

Asia Pacific

HEALTHCARE

#1 Architectural Firm 2018 Modern Healthcare

From patient experience to building design and architecture, from medical planning to asset management and estate rationalization, AECOM's holistic approach revitalizes communities and enables health.



AECOM HEALTHCARE

AECOM envisions healthcare beyond just buildings. They are healing spaces and places aimed at providing critical services to patients and their families. We solve challenges that our clients face when planning new and renovated facilities and deliver better outcomes for all.



520

hospitals



380

ambulatory
care centers



220

medical group
practice centers



40

academic
medical centers



12k

patient rooms

AREAS OF EXPERTISE

High Performance Buildings,
Environmental Services,
Sustainability



Construction management



Medical Equipment Planning



Building Engineering



Project Management



Cost Management



Master Planning, Architecture,
Interior Design, Landscape



Medical Planning



Healthcare Planning



OUR FLEXIBLE SERVICE OFFER



OUR HEALTHCARE OFFER

High Performance Buildings,
Environmental Services,
Sustainability

Healthcare
Planning

Architecture,
Medical Planning

Construction
Management

Healthcare
Wheel of
Services

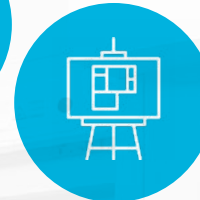
Master Planning,
Interior Design,
Landscape

Medical Equipment
Planning

Cost
Management

Building
Engineering

Project
Management



THE FUTURE OF HEALTHCARE

Key characteristics of the future space and place of care can be summarized in the following four areas.



Service-based facilities and spaces that are modular, flexible, and scalable



Evidence-based solutions for operational efficiency, quality and safety



Optimized patient and family experience, convenience and connection



High-performance buildings, sustainably integrated with site and nature

Fiona Stanley Hospital
Murdoch, Perth, Australia

NEXT GENERATION DESIGN & DEVELOPMENT

Achieving a successful hospital and health system of the future requires a re-imagined approach to the design process, construction and real estate development.



Fully integrate virtual reality technology into the design process



Implement innovative construction techniques such as prefabrication and modular construction to save time and money



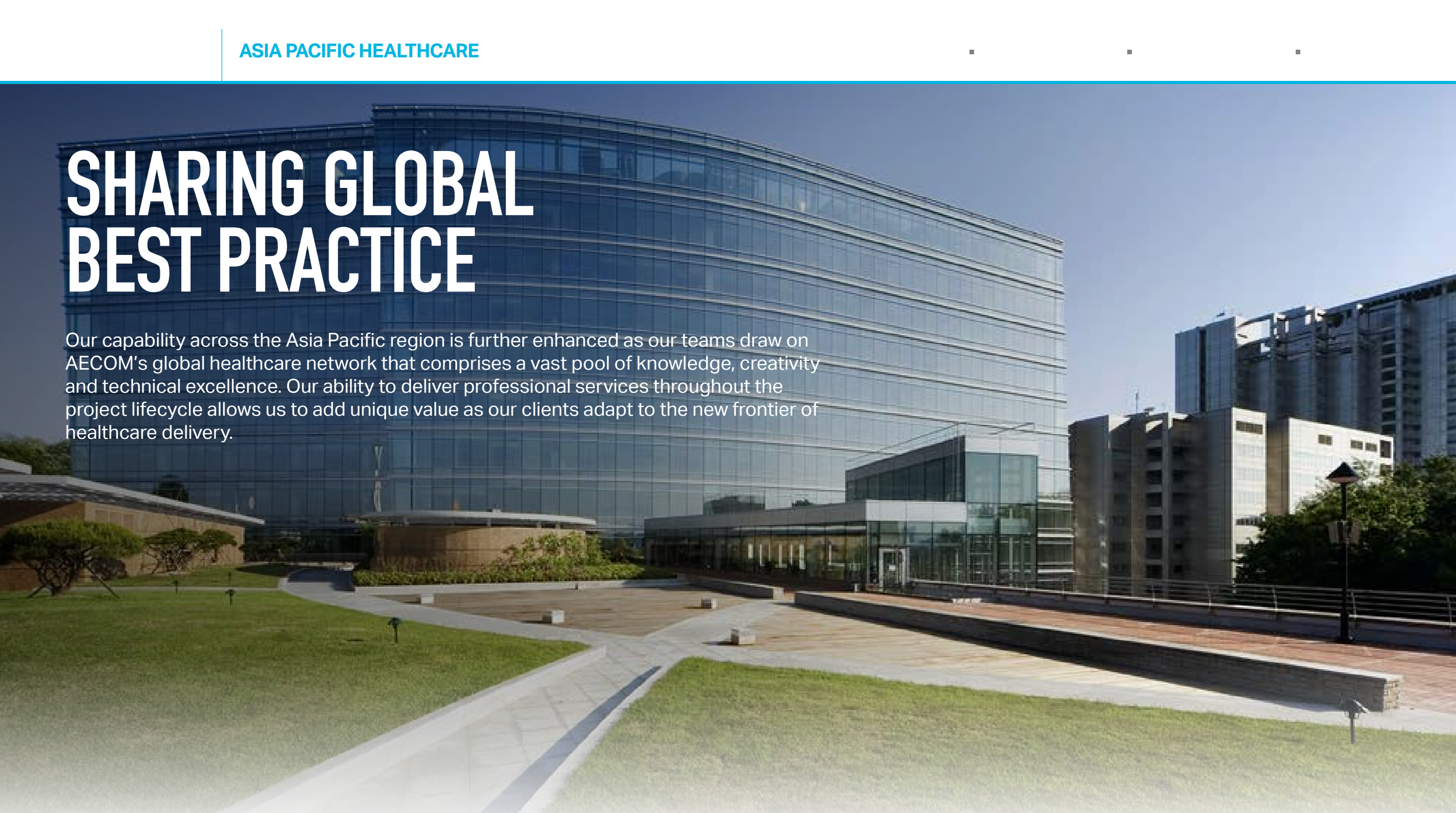
Include wellness communities for people to live in as part of the next evolution of health campuses



