[redacted]

From: system@accelo.com on behalf of Joseph Nguyen [redacted]
Sent: Wednesday, 31 October 2018 2:29 PM
To: [redacted]
Subject: Submission Details for company BHL (org_comments)

Confidentiality Requested: no

Submitted by a Planner: no

Disclosable Political Donation:

Agreed to false or misleading information statements: yes

Name: Joseph Nguyen
Organisation: BHL (Project Director)
Govt. Agency: No
Email [redacted]

Address:
[redacted]

Content:
Refer attached submission and appendices. Please contact me if there are any issues with any of the attached files.

IP Address: [redacted]
Submission: Online Submission from company BHL (org_comments)
https://majorprojects.accelo.com/?action=view_activity&id=291365

Submission for Job: #9552
https://majorprojects.accelo.com/?action=view_job&id=9552

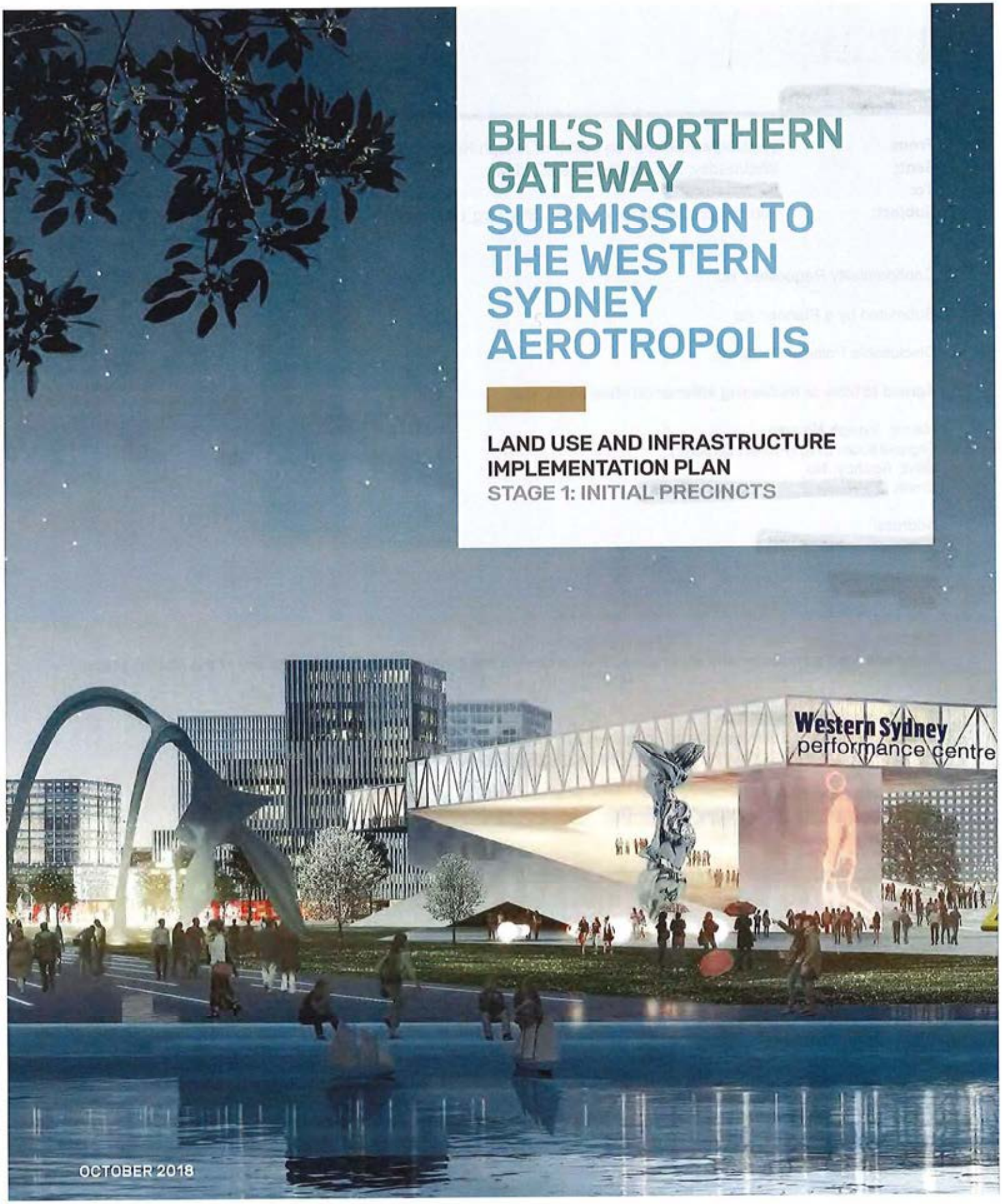
Site: #0
https://majorprojects.accelo.com/?action=view_site&id=0

This email is missing attachments because they were too large to send. Please contact [redacted] to retrieve them, or reply to this email.

BHL'S NORTHERN GATEWAY SUBMISSION TO THE WESTERN SYDNEY AEROTROPOLIS

LAND USE AND INFRASTRUCTURE IMPLEMENTATION PLAN

STAGE 1: INITIAL PRECINCTS



OCTOBER 2018

THE NORTHERN GATEWAY PARTNERS

LOGOS

CHARLIE TEO WELLNESS CENTRE

WESTERN SYDNEY UNIVERSITY

SCENTRE GROUP

BHL GROUP

B-A-B
MENU
SCHOOL

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1 EXECUTIVE SUMMARY

PURPOSE OF THIS SUBMISSION

This submission to the *Draft Western Sydney Aerotropolis Land Use and Infrastructure Implementation Plan Stage 1: Initial Precincts (LUIIP)* articulates:

- How BHL's Vision Masterplan and current Planning Proposal submitted to Penrith City Council directly aligns with the vision and development principles and strategic outcomes for the Aerotropolis and the Northern Gateway precinct.
- How shifting the key road and rail infrastructure corridors is crucial to unlock this significant strategic landholding on the doorstep of Western Sydney Airport.
- BHL's position and recommendations in relation to the key policy drivers, implementation and timing of the rezoning for their Northern Gateway site.
- Technical analysis and input from BHL's specialist consultant team including:
  - Planning (Urbis)
  - Vision Masterplan (OMA)
  - Transport (ARUP)
  - Economic (Urbis & Pricewaterhouse Coopers)
  - Biodiversity (Eco Logical)
  - Flooding and Water (Cardno)
  - Sustainability (ARUP)
  - Infrastructure (Land Partners)
- An updated Value Sharing Proposition submitted to all levels of government.

We would welcome the opportunity to discuss our submission in detail and continue the dialogue of collaboration already undertaken with all levels of government and key Agencies to ensure our shared vision can be realised for the Northern Gateway and Western Sydney Aerotropolis.

1 THE BHL VISION MASTERPLAN

The BHL Vision Masterplan has been developed by renowned Dutch Architects OMA. The BHL Vision Masterplan is a globally articulated, compact, smart and innovative jobs focused city which celebrates new technologies, knowledge and new expectations to build a city for the future.

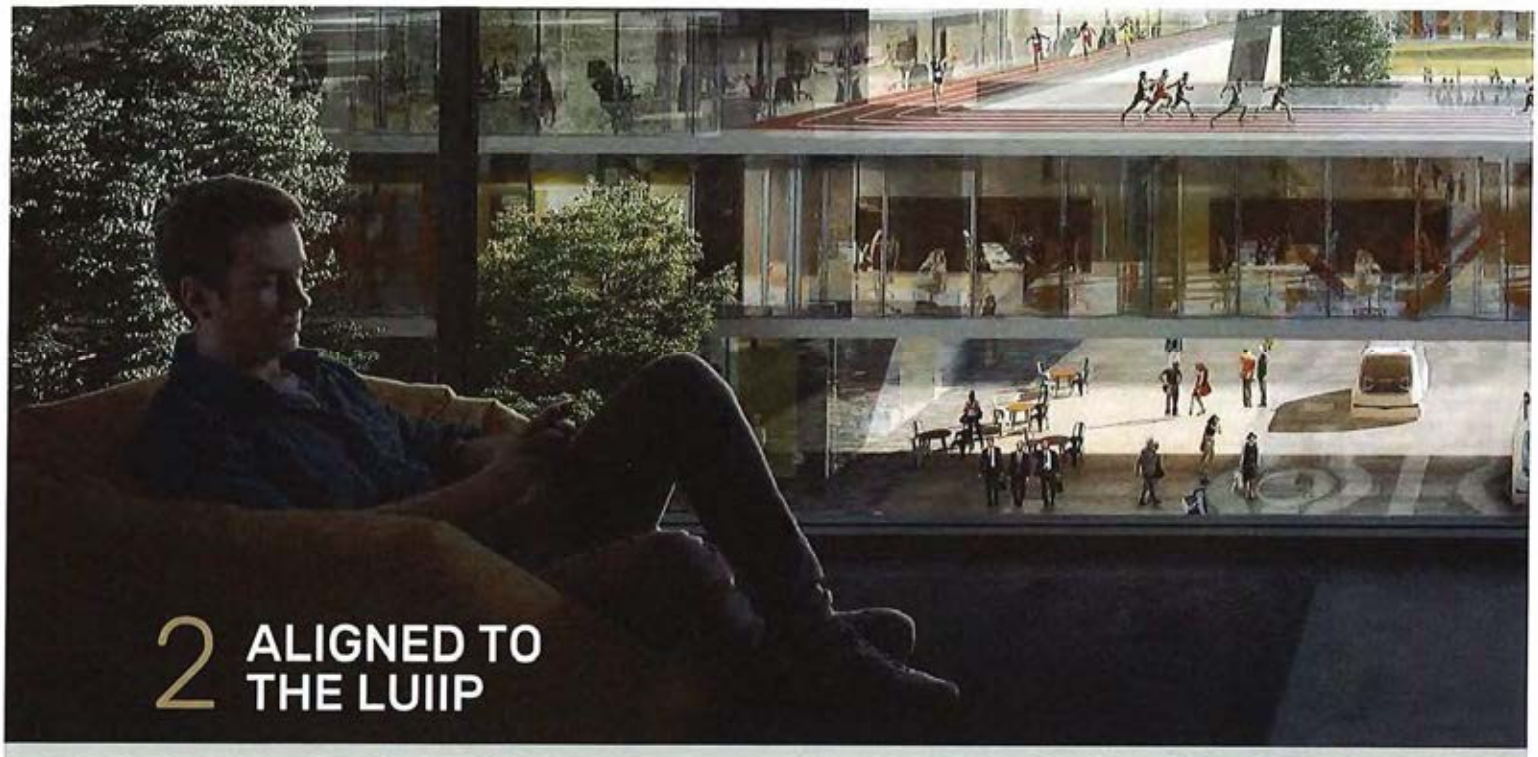
The Vision Masterplan has the potential to deliver for the Northern Gateway:

- **2.2 million sqm** of employment land generating over **55,000 jobs** and **$21.6** billion in economic output that will be staged over a period of 25 years to 2050.
- **140,000 sqm** for health and health research related uses including the landmark Charlie Teo Wellness Centre led by foundation partner Professor Charlie Teo.
- **200,000 sqm** for a internationally recognised university campus of the future in partnership with Western Sydney University.
- **30,000 sqm** for a new International Convention Centre and **80,000 sqm** for cultural uses which includes a new Western Sydney Performance Centre.
- **200,000 sqm** for hotels, serviced apartments, short term executive living and student accommodation to activate the site.
- A new approach to retail which moves beyond the 'big box typology' to provide a highly activated and engaging **200,000sqm** retail and entertainment focused town centre around a new rail station to be delivered by Scentre Group, owner and operator of Westfield in Australia and New Zealand.
- An additional **50,000sqm** for lower order retail uses in a mixed use environment throughout the site to encourage an active and permeable ground plane around the logistics, office and education precincts.
- **500,000 sqm** for commercial office to be delivered in both traditional and campus style building typologies.
- **400,000 sqm** for a new Logistics Estate focused on Western Sydney Airport delivered by LOGOS.
- **400,000 sqm** for hi-tech Industry and manufacturing.
- **250,000 sqm** of high-density residential living in areas below ANEC/ANEF 20.
- **410,630 sqm** of landscaped and natural open space.

The Vision Masterplan has been designed to be a balanced urban ecosystem with a diverse mix of uses that complement the Western Parkland City.

Delivery of the Vision Masterplan is dependent on BHL's proposed realignment of key infrastructure corridors including the M12/M9 and the North South Rail Link. The realignment of these corridors enables the delivery of a job focused centre with a new station that will support the 30 minute city.

BHL has undertaken significant work to date on developing their Vision, Masterplan and Planning Proposal and is committed to working with the Department of Planning and Environment (DP&E), Western Sydney Planning Partnership, Sydney Metro Authority (SMA), Western City and Aerotropolis Authority (WCAA), Penrith City Council and other key Government agencies to develop this plan consistent with the LUIIP.



2 ALIGNED TO THE LUIIP

The recently released LUIIP provides a vision for the Western Sydney Aerotropolis and recognises its significant economic potential for Western Sydney in the context of a new globally connected airport.

We congratulate the DP&E, Greater Sydney Commission (GSC) and all levels of government on this significant milestone and for its vision to implement a new and innovative planning framework for the Western Sydney Aerotropolis.

We support the DP&E and GSC for identifying the Northern Gateway as a key initial precinct and in doing so recognising that the 'Aerotropolis' and its economic influence extends well beyond the original area identified for the Aerotropolis in the Regional and District Plans.

The vision for BHL's Northern Gateway is directly aligned with the vision for the LUIIP and underpinned by these key principles:

- **Delivering a productive and innovative 24 hour globally connected city** which will ultimately provide over 55,000 jobs (28% of the 200,000 jobs targeted by the Western Sydney City Deal).
- **A compact and connected urban form** in a Vision Masterplan prepared by globally renowned Dutch architecture firm OMA.
- **A diversity of jobs and accommodation close to a proposed station on the North South Rail Link** to activate a new and vibrant urban centre with unique amenity and recreation to attract a highly skilled and diverse community of all ages.
- **A commitment to sustainability,** carbon neutrality and forward thinking water and energy solutions.
- **Aligned with infrastructure delivery and funding** as put forward in our unique Value Sharing Proposition which includes funding for key infrastructure in return for shifting the M12/M9 Corridor north to unlock this strategic land holding and an additional 500,000 sqm of Gross Floor Area (GFA).
- **Delivers a landscape led approach to development of the Northern Gateway** which respects key riparian areas to shape and coordinate a compact urban form on the BHL site for greater environmental, social and amenity benefits which complements the Western Parkland City.

3 BHL'S KEY POSITIONS

1. The LUIIP must recognise **BHL's proposed realignment of the M12 Road Corridor** which provides a capacity to deliver upwards of 55,720 jobs and $21.6 billion in economic output by 2050[1]. This is 43,820 more jobs and $15.6 billion more economic output than what could be achieved if the road corridor does not move[2].
2. The proposed realignment of the road corridor has the potential to generate significant cost savings to government of approximately **$60 million** in road construction costs[3].
3. BHL's Northern Gateway must be recognised as a 'Strategic Centre' and **include a new station on the North South Rail Link**. A station will deliver the critical transport access required to support these jobs and contribute to the 30 minute city.
4. BHL views the future Parramatta-Airport Rail Link as **critical to the success of the Aerotropolis and as such should be prioritised and planned alongside the North South Rail Link**. BHL is committed to providing a station and interchange on its site to facilitate this link.
5. In recognition of the importance of protecting the future 24/7 operation of Western Sydney Airport. **BHL no longer proposes residential land uses within the ANEC/ANEF 20-25 contour.** However, BHL maintains that student accommodation, education and health uses must remain 'conditionally acceptable' within the ANEF 20-25 under the current Australian Standard (AS2021).
6. **That Government at all levels move to formally accept BHL's Value Sharing Proposition** which provides significant cost savings to the delivery of infrastructure associated with the Western Sydney Airport. This proposal includes an offer to provide much needed affordable worker accommodation as an interim use during the development of Western Sydney Airport.
7. The LUIIP must clarify the roles of Sydney Metro Authority (SMA) and the WCAA in masterplanning for the initial development precincts. **BHL request a collaborative approach with SMA and WCAA which recognises the considerable masterplanning work already undertaken for their site.** This collaborative approach would allow BHL to continue developing its masterplan and allow for meaningful input from SMA and WCAA where required.
8. To provide developer certainty, **details of the contributions framework including SIC Levy and Biodiversity Offsets must be released in advance of the Stage 2 LUIIP.** The framework must include the contributions that may be required to fund external and trunk infrastructure.
9. BHL supports the approach to a flexible urban development zone within the LUIIP. **However BHL notes that the prescribed land uses within both the Northern Gateway and Aerotropolis must not be overly prescriptive and be consistent to encourage early investment and activation through first mover advantage.**
10. BHL opposes an infrastructure zone being imposed whilst any transport corridor is not finalised as it will potentially quarantine the land for future acquisition. **The imposition of this zone is at odds with the LUIIP which states that the "corridors may shift".**
11. That the LUIIP recognise and **provide a transparent process for the sharing of studies and information already undertaken by key landowners** to prevent double up and to expedite the detailed analyses required to identify the constraints for the Aerotropolis.
12. BHL opposes non-urban lands being defined by the Probable Maximum Flood level (PMF).

1. The Northern Gateway - A path to a prosperous, smart and resilient Western Sydney, Urbis 2018
2. Badgerys Creek site proposed development Economic Impact Analysis, PwC 2018.
3. BHL Value Sharing Proposition, 2018

2 NORTHERN GATEWAY
DRIVING THE DEVELOPMENT OF THE AEROTROPOLIS

INTRODUCTION

This submission has been prepared on behalf of BHL and its Northern Gateway Partners in response to the public exhibition of the:

Western Sydney Aerotropolis Land Use and Infrastructure Implementation Plan Stage 1: Initial Precincts (LUIIP)

BHL would like to congratulate the State Government and the Department of Planning and Environment (DP&E) on the release of this landmark document which recognises the unique potential of an Aerotropolis within the context of a global airport development.

The LUIIP represents a significant milestone and significantly improves certainty around the planning and development of the Western Sydney Airport Aerotropolis. BHL thanks the Department for arranging its series of briefings to landowners and welcomes the opportunity to continue collaborating over the next 12 months and beyond as their Vision Masterplan is implemented.

BHL GROUP

BHL (Boyuan Holdings Ltd) is a dynamic, publically-listed property company, which owns, invest and manages an expanding portfolio of integrated residential and retail developments and retirement villages across the Sydney property market, with a focus on growth corridors in Western and Southern Western Sydney. The Company's executive team has a proven track record of delivering major development projects in Australia and Asia.

BHL's majority ownership of ASIC regulated managed fund provider Integer Securities and its affiliation with publicly-listed Hong Kong property firm Jiayuan International Group Ltd (AUD$6.1bn market cap) provides the Company with the ability to source capital and foster partnerships locally and from investors in Asia, to fund ongoing growth opportunities throughout NSW.

BHL'S NORTHERN GATEWAY PARTNERS

BHL is committed to delivering its vision for the Northern Gateway site through fostering partnerships with leading reputable institutions, both domestically and internationally. This includes existing commitments from Professor Charlie Teo, Scentre Group, Western Sydney University and LOGOS as anchor partners, as well as ongoing discussions with other ASX-listed and multinational companies who have expressed interest in locating within BHL's Northern Gateway.

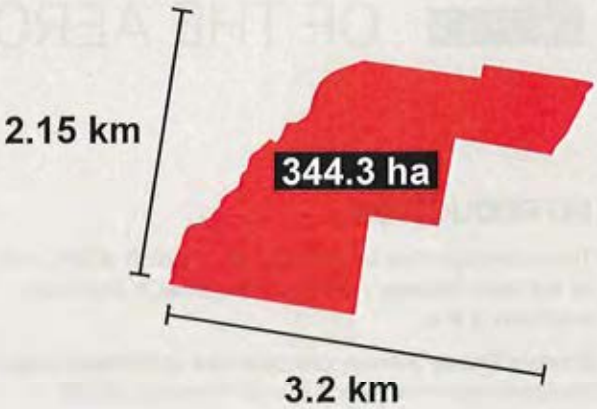
These partnerships reflect BHL's commitment to align with industry leaders to build a globally-recognised precinct, which will support the international airport. They will bring together the brightest thinkers to deliver a creative city which will enable innovative businesses to thrive and deliver thousands of quality jobs for Western Sydney. The truly flexible approach to land uses embedded within the Vision Masterplan will ensure health and education precincts, tourist and visitor uses, high-tech industry clusters will exist side-by-side to cater to the entire community's needs.

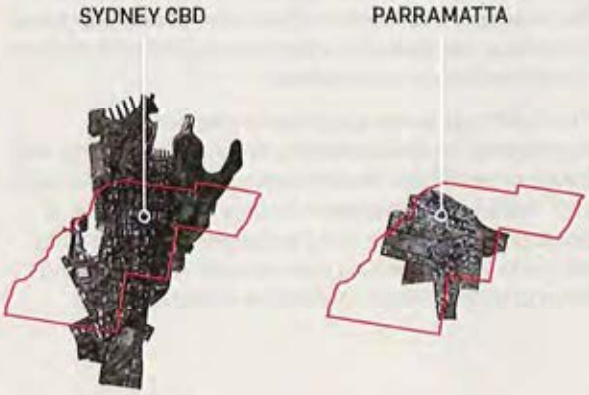
BHL's vision is to deliver a self-sustaining destination in its own right. Their partners' commitment and track record in delivering sustainable, liveable and workable places will ensure these principles are embedded in the buildings and places as well. This includes consultative discussions with Western Sydney University to inform a world leading education precinct and exploring education and research partnership opportunities.

A CATALYST SITE

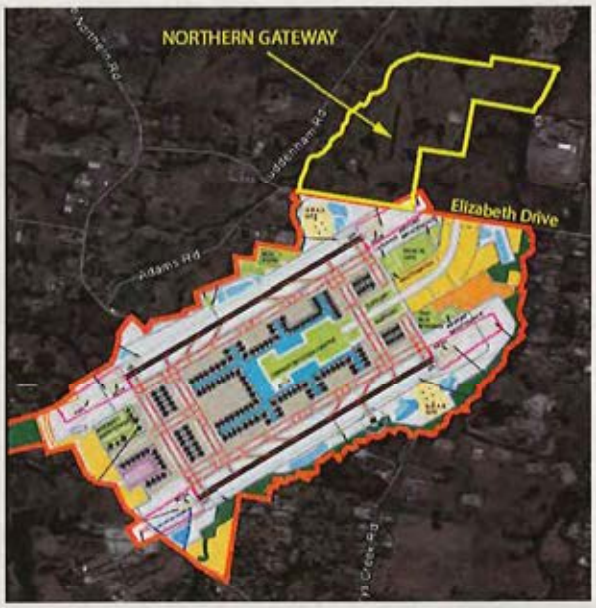
- The BHL land holding is a key site within the 'Northern Gateway Precinct'. This 344 ha site is one of the largest single owner land holdings in the Western Sydney Aerotropolis.
- At 2.15km by 3.2km wide and fronting Elizabeth Drive, the 344ha site is equivalent in size to the Sydney CBD and will be the 'Northern Gateway' for arrivals to Western Sydney.
- The site is ideally positioned to develop concurrently to the Western Sydney Airport (WSA) and is large enough to accommodate a diverse mix of land uses complementary to the WSA and Aerotropolis.
- BHL and its foundation development partners have developed a strong vision which is aligned to the development vision for the Aerotropolis. Their collective vision is to develop a fully integrated productive and compact city — based on sustainability, knowledge, wellness and technology.

BADGERY'S CREEK SITE





Source: Urbis, 2018



Source: OMA

AN UNRIVALLED CITY SHAPING OPPORTUNITY

SUPPORT FOR BHL'S 'BIG MOVES' FOR THE NORTHERN GATEWAY.

The Western Sydney Airport presents an unrivalled opportunity for BHL's Northern Gateway to shape a new city on the global doorstep to Western Sydney. However, to ensure that this is able to occur the four 'Big Moves' must take place as identified within BHL's *Bold Vision for the Northern Gateway* submission to the Greater Sydney Regional Plan and Western Parkland City District Plan.

BHL commends the Government for the Stage 1 LUIIP which confirms two of these four 'Big Moves' are already underway including:

1. Designation of BHL's Northern Gateway as part a priority development precinct for immediate development.
2. Flexible zoning in the form of an 'urban development zone.'

BHL fully endorses these LUIIP actions.

BHL's discussions with key stakeholders are ongoing around the final two 'Big Moves' which include:

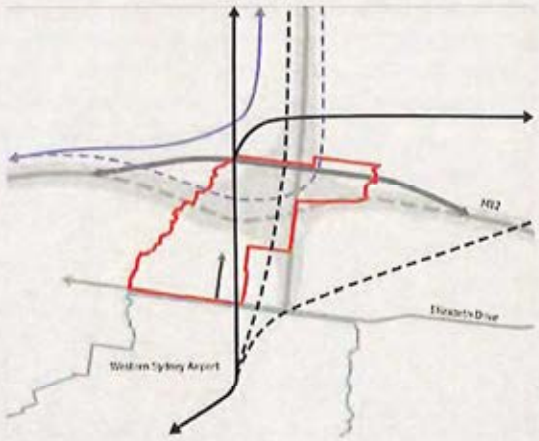
3. Realignment of the M12 Road Corridor to unlock this key strategic land holding, and
4. A station on the North South Rail Link to anchor the proposed 'Strategic Centre'.

The realisation of these 'Big Moves' will ensure that the site can fulfil the State Government's vision for the Aerotropolis and establish BHL's Northern Gateway as a key Strategic Centre that will deliver significant jobs and economic benefits to Western Sydney over the long term.

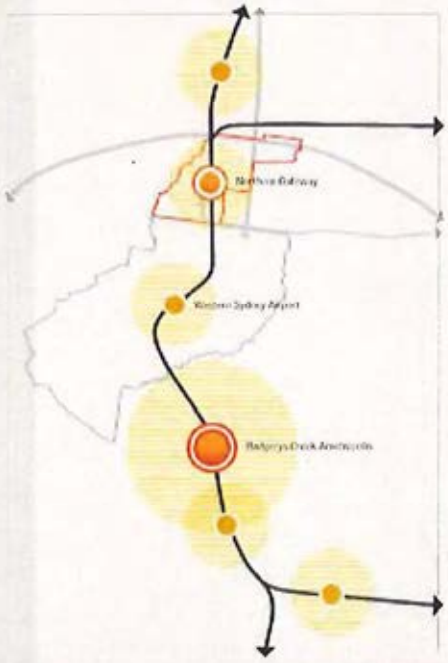
1 BIG MOVES – COORDINATED LAND RELEASE AND SERVICING

2 BIG MOVES – FLEXIBLE ZONING FOR LAND USE DIVERSITY

3 BIG MOVES – INFRASTRUCTURE THAT UNLOCKS STRATEGIC LAND HOLDINGS



4 BIG MOVES – GATEWAY CENTRE ANCHORED BY A RAIL STATION



The four 'Big Moves' from BHL's 'Bold Vision'
Source: Urbis, December 2017

THE NORTHERN GATEWAY PARTNERS

BHL is committed to delivering its vision for the Northern Gateway site through fostering partnerships with industry leaders and institutions, both domestically and internationally. It is through such partnerships that BHL aims to build a globally-recognised mixed use precinct that is an integral cog in the Aerotropolis.

BHL has brought together the brightest thinkers to deliver a creative city which will enable innovative businesses to thrive and deliver over 55,000 quality jobs for Western Sydney and anchored by its development partners. BHL's vision will deliver state of the art health and education precincts, hi-tech industry clusters, a vibrant town centre that will be co-located to cater for a substantial on-site population.

CHARLIE TEO
WELLNESS CENTRE

CHARLIE TEO WELLNESS CENTRE

The Charlie Teo Wellness Centre (CTWC) will be headed by world renowned Neurosurgeon Professor Charlie Teo. It will be a holistic one-stop-shop for the treatment and prevention of disease through the utilisation of both modern medicine and complementary alternative therapies.

The CTWC will anchor a landmark wellness and healthcare precinct within the Northern Gateway that will service the needs of locals and international patients, capitalising on the accessibility of the transport and proximity to the airport as well as the Western Sydney University and proposed business parks.

The CTWC will bring established and new technology and experience in the fields of stem cell and holistic therapies to Australia to service the growing market for the highest quality health and wellbeing services. The CTWC will also comprise a state-of-the-art women's Centre that will include IVF services to patients both locally and internationally.

The CTWC will comprise number of activation precincts including 5 star hotels, recovery centres, retail and incomparable world class "Oasis" style resorts and pools. The CTWC will be unprecedented in Australia and aims to leverage the location of the Northern Gateway adjacent to the WSA to be a catalyst for Asian health tourism and to attract significant global investment.

SCENTRE GROUP

Owner and Operator of Westfield in Australia and New Zealand

WESTERN SYDNEY UNIVERSITY

LOGOS

SCENTRE GROUP

Scentre Group, owner and operator of Westfield in Australia and New Zealand, is a world leader in the development of activated retail mixed use precincts. Scentre Group plans to bring this leadership to BHL's Northern Gateway to deliver a new town centre with 200,000sqm of retail and entertainment uses.

The new town centre will deliver a pedestrian focused precinct with a diversity of retail and entertainment uses. The design moves beyond the 'big box typology' to provide a highly activated and engaging retail and entertainment town centre around a new rail station.

Scentre Group's globally recognised standing in creating world class shopping precincts will ensure that the retail mix is reflective of the Northern Gateway's location as an international gateway to Western Sydney. International brands, fashion and food will enhance the 24/7 economy envisaged by the Masterplan and will support the visitor, residential and worker population of the Northern Gateway.

WESTERN SYDNEY UNIVERSITY

Western Sydney University (WSU) in partnership with BHL, will work collaboratively to develop a new International Education Precinct. The precinct will seek to enhance and foster innovation in Western Sydney by establishing an education, research and industry hub with global connectivity.

The Northern Gateway International Education Precinct will foster innovation and collaboration, attracting government and industry partners that align with the Precinct's education and research themes. It will provide a collaborative environment with opportunity to grow both domestic and international students and foster global business partnerships. This international exposure will enable the precinct to grow new markets in education and further develop educational and business links to jobs of the future including aerospace industries freight, advanced logistics and health care, leveraging the Western Sydney Airport.

LOGOS

As the logistics partner for BHL's Northern Gateway, LOGOS will leverage worldwide expertise as an international warehousing and logistics enterprise to develop the Northern Gateway Logistics estate (NGLE).

LOGOS' vision for the NGLE is to create a modern and functional logistics precinct which maximises the freight connectivity to the airport. The NGLE will provide a seamless transition point for Sydney's inbound and outbound freight. The NGLE will respond to the ever changing environment of e-commerce and the need for 'just in time' delivery with a strong focus on the 'last mile' which is influencing the form and design of supply chains globally.

The NGLE will provide flexible spaces and built forms that can easily adapt to increased automation, spatial and sustainability requirements of end users. The future design for the LOGOS estate will capitalise on the direct link to the Aerotropolis to be domestic and international leader in freight forwarding, freight consolidation, warehousing and distribution.

BACKGROUND AND CONSULTANT INPUT TO THIS SUBMISSION

BHL has prepared a comprehensive Vision and Masterplan to guide the staged redevelopment of their land. This Vision Masterplan has guided the various submissions made on behalf of BHL and its foundation partners over the past 12 months including:

- *A Bold Vision for the Northern Gateway – BHL's submission to The Greater Sydney Region Plan, Future Transport 2056 and the Western City District Plan –* **Appendix A.**
- *A Detailed Value Sharing Proposal –* **Appendix B.**
- *Planning Proposal and Vision Masterplan for the Northern Gateway submitted to Penrith Council in May 2018 –* (Executive Summary provided at – **Appendix C.**)
- *Submission to RMS in relation to the preferred corridor location for the M12 –* **Appendix D.**
- *Submission to Transport for NSW in relation to protection of transport corridors in Western Sydney –* **Appendix E.**

BHL is well advanced with baseline studies, strategies and land use plans already developed or substantially underway. The following inputs from BHL's consultant team supplement this submission to the LUIIP.

- *The Northern Gateway - A path to a prosperous, smart and resilient Western Sydney"* – Urbis – Appendix F.
- *Transport Submission* – ARUP – Appendix G.
- *Response relating to acoustics for BHL's Northern Gateway Vision Masterplan and Planning Proposal* – EMM – Appendix H.
- *Response to Western Sydney Aerotropolis LUIIP – Flooding and Hydrology* – Cardno – Appendix I.
- *Overview of the Western Sydney Aerotropolis LUIIP with regard to Biodiversity* – Eco Logical, – Appendix J.
- *Sustainability Review* – ARUP – Appendix K
- *Response to LUIIP* – Infrastructure Delivery – Land Partners – Appendix L.

In the interests of collaboration, BHL intends to share this information with the DP&E, Penrith Council and other key stakeholders to assist in the baseline analysis of constraints within the Northern Gateway.

BHL is committed to a continuing program of engagement with all key stakeholders to progress the priority planning outcomes for the Northern Gateway. Through its discussions, BHL has listened to the views of key decision makers and stakeholders. As such this submission confirms BHL's intention to amend its original Vision Masterplan to remove all long-term residential uses from ANEC 20-25 to reinforce the Government's vision for a 24/7, curfew free international airport.

BHL'S PLANNING PROPOSAL FOR THE NORTHERN GATEWAY

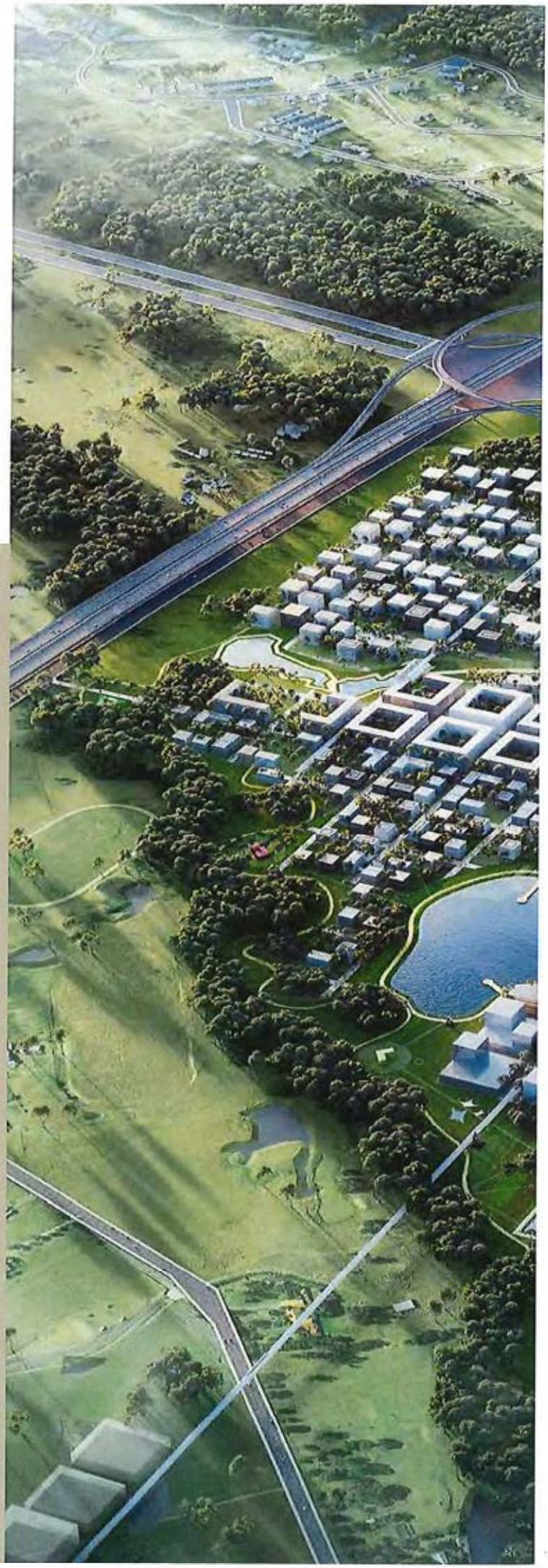
BHL has submitted a Planning Proposal to Penrith City Council to facilitate the early release and rezoning of the BHL landholding in accordance with the refined Vision Masterplan which includes the BHL's alternative road and rail transport corridors.

The rezoning and redevelopment of the land in accordance with the refined Vision Masterplan will deliver substantial benefits to the Western Parkland City District, including:

- An estimated 2.2 million sqm of employment floorspace which will provide over 55,000 new jobs and $21.6 billion in local economic output (Urbis, 2018) which will be delivered in stages as the Aerotropolis grows in economic influence and according to market demand.
- Limiting residential uses to outside ANEC/ANEF 20 in recognition of the need to protect the 24/7 operation of the Western Sydney Airport
- Delivery of regional transport corridors and activation of the North South Rail Link with a range of land use activities and significant public benefits
- Integration of land use and transport to support the '30 Minute City'.
- A unique Value Sharing Proposition which will enable the delivery of critical integrated transport infrastructure and deliver substantial cost savings to Government.

The progression of BHL's Planning Proposal will require a whole-of-government response to enable the integration of the land use and transport planning initiatives to optimise the employment-generating potential of the site.

The Planning Proposal and Vision Masterplan will require further refinement to account for the LUIIP and BHL's decision to not pursue residential land uses in areas impacted by ANEC 20-25.



BHL requests that the DP&E rely on the significant work already undertaken by BHL to inform its Vision Masterplan and Planning Proposal.

BHL requires that the LUIIP clarify the process required for existing planning proposals and how they may be progressed in the context of the LUIIP.

BHL'S VISION MASTERPLAN

BHL's Vision Masterplan builds upon the unique character and natural landscape of the site, while planning for significant and meaningful change that will drive the success of the Aerotropolis, the transformation of the Western Parkland City and the global competitiveness of the Greater Sydney Region.

BHL and its foundation partners are committed to delivering their vision for the Northern Gateway through the implementation of a bold Vision Masterplan by OMA who are global leaders in the masterplanning and development of airport cities.

The Vision Masterplan is aimed at building a globally recognised mixed use precinct which will support the growth and economic development of the Aerotropolis.

BHL's vision is to create and deliver a creative and connected city which will enable innovative businesses to thrive to deliver thousands of quality jobs for Western Sydney.

A flexible approach to future land use will ensure health and education precincts, high-tech industry clusters and neighbourhood living areas will exist side by side to cater to the entire community's needs.

BHL and its partners have proven track records in delivering sustainable, liveable places. This track record will ensure that these principles are the foundation of the development of the Northern Gateway.

ARCHITECTURAL STATEMENT (OMA)

Based on a linear planning strategy, supported by a grid of urban clusters and with true north orientation, the Northern Gateway is organised along an east-west axis with urban uses to the north-east and south-west.

A diverse program will focus on commercial, retail, health, medial, research and education, logistics and high-tech industry.

A defined urban edge and built form will contain the city to concentrate and optimise infrastructure investment and mitigate urban sprawl, minimising the need to expand infrastructure.

A green belt to both the perimeter and networked through the city will provide important amenity and healthy infrastructure to occupants. This will define the identity and character of the Northern Gateway site and will be underpinned by a network of programmed and activated open spaces.

New typologies of buildings with a mix of uses, and a permeable and accessible ground plane, merge the public and private domain bringing convenience, social equity, flexibility and resilience.

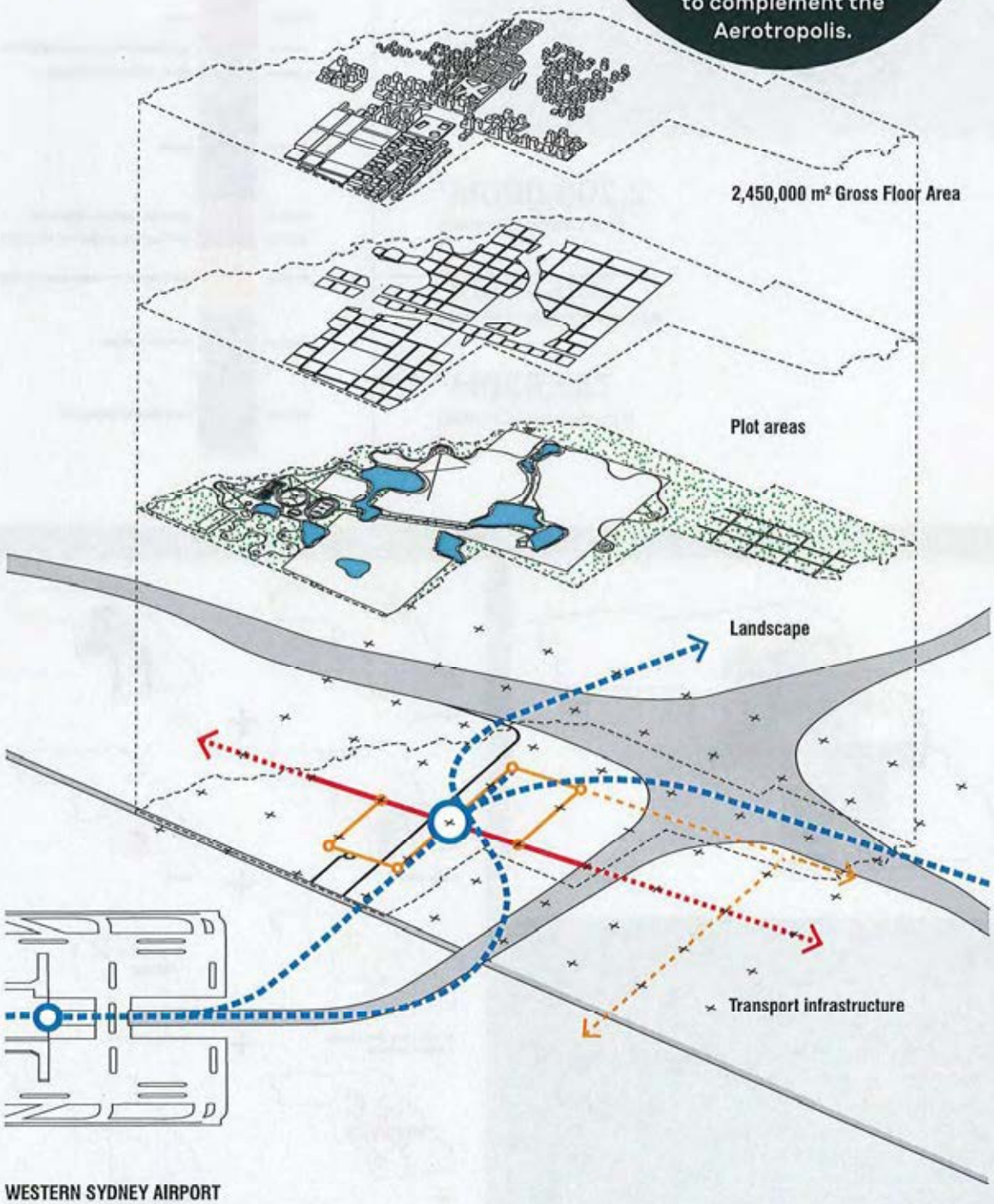
Carbon Neutral will be an environmental and sustainability target but more importantly, social and economic sustainability targets will be established to form a balanced civic ecosystem.

The new Western City will be a smart city and will utilise technologies, current and unimagined, to make a convenient and easily accessible city.

Content supplied by OMA

OMA VISION MASTER PLAN STRUCTURE

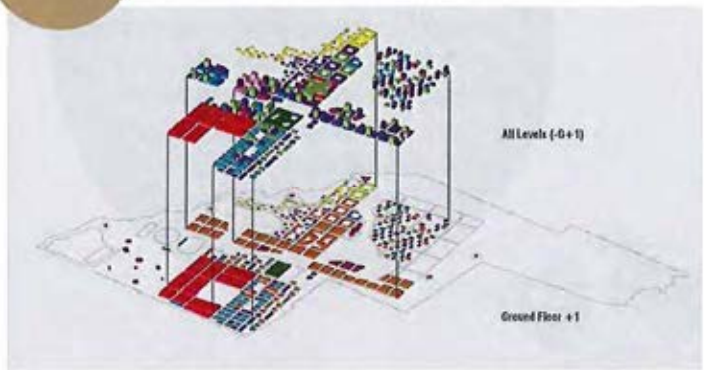
The Vision Masterplan comprises four urban layers; a layer of well connected and efficient transport infrastructure, performative and activated soft infrastructure, north orientated urban grid and innovative built form which will deliver a balanced urban ecosystem to complement the Aerotropolis.



WESTERN SYDNEY AIRPORT

Content and images provided by OMA.

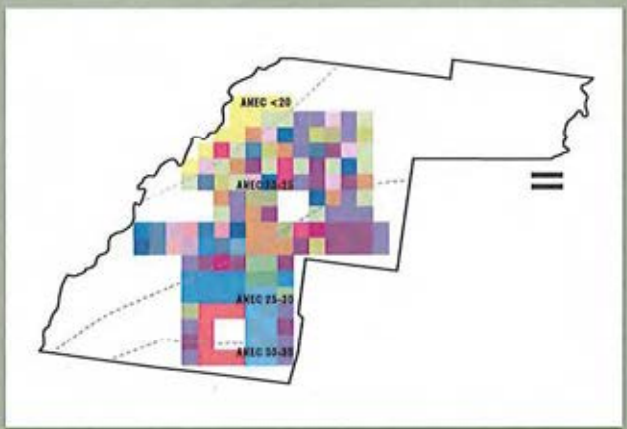
GFA ESTIMATE: **2,450,000M²**



2,200,000M²
Commercial Estimate

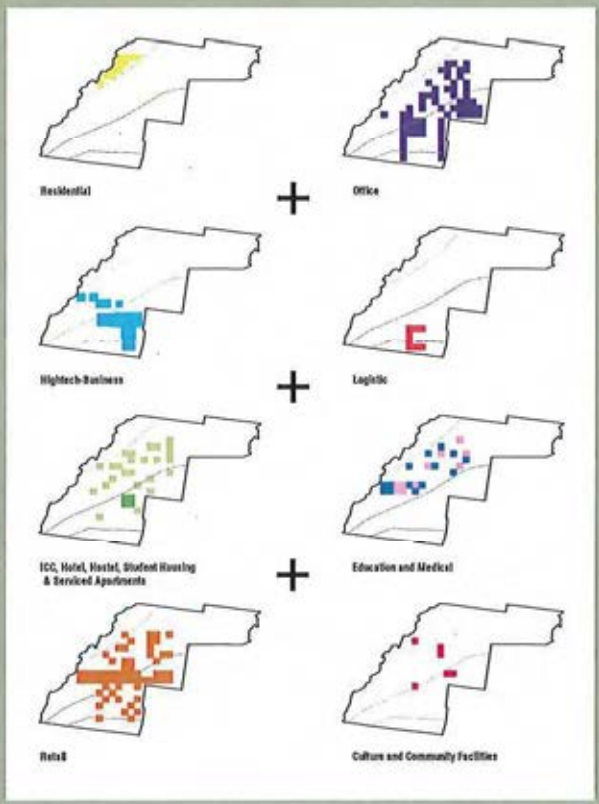
250,000M²
Accommodation Estimate

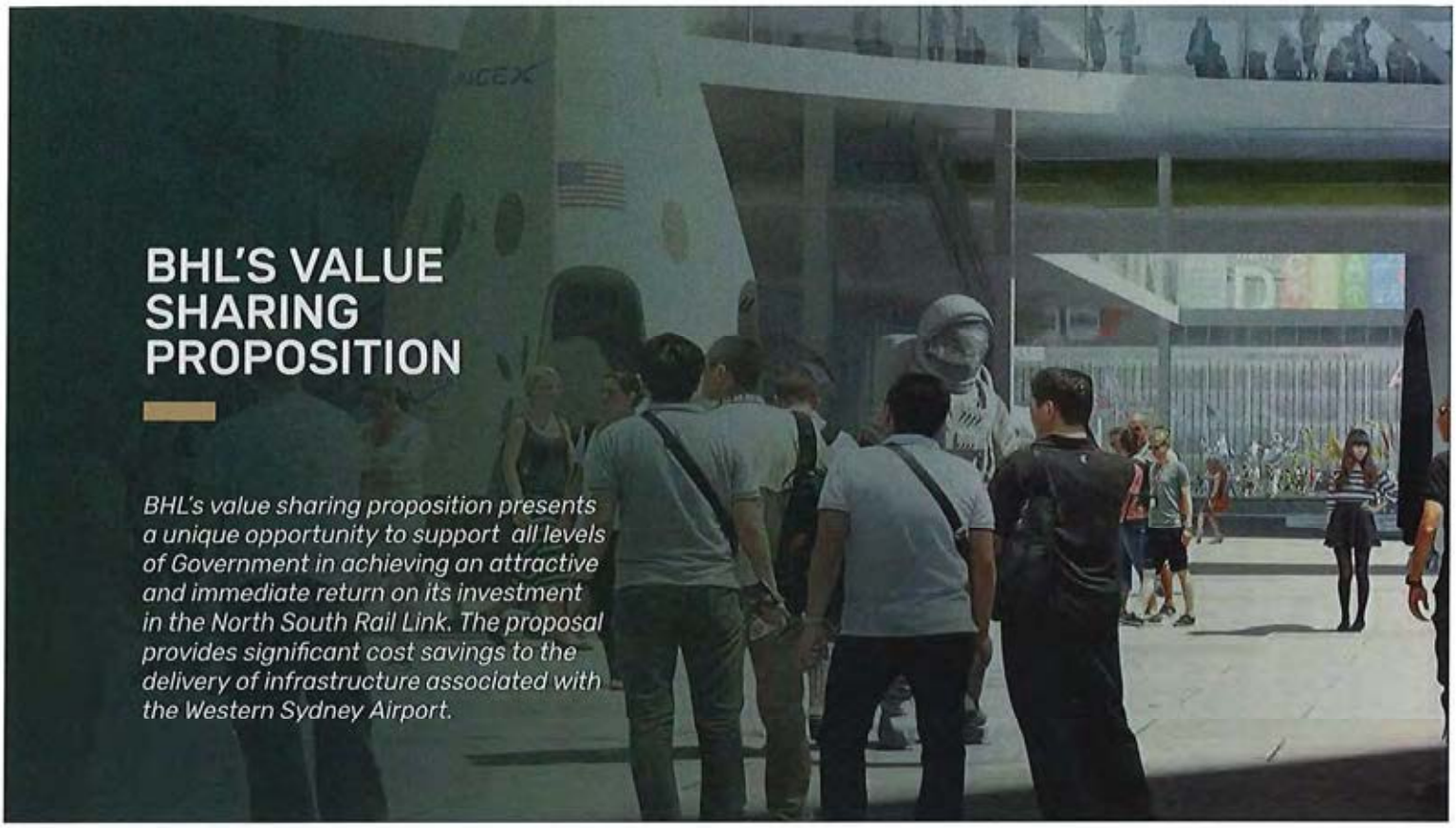
753,630M²
Infrastructure Estimate



MIXED USE PROGRAM

The silo city is to be avoided. Each of these clusters will have a specific program focus supported by a range of diverse uses creating program frictions and cross-pollination of activity promoting 24/7 activation and diverse opportunities for people to connect.





