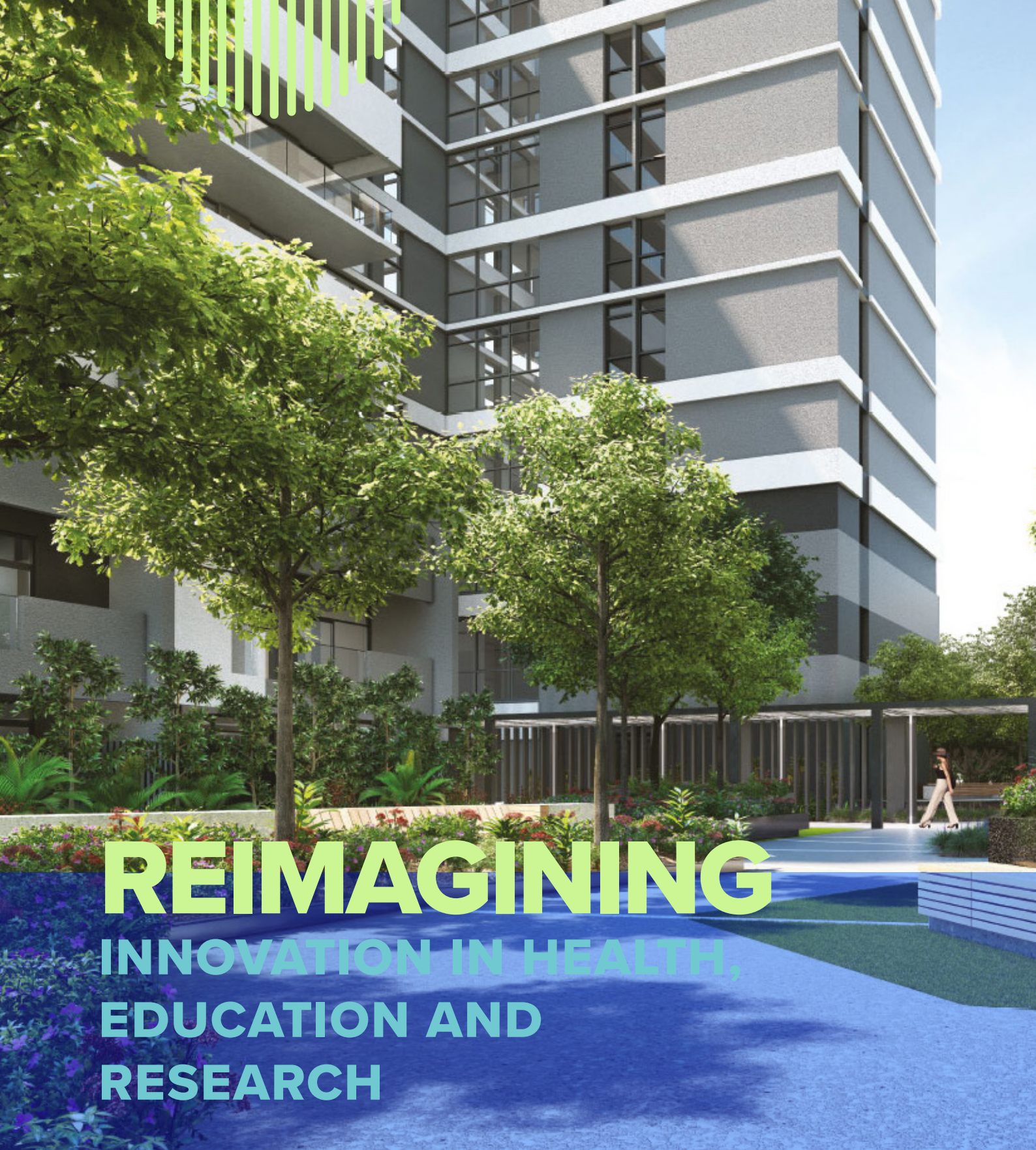




REIMAGINING INNOVATION IN HEALTH, EDUCATION AND RESEARCH

LAND USE ANALYSIS AND PRECINCT STRATEGY

ICT STRATEGY
INVESTMENT FRAMEWORK

SEPTEMBER 2019



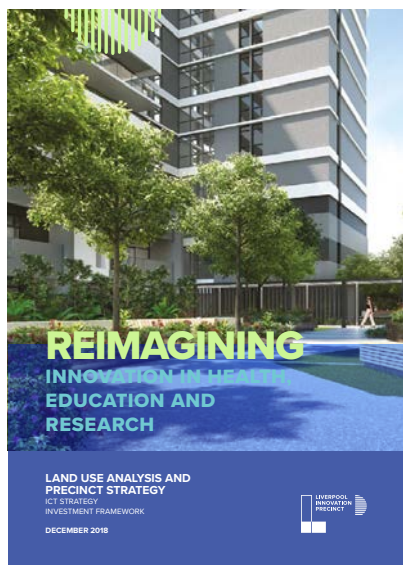


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SCOPE



1 LAND USE ANALYSIS + PRECINCT STRATEGY



2 ICT STRATEGY



3 INVESTMENT FRAMEWORK



1

LAND USE ANALYSIS

PURPOSE OF THE LIVERPOOL INNOVATION PRECINCT (LIP)



GENERATE AWARENESS AND OPPORTUNITIES

- Generate awareness of the work of the LIP amongst government, business, private investment and the general public.
- Identify overlaps & gaps with other proposals and initiatives.
- Solidify how and where everyone is heading.
- Change the nature of the CBD.
- Provide a catalyst to create jobs.
- Promote LIVE – WORK – PLAY.



DEFINE THE COMMON GROUND

- Identify opportunities for sharing, collaboration and partnerships between precinct partners.
- Identify opportunities for support and leverage from all parties.
- Maintain innovation precinct positive momentum.
- Establish a framework from which business cases will align.