Click here for more information on the **FUTURE OF HEALTHCARE**

SHARING GLOBAL BEST PRACTICE

Our capability across the Asia Pacific region is further enhanced as our teams draw on AECOM's global healthcare network that comprises a vast pool of knowledge, creativity and technical excellence. Our ability to deliver professional services throughout the project lifecycle allows us to add unique value as our clients adapt to the new frontier of healthcare delivery.



Mayo Clinic

Arizona and Minnesota, USA

The Proton Beam Therapy programs at Mayo Clinic integrate the clinic's existing comprehensive cancer centers in Minnesota and Arizona. Both locations will use intensity modulated proton therapy—based on pencil beam scanning—which is a more precise form of proton therapy treatment that allows greater control over radiation doses, shorter treatment times and fewer side effects.



GlaxoSmithKline Carbon Neutral Laboratory for Sustainable Chemistry

University of Nottingham, Nottingham, UK

The building demonstrates that state-of-the-art laboratories and science facilities can still achieve world-leading standards for sustainability and energy efficiency. AECOM worked with the university to set stringent sustainability targets at the project's conceptual design stage and designed the building services to minimise energy use wherever possible, including the UK's first carbon neutral laboratory which is naturally ventilated.

The GlaxoSmithKline Carbon Neutral Laboratories for Sustainable Chemistry aims to be a catalyst for new industry collaborations and will focus on world-leading "clean and green" research in sustainable chemistry.



King Khalid Medical City

Damman, Kingdom of Saudi Arabia

This is the largest of the integrated medical cities currently under development in Kingdom of Saudi Arabia and is planned to be the leading center of excellence for tertiary referral healthcare in the Eastern Region, serving seven million people with a focus on integrated treatment, research and education.

It is designed on the vision of an integrated city-within-a-city, supported by a sophisticated health information technology infrastructure, and comprising a world-class 1,500 single patient room academic medical center, a 500 bed private community hospital, including schools of medicine, nursing and allied health, a hotel, a wide-range of staff housing, commercial and recreation spaces, as well as its own primary sub-station and central utility plant comprising major sewage treatment, electrical and mechanical plants designed for environmental sustainability.



PROJECT EXPERIENCE

Clients rely on AECOM to solve challenges that healthcare systems face when planning new and renovated facilities - getting it right is critical.

Around the world, we design and deliver healing environments that offer quiet overnight stays, sterile operating rooms, cleanroom research laboratories, visitor-friendly accommodations, and places of rest and recuperation.

Whether you are planning to develop a new facility or looking to optimize your existing asset base, our technical professionals understand the complexities and requirements involved and are ready to help you.



ACUTE HOSPITALS

Acute Hospitals

Sengkang General and Community Hospital

Singapore

Completed in 2018, the Sengkang General and Community Hospitals project is the largest hospital development to date, part of the Singapore government's 2020 Master Plan to expand the national healthcare capacity in anticipation of a doubling of the aged population in the next 25 years. The new hospitals combine acute care and transitional care (sub-acute and rehabilitation) on the same campus, adding about 1,400 beds to the national healthcare system.

A key highlight is an innovative service that puts an advanced secondary care community hospital at the centre of a Regional Health Network, fed from local general practitioners, polyclinics, a multi-function outpatient center, elder day care and nursing homes. Patients can look forward to having trained Care Coordinators on site to help them make choices for care and treatment.