BHL'S VALUE SHARING PROPOSITION

BHL's value sharing proposition presents a unique opportunity to support all levels of Government in achieving an attractive and immediate return on its investment in the North South Rail Link. The proposal provides significant cost savings to the delivery of infrastructure associated with the Western Sydney Airport.

BHL and the Northern Gateway Foundation Partners have submitted a Value Sharing Proposition to the Federal, State and Local Governments and key Government Agencies.

An updated copy of this Value Sharing Proposition is included as part of this submission at Appendix B and includes the following key terms:

- BHL and the Northern Gateway Partners agree to nil compensation being payable in respect to acquisition of land for the M12 and M9 motorways and the North South Rail Link representing a saving to Government of $433 million;
- BHL and the Northern Gateway Partners assist in the construction costs for an underground railway station on its land for the North South Rail Link;
- Delivery of a key regional public transport interchange and future station for the Parramatta - Airport Rail Link;
- A commitment to provide governance arrangements around aircraft noise to ensure permanent protection to the Western Sydney Airport;
- Provision of affordable temporary key worker accommodation associated with the construction of Western Sydney Airport and in the early stages of its operation.

The Value Sharing offer is contingent on all relevant government agencies agreement to the following:

- Relocation M12 Motorway corridor according to BHL's proposed corridor location and reduce the size to 100-150m. Cardno estimates that this will save approximately $60 million in road construction cost;
- Relocation of the North South Rail Link as an underground line to access a station located centrally on The Site to activate a new Town Centre;
- Achievement of an additional gross floor area of 500,000 sqm above the proposed gross floor area of 2,450,000m²;
- An accelerated rezoning and infrastructure delivery process;
- Implement fair and reasonable rates and taxes and contribution offsets for the landholding.

The Value Sharing Proposition will provide a range of benefits which include:

- A unique cost-effective transport infrastructure solution in support of the government's goals for Western Sydney and the Western Sydney Airport;
- The provision of infrastructure which would ordinarily be treated as offset works against Special Infrastructure Contributions applicable to the development; and
- Affordable key worker housing which may be treated as an offset against the contributions payable by the Northern Gateway - Partners.

This 'Whole of Government' approach will enable the delivery of critical integrated transport infrastructure and will ensure that key planning objectives can be achieved. These include job creation for the local community and early activation of the North South Rail Link.

1. That the Value Sharing Proposition be integrated into the LUIIP / future precinct planning and rezoning process.
2. That the SIC incorporate appropriate offset mechanisms that take account of the Value Sharing Proposition.
3. That BHL's provision of worker accommodation during the construction of Western Sydney Airport and in the early stages of its operation be accepted and planned for as an interim land use as per the Strategic Outcomes and Planning Priorities for the Northern Gateway within the LUIIP.

DELIVERING A SMART, PROSPEROUS AND RESILIENT WESTERN SYDNEY

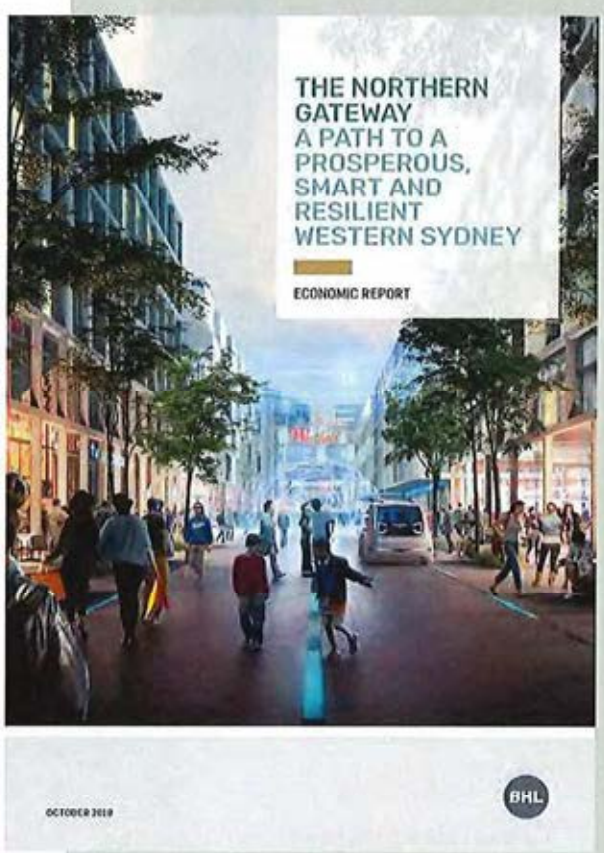
*Urbis has authored a report on behalf of BHL entitled "The Northern Gateway - A path to a prosperous, smart and resilient Western Sydney". A copy of the report is provided at **Appendix F** to this submission.*

This economic report outlines the 10 reasons Western Sydney needs the Northern Gateway:

1. To provide capacity for over 55,720 direct full time equivalent (FTE) jobs in Western Sydney across a broad range of high-value sectors.
2. To strengthen Sydney's Global competitiveness.
3. To boost economic growth by supporting the development of export focused industries.
4. To enhance Sydney's education offer in an increasingly competitive market.
5. To attract and retain skilled and young workers.
6. To generate 28,000 indirect FTE jobs across the local region and the State.
7. To provide modern spaces to attract the skilled and creative jobs of the future.
8. To capture a healthy share of the growing Asian visitor market.
9. To catalyse the development of Sydney's third city.
10. To facilitate the achievement of a 30-minute city.

DELIVERING JOBS TO WESTERN SYDNEY

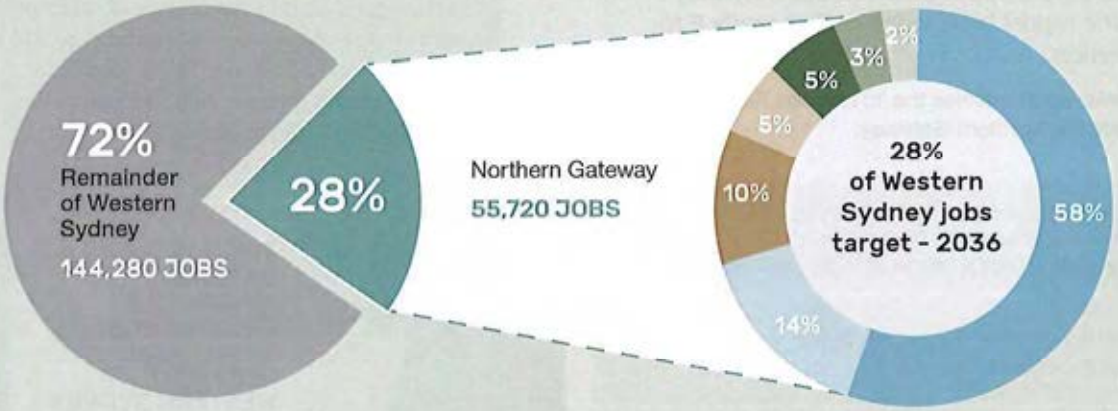
The majority of jobs at the Northern Gateway will be generated by the proposed commercial offices and retail tenancies – around 29,000 office jobs and 7,600 retail jobs. Another 5,900 jobs will be from the proposed hi-tech business and manufacturing uses.



Critically for the Northern Gateway - By 2051 these jobs Northern Gateway will be accessible to over *2.75 million* residents within *30 minutes*.

BHL's Northern Gateway can provide 28% of the 200,000 jobs envisaged for Western Sydney (Urbis,2018)

WESTERN SYDNEY JOBS TARGET



Source: Urbis 2018

	JOBS		
LAND USE	DIRECT	INDIRECT	TOTAL
Education	2,654	439	3,093
High-tech Business / Manufacturing	5,929	3,708	9,637
Logistics	1,187	942	2,129
Retail	7,598	1,880	9,478
International Convention Centre	149	74	223
Office	29,371	18,587	47,958
Hospital / Medical Research	5,604	879	6,483
Culture & Community Facilities	1,399	908	2,307
Hotel & Serviced Apartments	1,793	611	2,404
Student Accommodation	36	12	48
TOTAL	55,720	28,040	83,760

Source: Urbis 2018

Direct jobs in BHL's Northern Gateway
55,720

Indirect supply-induced jobs generated by BHL's Northern Gateway
28,040

EMPLOYMENT CONTEXT

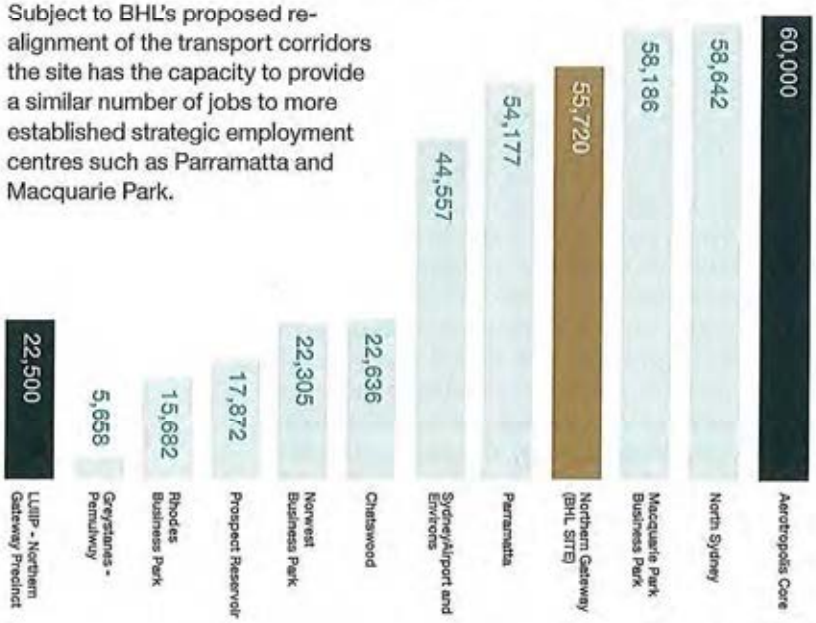
The job target for the Northern Gateway within the LUIIP of 22,500+ appears conservative, when considering the number of jobs already anticipated to be generated by Sydney Science Park. In their submission to the Western District Plan, Sydney Science Park included findings from a Deloitte Access Economics Report[4]. This report found that should the North South Rail Link be delivered in 5 years, Sydney Science Park could deliver up to 26,714 direct full time jobs.

In addition to these jobs, Urbis have estimated that BHL's site has the capacity to generate over 55,000 full time jobs by 2050. This equates to circa 2,200 per annum between 2026 and 2050. Over a 14 year period from 2022, this number equates to around 30,800 jobs which can be provided by BHL's Northern Gateway by 2036 which is 8,300 more than the 22,500+ jobs envisaged by the LUIIP.

The job numbers are based on BHL's proposed alternate M12 road corridor and consistent with the increased land area made available for employment uses which results from the reduction of proposed residential floorspace.

Subject to BHL's proposed re-alignment of the transport corridors the site has the capacity to provide a similar number of jobs to more established strategic employment centres such as Parramatta and Macquarie Park.

The provision of these jobs is consistent with the Western Sydney City Deal which aims to use the development of the Aerotropolis to "supercharge job creation" to meet its target of 200,000 jobs in the Western Parkland City by 2036.



4. Deloitte Access Economics Report - Economic and Social Benefits Assessment, 2018

BHL's Vision Masterplan is a jobs focused masterplan. Its implementation is consistent with the LUIIP Principles and supports the Western City Deal aim to 'supercharge' job creation in the Western Parkland City.

BHL recommend that its Vision Masterplan form the basis for more detailed planning across the Northern Gateway to facilitate the timely and early activation of the Precinct and wider Aerotropolis.

ANCHORING THE WESTERN ECONOMIC CORRIDOR AND AEROTROPOLIS

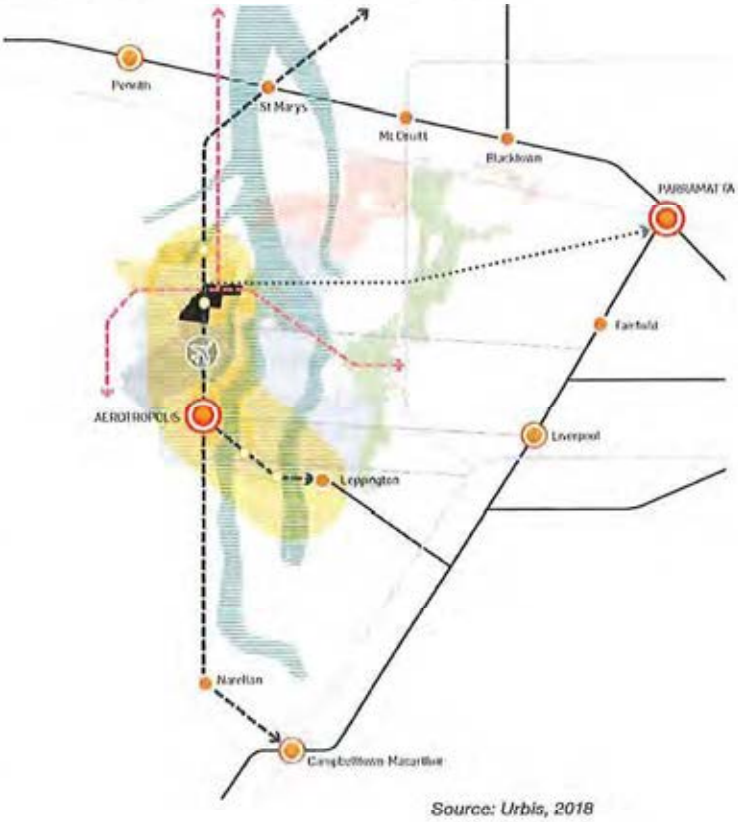
DRIVING THE GROWTH OF THE AEROTROPOLIS

BHL's Northern Gateway:

- Will be the northern anchor to Western Sydney Economic Corridor and Aerotropolis providing businesses with rapid global connection to suppliers, customers and partners.
- Will attract time sensitive, export focused industries who can cut costs, expand their market and increase productivity through its location adjacent to the airport.
- Will provide a diverse mix of employment generating uses that will catalyse the critical mass required for the future growth of Sydney's Western Parkland City.
- Will accelerate the development of the Aerotropolis by providing a precinct that is able to attract and retain workers in the skilled and creative jobs of the future, across a diversity of industry sectors.
- Is relatively free of the typical barriers that prevent the establishment of potential centres which include land fragmentation and limited availability of larger sites.
- Will attract hi-tech business and manufacturing to boost economic growth in this sector and anchor the development of the knowledge economy of the Western Sydney Aerotropolis.

The success of Western Sydney Airport and the Aerotropolis will rely upon the support and investment of businesses to deliver a diversity of jobs and economic growth aligned with the Government's vision.

WESTERN CITY DISTRICT CONTEXT PLAN



Source: Urbis, 2018

BHL's Northern Gateway site is consistent with the characteristics of Strategic Centres as outlined within the Greater Sydney Region plan and can attract high levels of employment, private sector investment, a diverse mix of land uses, high amenity and walkability and access to public transport.

BHL recommends that their Northern Gateway site should be recognised as a Strategic Centre.

NEW STRATEGIC CENTRES FOR THE WESTERN ECONOMIC CORRIDOR

The successful realisation the Aerotropolis as a significant employment generator requires early acknowledgement of a new network of strategic employment centres and economic agglomerations connected along the north-south transit spine (shown above).

The LUIIP falls short of nominating specific strategic centres that can anchor the Western Economic Corridor.

3 SHIFTING INFRASTRUCTURE CORRIDORS TO UNLOCK STRATEGIC LAND

BHL support the acknowledgment within the LUIIP that the transport 'corridors may shift' and that 'planning within the Aerotropolis will respond to any changes'.

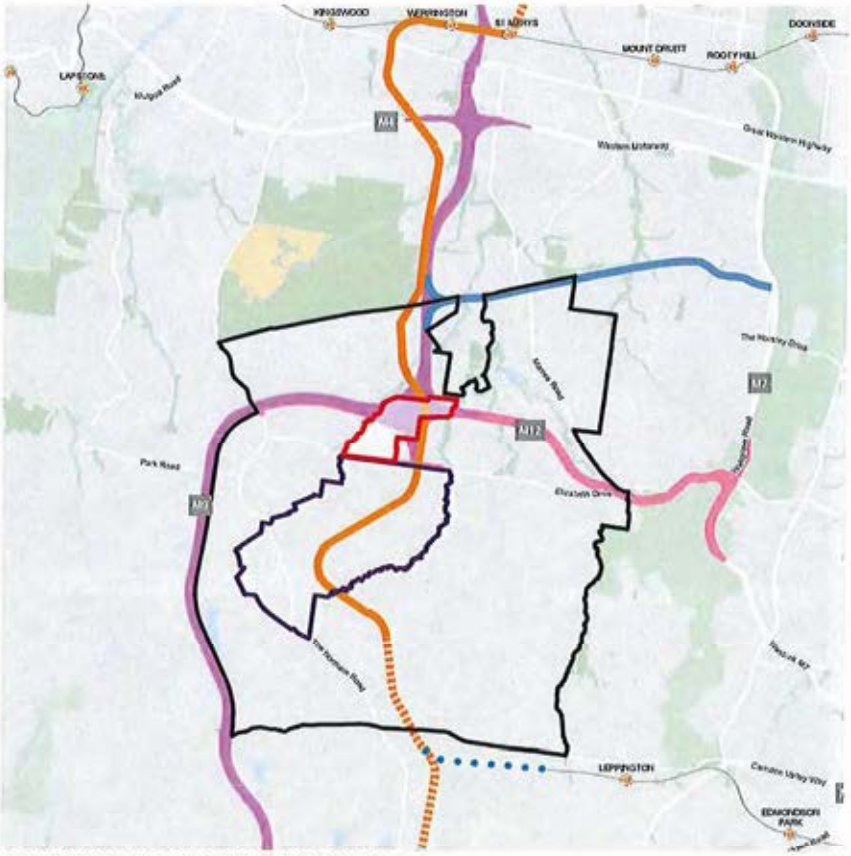
BHL looks forward to ongoing positive discussions with key stakeholders to resolve the location of this key land use constraint.

POTENTIAL TRANSPORT CORRIDORS

Engineering firms ARUP and Cardno have reviewed the current corridors on behalf of BHL and have found that the current alignments:

- Present significant north-south and east-west connectivity constraints;
- Restrict future development potential for employment generating uses; and
- Restrict any aspirations for vibrant town centres with a diverse mix of uses along the North South Rail Link.

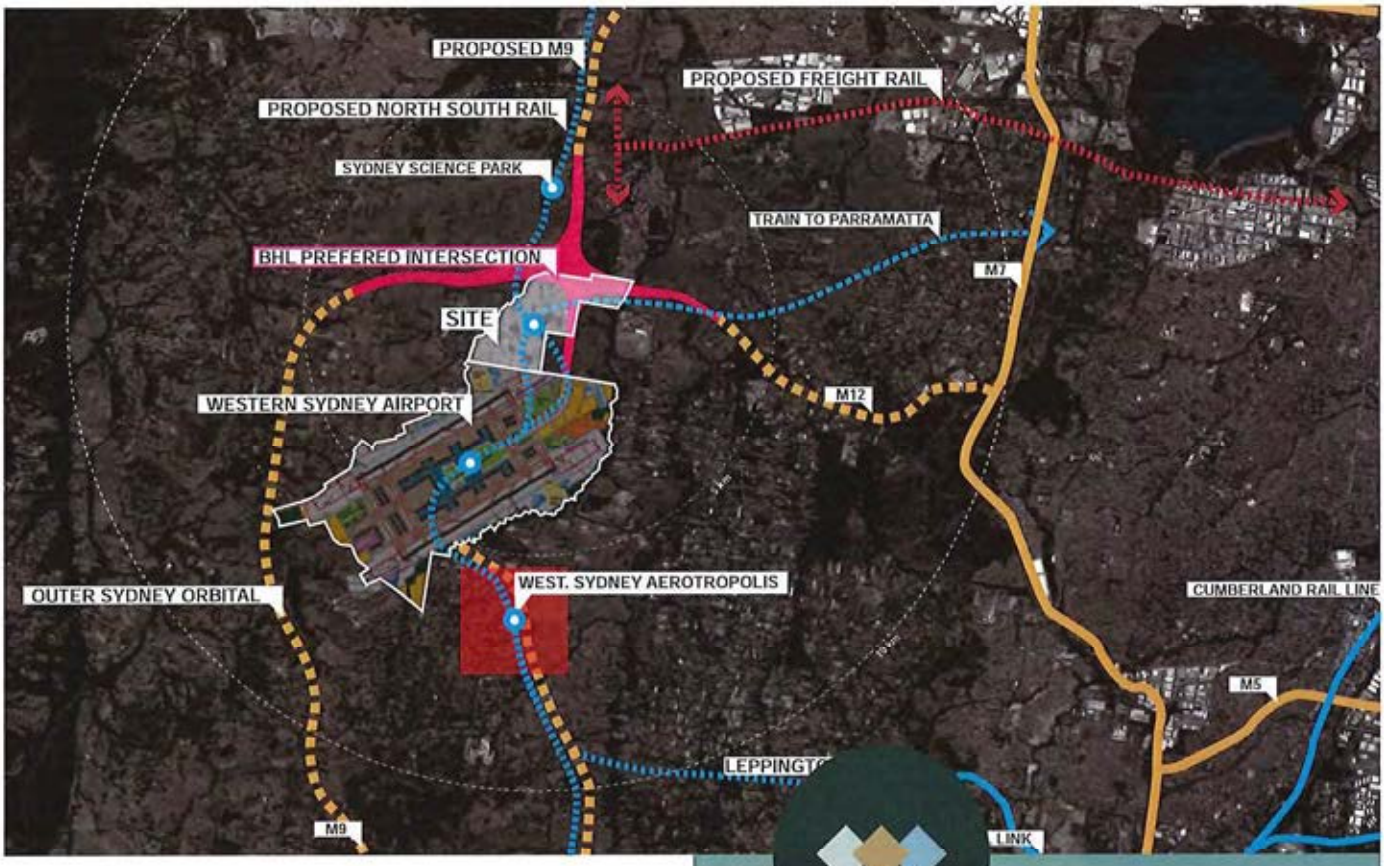
ARUP and Cardno have both advised that there are no significant reasons that would prevent BHL's proposed realignment of the infrastructure corridors.



POTENTIAL TRANSPORT CORRIDORS
Western Sydney Aerotropolis

- Western Sydney Aerotropolis
- Western Sydney Airport
- M9 - Outer Sydney Orbital Corridor
- M12 Motorway
- Western Sydney Freight Line
- Proposed North South Rail Link - Stage 1
- North South Rail Link - Future Stages
- South West Rail Link Potential Extension

Source: Department of Planning, 2018



Source: OMA, 2018

COLLABORATION

BHL has raised its concerns around the proposed transport corridors with key stakeholders through ongoing discussions and its various submissions to Government Agencies.

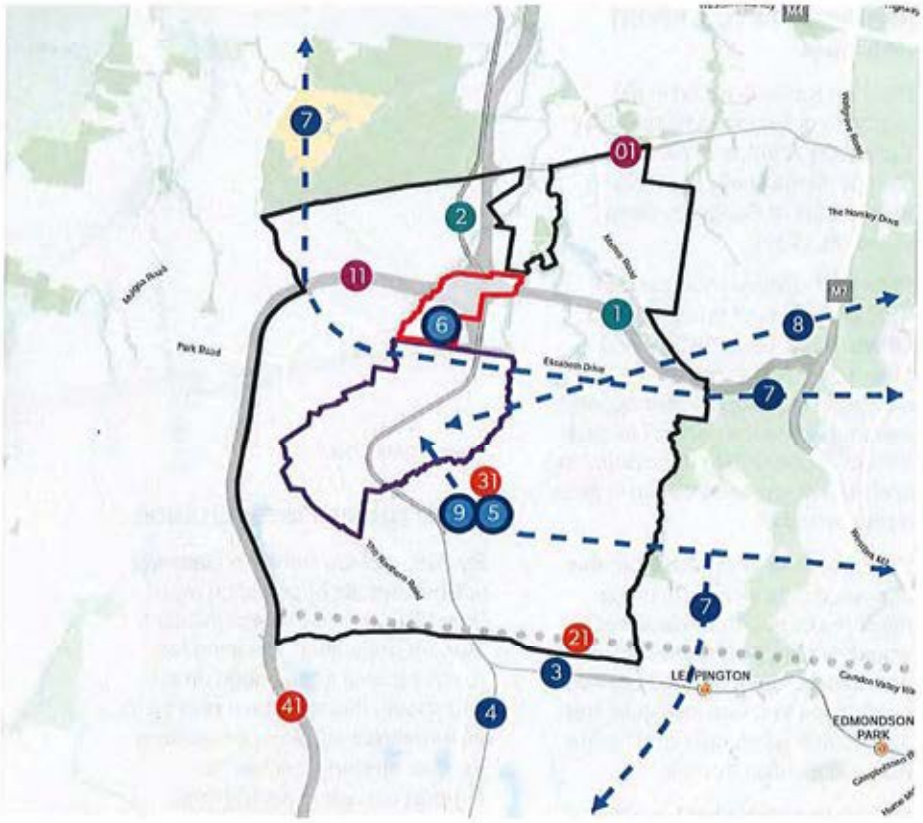
BHL is committed to ongoing collaboration with government and key agencies to plan for the following infrastructure which includes:

- Shifting the M12 Motorway alignment according to BHL's proposal which will reduce cost and risk to the State.
- Delivery of BHL's proposed North South Rail Link alignment and station placement such that it improves the business case for and early performance of the service.
- Potential protection for an on-site interchange for the Parramatta to Airport Rail Link.

BHL reiterate that relocation of these corridors is key to unlocking the potential of the Northern Gateway and demand for a rail station on the North South Rail Link.

BHL SUPPORT THE ACCELERATION OF THE WSA – PARRAMATTA RAIL LINK

BHL views the Parramatta to Airport Rail Link as a vital cog to support this significant employment centre and early activation of the Aerotropolis. BHL is committed to providing an interchange station and modal interchange with this link to the North South Rail Link.



FUTURE TRANSPORT INITIATIVES
Western Sydney Aerotropolis

Committed Initiatives (0 - 10 years)

1. Western Sydney Infrastructure Plan including the new M12
2. North-south Rail link in Western Parkland City: St Marys - Western Sydney Airport - Badgerys Creek Aerotropolis

Initiatives for Investigation (0 - 10 years)

3. Leppington to Western Sydney Airport - Badgerys Creek Aerotropolis Rail Link
4. Proposed North-south Rail Link in Western Parkland City: Western Sydney Airport - Badgerys Creek Aerotropolis - Campbelltown-Macarthur
5. Western Sydney Airport - Badgerys Creek Aerotropolis Connected and Automated Vehicles zone*
6. Western Sydney Fuel Pipeline*
7. Infrastructure to support Rapid Bus Connections and Improved Bus Connections between Western Sydney Airport - Badgerys Creek Aerotropolis and Penrith, Liverpool, Blacktown and Campbelltown-Macarthur
8. Western Sydney Airport - Badgerys Creek Aerotropolis - Parramatta Rail Link
9. Western Parkland City Bus Interchange*

Initiatives for Investigation (10 - 20 years)

01. Western Sydney Freight Line
11. Outer Sydney Orbital from Great Western Highway to Western Sydney Airport - Badgerys Creek Aerotropolis

Initiatives for Investigation (20+ years)

21. M5 motorway extension from Liverpool to Outer Sydney Orbital
31. Western Sydney Airport - Badgerys Creek Aerotropolis Inner and Outer Ring Roads
41. Outer Sydney Orbital from Western Sydney Airport - Badgerys Creek Aerotropolis to Hume Motorway

* Indicative Location

Source: Department of Planning, 2018

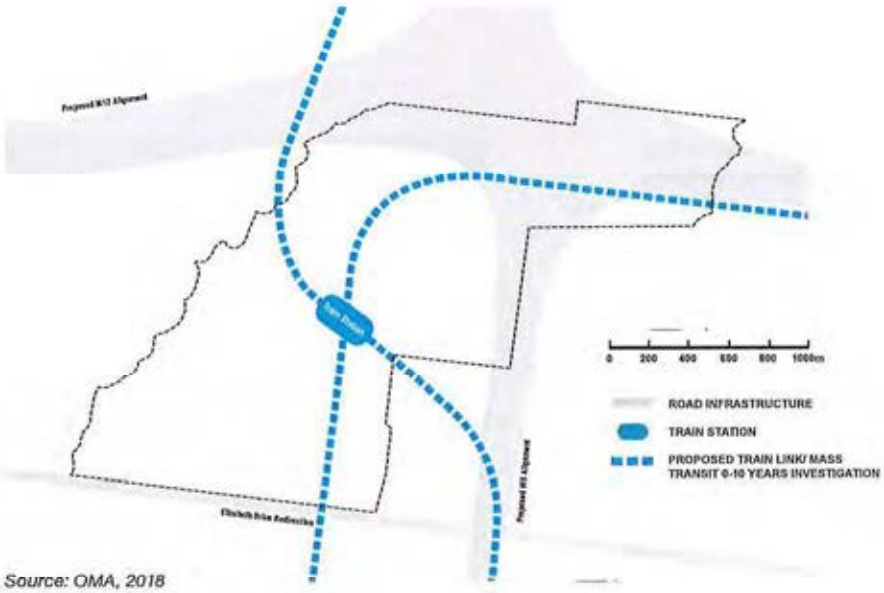
PARRAMATTA TO AIRPORT RAIL LINK

Dr. John Kasarda noted in his paper commissioned by the NSW Business Chamber A Western Sydney Aerotropolis Maximising the benefits of Badgerys Creek, (Kasarda, 2015).

"Fast and efficient metropolitan-wide access must be developed between WSA and Sydney and other major urban/employment centres in the broader metropolitan region that reduces airport access time to no more than 45 minutes to and from these nodes, even in peak traffic periods."

Kasarda, 2015 also noted that this access should include express rail services and that this access would extend the benefits of the new airport regionally and provide confidence to future investors and airlines that passenger and freight demand justifies the risk.

BHL shares Kasarda's view that the Aerotropolis success will depend on fast and efficient surface connectivity and as such views the future Parramatta - Airport Rail Link as a critical piece of infrastructure that should be prioritised and planned alongside the North South Rail Link.



Source: OMA, 2018

MASS TRANSIT INTERCHANGE

By 2050 , BHL's Northern Gateway will be capable of providing more than 55,000 jobs and a significant student population. Planning for a mass transit interchange on the site should therefore be a priority to ensure direct efficient connections to other strategic centres, to support access to nearby jobs.

BHL is committed to providing a future station and interchange between the North South Rail Link and the Parramatta - Airport Rail Link as part of its Value Sharing Proposition.

The BHL proposal to include a station box for the North South Rail Link and Parramatta - Airport Rail Link station and interchange be incorporated in the LUIIP and planning process leading to rezoning.

AN EMPLOYMENT CENTRE TO ACTIVATE THE NORTH SOUTH RAIL LINK

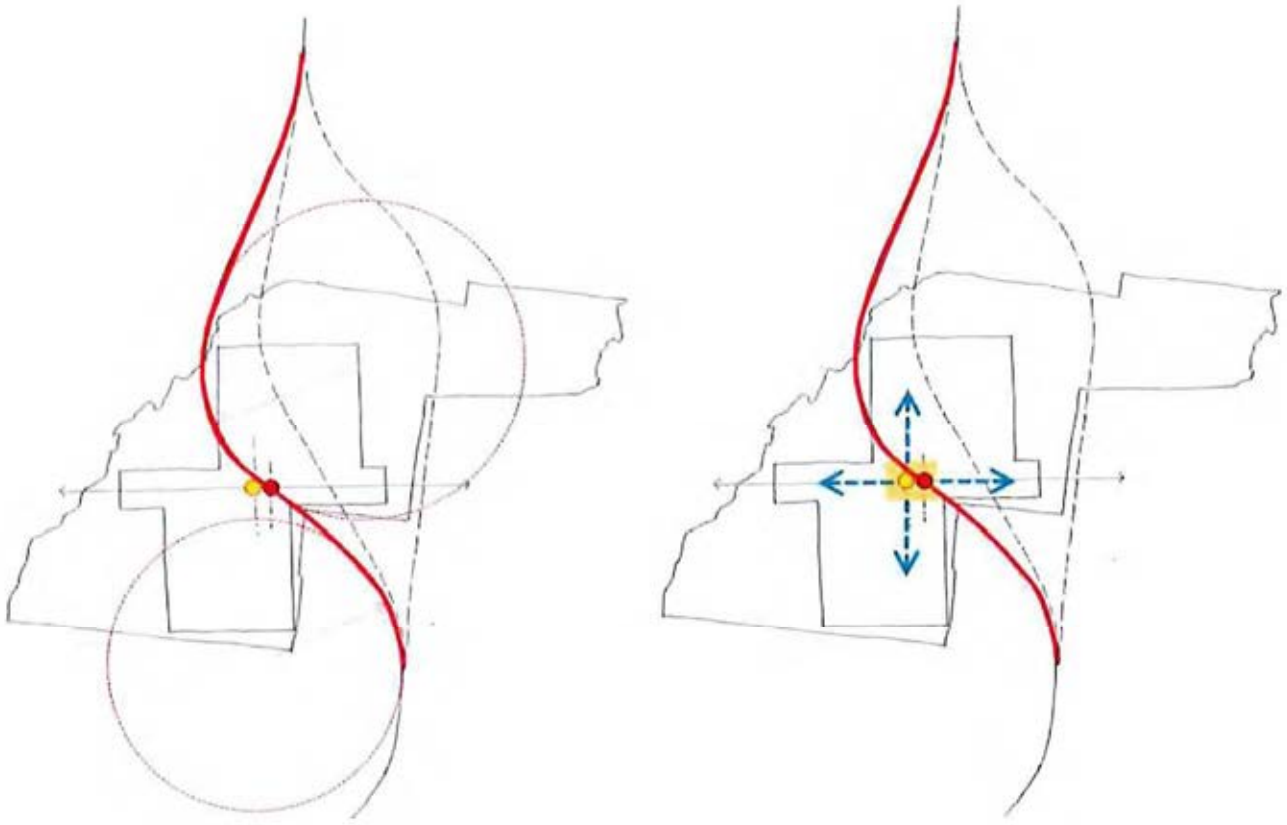
BHL's Value Sharing Proposition involves the relocation of the North South Rail Link to BHL's preferred alignment at no extra cost to government.

POTENTIAL TRANSPORT CORRIDORS

BHL's proposed realignment of North South Rail Link corridors will facilitate:

- The opportunity to create an active and vibrant strategic employment centre.
- Connection to high quality local employment, education, entertainment, leisure, recreation and tourist and visitor uses.
- Opportunities to focus future land use activities and densities around the new station.
- Leverage the significant government investment in rail infrastructure for maximum benefit, ensuring workers, students and visitors are within walking distance of the station.

A new rail station on BHL's Northern Gateway is a critical component to catalyse the future success and accessibility of the site as a major employment destination. This supports the GSC 'Three Cities' and '30 Minute City' concepts as outlined in the Regional and District Plans.



Source: ARUP, 2018

The North South Rail Link alignment be amended to enable the development of a station portal in accordance with the Value Sharing Proposal and Vision Masterplan.

ENGINEERING INVESTIGATIONS

ARUP has reviewed BHL's preferred North South Rail Link alignment and station location (shown above) and has found that there is no reason why shifting the proposed corridor and creating a centrally located station on the BHL site cannot be undertaken. ARUP's investigations support a new station placed at the notional town centre as currently presented within the BHL Vision Masterplan

"(ARUP's) review found that depending on the operational characteristics of the chosen rail mode, that up to four viable alignments were available. Assuming the highest rail speed mode for urban commuter rail services, it was found that a station could be located within 400m of the notional town centre without compromising approach speeds or needing to close radii. It is also noted that the proximity of the proposed town centre to the Western Sydney Airport is such that the highest typical rail operating speeds are unlikely to be required, and thus there are likely more viable options, enabling below grade, trench and at grade options for track and station alignments."

SHIFTING PROPOSED ROAD CORRIDORS TO UNLOCK STRATEGIC LANDS

ENGINEERING INVESTIGATIONS

ARUP and Cardno have both reviewed the preliminary design and access strategy for the M12 Motorway and M9 Outer Sydney Orbital and note that based on the Government's proposed alignment of the M12 interchange, significant north-south and east-west connectivity issues become apparent.

The Vision and Masterplan for the Northern Gateway site includes:

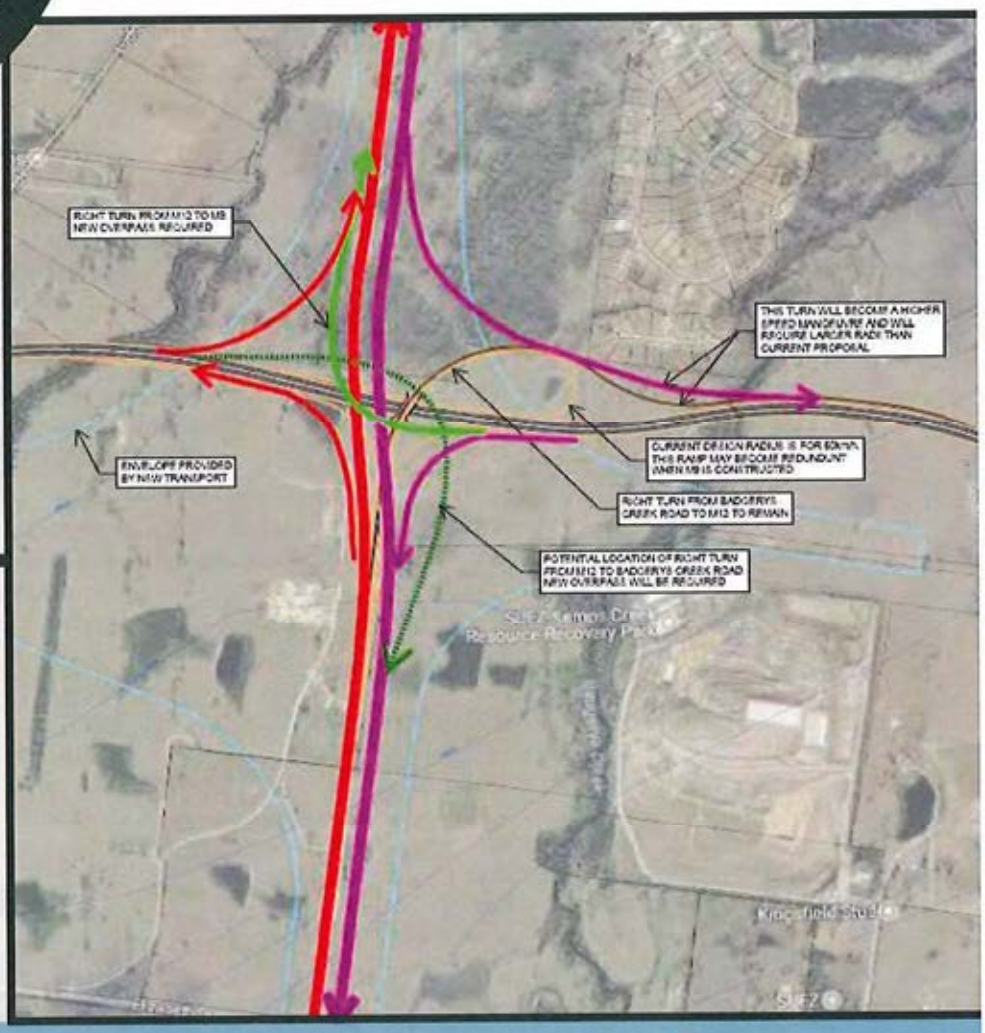
- The relocation of the M12 Motorway further north, generally parallel with the northern boundary of the site.
- Reducing the corridor width to 100-150m which allows for a more efficient interchange design which responds to the irregular configuration of the lot boundaries and minimises the area of land that will be isolated by the future road corridor.
- Facilitates the delivery of a large consolidated area on the central and southern part of the site.

There are significant public benefits to pursuing BHL's alternative alignment for these road corridors including:

- Preservation of an unparalleled opportunity to unlock the development potential of a large single landholding within the Western Parkland City and catalyse future demand for a rail station on the North South Rail Link.
- Delivery of the 30-minute Western Parkland City including substantial job creation and business investment aligned with the objectives of the Western City Deal, Greater Sydney Region Plan and Western City District Plan.
- Facilitate the staged delivery of over 55,000 jobs to the Northern Gateway and $21.6 billion in economic output to 2050. The current road corridor's location restricts the site's potential to logistics/manufacturing type of lands uses with limited number and mix of employment generating uses which will result in only 11,900 jobs and $6 billion (PwC, 2017) under the RMS proposal.
- Creation of a compact and vibrant town centre with a mix of land uses and ease of access to transit, goods and services for the community.
- A 59.1ha reduction in overall land take when compared to the proposed RMS corridors (146.8) (Cardno, 2018). This will reduce the impact on development potential and therefore reduces the potential compulsory acquisition cost for State Government.
- Significant cost savings of approximately $60 million associated with the construction of the alternative proposal compared to the preliminary RMS design. This is due to a significantly improved cut/fill balance owing to the prevailing differences in topography at the two locations.

BHL recommends that its proposed alternative corridor alignment be reflected in the LUIIP as it significantly reduces the impacts on the development potential of BHL's Northern Gateway site.

The current configuration of the proposed M12/M9 corridors and interchange would have a significant detrimental effect on efficient and productive use of BHL's Northern Gateway site.



Source: Cardno, 2018

REALIGNING THE M12 – THE ECONOMIC BENEFITS.

Prior to Urbis' updated analysis, Pricewaterhouse Coopers (PwC) provided an *Economic Impact Analysis, 2017* to support BHL's Submission to the Regional and District Plans and the original Vision Masterplan.

This analysis estimated the number of jobs and economic output that could flow from development of the site under the following two scenarios:

1. Government proposed M12 Road Corridor location through the site. Assumption was made that the level of GFA developed under this scenario will be 25% of total GFA achieved by BHL's Masterplan and occupied by logistics business only.
2. BHL Alternate locations for the Infrastructure Corridors. Assumption for this scenario was based on 2.19 million sqm of GFA across a mix of commercial, retail, education, manufacturing and health.

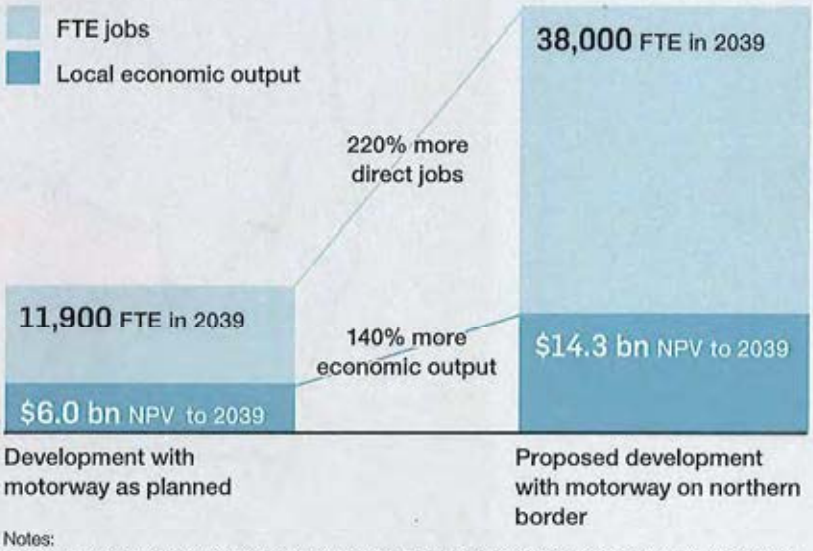
The report also discussed at a high level how realisation of the Vision Masterplan, specifically the jobs and economic output created could be of benefit to Western Sydney. We note that these PwC job numbers were based on a previous version of the Vision Masterplan with significantly more residential floorspace and less employment generating floorspace than the current Vision Masterplan.

COMPARATIVE IMPACTS

When compared to the Government proposed corridor scenario, the original 2017 Vision Masterplan was found to result in:

- $8.4 billion uplift in local economic output over 15 years, and
- 26,100 additional direct jobs.

PwC found that the difference between the scenarios resulted in 140% higher output and 220% more jobs compared to what could be achieved should the M12 Motorway Corridor remain unchanged.



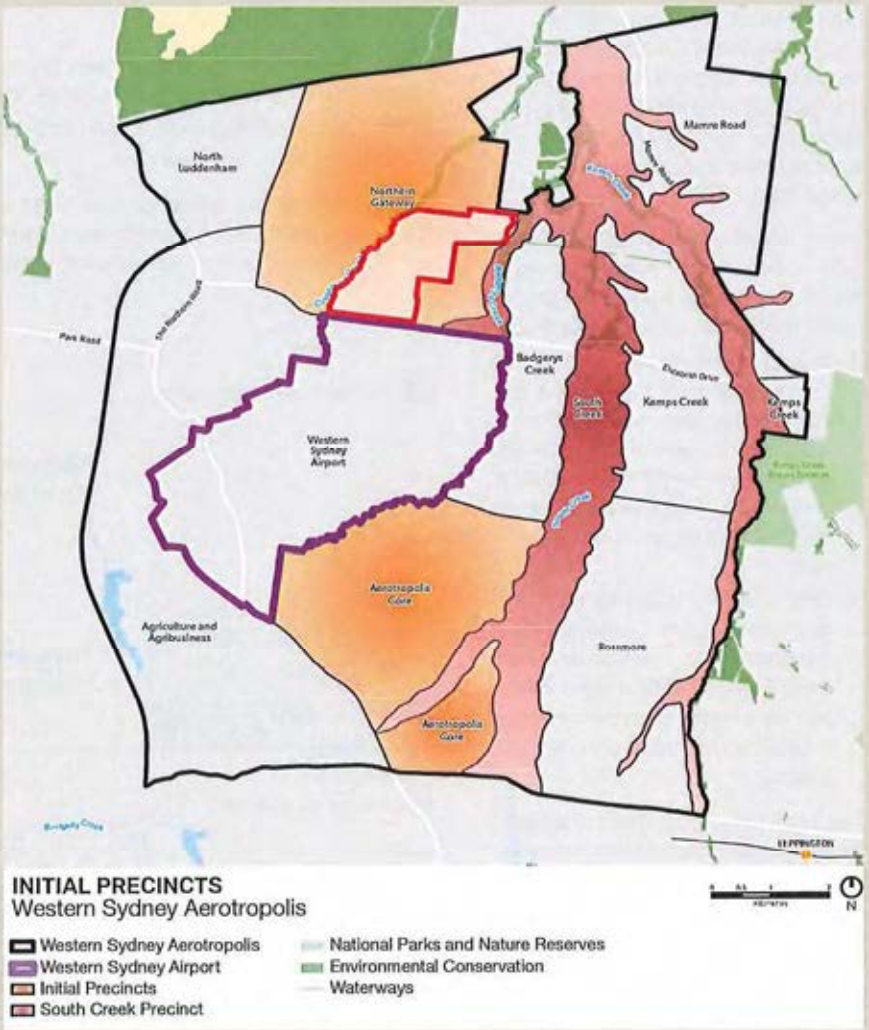
Notes:
PwC's numbers assumed that a train station as part of the proposed development. PwC advised that if the station was not included, the total amount of employment and output would reduce due to decreased accessibility for both customers of the businesses and employees of the network.

Source: PwC Analysis.

Both the Urbis and PwC economic analyses clearly demonstrate the significant benefits from the proposed re-alignment of the infrastructure corridors and location of a station on BHL's Northern Gateway Site. Importantly, a primarily logistics based precinct cannot deliver the more diverse range of smart and resilient jobs that BHL's Vision Masterplan would deliver.

4 DELIVERING THE VISION AND STRATEGIC OUTCOMES FOR THE INITIAL PRECINCTS

BHL's Vision Masterplan will unlock the Northern Gateway, which is identified as one of the two initial precincts to be the focus of planning growth for the next five years.

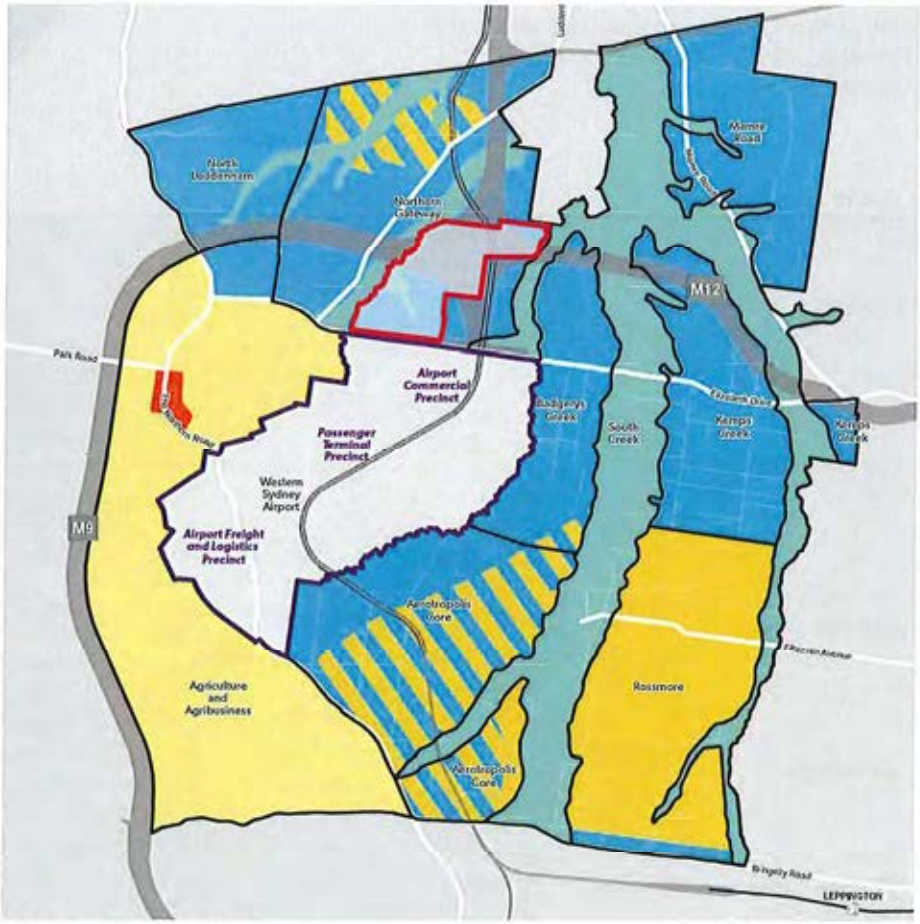


Source: Department of Planning, 2018

BHL supports the prioritisation for the development of the initial precincts and the boundary of the Northern Gateway.