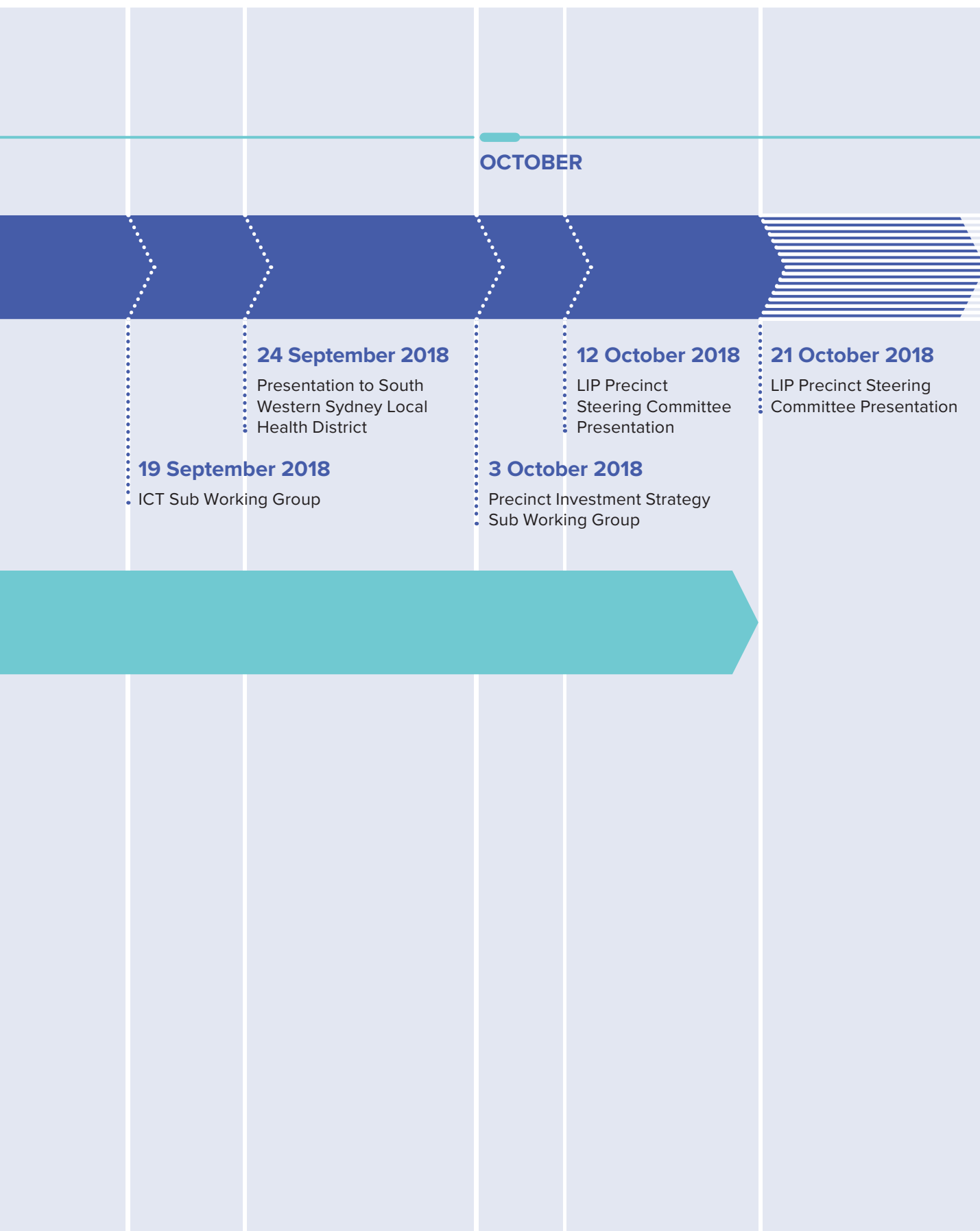


PROMOTE INVESTMENT

- Promote the work of the LIP to reinforce investment from current stakeholders and promote opportunities for new investors.
- Influence future investment in infrastructure and social services.
- Supporting directions being pursued under the Liverpool LEP and GSC Place Strategy.