Acute Hospitals

Fiona Stanley Hospital

Murdoch, Perth, Australia

This is a multi award-winning US\$1.4 billion state government hospital and teaching facility. Completed in 2013, it provides 790 beds and 18 operating theatres, the first comprehensive cancer treatment services in the area, and serves as Western Australia's major trauma and burns center. Facilities include the 115,000m² hospital building, the 20,000m² State Rehabilitation Center, specialised isolation wards, a pathology laboratory, a mental health building and education facilities.

Operational resilience and savings in CO₂ emissions are gained through the provision of a tri-generation power plant and the centralised chilled and heating water network. We also provided storage and handling legislation and codes compliance advice for chemical and dangerous goods, and designed a high level of redundancy into the medical gas supply system to minimize supply interruptions.



Acute Hospitals

Macau Medical Hub

Macau SAR

One of the largest consultancy projects commissioned by the Government of the Macau Special Administrative Region, this is a cluster of healthcare buildings spanning a total construction floor area of about 400,000m² and includes a hospital with over 1,000 beds, a laboratory building, a rehabilitation building, a nursing school, an ancillary facilities building, staff accommodation building and administration building.

Engaged to oversee the overall construction management and architecture of the medical hub, AECOM is also responsible for its tender preparation, construction supervision as well as site supervision. This project underscores our ability to take up hospital projects requiring multi-disciplinary expertise in healthcare planning, architecture, engineering and cost management.



Acute Hospitals

Royal Hobart Hospital Redevelopment

Tasmania, Australia

This is the largest redevelopment and renewal project in the hospital's 207 year history, and the first stage of the Redevelopment Masterplan which provides a planned future expansion strategy to meet the Tasmanian Government's projected health services needs through to 2020 and beyond. The new design includes 37,000 m² of new construction, with refurbishment of approximately 4,000 m² within the surrounding buildings to allow for redeveloped entries, linkages and department expansion. It features an 11 story building with a new main entry and foyer, café, Central Sterile Supply Department, and five levels of new inpatient wards.

AECOM provided all building engineering services for Stage 1 of the US\$315 million redevelopment, ensuring that the hospital was fully operational throughout.



Acute Hospitals

Taikang Tongji Wuhan Hospital

Wuhan, China

Located in the Hanyang district in Wuhan, China, the Taikang Tongji Wuhan Hospital sits on a total gross floor area of approximately 260,860m² and will house medical treatment, teaching, scientific research facilities when completed.



Acute Hospitals

Manipal Hospital Whitefield

Bangalore, India

Manipal Hospital Whitefield is a tertiary care hospital providing high-quality medical and healthcare services in Whitefield and neighbouring areas in Bangalore. It was launched in 2016 and is a unit of the esteemed Manipal Hospitals network.

With a construction area of 32,583m², it is one of Bangalore's leading multi-specialty hospitals equipped with the latest healthcare technologies and world-class infrastructure. It has a capacity of 280 beds and provides premium emergency, recovery and rehabilitative care.



Acute Hospitals

Fortis Memorial Research Institute

Gurugram, India

Set on a spacious 11-acre campus with 1,000 beds, the Fortis Memorial Research Institute is a private specialty hospital which endeavors to be a leading healthcare destination in Asia Pacific. With a built up area of 65,961m², it is located in Gurugram, India, on a prime location facing the Huda City Center metro station. Known for its luxury services and healthcare infrastructure, it is a onestop destination for patients.



