieved, both physically and perceptively, through the creation of a strong, ground level linear axis linking the city to the water. An extended pier plays a role in reconnecting the CBD to the water's edge and beyond, while providing commanding views across the Broadwater to the famous Surfers Paradise skyline. The new pier's robust design provides opportunities for gathering and community events

such as markets over the water, and also opens up a new realm of opportunities for fishing and boating.

The Parkland has also seen a strengthened connection to the south across Sundale Bridge to Main Beach and Surfers Paradise and now also gives the city a new and very popular boating destination whereby boaties are encouraged to pull their boats up onto the sandy beaches to have a picnic, visit the Rockpools or buy an ice cream from the café.





**'The Spine' creates a vital link to the Southport Mall, drawing people from the CBD to the water, while cleansing pavement runoff and generating solar power.**

## Creativity and Cultural Expression

Public art is an important component of the Broadwater Parklands with the objective of bringing fun, accessible and meaningful art to locals and visitors. The artwork has been warmly accepted and appreciated by the local community. There are three major public art pieces in the Parklands including the following:

John Cox's 'Maddie' is a 2.5m fibreglass sculpture of a young girl that reflects the youthfulness and vitality of the Gold Coast. 'Maddie' is situated on the new Hill in the southern part of the Parklands and can be seen from the Broadwater, from Main Beach, from the Spit and by passers-by on the road.

Craig Walsh's 'The Residents' is a high technology installation associated with the pier that features projection art. The artwork features a fictitious marine creature that swims around the pier alongside a projected diver, jellyfish and other marine 'creatures'. Many visitors believe this projection to be real!

John Tonkin's installation 'The Nervous System' is a series of 20 interactive bollards that emit light and sound. These bollards act as a barometer of activities within the parkland, responding to sound, light and movement.