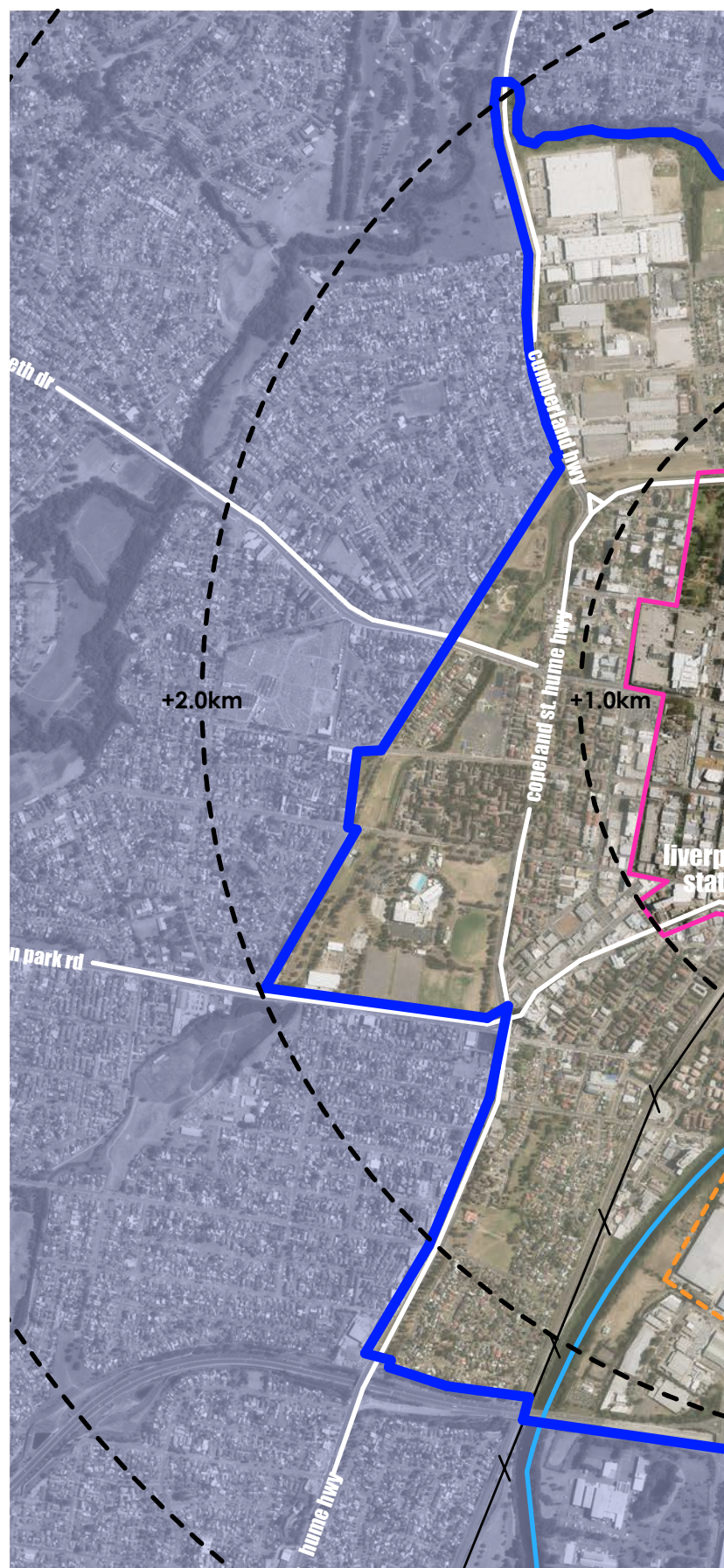
WORK TO DATE

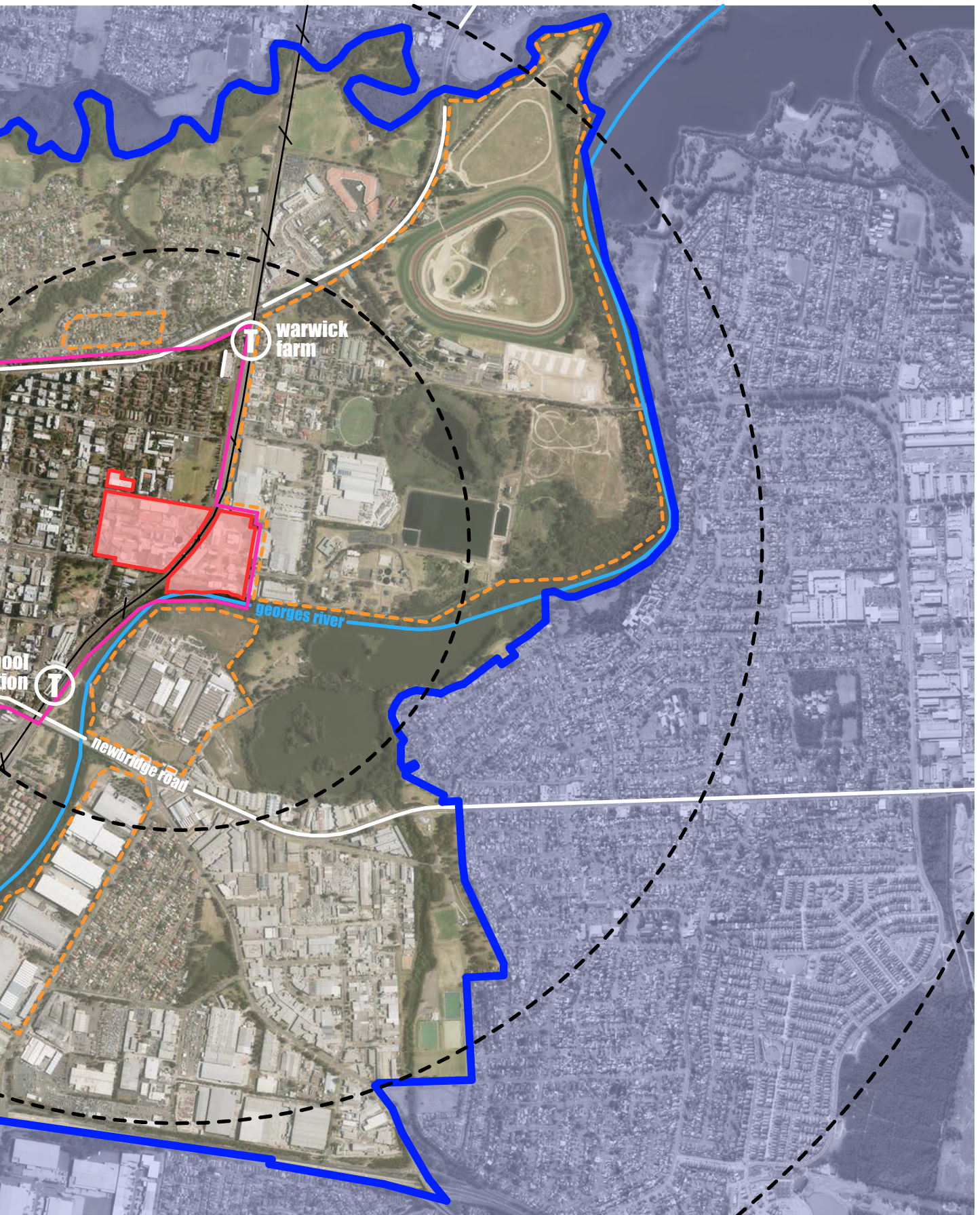




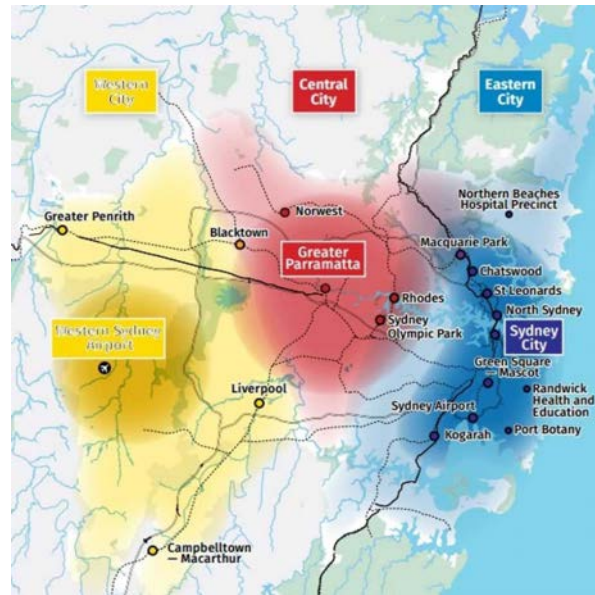
PRECINCTS AND AREAS

-  Liverpool Collaboration Area
-  Liverpool Innovation Precinct
-  Master Plan of Influence
-  Liverpool Health & Academic Precinct





REFERENCE DOCUMENTS



Premier's Priorities

The Premier's priorities target 12 key priorities which can only be addressed through a whole of government approach.

Of the 12 priorities, several have key linkages to the vision being sought for the LIP as outlined below:

- Creating new jobs (150,000 new jobs by 2019)
- Delivering infrastructure (largest capital government program in state NSW state history)
- Improving educational results
- Improving service levels in hospital (target to get 81% of patients through emergency departments within four hours)

Greater Sydney Region Plan: A Metropolis of 3 Cities

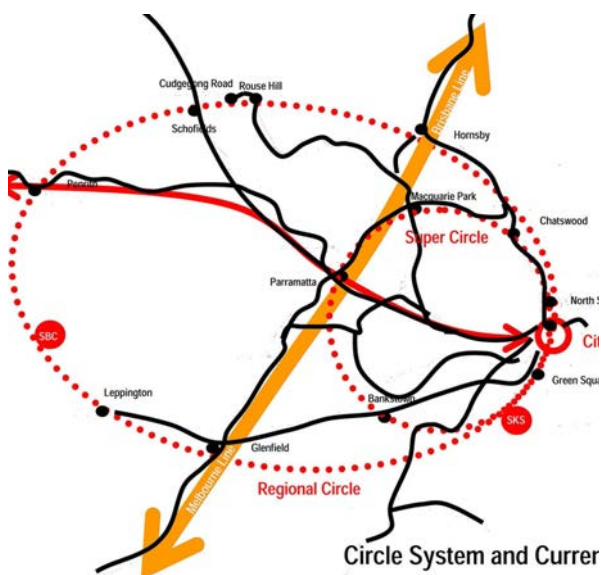
The Greater Sydney Region Plan (GSRP) establishes the framework to support sustainable growth across the three cities of Sydney through to 2056 in order to manage the anticipated population growth (12 million people) and address the current imbalances between east and west.

Liverpool is positioned as a key metropolitan centre within the Western Parkland City, with connections to the new international Western Sydney Airport.

Of particular relevance to the LIP is objective 5, which establishes the benefits of growth being realised through collaboration of government, community and business.

This includes ensuring the best use of public spaces, school infrastructure and community facilities.

The GSRP is supported by Future Transport 2056 and State Infrastructure Strategy which detail the proposed actions over short, medium and long terms which will assist in achieving the 40 objectives of the GSRP.



Future Transport 2056 State Infrastructure

Future Transport 2056 establishes the 40 year vision for how places and land use will support the future transport network.

The Future Transport 2056 guides investment in transport and is delivered through a series of supporting plans.

Of particular relevance to the LIP is the following initiatives:

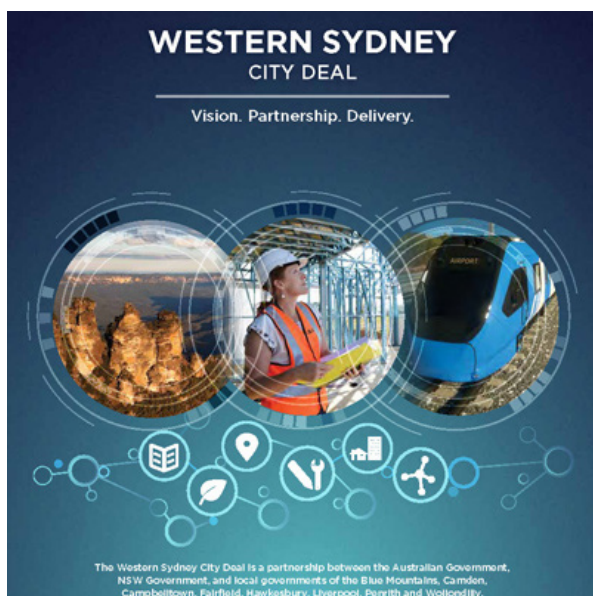
- Strengthening local partnerships – State government to work with local councils and communities to develop integrated transport and land use planning strategies which support growth in key metropolitan centres
- Infrastructure to support rapid bus connections between Liverpool and Western Sydney Airport and surrounding precinct
- Encouraging active travel (walking and cycling) using public transport – Sydney's Cycling Future program, secure bike storage is being rolled out across the network providing undercover storage at selected railway stations
- Sydney Metro City and Southwest extension to Liverpool

Strategy: 2018 – 2038

The State Infrastructure Strategy (SIS) sets out six cross sectoral strategic directions, designed to achieve more with less from the State's largest infrastructure program.