Acute Hospitals

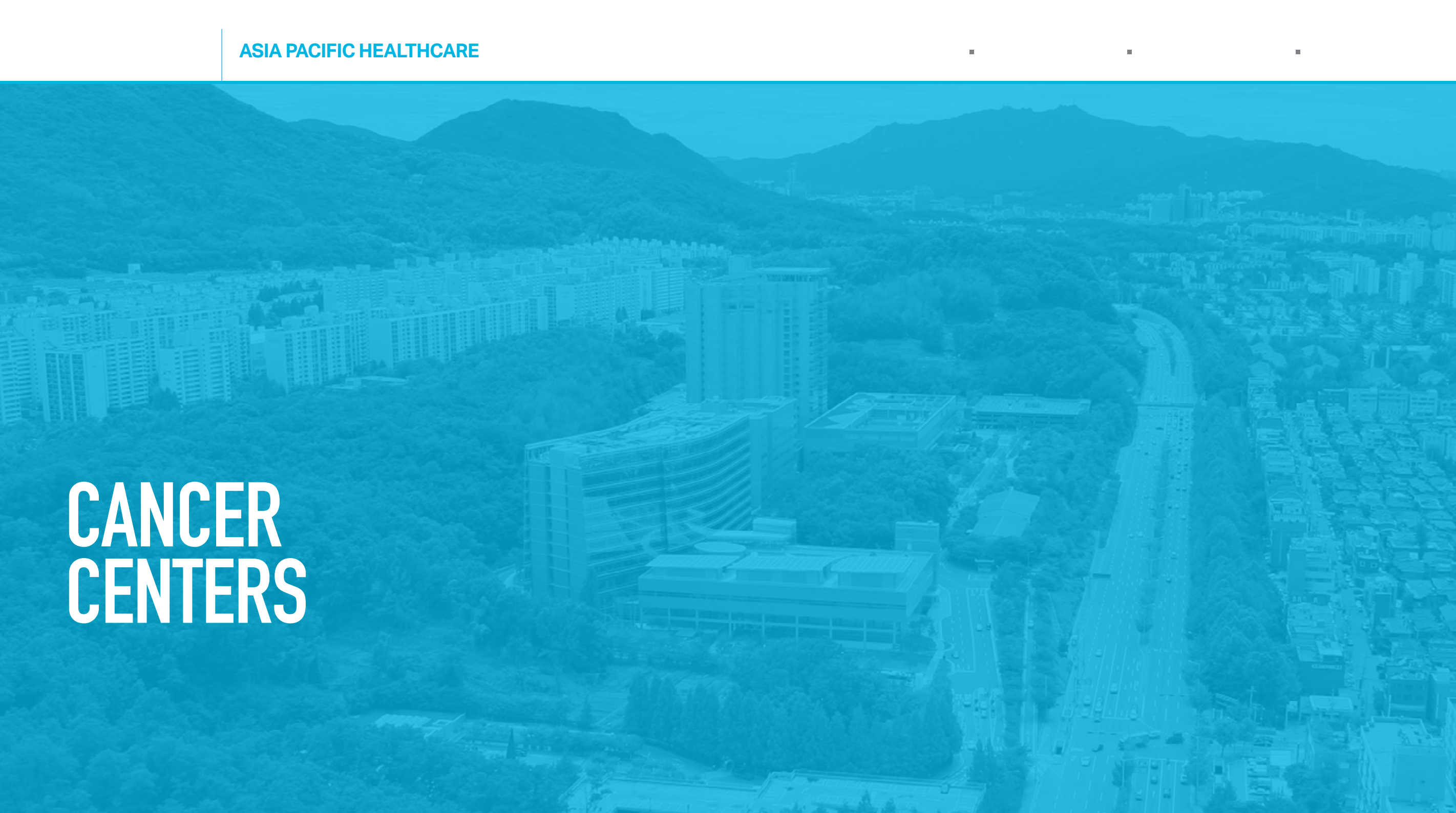
Prince Court Medical Center

Kuala Lumpur, Malaysia

The Prince Court Medical Center is a 6-story 270-bed private healthcare facility located in the heart of the city. Completed in 2008, it occupies a total gross floor area of 100,000m². Aimed at attracting medical tourists, the center is designed to provide exceptional attention to medical care and ultimate patient comfort. It also features a mix of retail outlets.



CANCER CENTERS



Cancer Centers

Samsung Cancer Center

Seoul, South Korea

At almost 93,000 m², this is the largest cancer center in Asia. Aimed at maximizing efficiency, adaptability and healing, the master plan and the original design called for a flexible building infrastructure and healthcare planning modules that would allow for significant future changes in medical care and education which could not be anticipated at the time of construction.

Important interior spaces revolve around visual access to nature, and roof gardens extend the connection. Stone, metal and glass - recalling history, nature and the future - are used in varying degrees based on architectural form and the unique characteristics of the site. Although the focus of the new facility changed from cardiac care to cancer care, construction continued unabated during the redesign.



Cancer Centers

National Cancer Center Singapore

Singapore

Scheduled for completion in 2022, this is located on the Singapore General Hospital campus and is one of the earliest phases of the overall redevelopment of the campus master plan. With a 24-story tower and four levels of basement with an approximately 92,000m² GFA, it will be four times larger than the current center to meet forecast future needs.

The NCSS will be a one-stop facility providing cancer care and rehabilitation, research and education, including site specific specialty oncology clinics, oncologic imaging, proton therapy, chemotherapy treatment, radiotherapy, operating theaters with intraoperative radiotherapy, brachytherapy rooms, research facilities, critical social support facilities, integrated therapies and an administration office with staff facilities.



Cancer Centers

Victorian Comprehensive Cancer Center

Melbourne, Australia

This is a new 13-story building plus construction of four new floors on top of the existing Royal Melbourne Hospital (RMH), linked by covered bridges, allowing cancer patients, visitors and staff to access both buildings easily. The new facilities in Parkville, Australia's premier biomedical and research precinct, allow for improved cancer-related clinical and research linkages between building partners and The Royal Women's Hospital, The Royal Children's Hospital, and the Walter and Eliza Hall Institute of Medical Research.

