

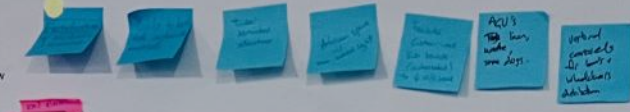
GOALS



Sustainability

A

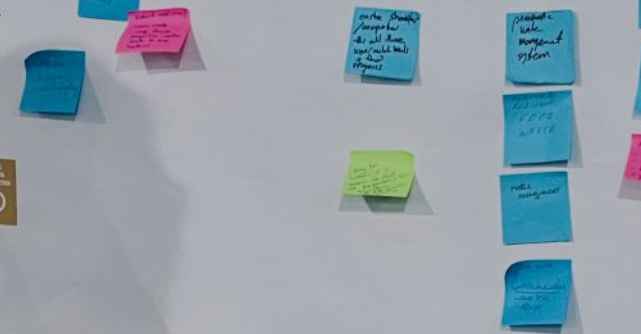
Sustainable Buildings and Precincts
What does a sustainable precinct mean to you, and how should it better the lives of its users?



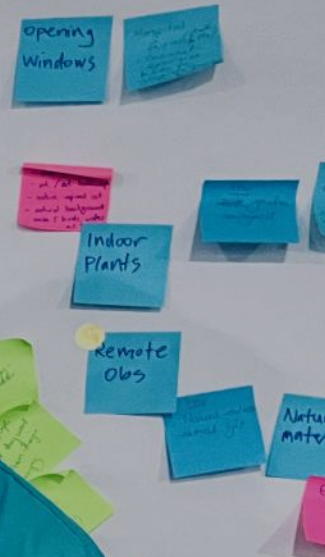
Climate Risk Ready (Net Zero ready)
How can we make the hospital more resilient to climate change events?



Zero Waste
Which waste streams do we need to focus efforts towards, and how might we deal with them?



Well-being and Healthy Living
What is needed to create a healing and healthy environment for patients,



Env

Sustainability Workshop

New Bankstown Hospital Summary Report

June 2022



ALWAYS WAS, ALWAYS WILL BE

In the spirit of reconciliation, we acknowledge the Traditional Custodians of Country throughout Australia, including the local Cabrogal people of the Darug Nation, and their continuing connections to culture, land, sea and community.

We pay our respect to their Elders past and present, and extend that respect to all Aboriginal and Torres Strait Islander peoples.

Traditional Custodians continue to show great resilience and generosity of spirit towards other peoples with whom they now share their land and waters. We recognise that by acknowledging our shared past, we are paving the way for a future where all Australians are embraced.

To be sustainable, we need to actively contribute to a future based on mutual respect and shared responsibility, where everyone and all living things can thrive.

ABOUT THE PROJECT

The NSW Government has announced \$1.3 billion to build a state-of-the-art New Bankstown Hospital.

The hospital will meet the growing healthcare needs of the community, which is expected to grow to nearly half a million people by 2036.

The project will provide more services closer to home, and create job opportunities in construction, healthcare and research.

The New Bankstown Hospital will provide:

- Expanded Emergency services
- Intensive Care
- Surgery and interventional procedures
- Women's and Children's Health
- Rehabilitation
- Aged health
- Mental Health
- Cancer services
- Ambulatory Care services
- Community Health services.

OVERVIEW

The New Bankstown Hospital has the opportunity to be one of the world's most sustainable health facilities, with a whole-of-life design approach which delivers social and economic benefits as well as environmental ones.

In early 2022, we issued an open invitation to hospital staff to help us achieve that goal.

Everyone who indicated an interest was invited to join us for the Sustainability Workshop - a kickstarter for our Sustainability Working Group, and an opportunity to explore everyone's ideas about how we can work towards a more equitable and sustainable future.

More than 40 people joined us for the workshop and they contributed more than 250 ideas about sustainability.

This is what they told us was important to them, their colleagues, patients and community.

The workshop results have been shared with our planners, sustainability consultants and working group for action.

