



FUTURE READY™

Case Study



U-CITY

PROJECT OVERVIEW

In Adelaide, we worked with not-for-profit Uniting Communities on the development of the unique, inclusive, and vibrant multi-use community, U-City. On the corner of Franklin and Pitt streets in Adelaide's CBD, U-City serves the people of South Australia and delivers much needed local community facilities and services in one place, including:

- Retirement residences
- Specialist disability accommodation
- Accessible serviced apartments
- A function centre
- Uniting Communities' Social Services Hub
- Commercial and retail spaces.

U-City is a space that caters to differing accommodation needs, as well as Uniting Communities' sustainability goals. The not-for-profit's vision of creating an innovative vertical village has come to life as 'the vertical city, within a city' because, at 20 storeys high, U-City's upper floors offer spectacular views of Adelaide and the coastline.

WSP's Building Services, Fire Engineering, Audio Visual, ICT & Technology, and Sustainability teams collaborated with Woods Bagot to design a vibrant, integrated community that brings residential, social, commercial, and community services together to establish a sustainable and Future Ready™ community in the heart of Adelaide's city.

U-City opened in 2019 and has become the first building in South Australia to achieve a Carbon Neutral Building Certification. U-City has also achieved a 5 Star Green Star Performance Rating via the Green Building Council of Australia (GBCA) and the Australian Government's Climate Active Program.

WHAT FUTURE TRENDS DID WE CONSIDER?



Society



Resources

HOW DID WE CONSIDER THESE TRENDS?

Society



Access for All - WSP's team of experts understand the importance of designing places that cater to the 18% of all Australians with a disability. Enabled by a Future Ready mindset, places need to be designed for inclusivity, taking into account factors such as age, ethnicity, religion, and gender. We helped create a technology-rich development in specialist disability and senior living. U-City incorporates all the attributes of Specialist Disability Accommodation (SDA) to ensure it is specifically designed for people with significant functional impairment and/or very high support needs.

Central to Uniting Communities' vision was the use of technology to assist U-City's residents in their day-to-day lives and to maximise the building's energy and environmental performance. In collaboration with various specialised equipment vendors, we combined many types of assistive technology into the design of the building. For example, we ensured sensor technology was implemented extensively throughout the building to manage lighting, heating, and ventilation systems depending on occupancy levels. Assistive technology is not an off the shelf solution. It creates a significant design opportunity to ensure the interoperability of various technologies, while also ensuring the apartments have the flexibility to accommodate the evolving needs of their residents.

Resources



The Energy Transition – As we develop a better understanding of the imperative to decarbonise, our energy sector is heading towards an accelerating transition to renewable energy sources. In 2020, Australia had the highest Greenhouse Gas (GHG) emissions from coal power in the world on a per capita basis and fossil fuels contributed 76% of electricity generation. U-City became the first building in South Australia to achieve Carbon Neutral Building Certification and a 5 Star Green Star Performance Rating. To achieve the certification, the building's carbon emissions were measured including natural gas, refrigerant, purchased electricity, waste to landfill, and water consumed.

Other sustainable features include:

- An embedded electricity network
- A 55-kilowatt solar PV array on the roof
- Gas-boosted solar hot water provision
- Natural ventilation throughout all living spaces
- Double glazing
- Shading features on the façade
- Reduced energy and water consumption - 45% less energy and 30% less water than a comparable new building.

HOW WAS OUR APPROACH BETTER?

WSP provided Building Services, Sustainability, Fire Engineering, Audio Visual, and ICT & Technology expertise. Having played a key role in every stage of the development of U-City, our teams became embedded in the project journey and gained an in-depth understanding of Uniting Communities' overarching vision. The inclusive Future Ready project is one of the most significant of its kind to have ever been undertaken in the region and provides a long-term sustainable vision for the Adelaide community. The project promotes well-connected, diverse, inclusive, and healthy places that decrease environmental impact. WSP collaborated with Woods Bagot to integrate sustainability best practice principles at all points of the development.

Our approach was better through adopting a people and place first approach, combined with leading experts across a range of disciplines, and strong industry engagement.

The project is amplified with assistant technology and tools throughout each area to enhance overall communication. Showcasing best practice in sustainable design, our work on U-City demonstrates how we can work with clients to create user-friendly and technologically innovative buildings that reduce our environmental impact.

THE OUTCOMES

U-City proves that it is possible for our clients to balance carbon neutrality and cost-effectiveness. This is a true example of what our clients' forward-thinking projects can achieve. The extent of materials reused for the construction (96%) as well as its energy efficiency (predicted to consume 45% less energy than a comparable new building) has enabled U-City to reduce the costs associated with purchasing carbon offsets.

Offsets were purchased and retired to cover the total emissions with reporting provided to the Green Building Council of Australia (GBCA) and the Climate Active Program. Uniting Communities has committed to offsetting the building's carbon emissions for 10 years. The carbon offsets include biodiversity credits from the EcoAustralia native revegetation protection project, which covers 7,350 m² at Mount Sandy in the Coorong National Park in South Australia, and a wind power project in Taiwan. Both projects contribute to the United Nations Sustainable Development Goals which WSP has committed to helping achieve.

The GBCA has awarded the development a 6 Star Green Star Design Rating, with the design scoring a total of 84.9 out of a possible 100. U-City has been recognised as South Australia's greenest building design to date. It is predicted to use 45% less energy and 30% less water than a comparable new building.

In addition to being recognised as a carbon-neutral building, U City has won the [2020 innovAGEING National Awards: Improving Consumer Choice](#), the [UDIA 2020 SA Awards for Excellence: Seniors Living](#) and the [2020 Property Council's Rider Levett Bucknall State Development of the Year Awards](#).

Contact

Matthew Salisbury
Regional Director SA/NT
Matthew.Salisbury@wsp.com
+ 61 8 8110 9519

WSP Australia Pty Ltd



Our Offices
(click for link)

About us

WSP is one of the world's leading engineering professional services consulting firms, bringing together approximately 4,500 talented people across 14 offices in Australia. We are technical experts who design and provide strategic advice on sustainable solutions, and **future ready** engineering projects that will help societies grow for lifetimes to come.

wsp.com/au