THE FIRST STAGE STRUCTURE PLAN AND BHL'S NORTHERN GATEWAY

BHL supports the intent of the first stage structure plan to achieve shorter term development outcomes and preserve longer term opportunities. BHL also support the use of a flexible urban development zone to ensure job opportunities and potential uses are not constrained over the longer term.



STRUCTURE PLAN
Western Sydney Aerotropolis

- Precinct Boundary
- Western Sydney Airport
- Proposed Transport Corridors
- Agricultural
- Luddenham Village
- Flexible Employment
- Urban Land
- Non Urban Land
- Mixed Flexible Employment & Urban Land

Source: Department of Planning, 2018

BHL's site is the ideal location for the central employment hub for the. Northern Gateway.

Non Urban Land should be defined by LEP environment zones and not the PMF.

BHL are currently undertaking detailed environmental & other constraint investigations for their site.

BHL supports shifting agricultural uses further west to unlock their strategic landholding.

Priority road access must be provided for quick movement of goods from Northern Gateway to the proposed airport freight and logistics precinct.

BHL's Vision Masterplan supports mixed flexible employment and urban land with uses that go beyond just freight and logistics.

The shifting of infrastructure corridors is key to unlocking strategic lands and providing access to higher order jobs.

Land uses within the Northern Gateway and Aerotropolis Core precincts must be flexible and consistent encourage early investment and first mover advantage.

To ensure early activation of the Aerotropolis - uses such as education, health and student housing need to be accepted land uses within ANEC/ANEF 20-25.

THE LUIIP'S PRINCIPLES FOR SUCCESS ARE ALIGNED WITH BHL'S VISION

BHL's Vision Masterplan will deliver on the 'Principles for Success' of the LUIIP as outlined below.

BHL endorses the Draft Principles for Success within the LUIIP.

Visioning for Success	BHL Proposal
Productive	✓ The Northern Gateway will be a productive 24 hour city that will leverage off its location to support local, regional and global business and will have capacity to provide more than 55,000 jobs and $21.6 billion of direct economic output by 2050. Partnerships between business and education institutions will support the local knowledge economy.
Compact and Connected	✓ The Vision Masterplan has been based on a compact and connected grid layout that will maximise pedestrian and cycle connections to a centralised mass transit interchange that will connect the Northern Gateway to Greater Sydney.
Liveable	✓ A diversity of jobs and short term accommodation will be provided nearby to a proposed new station on the North South Rail Link. A new and vibrant urban centre with a diverse mix of uses will activate the area around the station and provide unique amenity and recreation opportunities to support a highly skilled and diverse community.
Sustainable	✓ A commitment to net-zero emissions and the latest advancements in technology will ensure innovative solutions to manage energy and water demands and waste can be provided.
Aligned with Infrastructure and funding	✓ A unique Value Sharing Proposition has been submitted which includes funding for key infrastructure in return for shifting the M12/M9 Corridor north to unlock this strategic land holding in a manner that maximises the economic and social benefit to government.
Compatible with a landscape led approach to urban development	✓ Retention of existing riparian corridors and natural areas on the site will combine with extensive landscaped areas that will strengthen the Western Parkland City urban structure and enhance the local scenic and cultural landscapes. Noise sensitive uses will be located in appropriate locations in recognition of the importance of allowing unencumbered airport operations.

A COMMON VISION FOR THE AEROTROPOLIS

BHL endorses the LUIIP Vision.

BHL's Vision Masterplan is aligned with the LUIIP's vision for the Aerotropolis as outlined below.

Meeting the Vision		BHL Proposal
Smart and resilient jobs including aerospace and defence industries.	✓	Partnerships with international and local conglomerates and institutions will deliver knowledge-intensive jobs which can support both aerospace and defence industries in the future.
Creative industries and the technology sector	✓	With over 500,000 sqm of hi-tech business, commercial and medical and other research space, BHL's Northern Gateway will provide modern spaces to attract the skilled and creative jobs of the future.
Agricultural processing and export	✓	The Northern Gateway's Logistics Estate will be ideally located to support the agribusiness precinct to the west.
Advanced manufacturing and logistics	✓	The Northern Gateway's Logistics Estate will leverage its unrivalled position adjacent to the future Western Sydney Airport and will be a major hub for transport and warehousing in the Western City.
Environment and amenity	✓	The Vision Masterplan is focused on maintaining the existing environment to provide amenity for the future population within the Northern Gateway.
Sustainability	✓	With a commitment to a carbon neutral environment sustainability will be at the core of the development of the Northern Gateway. Sustainability strategy will drive innovative solutions to energy consumption, water and waste.
Tourism and the visitor Economy	✓	The Northern Gateway is the most convenient centre for new arrivals and visitors to Western Sydney and will support the business case for the North South Rail Link. The Northern Gateway will boost Sydney's visitor economy by providing a viable location for international events, conventions and conferences in Western Sydney through its 2,200 hotel rooms and serviced apartments, 30,000 sqm International Convention Centre.
World Class Health	✓	The visionary Charlie Teo Wellness Centre will anchor BHL's world class Northern Gateway health precinct.
World Class Education	✓	Western Sydney University will deliver a new International Education Precinct within the Northern Gateway which will enhance and foster innovation in Western Sydney by establishing an education, research and industry hub with global connectivity.
Arts and Culture	✓	A new Western Sydney Performance Centre will be developed alongside the International Convention Centre providing world class venue to support the Arts in Western Sydney.
Mixed use living	✓	Place based land use planning has guided the mixed use layout of the Vision Masterplan. The Vision Masterplan focuses on delivering a walkable community with activated and permeable ground planes and connections to open space, social infrastructure and mass transit.

DELIVERING THE KEY PRIORITIES & EXPECTED PLANNING OUTCOMES FOR THE NORTHERN GATEWAY

BHL's Vision Masterplan is aligned with the 'Key Priorities' and 'Expected Planning Outcomes' for the Northern Gateway as outlined below.

Strategic Outcome / Planning Priorities (8.1 of the LUIIP)	BHL Proposal
Major airport interface with high-quality urban streetscape and development, including the public domain. Attractive entry points to reflect the main approach to the Airport.	✓ BHL's vision is for a high-quality urban environment that will define it as the main northern entry point to the Airport.
A centre that focusses on education research and development and high technology with links to food production and processing.	✓ BHL's Vision Masterplan will deliver a world class International Education Precinct which will partner with international companies to foster innovation, and establish an education, research and industry hub with global connectivity.
Strong relationship with the underlying topography and scenic values, including South Creek corridor and Greater Sydney Green Grid, incorporating tree canopy and local open space.	✓ The Vision Masterplan with its substantial and linked open space network will reflect the heritage and character of the Western Parkland City. The proposal maintains a strong relationship with the underlying topography and scenic values of the site.
Minimal conflict between airport operations and land use/ development outcomes.	✓ The Vision Masterplan ensures that all future development will minimise conflicts between airport operations and land use/development outcomes to ensure 24/7 operation of the airport can be maintained.
Implement approved Sydney Science Park.	✓ BHL's Vision Masterplan will not impact on the implementation of Sydney Science Park. The proposed rail alignment has factored in a future rail station at Sydney Science Park.
Access points kept to a minimum from Elizabeth Drive to service private development.	✓ Only one access point to the site will be provided to BHL's Northern Gateway from Elizabeth Drive.
Road layout and subdivision pattern supports Elizabeth Drive as an east-west city-serving corridor for moving people and goods. Collaborate with NSW Roads and Maritime on Elizabeth Drive upgrade, function and configuration (Planning Partnership).	✓ ARUP has confirmed that the road hierarchy is consistent with the LUIIP priorities which protects and supports the vision for Elizabeth Drive as an 'east-west city-serving corridor' by providing a connection between the site and the regional motorway network.
Residential development limited to the centre and focused on centre serving transport.	✓ The Vision Masterplan focuses on a compact mixed-use urban form around a new station on the North South Rail Link. Accommodation will be located in proximity to this major transport node whilst also considering the appropriate Aircraft Noise Contours.
Housing forms support the centre and where possible integrate with commercial and employment opportunities.	✓ The Vision Masterplan provides opportunities for a range of short term accommodation in a dense mixed-use typology that will support the compact urban form and integrate with the substantial commercial and employment opportunities provided on the site.

The BHL proposal is aligned with the key priorities and expected planning outcomes for the Northern Gateway within the LUIIP.

Strategic Outcome / Planning Priorities (8.1 of the LUIIP)	BHL Proposal
Educational establishments limited to the centre where accessible by public transport.	✓ Education uses will be located around the major transport node and accessible by public transport. To ensure that strategic outcomes can be achieved on the BHL site, the LUIIP must permit education uses such as universities and supporting short term student accommodation uses within ANEF 20-25.
All stages and sub-precincts adopt a grid layout at the centre of public transport networks for public transport, cycling and pedestrians.	✓ The BHL Vision Masterplan adopts a compact and walkable grid layout. At the centre of the development are streets which prioritise public transport, active modes of travels, with access for cars limited. Servicing by vehicles will be to the periphery of the area and below ground, thereby removing many large and heavy vehicle movements from the proposed town centre, further enhancing the site's walkability.
Protection of transport corridors and prevent possible conflict with adjoining land Flexible employment hubs with supporting uses that create and enhance a sense of place.	✓ The aspiration of BHL's Vision Masterplan to create a vibrant town centre flexible employment hub with a mix of supporting land uses is reliant on the ability to relocate the infrastructure corridors further north and provide a station on the North South Rail Link.
Consider interim land uses during the construction of the WSA.	✓ BHL are in ongoing discussions with Western Sydney Airport Corporation to provide temporary accommodation on the Northern Gateway site for construction workers associated with the Western Sydney Airport Construction. This will ensure early activation of the site can be achieved.
Enable innovative approaches to resource recovery and waste management, including urban design for collection facilities.	✓ The BHL Vision Masterplan supports innovative approaches to resource recovery and waste management such as treating organic waste for use in community gardens.

5 PROVIDING POSITIVE SOLUTIONS TO CONSTRAINTS

AIRPORT OPERATIONS

BHL can support the LUIIP's aims to safeguard the future operation of Western Sydney Airport and to ensure that the operation of the airport is protected including:

- Ensuring that sensitive land uses do not encroach into areas affected by aircraft noise and operational airspace.
- Contribute to the early planning for the potential orbital road and mass transit connections between the Airport and surrounding development while still preserving the development potential of the site, as contemplated by the Vision Masterplan and Planning Proposal.
- Providing land uses that are complementary to the development of the sub-precincts on the airport site including;
  - Providing a direct link to the commercial precinct at the 'front door' of the airport which will complement the vision for a strong mixed-use strategic centre within the Northern Gateway.
  - Providing land uses that support the tourism and visitor market with quick access to these uses from the passenger terminal sub precinct via the North South Rail Link.
  - Provide freight and logistics uses that can seamlessly connect with the Western Sydney Airport freight and logistics precinct to the south.

AIRCRAFT NOISE

THE AEROTROPOLIS REQUIRES NOISE SOLUTIONS DRIVEN BY ACOUSTIC EXPERTS.

BHL has engaged Acoustic Expert, Najah Ishac who is a Director and Acoustics Technical Leader at EMM. Najah has over 24 years of experience in acoustics including aircraft noise impacts on land use development. EMM's review of the LUIIP is appended to this submission at Appendix H .

Whilst BHL supports the current LUIIP and recently released Ministerial Directions on restricting residential development within ANEC/ANEF 20-25, EMM has noted:

> *"The LUIIP acknowledges the requirement for acceptable internal noise levels and building fabric design, something which is consistent with AS2021, and states 'These new residential areas, built in a way that minimises noise intrusion, ...'. This can be achieved for ANEC20 and ANEC25 affected land as it always has been under AS2021."*

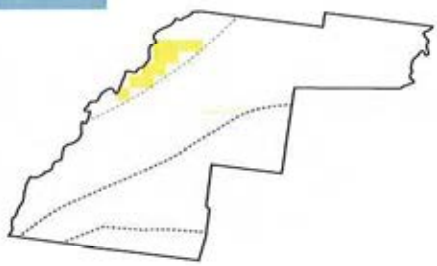
EMM is of the opinion that the framework provided by the Australian Standard can provide sufficient protection for sensitive land uses which are currently 'conditionally acceptable' in ANEF 20-25 as per AS 2021-2015.

Further to this,

"With appropriate building design, education facilities and hospitals can occur within 20 to 25 ANEF; similarly, hotels, motels, hostels and public buildings can occur within 25 to 30 ANEF; while, commercial buildings can occur within 30 to 35 ANEF"

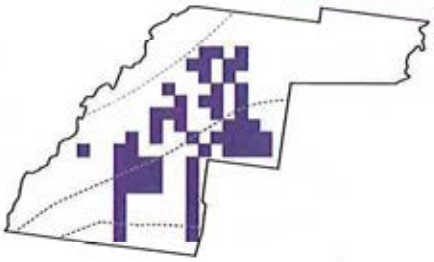
LUIIP – permitted

AS2021 – acceptable



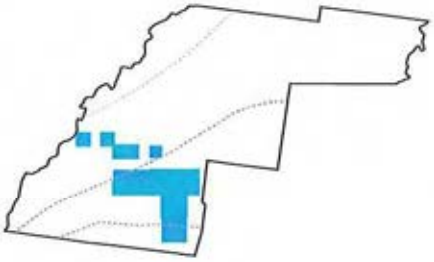
Residential

AS2021 – acceptable or conditionally acceptable



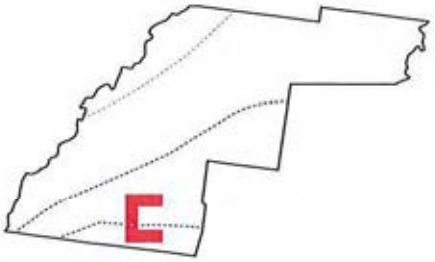
Office

AS2021 – acceptable or conditionally acceptable



Hightech-Business

AS2021 – acceptable or conditionally acceptable

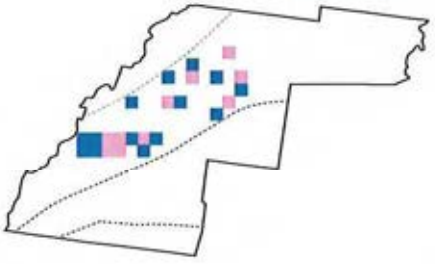


Logistic

AS2021 – acceptable or conditionally acceptable

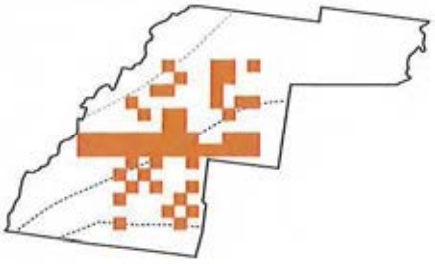
ICC, Hotel, Hostel, Student Housing & Serviced Apartments

AS2021 – conditionally acceptable



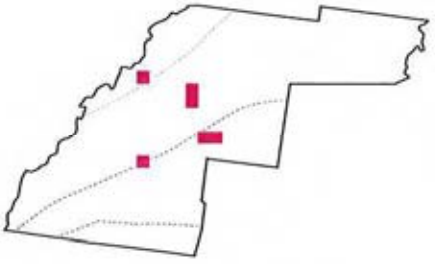
Education and Medical

AS2021 – acceptable or conditionally acceptable



Retail

AS2021 – acceptable or conditionally acceptable



Culture and Community Facilities

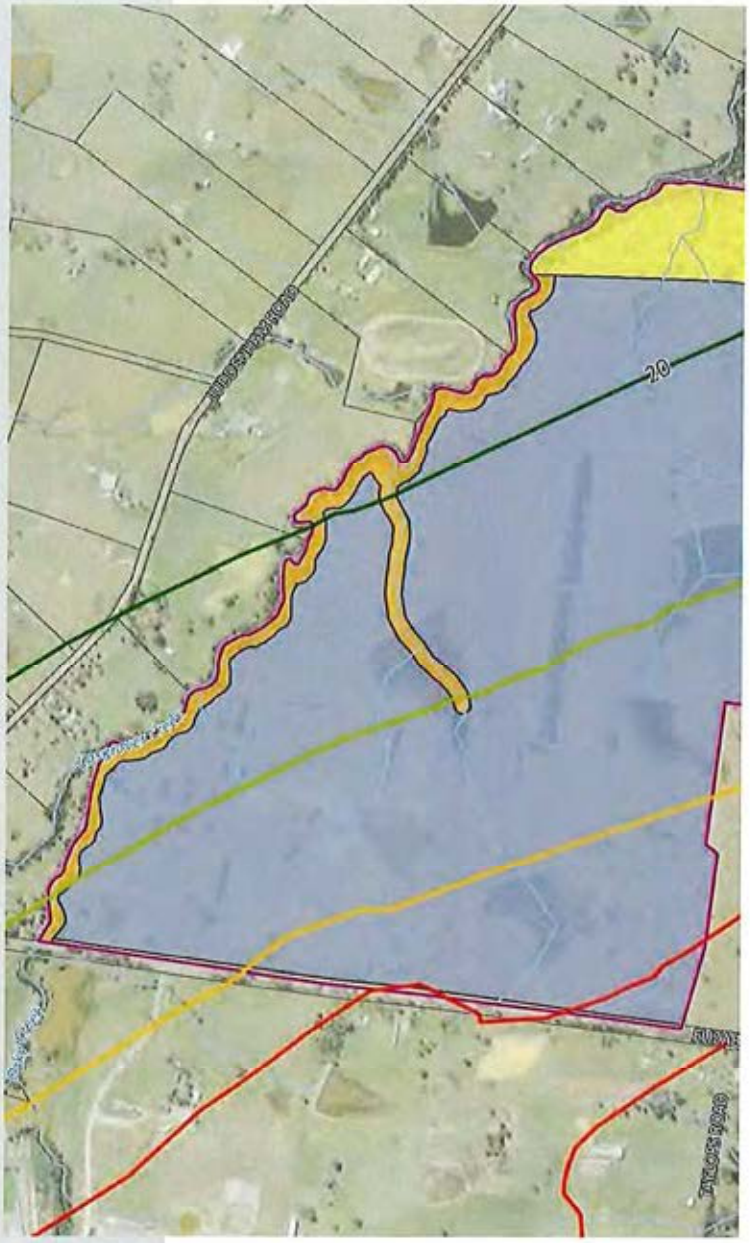
Vision Master Plan urban structure and ANEC20, 25, 30 for 2063 – aircraft noise assessment

AIRCRAFT NOISE

POTENTIAL ALTERNATIVE GOVERNANCE SOLUTIONS

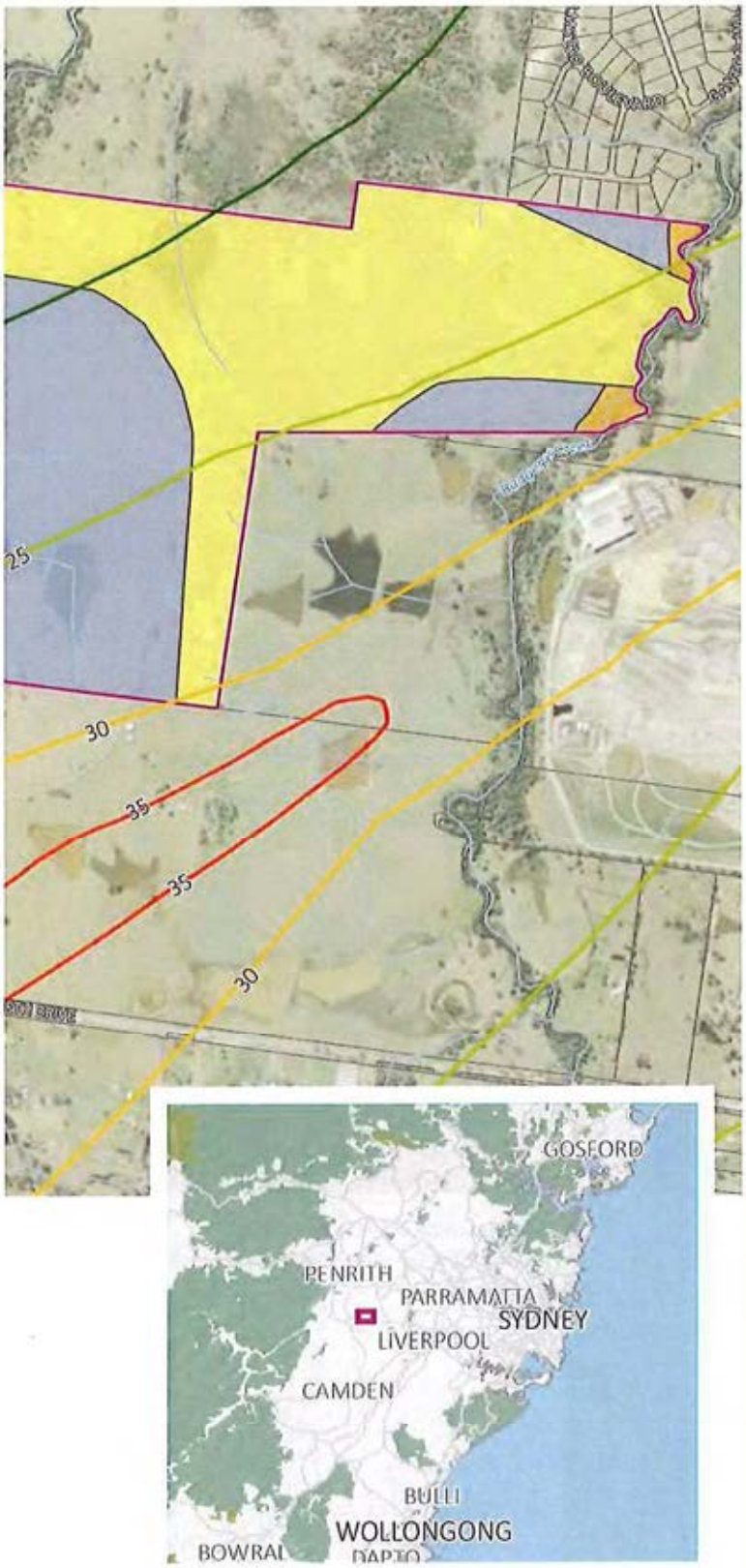
EMM have recommended potential alternative governance solutions that can supplement existing measures under the Australian Standard to ensure protection of the 24 hour operation of the airport including:

- Specific Aircraft Noise Controls within all new Precinct Plans:
  - To ensure that all new development will not restrict the 24/7 curfew free operation of the airport nor its ability to exercise its statutory functions in relation to this operation.
  - Internal noise criteria for all proposed developments which includes two internal noise criteria, a recommended and maximum. The maximum criteria should acknowledge that a development is near an International Airport precinct which is expected to increase its size and capacity over time. As such a "relaxed" internal noise criteria may be allowed, subject to council approval.
- Specific provisions on title which:
  - Ensure all future purchases aware of the 24/7 'curfew free' operation of WSA. The provision should also note that future residents are not able to complain in any forum or seek to make any claim or institute action against the operators of the airport on the grounds of aircraft noise.
  - Notes that airport operations and aircraft noise levels are likely to increase over time as the airport develops to its maximum capacity.



Proposed Zoning Map and ANEC 2050/2063 Combined Contours

Source: EMM



BHL fully supports Western Sydney Airport's operation without a curfew to ensure 24/7 connectivity, more jobs and increased economic benefits.

BHL recognises the importance protecting the operation of the Airport and as such recognises that long term residential uses may impact on this operation and that statutory mechanism(s) are required to restrict residential development to below ANEF 20.

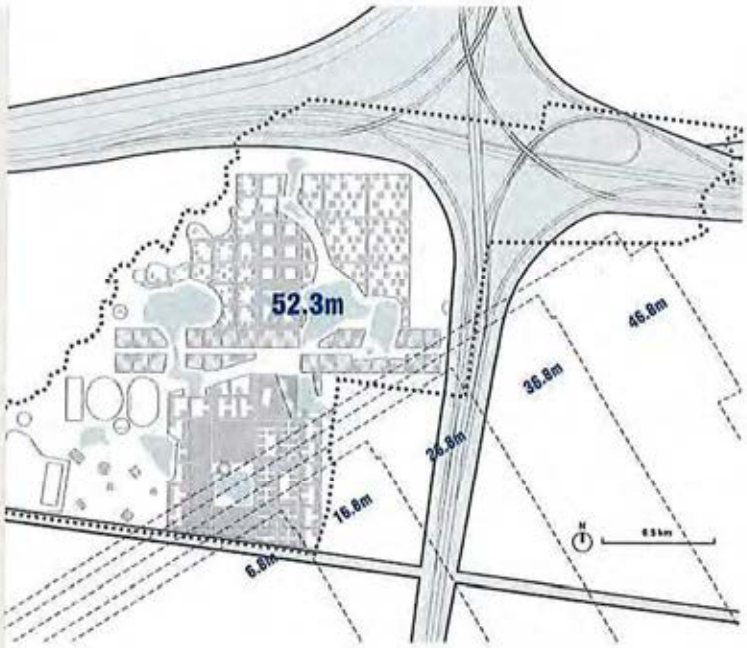
To ensure that all future stations on the North South Rail Link are able to be fully activated by a range of land uses the LUIIP and Ministerial Direction must ensure that student accommodation/hostels supporting university uses remain 'conditionally acceptable' within the ANEF 20-25 as per AS2021-2015.

CERTAINTY AROUND MAXIMUM BUILDING HEIGHTS

BHL fully supports the clear application of the OLS/PANS OPS to development around the airport however, is concerned in particular that the PANS OPS will not be mapped until the airport gets closer to operation.

Certainty around building heights during construction and operation must be established to ensure effective early delivery of development within the Aerotropolis can be achieved.

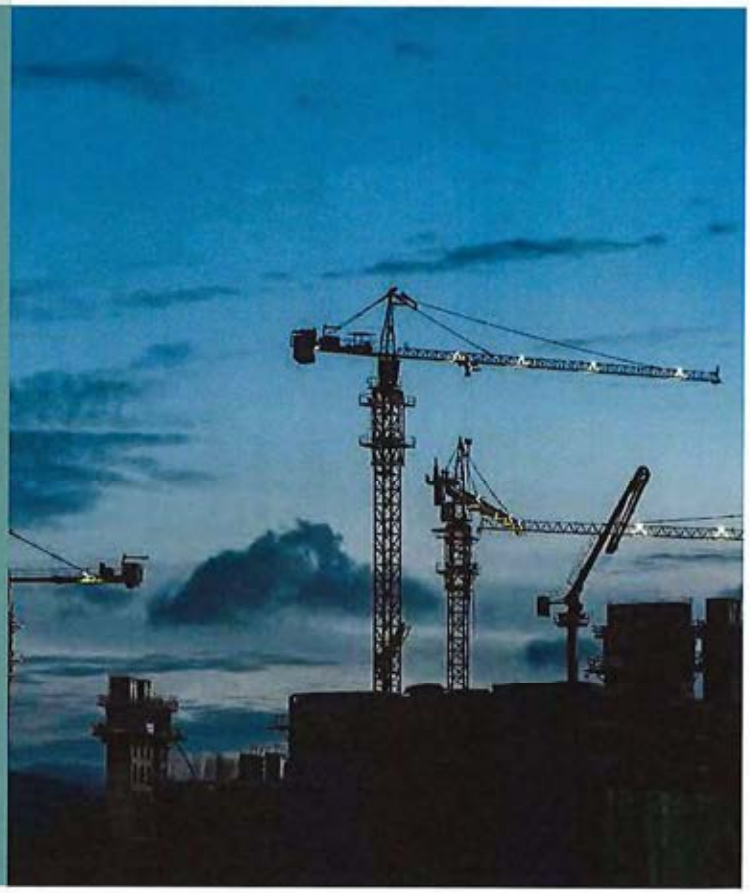
BHL is also concerned at the process and potential delays in obtaining approval from Commonwealth under the *Airports Act 1996*, given the significant amount of applications there are likely to be submitted around the OLS heights for the development of the Aerotropolis both pre and post commencement of airport operations.



Source: OLS Overlay BHL Site, Source OMA.

BHL's recommendation is that the Western Sydney Planning Partnership works closely with the Commonwealth to ensure:

- Construction with cranes/structures penetrating controlled airspace is exempt from requiring approval under the Airports Act prior to the commencement of airport operations.
- Maximum heights for precincts are clearly established throughout the precinct planning process to ensure development certainty.
- A clear approval pathway for any development that requires Commonwealth Approval particularly prior to the commencement of airport operations.



NATIONAL AIRPORT SAFEGUARDING FRAMEWORK (NASF)

APPLICATION OF NASF

The key to the early development of the Aerotropolis will be the engagement at all levels of Government to ensure that development can take place whilst still recognising the need to ensure that airport operations are sufficiently protected.

BHL is generally supportive of the implementation of certain aspects of the NASF. However, certain aspects of the NASF need to be carefully considered before any adoption of these requirements as part of the land use planning framework for the Aerotropolis.

- The LUIIP must be clear on whether it is adopting the full range of Aircraft Noise controls specified within the framework. The noise controls within NASF include restricting the development of non-residential uses within ANEF 20-25 however the LUIIP specifies that only residential development will be restricted.
- Potential conflict between the need to protect of Biodiversity and Riparian Areas within the LUIIP and the possibility of bird strikes.
- Early engagement on the potential implication of building generated wind shear and the likely impacts this will have on the ultimate development layout within the Northern Gateway.
- Early identification of the location of any 'public safety zones' and the development implication of these areas.

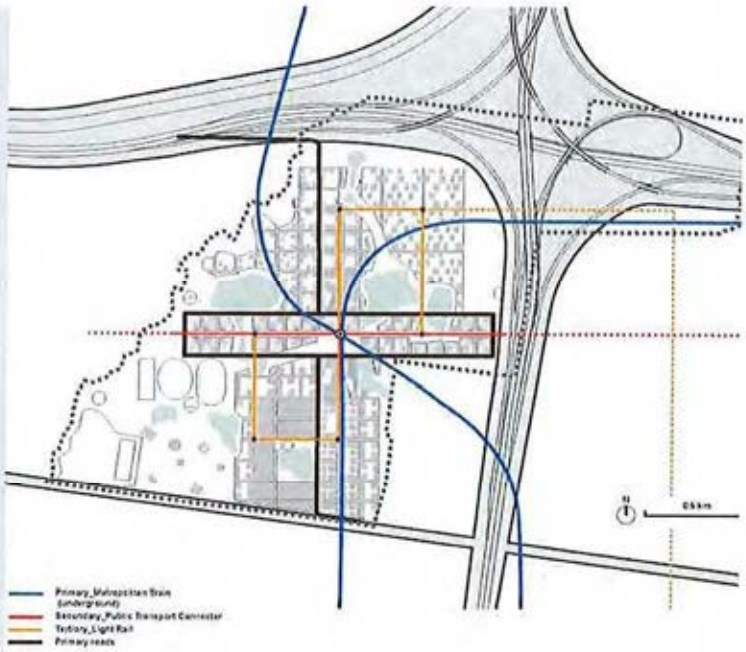
INFRASTRUCTURE TO CONNECT THE AEROTROPOLIS

PUBLIC TRANSPORT & ROAD CONNECTIONS

BHL and ARUP are investigating a hierarchy of transport options to support its proposal for a station on the North South Rail Link. These options will facilitate an integrated network of sustainable transport options to ensure efficient movement for workers and visitors to the Northern Gateway.

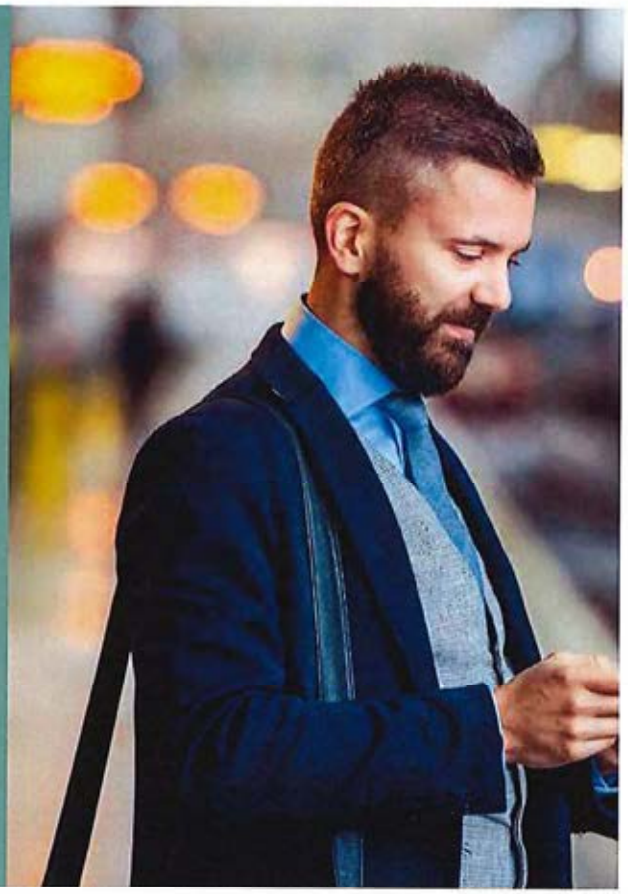
ARUP have confirmed:

- That BHL's proposed road hierarchy is consistent with the LUIIP priorities, with just one access point from Elizabeth Drive to the site.
- The road layout and hierarchy protects and supports the vision for Elizabeth Drive as an 'east-west city-serving corridor' by providing a connection between the site and the regional motorway network, and
- The proposed relocation of M12 interchange also has no impact on the function of Elizabeth Drive.



Indicative Transport Hierarchy – Source OMA, 2018

- BHL supports the LUIIP focus on making public and active transport the easiest and most convenient choice.
- BHL supports in principle the early planning of the infrastructure to connect the Aerotropolis and the identification of potential transport corridors, provided that such corridors are shifted in accordance with the statement in section 4.2 of the LUIIP and with BHL's Planning Proposal and Vision Masterplan so as to minimise their impact on the development potential of land, including BHL's land.
- BHL is committed to providing an interchange station with the Parramatta Airport Rail link. This will be essential to linking the on-site employment to a wider population catchment and supports the 30 minute city. This needs to be incorporated in to the precinct planning process leading to rezoning.



THE NORTHERN GATEWAY – A SMART CITY OF THE FUTURE

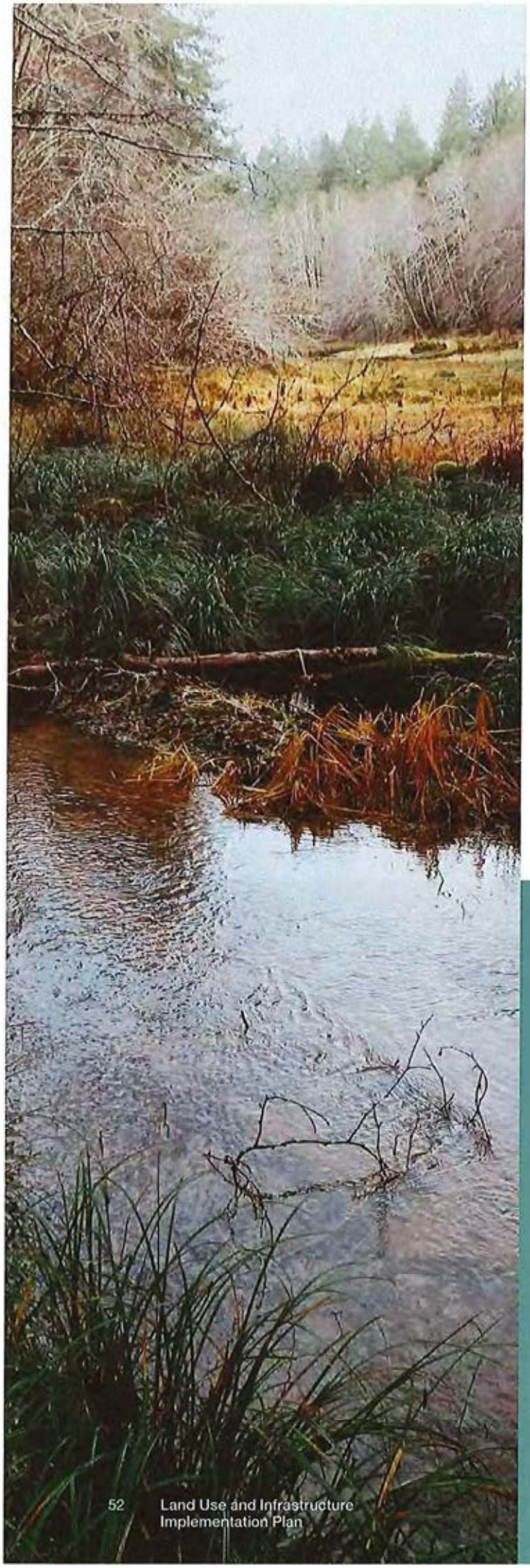
A SMART CITIES STRATEGY FOR THE NORTHERN GATEWAY

BHL recognises the importance of developing a Smart Cities Strategy. The Smart Cities Strategy will be informed by the Smart Cities Readiness Guide, and other Plans, Programs and Strategies relating to Smart Cities.

BHL's Smart City strategy will investigate technology driven solutions across a range of areas including:

- Planning.
- Infrastructure.
- System Operators.
- Information Communications Technology Investments.
- Citizen Engagements.
- Sharing of Data.

- BHL supports the LUIIP's approach to delivering 'new generation communication networks ' that promotes the Smart Western City program under the City Deal.
- BHL will implement a 'Smart Cities' Strategy which will support the delivery of a new technology driven city that is resilient and adaptive to technological advancement and change.
- Controls relating to 'smart cities' should not be overly prescriptive and must be flexible enough to recognise and support the ongoing evolution of technologies.



A STRONG COMMITMENT TO WATER MANAGEMENT

WATER CYCLE MANAGEMENT/ FLOODING

BHL have engaged Cardno to undertake the Water Cycle Management and Flood Level Analysis for their Northern Gateway site.

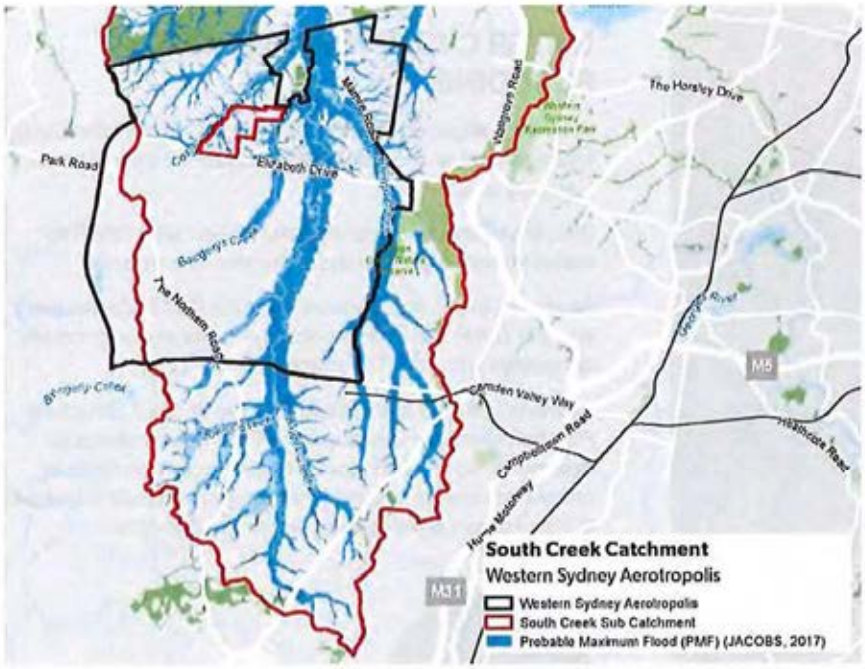
BHL are willing to share this information with DP&E to assist in their overall analyses for the Aerotropolis.

As shown in the comparison between Cardno's mapping and the LUIIP, the PMF modelling for the site is generally consistent with the PMF mapped in the LUIIP.

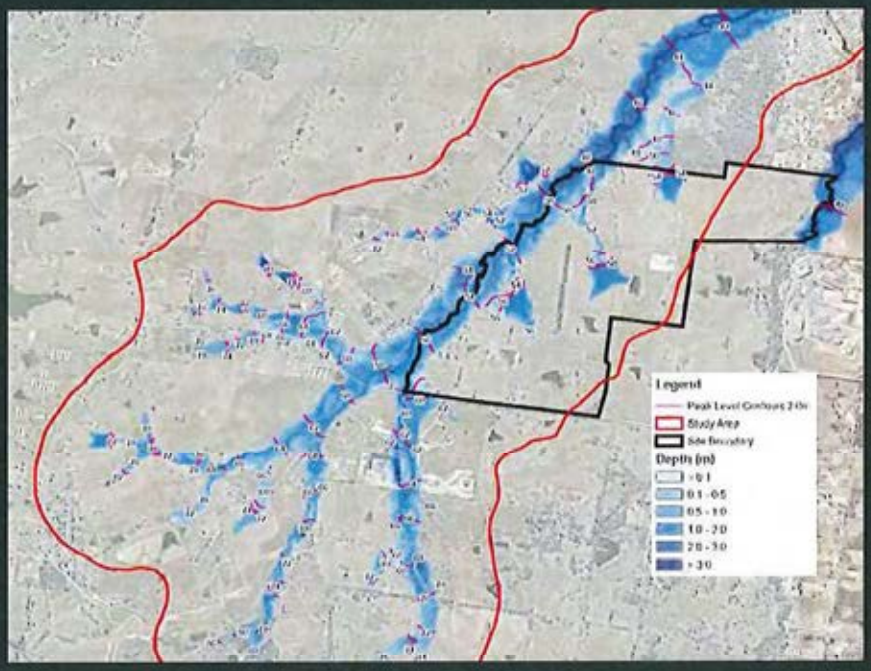
However, Cardno have noted that the Stage 1 Structure Plan has used pre-development PMF flood extents to determine 'non-urban land'. This is inappropriate as in many instances, flood risk can be appropriately managed to allow urban development within the floodplain.

- BHL supports the adoption of Water Sensitive Urban Design (WSUD) principles and the vision includes Integrated Water Cycle Management (IWCM). However, there is a lack of detail around the targets and measures being considered in this strategy.
- BHL supports an interim water management framework which adopts current Penrith Council requirements to development that can move concurrently with the anticipated LUIIP timeframes.
- BHL supports an overall approach to flooding that is consistent with The NSW Floodplain Development Manual (2005) which specifically aims to not unnecessarily sterilise land on the floodplain.
- BHL does not support the use of PMF flood extents to define non-urban land as it provides an unnecessary constraint to future development.

FLOODING MAP COMPARISONS



LUIIP Flood Mapping - Source: Jacobs, 2017



Cardno PMF Mapping – Source: Cardno, 2018

A CONTEMPORARY COMPACT CITY THAT SUPPORTS THE RESIDENTS OF THE NORTHERN GATEWAY

BHL acknowledges that due to the anticipated noise contours it will be unable to deliver a substantial residential community. However, the site can still be masterplanned to deliver a city of the future which will set new standards for layout, design, infrastructure, open space, utilities and water management to benefit all of Western Sydney.

OMA have designed the BHL Vision Masterplan to deliver contemporary, walkable neighbourhoods with a vibrant mix of retail and commercial development interspersed with active public spaces, integrated cultural infrastructure and substantial green tree canopy as envisaged by the LUIIP.

OMA's vision is to prioritise people over cars through well connected active and public transport networks.

Active street frontages will provide vibrant streets with wide footpaths capable of providing for a range of uses including outdoor dining, meeting places, public art and large trees.

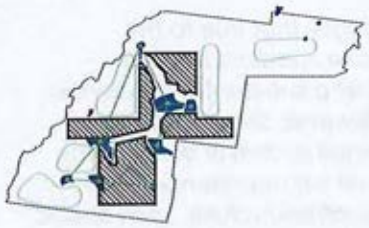
The landscape management and open space network on the site will increase the urban tree canopy reduce urban heat island effects within the Northern Gateway.

BHL's Vision Masterplan has been developed according to the key planning principles overleaf. The Masterplan can be expanded throughout the Aerotropolis to give the Masterplan consistency with the LUIIP. BHL submit that their Vision Masterplan and key principles should be incorporated into the future precinct planning process for the Northern Gateway.

CONCEPT AND METROPOLITAN STRATEGY

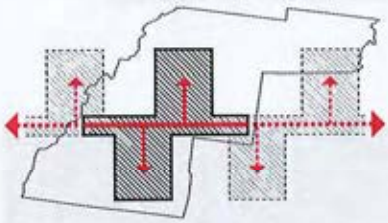
400M WALKABLE

To promote a passive car free environment, the masterplan is structured around a Cartesian grid, a 400m module, connected to a multi-mode active and passive transport network. It will be no more that 200m in either direction to a transport node.



GREEN AND BLUE ENVIRONMENT GRID

The city is characterised by a belt and web of performative and programmed green and blue resources.

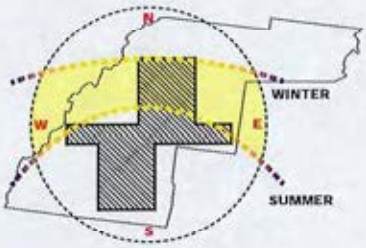


DEVELOPMENT AREAS

The built form and development areas are planned as a structured linear city of concentrated neighbourhoods, allowing integration of open space. The urban areas are extendable and expandable across the Western Parkland City, recognising the need and potential for future integration and connection to the greater city.

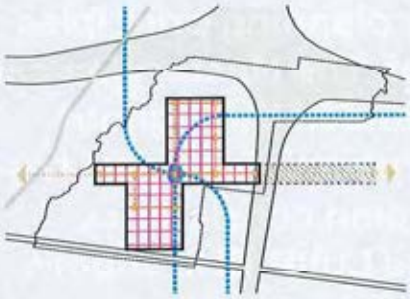
MIXED USE PROGRAM

Mixed use clusters create unique, activated and connected neighbourhoods with excellent amenity and diverse opportunities.



SUN PATH

True north orientation planned on an urban grid will optimise climatic response, comfort and efficiency of built form and open space for sustainability initiatives.



INFRASTRUCTURE

Well connected primary, secondary, tertiary and other future transport networks will connect people with the city and the city with people. Ease and efficiency of transit will enable a balanced lifestyle, fiscal and sustainable responsibilities.

FOSTERING A CULTURE OF ARTS AND CREATIVITY IN THE NORTHERN GATEWAY

BHL is committed to creating an active arts and cultural precinct within the Northern Gateway. The BHL Vision Masterplan allocates 30,000 sqm to the development of an International Convention Centre (ICC) and 80,000 sqm for cultural and community uses which includes a new Western Sydney Performance Centre.

The BHL Vision Masterplan has a strong focus on fostering a culture of arts and creativity in the Northern Gateway. If the transport corridors are realigned as proposed by BHL the size of the Northern Gateway site means it can easily accommodate a range of cultural infrastructure to support the Aerotropolis ambition to be a home for science, health and education.

An Arts and Culture strategy will be developed alongside the ongoing evolution of the Vision Masterplan to ensure that a strong sense of place and community can be achieved within the Northern Gateway.

The new Western Sydney Performance Centre will provide a lasting asset to the people of Western Sydney.

The ICC will attract the types of local and international conventions and exhibitions synonymous with International Global Cities enhancing tourism and visitation in Western Sydney.

The ICC and Western Sydney Performance Centre will be closely linked to the main retail centre and its supporting short term accommodation options to further activate the 24 hour precinct.

BHL's Vision Masterplan will provide a mix of uses including retail, tourism and visitor uses that will enable the provision of products and experiences and will contribute to developing an active night-time economy. This will attract people from Western Sydney to visit the area and encourage visitors arriving via Western Sydney Airport to remain in the area.

BHL is committed to investment in Arts and Culture. A new Western Sydney Performance Centre on the doorstep of Western Sydney, and close to a major public transport will be a tremendous asset to Western Sydney and will attract local, regional, interstate and international visitors.

CREATING AN INTEGRATED NATURAL LANDSCAPE THROUGH PROTECTING BIODIVERSITY

BHL are committed to delivering a compact Vision Masterplan that ensures that the natural riparian areas at the edge of the site are protected and maintained. A strong network of parklands and waterways will be provided with approximately 41ha of open space throughout the site. These areas will be activated by a variety of public uses which will encourage strong recreation communities and active lifestyles.

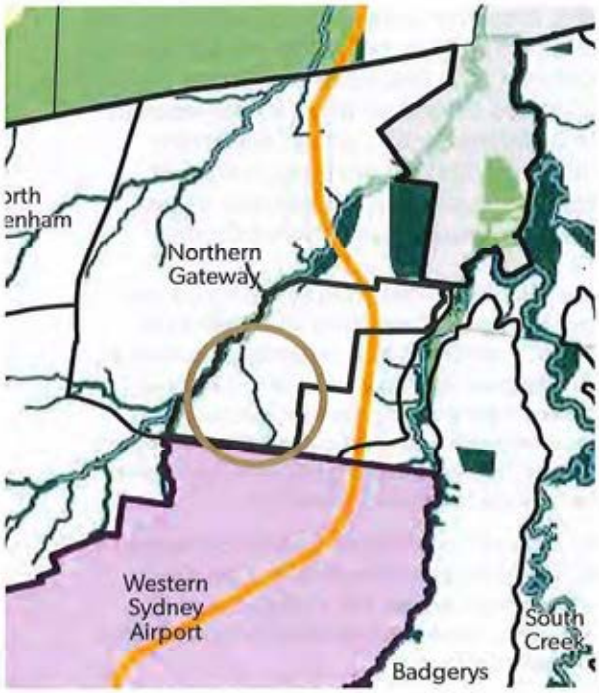
BIODIVERSITY AND RIPARIAN ANALYSIS

BHL have engaged Eco Logical to undertake detailed biodiversity and riparian corridor mapping of the Northern Gateway site. BHL are able to share the information with DP&E to assist in the Biodiversity Mapping process for the entire Aerotropolis.