SUSTAINABILITY WORKSHOP on OUR PRIORITIES



SCENE SETTING

Climate change is widespread, rapid, and intensifying. Humans are warming the planet, CO2 levels are rising faster than ever and extreme weather is on the rise.

Oceans are getting hotter and more acidic. Many climate changes are already irreversible.

But we can still act and prevent the worst-case scenario.

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future.

At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership.

They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.

The UN goals underpin our approach to sustainability.



<https://sdgs.un.org/goals>



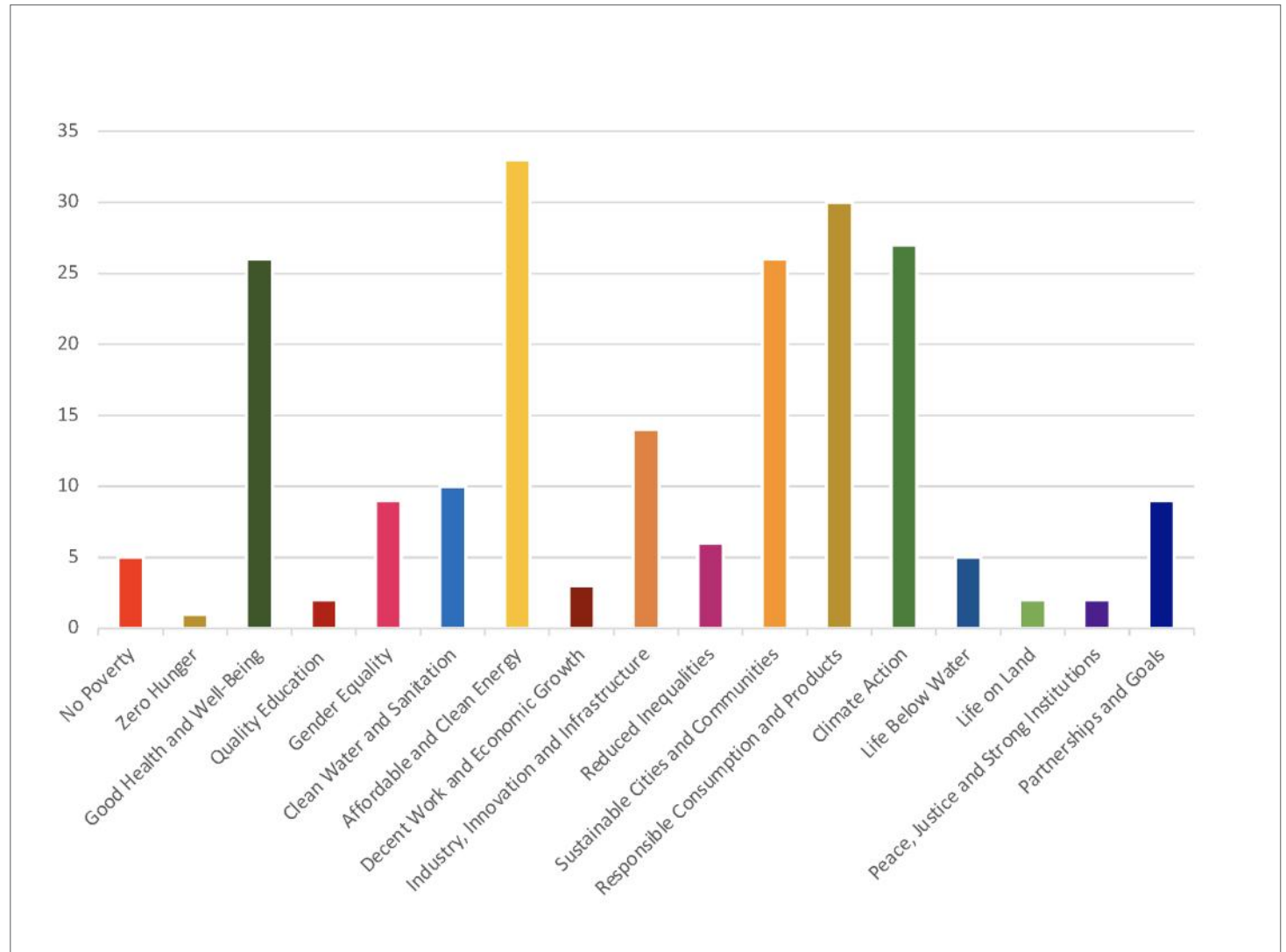
What's important to us?