The center was delivered as a public-private partnership (PPP) under the State Government's Partnerships Victoria policy, with Plenary Health consortium as the private sector partner. AECOM provided cost planning services, and the feasibility and master plan for VCCC which included reference design for the basis of the current facility.



ELDERLY CARE



Elderly Care

Lingang International Healthy Town Conceptual Planning

Shanghai, China

AECOM was commissioned by a private developer to study an integrated healthy town development, targeted at Chinese senior citizens and their families, and providing a range of facilities and amenities including schools, a hospital, caring facilities, consulting services and a retail main street.

The design concept was inspired by the local Shanghai Li Nong culture. The day care center, medical facilities, dining and entertainment amenities are planned on the main street for the elderly's easy access. Supporting healthy living are a club-house complementing the Continuing Care Retirement Community and integrated with urban farmlands and gardens, planned open spaces, walkways, lush landscapes and park connectors to neighbourhood parks.



Elderly Care

Taikang Southwestern Medical Center

Chengdu, China

Taikang Southwestern Medical Center is a healthcare oriented mixed-use development with a gross floor area of 250,000 m². It includes a 900-bed comprehensive hospital, a 400-bed high-end senior living apartment, a luxury health retail experience hall and shopping street and a basement garage with a capacity for 1,680 cars.



Elderly Care

Yishun Polyclinic and Senior Care Center

Singapore

Completed in 2018, Yishun Polyclinic and Senior Care Center occupies a total gross floor area of 8,680m², providing outpatient medical care for the residents and elderly in the community. With construction at an estimated cost of US\$26 million, AECOM focused on ensuring that the project is kept on schedule and delivered within the client's budget. Services include coordination and compliance on Employer's Requirement, preparation of development cash flow, review of tender documents and tender report and monitoring development of BIM.