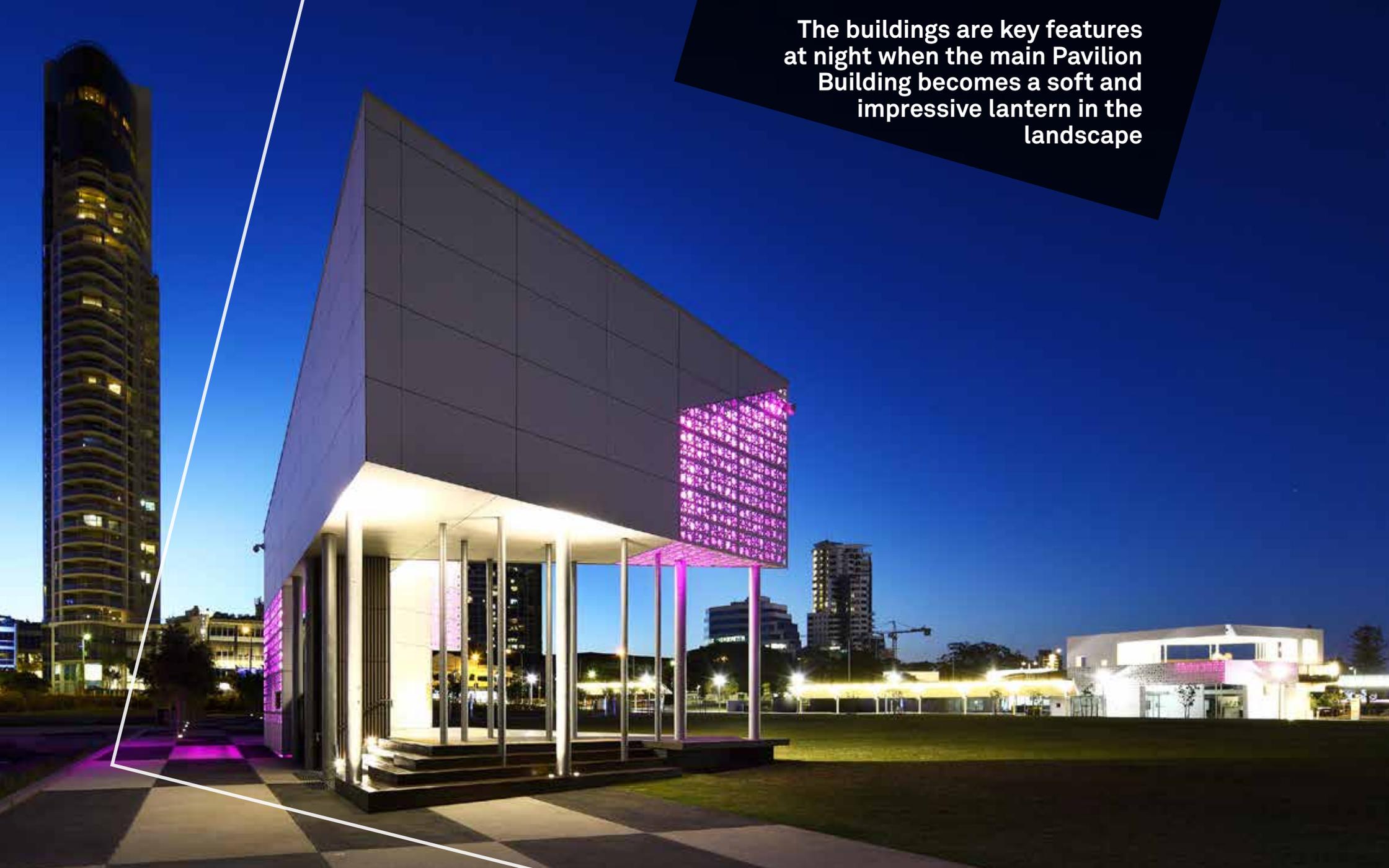
*John Tonkin's 'The Nervous System'*

## High Quality Architecture

The Parklands' contemporary, sustainable built forms were designed by White Architecture. New buildings and structures include the Pier Pavilion, which houses a display gallery, cafe and visitor centre, the Outdoor Stage, the Southport Pier, the Amenities Building, Works Depot in the park and the BBQ Pavilions. Each building has been designed with strong 'green' principles and to create clear landmarks and features in the Parkland. The buildings are key features at night when the lighting design really comes to the fore and the main Pavilion Building becomes a soft and impressive lantern in the landscape.



The buildings are key features at night when the main Pavilion Building becomes a soft and impressive lantern in the landscape



## Water Play

The Rockpools is a major feature of the Parkland. This interactive water play area comprises a series of tidal Rockpools filling and emptying through a variety of sequences and water features. 60 metres in length, the play of water cascades through a series of ripples, mounds and concrete 'sea urchins', interspersed with a variety of sea creatures built on to the concrete surface.

It was important for the Council to ensure that the correct message was sent to the community and that potable (drinking) water would not be used in the waterplay area following a prolonged drought in the region. Hence the water used in the play space is seawater, sustainably drawn from the Broadwater.





**Transplanted Pandanus provide shade and a sense of maturity to the precinct**

## The 'WOW Factor'

Broadwater Parklands has undergone a dramatic transformation to create a vibrant green open space and sparkling waterfront, reflecting a commitment to ecosystem preservation that will position the Gold Coast as a leader in sustainable design. In summary the key features creating the 'wow' factor in the Broadwater Parklands include:

- / its setting on the Gold Coast's beautiful Broadwater with the stunning and iconic tall building skyline as the backdrop
- / modern architecture including the Pavilion Building, the Pier and the Park Depot that create features and landmarks in the landscape and appear as beautifully-lit lanterns at night
- / the large Event Lawn which attracts major events to the city while providing open play space on a day-to-day basis
- / the 'Rockpools' waterplay area that operates with seawater from the Broadwater - this custom designed area of waterplay and pop jets has become a drawcard to the city
- / the urban wetland, solar panels and bio-retention system that make up the important environmental features in the parkland
- / the new ANZAC Park that has provided an impressive waterfront location for Anzac Day Dawn Services and other memorial events
- / public art incorporated into Parklands adds an interesting interactive component that prompts visitors to think and question their place in the landscape.



Centered around a linear spine and pier, civic buildings and community spaces of varying scales and intent seamlessly integrate with world class ESD components such as urban wetlands, bioretention systems and photovoltaic spine.



# Credits and Collaborators

## Project Team

AECOM - Lead Consultant, Master planning, Landscape Architecture, Civil, Structural, Electrical and Mechanical Engineering

White Architecture – Architect

Design Flow – WSUD in conjunction with AECOM

Biome – Foreshore Rehabilitation in conjunction with AECOM

Opus Quantec McWilliam – Hydraulic Engineering

Bitzios Consulting – Traffic Engineer

Webb Australia – Lighting Design

Design Stage – Audio Visual

Hydroplan – Irrigation

John Deshon – Access Consultant

City of Gold Coast

Abi Group Contractors

Cardno - Stage 2 Engineering

Digit Landscape Contractors

Leisure Engineering – Pool Hydraulic and Structural Design

EMF Griffith – Water Play Lighting

UAP - Water Play Art

Surfside Pools – Waterplay shell and hydraulics

## Photography

AECOM

Abigroup Contractors

Ross Pottenger

Scott Burrows

Richard Pearse

Shane Hastings