We asked workshop participants to consider the goals and tell us which ones they thought were the most important.

Their United Nations Sustainable Development Goals priorities were:

- Affordable and clean energy
- Responsible consumption and products
- Climate action
- Sustainable cities and communities
- Good health and wellbeing.

We will use these priorities to frame our project's approach to sustainability.



SUSTAINABLE DEVELOPMENT GOALS



Dots for good: we rated 'Affordable Clean Energy' and 'Responsible Consumption and Production' as areas where we can make a big difference.

PRIORITIES FOR OUR NEW HEALTH INFRASTRUCTURE

Health Infrastructure considered the 17 UN sustainability goals and how they could inform hospital design.

We developed overarching themes and 13 draft priorities for delivering sustainable health infrastructure.

Since the workshop, the overarching themes have been amended, and we have added 'social outcomes' as a fifth theme. This was done to reflect the importance of health projects delivering social infrastructure.

Good design
and
sustainability

Whole of life
approach

Circular
economy

Resilience

Social
outcomes

The 13 draft priorities developed by Health Infrastructure are:

- Wellbeing and healthy living
- Celebrate culture and Country
- Connected and inclusive
- Connecting to Country
- Greener places and places for nature
- Healthy and connected built environment
- Sustainable buildings and precincts
- Climate risk ready and Net Zero ready
- Materials and waste
- Governance and reporting
- Sustainable choices and procurement practices
- Empowering people and partnerships
- Embedding sustainability.

The priorities we identified as part of the workshop are strongly reflected in the Health Infrastructure sustainability priorities.



WE LOOKED AT SUCCESS STORIES

SUNSHINE COAST UNIVERSITY



SERIES of WINGS
INDOOR
OUTDOOR
NATURAL SPACES
• SOCIAL RESPITE
RAIN WATER
80% HOSPITAL USE
HEALING SPACES

KINGHORN CANCER CENTRE



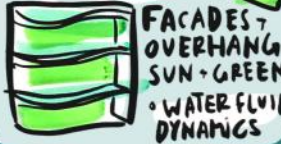
NATURAL LIGHT
TIMBER FINISHES
PASSIVE ATRIUM
NO MECHANICAL
STAFF CONTROL VENTILATION

KOO TECK FOAT HOSPITAL



SUNKEN COURTYARD w/ INTERNAL GREEN
• ALUMINIUM SUNSHADE WEATHER PROOFING
FULL HEIGHT GLAZING
NATURAL VENTILATION
• SOLAR

NG TENG FONG GENERAL HOSPITAL



NATURAL VENTILATION
• HEALING POWER of NATURE
BIRD SONG
• FACADES + OVERHANG SUN + GREEN
• WATER FLUID DYNAMICS

BOSTON MEDICAL CENTRE



ROOFTOP FARM
• COOLING
• HEATING
• ENERGY EFFICIENCY
OFF-GRID
FRESH FOOD FOR KITCHEN, PATIENTS + VISITORS

ROYAL CHILDRENS HOSPITAL




FAMILY CENTERED DESIGN
COLOUR Personalised
BIO MASS BOILER
• BLACK WATER
• RAIN WATER

ALDERHEY CHILDRENS HOSPITAL



HOSPITAL WITHIN PARK
INTEGRATED LANDSCAPE
ENERGY ON-SITE
CLOSED LOOP GROUND COOLING
PRE-FABRICATED BUILD MATERIAL

SOUTH-WEST HEALTHCARE



REPLACE PLASTICS w/ BIODEGRADABLES:
• 160,000 STRAW
• 45,000 INJECTION TRAYS
• 80,000 KIDNEY DISHES
• 10,000 DENTURE POTS
• 33,000 ANAESTHETIC TRAY
ZERO WASTE

KEY TAKEAWAYS FROM THE SCENE SETTING

UN SUSTAINABLE DEVELOPMENT GOALS



SUSTAINABILITY IN HEALTH CONTEXT



HEALTH INFRASTRUCTURE PRIORITIES + ACTION AREAS



SWSLHD PRIORITIES



THE WORKSHOP

Workshop participants were asked to brainstorm their ideas for sustainable initiatives in the new hospital.