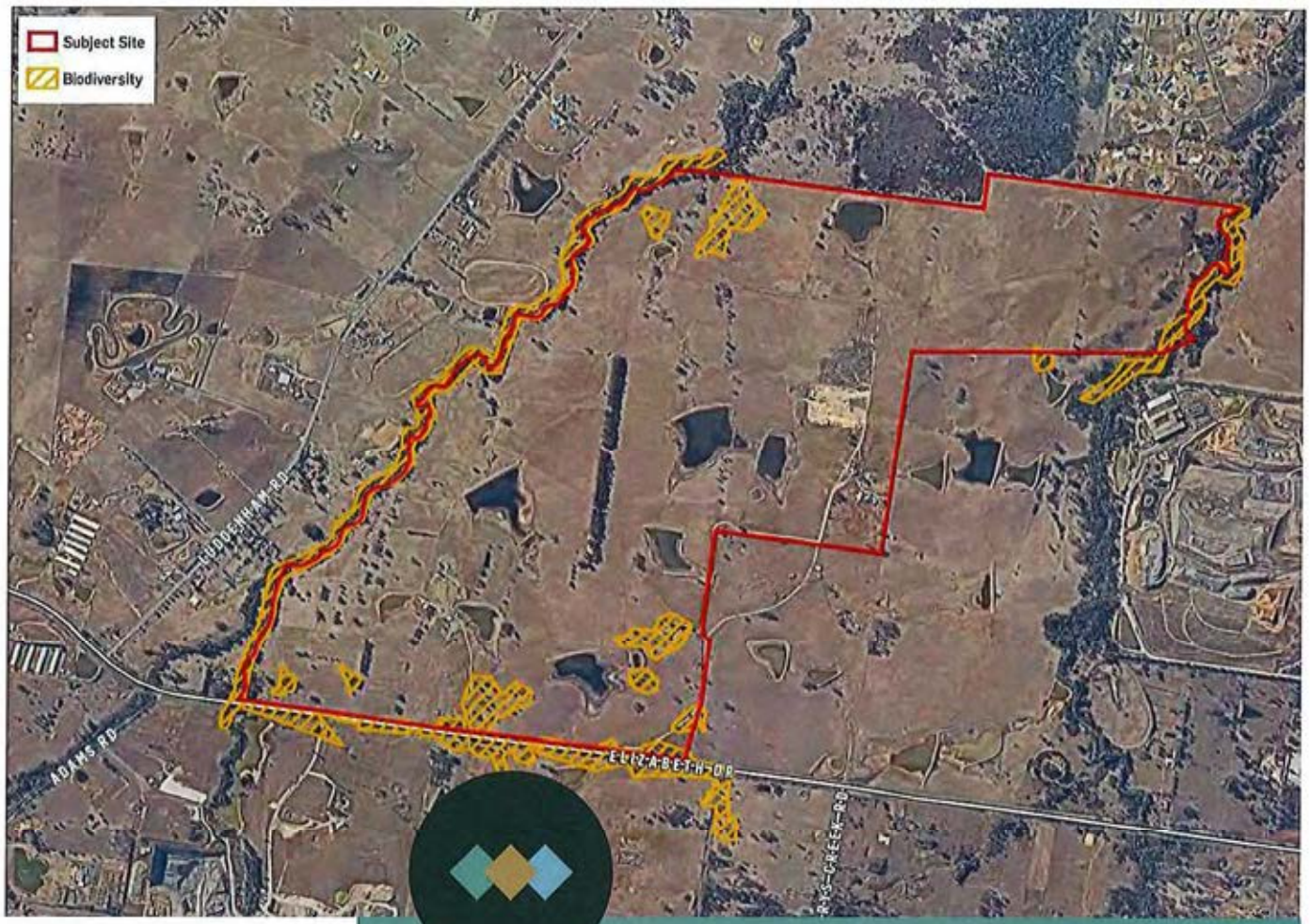
Eco Logical have reviewed the LUIIP to be generally consistent with the Vision Masterplan's approach of protecting riparian corridors and providing open space as part of the 'green and blue' network.

Eco Logical confirm that the BHL Vision Masterplan has been designed to avoid impacts to higher quality riparian corridors (River Flat Eucalypt Forest) utilising its location between Cosgroves and Badgerys Creeks to contain the development to a more compact urban form.

Eco Logical have reviewed the LUIIP Conservation Values Map and note that based on its field work the un-named tributary shown as potential existing conservation land does not meet the definition of a "river" under the Water Management Act and holds no aquatic or riparian value. As such, Eco Logical suggest the Map within the LUIIP be updated to reflect this field work.



LUIIP Conservation Values Mapping – Source DP&E



ELA Biodiversity Values Mapping
Source Eco Logical

BHL support approach to Biodiversity within the LUIIP including:

- Strategic Biodiversity Certification for the Aerotropolis to minimise the need for additional assessment at DA Stage.
- Development of the Cumberland Plain Conservation Plan ; and
- Delivery of the 5 million trees program to deliver 40% urban canopy cover.

BHL notes that there is a potential conflict within the LUIIP to protect riparian/ biodiversity areas on the site and to maintain aircraft safety under NASF by minimising potential opportunities for bird strikes. This potential conflict needs to be understood when designating areas of biodiversity be protected around future flightpaths.

BHL support the acceleration of the strategic biodiversity certification and Cumberland Plain Conservation Plan to provide more clarity around the areas likely to be protected from further development, offset payment rates, re-vegetation and renewal areas and any species recovery initiatives being proposed.

A MODERN ENERGY EFFICIENT CITY

BHL has a vision for a sustainable city of the future which can deliver meaningful sustainable outcomes including low carbon and net-zero emissions targets by 2050.

SUSTAINABILITY STRATEGY

It is BHL's intention for the Northern Gateway to include the latest advancements in renewable energy generation and storage in addition to implementing a range of energy strategies to reduce overall demand across the Northern Gateway.

ARUP is working on a Sustainability Strategy to guide the evolution of BHL's vision to reality. This strategy will outline potential innovative sustainability solutions geared towards providing a city of the future which can achieve sustainability outcomes above and beyond legislative or policy requirements.

ARUP has reviewed the LUIIP and notes the following potential sustainability challenges:

- Use of renewables such as solar and wind near to the airport and potential impacts on operation in terms of glare, OLS etc.
- Managing stormwater and flooding and potential impacts on efficient water use solutions.
- Managing stormwater and flooding and potential impacts on efficient water use solutions.
- Potential aircraft noise impacts to public open space areas and passive solar design and natural ventilation.
- The potential for an increase in extreme weather events and climate change impacts affecting inbuilt resilience to these changes.
- Enhancing biodiversity may conflict with intentions for broad scale land use change.
- Ensuring that there is adequate public transport to minimise private vehicle uses and connection to employment.
- Noise and air impacts from 24 hour operation of airport and supporting land uses on the site.

ARUP recommends that BHL establishes specific sustainability targets and goals to ensure commitments can be provided to meet and exceed world's best practice.

BHL's Vision Masterplan aims to ensure that sustainable outcomes and credentials are a key driver in the design and future function of this new city. This key focus will ensure that the sustainability vision of the LUIIP can be fully recognised.

BHL's Northern Gateway will set the benchmark for a modern, energy efficient and resilient city.

BHL will set the benchmark for a modern, energy efficient and resilient city.

BHL supports a Sustainability Vision for the Northern Gateway Precinct including goals, targets and implementation strategy. However, this must be developed in consultation with landowners. Any such strategy needs to ensure that sustainability targets are achievable.

The role of the WCAA in any sustainability initiatives must be communicated in the LUIIP.

6 IMPLEMENTING THE AEROTROPOLIS

THE NEED FOR CLEAR STRATEGIC GOVERNANCE

A FLEXIBLE AND ADAPTIVE PLANNING FRAMEWORK

- BHL supports a new flexible and adaptive planning framework that encourages vision and innovation to support compatible land uses.
- BHL supports the introduction of a new SEPP however notes that the draft policy needs to be released earlier than the current anticipated timeframe to enable existing planning proposals to be updated with a consistency assessment to be assessed according to the revised planning framework.
- BHL note that there are currently a number of SEPPs that apply to land designated under the Aerotropolis Structure Plan.
- DP&E must recognise existing work undertaken by proponents and work with them to ensure that supporting precinct plans are in place so that development can proceed shortly the land is re-zoned at the end of 2019.
- BHL opposes an infrastructure zone being imposed whilst any transport corridor is not finalised as it will potentially quarantine the land for future acquisition. The imposition of this zone is at odds with the LUIIP which states that the 'corridors may shift."
- BHL supports a flexible Urban Development Zone however notes that this zone should not be overly prescriptive on the types of land uses acceptable to ensure maximum flexibility for the development within each precinct.
- BHL is supportive of an Environment Zone to protect key areas of Biodiversity Value – however the protection of these areas must not fragment key strategic land.
- Prior to these zones being finalised there needs to be agreement and sharing of information in regards to baseline studies undertaken by proponent led proposals and the overall analyses being undertaken by the DP&E.
- BHL is generally supportive of clauses within the SEPP and Ministerial Direction to restrict residential development to below ANEF 20. However, to ensure sufficient activation of the North South Rail Link can be achieved uses such as education, medical and student housing must be permitted in areas deemed 'conditionally acceptable' under AS 2021.
- BHL supports a clear planning framework and streamlined development assessment that provides the pathway to early development of key sites within the Aerotropolis such as the Northern Gateway.
- BHL supports flexible planning arrangements within the proposed SEPP such as expanding the use of complying development particularly around Interim land uses and subdivision. These details must be established early so that proponent have certainty around forward planning and to enable BHL to deliver on its proposal for interim temporary accommodation on the BHL site for construction workers associated with the Airport Construction. This will ensure early activation of the site can be achieved in line with the 'Strategic Outcomes'

OUT OF SEQUENCE ARRANGEMENTS

The Governance Process for Out of Sequence Proposals and must be released in early 2019. This process should include specific provisions so that planning proposals for sites within the first two precincts, such as BHL's Northern Gateway, can be assessed ahead of unsolicited proposals within other Aerotropolis Precincts.

BHL recognises and supports the draft LUIIP commitment to ensure that the Northern Gateway precinct is prioritised for development and that resources are not unduly diverted away from achieving this outcome.

The LUIIP must articulate the relationship between existing SEPPs and proposed SEPPs to avoid any statutory planning uncertainty relating to the application of these SEPPs following Gazettal of the new WSA SEPP.

INFRASTRUCTURE DELIVERY

STATE AND LOCAL INFRASTRUCTURE DELIVERY

- BHL will consult with both Schools Infrastructure NSW and NSW Health Infrastructure to discuss what roles BHL can play in the provision of essential education and health infrastructure.
- A Social Infrastructure Assessment (SIA) must be based on a realistic staging of potential needs spanning a significant period of time acknowledging the long term nature of the Aerotropolis development.
- Any SIA should be based on key principles of service provision linked to incoming population thresholds noting that accurate forecasting of this will be extremely difficult.
- BHL supports a flexible forward-looking approach to ensure new business communities get the best value from new services and delivery models.
- Details of any east west transport links must be provided early so that BHL can plan its road network and future connection to Elizabeth Drive and any potential connections required to a station on the North South Rail Link.

BHL is supportive of the significant investment in infrastructure being prioritised to deliver maximum benefits to communities. It is critical however, that the key infrastructure required for the Northern Gateway including details of the delivery framework is provided prior to the release of the final plan. Providing these details early including any funding mechanisms to support the delivery will allow proponents to factor these into their development feasibility

- BHL recognises the importance of modal interchanges particularly in key employment centres. BHL is committed to providing a station box and interchange for the future Parramatta to Airport Rail Link. This will ensure that jobs in the Northern Gateway can be connected to the greater Sydney Region.
- BHL is committed to delivery of a new Western Sydney Performance Centre to be a lasting cultural legacy for the residents of Western Sydney

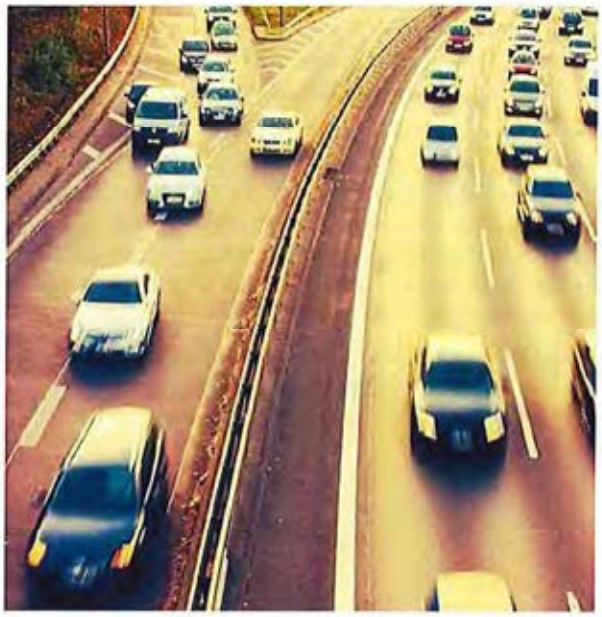
UTILITIES AND SERVICES

BHL in association with Land Partners have identified the following significant considerations for the service delivery within the Northern Gateway:

- Resolution of the requirement for trunk infrastructure not to be located within the Elizabeth Drive Road Corridor noting that Sydney Water are likely to seek an amendment to remove this requirement.
- Clarification of short term interim arrangements for waste water treatment will be critical to service early activation of the Aerotropolis prior to operation of the new South Creek Waste Water Treatment Plant (WWTP) in early 2025.
- Clarification of alternate waste water options should Sydney Water not be capable of delivering the WWTP to this timeframe.
- Acknowledgment of BHL's proposal for temporary accommodation to construction workers associated with Western Sydney Airport and clarification on how this can be adequately serviced in advance of the timeframe indicated by service authorities.
- It is imperative that funding models be provided that outline the quantum of funding as soon as possible this includes clarity on whether service infrastructure would be included in a Special Infrastructure Contribution (SIC) Levy.
- Consideration of short term solutions that support early development opportunities such as on-site waste water treatment.

INFRASTRUCTURE DELIVERY AND CONTRIBUTIONS FRAMEWORK

The early development of the Northern Gateway can only proceed if developers are able to make decisions with some certainty about the level of contribution that may be required to fund external and trunk infrastructure.



UTILITIES AND SERVICES

BHL considers that the coordination and funding of infrastructure is critical to ensuring the early activation of the Northern Gateway.

Whilst the LUIIP states that the timely and efficient provision of enabling infrastructure is a key consideration to activate the precinct, BHL is very concerned that the LUIIP is silent on any detailed timeframes utility servicing for the area especially given the timeframes for rezoning land and publicly stated expectations by government to receive development applications by 2020.

Details of the servicing strategy and associated funding mechanisms must be provided as a matter of priority.

BHL recommends that the infrastructure servicing strategy and scope of any SIC and local developer contributions be established and released as a matter of priority.

ROADMAP TO DELIVERY – THE CRITICAL IMPORTANCE OF CLEAR STRATEGIC GOVERNANCE

The Northern Gateway Proposal represents a substantial commitment to delivering significant immediate economic and employment outcomes to Greater Western Sydney.

The LUIIP is not clear on who will be ultimately responsible for delivery of services and infrastructure noting that the LUIIP identifies that both Sydney Metro Authority and the WCAA will have a role.

The LUIIP states that the WCAA will focus initially on the Aerotropolis Core. BHL note that this will conflict with its role in the rezoning and delivery of the Northern Gateway precinct especially as the LUIIP states that both Sydney Metro and the WCAA will facilitate infrastructure delivery including the creation of new places, streets, open space and public areas in the Aerotropolis.

The LUIIP must clarify roles of Sydney Metro Authority and the WCAA in relation to masterplanning of land within the initial development precincts. BHL's Masterplanners OMA have already developed a detailed Vision Masterplan for the site. As such BHL requests a collaborative approach to Masterplanning and an understanding as to which Authority will be undertaking Masterplanning of its Northern Gateway Site.

BHL is willing to share information and engage with both Authorities to ensure consistency with the LUIIP and that Sydney Metro's needs and requirements are met in the planning for any station on their Northern Gateway site and in any future precinct plan.

The Western Sydney Planning Partnership, Sydney Metro and WCAA needs to be collaborating with landowners within the initial precincts immediately to ensure that there is a clear pathway to the delivery of the precinct plans. These discussions cannot wait until the final LUIIP is released.

That roles and responsibilities for masterplanning, precinct planning and placemaking across the Western Sydney Planning Partnership, Sydney Metro Authority and WCAA be clarified as a matter of urgency.

COLLABORATION AND STAKEHOLDER CONSULTATION AND NEXT STEPS

BHL and their project partners are committed to working with governments, community and business to deliver a positive, productive, sustainable and vibrant 24/7 land use precinct that is aligned with the Greater Sydney Regional Plan, Western City District Plan and Western Sydney City Deal.

BHL has undertaken consultation with the key stakeholders likely to shape and influence the future development on the BHL land holding, including:

Department of Planning and Environment regarding the draft Stage 1 Land Use and Infrastructure Implementation Plan for the Western Sydney Airport Growth Area.

Roads and Maritime Services regarding the preferred corridor route for the future M12 Motorway (prior to public release of the preliminary design and access strategy) and follow up meetings to discuss the BHL submission, including the alternative location.

Transport for NSW regarding the BHL submission in response to exhibition of the M12 Motorway and potential benefits of the alternative location, including optimising the alignment of the NSRL and future station location.

EY (on behalf of Commonwealth and State governments) regarding market sounding for delivery of the NSRL, including opportunities to accommodate a station on the BHL land.

Penrith City Council regarding a Planning Proposal lodged with Council on 29 May 2018 to facilitate release and rezoning of the BHL land and delivery of the Vision and Masterplan.

Western Sydney Airport Corporation regarding the delivery of key services and infrastructure and the provision of temporary housing for workers employed on the construction of the Airport.

Major international and domestic corporations, educational establishments and institutions regarding their potential interest in the Northern Gateway site.

Ongoing liaison with the existing and future community will facilitate meaningful engagement and contribution to the delivery of housing, jobs and social infrastructure that meets the changing needs of the Western Parkland City.

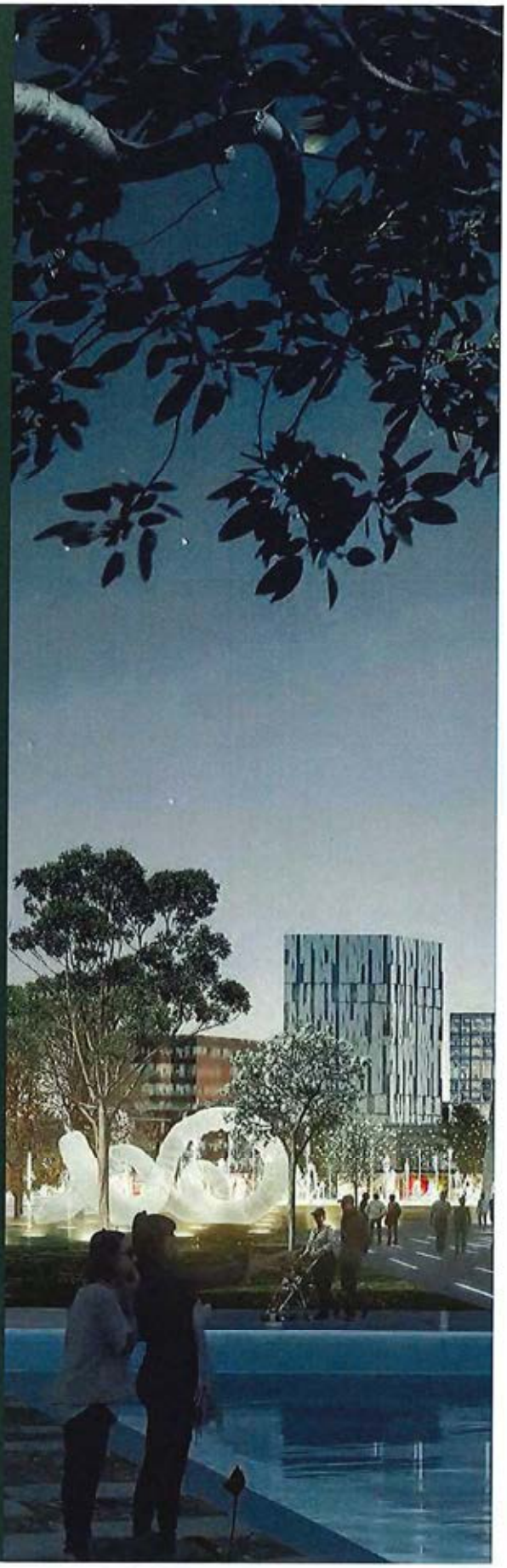
BHL supports the collaborative approach taken by all levels of government with landowners and key stakeholders to kickstart and supercharge the creation of the Aerotropolis as envisaged by the City Deal.

BHL endorse the need for DP&E to take a strong lead to ensure the timely rezoning of land within the Aerotropolis.

NEXT STEPS

BHL is committed to a collaborative process and ongoing dialogue with the key stakeholders who will play a role in the successful implementation for the LUIIP and planning for the Aerotropolis.

BHL welcomes any future and ongoing opportunity to meet with Commonwealth, NSW and local government and key agencies to discuss their submission to the LUIIP and to progress their Vision Masterplan and Planning Proposal which includes the realignment of infrastructure and its Value Sharing Proposition.



LOGOS

CHARLIE TEO
WELLNESS CENTRE

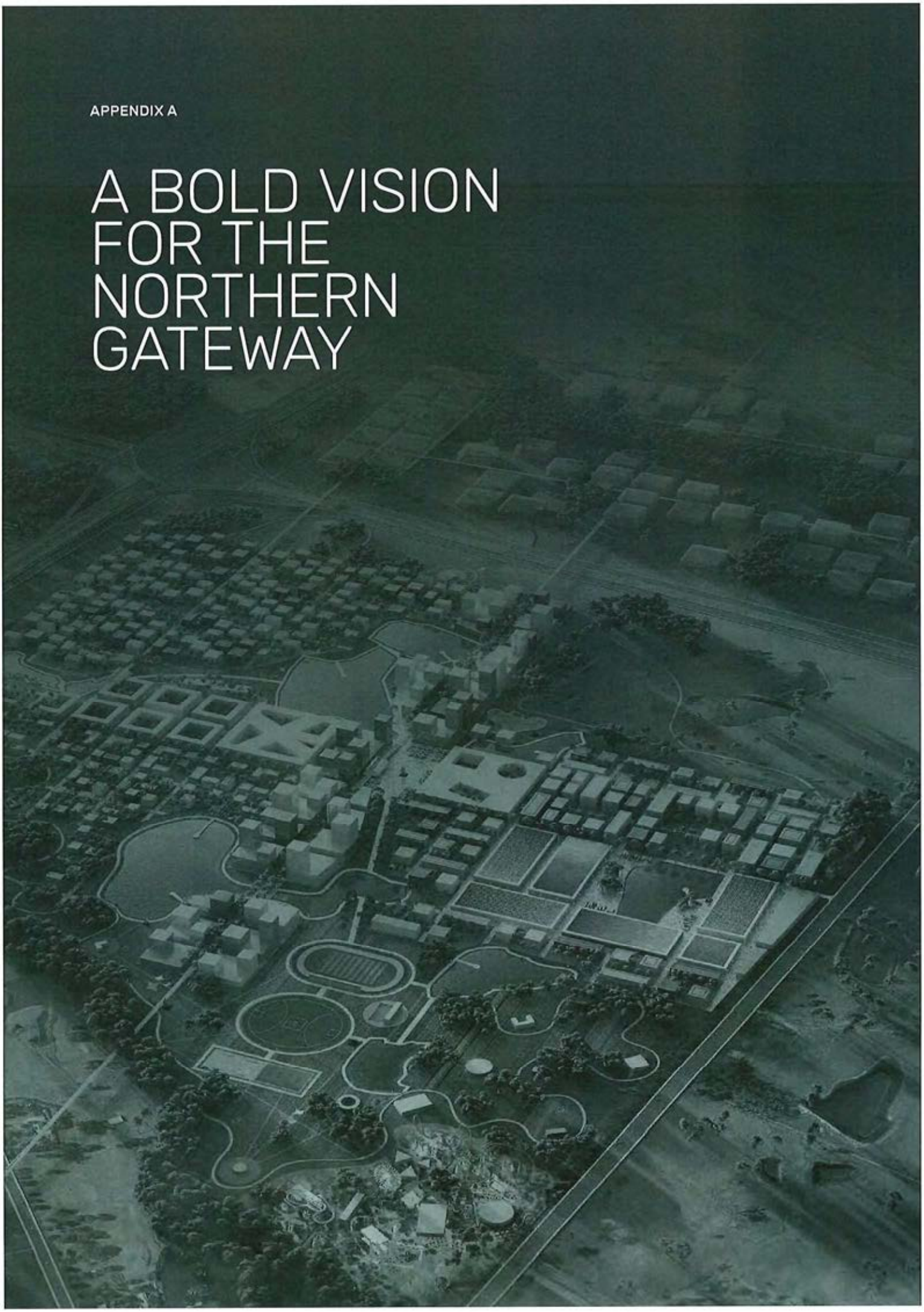
WESTERN SYDNEY
UNIVERSITY

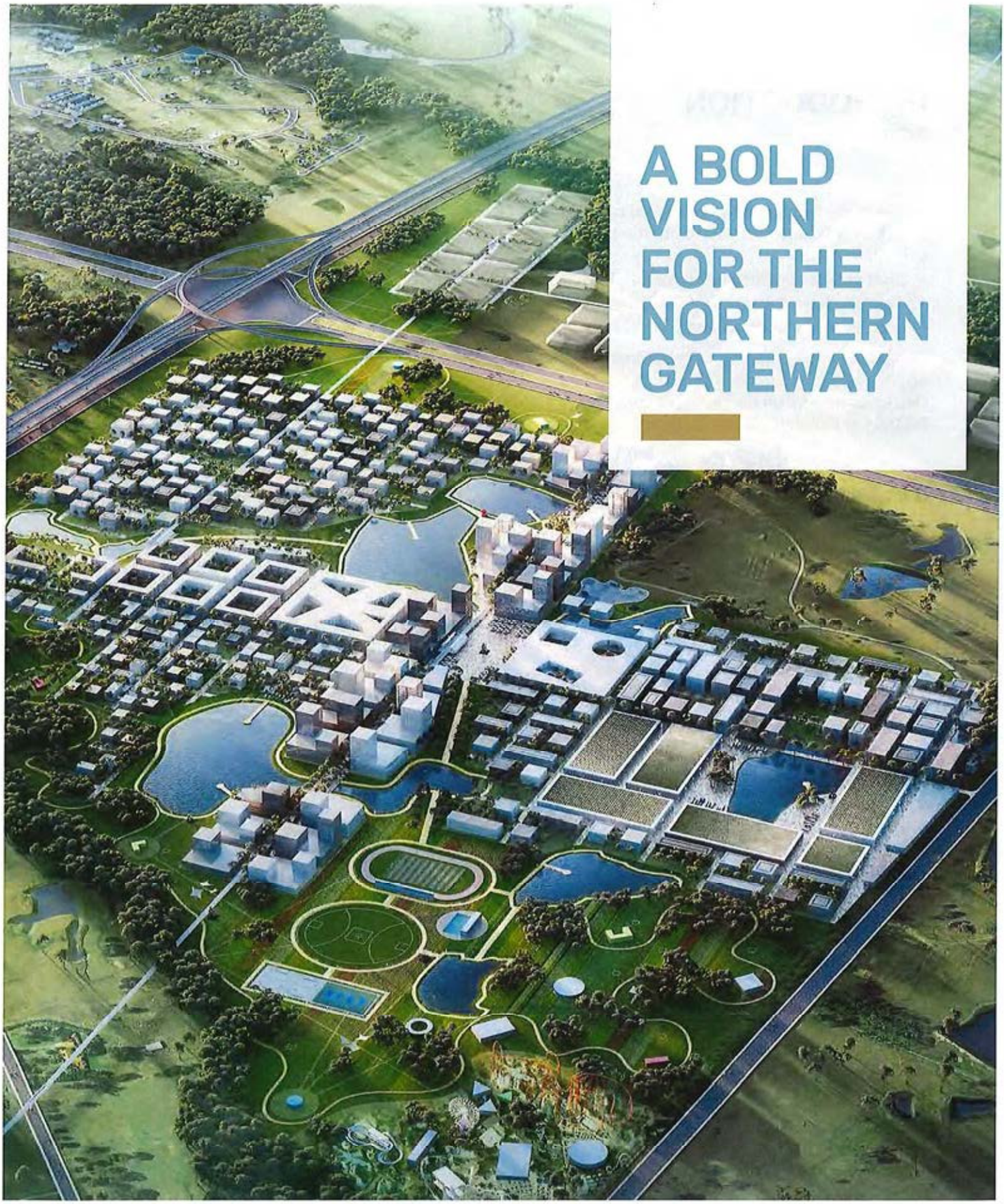
SCENTRE GROUP

BHL
GROUP

APPENDIX A

A BOLD VISION FOR THE NORTHERN GATEWAY





A BOLD VISION FOR THE NORTHERN GATEWAY

SUBMISSION TO
DRAFT GREATER SYDNEY REGION PLAN,
DRAFT WESTERN CITY DISTRICT PLAN
AND DRAFT FUTURE TRANSPORT 2056

BHL

SCENTRE GROUP

WESTERN SYDNEY UNIVERSITY

INTRODUCTION

This submission has been prepared on behalf of BHL and in response to the public exhibition of the:

- draft Greater Sydney Region Plan 2056;
- draft Western City District Plan; and
- draft Future Transport 2056.

The submission considers the potential opportunities and implications of these draft documents on a significant land holding at Elizabeth Drive, Badgerys Creek.

A CATALYST SITE

The land holding is a 344 ha located immediately north of the Western Sydney Airport site fronting Elizabeth Drive. It forms the northern gateway to the Western Sydney Airport and Badgerys Creek Aerotropolis as proposed by the Greater Sydney Commission (GSC) within the draft Greater Sydney Region Plan.

The site is likely to benefit from the substantial investment by the Commonwealth, State and local government in association with the Western Sydney City Deal. The site will also be directly affected by the identified infrastructure initiatives proposed within the three draft documents listed above. This infrastructure includes:

- M12 Motorway;
- North-South Rail Link to Western Sydney Airport;
- Badgerys Creek Aerotropolis to Parramatta Rail Link; and
- Outer Sydney Orbital - Motorway and Freight Rail.

Cover image prepared by OMA AMO

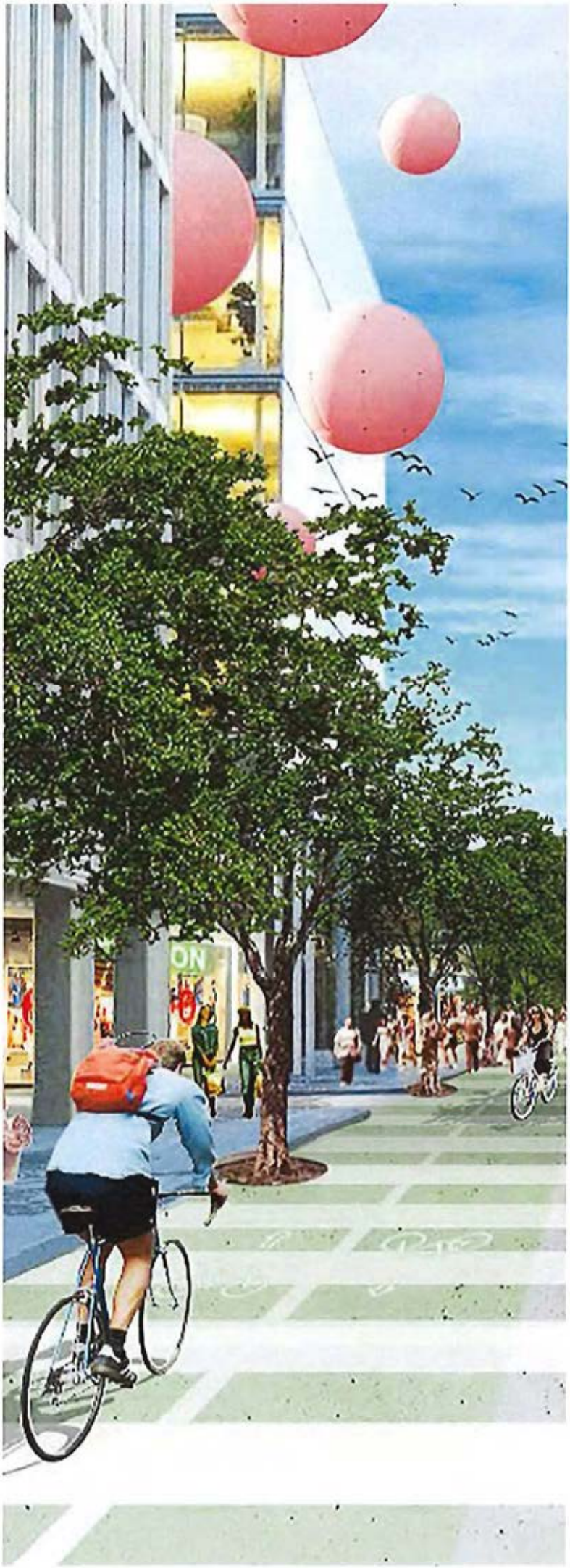


Image prepared by **OMA**
AMO

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

PURPOSE OF THIS SUBMISSION

This submission to the draft plans articulates:

- A vision for the strategic land holding at Elizabeth Drive which is aligned with the city-shaping elements identified in the draft documents;
- Recommendations to leverage the land use opportunities afforded by the Western Sydney Airport; and
- Minimise the potential impacts associated with the planned future infrastructure for the city.

We would welcome the opportunity to discuss our submission in further detail with both the Greater Sydney Commission and Transport for NSW.

1

A BOLD VISION

"We are excited to note that there is more to do than to simply reproduce, adjust and repair, but to project a new model, a new ideal for the city.

Typically, cities have grown until they became dysfunctional, to enlarge the scale of thinking offers a new framework where new techniques, new insights, new expectations, new practices, new disciplines can be integrated from the beginning."*

We have a bold vision.

Defined by nature, powered by technology and armed with knowledge. We have redefined Urban Living - elevating our experience to that of a holistic, connected and high performance destination.

** Quote provided by OMA.*

2

ALIGNED TO THE REGION AND DISTRICT PLANS

The recently released draft Greater Sydney Region Plan, draft Western City District Plan and draft Future Transport Strategy 2056 provide a vision for the future Western Parkland City.

We congratulate the GSC on identifying the key strategies which will underpin the future framework of the city, and we acknowledge the importance of every single land-holding adopting these fundamental principles to in-turn shape their development and collectively deliver this vision.

The vision for our site has been underpinned by these key principles:

- **Celebrating South Creek** and its tributaries as the key organising idea for the Western Parkland City;
- **Leveraging the north-south rail link** as the key structuring element;
- **Delivering the Western Economic Corridor** through a network of centres
- **Connected to the Western Sydney Airport** and the Badgerys Creek Aerotropolis; and
- **Shaping our 30-minute city** with an urban form of both contained economic agglomerations and liveable neighbourhoods; and
- **Connecting to the east and west-** ensuring infrastructure and services delivery is efficient, streamlined and staged.

3

LEVERAGING INVESTMENT, UNLOCKING POTENTIAL

Our vision for this strategic site has been underpinned by the key principles and future framework articulated for the Western Parkland City within the Region and District Plans. This included an exploration of the key opportunities within our land holding to leverage future infrastructure investment and unlock development potential.

This interrogation identified four big moves for the site which we believe are game changers for the Western Parkland City:

1. COORDINATED LAND RELEASE AND SERVICING TO DELIVER THE NORTHERN GATEWAY:

All levels of Government, utility service providers and land owners need to collaborate to provide certainty and consistency in decision making to deliver the Western Economic Corridor. Key to this is coordinated land release and servicing. With direct frontage to Elizabeth Drive, the opportunity for the Northern Gateway site is now. BHL is committed to engaging with all relevant stakeholders to ensure investment in utility services infrastructure is informed by future land use planning and aligned with future potential end-user demand.

2. STRATEGIC CENTRE ANCHORED BY A RAIL INTERCHANGE

The North-South Rail Link will be a major catalyst for the future development and growth of the Western City District. A network of new centres, including the Badgerys Creek Aerotropolis, will need to be delivered along the planned rail corridor – providing access to jobs by public transport and delivering the 30-minute city vision.

The centre (and the rail station) will form a Global Gateway to the Western Parkland City providing international and domestic visitors, workers and residents with a destination on its doorstep. It will bring together both the north-south rail connections and the east-west three cities connections within a single interchange.

3. FLEXIBLE ZONING FOR A 24/7 LIVEABLE CITY:

We can no longer stifle innovation and opportunity with outdated single use land zoning. To foster the cities of the future we must rethink the mechanism by which we plan them. Flexible land use approaches unlock the ability to realise 30 minute cities - places where people work close to home and commute by active transport.

4. REALIGN INFRASTRUCTURE TO UNLOCK STRATEGIC LAND

As the first regional and district plans which align land use planning with transport and infrastructure investment we must look to the future to ensure we realise the full potential of strategic land holdings from the outset. Alignment and design of key transport infrastructure has the ability to either catalyse or stifle development. Our vision to realign the M12 corridor north (still on our land) and underground the rail line to deliver a metro style service unlocks over 2,000 ha of land to deliver jobs and homes close to centres and transport.

INTRODUCTION

This submission has been prepared on behalf of BHL and in response to the public exhibition of the:

- *draft Greater Sydney Region Plan 2056;*
- *draft Western City District Plan; and*
- *draft Future Transport 2056.*

The submission considers the potential opportunities and implications of these draft documents on a significant land holding at Elizabeth Drive, Badgerys Creek.

BHL

BHL is an ASX-listed Australian property company, bringing a truly unique perspective and capability to the Australian market. Our ambition is to create and deliver market-leading, quality residential and commercial communities where Australians live and work.

We create value right along the property spectrum. From selective site acquisition through to repositioning, rezoning and development, we are uniquely placed to bring our regional expertise to the local Australian market. BHL is developing opportunities in high-growth corridors, with strong housing demand supported by existing and proposed infrastructure.

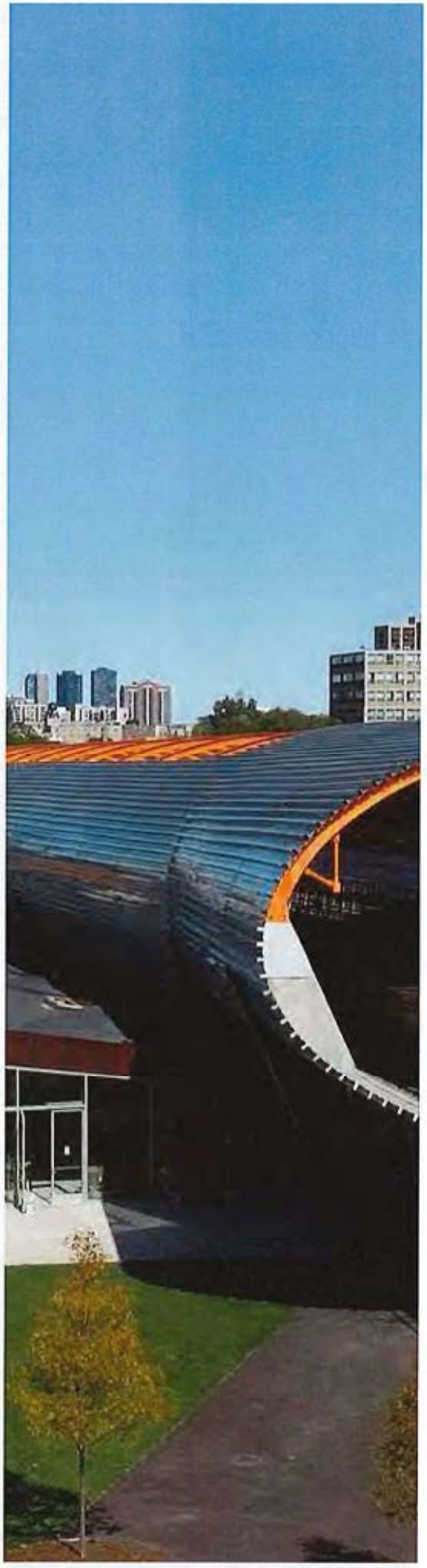
We also have a strong platform to leverage the networks, capability and financial resources of our partners to identify and capitalise on local market opportunities to design and develop a leading portfolio of residential and commercial communities in Australia.

ANCHOR PARTNERSHIPS

BHL is committed to delivering it vision for the Northern Gateway site through fostering partnerships with leading reputable institutions, both domestically and internationally. This includes existing commitments from Western Sydney University and Scentre Group as anchor partners, as well as ongoing discussions with other ASX-listed and multinational companies who have expressed interest with BHL.

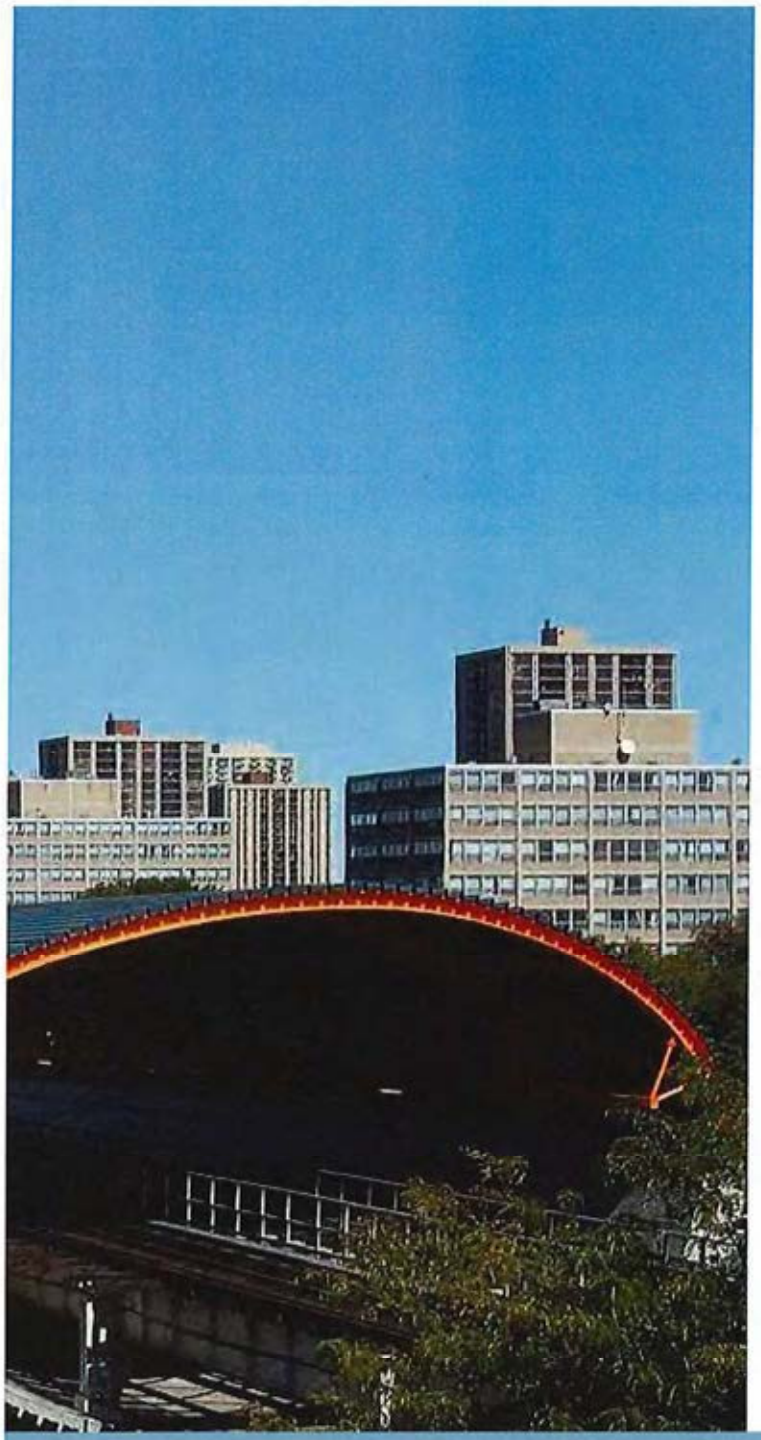
These partnerships reflect BHL's commitment to align with industry leaders to build a globally-recognised precinct, which will support the international airport. They will bring together the brightest thinkers to deliver a creative city which will enable innovative businesses to thrive and deliver thousands of quality jobs for Western Sydney. The truly flexible approach to land uses embedded within our master plan will ensure health and education precincts, high-tech industry clusters and neighbourhood living areas will exist side-by-side to cater to the entire community's needs. We have a vision to delivering a self-sustaining destination in its own right.

Our partners' commitment and track record in delivering sustainable, liveable places will ensure these principles are embedded in the buildings and places as well. This includes consultative discussions with Western Sydney University to inform a world leading education precinct and exploring education and research partnership opportunities.



SCENTRE GROUP

WESTERN SYDNEY UNIVERSITY



PROJECT TEAM

This document has been prepared by the combined efforts of the project team including:

OMA

MASTER PLAN
URBAN VISION, AIMS AND PRINCIPLES

URBIS

URBAN PLANNING
AND SUBMISSION

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PART A: SUBMISSION

THE OPPORTUNITY

A site with a unique opportunity. The Northern Gateway site is uniquely positioned within the Western Sydney Priority Growth Area with excellent transport accessibility and aligned to future transport investment. As part of the Western Economic Corridor we must think big now, to ensure we realise our potential in the future.

A NEW DESTINATION

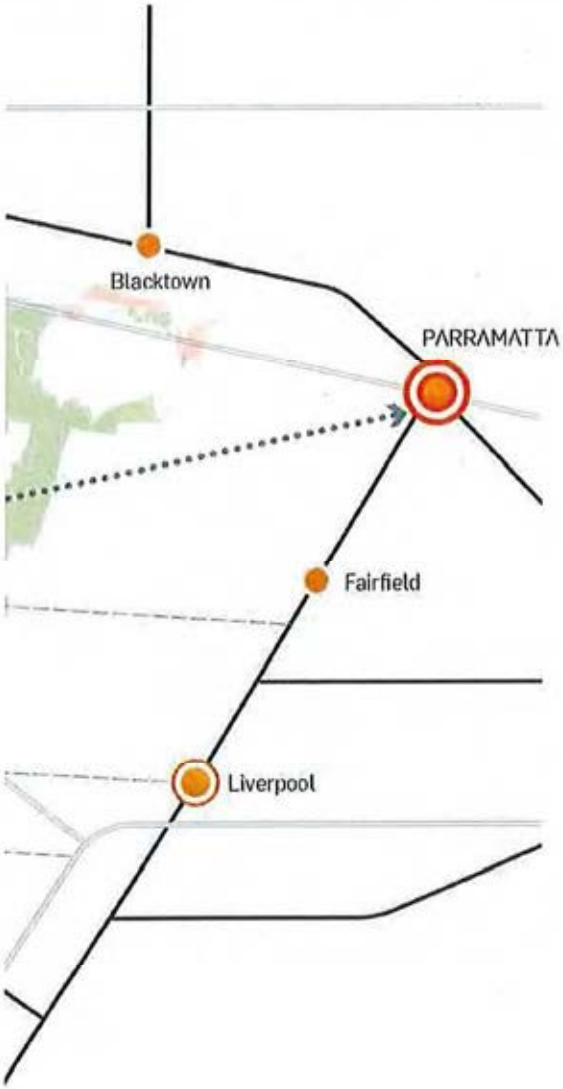
This **344 ha** site is one of the largest single-owner land holdings in the Western Sydney Priority Growth Area (WSPGA). We must not underestimate its scale. At approximately 2.15 km long by 3.2 km wide, this is an area equivalent in scale to Sydney's Eastern City CBD. It is also 21 times the area of Sydney's Hyde Park. Like Macquarie Park is to the Eastern CBD, the Northern Gateway site will be to the Badgerys Creek Aerotropolis - a complementary destination.

ESTABLISHING THE WESTERN ECONOMIC CORRIDOR

The Western Economic Corridor will be catalysed by the development of the Western Sydney Airport and Badgerys Creek Aerotropolis. However, the successful realisation of this strategy requires early acknowledgement of a network of strategic employment centres and economic agglomerations connected along the north-south transit spine. These employment destinations must deliver a concentration of knowledge jobs close to transport hubs which will attract highly-skilled workers from the outset.

POSITIONED AS WESTERN SYDNEY'S INTERNATIONAL GATEWAY

The site's location immediately to the north of the Western Sydney Airport positions it as the international gateway for arrivals in Western Sydney. The meeting of the Outer Sydney Orbital and M12 at the northern extent of the site means that arrivals into and out of the airport will be framed by development on both the site and that of the Sydney University land to the east.



ABILITY TO DELIVER

Single ownership presents an unparalleled opportunity - the ability to bring people together with **a track record of delivery.** We understand the key to delivering the Western Parkland City is partnerships and collaboration - with both government and private entities. As **long term land owners**, we have already begun conversations with the best domestic and international partners in health, education, convention, entertainment and retail. This partnership approach will unlock the opportunity to redefine mixed use and employment with international access. This includes Scentre Group and Western Sydney University which are both leaders in their fields.

DELIVERING THE WALKABLE 30 MINUTE CITY

The alignment of the key north-south rail link through the site presents a significant opportunity to deliver a new liveable destination anchored by a rail station. Workers no longer want to travel long distances to access good jobs. In Western Sydney this means we must deliver a new model of mixed-use. Where people work and live within a walkable distance. We must also ensure we future proof our transport investment making the most efficient use of land.

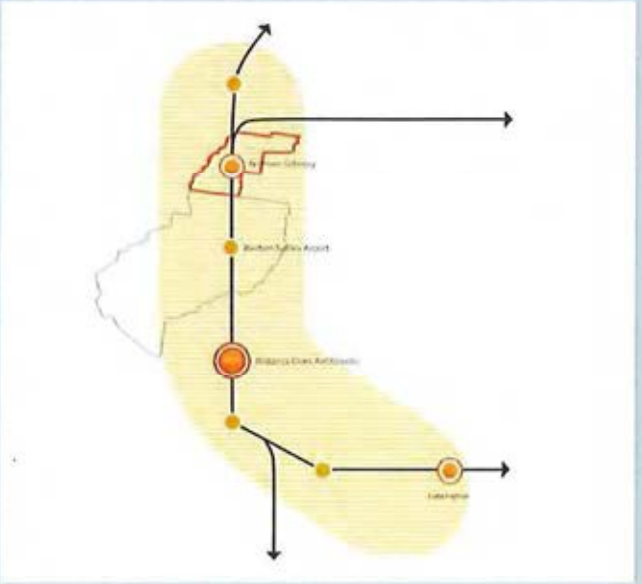
AMENITY IS THE DRIVING PRINCIPLE

Compact urban centres require amenity to deliver liveability. The existing network of waterways and creek lines provide the cues to unlocking a high-performance landscape in which the green and blue grid of the city underpin a balanced and living ecosystem. They will deliver healthy infrastructure, provide essential amenity and underpin compact urban forms to define a new urban lifestyle.

BIG MOVES

The BHL vision has identified four big moves which will unlock investment for the site.

1 COORDINATED LAND RELEASE AND SERVICING TO DELIVER THE WESTERN ECONOMIC CORRIDOR



To truly deliver the Western Economic Corridor, the opportunity for the Northern Gateway site is now.