SPECIALIST CENTERS



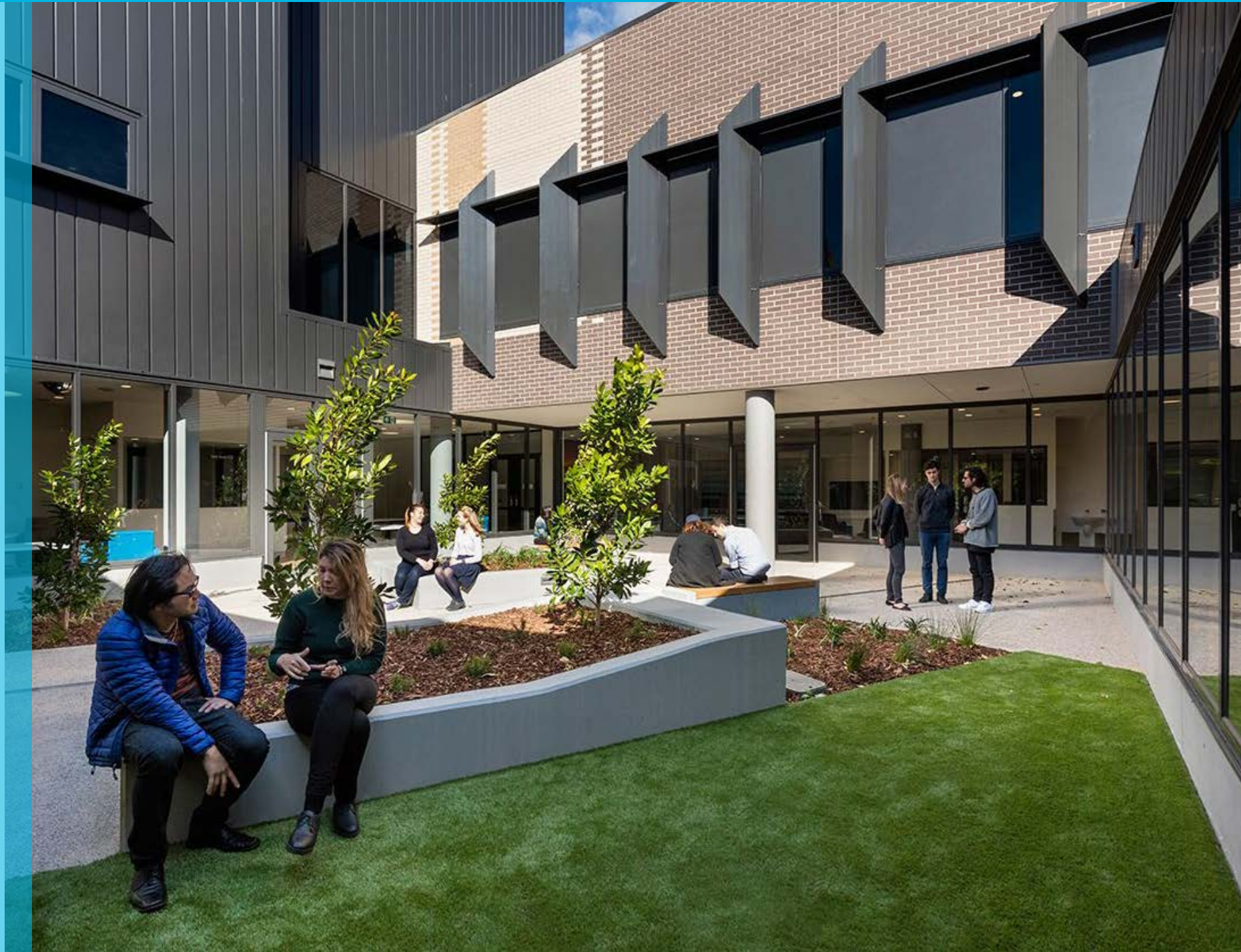
Specialist Centers

Werribee Mercy Mental Health

Victoria, Australia

This two-story building was conceived as a large residential building with strong connections to the landscape both on natural ground and through large secure, landscaped courtyards located over both levels.

Enhancing patient cluster and circulation, the higher acuity patients are located on ground level with direct ambulance access, while lower acuity patients are allocated spaces that are split into three pods located across the two levels. A public space connects the two levels of the facility with each unit accessible through a secure entry. Key innovations include: the two-story courtyard maximizing daylight, amenity and access for patients, a flexible layout enabling clustering, segregation and swing spaces as needed, integration of family and external consultant areas to improve linkages between services, and staff-only areas that promote greater multidisciplinary collaboration.



Specialist Centers

Hong Kong Sanatorium & Hospital

Hong Kong SAR

AECOM has been appointed by Hong Kong Sanatorium & Hospital to deliver Construction Management services, in conjunction with Yau Lee Building Construction & Decoration for the development of Hong Kong's first Proton Beam Therapy (PBT) Treatment Facility. The new 15,000m² facility will consist of 3 basement levels, 4 podium levels, a 14-level tower with two mechanical penthouse levels above.

Our scope focuses on the provision of expert advice on the construction of the basement structure housing the PBT equipment during the design, tender and construction stages of the project leading to the handing over of the facility to the vendor for installation and commissioning. The project is scheduled to be completed in 2020.



Specialist Centers

National University Center for Oral Health

Singapore

The National University Center for Oral Health (NUCOHS) will expand capacity by 40 percent, to 500 patients per day, as well as enable the National University of Singapore's Faculty of Dentistry to expand its undergraduate intake. The co-location of education, clinical services and research facilities paves the way for increased collaborative multi-disciplinary research.

The development comprises a 12-story block with one basement, located on part of the existing National University Hospital Service Block that will be demolished to make way for the development. A new Utility Plant building will house new plant to replace the existing aging mechanical and electrical plant to ensure continued and reliable support to the hospital.



WOMEN & CHILDREN CARE



Specialist Centers

Ewha Womans University Medical Center

Magok, South Korea

The Ewha Womans University Medical Center is developing a smart research-focused hospital and medical school on a 33,400m² site in Magok, strategically located near Seoul's international airport. AECOM and Seoul-based Junglim Architects are collaborating on the design, with Junglim Architects acting as the base-building architect and AECOM providing its specialist healthcare design services.

The 1,000-bed hospital will provide high-tech critical care, private medical care and also cater for South Korea's growing medical tourism industry.



Specialist Centers

Lady Cilento Children's Hospital

Queensland, Australia

Completed in 2014, this international award-winning, US\$786 million hospital is Queensland's only specialist paediatric hospital. It is the State's tertiary paediatric referral center and hub for paediatric services and telemedicine, including surgical, NICU, emergency, medical imaging, nuclear medicine, mental health, cardiac, intensive care, oncology, general paediatrics, ambulatory care and telemedicine. With a gross floor area of 98,500m², the 400-bed development has centralized services previously provided by three separately located facilities.

AECOM provided state-of-the-art healthcare engineering services such as PACS, patient entertainment systems, telemedicine and electronic medical records. The implementation of innovative technologies including photovoltaics, tri-generation and central energy plant, day lighting, active chilled beam, natural ventilation and water harvesting helped to keep the hospital environmentally sustainable.



Specialist Centers

Monash Children's Hospital

Melbourne, Australia

The US\$116 million Monash Children's Hospital is one of the largest children's hospitals in Australia, dedicated to providing the world's best specialist tertiary care for children and adolescents. The hospital supports young patients and their families in an environment enhanced by clinical excellence and academic and research achievement. The project involved the design and development of a new 230-bed facility over 30,000 m², incorporating new general paediatric wards, paediatric intensive care, operating theatres, and medical imaging.