They were asked to consider three themes, then split into small groups to organise and prioritise their ideas.

Their comments are recorded on the following pages, along with their 'gold star' suggestions - topics they felt are critically important if we are to deliver a truly great hospital. Where the same suggestion was made more than once, we've included all the comments so we have a true picture of what's important.



CONNECTEDNESS

Connecting with Country – how might we better serve and recognise specific needs of our Indigenous community?

How might we celebrate all cultures and Country at the new health campus?

What programs and spaces could the health campus introduce to improve connectedness and inclusion?



SUSTAINABILITY

Sustainable buildings and precincts - what does a sustainable precinct mean to you, and how should it better the lives of its users?

Climate risk ready (Net Zero ready) - how can we make the hospital more resilient to climate change events?

Zero waste - which waste streams do we need to focus efforts towards, and how might we deal with them?



ENVIRONMENT

Wellbeing and healthy living - what is needed to create a healing and healthy environment for patients, visitors, and staff?

Greener places and places for nature - what type of green places are needed, where would you like to see them and how might those spaces be used?

Healthy and connected built environment - what features would you like to see that would create a healthy and connected built environment?

Nature

- natural – material, light, ventilation, gardens
- outdoor treatment areas
- open and engaging public spaces
- landscaping and green space
- healing outdoor spaces
- areas for patients and staff in nature, outside of ward
- native plant gardens
- productive garden growing, local culturally appropriate food and open to community
- all bees – bee garden
- community garden
- more green spaces for patients and staff
- flexible and adaptable spaces
- maximise green areas and access to them for community
- green everywhere – inside and out
- rooftop therapy garden
- healing spaces/gardens
- able to see plants and sky
- indoor plants
- garden courtyard
- waiting in the garden
- outdoor or stand spaces tailored to the local community and health
- green space and properly integrated with hospital campus
- a natural view from every patient space – something green, natural light, interest
- every bed to see a tree
- internal and external landscape
- biophilia
- natural background noise e.g. birds and water
- park, garden and wetland community space
- indigenous landscape – wetlands, shady trees
- roof space efficiencies - garden accessible, solar
- green roofs connected to groundscape
- green gardens/plants
- roof gardens versus plant rooms
- community gardens
- outdoor outpatient clinics
- recurrent funding for sustainable landscape design

Nature overwhelmingly matters to people.

It was our most popular 'gold star' category' with staff rating it as a priority for the new hospital.

Our challenge is to connect people to Country, green spaces, places to connect, indoor-outdoor space, views, sky and gardens.

We gave this issue six stars.

Energy

- electrification of the building is essential
- patient lights left on 24/7 - turn off when not in use
- reduce energy burn
- stairs in hospital visible/ prominent to avoid using lifts
- high degree of power generation on-site in a sustainable means
- green energy – solar, wind, water
- materials (with low embodied energy)
- access for maintenance
- more solid internal walls for thermal mass
- less glass for heat efficiency
- solar roof panels and wind turbines
- green energy – solar panels and wind energy
- solar (PV) on the roof of the car park to provide power to EV charging stations
- EV - electric vehicle charging
- lots of EV charging stations
- solar (PV/photovoltaic)
- solar
- light-coloured roofs
- use renewable energy e.g. solar
- facility design that supports use of natural light including for (passive) heating and cooling (reducing cooling loads)
- trial innovation in heating/cooling systems
- High/best efficiency HVAC (heating, ventilation and air-conditioning)
- HVAC
- tri-generation (tri-generation produces electricity, heating and cooling)
- caution with tri-generation – does it really work in the real world or only on paper
- heat recovery integrated into outside air/exhaust/return air supplies
- energy efficiency
- electrification electrical based systems
- zero light switches in public spaces and amenities
- 100% electric – no gas!!
- no gas – 100% electric
- 100% electric
- regeneration onsite, offsite renewables, PPAs (power purchase agreement)
- double glazed curtain wall with solar panels
- facade curtain wall, automated sun blinds to decrease air-conditioning load