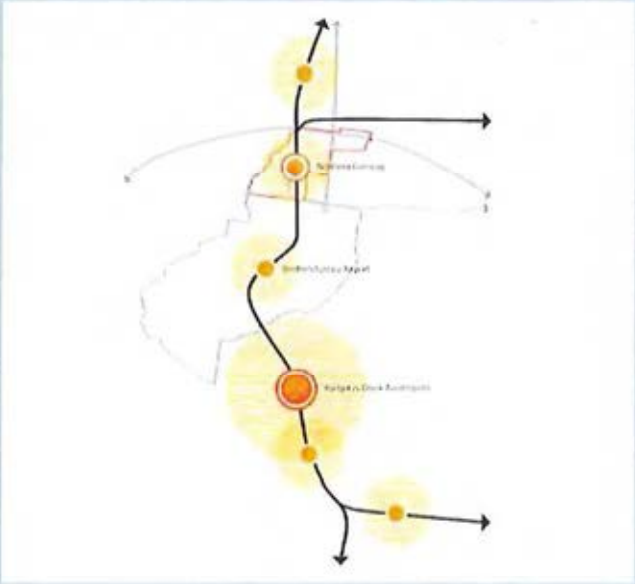
The staged development of the Western Sydney Priority Growth Area, including the Northern Gateway site, will rely upon water, sewer and power being delivered in a logical and sequential manner. Elizabeth Drive has been identified as a major influencer on future development staging, unlocking capacity and delivery of utility services and providing access to the site.

With direct frontage to Elizabeth Drive and positioned immediately opposite the Western Sydney Airport, the Northern Gateway site will be ready to go alongside the airport. With this in mind, trunk infrastructure for the Western Sydney Airport should be designed in consideration of the likely demands generated by supporting development on the surrounding lands.

Our preliminary master plan has identified the opportunity for 1.31 million sqm of employment-generating uses, including commercial, industrial, education, entertainment, retail and tourism. This has the potential to deliver up to 38,000 employment opportunities over the next 40 years.

All levels of Government and utility service providers need to collaborate with land owners to provide certainty and consistency in decision making regarding land release and servicing. **BHL is committed to engaging with all relevant stakeholders** to ensure decision making around investment in utility services infrastructure is informed by future land use planning and aligned with future potential end-user demand.

2 STRATEGIC CENTRE ANCHORED BY A RAIL INTERCHANGE



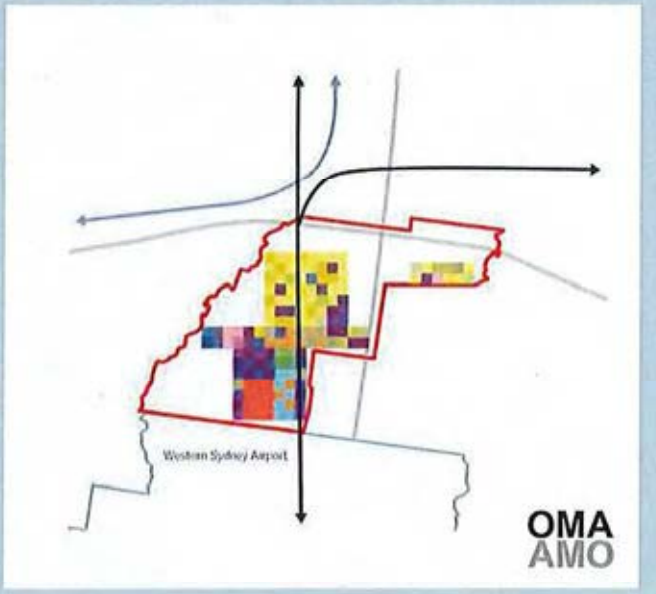
The North-South Rail Link will be a major catalyst for the future development and growth of the Western City District, including lands to the north and south of the Western Sydney Airport. A **network of new centres**, including the Badgerys Creek Aerotropolis, will be delivered along the planned rail corridor – providing access to jobs by public transport and delivering the 30-minute city vision.

The BHL vision and preliminary master plan includes delivery of **a new Strategic Centre** to the north of the airport **anchored by an underground rail station.** Land use activities maximise developable land within walking distance of the station and leverage existing investment in catalytic infrastructure, including the Western Sydney Airport.

The Centre (and the rail station) will form a **Global Gateway** to the Western Parklands City providing international and domestic visitors, workers and residents with a destination on its doorstep. It will bring together both the north-south rail connections and the east-west Three Cities connections within a single interchange.

The provision of an additional interchange between the north south rail link and future Parramatta link, to that provided at the Western Sydney Airport, enables high-speed rail connections to the Greater Sydney Region for Western Sydney residents as well as international visitors.

3 DESIGNATE FLEXIBLE ZONING FOR 24/7 LIVEABLE CITIES

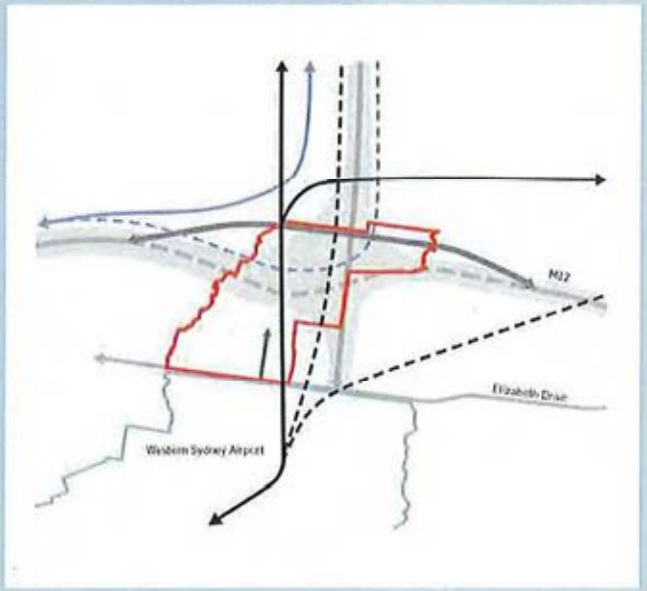


The BHL vision and master plan will deliver both a mixed-industry innovation cluster and a network of liveable neighbourhoods connected to services, employment and public transport. The ability to deliver this 24/7 destination is dependent on new thinking and new ways of delivery.

The mix and diversity of jobs and housing will meet the changing needs and demands of the future population and the global economy. Open space and social infrastructure will provide a high-amenity environment with a blue-green spine along Cosgroves Creek and tree lined boulevards providing a green canopy aligned to the urban grid.

A new approach to land use planning is required. One that focusses on outcomes rather than process to realise the Liveability, Productivity and Sustainability priorities and actions outlined within the Region and District Plans. Flexible zoning and land use definitions will be critical, with a governance framework based around innovation, responsiveness and resilience.

4 REALIGN INFRASTRUCTURE TO UNLOCK STRATEGIC LAND



The land is both benefited and constrained by the significant transport infrastructure investment required for the successful delivery and operation of the Western Sydney Airport.

The BHL vision and preliminary master plan recognises the importance of this infrastructure to the Western City District and the Greater Sydney Region. It also challenges the detailed design and alignment of these corridors to ensure that these benefits and constraints are effectively managed and leveraged to optimise the future growth and development of the site.

The government's preferred corridor for the M12 Motorway currently passes through the centre of the land, effectively trisecting the land into isolated parcels. This effectively **reduces the development potential of the site** by dispersing activity and eliminating the ability to deliver a critical mass of people and activity within walking distance of a rail station.

The BHL master plan proposes to **relocate the M12 Motorway Corridor further north – still within the land holding** – to facilitate the creation of compact and walkable mixed use communities focussed around the North-South Rail Link and Cosgroves Creek. This approach will leverage investment in rail infrastructure for maximum benefit, ensuring workers and residents are all within walking distance of the rail station.

THE VISION

Defined by nature, powered by technology and armed with knowledge. We have redefined Urban Living - elevating our experience to that of a holistic, connected and high performance destination.

This is a once-in-a-generation opportunity, at the gateway to the new Western Sydney Airport, to create a unique destination which integrates the natural world with technologically advanced thinking. Where beautifully designed urban spaces are supported by future proofed transport and energy systems. Inspired by the local context, this integrated philosophy reshapes a bold new urbanisation model for an empowered high performance future.

The Northern Gateway is a seed project for the Western Parkland City, with a high ambition that will project urban living towards a new future and shape contemporary cities into the next century. The ideas, planning and infrastructure strategies that underpin the Northern Gateway are extendable. It is imagined that this integrated and coordinated structure would deliver efficiencies and functionality for the Western Parkland City, and its long term future.*

• content provided by OMA

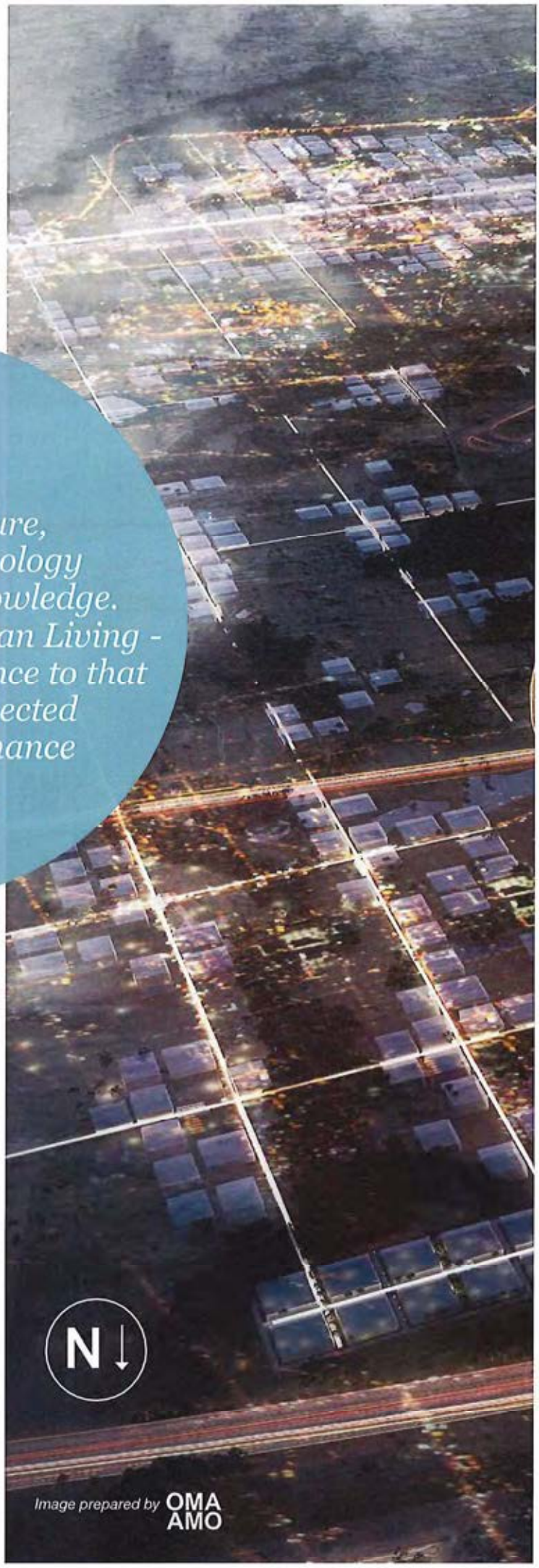


Image prepared by OMA AMO

We have a bold vision

VALUES

WE ARE THE 'TOMORROW MAKERS'.

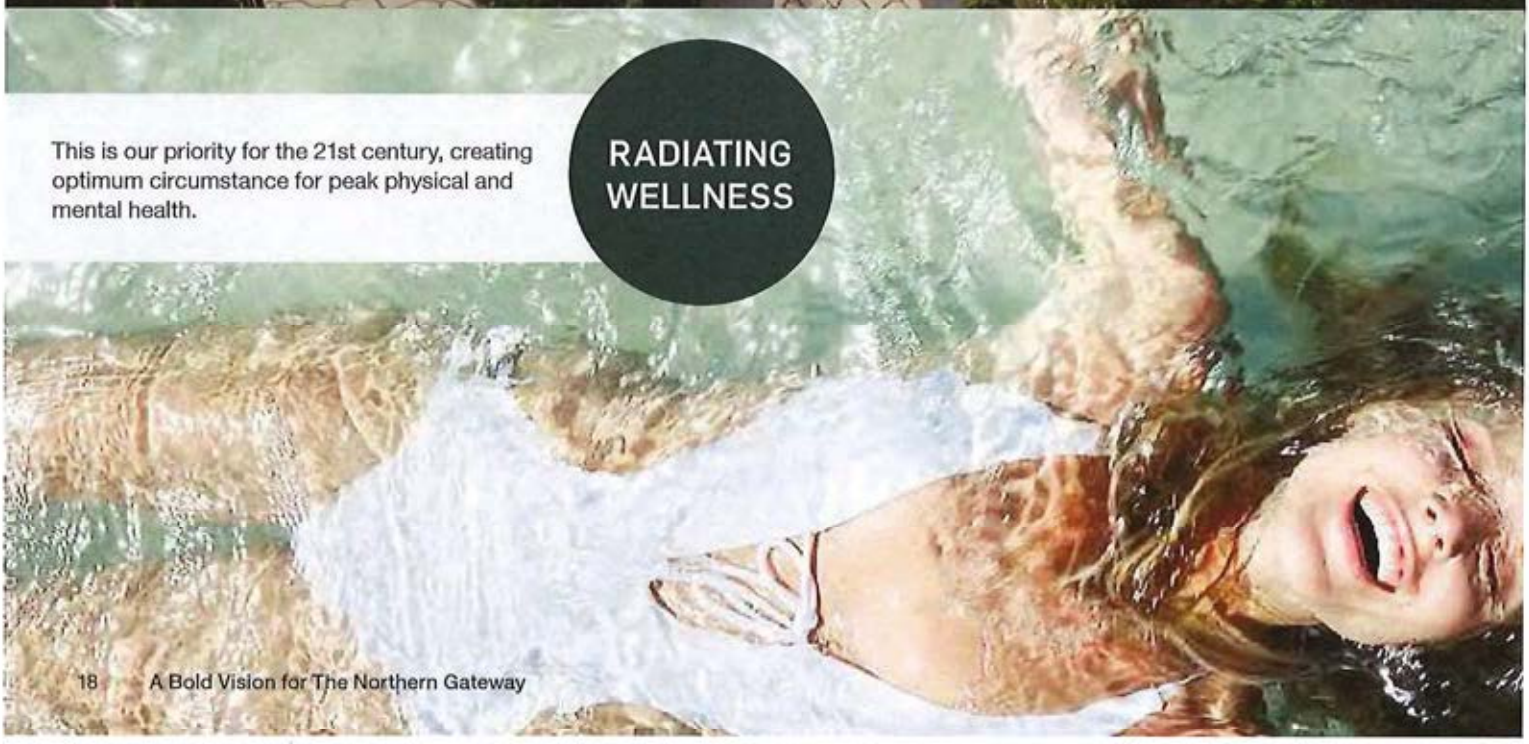
We embrace a new kind of thinking.

We learn and collaborate with those who share our vision for a better tomorrow.

As modern custodians of the land, we focus on sustainability, wellness and technology.

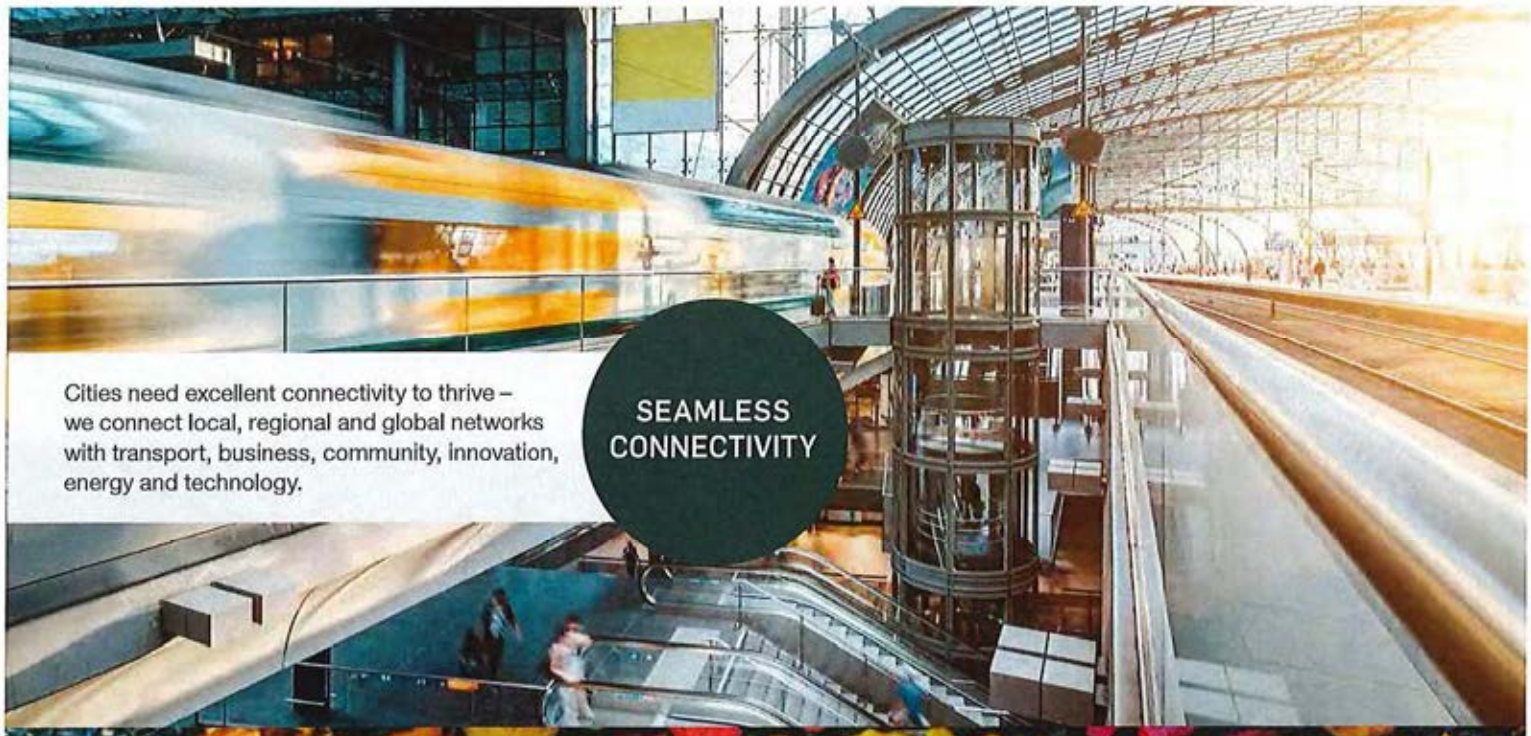
LOVE OF LIFE

We celebrate the diversity of life, in nature, in our communities, and in our cities. We feel incredibly optimistic and positive about new ways of urban living.



RADIATING WELLNESS

This is our priority for the 21st century, creating optimum circumstance for peak physical and mental health.



SEAMLESS CONNECTIVITY

Cities need excellent connectivity to thrive – we connect local, regional and global networks with transport, business, community, innovation, energy and technology.

HARMONY OF 'WE'

We believe in collaboration, cooperation and co-creation. Its about 'we' not 'me'. We are inspired to build off of each others ideas and proud of our collective achievements.

COURAGEOUS ADVANCEMENT

We think boldly about a new tomorrow, unafraid to build an exceptional future.

MASTER PLAN

Live adjacent to your workplace, with commercial, social and cultural amenity within close proximity. In the Northern Gateway precinct traditional boundaries of zoned planning will be unlocked for an activated 24/7 city.

ARCHITECTURAL STATEMENT

Based on a linear planning strategy, supported by a grid of urban clusters and with true north orientation, the Northern Gateway is organised along an east-west axis with mixed-use neighbourhoods to the north-east and south-west.

A diverse program will focus on commercial, retail, health, medial, research and education, logistics and high-tech industry.

A defined urban edge and built form will contain the city to concentrate and optimise infrastructure investment and mitigate urban sprawl, minimising the need to expand infrastructure.

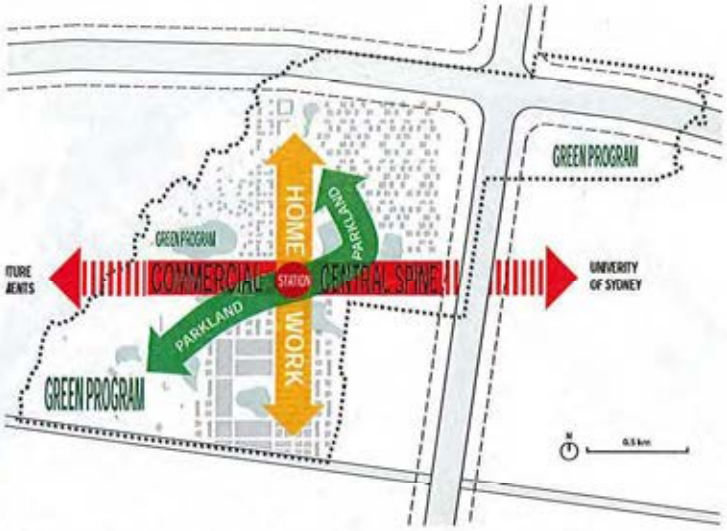
A green belt to both the perimeter and networked through the city will provide important amenity and healthy infrastructure to occupants. This will define the identity and character of the Northern Gateway site and will be underpinned by a network of programmed and activated open spaces.

New typologies of buildings with a mix of uses, and a permeable and accessible ground plane, merge the public and private domain bringing convenience, social equity, flexibility and resilience.

Carbon Neutral will be an environmental and sustainability target but more importantly, social and economic sustainability targets will be established to form a balanced civic ecosystem.

The New Western City will be a smart city and will utilise technologies, current and unimagined, to make a convenient and easily accessible city.

Content and images prepared by OMA AMO



MASTER PLAN - CONNECTIONS

The masterplan is organised by two distinct axis' which are characterised by orientation and use the north-south Urban Business Axis and an east-west Commercial Central Spine, with the transport hub located at their intersection. This intersection will form the civic heart of the precinct that will connect to the green and blue networked open space and bring identity, connectivity and expandability to the city.

MASTER PLAN - DEVELOPMENT AREAS

From the linear structure arranged around the Commercial Central Spine, the Living Cluster to the north supports the Urban Business Cluster to the south, at a north orientation on a cartesian grid, to optimise climatic orientation. A belt and web of parkland and waterways with defined urban edges will promote density, mitigate residential sprawl, and provide excellent public amenity & potential for sustainable initiatives.

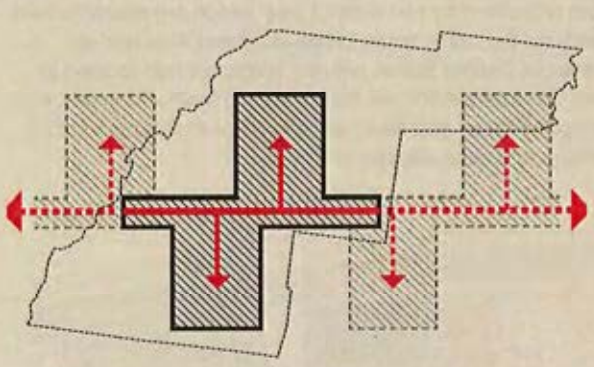
A COMPACT CITY

A defined urban edge of built form and development, programmed and activated parkland perimeter will form an urban limit, mitigating sprawl while densifying built form around the urban core. The hard infrastructure of the core will provide excellent connectivity and convenience while the soft infrastructure of the perimeter provides open space for amenity and recreation.

KEY CONCEPTS

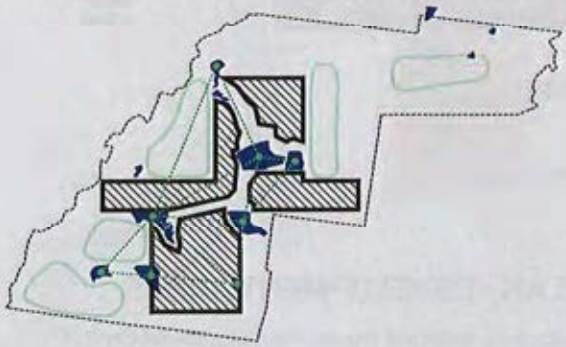
400M WALKABLE GRID

To promote a passive car-free environment, the master plan is structured around a Cartesian grid - 400m module - connected to a multi-mode active and passive transport network. It is no more that 200m in either direction to a transport mode.



DEVELOPMENT AREAS

The built form and development areas are planned as a structured linear city of concentrated neighbourhoods, allowing integration of open space. A defined urban edge and built form will contain the city to concentrate and optimise infrastructure investment for the next 50 to 100 years. The urban areas are extendable and expandable across the western city, recognising the need and potential for future developments to integrate and connect. Future expansion will use height and land yield as densification strategies to mitigate urban sprawl, minimising the need to expand infrastructure.

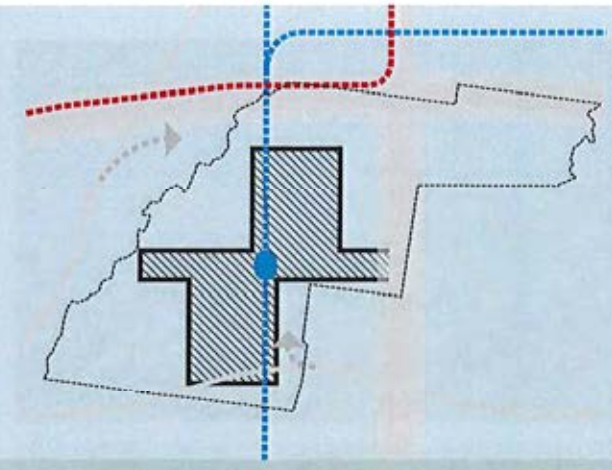


GREEN AND BLUE ENVIRONMENT GRID

The city is characterised by both a belt and web of performative and programmed green and blue resources. A perimeter of parkland will form an urban limit, reducing sprawl. A green belt networked through the city will provide important amenity and healthy infrastructure to occupants, giving the Northern Gateway a strong identity and character, underpinned by a network of programmed and activated green spaces.

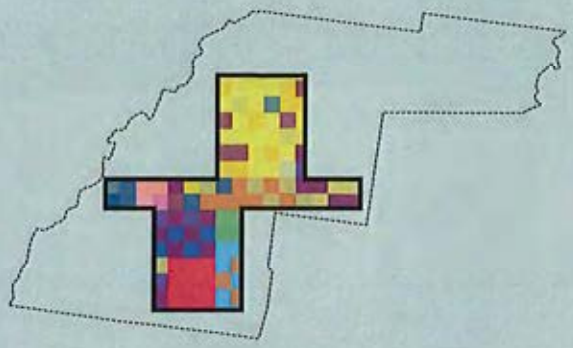
SUN PATH

True north orientation planned on an urban grid will optimise climatic response, comfort and efficiency of built form and open space for sustainability initiatives.



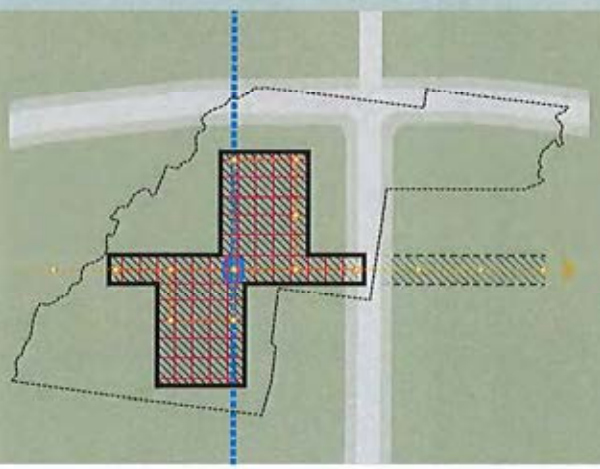
MIXED USE

Mixed use clusters create unique, activated and connected neighbourhoods with excellent amenity and diverse opportunities. A diverse program of use will focus on commercial, retail, health, medial, research and education, logistics and high-tech industry. Short, long stay accommodation and residences will support industry as well as be supported by convention, cultural and social functions, making for an integrated community and uses. Logistics and tourism will support the adjacent airport function. People will be able to live adjacent to their future workplace, with commercial, social and cultural amenity within close proximity.



INFRASTRUCTURE

Well connected primary, secondary, tertiary and future transport networks will connect people with the city and the city with people. Ease and efficiency of transit will enable a balanced lifestyle.



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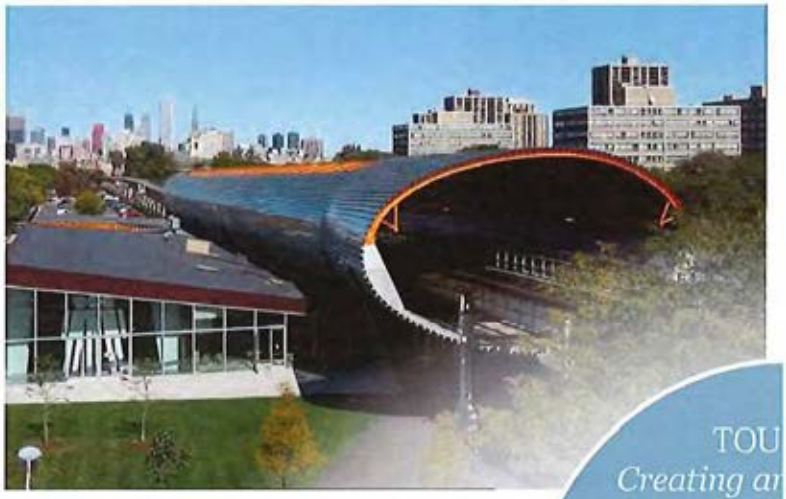
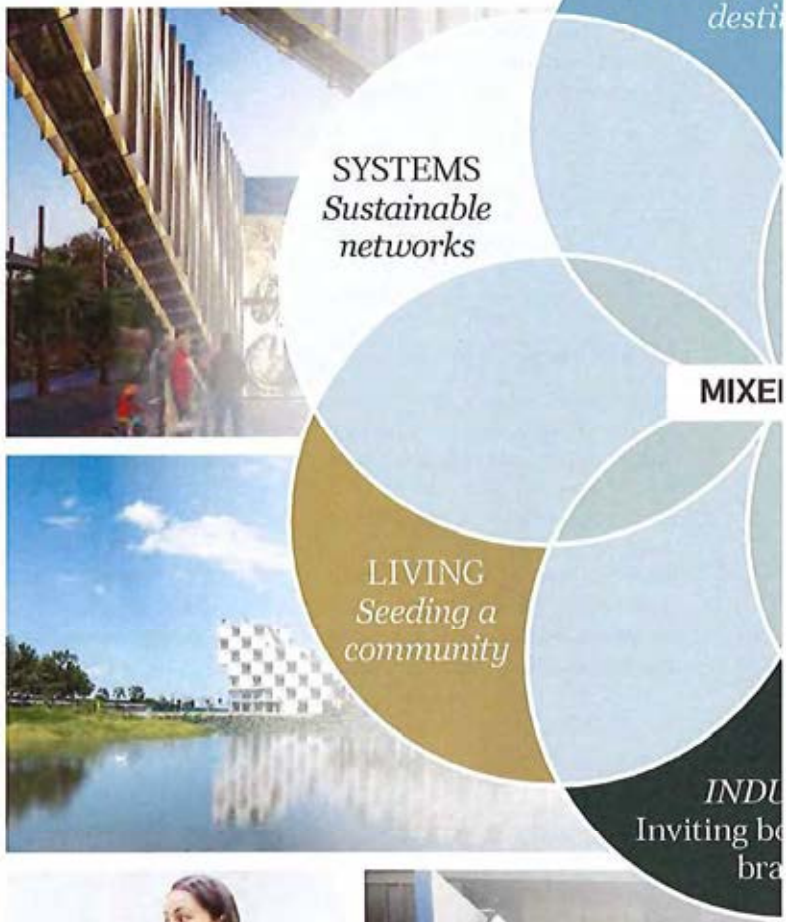
MIXED USE REDEFINED

A fully integrated city — based on sustainability, wellness and technology. The cross-pollination of each territory contributes to the success and uniqueness of one another. Ultimately this enriches people and placemaking opportunities.





RISM
exceptional
nation

LEARNING
Getting smarter for our future

D USE

RETAIL
Experiential new town centre of commerce

USTRY
est of breed
nds

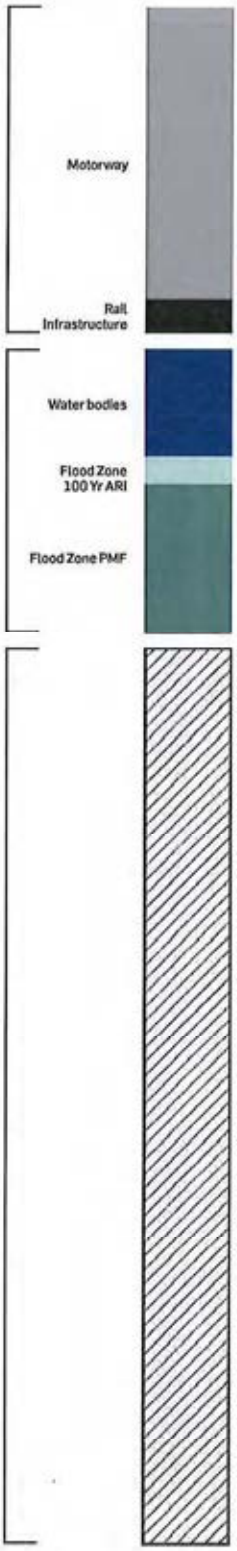
URBAN STRUCTURE

The Northern Gateway will be a balanced urban ecosystem of programmed uses that compliments the Western Parkland City. The site will be a diverse mixed use of built form and programmed landscape public realm and open spaces. Unbuilt areas will be a combination of programmed uses to promote diversity, health and amenity for the city, destinations for tourism and existing natural features and amenity.

22%
PROPOSED STATE INFRASTRUCTURE
747,700M²

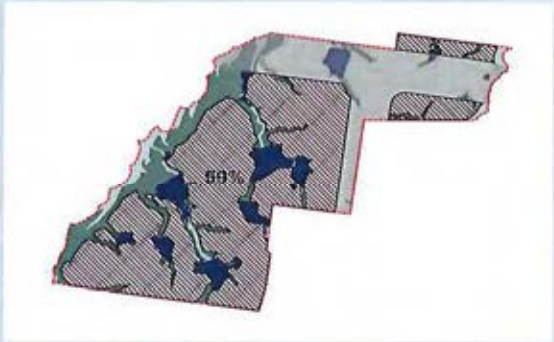
19%
EXISTING NATURAL ELEMENTS
651,800M²

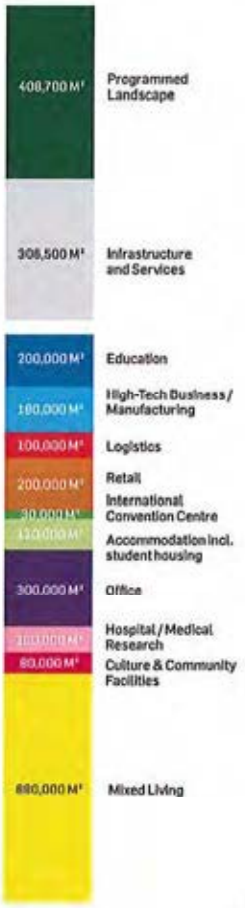
59%
DEVELOPABLE AREA
2,043,500M²



EXISTING SITE

Approximately 20% of the site will be dedicated to State infrastructure and a further 20% of the site accommodates existing waterway elements of creek flows, dams and flood levels. The remaining 60% of the site is available to for new urban development.





19%
UNBUILT AREAS

40%
BUILT AREA:
2,190,000M² GFA

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OMA
AMO

30%

TRANSPORT AND INFRASTRUCTURE

State and local infrastructure services

TRANSPORT AND INFRASTRUCTURE

This will be a post vehicular, transport infrastructure led development. The precinct will be structured around a primary mass transit system, secondary (elevated light rail), tertiary (driverless) and other (active) transport network, providing global to local connectivity unprecedented in Sydney making this an excellent place to work, study, live & visit. Vehicular access to the precincts core will be limited to serviceability at its edges, creating pedestrian prioritised streets.

30%

GREEN AND BLUE GRID

Existing natural elements and programmed landscape

GREEN AND BLUE GRID

Performative webs of parkland and waterways will characterise the identity of the site. These natural resources will promote density at the precinct's core, mitigate urban sprawl and provide excellent public amenity & potential for sustainable initiatives. These areas will be animated and activated by a variety of uses which will encourage strong communities and an active lifestyle.

40%

BUILT AREAS

Mixed employment and living areas

MIXED USE PROGRAMME

The silo city is to be avoided. Each of these clusters will have a specific programme focus supported by a range is diverse uses creating programme frictions and cross-pollination of activity promoting 24/7 activation and diverse opportunities for people to connect. The Northern Gateways will be a balanced urban ecosystem of programmed uses that complements the Western Parkland City. The site will be a diverse mixed use of built form and program and open space. Open space will be a combination for programmed uses to promote diversity, health and amenity for the city, destination for tourism and existing natural features and amenity.

ALIGNMENT WITH PLANNING PRIORITIES

Our vision is aligned with your priorities.

The BHL vision and master plan concept has been designed to be aligned and consistent with the Greater Sydney Region Plan, Western City District Plan and Future Transport 2056. It builds upon the unique character and natural landscape of the site, while planning for significant and meaningful change that will drive the success of the Western Sydney Airport/Badgerys Creek Aerotropolis, the transformation of the Western City and the global competitiveness of the Sydney Region.

The Planning Priorities and Actions within each of the draft planning and transport documents have informed the spatial and land use planning within the BHL master plan, including the major city shaping initiatives that will influence future growth and development. The core elements of the Liveability, Productivity and Sustainability directions are embedded within the master plan to deliver and implement the 20 year vision of the Greater Sydney Commission.

INFRASTRUCTURE

Land use planning decisions are informed by committed and potential future infrastructure investment while maximising the development potential of this strategically located and significant site.

Growth will be aligned with delivery of the north-south rail link and potential future east-west link. Development will be focussed around the potential future transit stop(s). Place-based initiatives will create a sense of arrival for international and domestic visitors (including tourists, academics, conference delegates and business people) while also delivering attractive and functional spaces for local workers, residents and visitors.

The alternative M12 Corridor proposal optimises the land use potential to deliver jobs and housing while maintaining the east-west and north-south connections critical to the Western City Airport and Badgerys Creek Aerotropolis, as well as the Western City District and Greater Sydney Region.

COLLABORATION

BHL and their project partners are committed to working with Governments, community and business to deliver a liveable, productive and sustainable land use precinct that is aligned with the Greater Sydney Region Plan and the Western City District Plan. The vision and master plan concept support the Directions and Priorities established by the GSC to guide the strategic delivery of jobs, housing and infrastructure and the targeted growth and development of the Western City.

BHL will collaborate and engage with planning and transport agencies and other service providers to ensure future land use activities and infrastructure decisions maximise the site development opportunities and support the successful implementation of the Western Sydney City Deal. BHL will also collaborate with international and local businesses and institutions to realise the potential from existing and new economic agglomerations and the development of the Western Economic Corridor.

Ongoing liaison with the existing and future community will facilitate meaningful engagement and contribution to the delivery of housing, jobs and social infrastructure that meets the changing needs of the Western City District.

LIVEABILITY

The design principles for the BHL master plan were informed by the Liveability priorities and actions within the Greater Sydney Region Plan and Western City District Plan.

A place-based planning approach was used to guide the siting and layout of the proposed land use activities, focussing on connectivity and delivering a walkable community with access to open space and social infrastructure. The unique character of the Western Parkland City will be celebrated and strengthened through the delivery of both urban and scenic landscapes.

A diversity of housing will be delivered within the high amenity precincts, including the Cosgrove Creek corridor which benefits from access to the green and blue infrastructure and reduced exposure to aircraft noise.

Education, health, commercial, entertainment, retail and tourism activities will be focussed around the rail station precinct to maximise access for workers, residents and both local and international visitors. Public spaces and local streets will be designed to create attractive places that encourage investment and job creation.

PRODUCTIVITY

The Western Sydney Airport and Badgerys Creek Aerotropolis will be a catalyst for the growth and development of the Western City District. However, its success relies upon the support and investment of businesses to deliver a diversity of jobs and economic growth aligned with the Government's vision.

The BHL master plan aims to deliver 38,000 jobs based around knowledge-intensive industries and strengthening the international and domestic competitiveness of the Western City District and Greater Sydney Region. Jobs will be focussed around the station precinct to realise the 30-minute city vision and creation of the Western Economic Corridor.

The site will form the northern global gateway for the Western Sydney Airport. High quality urban developments will demonstrate the innovation and economic growth driving change and development within the Metropolitan City Cluster. The built environment will be complemented by open spaces and scenic landscapes that reflect the heritage and character of the Western Parklands City.

SUSTAINABILITY

The 344 hectare land holding provides a significant opportunity to deliver meaningful sustainability outcomes.

The guiding principles and urban structure of the BHL master plan incorporate the site's natural landscape including Cosgroves Creek and its tributaries. Land use activities have been located to maximise amenity and access to green and blue infrastructure. Existing green grid connections will be complemented by a fine-grain grid network which provides for pedestrian and cycle connections and significant planting to deliver an urban tree canopy cover.

Further detailed investigations will be undertaken by BHL to inform the site opportunities to contribute to a low carbon city and net-zero emissions by 2050. Innovative solutions will be developed to manage water and energy demand and greenhouse gas emissions.

DELIVERING THE 10 DIRECTIONS

The Northern Gateway master plan will deliver on the 10 key directions of the Region and District Plans as outlined below.

10 DIRECTIONS		BHL VISION
A city supported by infrastructure	✓	Site vision and master plan supports the infrastructure plans within the metropolitan and regional plans and transport strategy.
A collaborative city	✓	BHL and their project partners are committed to working with Government, community and business.
A city for people	✓	Residents, workers and visitors are central to land use planning and decision making.
Housing the city	✓	Diversity of housing and accommodation will be delivered close to jobs, services and high frequency public transport. This includes a diversity of ownership option including build-to-rent and student accommodation.
A city of great places	✓	Place-based planning will deliver a new centre with high-quality buildings and public spaces.
A well connected city	✓	A fine-grain grid layout will maximise pedestrian and cycle connections and deliver a walkable community.
Jobs and skills for the city	✓	Partnerships with international and local conglomerates and institutions will deliver knowledge-intensive jobs.
A city in its landscape	✓	Green and blue infrastructure will strengthen the Parkland City urban structure and enhance scenic and cultural landscapes.
An efficient city	✓	Low carbon initiatives and innovative solutions will manage energy and water demand and waste.
A resilient city	✓	Climate change and urban and natural hazards will be addressed through a robust master plan that responds to change.

The walkable 30 minute city

ALIGNMENT WITH TRANSPORT PRIORITIES

Our vision will unlock strategic land.

The BHL vision and master plan concept has been designed to maximise the opportunities from the substantial investment to be made by the Commonwealth, State and local government in association with the Western Sydney City Deal.

BHL is proposing to contribute their ideas to the detailed planning process associated with the planning and delivery of new infrastructure. This includes challenging the Government's preferred location of the M12 Corridor to minimise its potential impacts on the land use planning for the site. It also includes a recommended alignment for the North South Rail Link and a station which will drive change and growth within the Western City District.

M12 MOTORWAY

We understand the NSW Roads and Maritime Service has completed preliminary investigations and stakeholder consultation for the M12 Corridor, including a preferred 300 metre wide corridor to be reduced to 100-150 metres during the design process.

The current preferred M12 corridor generates the same quantum of developable land, however would significantly fragment the land and reduce its capacity to deliver an optimal land use outcome this is envisaged for the site.

The BHL vision and master plan proposes to relocate the M12 corridor along (and within) the northern boundary of the site. This would avoid dislocating the northern and southern parts of the site and improve connectivity between the future land uses within and beyond site boundaries. It will enhance the efficient and economic use of the land, particularly the southern land which may be affected by aviation safety and noise restrictions.

NORTH-SOUTH RAIL LINK TO WESTERN SYDNEY AIRPORT

The North-South Rail Link will have a major impact on the delivery of the 30 minute city, providing the opportunity to connect the growing residential population with the Badgerys Creek Aerotropolis.

BHL understands detailed investigations have been completed by the Federal and State government regarding the preferred location for the North South Rail Link. However, the final preferred corridor is yet to be announced.

The BHL vision and master plan articulate their preferred location for the North South Rail Link, including a below ground station that connects with surrounding land use activities.

Under the proposed government alignment of transport infrastructure, accessibility to any future train station on the site would be significantly reduced due to the division of the site into three parcels. The provision of a train station would be most beneficial if located on the largest developable parcel providing high-quality access to approximately 25% of the site.

However this location is also most suitable for lower intensity employment uses such as high-tech business and manufacturing and logistics. This is due to direct frontage and access to Elizabeth Drive and the M12 as well as the ANEC and OLS overlays from the proposed airport. The limitations on including mixed living and accommodation offers in this area also contributes to the location being less attractive for other, more intense employment uses including health, education and retails offers. As a result, if development in this area becomes limited to manufacturing and logistics, the indicative number of jobs within the catchment of the train station would be around 7,800.

This is compared with potentially 38,000 jobs for the BHL alignment option. The realignment of the M12 Motorway north unlocks approximately 50% of the site to have high-quality access to the station. In addition to this there would also be additional demand generated by the mixed living uses within the site which could accommodate a population of up to 22,250 residents.

AEROTROPOLIS TO PARRAMATTA RAIL LINK

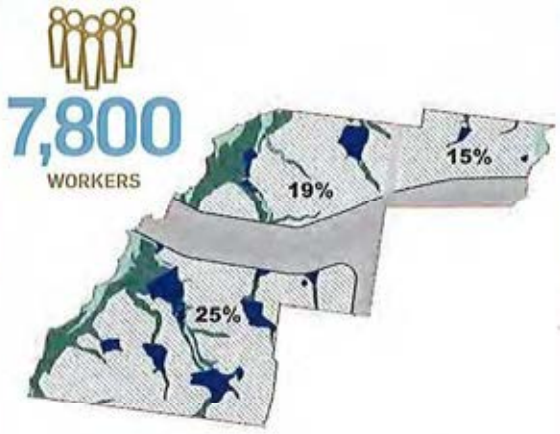
It is understood that investigations associated with the Aerotropolis To Parramatta Rail Link are less advanced compared to the investigations associated with the M12 Corridor and North-South Rail Link.

The BHL vision and master plan proposes the north-south and east-west rail links intersect on the land, with a below ground station and a new Strategic Centre that drives employment growth and the achievement of the 30-minute city.

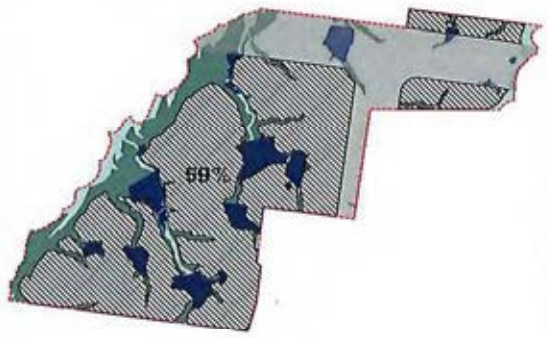
OUTER SYDNEY ORBITAL

This combined road/rail freight corridor is proposed to extend from the Great Western Highway to Western Sydney Airport. Only limited information is currently provided within draft Future Transport 2056. However, the land would likely be affected by the future Outer Sydney Orbital corridor.

Clarification is requested regarding any restrictions that may be imposed on land affected by the Outer Sydney Orbital Corridor and the potential short-to-long term impacts on the land use activities for the site.



GOVERNMENT TRANSPORT INFRASTRUCTURE ALIGNMENT



BHL TRANSPORT INFRASTRUCTURE ALIGNMENT

22,250
RESIDENTS

38,000
WORKERS

ANCHOR PARTNERS

SCENTRE GROUP

Owner and Operator of Westfield in Australia and New Zealand

Scentre Group owns and operates the pre-eminent shopping centre portfolio in Australia and New Zealand. With retail real estate assets under management valued at $51 billion and shopping centre ownership interests valued at $36.2 billion. This comprises 39 Westfield shopping centres which have strong franchise value and the ability to attract the world's leading retail brands.

The vertically integrated structure of Scentre Group's operating platform provides the business with a unique strategic advantage. By undertaking all elements of the asset operating cycle - including funding, development, design & construction, leasing, marketing and management, Scentre Group has been able to consistently deliver and operate cutting edge retail developments.

WESTFIELD CHERMSIDE

- Retail Outlets: 496
- Gross Lettable Area: 175,553m²
- Annual Customer Visits: 16,400,000
- Total Annual Retail Sales: $930 million

Westfield Chermside, located approximately 10 kilometres north of the Brisbane CBD with a sizeable trade area population of more than 780,000, a figure that represents approximately 32% of Brisbane's population.

A $355 million redevelopment was completed in the second quarter of 2017 sees Chermside become the largest centre in the Scentre Group portfolio through the creation of an additional 33,000 m² of retail space. Approximately 95 new stores have been added to the retail mix, including Brisbane's first Sephora, H&M, Zara and a host of other local and international brands. A new leisure and dining precinct which opened in June has completed the picture. Set in a resort-style landscape, the new precinct features a selection boutique cafes and al fresco restaurants and is set to become one of the city's premier dining destinations.

WESTFIELD SYDNEY

- Retail Outlets: 337
- Gross Lettable Area: 165,965m²
- Annual Customer Visits: 45,500,000
- Total Annual Retail Sales: $1.18 billion

Westfield Sydney is a world class retail destination in the heart of the Sydney CBD. Showcasing the best of local and international retailers, the centre combines superior design with premium retail and dining offer. Occupying an enviable position on Pitt Street Mall, one of Australia's premier retail strips, the centre caters to a trade areas of more than 5 million people—the largest Westfield trade area in the country.

Westfield Sydney is defined by a fashion offer that sees the global fashion icons Chanel, Fendi, Gucci, Salvatore Ferragamo, Prada and Miu sit alongside some of Australia's leading designers including Sass & Bide, Zimmerman and Morrison. There are also a number of first-to-market stores from some of the world's most sought after brands. The centre also boasts a broad range of casual dining options including an up-market casual dining offer spread over two beautifully designed floors above the fashion retail malls.

Scentre Group also focuses closely on the curation of retail at its centres, ensuring the integration of key retail categories - including food, fashion, international brands and entertainment - customised to meet the unique demands of each trade area.

WESTFIELD STRATFORD CITY

- Retail Outlets: 343
- Gross Lettable Area: 174,881m²
- Annual Customer Visits: 49,500,000
- Total Annual Retail Sales: £1.19 billion

Westfield Stratford City opened on 13th September 2011 and represents £1.8 billion investment in East London. The development comprises approx. 174,881 m² of retail and leisure. It also features 1.1m sf of current and future office space, as well as three hotels and 1,200 new homes which will be delivered in future phases.

Located adjacent to the Olympic Park and the prestigious gateway to the Olympic Games in 2012, Westfield Stratford City is part of the largest urban regeneration project ever undertaken in the UK. Having created 10,000 permanent new jobs from day one, Westfield Stratford City has exceeded targets with more than 2,000 people employed from the local unemployed community.