Of particular relevance to Liverpool is the following initiatives:

- Bringing together infrastructure investment and land-use planning to improve access to international gateways and improve intercity and intracity transport connectivity through the Western Sydney Infrastructure Plan
- Improving digital connectivity through the development of an open-data policy with NSW government proposing to improve the performance of infrastructure investments by embedding smart technology in new and upgrade infrastructure, adopting interoperability protocols and cybersecurity standards, and providing better spatial data and mapping of assets



Western Sydney City Deal

The Western Sydney City Deal is a partnership between federal, state and local government to support the anticipated growth in Western Sydney resulting from the significant infrastructure investment led by the new Western Sydney Airport.

The city deal seeks to plan for a city supported by infrastructure and through collaboration develop new approaches to land use and infrastructure planning and delivery.

The city deal commits to: connectivity, jobs for the future, skills and education, liveability and environment, planning and housing, implementation and governance, through:

- Creation of collaboration area, to be developed in partnership by Greater Sydney Commission and local council
- Growth Areas Urban Renewal corridors: transformative corridor delivery including new land release areas, cityshaping transport investment and urban renewal, infrastructure schedules and funding option
- Planned Precincts: transformative precinct delivery targeted development focused housing diversity around a centre and transit node/rail station, infrastructure schedules and funding options

Western City District Plan

The strategies outlined in the Greater Sydney Region Plan are further developed in the Western City District Plan, which describes the objective and role of key metropolitan centres including Liverpool.

The plan identifies the following key initiatives which have relevance to the LIP:

- Rapid bus services for Western Sydney before Aerotropolis opening 2026
- Development of a common ICT approach through:
 - a) Western City Digital Action Plan
 - b) Smart Western City Program
 - c) 5G for the Western Parkland City
- Western Sydney Investment Attraction Office – establishment of WSIAO in Liverpool to attract domestic and international investment with an initial focus on the Aerotropolis
- Creation of high value employment precincts – State government will deliver a Land Use and Infrastructure Implementation Plan and an associated State Environment Planning Policy to set the planning framework for the Aerotropolis and the broader Western Sydney Airport Growth Area
- Education partnerships – NSW will seek to establish a partnership agreement on education to identify and deliver more education facilities for the Western City to support urban growth over time, in a manner consistent with the Schools Assets Strategic Plan



Liverpool Collaboration Area Place Strategy

The strategy establishes the vision for Liverpool's Collaboration Area, identifies opportunities and impediments, establishes priorities and actions to deliver on the vision.

The Collaboration Area aims to:

- Increase housing diversity and provide affordable housing
- Improve and coordinate transport and other infrastructure to support jobs growth
- Develop smart jobs around the health and education precinct
- Improve the night-time economy

The LIP seeks to support the initiatives actions being progressed by Precinct stakeholders within the Liverpool City Centre Core and Frame, and Scriveners Street precincts, including:

- Progress the redevelopment of \$740M Liverpool Health and Academic Precinct and undertake precinct-level planning to integrate it within the City Centre
- Create an innovation / research / health / advanced manufacturing hub
- Expand the Ingham Centre of Excellence
- Locate and develop a private hospital
- Establish additional university campuses for precinct stakeholders
- Develop an Integrated Land Use and Transport Services Plan

ANNUAL REPORT 2015-16



Committee for Liverpool Investment in the Great South West 2016 – 2036

The Committee for Liverpool Investment prospectus identifies the following key attributes and attractors for Liverpool which can be further built upon by the LIP:

- Population – Diversity remains a key strength, with 40% of Liverpool residents born abroad. Coupled with the fact that 40% of the population are also under the age of 30. Liverpool has a young and dynamic demographic, which substantiates the need for student accommodation and higher demand for affordable housing
- Industrial land is accessible and very affordable in the South West with the average industrial rent between one-third and one-quarter the cost of land in Eastern Sydney
- Health Care – The region also serves as an excellent testing ground for preventative health care research with Liverpool currently the number one diabetogenic hotspot in NSW, which draws clinicians worldwide to facilities such as the Ingham Institute



August 2017

Reimagining... the Liverpool Health, Education Research and Innovation Precinct



Reimagining... The Liverpool Health, Education, Research & Innovation Precinct

Reimagining establishes the vision for the LIP, centred around the key industries of health, education, research and innovation.

In order to progress the vision, the LIP identifies four key focus areas of land use, precinct master planning, information and communication technology and investment as being key catalyst for ongoing change, which is addressed in this precinct plan.

Liverpool 2027 Community Strategic Plan

The Liverpool Community Strategic Plan identifies four key areas as being integral to the continuing progression of the local government area. These are:

- Creating connection
- Strengthening and protecting our environment
- Generating opportunity
- Leading through collaboration

These focus areas are addressed and actioned through various federal, state and local plans.

Of particular importance is transport accessibility. Liverpool's growing population places significant demand on existing infrastructure and will only be further impacted by the growth in population and supporting infrastructure projects.

This direction is about planning high-quality, sustainable urban environments to create a great place to live, work and play.

In order to achieve this outcome, improvements in public transport, local and regional road network need to be progressed by all stakeholders.