Energy was the other priority at the workshop. A fully electric hospital, use of renewable energy, EV charging stations and simple money-saving measures (like energy-saving automated lighting) were all mentioned.

Staff also noted that hospitals with well-placed stairs helped reduce use of the lifts and offered health benefits.

We gave this issue four gold stars.



Country, Culture, Community ★

- places for First Nations safety and diversity of community
- local language signage
- enrichment of local community
- local stories of country – art, landscaping, yarning circles
- Indigenous stories and learnings for all signage
- understand the local Indigenous customs and communication and make it part of the hospital
- Indigenous design in landscapes, native flora and fauna
- cultural spaces for First Nations
- gathering circle
- integrating programs with Council
- links to community

This issue was important to us.
We gave it three gold stars.

Art matters to us ★

- artworks
- artist in residence/musician in residence program
- spaces for art and music creation giving evidence about using art/music as therapy e.g. art room, music room/space
- community health messages through use of artwork
- art everywhere
- open conference facilities to community events
- nature inspired art

This issue was important to us.
We gave it two gold stars.

Part of the community

- integrated with the local community
- a campus that encourages healthy choices such as walking/public transport/composting and recycling
- hospital as a community centre
- integration of local council initiatives gives plans for redevelopment of Bankstown
- integrate with other environmental initiatives for example, sharing and including a space for shared car hub
- consider what can be done offsite for example services in the shopping centres – don't just focus on the hospital

“We reflected on the creation of places and spaces which encouraged safety for our First Nations community, and which consider the diversity our community. We need a mix of those spaces, with artworks which are integrated with elements of culture and community.”

Design for every body

- design for everybody
- design wait areas for impact from community members
- disability inclusion action plans
- inclusive design and wayfinding, engage with local community
- multilingual wayfinding
- wayfinding and safety/security
- breastfeeding friendly
- design for micro mobility, ease to access and use
- incorporate rehabilitation opportunities into landscaping design example physio, OT
- options for outdoor care such as therapy spaces outside and conversation spaces
- make wards feel like home, not like hospital

Places to connect

- spaces for connecting with people inside and outside the hospital
- play equipment for adults and children to encourage physical activity
- free Wi-Fi
- pet areas and walking track
- family spaces
- spaces for informal community gatherings
- indoor and outdoor spaces designed with the local community members

Food

- healthy food options – fruit trees, herb gardens, drinking water fountains
- kitchen garden on roof, cook from fresh
- fresh food from on-site gardens
- closed-circuit aquaponics system for growing fish and vegetables on rooftop
- healthy food options
- feeding people what they want when they're hungry
- food made to order and sourced locally
- on-site kitchen garden
- edible gardens
- composting food waste



“Art everywhere”

“Make wards feel like home, not hospital”



Lifelong learning

- health education
- hospital to educate community
- education and communication
- school and university programs and education space
- well-being programs/education
- engaged stakeholders
- recognise hospital role in educating community on climate safety
- places for students to study

We saw learning as an opportunity for social sustainability. We want to be known for education and integration with local learning partners.

“We want a facility the community can embrace and are proud of.”

This issue was important to us. We gave it four gold stars.



Getting around ★

- incentives to encourage public transport use
- EVs for moving from A to B within site
- green transport
- cycling contracts that are separated and safe to get to hospital and connected to surrounding area
- easily accessible public transport
- transport corridor between through sites
- slow car environment in surrounding streets
- pedestrian pathways
- walking paths are well connected to key points in the community including transport hubs
- staff shuttle to reduce car use and increase public transport
- high quality public transport experience that is accessible
- priority for people walking into facility/precinct
- convenient cycle parking – accessible and safe to use
- child friendly spaces in roads and main area
- bike pathway and places to lock/ park bikes
- connect exercise bikes to generate energy for batteries
- close to transport – electric public transport

This issue was very important to us. We gave it six gold stars.