WESTFIELD LONDON

- Retail Outlets: 359
- Gross Lettable Area: 171,205m²
- Annual Customer Visits: 28,000,000
- Total Annual Retail Sales: £1.01 billion

Westfield London has, since opening in 2008, transformed London's retail landscape, with a unique blend of fashion, beauty, dining, leisure and entertainment, just three miles from the West End.

Westfield London has 171,205 m² of Gross Lettable Area (GLA) with 28 million annual customer visits generating annual retail sales of £1.01 billion.

Showcasing some 360 fashion, dining, leisure and entertainment retailers, the centre features the best UK and international stores and is a leading entertainment and events venue with a 20-screen state-of-the-art Vue cinema and the UK's first Kidzania.

Westfield London's luxury precinct, The Village was designed by acclaimed architect Michael Gabellini, and is dedicated to 40 international and British luxury and designer brands, offering an exceptional retail experience for London's most discerning shoppers.

ANCHOR PARTNERS

WESTERN SYDNEY
UNIVERSITY

Western Sydney University has an outstanding record in many areas of teaching, research and engagement. However national and global imperatives will drive heightened competition among higher education providers during the next five years.

New digital technologies will dramatically change the way universities engage with students. Community expectations will encourage us to rethink our partnerships as social and economic priorities shift. Ground-breaking research and its application will lead us into areas previously unexplored.

The University is located in Australia's third largest economic region. It draws students from more than 160 ethnic backgrounds, the great majority of whom are the first in their family to attend university. As the largest education provider in Greater Western Sydney, the University will lead the economic, social and cultural development of the region in partnership with industry, business, government and community organisations.

Western Sydney University is continuing to build on its reputation for resilience and flexibility to cement a student-centred and research-led culture at the core of its next phase of development.

TOP 2%
UNIVERSITIES WORLDWIDE
QS World University Rankings 2018

$774,834
EXPENDITURE - TOTAL OPERATING REVENUE

44,452
NUMBER OF STUDENTS

TOP 100
YOUNG UNIVERSITIES IN THE WORLD
Times Higher Education

OTHER POTENTIAL PARTNERSHIPS

BHL is currently talking to a number of domestic and international ASX-listed and multinational companies in relation to the Northern Gateway site. Potential future partners could include:

- Shanghai Municipal Investment
- China Highway Engineering Consulting Corporation (subsidary of China Communications)
- China Communications Construction Company Limited (i.e owns John Holland)
- Shanghai Jiaotong University
- China Orient Rui Chen Capital
- Winsun Building Technology (Shanghai) Co. Ltd
- Jingdong E-Commerce (trade) Hong Kong Corporation Limited

上海城投 SHANGHAI CHENGTOU

東方瑞晨 CORC Capital

WINSUN 盈创

JD.京东.COM

CHECSC

上海交通大学 SHANGHAI JIAO TONG UNIVERSITY

中国交建

NEXT STEPS

BHL is committed to a collaborative process and ongoing dialogue with the key stakeholders who will play a role in the successful implementation of the Region, District and Transport Plans.

We would welcome the opportunity to meet with Commonwealth, NSW and/or local government agencies to discuss our ideas and recommendations to maximise the growth and development of the Western City District and the land holding, including:

- Flexible land use provisions for an active and vibrant community;
- Coordinated land release and servicing to drive growth and development;
- Strategic Centre anchored by a rail interchange and a walkable community;
- Parkland environment enhanced by blue-green connections; and
- Realignment of infrastructure, including M12 Corridor and rail corridors.

We propose to arrange a meeting with the Greater Sydney Commission in early 2018 to ensure that this exciting opportunity is realised within the finalisation of the Greater Sydney Region Plan and the Western City District Plan.

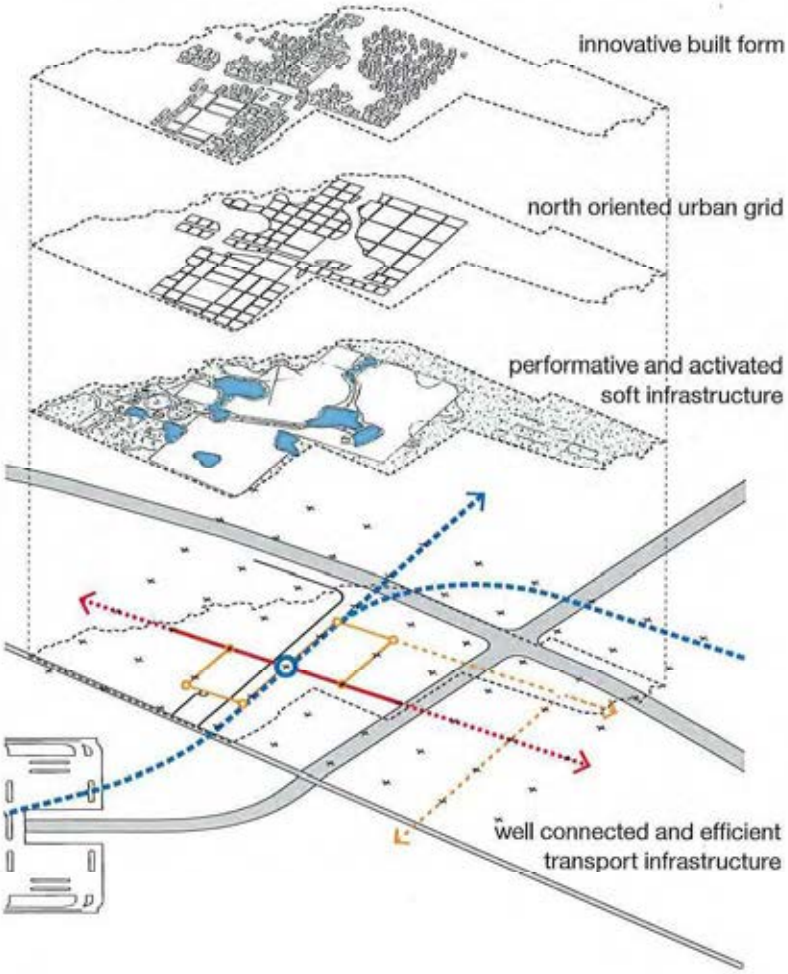
We also propose to meet with Transport for NSW and the NSW Roads and Maritime Service regarding the finalisation of draft Future Transport 2056 as well as the progressive roll-out of infrastructure initiatives, including commencement of detailed investigations.

PART B: DETAILED MASTER PLAN

MASTER PLAN

The concept of this master plan comprises four urban layers; a layer of well-connected and efficient transport infrastructure, performative and activated soft infrastructure, north oriented urban grid, and a diverse, concentrated offering of flexible and innovative built form. These layers share a collective vision for the future parkland city.

URBAN STRUCTURE



Content and images prepared by OMA AMO

OUR PLACES

1 CENTRAL SPINE

2 LOGISTICS AND HIGH TECH CLUSTER

3 NEIGHBOURHOOD CLUSTER

OBJECTIVES

ENCOURAGE DIVERSE EMPLOYMENT OPPORTUNITIES

PROVIDE ACCESS TO GREEN AND BLUE RESOURCES

A CONNECTED PARKLAND CITY

PRINCIPLES

FISCALLY RESILIENT

Promote a synergy of collaborative developments across the metropolis and explore optimal development models as economically concentrated districts.

The centre will be approached with intensively and compactly developed multi-clusters.

INNOVATIVE BUILDING TYPOLOGIES

Develop innovative building typologies that support mixed use, transparent, multimodal environments. Configure the built form to enable permeability, to integrate and inform the public realm.

GOVERNANCE AND STEWARDSHIP

Establish Governance and Stewardship for continued and ongoing engagement and collaboration on master plan development and implementation to ensure the vision for a new typology of centre is realised and maintained.

A HEALTHY COMMUNITY

The 30 minute parkland city will promote a healthy work life balance and quality of life through its efficient connections, proximity to public open space and excellent amenity.

Provide networks of culture and community to promote social wellbeing, community engagement and personal development.

INTEGRATED GARDEN CITY

Make use of existing and natural, blue (water) and green (landscape) conditions to amplify and enrich the quality of environment and life. A new parkland destination for Sydney.

Utilise the natural green and blue resources as the identity of the place.

ACTIVE AND PERMEABLE GROUND PLANE

Ensure fragmentation and permeability to allow connection to context.

Programme the public realm for activation. Mix soft and hard infrastructure with public activation to give spatial identity and character.

PEDESTRIAN PRIORITISED HARD INFRASTRUCTURE

Create a pedestrian prioritised public realm with efficient and integrated transportation.

Vehicular access will be mitigated and servicing will be via the perimeter and below ground.

REGIONAL SCALE NETWORK

A collaborative city that interconnects the growing, economically concentrated districts at a local, regional and global scale.

Organically Connected and Easily Accessible

A coordinate business, living and ecological place where working, living, leisure, transportation and civic amenity are organically connected and easily accessible.

A SMART HUB

A smart precinct with new technologies embraced to improve convenience and simplicity, connectivity and engagement.

ADVANCED ENERGY NETWORKS

Sustainable and secure energy requires collective intelligence and ambition at a regional scale, beyond site-specific solutions. Advanced energy-saving technologies should be applied to build a green city, a sponge city, a smart city.

DELIVERABLE. ADAPTABLE.

Our master plan responds to the key requirements of both existing natural land features and the realities of its proximity to the airport. Our response leverages opportunities for abundant amenity and the delivery of a mixed-industry cluster which will foster innovation, collaboration, partnerships and knowledge jobs to western Sydney.

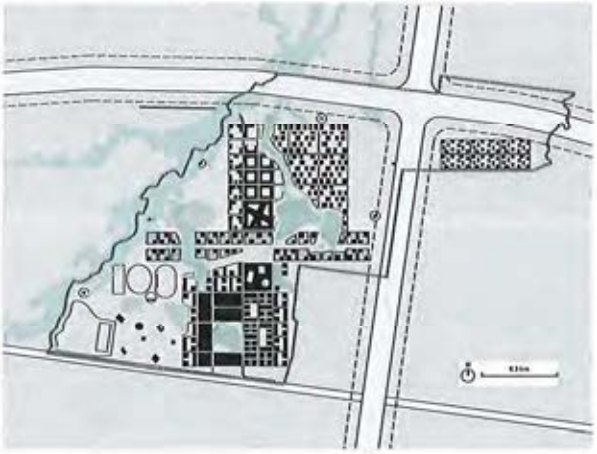
PHASING

We also understand that change to the urban environment and the city is inevitable and that planning for this change, growth and expansion needs to be considered from the outset. Our master plan is underpinned with a strategy to grow, intensify and be adaptable:

- Urban sprawl is mitigated and avoided.
- A clearly defined urban edge is maintained.
- Surrounding open space and the blue and green grid is to be preserved.
- Initial infrastructure planning and investment needs to have a 50/100-year planned resilience.
- Increases in density and increases in plot yield will be prioritised and maximised prior to expansion beyond the defined edges of the urban plan.

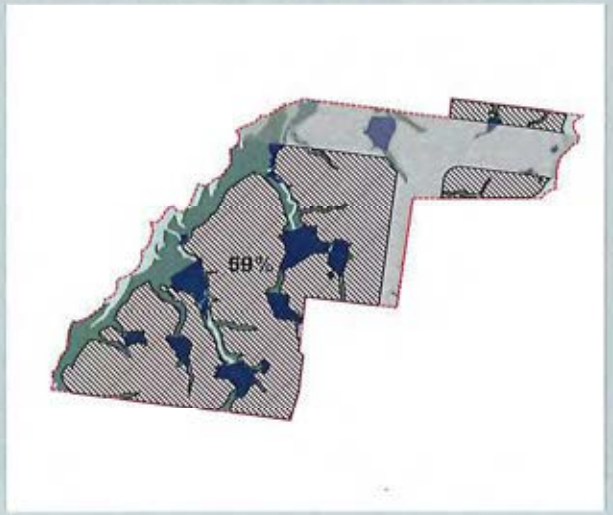
Future expansion will use contained height and land yield as densification strategies to mitigate urban sprawl, minimising the need to expand infrastructure investment prior to expansion.

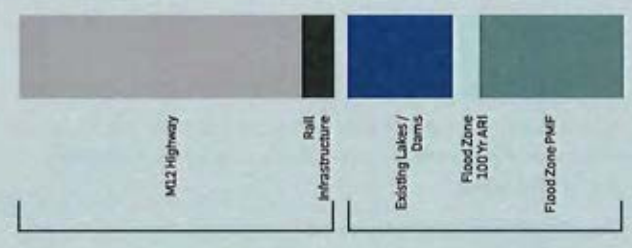
FLOOD AFFECTED LAND



A blue web of creeks and dams will provide opportunities for amenity and sustainable initiatives. The flood affected land associated with these resources will inform development and be integrated to provide character an identity as a natural feature of the site and its maintain its eco-system.

EXISTING SITE





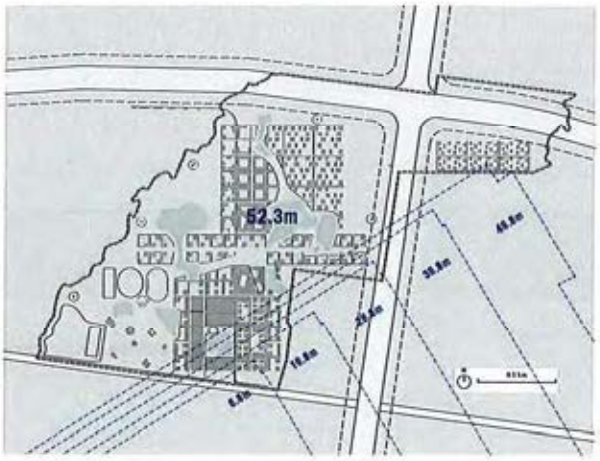
22%
PROPOSED STATE INFRASTRUCTURE 747,700M²

19%
EXISTING NATURAL ELEMENTS 651,800M²

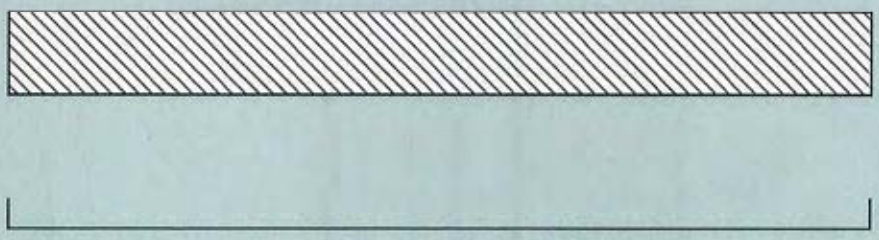
LAND USE

The Western Sydney Airport Plan outlines projected Aircraft Noise Contours, which will control use for developments adjacent to the planned Western Sydney Airport. These controls will primarily affect the south east corner of the site. The master plan for the site responds to these requirements and unlocks opportunity for knowledge jobs to be delivered along with a cluster of compact neighbourhoods.

ALLOWABLE BUILDING HEIGHTS



The Western Sydney Airport Plan outlines projected Obstacle Limitation Surfaces (OLS), which will control height for developments adjacent to the planned Western Sydney Airport. These controls will primarily affect the south east corner of the site.



59%

DEVELOPABLE AREA
2,043,500M²

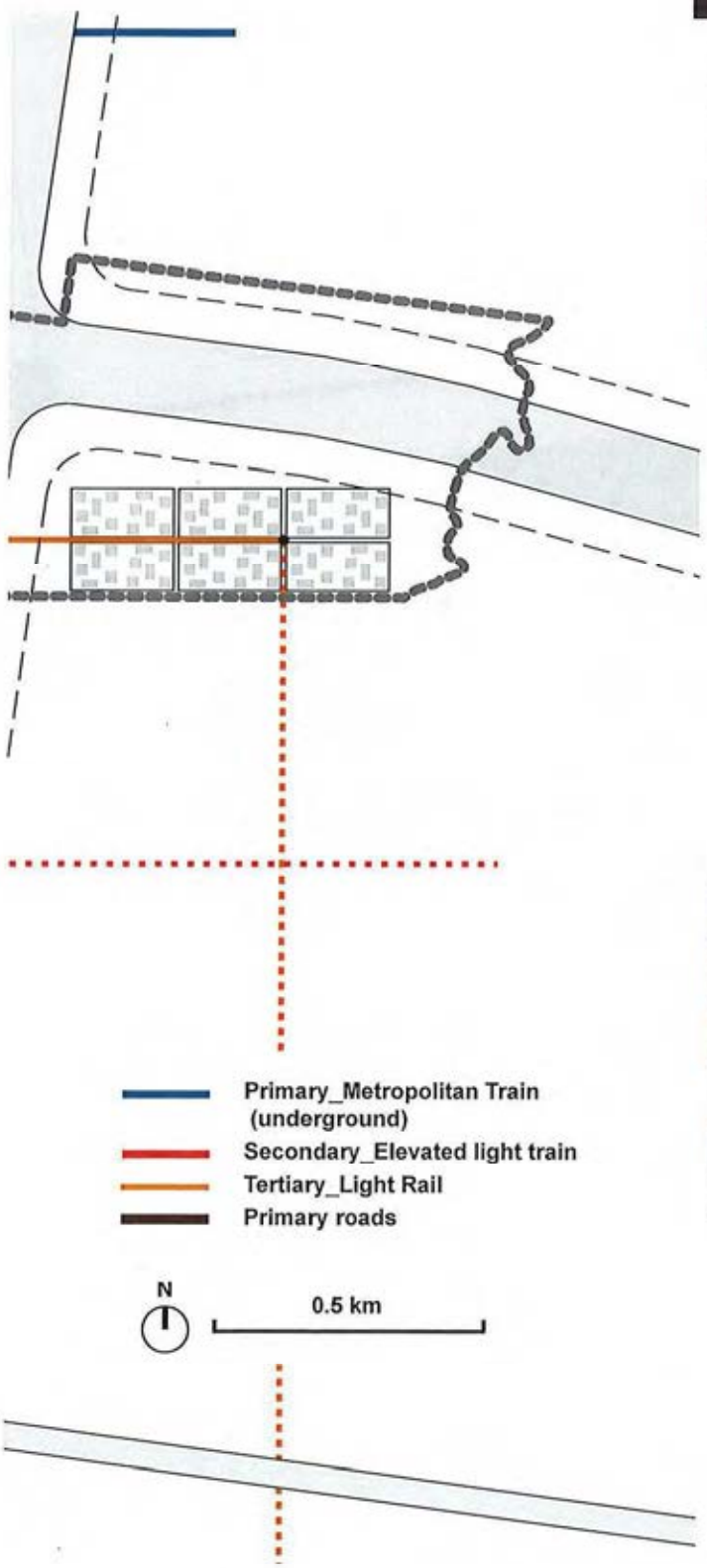
Content and images prepared by **OMA** AMO

URBAN STRUCTURE

FUTURE TRANSPORT

This will be a post vehicular, transport infrastructure lead development. The precinct will be structured around a primary heavy rail, secondary elevated rail, and tertiary driverless transport network, providing global to local connectivity unprecedented in Sydney making this an excellent place to work, study, live & visit. Vehicular access to the precincts core will be limited to serviceability, creating pedestrian prioritised streets.

Content and images prepared by OMA AMO



autonomous light rail

high speed rail

real-time transport apps

rental bicycles

autonomous busses

car sharing apps

drones/automated freight

electric networked vehicle

GREEN AND BLUE GRID

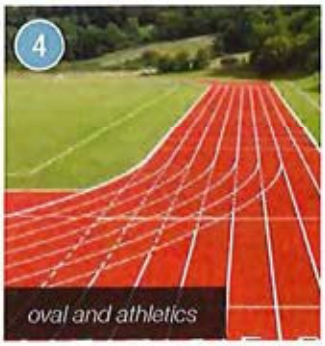
PERFORMATIVE AND ACTIVATED SOFT INFRASTRUCTURE

Performative webs of parkland and waterways will characterise the identity of the site. These natural resources will promote density at the core, reducing residential sprawl and providing excellent public amenity & potential for sustainable initiatives. These areas will be animated and activated by a variety of public uses which will encourage strong communities and an active lifestyle. Wherever you are within the Northern Gateway you are just around the corner from abundant green and blue amenity.

theme park

swimming pool

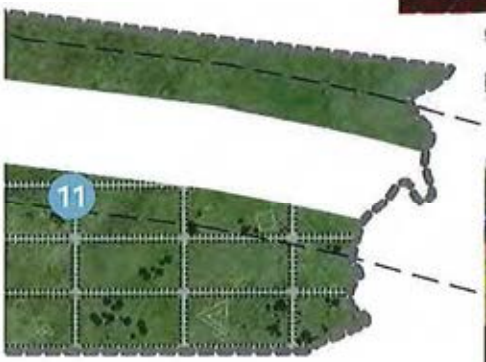
multipurpose courts



oval and athletics

landscape park

skate park



markets

sculpture park

cafe/restaurant

water activities

community gardens

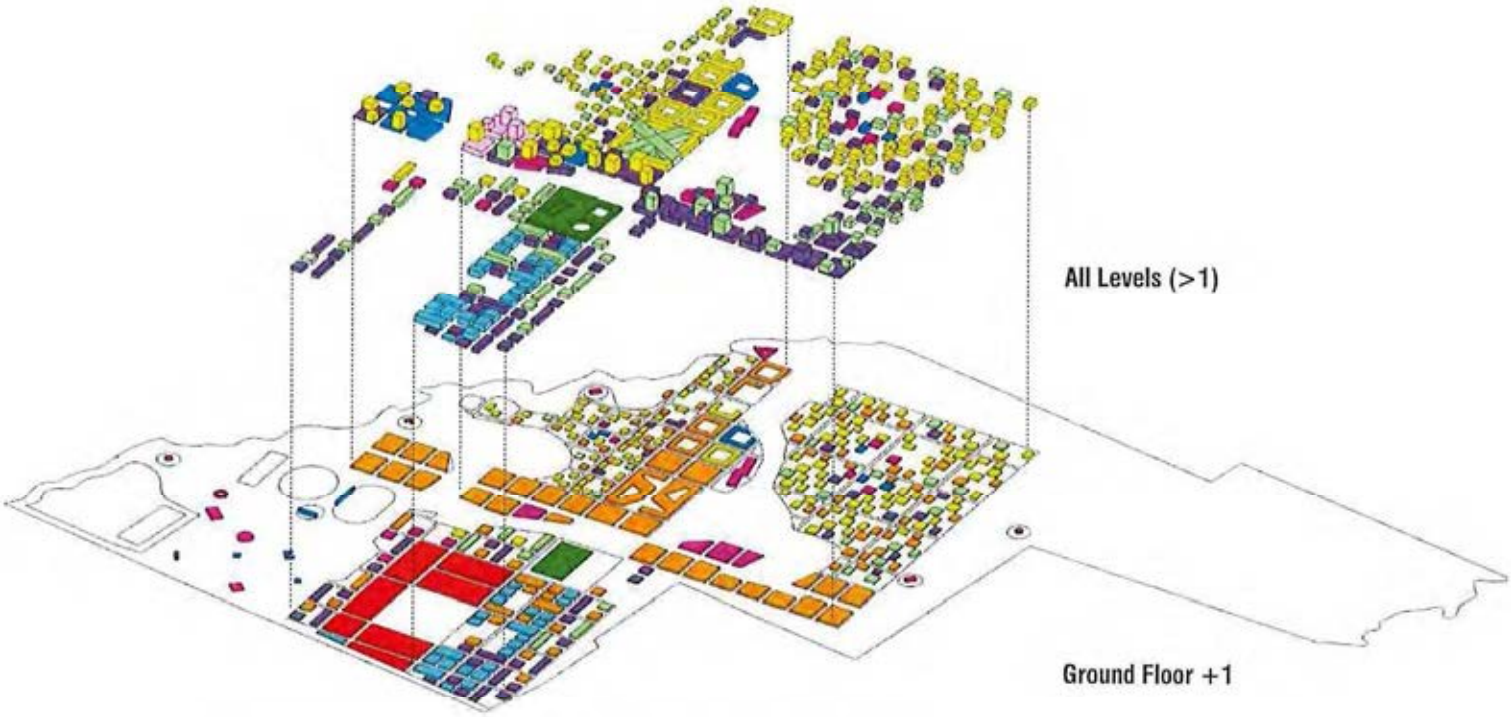
bushland

Content and images prepared by OMA AMO

PROGRAM

INNOVATIVE BUILT FORM NORTH ORIENTED URBAN GRID

The Northern Gateway Centre will be a balanced urban ecosystem of programmed uses that complements the Badgerys Creek Aerotropolis. The site will be a diverse mixed use of built form, programmed landscape and open space.



The built form will be distributed to promote diverse interactions between uses but will have specific focus on:

- High-Tech Manufacturing Industry to promote futures industries;
- Health and Medical to support research and advancement in well-being and healthy communities, adopt new technologies and approaches;
- Integrated Education and Research to support and incubate new typologies of Industry and commerce in a knowledge economy;
- Logistics and Distribution that utilises and optimises new air, rail and road transport infrastructure;
- New typologies of retail and commercial programme infused with supporting cultural and entertainment;
- New typologies of residential, concentrated with business, retail, cultural and civic uses for convenience and amenity; and
- A network cultural, community and civic facilities to bring identity and social benefit as a destination for the city.

Content and images prepared by OMA AMO

38,000

POTENTIAL JOBS

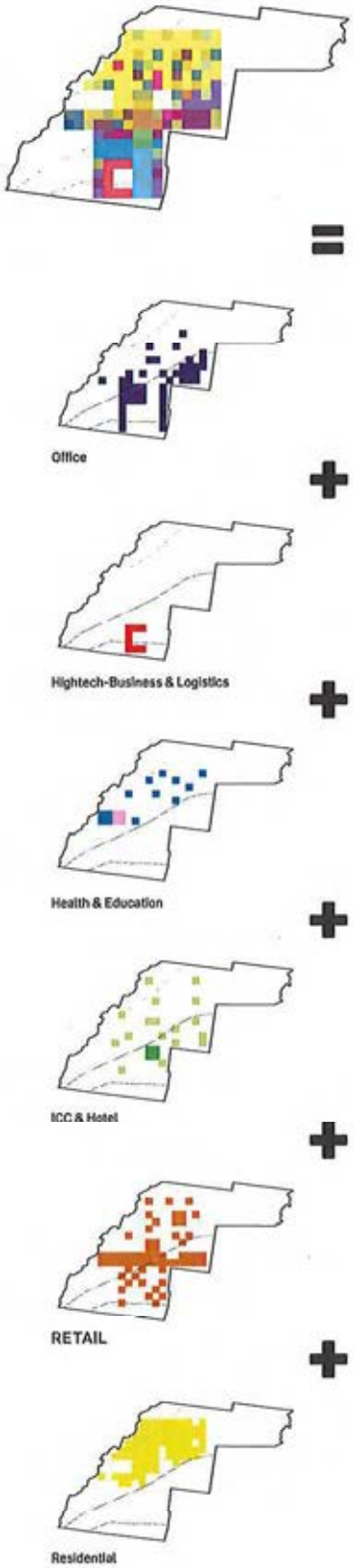
UNBUILT AREAS

19%

BUILT AREA: 2,190,000 M² GFA

40%

NOTE: these area and program analysis are indicative only and subject to further assessment and development. Areas and percentages expressed herein may be subject to further adjustment.



OUR PLACES

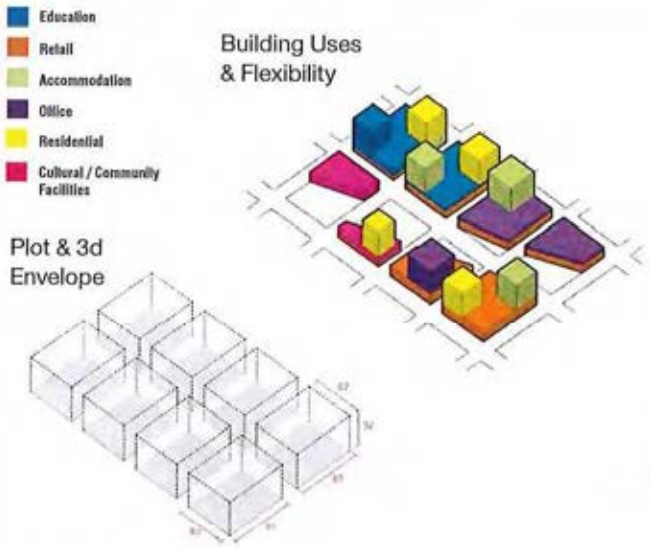
CENTRAL SPINE

Conceived as a new typology for urban retail the east west orientated Central Spine will support mixed use civic centre. Retail podiums will be fed by the primary transport interchange, with education, hotel, office and residential uses of the towers above.

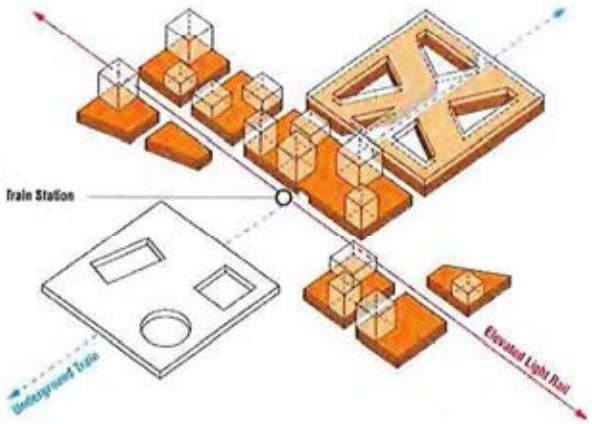
The Northern Gateway will be connected to airport and the Eastern and Central cities by regional transport infrastructure - underground rail. Connections to the Western Parkland City will be by secondary and tertiary transport modes such as elevated light rail.

A new typology of retail with a mix of diverse uses including and activated by residential, short-term accommodation and commercial opportunities within a mixed medium density living environment. Convention, cultural and community uses will populate and activate the spine.

Major health and education providers will form clusters of like minded economic agglomerations along the spine fostering innovation, attracting researchers and seeding new ideas.

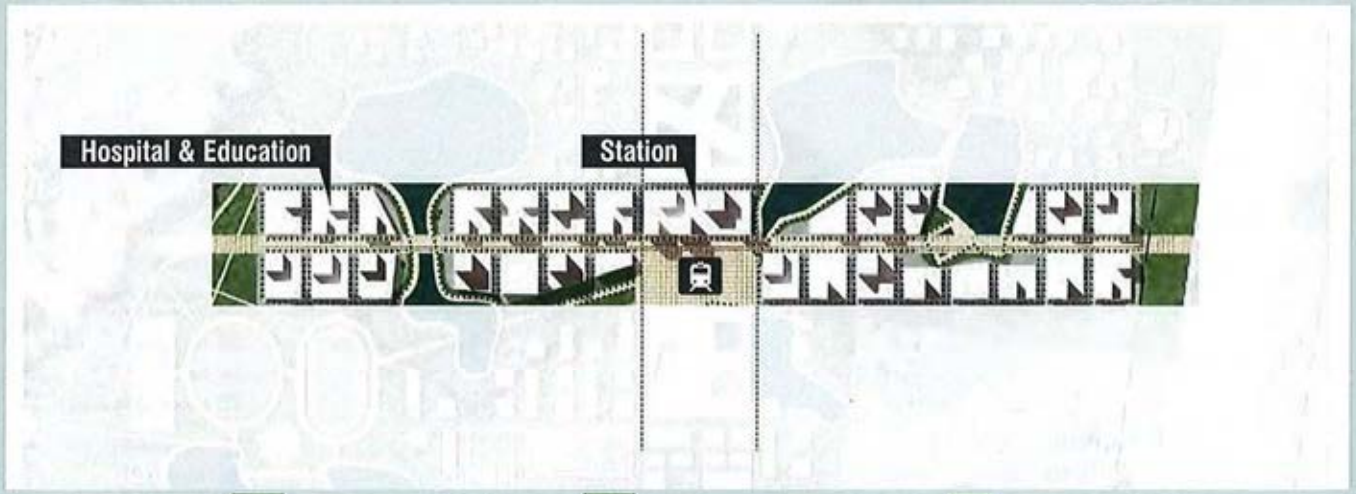


East-West Central Spine Typology



Ground floor Uses Above Train Station Area

ASHION


Hospital & Education
Station

FUTURE DEVELOPMENTS
HOUSE
OFFICE
HOTEL
OFFICE
HOTEL
HOUSE
OFFICE
HOTEL
HOUSE
OFFICE
HOUSE
HOUSE
OFFICE
RETAIL
RETAIL
RETAIL
RETAIL
ELEVATED RAILWAY
UNIVERSITY OF SYDNEY
UNDERGROUD TRAIN STATION
HIGHWAY

LOGISTICS AND HIGH TECH

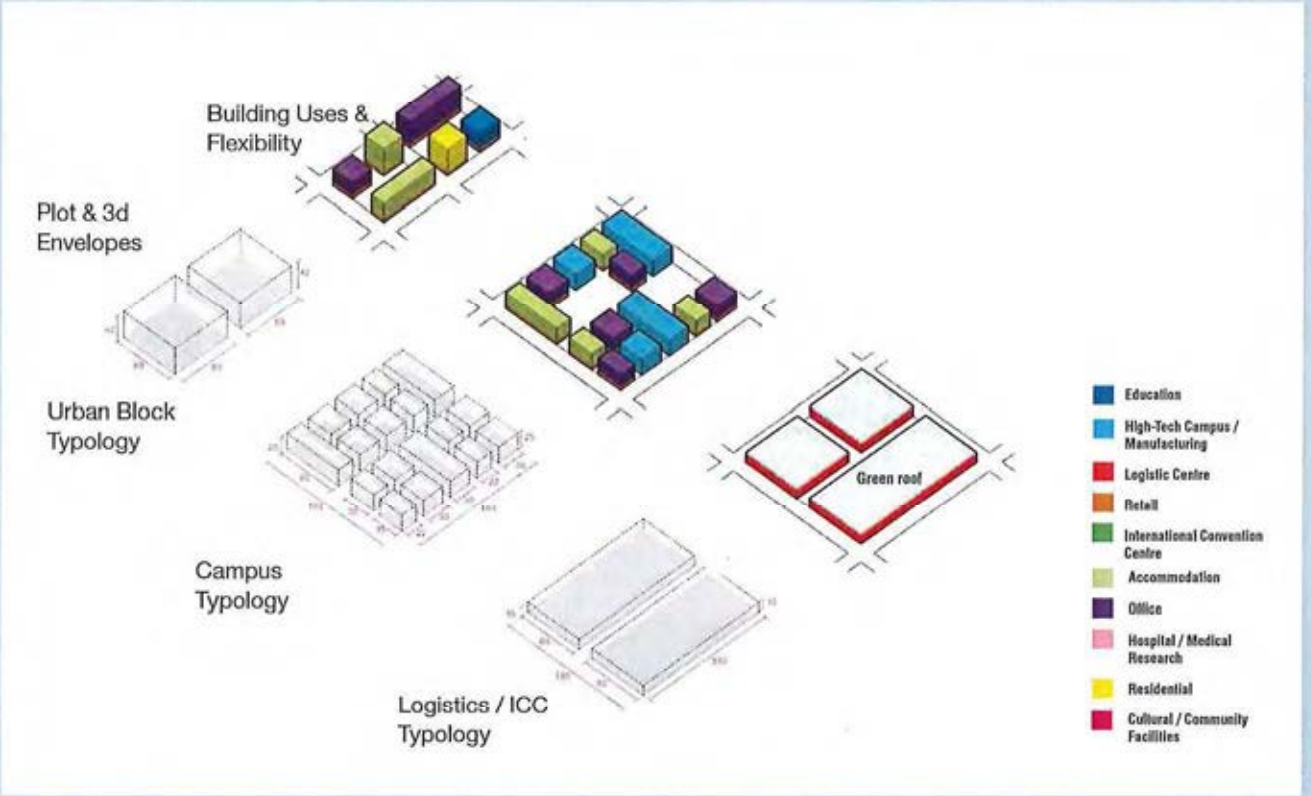
Located adjacent the airport under the noise contours, the Logistic Centre and High-tech Cluster makes a synergy with the airport and road network utilising the adjacency for convenience and efficient distribution of good and services.

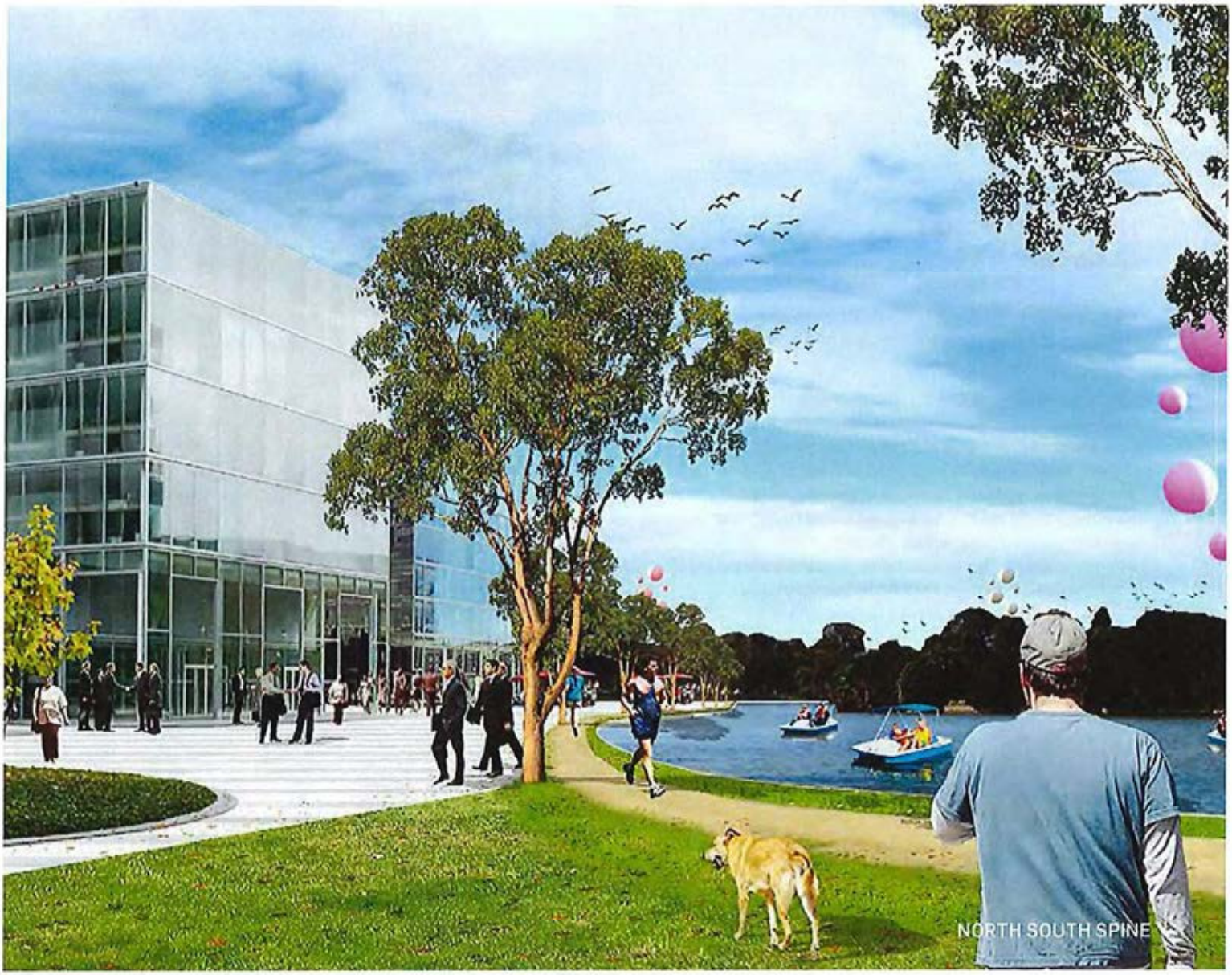
A mix of space types, small, medium large and extra-large, there will be a variety to suit the market demand and scale of business in campus and large box logistics typology. A service court will provide amenity and serviceability to the logistics hub, screened from view from the public ream. Automated and future technologies will enhance the movement of content.

Education, Research and High-tech manufacturing program, will associate the network of advanced future technologies across incubation and implementation to market.

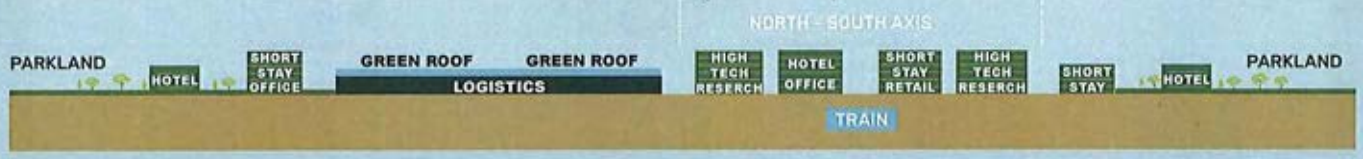
Adjacent uses will include Hotel, Retail uses, and Commercial Operations with focused support of the Logistics and High-tech Cluster.

A design for high traffic movement of large articulated vehicles a service road will be accessed and shared from the main public road, also providing servicing to a Convention Centre.




NORTH SOUTH SPINE

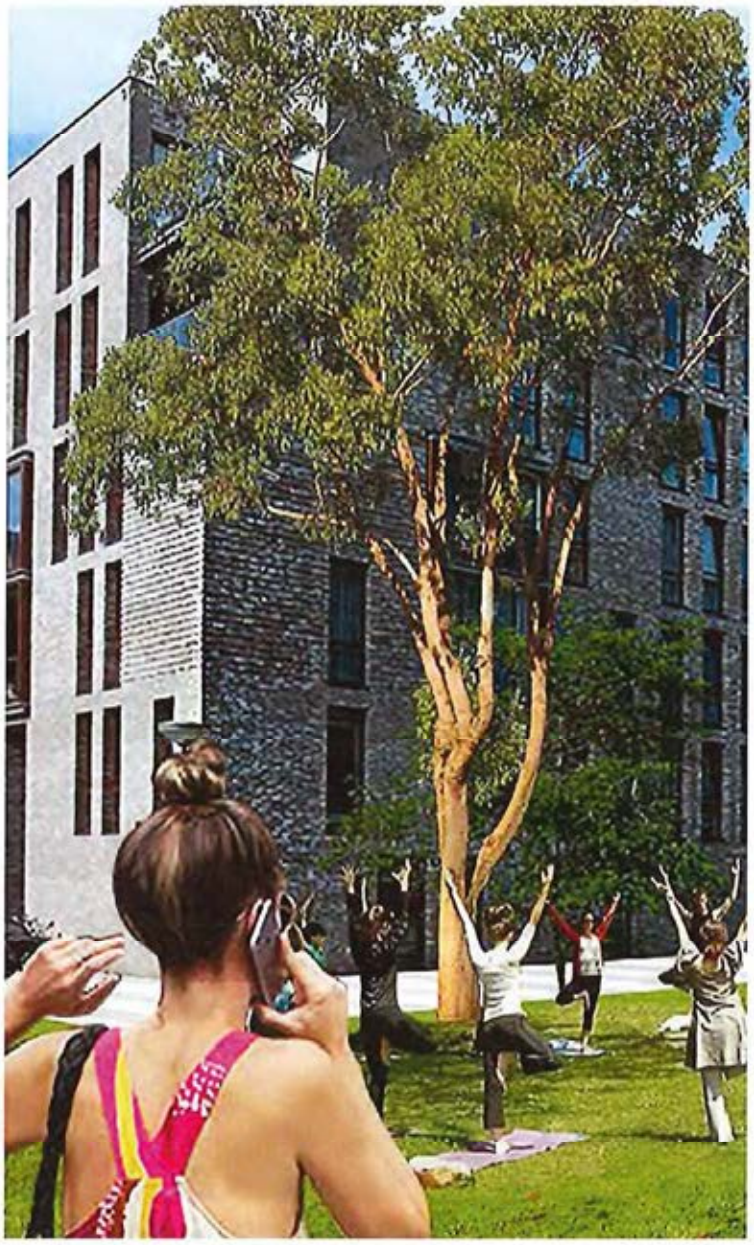
ICC
Logistic
High-Tech campus

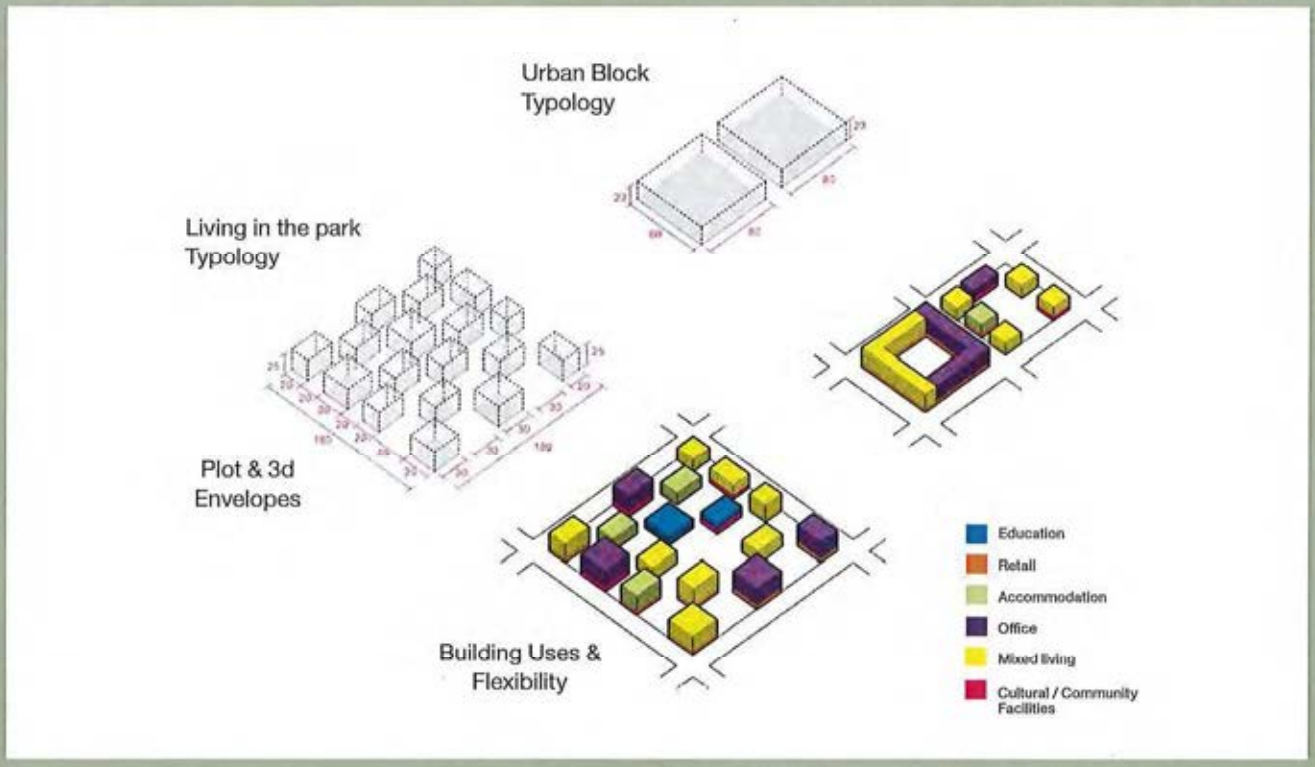

NORTH - SOUTH AXIS
PARKLAND
HOTEL
SHORT STAY OFFICE
GREEN ROOF
GREEN ROOF
LOGISTICS
HIGH TECH RESERCH
HOTEL OFFICE
SHORT STAY RETAIL
HIGH TECH RESERCH
SHORT STAY
HOTEL
PARKLAND
TRAIN

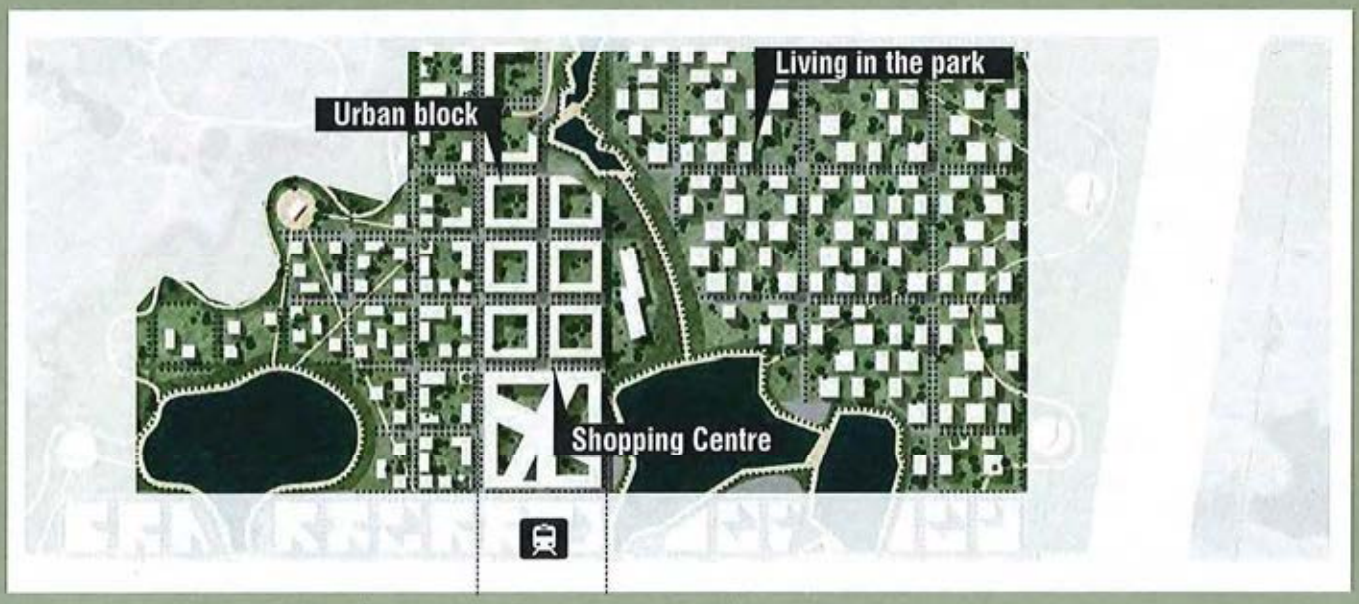
NEIGHBOURHOOD CLUSTER

The ability to live within 30 minutes of work or study is integral to the quality of life and healthy functioning cities.