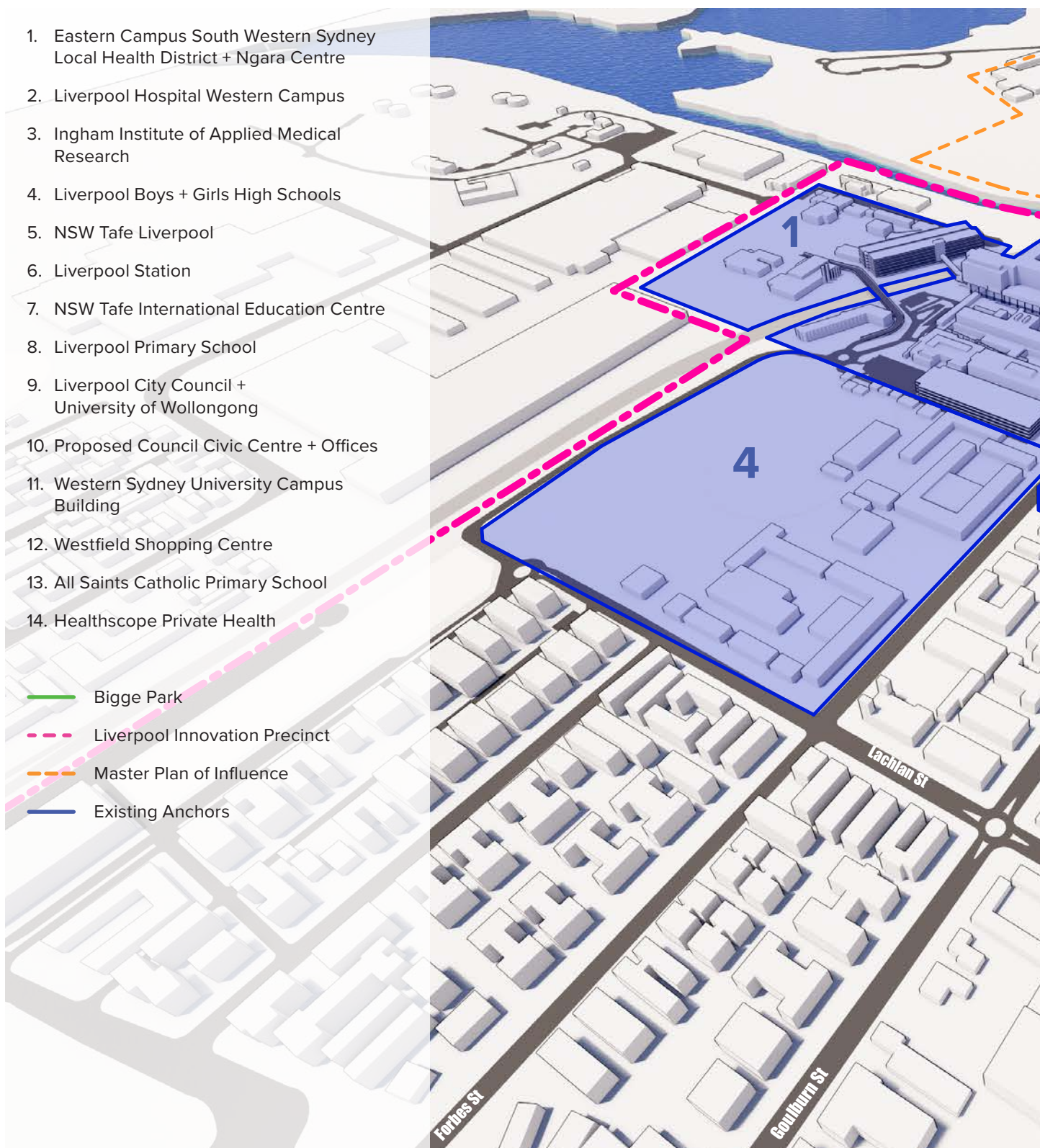
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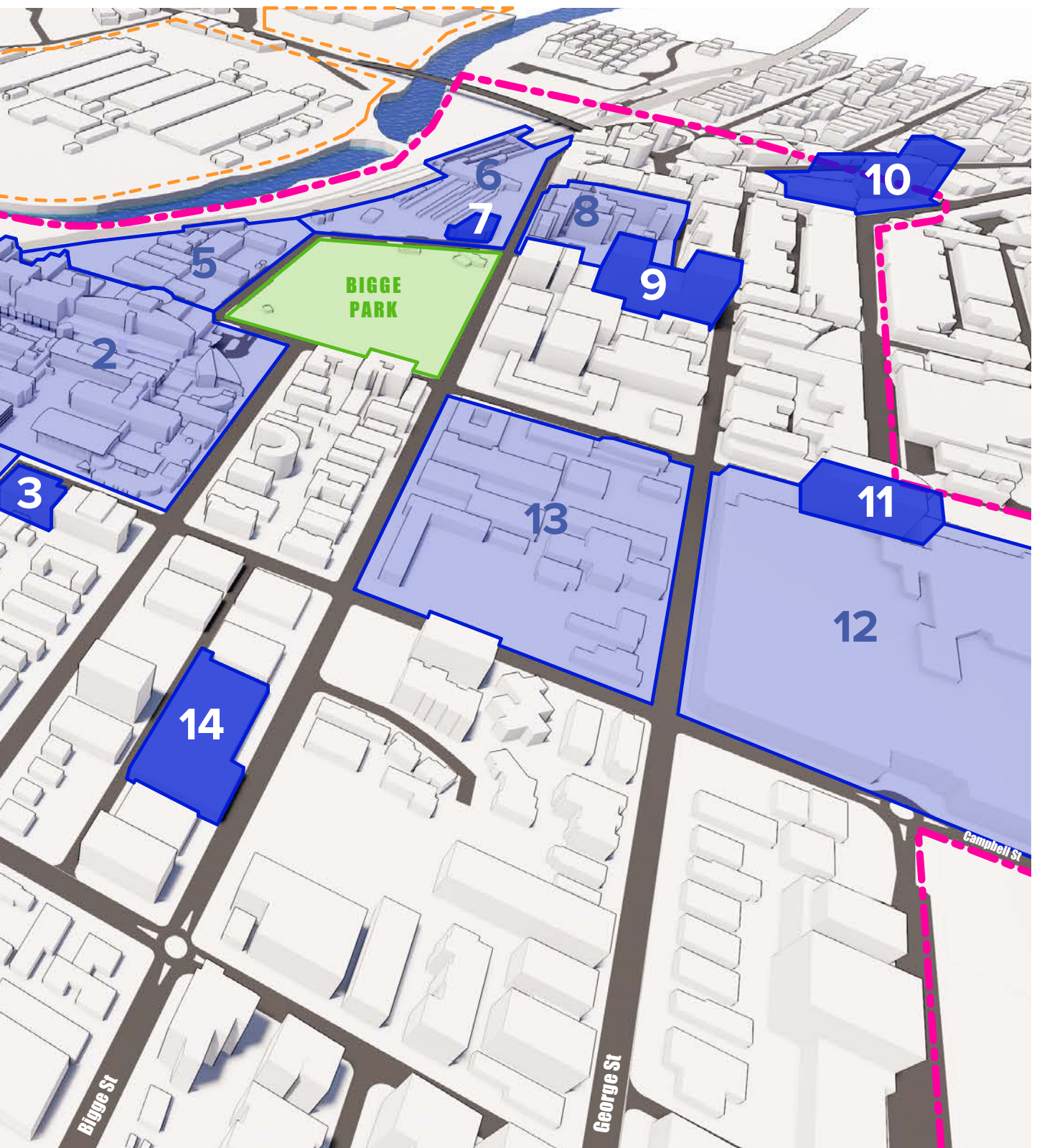
PRECINCT STRATEGY

EXISTING ANCHORS

1. Eastern Campus South Western Sydney Local Health District + Ngara Centre
2. Liverpool Hospital Western Campus
3. Ingham Institute of Applied Medical Research
4. Liverpool Boys + Girls High Schools
5. NSW Tafe Liverpool
6. Liverpool Station
7. NSW Tafe International Education Centre
8. Liverpool Primary School
9. Liverpool City Council + University of Wollongong
10. Proposed Council Civic Centre + Offices
11. Western Sydney University Campus Building
12. Westfield Shopping Centre
13. All Saints Catholic Primary School
14. Healthscope Private Health

-  Bigge Park
-  Liverpool Innovation Precinct
-  Master Plan of Influence
-  Existing Anchors





PRIMARY SITE OPPORTUNITIES

1. Eastern Campus SWSLHD + Ngara Centre

Currently home to SWSLHD non-clinical uses. Potential to support health and research facilities and complementary commercial and industrial uses.

2. Western Campus Liverpool Hospital

Liverpool Hospital main acute facilities currently integrating research and education uses.

3. Ingham Institute of Applied Technologies & NSW Ambulance

Flagship research facility showcasing the opportunity to build upon its operation by leveraging upon its existing relationships.

4. Department of Education: Liverpool Boys + Girls High Schools

Currently provides secondary school education with potential to meet projected student demand.

5. NSW TAFE Liverpool

Teaching and learning in both specialist skills and new career paths with an opportunity to repurpose for other complementary uses.

6. Liverpool Station & Tafe International Education Centre

Currently utilised for transport and educational purposes with an opportunity to reinforce strong transportation links to Liverpool CBD.

7. Liverpool Public School

Liverpool Public School provides primary education to young students within Liverpool.