Work/Life

- employer of choice
- remote working if safe and effective
- places for staff to exercise – outdoor gym, walking paths, multi-use courts, outdoor table tennis table
- end of trip facilities
- only have the people on site who physically need to be there

Wellbeing

- a place for wellbeing
- health and wellbeing centre
- wellbeing – patients outdoor
- hospital gym for staff and patients

Service design

- smaller, more efficient, more focused services
- hospital only for high acuity care; community sites for other care

Digital

- best example of digital health – immersive environment
- health at home
- use IT

Retail

- market street on weekends
- retail offering that meets energy and waste performance criteria



Waste

- waste transfer efficiencies from ward to waste centre
- all waste treated on site
- pneumatic waste management system
- waste management
- good waste segregation
- efficiency – reduce duplication and waste
- waste returned to supplier schemes
- organic waste streams
- closed loop consumables – reusable food and clinical receptacles, plastic separation and boiling
- refurbish/recycle hospital equipment
- landscaping solutions that can absorb organic waste (green and food)
- getting rid of shoe covers in OT – they achieve nothing
- repurpose consumables
- reusable equipment
- circular design - use everything
- AGUs - linen, waste, some drugs
- use less consumables, reuse
- pay for labour if it means we don't use disposables for everything – PPE, cutlery, crockery, curtains etc.
- on-site sterilisation and repair
- low toxicity cleaning products

Plastics

- reduce single use plastics and non-medical on wards
- plastic reduction
- less plastic and more sustainable products
- waste - plastic recycle
- recycle plastic
- disposable/recyclable PPE
- restore Kinguard recycling
- lack of plastics recycling
- singular economy for plastics

Paper independence

- shift towards paperless workplace
- systems and environment supports paperless systems

Composting and food waste

- composting food waste
- organic recycling of food waste
- reduce and re-divert food waste
- desiccant dehumidifying
- on-site shredder/compost for all sugar mulch bales and food organics
- organic waste goes to composting and recycling for green space management

Waste and recycling were hot button issues for staff. There were more than 50 comments about the need to reduce and better manage waste of all kinds.

Recycling ★

- recycle
- make reducing evident
- recycle glass and aluminium canisters in anaesthetics
- recycling paper and plastic
- recycle
- recycle PPE
- recycling
- recycling
- recycling
- recycling
- recycling
- recycling
- recycle purchasing policy
- partial recycling i.e. sorting ending up as landfill
- better recycling and reuse of materials

This topic was important to us.
We gave it three stars.

Water

- water
- rainwater harvesting, solar panels, fruit and veggie garden with consumers' contribution
- water harvesting
- recycle water
- water management
- water recycling water recently
- water efficiency
- water efficiency
- no drop of water waste
- grey water reuse
- grey water for gardens
- rainwater
- rainwater from roof for toilet flushing
- e-water treatments for kitchen
- reusable wastewater
- bring your own water bottle and filling stations in rooms
- water bodies for stormwater capture and heat management

Space saving

- vertical carousels for beds and will share distribution
- space-saving initiatives – vertical carousels

Materials

- natural materials in clinical spaces
- natural materials
- furniture selections with low carbon footprint
- use material with low VOCs, GWP refrigerants and materials (concrete/steel finishes)
- low carbon material



Ventilation and windows

- natural ventilation/mixed mode using climate projection weather data to size systems
- open windows
- windows
- windows that open for fresh air
- more windows for natural light
- natural ventilation
- natural ventilation
- natural ventilation
- natural ventilation
- overhangs for shading
- climate risk – natural ventilation, cool island concept
- windows that can be opened in most rooms

Natural light

- daylight
- natural light to all spaces
- natural light you
- bring in the daylight and air
- natural light in rooms
- natural light