Specialist Centers

Qingdao New Century Women and Children's Hospital

Qingdao, China

Completed in 2016, the Qingdao New Century Women's and Children's Hospital is a public private partnership reconstruction project between New Century International Healthcare System and Qingdao Women's and Children's Hospital. Our architects retained some distinctive design elements and trademarks evident in New Century's current suite of seven hospitals and added new design touches to this project. In designing the facade of the hospital, we took into consideration the hospital's existing landscape, which includes a nearby stadium and residential projects, to create a building that complements the city's architectural style.



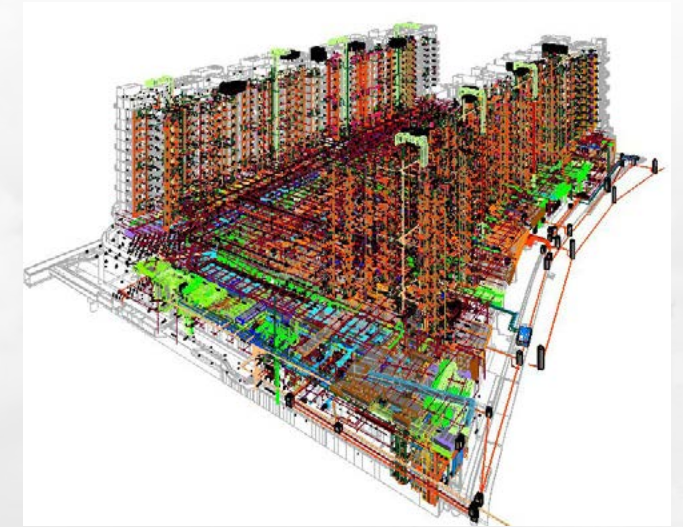
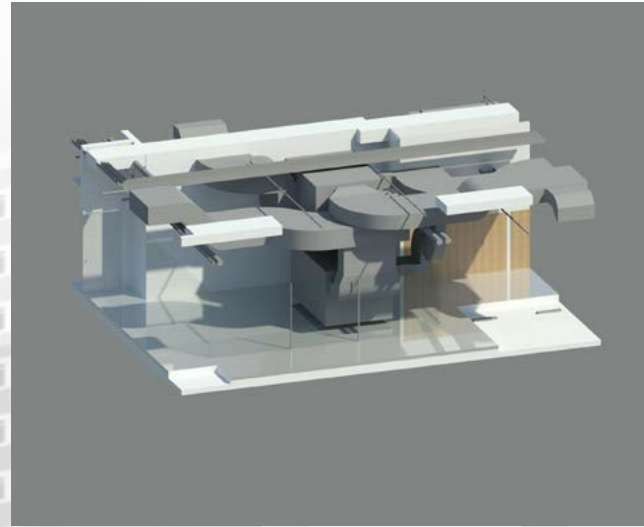
IMMERSIVE TECHNOLOGY