8. Private Residential Ownership

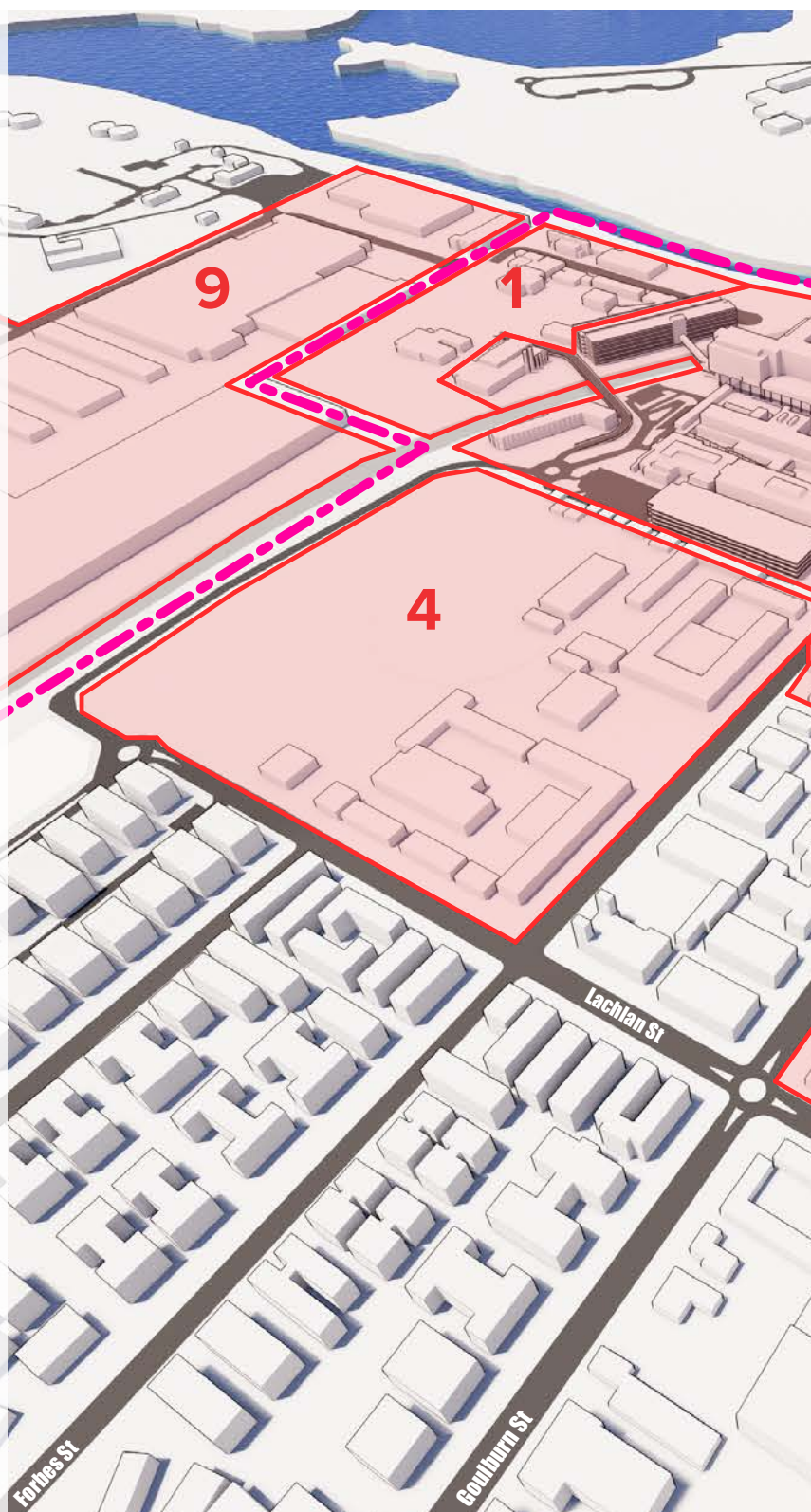
Strategic barrier between social infrastructure and Liverpool CBD with the opportunity to repurpose for complementary uses.

9. Eastern Industrial Land Precinct

Industrial zoned land with repurposing/ redevelopment opportunities for complementary use to the Innovation Precinct.

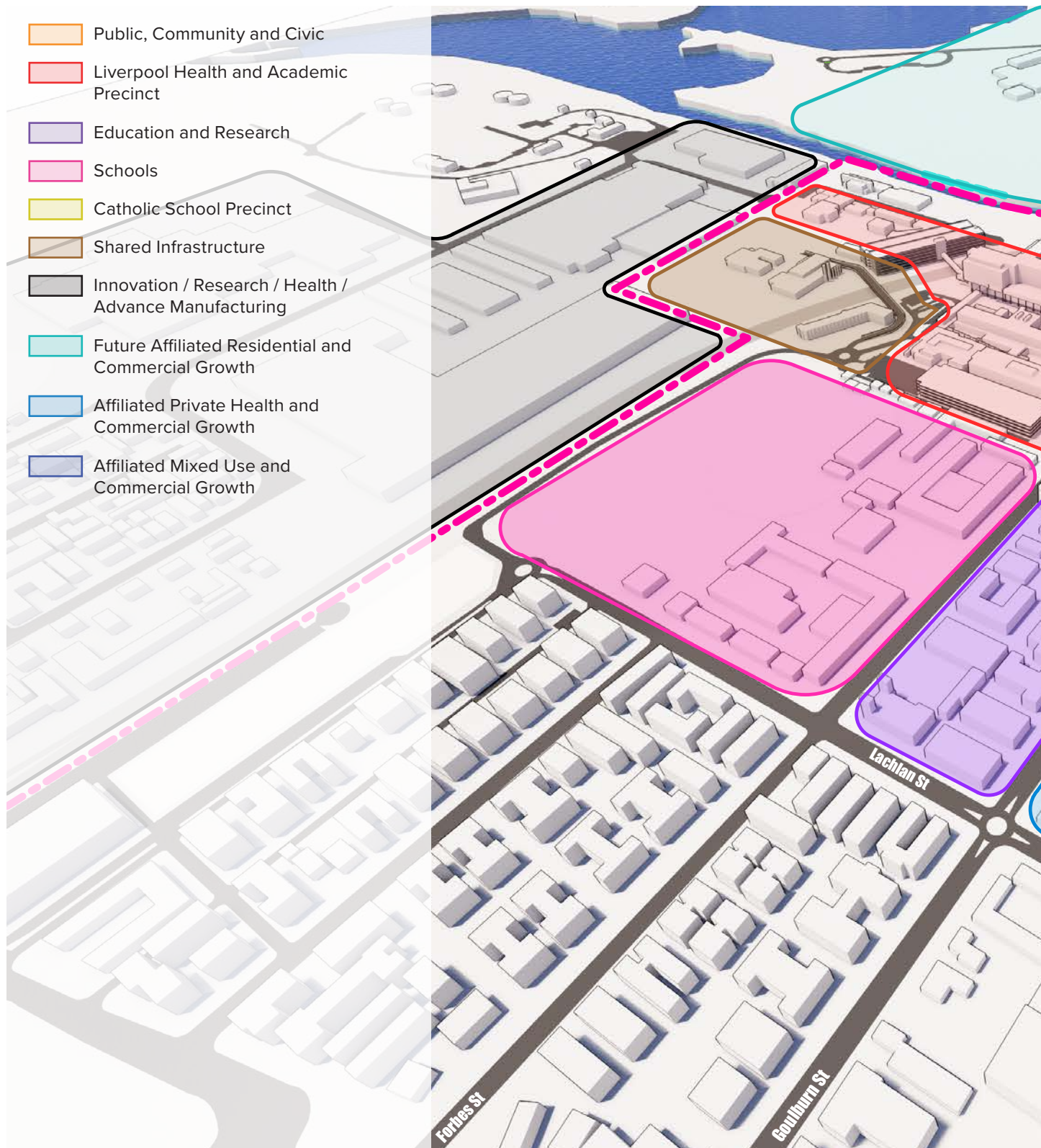
10. All Saints Catholic Church and College

Provider of quality education to the greater Liverpool area. Opportunity for collaboration and partnership





COLLABORATION AREA ZONES





COLLABORATION AREA ZONES



1

Heavy Rail

Currently well serviced by Inner West and Leppington Lines, Bankstown Line and Cumberland Line, linking the three cities of Greater Sydney.