Urban heat

- heat management
- green space and trees to protect against extreme heat
- passive heat and cool and natural ventilation access
- landscaping and solutions that decreased temperatures

Building

- net carbon neutral in new building
- adaptable infrastructure
- embodied carbon
- plant rooms in basements above 1:100 flood levels
- decentralised hot water boiling
- sustainable buildings
- service lifts
- Bankstown hospital as an exemplar net zero hospital
- a regenerative hospital, net positive
- sustainable but also operational
- build expensive, run cheaper
- flexible design automation

Responsible procurement

- Responsible procurement
- operational costs and ongoing partnerships
- socially responsible – no child labour, FSC
- needs analysis of local vulnerable communities
- responsible supply chains
- sourcing from ethical suppliers
- driving change in industry by telling them what they need to do to meet health goals
- buy local to cut down on carbon use
- source locally

Ethical procurement and using our 'buying power' to driving change in industry were important for social and economic sustainability.

THE PITCH

Each group reflected on what was most important to them, and shared their priorities with us.

There was a common view that Net Zero readiness, an 'all electric hospital' to help reduce emissions, nature and green spaces, spaces to connect, and waste management need to be our focus areas.

“We want to be an exemplar for sustainability so when you walk into the hospital, you can see what we’re doing towards that goal.”



Energy saving, fully electrified hospital



Nature inside and out with views, green spaces



Getting around with easy public transport, walking and cycling



Fresh air and light, and patients decide



Places to connect



Places for our diverse community



Waste reduction especially PPE and theatre waste



Doing things differently



Reuse and recycling



Water, shade and urban heat management



Net Zero and energy generation



Food choice, waste reduction and better management

NEXT STEPS



- We said we would prepare a workshop report - this report will be available on our website.
- The workshop outcomes have been provided to our architects for consideration and incorporation into the design.
- The workshop outcomes will be provided to the Working Group who will prioritise the recommendations, set short, medium and long-term goals, and start to work towards them now.
- We will update staff and community every six months with a Sustainability Report Card.
- We will keep everyone up to date via our website, newsletters and social channels.
- We will let our hospital community know if there are other opportunities to participate.
- We are interested in ideas and feedback at any time via our Comment Box at <https://www.surveymonkey.com/r/comment-newbankstownhospital> or scan the QR code.



RESOURCES

For more information about the United Nations Sustainability Development Goals, visit the website <https://sdgs.un.org/goals>

Health Infrastructure is currently developing sustainability priorities (mapped to the UN goals) which will guide future health services development. As more information becomes available, you will find it on our website at <https://www.hinfra.health.nsw.gov.au/>

South Western Sydney Local Health District has been leading change in the sustainability area, with a range of very successful programs and initiatives to reduce waste, improve processes, create greener spaces and make buildings more efficient. For more information about the NSW Government's sustainability commitment, visit <https://www.environment.nsw.gov.au/topics/sustainability/sustainability-in-government>



Scan to go to the website for more information ▶

ATTENDEES

45 people attended the workshop including:

- Medical staff
- Nursing staff
- Allied Health staff
- Support staff
- HealthShare NSW representatives
- Hospital executive and administration
- Consumer and Community Participation Committee representative
- NSW Ministry of Health representatives
- New Bankstown Hospital Project Team
- Health Infrastructure sustainability, planning and precinct representatives
- LCI sustainability consultants
- Visual scribing by Tatum Kenna

Our workshop was conducted under COVID-safe conditions.

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When you see the interpreter symbol you can ask for help to communicate in your language. Call 131 450 for an interpreter and ask them to call 02 9978 5402

Arabic / عربي

عندما ترى رمز المترجم يمكنك طلب المساعدة للتواصل بلغتك.

Vietnamese / Việt-ngữ

Khi nhìn thấy dấu hiệu thông ngôn viên, quý vị có thể nhờ giúp đỡ để giao tiếp bằng ngôn ngữ của mình.



New Bankstown Hospital Project
newbankstownhospital.health.nsw.gov.au