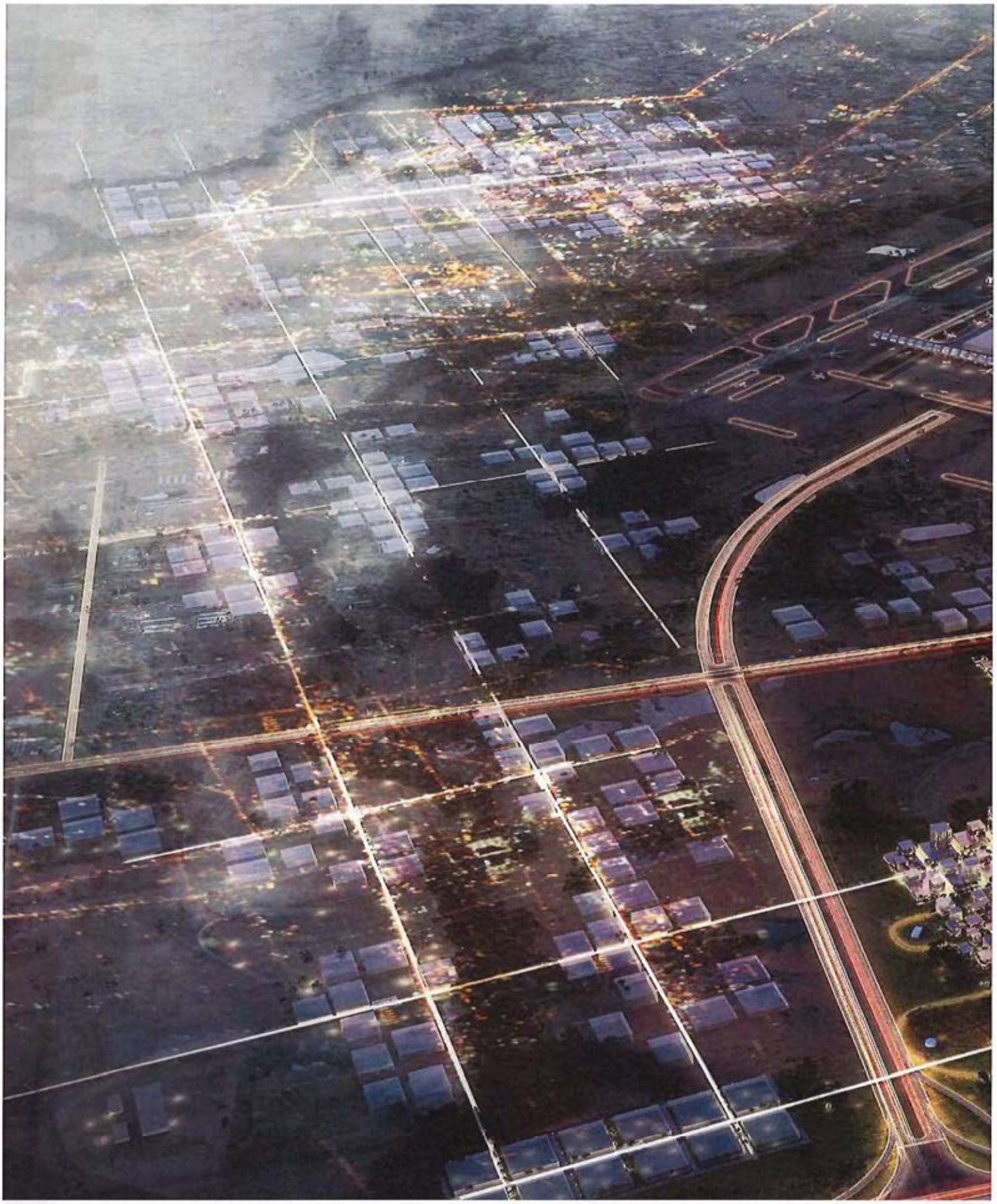
The Neighbourhood Cluster will offer well serviced residential tenancies set between parkland and city. Building typologies will target the missing middle, from terrace to mid-rise apartment block encouraging greater diversity and density. This neighbourhood will not be a singular use residential development, rather it will be integrated with education and commercial offerings, with shared public space, in close proximity to transport and the developments civic heart.

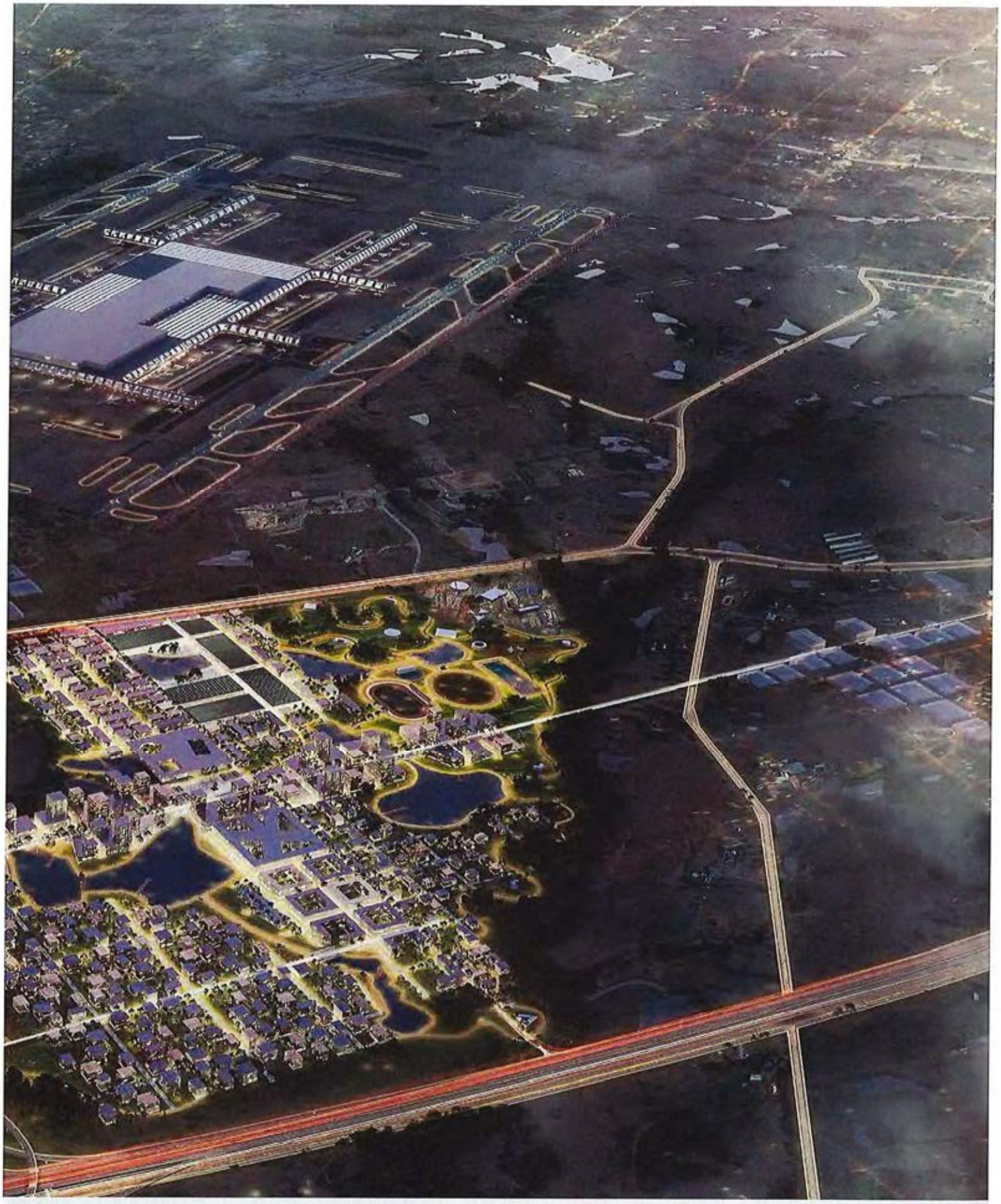





Living in the park
Urban block
Shopping Centre

NORTH SOUTH SPINE
LIVING IN THE PARK
PARKLAND
HOUSE
HOUSE
HOUSE RETAIL
HOUSE
OFFICE
HOTEL
HOUSE OFFICE
SHOPPING CENTRE
SHOPPING CENTRE
PUBLIC PARK
HOUSE CAFE
HOUSE
HOUSE OFFICE
HOUSE
HOUSE
TRAIN





BHL

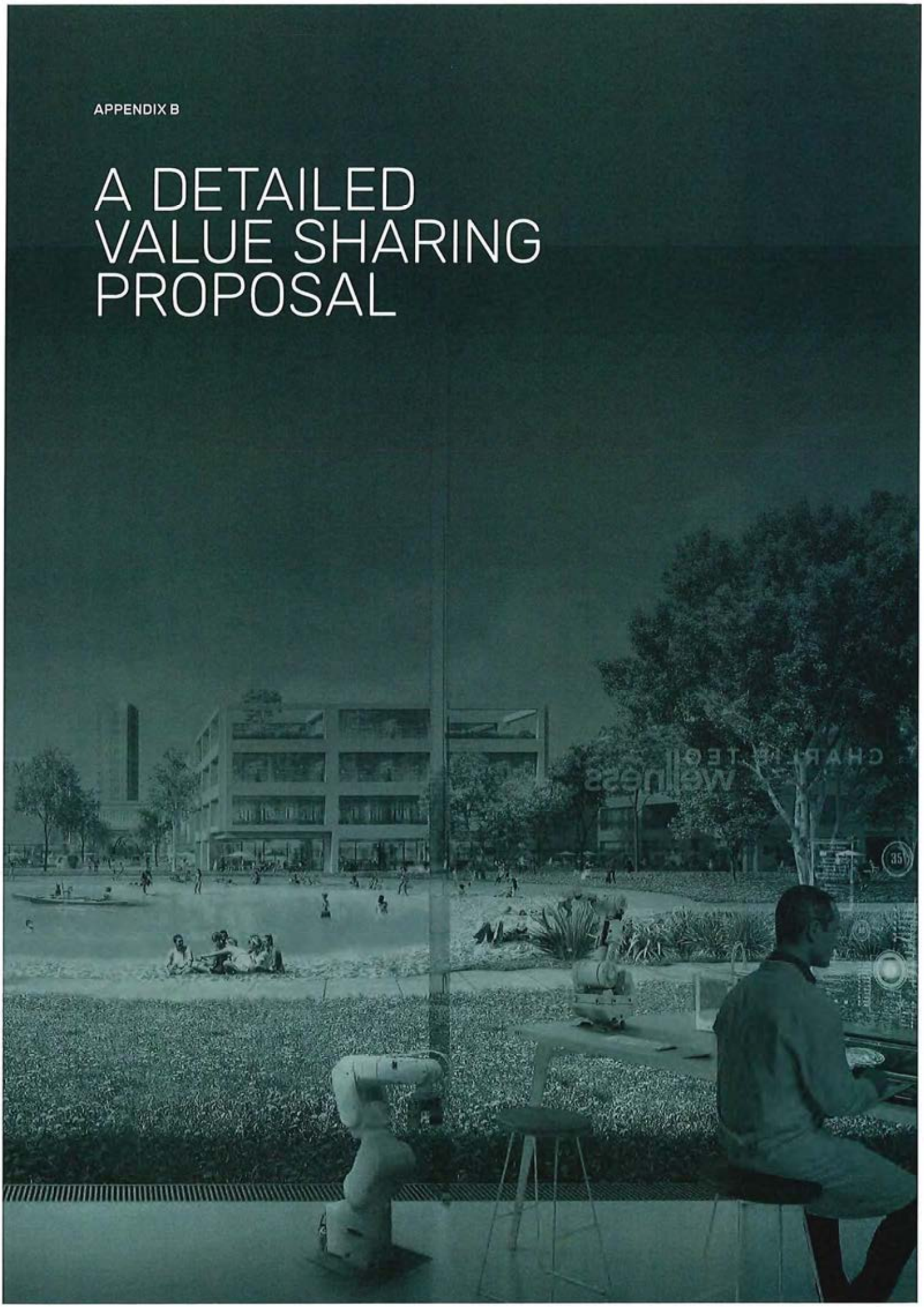
SCENTRE GROUP

Owner and Operator of Westfield in Australia and New Zealand

WESTERN SYDNEY UNIVERSITY

APPENDIX B

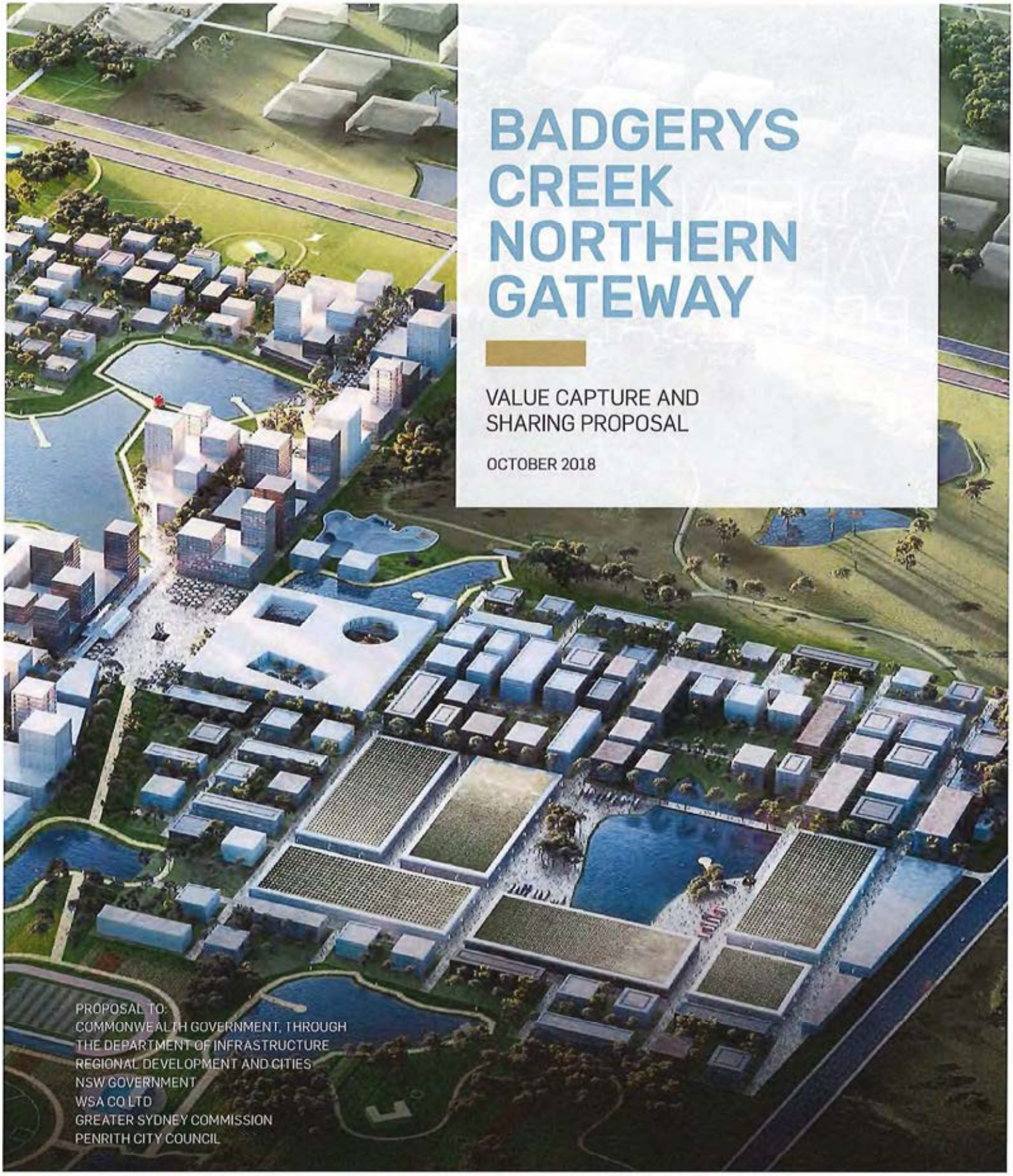
A DETAILED VALUE SHARING PROPOSAL



BADGERYS CREEK NORTHERN GATEWAY

VALUE CAPTURE AND SHARING PROPOSAL

OCTOBER 2018



PROPOSAL TO:
COMMONWEALTH GOVERNMENT, THROUGH THE DEPARTMENT OF INFRASTRUCTURE REGIONAL DEVELOPMENT AND CITIES
NSW GOVERNMENT
WSA CO LTD
GREATER SYDNEY COMMISSION
PENRITH CITY COUNCIL

THE NORTHERN GATEWAY PARTNERS

LOGOS

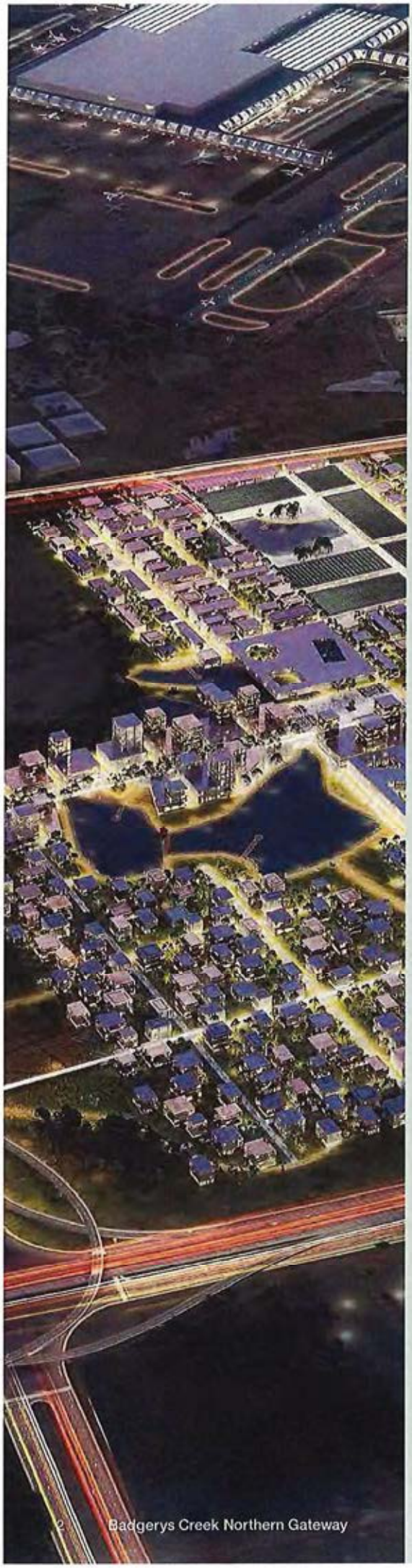
CHARLIE TEO WELLNESS CENTRE

WESTERN SYDNEY UNIVERSITY

SCENTRE GROUP

Owner and Operator of Westfield in Australia and New Zealand

BHL GROUP



INTRODUCTION

This proposal is submitted by Boyuan Holdings Ltd on behalf of the landowners and their foundation partners (the "Northern Gateway - Partners") in the Northern Gateway development next to Western Sydney Airport. It is the Northern Gateway- Partners' proposal for a value sharing arrangement which provides significant cost savings to the delivery of infrastructure associated with the Western Sydney Airport. Under this proposal, stakeholders capture and share value generated by this development in Badgerys Creek.

The proposal involves an offer by the Northern Gateway - Partners to:

- agree up front with the relevant acquisition authorities to nil compensation being payable in respect of the acquisition of land for the M12 and M9 motorways, and the North South Rail Link. The compensation for that land is estimated by the Northern Gateway - Partners' valuers to be in the order of $433 million; and
- pay the cost of constructing the structure for an underground railway station within the landholding; and
- provide certainty and permanent protection to Western Sydney Airport in respect of the impact of flight path noise on occupiers at the Northern Gateway development; and
- deliver a transport interchange on its landholding; and
- provide much needed affordable worker accommodation during the development of Western Sydney Airport and in the early stages of its operation.

This offer is made on the basis that all relevant government agencies agree:

- to relocate the M12 Motorway corridor further north (but still within the landholding) and the corridor width of the M9 and M12 alignments within the landholding is reduced to 100-150 metres;
- to relocate the North South Rail Link onto the landholding as an underground line including an underground station within the landholding in a location to be agreed with Northern Gateway - Partners;
- that the Northern Gateway development can achieve an additional gross floor area of 500,000m² above the proposed gross floor area of 2,450,000m²;
- that the process for rezoning and infrastructure delivery will be accelerated; and
- to fair and reasonable rates and taxes and offsets for the landholding.

Indicative BHL Masterplan
Source: OMA

DETAILS

The following is a detailed description of each element of this proposal.

1. WHAT LAND DOES THIS RELATE TO?

This proposal relates to the 344 hectare landholding at 1953-2109 Elizabeth Drive, Badgerys Creek, being developed by the Northern Gateway - Partners.

2. WHO ARE THE STAKEHOLDERS?

This proposal is offered to the following stakeholders:

- Commonwealth Government, through the Department of Infrastructure, Regional Development and Cities;
- NSW Government as the provider of infrastructure, including through the following authorities:
  - Roads and Maritime Services;
  - Transport for NSW;
  - Department of Planning and Environment;
  - Greater Sydney Commission; and
  - Department of Premier and Cabinet;
- WSA Co Ltd, the owner and operator of Western Sydney Airport; and
- Penrith City Council, as the relevant local government authority.

Under this proposal, stakeholders capture and share value generated by the development of the Northern Gateway - Partners' landholding in Badgerys Creek

The ability to have a station located in the core commercial and retail zone of its development will deliver an increase in amenity and value

3. WHAT ARE THE BENEFITS TO THE STAKEHOLDERS?

3.1 CERTAINTY REGARDING COMPENSATION

The Northern Gateway - Partners' valuer estimates that the compensation payable for the compulsory acquisition of land required for identified road and rail infrastructure is $433 million. Subject to the terms of this offer being agreed, Northern Gateway - Partners are prepared to agree to nil compensation, which reflects the benefit to the Northern Gateway development of agreeing the matters set out in this offer.

This agreement would deal with the compensation payable for the acquisition of land within the landholding for the following infrastructure:

- the proposed M12 alignment;
- the proposed M9 link road between M12 and Western Sydney Airport; and
- the proposed North South Rail Link.

To the extent that all benefits sought by the Northern Gateway - Partners cannot be achieved (e.g. less than 500,000m² of additional GFA is delivered), it is proposed that the amount of compensation be increased on a pro-rata basis. This will need the Northern Gateway - Partners and NSW Government to agree a base compensation amount by reference to which the increase will be applied.

3.2 PAYMENT FOR CERTAIN RAILWAY INFRASTRUCTURE

If the North South Rail Link is relocated on to the landholding as an underground line and an underground station located within the landholding in a location reasonably satisfactory to the Northern Gateway - Partners, then the Northern Gateway - Partners will undertake at their cost, to TfNSW standards, the construction of the railway station structure within the landholding and associated infrastructure required to provide the station to TfNSW as a cold shell, to the same scope and standard as under the current "overstation developments" proposed by TfNSW for the City and Southwest Metro project.

The Northern Gateway - Partners anticipate that the ability to have a station located in the core commercial and retail zone of its development will deliver an increase in amenity and value.

The Northern Gateway - Partners expect to be able to build over the underground rail alignment (including the underground railway station) where necessary and would retain airspace freehold title to do so. Northern Gateway - Partners would collaborate with TfNSW in the trench and rail alignment design to ensure building over is possible from an engineering perspective at a reasonable cost.

3.3 FLIGHT PATH PROTECTION

The Northern Gateway - Partners will agree for the benefit of all stakeholders (including WSA Co Ltd) to implement all necessary measures to protect WSA Co Ltd from adverse impact from development on the landholding in the vicinity of the Western Sydney Airport flight path, in keeping with other similar situations, such as the Tralee (South Jerrabomberra) development near Canberra Airport and the arrangements reached with the Carter Street, Homebush land release.

Protections would include:

- agreement to comply with Australian Standard AS2021-2015 Acoustics—Aircraft noise intrusion—Building siting and construction in respect of building location and construction;
- compliance with clause 7.18 of the Penrith LEP which comprehensively addresses the siting of buildings near Badgerys Creek to avoid noise impacts and ensures development does not hinder or have any other adverse impact on the development or operation of Western Sydney Airport;
- disclosure to each purchaser of land within the landholding of the operation of Western Sydney Airport and prohibition of any objection or action that might restrict future operations of Western Sydney Airport; and
- having Penrith City Council make similar disclosure in zoning certificates issued to purchasers of land within the landholding (which certificates are required to be attached to any sale contract).

3.4 TRANSPORT INTERCHANGE

The construction of an underground railway station on the landholding gives the Northern Gateway - Partners the opportunity to deliver a transport interchange on the landholding, including a bus terminal, providing access to the rail networks (and the nearby Western Sydney Airport one railway stop away) for travellers travelling by bus and other modes of transport.

The Northern Gateway - Partners will agree to deliver at the cost of Northern Gateway - Partners a transport interchange in collaboration with TfNSW and WSA Co Ltd.

3.5 AFFORDABLE WORKER ACCOMMODATION

The Northern Gateway - Partners' landholding provides a unique opportunity to provide affordable accommodation immediately adjacent to Western Sydney Airport for workers building Western Sydney Airport and for those working during the early years of operation of Western Sydney Airport.

This proposal has many benefits to the stakeholders, including:

- reduce travel times and associated environmental impacts for workers;
- enable the Federal Government to make good on its aim to provide its local employment target of 30% during construction and 50% during operation;
- reduce or eliminate impact on the local housing prices caused by a spike in demand for houses in what is at present a largely undeveloped area with little available accommodation to house workers;
- allow workers to live with their families rather than being separated during construction;
- ensure the cost to workers of living close to their workplace is affordable;
- improve the local economy; and
- early activation of the precinct.

The Northern Gateway - Partners propose to construct a town of high quality relocatable homes in areas of the landholding not expected to be immediately required for development. The accommodation would be a combination of family friendly houses and dormitory style accommodation with a mix designed to reflect the situation of workers working at Western Sydney Airport.

The Northern Gateway - Partners would retain ownership of these areas whilst used for worker accommodation and rent the accommodation to workers or contractors at affordable rents agreed with the stakeholders, but reflecting NSW Government's standards for "affordable housing".

The quantum, mix and duration of affordable home accommodation is to be agreed with the stakeholders in keeping with the above objectives.

4. WHAT BENEFITS DO THE NORTHERN GATEWAY - PARTNERS SEEK?

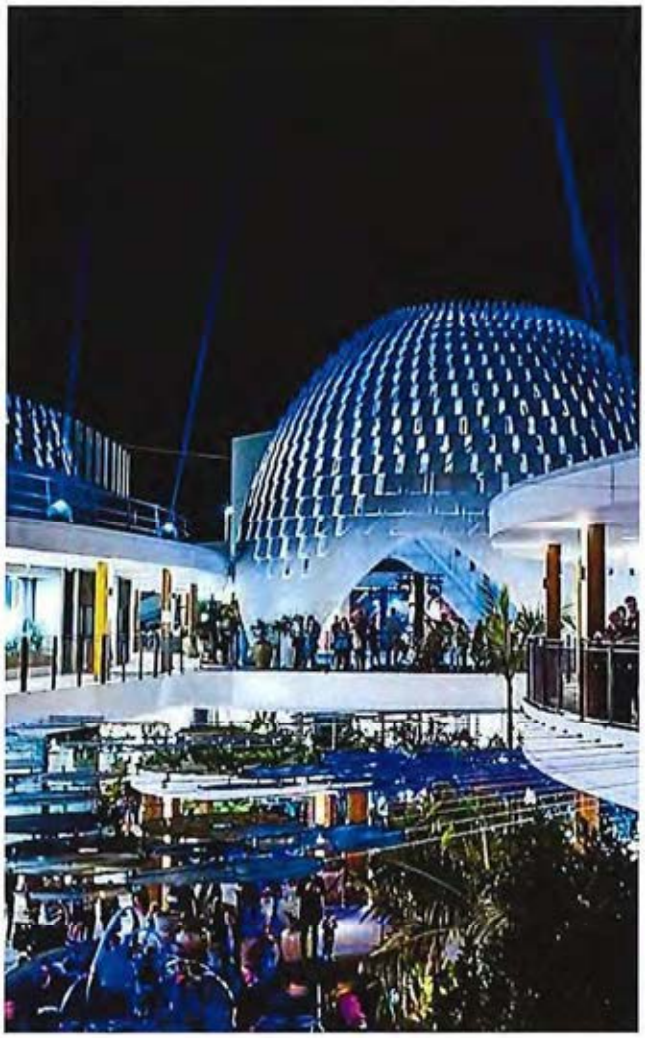
The Northern Gateway - Partners seek the following benefits in return for the significant benefits offered to stakeholders:

4.1 INCREASED GFA YIELD

The primary benefit sought by the Northern Gateway - Partners is extra gross floor area (GFA) within the zoning for the landholding.

To enable the Northern Gateway - Partners to absorb the cost of the benefits offered to the stakeholders as set out in this proposal, the Northern Gateway - Partners would need to achieve an additional 500,000m² of GFA above the proposed gross floor area of 2,450,000m².

The Northern Gateway - Partners note that the increased GFA has a benefit to stakeholders in that greater contributions to community infrastructure will be payable by the Northern Gateway - Partners on the increased development.



4.2 ACCELERATED REZONING AND PLANNING APPROVALS

A significant cost to the Northern Gateway - Partners is the cost of holding the land, and the deferred return on investment, during the planning process leading up to a rezoning and Stage 1 masterplan consent. Any acceleration of this process delivers significant cost savings to the Northern Gateway - Partners.

The Northern Gateway - Partners are seeking the following acceleration to the normal planning timetable:

- a rezoning gazettal within 12 months of acceptance of this proposal;
- a Stage 1 masterplan consent within 18 months of acceptance of this proposal; and
- final development consent to the construction of affordable worker accommodation concurrently with the Stage 1 masterplan consent.

These targets are 12 months before the Northern Gateway - Partners' current estimates for the program for these key planning consents.

In addition to the cost savings to the Northern Gateway - Partners, this acceleration is necessary for the Northern Gateway - Partners to make a meaningful contribution by way of affordable worker accommodation.

Delays in achieving these targets will be costed and be applied in a reduction of the compensation payable to the Northern Gateway - Partners. The Northern Gateway - Partners acknowledge this acceleration will involve stakeholders devoting additional resources to the planning assessment process. The Northern Gateway - Partners agree to reimburse the cost of these additional resources.

The Northern Gateway - Partners acknowledge that they have a key role to play in achieving acceleration of the approvals, including prompt preparation and lodgement of a high quality Stage 1 masterplan application. The Northern Gateway - Partners will take responsibility for any delays on their part.

4.3 ACCELERATED INFRASTRUCTURE DELIVERY

To enable the Northern Gateway - Partners to benefit from the accelerated planning proposals and deliver some of the benefits to stakeholders, particularly the affordable worker housing, the Northern Gateway - Partners need infrastructure for the development of the landholding to be delivered quickly. The Northern Gateway - Partners seek the commitment of the stakeholders to delivering key infrastructure in a timely manner so as not to lose the benefits of an accelerated planning process.

The Northern Gateway - Partners propose to fund the accelerated infrastructure delivery in partnership with the stakeholders, if possible, with financial assistance from the National Housing Infrastructure Facility announced by the Federal Government in the 2017-18 budget. This funding is not a condition of this proposal, and must be independently assessed by the National Housing Finance and Investment Corporation. The Northern Gateway - Partners seek collaboration and support from the stakeholders to secure this funding.

4.4 RELOCATION OF THE M12 MOTORWAY CORRIDOR

The Northern Gateway - Partners seek stakeholders' agreement to relocate the M12 further north (but still within the landholding) and confirmation of the reduced corridor to a width of 100-150 metres, as detailed in the Northern Gateway - Partners' planning proposal. Northern Gateway - Partners estimate that relocating the M12 to its preferred alignment would result in a cost saving of approximately $60 million in construction. Northern Gateway - Partners are seeking a workshop meeting with Transport for NSW and, Roads and Maritime to understand the government's objectives.

4.5 RELOCATION OF THE NORTH SOUTH RAIL LINK ONTO THE LANDHOLDING INCLUDING AN UNDERGROUND STATION WITHIN THE LANDHOLDING

The Northern Gateway - Partners seek stakeholders' agreement to relocate the North South Rail Link onto the landholding as an underground railway line including an underground station within the landholding, as detailed in the Northern Gateway - Partners' planning proposal.

4.6 FAIR AND REASONABLE RATES AND TAXES AND OFFSETS FOR THE LANDHOLDING

As rural zoned land, the landholding is largely exempt from rates and taxes. This arrangement will continue until the land is rezoned.

The Northern Gateway - Partners seek agreement to the following arrangements which they believe are fair and reasonable in the context of the benefits offered to stakeholders and the impact on Penrith City Council and NSW Government's current rates and taxes collections from the landholding:

- no change to the current rates and taxes levels until the Northern Gateway - Partners' Stage 1 master plan development consent is obtained for the landholding (as distinct from when a rezoning is achieved);
- no rates or taxes on land being used for affordable worker accommodation (except service charges like annual domestic waste management charges); and
- no rates and taxes on land identified for compulsory acquisition but not yet compulsorily acquired.

The Northern Gateway - Partners do not believe this request represents any concession to the Northern Gateway - Partners, but gives certainty to issues around property taxation without cost to stakeholders and does not penalise the Northern Gateway - Partners for the acceleration that might be achieved in the planning process.

The Northern Gateway - Partners also note that, as a part of the proposal, the Northern Gateway - Partners will provide various benefits such as:

- infrastructure which would ordinarily be treated as offset works against Special Infrastructure Contributions applicable to the development; and
- affordable housing which may be treated as an offset against the contributions payable by the Northern Gateway - Partners.

The Northern Gateway - Partners are to be entitled to the full benefit of offsets and credits which would ordinarily apply to developments within Penrith LGA and the Northern Gateway - Partners do not waive offsets or credits to which they are entitled as a part of this proposal.

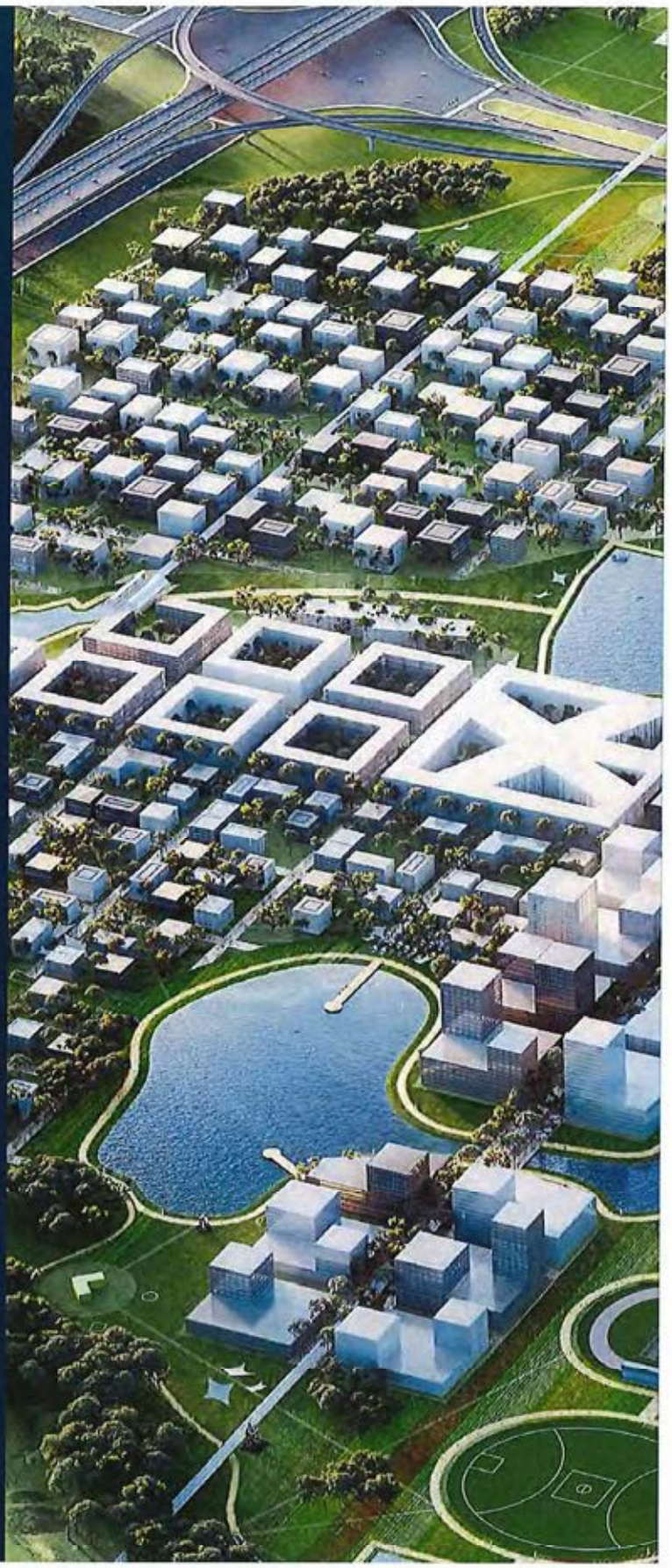
5. IMPLEMENTING THIS PROPOSAL

Implementation of this proposal, if agreed, will involve many documents and processes. The Northern Gateway - Partners note that there are many stakeholders involved, each of who receives different benefits and delivers different benefits to the Northern Gateway - Partners. The Northern Gateway - Partners have taken a whole of government approach to the benefits they offer and the benefits they seek to receive and encourage stakeholders to take a similar whole of government approach.

The Northern Gateway - Partners propose that the agreed proposal be documented by a binding Value Capture and Sharing Agreement between the Northern Gateway - Partners and all stakeholders which sets out in full detail the exact proposal. That Value Capture and Sharing Agreement is likely to require extensive additional documentation to be entered into to implement various aspects of the proposal, ranging from disclosures of aircraft noise impact, through agreements relating to compensation for compulsory acquisitions to leases of worker accommodation. These detailed documents will then be negotiated and provided as a subsequent task after execution of the Value Capture and Sharing Agreement.

The Northern Gateway - Partners propose that the Value Capture and Sharing Agreement be a voluntary planning agreement under the *Environmental Planning and Assessment Act 1979*, notwithstanding that some stakeholder parties are not NSW State authorities that can benefit from the regime in the *Environmental Planning and Assessment Act 1979*. However, the agreement can still be fully enforceable by those stakeholders. The Northern Gateway - Partners believe the process for exhibition, public consultation, approval and registration against the title to the landholding of a voluntary planning agreement is a fair, transparent and appropriate process for implementing this proposal. The voluntary planning agreement would incorporate within its terms an agreement regarding the compensation for compulsory acquisition for the purposes of section 30 of the *Land Acquisition (Just Terms Compensation) Act 1991*.

The Northern Gateway - Partners acknowledge that a voluntary planning agreement or agreements covering more normal planning matters and providing for "satisfactory arrangements" in connection with the rezoning of the landholding is likely to be required. This proposal does not replace those normal arrangements.



LOGOS

CHARLIE TEO WELLNESS CENTRE

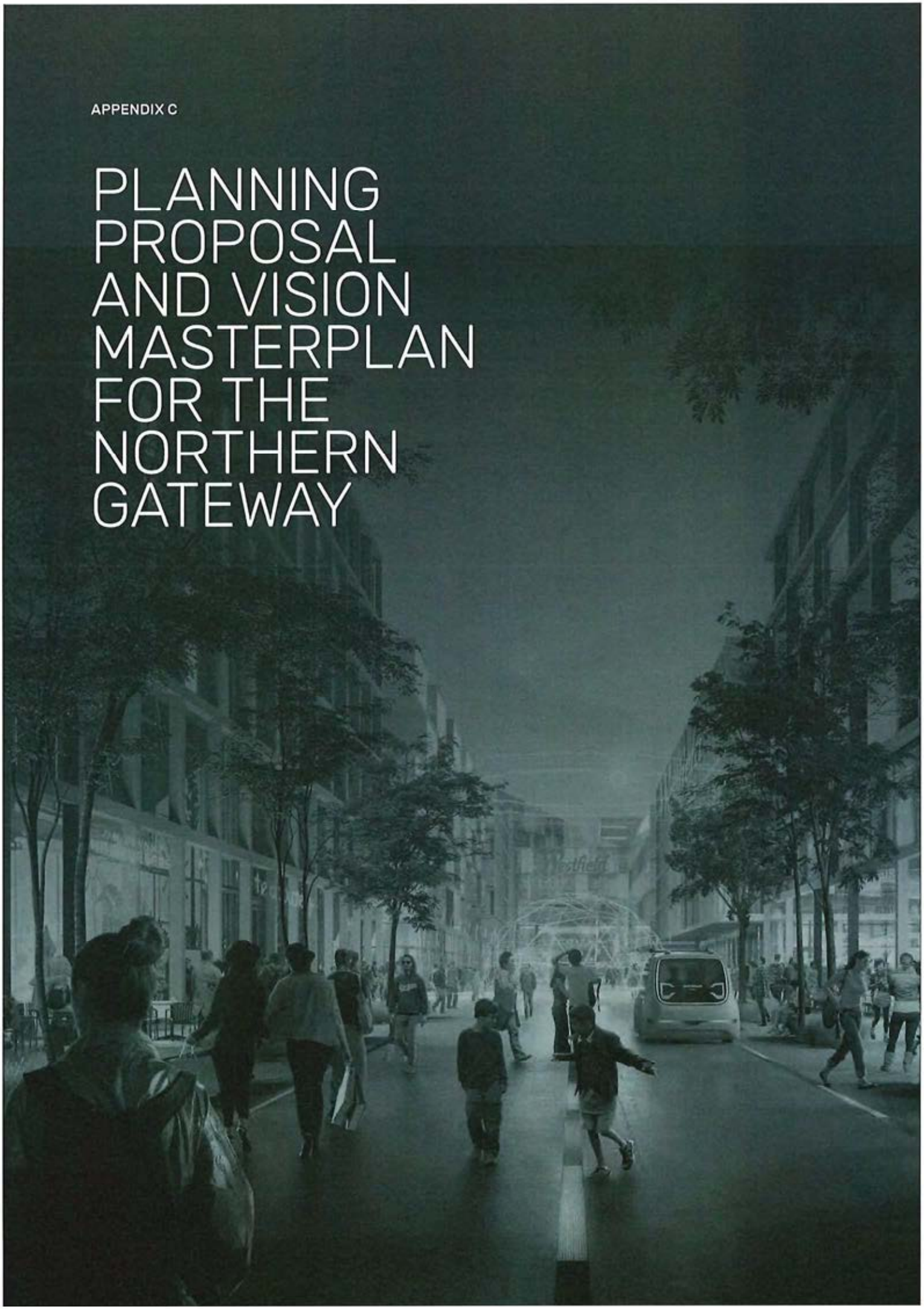
WESTERN SYDNEY UNIVERSITY

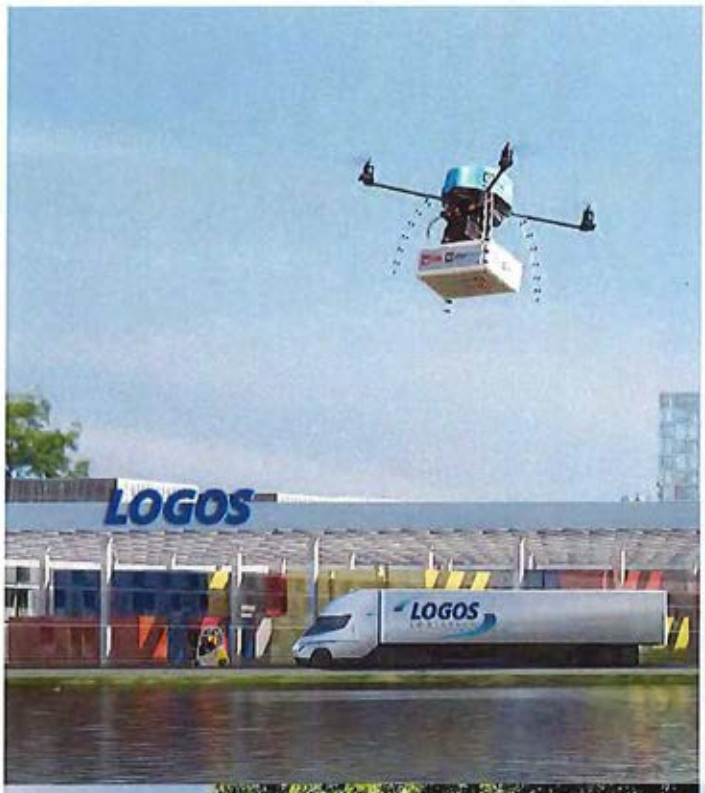
SCENTRE GROUP

BHL GROUP

APPENDIX C

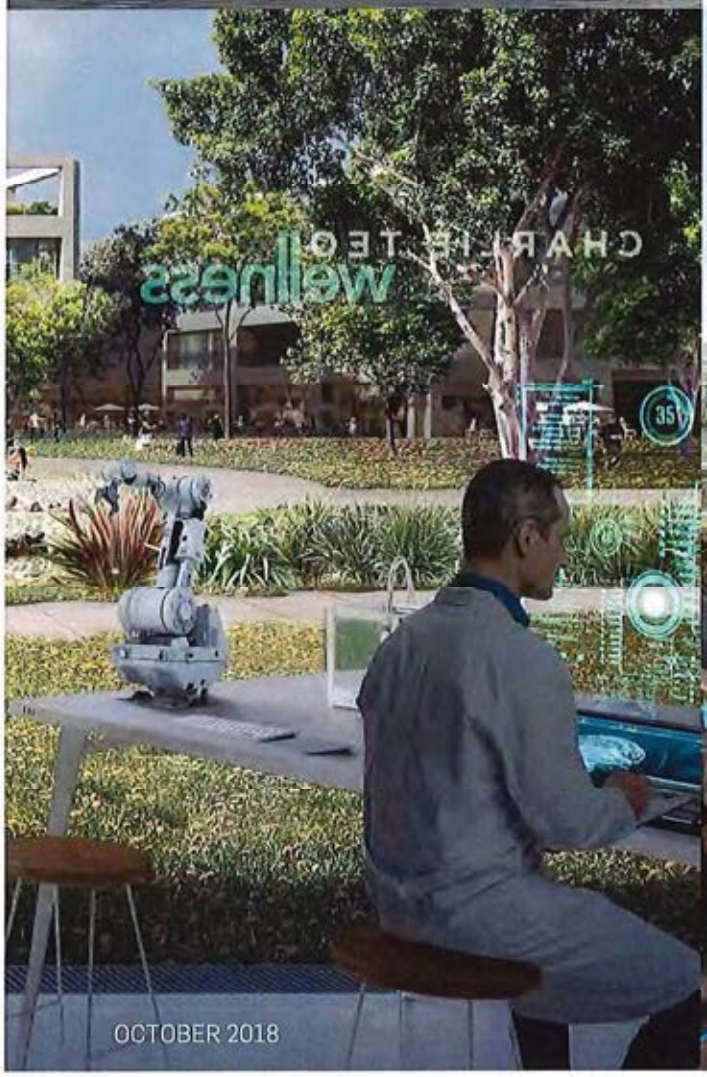
PLANNING PROPOSAL AND VISION MASTERPLAN FOR THE NORTHERN GATEWAY





THE NORTHERN GATEWAY
A PATH TO A PROSPEROUS, SMART AND RESILIENT WESTERN SYDNEY

ECONOMIC REPORT



OCTOBER 2018

THE NORTHERN GATEWAY PARTNERS

LOGOS

CHARLIE TEO WELLNESS CENTRE

WESTERN SYDNEY UNIVERSITY

SCENTRE GROUP

BHL GROUP

TOP 10 REASONS WHY WESTERN SYDNEY NEEDS THE NORTHERN GATEWAY

The purpose of this report is to outline the economic justification for the Northern Gateway Planning Proposal.

The report analyses the key drivers of demand for the proposal, identifies the various land uses and amenities needed to meet emerging demand and create a 24/7 city, and details the significant contribution that the Northern Gateway will make to the economic development of Western Sydney.

The Northern Gateway master plan will deliver the space needed to accommodate the jobs that Sydney and the broader region needs going forward.

1

CREATE OVER 55,000 DIRECT FULL-TIME EQUIAVLENT JOBS IN WESTERN SYDNEY

The Northern Gateway will deliver 55,000 FTE jobs across a broad range of high-value sectors.

2

GENERATE 28,000 INDIRECT FULL-TIME EQUIAVLENT JOBS ACROSS THE LOCAL REGION AND STATE

The Northern Gateway will generate a further 28,000 FTE jobs across the local region and State through multiplier effects.

3

ESTABLISH A HUB FOR HEALTH AND MEDICAL RESEARCH

The Northern Gateway will deliver a world-class health precinct in the Western City based around a new hospital, dedicated medical research and innovation facilities, and the Charlie Teo Wellness Centre.

4

ENHANCE SYDNEY'S EDUCATION OFFER IN AN INCREASINGLY COMPETITIVE MARKET

The significant education services and student accommodation offer in the Northern Gateway development will help Sydney maintain its competitive position in the face of increasing education-services competition from other cities across the Asia-Pacific region.

5

CAPTURE A HEALTHY SHARE OF THE GROWING ASIAN VISITOR MARKET

The Northern Gateway's proposed short term accommodation facilities and International Convention Centre will ensure Western Sydney is well-positioned to capture a share of the growing affluent Asian tourist market.

6

STRENGTHEN SYDNEY'S GLOBAL COMPETITIVENESS

The Northern Gateway proposal will 'futureproof' Sydney by delivering strong outcomes in areas in which Australian cities currently underperform.

7

BOOST ECONOMIC GROWTH BY SUPPORTING THE DEVELOPMENT OF EXPORT-FOCUSED INDUSTRIES

Cities with export-focused industries grow faster than those without. The Northern Gateway will provide facilities and amenity to attract these high-growth industries.