Oxford University Hospitals NHS Trust
United Kingdom

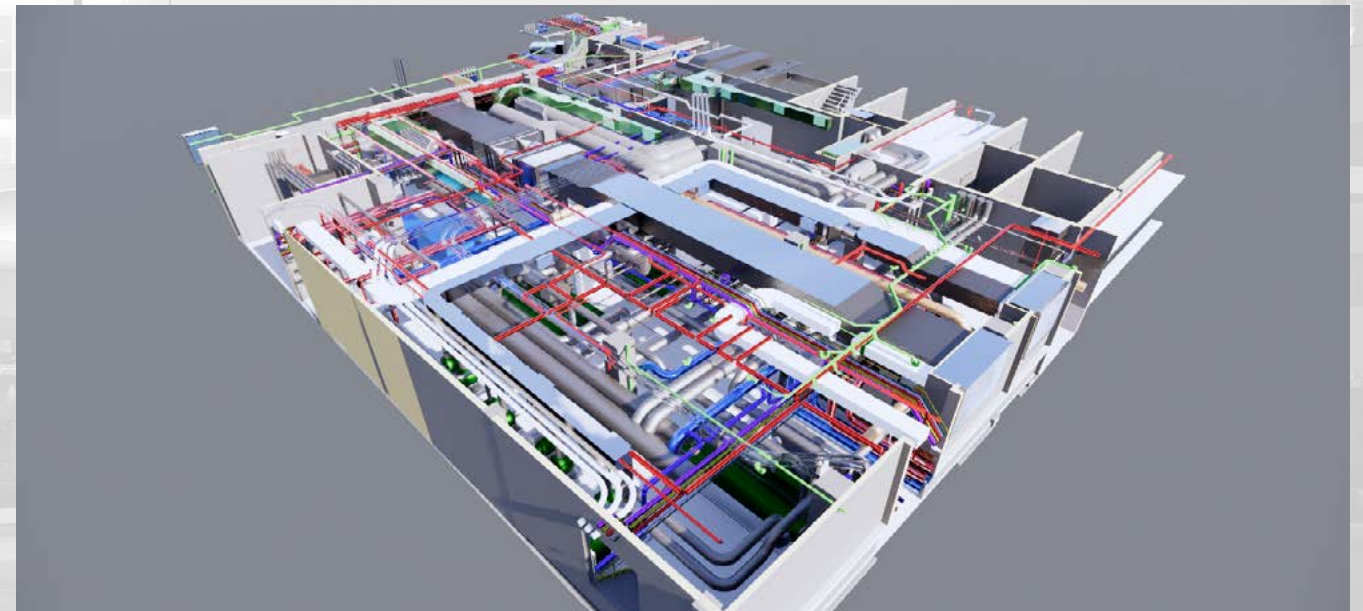
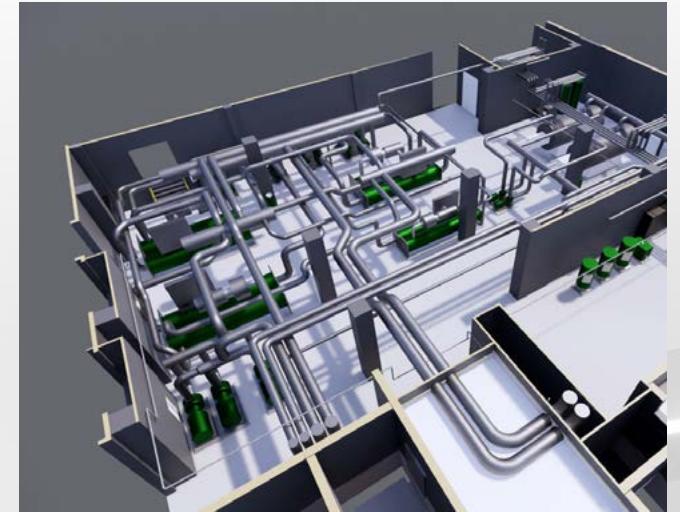
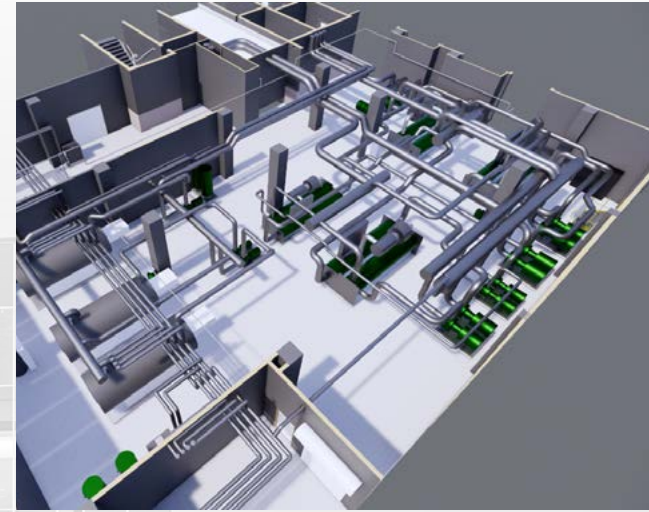


DIGITAL LIBRARIES

Achieving precision in design



ASSET ASSESSMENT



ABOUT AECOM

AECOM is the world's premier infrastructure firm. From planning, design and engineering to consulting and construction management, we have extensive experience in creating healing environments throughout the entire project cycle that save lives and improve health. We believe in the power of community and recognize the extraordinary contributions hospitals and clinics make to cities, regions and states, and their economic, social, and cultural values.

WORLDWIDE CENTERS OF EXCELLENCE

Los Angeles

Minneapolis

Washington

London

Abu Dhabi

Chennai



Shanghai

Hong Kong

Singapore

Bellville

Melbourne

-  US & EMEA Healthcare Centers of Excellence
-  APAC Healthcare Centers of Excellence

CONTACT US

AECOM embraces a holistic approach, and, listens and responds with solutions that support and articulate our clients' vision to create functional, sustainable and engaging places for communities.

www.aecom.com

BEN CHASTON

**Healthcare Lead
Asia Pacific**

ben.chaston@aecom.com

MANISH SHANGARI

**Healthcare Lead
India**

manish.shangari@aecom.com

RAY BAI

**Healthcare Lead
Greater China**

ray.bai@aecom.com

JACK KERLIN

**Healthcare Lead
Australia and New Zealand**

jack.kerlin@aecom.com

MICHELE WHEELER

**Healthcare Lead
Hong Kong**

michele.wheeler@aecom.com