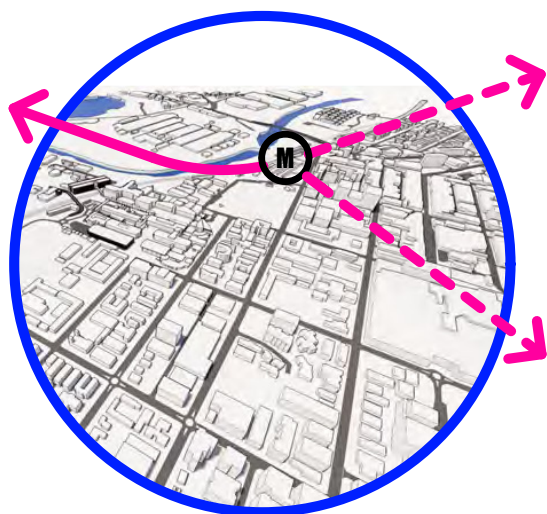
Opportunity for increased services and better utilisation of existing infrastructure.



2

Future Rapid Transit

Provision of infrastructure to support rapid bus connections between Liverpool and Western Sydney Airport.

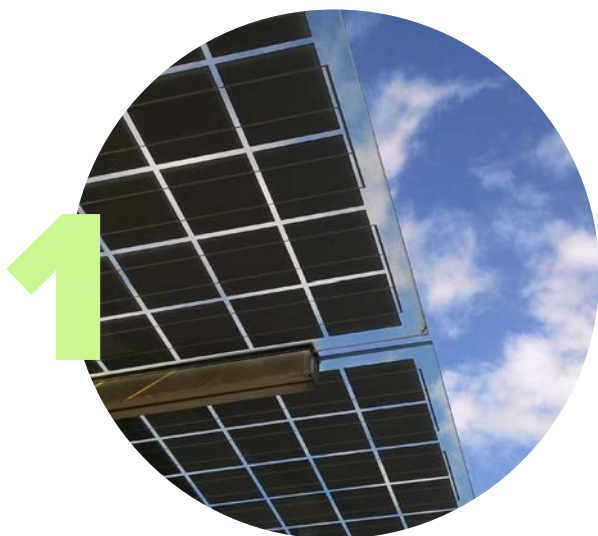


3

Future Metro Line

Provision of future infrastructure to support extension of Sydney Metro Line from Bankstown to Liverpool with potential future expansion to Western Sydney Airport or the south.

SUSTAINABILITY



Reducing Greenhouse Gas Emission

- Develop infrastructure that supports public transportation.
- Develop, test and trial autonomous, electric vehicles.
- Promote and utilise renewable energy.



Improving Water Quality and Efficiency

- Support the regeneration of Georges River.
- Development of a flood management strategy.
- Recycle rain and stormwater for landscape irrigation.



Opportunities for Green Spaces

- Create open space and areas for recreation as part of future development.
- Increase tree canopy coverage.
- Increase play areas for children and pets.
- Implement walking trails.



Support Network with Pedestrian Focus Streets and Links

- Implement major pedestrian priority roads and links.
- Increase dedicated bicycle lanes.

GREEN SPACES

The Green Space strategy proposes new tree planting and landscaping along the primary streets through the town centre to improve pedestrian amenity, reinforce the street grid and reduce the heat island effect.

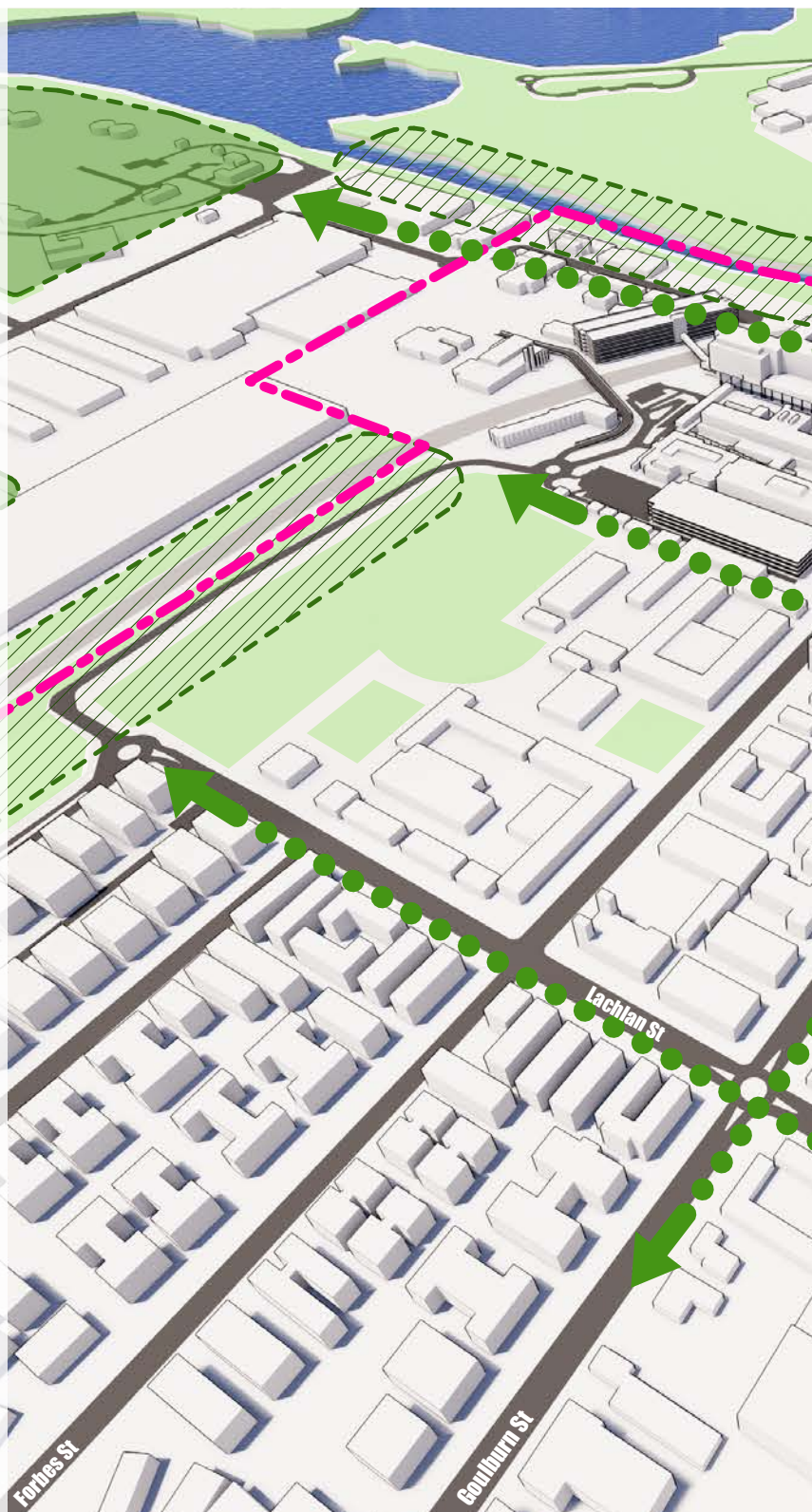
Further upgrades to Bigge Park will enhance its value as the primary, open space within the town centre.

Future development adjacent to Georges River will provide the opportunity for the regeneration of the river as well as improved public amenity and access.

The introduction of new landscaping and public spaces have the potential to provide improved connectivity between Warwick Farm Station, the current High Schools and along Burnside Drive towards the Hospital.

Future development should support the 'greening' of the town centre by dedicating area to open spaces, parks and recreation.

-  Existing Green Spaces
-  Significant Green Spaces with Potential to Upgrade
-  Proposed Upgrade to Existing Green Spaces
-  Proposed New Green Spaces
-  Proposed New Green Link





NOTE: The image is indicative and subject to further refinement and planning.

CONNECTIVITY

The strategy for improved connectivity through the town centre focusses on reinforcing and extending the existing street grid with improved pedestrian amenity and landscaping as well as new links through or over current obstructions.

Connectivity between the town centre and the Georges River is enhanced via the upgrading of key east/west streets.

Elizabeth Street has the potential to be a major public boulevard connecting the existing retail and health precincts to one another, as well as providing new links across the rail line and to the river.

Opportunities for new pedestrian and vehicular connections across the river and rail line have been identified to improve connectivity to the eastern sites.

Existing vehicular congestion on the streets surrounding Liverpool Hospital is proposed to be reduced via speed limits and shared zones, providing the opportunity for better connectivity of the health campus to adjacent sites, Bigge Park and Liverpool Train Station.

- Minor Connection
- Major Connection





NOTE: The image is indicative and subject to further refinement and planning.

PUBLIC, COMMUNITY AND CIVIC

The City of Liverpool encourages its community to make a difference to civic life, to utilise local amenities, and to build a stronger local community in which people see their future in terms of both living and working.

The LIP Precinct Strategy proposes Biggr Park be reinforced as the 'Civic Heart' of the town centre, through improved pedestrian connectivity and amenity along the Hoddle Grid as well as adjacent development for public and community uses.

Opportunities include development over the transport interchange incorporating public facilities such as community and entertainment functions as well as development along Elizabeth and Goulburn Streets with active street accommodation such as retail.

Liverpool Council has announced the Liverpool Civic Place project on Scott Street, incorporating a new library, community hub, council offices and chambers as well as university, commercial and residential uses.

 Public, Community and Civic





NOTE: The image is indicative and subject to further refinement and planning.

LIVERPOOL HEALTH AND ACADEMIC

Infrastructure planning for the Liverpool Health and Academic Precinct (LHAP) commenced in early 2018 under the management of NSW Health Infrastructure with a budget announcement of \$740 million to address the 2026/27 component of the SWSLHD Clinical Services Plan.

The LHAP project seeks to reposition the main hospital campus with a focus towards the west, with a new major clinical building proposed along Goulburn Street as well as an enlarged main entry forecourt and entrance building adjacent to Bigge Park.

The project also expands the campus along Goulburn Street towards the north, with the development of a new education and research building integrated with the Ingham Institute.

Combined with changes to the streets immediately surrounding the hospital to slow traffic and improve pedestrian amenity, the project seeks to establish a health precinct that allows connectivity to neighbouring sites and opens the campus to hospital partners, students and health-related industries as well as the general public.

Beyond 2026/27, future long term expansion of the hospital is planned within the centre of the existing campus.

 Liverpool Health and Academic Precinct





NOTE: The image is indicative and subject to further refinement and planning.

EDUCATION AND RESEARCH

The Ingham Institute for Applied Medical Research, established in 2012, undertakes applied medical research in partnership with universities, Liverpool Hospital and the local healthcare community.

The LIP Precinct Strategy proposes to expand on the presence of the Ingham Institute with the establishment of a health-focussed education, research and technology hub on the northern block bounded by Lachlan, Goulburn and Forbes Streets.

The closure of Campbell St to public vehicles as well as a clinical bridge connection at high level will allow the seamless integration of this hub with the hospital campus.

Opportunities exist for further connectivity to the adjacent schools site and potential future health-related development along Goulburn Street.

The education and research hub has the potential to realise a vision for the future of tertiary education with a campus that interfaces students with the hospital, research institutions, start-ups, community organisations and social enterprise in what would be a true integration of education and industry.

The creation of an academic campus will support research and education outcomes, exercised through a collaboration of ideas, users and organisations to drive innovation.

 Education and Research





NOTE: The image is indicative and subject to further refinement and planning.

SCHOOLS

An integrated health school has the potential to fulfil a number of NSW Government priorities in health, education, economic development and employment, addressing social disadvantage with a single, collaborative project.

An integrated health school should promote a focus on health and wellbeing outcomes for students, their families and the broader community.

The LIP Precinct Strategy identifies opportunities for the existing Boys and Girls High School to consolidate its building footprint that allows for better utilisation of land and open space.

This also provides the opportunity to preserve future uses and achieve improved urban planning and operational outcomes.

The adjacency of the education and research precinct affords opportunities for integration and the cross-sharing of facilities such as libraries, seminar, conference or auditorium facilities as well as open space and playing fields.

 Schools





NOTE: The image is indicative and subject to further refinement and planning.

FUTURE PRIVATE HOSPITAL OPPORT

The LIP Precinct Strategy identifies the opportunity for Sydney South West Private Hospital to expand onto adjacent sites to support the increased delivery of acute and primary health care services.

The existing TAFE site also represents an opportunity to accommodate a new private hospital development with close connectivity to the key clinical functions of Liverpool Hospital.

 Future Private Hospital Opportunities





NOTE: The image is indicative and subject to further refinement and planning.

SHARED INFRASTRUCTURE

Opportunities exist to provide shared infrastructure amongst precinct partners to realise efficiencies in the cost of building, the cost of operation and land use.

Basement construction in the town centre is prohibitive due to the water table and flooding risks, placing pressure on valuable land area on ground level to accommodate car parking and building plant and equipment.

The provision of shared facilities between precinct partners allows for the combining of these facilities into consolidated, multi-storey developments.

Multi-storey car parking is proposed off Burnside Drive to the rear of the hospital campus, which can be sized to service a number of precinct partners in the area.

The consolidation of building plant into central energy zones could also realise efficiencies in the provision of mechanical and electrical services and increase the viability of sustainable initiatives such as tri-generation.

Opportunities for shared infrastructure could also include libraries, recreation space, education and conference facilities and investment in improved connectivity such as bridges and the public domain.

 Shared Infrastructure





NOTE: The image is indicative and subject to further refinement and planning.

AFFILIATED RESIDENTIAL AND COM

The LIP Precinct Strategy seeks to complement the surrounding residential and commercial growth identified in the Liverpool Collaboration Area Place Strategy and the Liverpool Council town centre mixed-use LEP amendment.

 Affiliated Residential and Commercial Growth



MERCIAL GROWTH



NOTE: The image is indicative and subject to further refinement and planning.

PRECINCT STRATEGY

- Public, Community and Civic
- Liverpool Health and Academic Precinct
- Education and Research
- Schools
- Future Private Hospital Opportunities
- Shared Infrastructure
- Affiliated Residential and Commercial Growth





NOTE: The image is indicative and subject to further refinement and planning.

LIVERPOOL
INNOVATION
PRECINCT



REIMAGINING

INNOVATION IN HEALTH,
EDUCATION AND
RESEARCH

**LAND USE ANALYSIS AND
PRECINCT STRATEGY**

ICT STRATEGY
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SEPTEMBER 2019