8

PROVIDE MODERN SPACES TO ATTRACT THE SKILLED AND CREATIVE JOBS OF THE FUTURE

"Good jobs don't go to bad places"

9

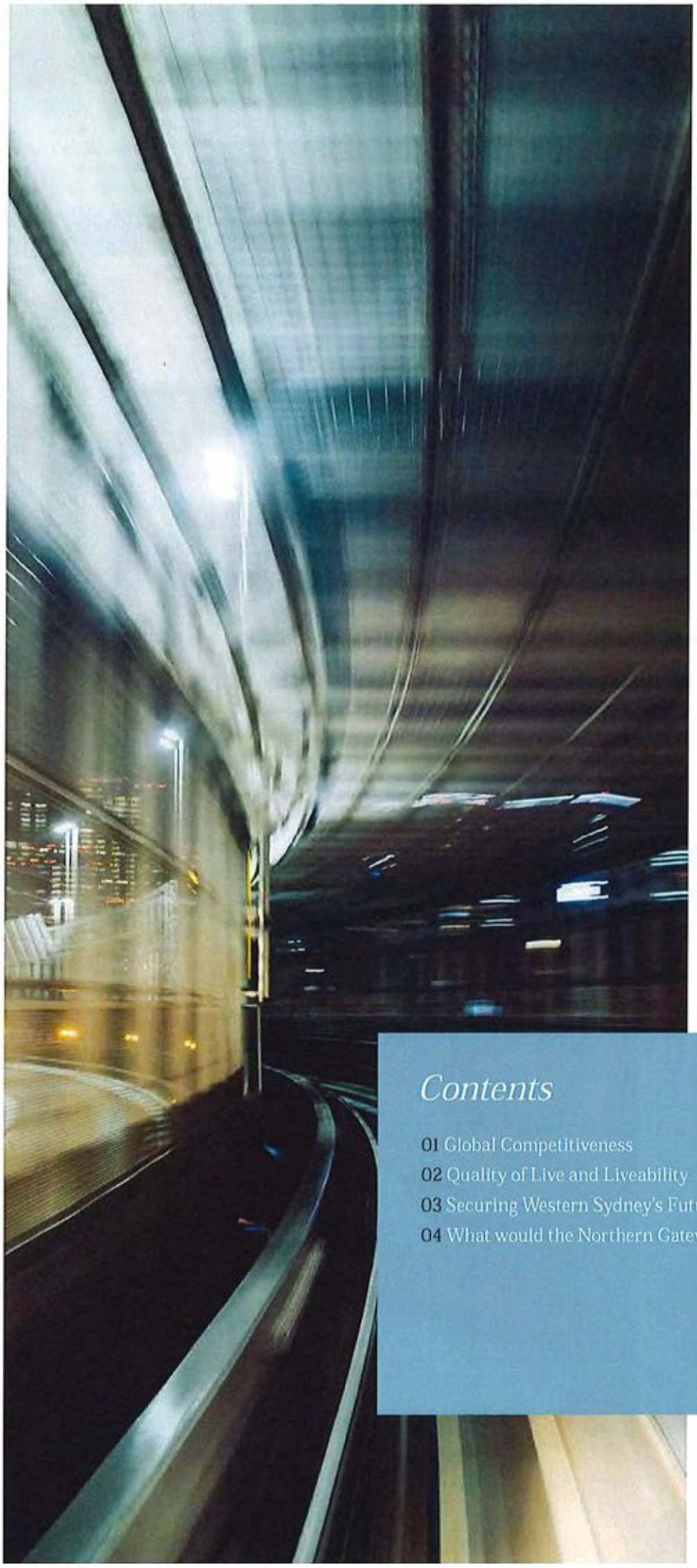
CATALYSE THE DEVELOPMENT OF SYDNEY'S THIRD CITY

The Northern Gateway's large scale and mix of synergistic land uses will provide the critical mass and diversity needed to spark the development of the Western Sydney City.

10

FACILITATE ACHIEVEMENT OF A 30-MINUTE CITY

By 2051, the jobs based at the Northern Gateway will be accessible to over 2.75 million residents within 30 minutes.



Urbis staff responsible for this report

Director	Princess Ventura
Senior Consultant	Sean Brosnan
Research Analyst	Geri Marks

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BHL'S PROPOSED MASTER PLAN

EDUCATION

200,000 SQ.M

HIGH-TECH BUSINESS / MANUFACTURING

400,000 SQ.M

LOGISTICS

400,000 SQ.M

RETAIL

250,000 SQ.M

CONVENTION SPACE

30,000 SQ.M

OFFICES

500,000 SQ.M

HOSPITAL / MEDICAL RESEARCH

140,000 SQ.M

CULTURAL AND COMMUNITY FACILITIES

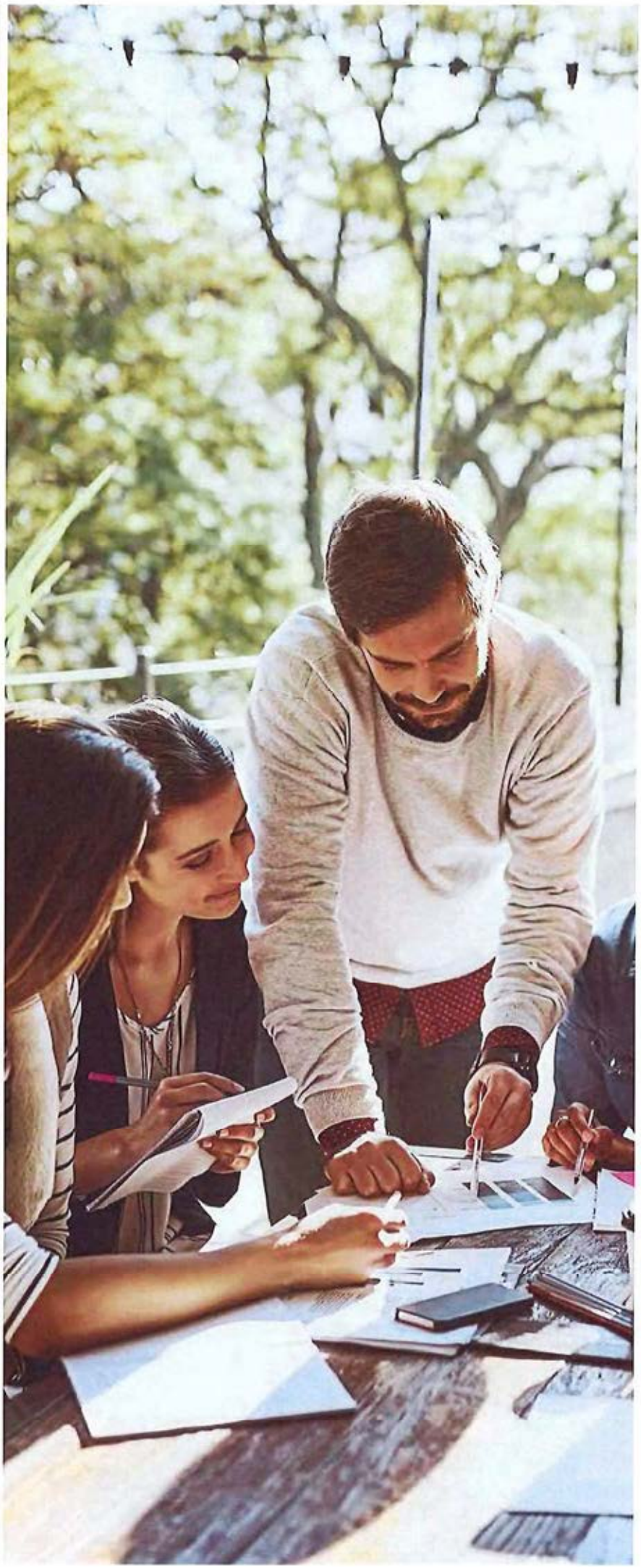
80,000 SQ.M

SHORT TERM ACCOMMODATION

200,000 SQ.M

RESIDENTIAL AND STUDENT ACCOMMODATION

250,000 SQ.M



The Northern Gateway will become a successful integrated community development by following these design principles:

FISCALLY RESILIENT

- Promote a synergy of collaborative developments
- Explore optimal development models as economically concentrated districts with intensively and compactly developed multi-clusters

INNOVATIVE BUILDING TYPOLOGIES

- Develop innovative building typologies that support mixed use, transparent, multimodal environments

GOVERNANCE AND STEWARDSHIP

- Establish Governance and Stewardship for ongoing engagement and collaboration on master plan development and implementation

A HEALTHY COMMUNITY

- Promote quality of life through efficient connections, proximity to public open space and excellent amenity and facilities
- Provide networks of culture and community to promote social wellbeing, community engagement and personal

INTEGRATED GARDEN CITY

- Make use of existing and natural water and landscape conditions to amplify and enrich the quality of environment and life
- Create a new parkland destination for Sydney

ACTIVE AND PERMEABLE GROUND PLANE

- Ensure permeability to allow connection to context
- Activate the public realm
- Mix soft and hard infrastructure with public activation to give spatial identity and character

PEDESTRIAN PRIORITISED HARD INFRASTRUCTURE

- Create a pedestrian prioritised public realm with efficient and integrated transportation
- Regional scale network
- Create a collaborative city that interconnects the growing, economically concentrated districts at a local, regional and global scale

ORGANICALLY CONNECTED AND EASILY ACCESSIBLE

- Develop a coordinated place where working, living, leisure, transportation and civic amenity are connected and easily accessible

A SMART HUB

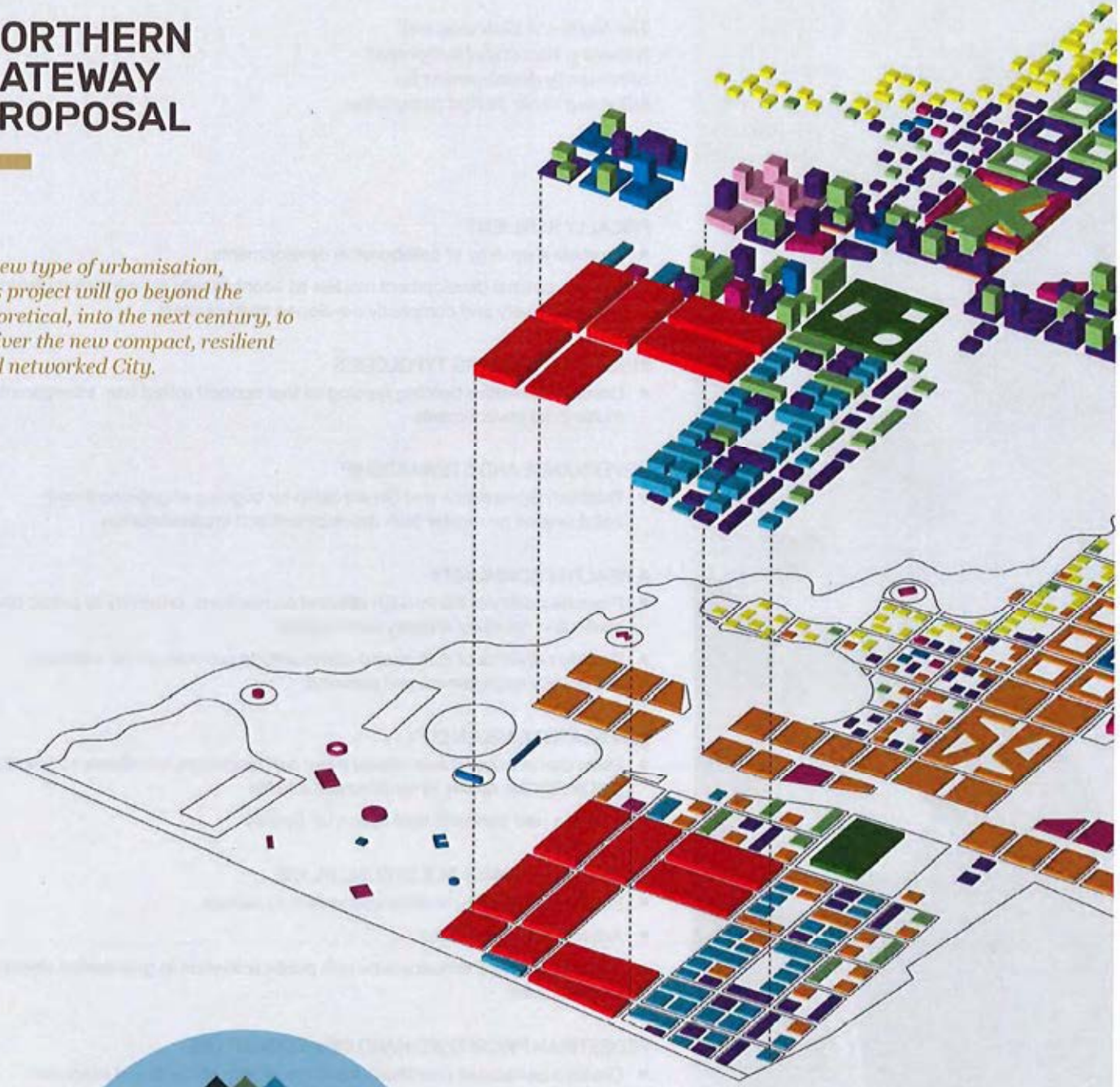
- Establish a smart precinct that embraces new technologies to improve convenience and simplicity, connectivity and engagement

ADVANCED ENERGY NETWORKS

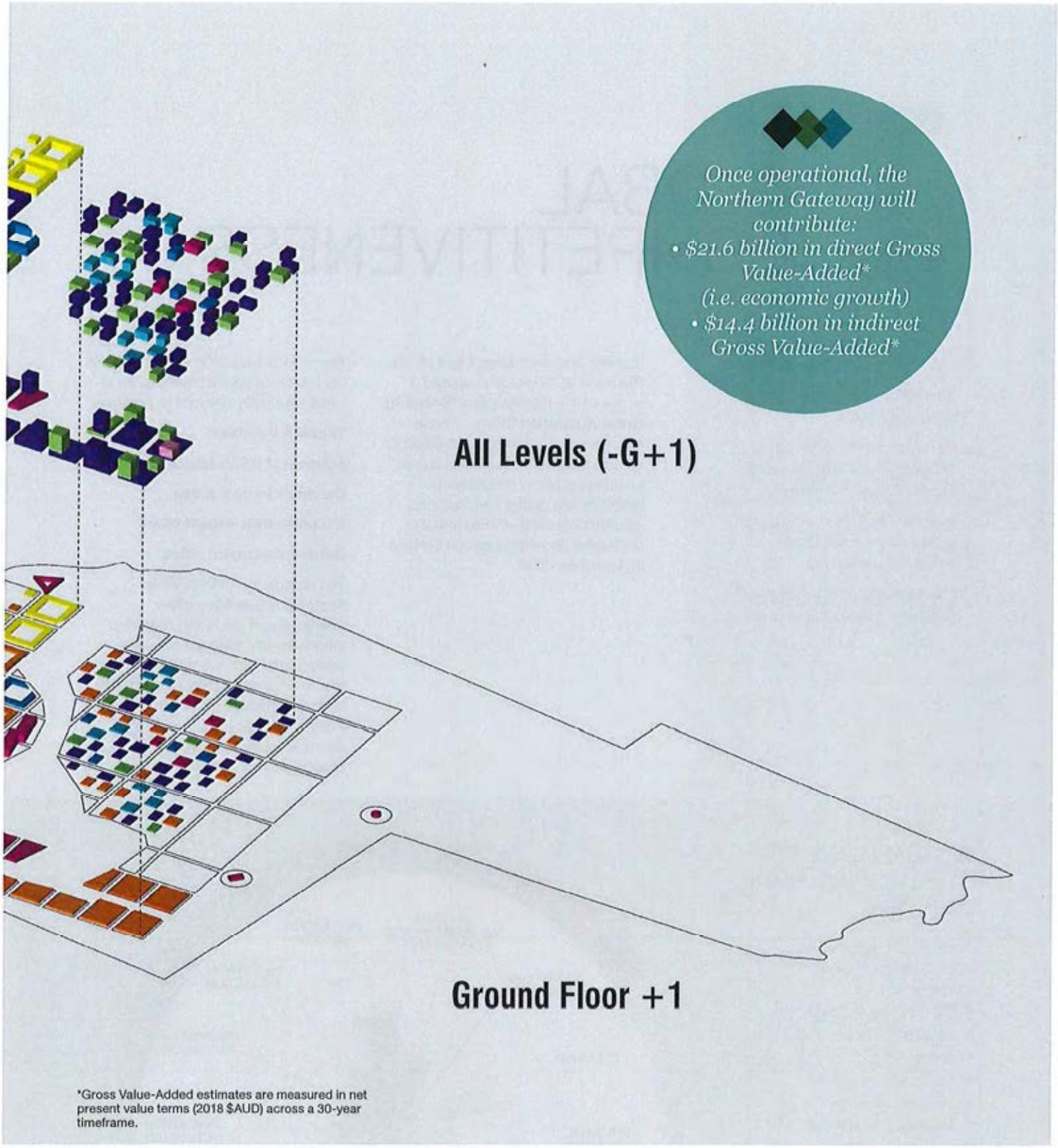
- Advanced energy-saving technologies should be applied to build a green city, a sponge city, a smart city

NORTHERN GATEWAY PROPOSAL

A new type of urbanisation, this project will go beyond the theoretical, into the next century, to deliver the new compact, resilient and networked City.



The co-locating of uses creates synergies, promotes 24/7 activation and further encourages opportunities for people to connect.



Residential and Student Accommodation

High-Tech Business

ICC, Hotel, Hostel and Serviced Apartments

Retail

Office

Logistics

Education and Medical

Culture and Community Facilities

Infrastructure

Programmed Landscape

1 GLOBAL COMPETITIVENESS

The Northern Gateway will:

- *Strengthen Sydney's global competitiveness*
- *Boost economic growth by supporting development of export-focused industries*
- *Enhance Sydney's education offer in an increasingly competitive market*
- *Capture a healthy share of the growing Asian visitor market.*

In 2018, Professor Greg Clark of The Business of Cities Ltd prepared a series of five reports titled **"Creating Great Australian Cities"**. These reports examined what is required to create great Australian cities based on analysis of city megatrends, research into global benchmarks, international case studies and the distinctive underlying issues present in Australian cities.

The reports benchmarked Australia's big five cities against five groups of cities especially relevant to Australia:

'Smart Asia' cities

Southwest USA's leading cities

Canada's largest cities

Scandinavia's largest cities

Germany's largest cities

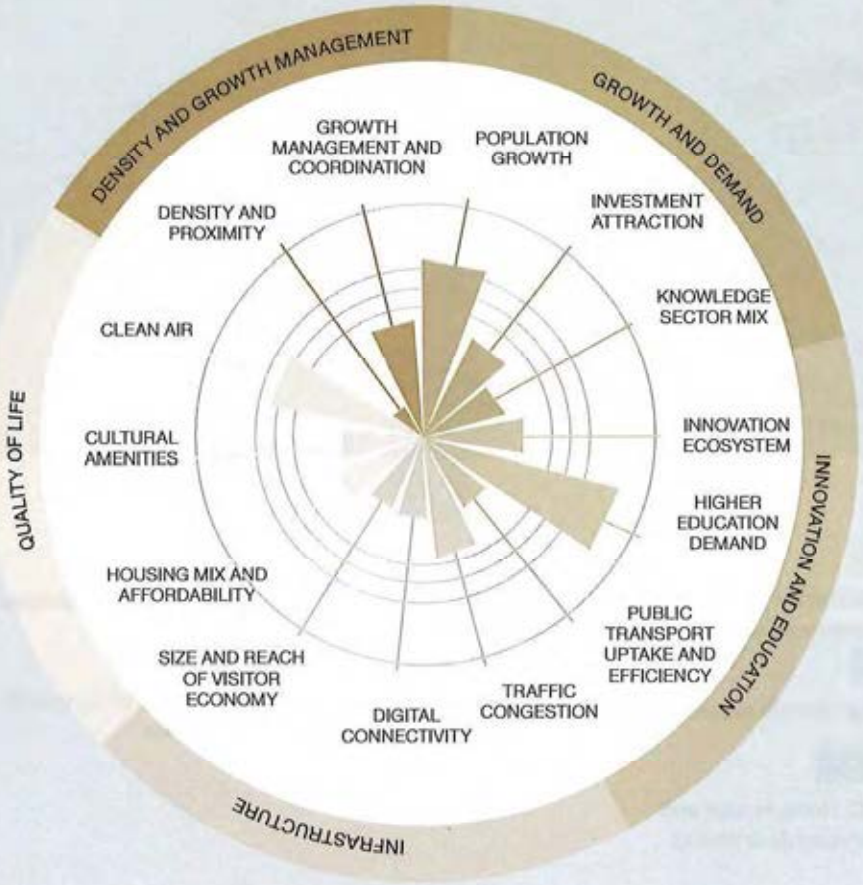
The reports found that, while Australian cities have many strengths and are highly regarded internationally, they are not well equipped to face the remainder of this 'metropolitan century'. Like the most competitive cities in the world, Australia needs to pursue a high amenity, multi-polar model that hosts high value jobs and businesses.

AUSTRALIA'S BIG FIVE CITIES VS BENCHMARK COUNTRIES

Compared to benchmark cities, Australian cities underperform in:

- Density and Proximity
- Knowledge Sector Mix
- Transport
- Digital Connectivity
- Visitor Economy
- Housing Affordability
- Cultural Amenities

The Northern Gateway proposal specifically addresses these weaknesses to deliver a better outcome for Western Sydney and the city as a whole.



Source: Creating Great Australian Cities, Property Council of Australia

WESTERN CITY SNAPSHOT

As part of the Greater Sydney Region Plan, a new Western City is being established around the future Western Sydney Airport.

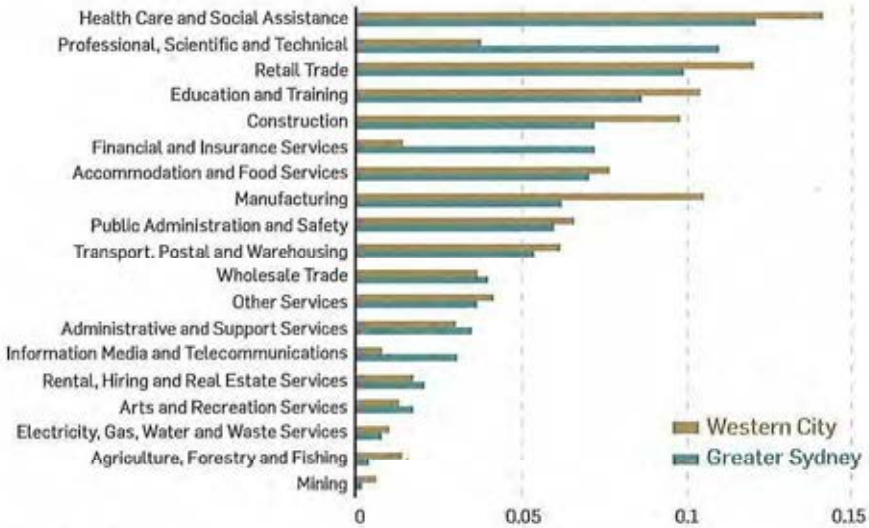
Once a dormitory district, the Western City is now developing into a key local employment centre. However, this evolution is only just beginning. As of the 2016 Census, approximately 23% of Greater Sydney's population live in the Western City. Yet it accounts for only 15% of Greater Sydney's jobs. The Western City is also underperforming in tourism and tertiary education; attracting only 15% of Greater Sydney's tourists and, and housing only 17% of Greater Sydney's tertiary student population.

While the Western City's job and tourism growth is now exceeding the Greater Sydney average, student growth is still lagging. The Northern Gateway's proposed provision of substantial education, accommodation, conferencing, and employment uses will help to drive growth in the Western City's education sector while also supporting continued job and tourism growth in Western Sydney.

	2016		
Total	Western City	Greater Sydney Total	Western City Share of Greater Sydney
Employment (jobs)	319,800	2,104,550	15%
Population (persons)	1,056,120	4,688,255	23%
Students	63,710	370,270	17%
Tourists	2,031,020	13,729,690	15%

	2011 - 2016		
Annual Growth (%)	Western City	Greater Sydney Total	Variation
Employment (% p.a.)	4.2%	3.8%	+0.4%
Population (% p.a.)	1.8%	1.8%	0.0%
Student Growth (% p.a.)	2.1%	3.0%	-0.9%
Tourist Growth (% p.a.)	8.6%	3.6%	+5.0%

EMPLOYMENT BY INDUSTRY: WESTERN CITY VS GREATER SYDNEY (% OF JOBS)



Source: ABS; Urbis

While job growth in the Western City is accelerating, there are still some notable gaps in the industry mix. Compared to Greater Sydney overall, the Western City contains a much lower proportion of jobs in the high-value Professional, Scientific and Technical Services (-7.2 percentage points), Financial and Insurance Services (-5.8 percentage points), and Information Media and Telecommunications (-2.3 percentage points) sectors.

The Northern Gateway will address these gaps by providing extensive space for high-tech businesses, innovation hubs, and blue-chip commercial tenants, all within a single highly-integrated precinct.

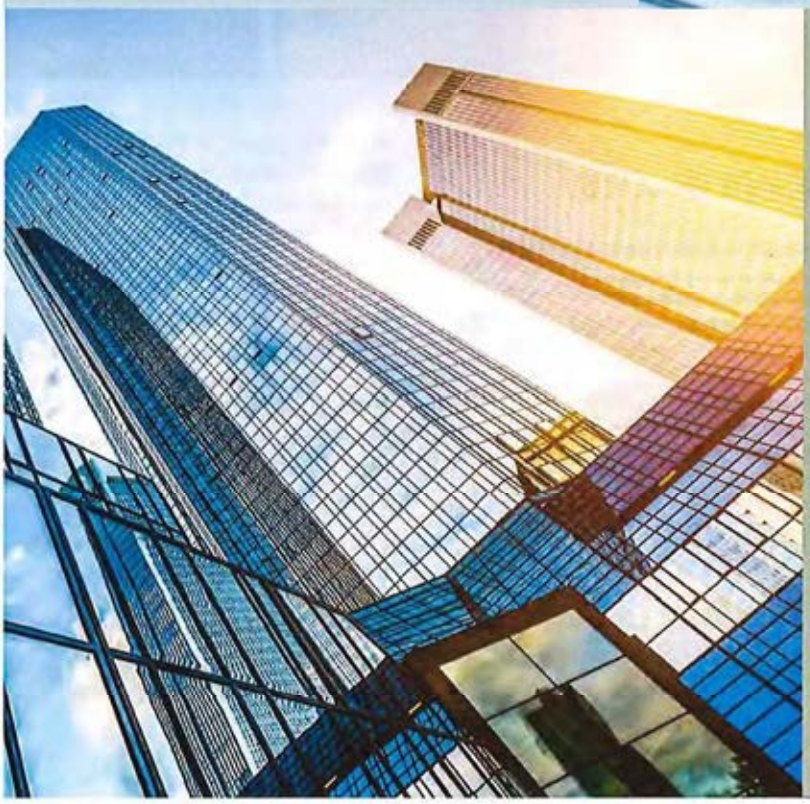
STRENGTHENING SYDNEY'S COMPETITIVENESS

KNOWLEDGE AND INNOVATION SECTORS

Australia has smaller knowledge-intensive sectors and an underdeveloped innovation economy, with over-reliance on the commodities sector compared to other large upper income cities.

The Northern Gateway will help develop Australia's knowledge and innovation sectors by providing a high-tech cluster that combines 400,000 sq.m of high-tech business and manufacturing space, 140,000 sq.m of medical and associated research space, and 200,000 sq.m of education uses.

Together these uses will support the local knowledge economy and facilitate valuable partnerships between technology, health and education. They will also link to nearby research and education campuses, contributing to a network of advanced future technology development and implementation.



DENSITY DONE WELL

Australia's largest cities, including Sydney, have among the lowest density of built area relative to comparable countries. This increases commute times and makes it more costly to provide public amenity and infrastructure to the population.

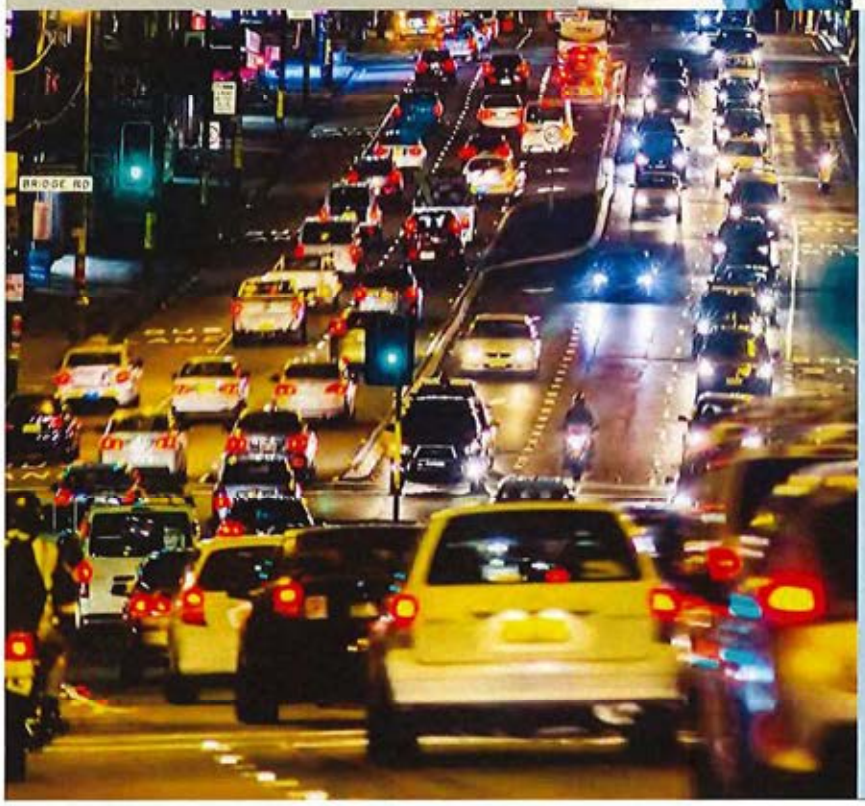
The proposal will be a leading example of "density done well" in Sydney. By focusing on a diverse mix of uses in a compact medium-density precinct, the Northern Gateway will ensure Western Sydney truly functions as a 30-minute city where people can live, work and play.

It will provide open space, attractive urban architecture, and access to a range of services and employment, all within a single integrated medium-density development. The diverse mix of land uses will also ensure that the Northern Gateway delivers a 24/7 experience that complements and realises the full potential of the future Western Sydney Airport.

STRENGTHENING SYDNEY'S COMPETITIVENESS

VISITOR ECONOMY & CULTURAL AMENITIES

With its 4,200 hotel rooms and serviced apartments, 30,000 sq.m international convention centre, and 80,000 sq.m of cultural and community facilities, the Northern Gateway will boost Sydney's visitor economy by providing a viable location for events, conventions and conferences in Western Sydney. Located directly opposite the future Western Sydney Airport, the Northern Gateway will be the most convenient location for new arrivals and visitors.



TRANSPORT CONGESTION

Congestion in Australian cities is worse than in cities around the world with comparable population sizes. Worsening traffic congestion in Sydney is contributing to longer commute times.

The proposal's highly walkable design combined with its integrated mix of accommodation, employment and retail uses will reduce the need for residents and workers to drive. This, along with the North South Rail Link, will ease pressure on Sydney's transport infrastructure.

BOOSTING ECONOMIC GROWTH

In 2015, the World Bank prepared a series of nine reports titled "Competitive Cities for Jobs and Growth: What, Who, and How". The reports analysed and assessed what made cities competitive and how cities can improve their productivity and boost economic and jobs growth to become more competitive. The research has revealed that that the most competitive cities in the world (but not necessarily the largest) have been able to boost their economic growth by focusing on the production of tradable goods and services (i.e. exports).

Export-focused industries also catalyse job creation in other non-traded sectors in a city's economy.

The Northern Gateway's 400,000 sq.m provision of high-tech business and manufacturing space will specifically target highly export-focused industries in order to boost economic growth in Sydney and contribute to the development of the local knowledge economy.

This growth will be further accelerated by the 400,000 sq.m of logistics space at the Northern Gateway. The space will leverage its unrivalled position adjacent the future Western Sydney Airport to become a hub for transport and warehousing in the Western City.

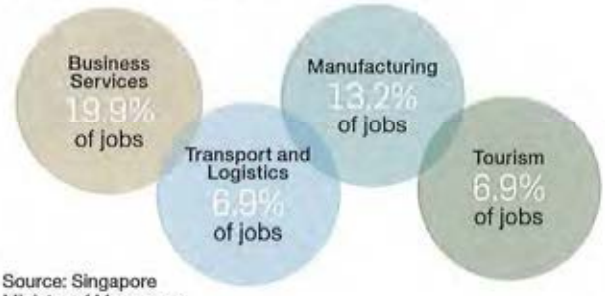
SINGAPORE
A CASE STUDY

Although now one of the most competitive cities in the world, Singapore faced several challenges in the 1960s – high unemployment, a small domestic market, limited natural resources, and a lack of quality housing. At the time, its GDP per capita was less than US $320. Today its GDP per capita now sits at US $60,000.

One of the key drivers of Singapore's unprecedented growth and success has been an emphasis on developing its export-focused industries.

These industries currently account for ~47% of jobs in Singapore.

EXPORT-FOCUSED INDUSTRIES IN SINGAPORE



Source: Singapore Ministry of Manpower

Export-focused industries grew 2.5% points faster than non-tradable sectors.
2005–2012

IMPROVING SYDNEY'S EDUCATION OFFER

New South Wales, and Sydney in particular, is one of the major destinations for international students wishing to attend university in the Asia-Pacific region. In 2017 alone, there were more than 300,000 international students from around 150 countries enrolled in NSW schools and universities.

International students are drawn to study in Sydney by the world class teaching, reliable infrastructure, modern research facilities and widespread global connections.

Sydney is well positioned to leverage opportunities for growth in the international education sector through:

- Proximity to key markets: Sydney shares a time zone with a number of Asian countries allowing for synchronisation of online 'borderless learning'.
- A multi-cultural and multi-lingual society: demonstrates Australia's ability to cater to the needs of an international market and create ease of communication.
- Renowned quality education: Australia is ranked 11th out of 119 countries in the 2018 Global Talent Competitiveness Index, reflecting the high standard of learning provided across educational institutions.
- However, education is becoming an increasingly lucrative market for other major Australian and Asian cities. Sydney needs to continue improving its education facilities and offer in order to maintain and grow its market share.

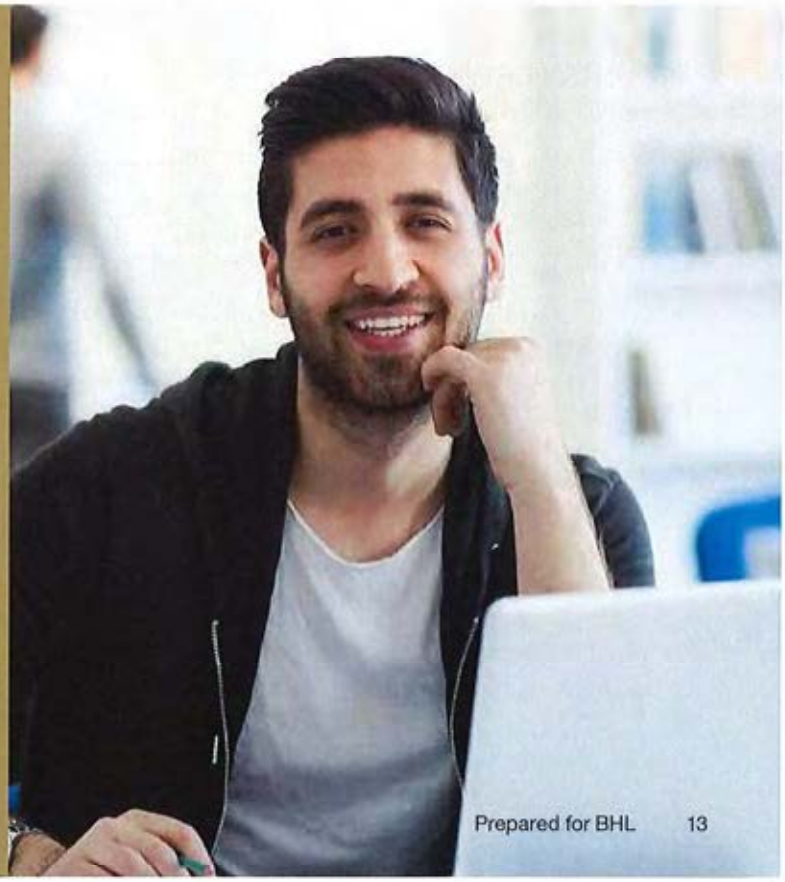
In 2014-15, the NSW Education Sector accounted for 36% ($6.2 billion) of Australia's International Education Sector GDP

Source: Australian Government Department of Education and Training

The significant education uses at the Northern Gateway (200,000 sq.m) will strengthen Sydney's education offer and the growing university presence in Western Sydney.

These education uses will include the Western Sydney University's new STEM campus in addition to the Charlie Teo Wellness Centre. Together with the recently announced development of an Australian-first 'Super Campus', the Northern Gateway will ensure Western Sydney has a diverse, high-quality education offer that continues to attract local and international students.

The collaboration of the Northern Gateway, Western Sydney University, University of Wollongong, University of Newcastle, and the University of NSW, will create research and industry links that will drive the success of the Western City and the Western Sydney Aerotropolis.



CAPTURING A SHARE OF THE GROWING ASIAN VISITOR MARKET

The Northern Gateway is well-positioned, adjacent to the future Western Sydney Airport, to cater to the expanding Asian visitor market.

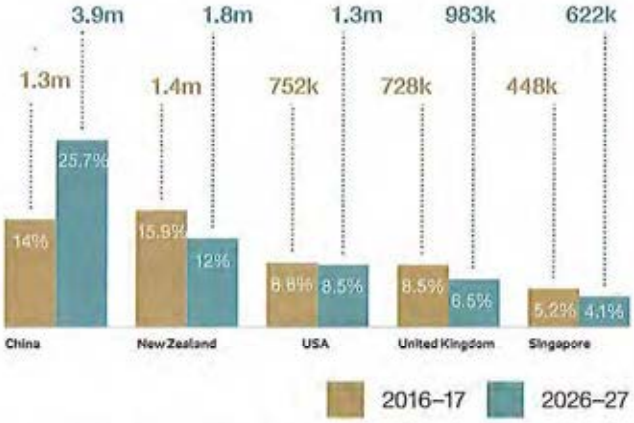
In the last decade, Asia's population has grown by an average of 40 million persons each year. While this growth is expected to start slowing, Asia's population is nevertheless projected to increase by over 700 million persons by 2050.1

Not only is the population increasing, but so is their wealth. By 2030, total spending by the Asian middle class is projected to triple to over US $36 trillion.2

The rise of the middle class in China and India is starting to drive unprecedented increases in the demand for consumer goods and services (e.g. tourism). In particular, more and more Asian visitors are travelling the world and visiting locations such as Australia. Tourism Research Australia forecasts annual Chinese visitation to Australia alone will triple from 1.3 million in 2017 to 3.9 million by 2027.

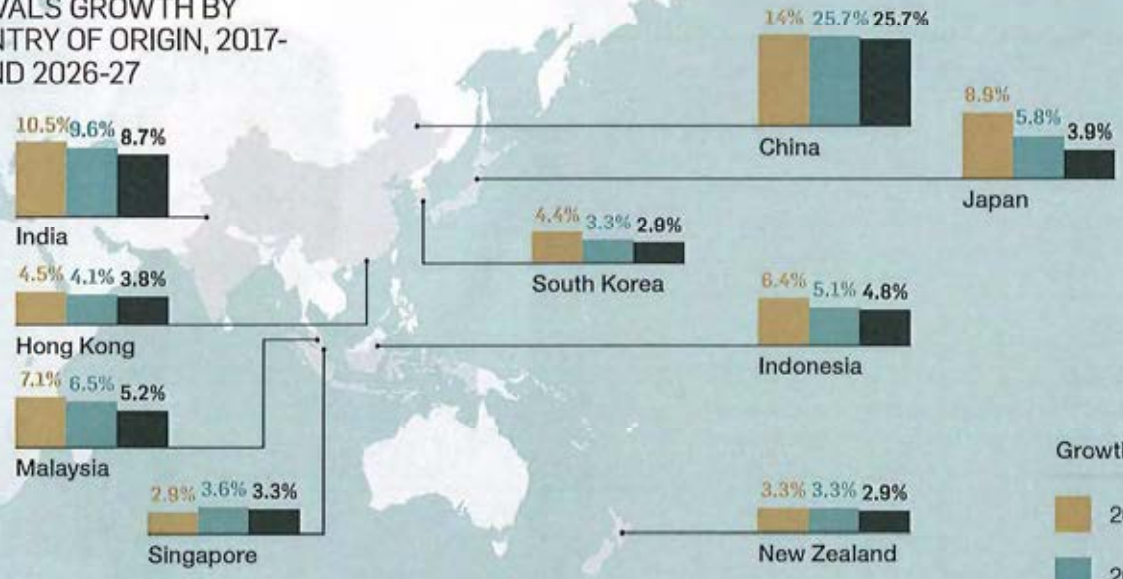
The Northern Gateway's extensive provision of hotel, serviced apartment, conferencing, education and retail facilities will ensure Western Sydney captures a healthy share of this growing market.

SHARES OF VISITORS TO AUSTRALIA BY COUNTRY OF ORIGIN, 2016-17 AND 2026-27



Source: Tourism Research Australia

ARRIVALS GROWTH BY COUNTRY OF ORIGIN, 2017-18 AND 2026-27



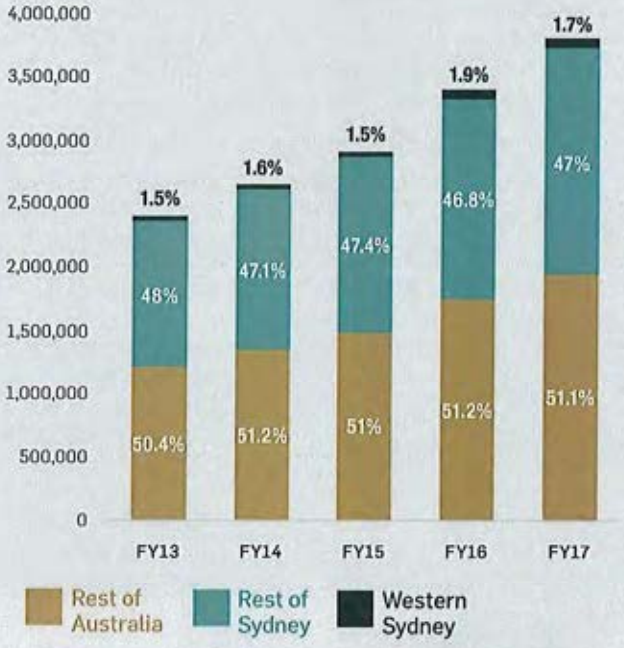
Growth

- 2017–18
- 2026–27
- 10-year growth average to 2026–27

1. World Population Review
2. Brookings Institution

Source: Tourism Research Australia

DESTINATION OF ASIAN VISITORS TO AUSTRALIA
FY13 - FY17



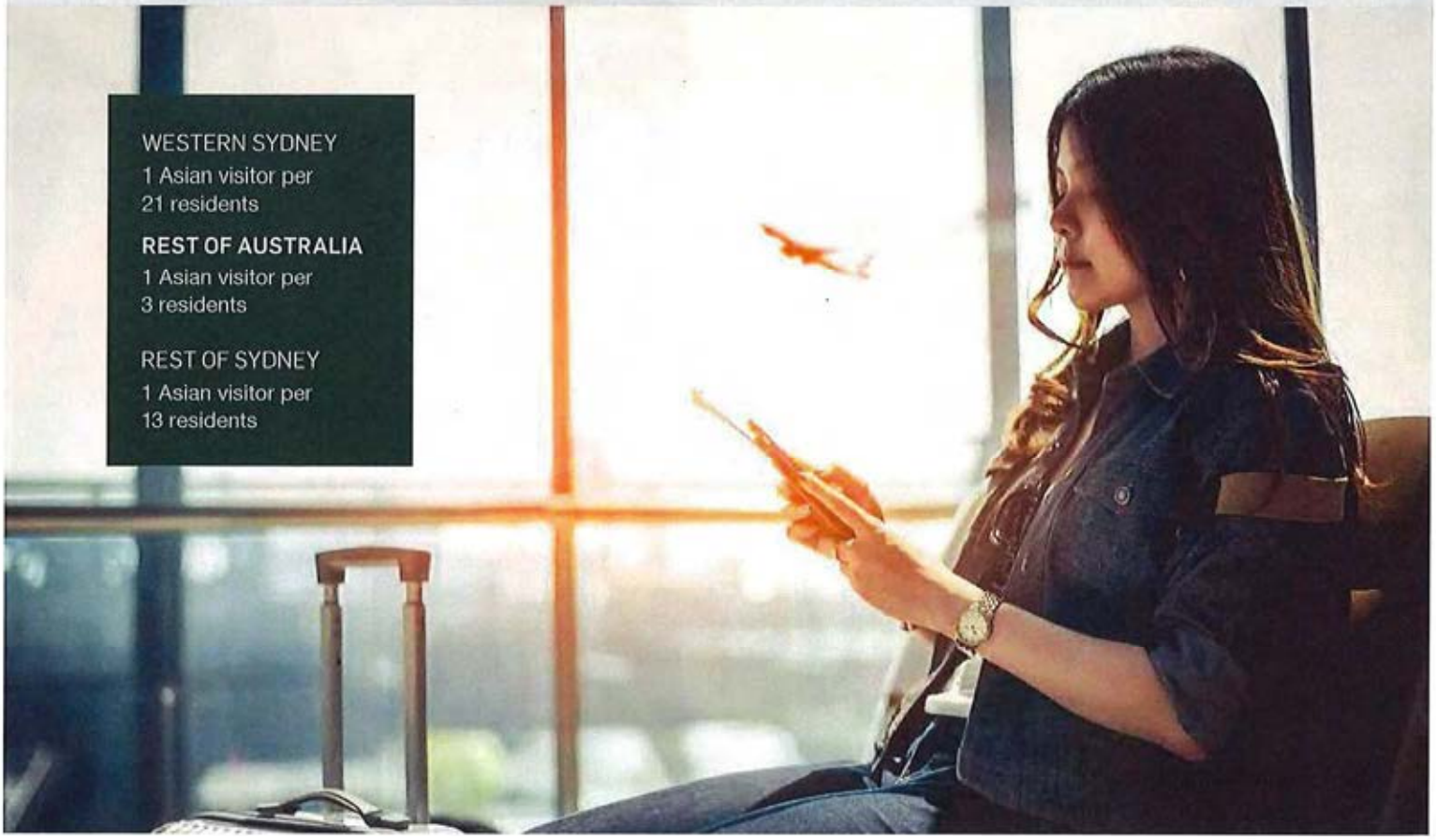
Over the last five years, the annual number of Asian visitors to Australia has grown from just under 2.5 million to almost 4 million. Currently, around half of these visitors stop in Sydney, but only 2% visit Western Sydney.

In other words, Sydney (excluding Western Sydney) caters to an average of one Asian visitor for every three residents each year. However, Western Sydney currently only caters to one Asian visitor for every 21 residents each year. This is also well below the average for the rest of Australia: one Asian visitor for every 13 residents.

The Northern Gateway presents a key opportunity to provide the amenity required to capture a greater share of the Asian visitor market, and address the current underperformance.

With its ~4,200 hotel rooms and serviced apartments, plus a 30,000 sq.m convention centre, the proposal is well-positioned to cater to this increasingly important market.

The Northern Gateway's accommodation offer will be further complemented by an extensive education offer (~200,000 sq.m) which will attract international students from Asia. Recent history shows that will also drive further demand for visitors – Tourism Research Australia found that 5% of all Chinese visitors to Australia in 2016 came to visit an international student.



2 QUALITY OF LIFE AND LIVEABILITY

"Liveability" is one of the core objectives of the Sydney Region and Western City District Plans.

While the District Plan outlines a need for 184,500 additional dwellings in Western Sydney over the next 20 years, it emphasises that this growth should be focused around well-connected and walkable places that build on local strengths and deliver quality public places.

The Northern Gateway will play a critical role in ensuring these liveability and dwelling targets are met by delivering employment opportunities and quality public realm to meet the needs and desires of Western Sydney residents. The proposed mix of employment, leisure and entertainment uses will create a compelling precinct that catalyses the development of the surrounding residential areas and facilitates the achievement of a 30-minute city.

The Northern Gateway will:

- *Create over 55,000 jobs in Western Sydney*
- *Generate 28,000 indirect jobs across the local region and State*
- *Facilitate achievement of a 30-minute city*
- *Establish a hub for health and medical research*

CREATING 55,720 FULL-TIME EQUIVALENT JOBS IN WESTERN SYDNEY

Over a 25-year development timeframe from 2026 to 2050, the Northern Gateway precinct is expected to directly create some 55,720 Full-Time Equivalent (FTE) jobs across 2.2 million sq.m of GFA. One FTE job is defined as 37.5 hours of work per week. Therefore, one FTE job might actually be composed of two part-time jobs (each worked only 18.75 hours per week). Industries such as Retail, which employ many casual and part-time workers, generally have more absolute jobs than FTE jobs.

The majority of jobs at the Northern Gateway will be generated by the proposed commercial offices and retail tenancies – around 29,000 office jobs and 7,600 retail jobs. Another 5,900 jobs will be from the proposed high-tech business and manufacturing uses.

In recent years, jobs growth in the Western City failed to match population growth. While 103,800 new residents were added to the City between 2011 and 2016, only 33,200 jobs were added over the same period. This equates to 0.32 new jobs for every new resident.

The Northern Gateway development aims to address this historical shortfall by creating over 55,000 local employment opportunities. This will help jobs growth catch up to population growth in the Western City, and increase retention of local workers.

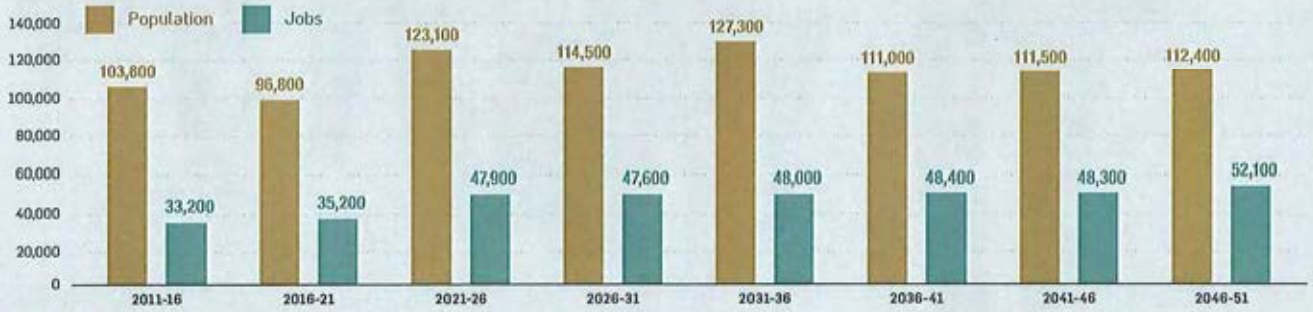
NORTHERN GATEWAY FLOORSPACE AND JOBS

Use	Area (sq.m)	Benchmark (sq.m per job)	Estimated No. Jobs
Education	200,000	75.4	2,654
High-tech Business / Manufacturing	400,000	67.5	5,929
Logistics	400,000	337.0	1,187
Retail	250,000	32.9	7,598
International Convention Centre	30,000	201.9	149
Office	500,000	17.0	29,371
Hospital / Medical Research	140,000	25.0	5,604
Culture & Community Facilities	80,000	57.2	1,399

Use	Area (sq.m)	Rooms	Benchmark (Beds per job)	Estimated No. Jobs
Hotel & Serviced Apartments	200,000	4,200	2.3	1,793
Student Accommodation	23,000	900	24.7	36
TOTAL	2,223,000			55,720

Source: ABS; REMPLAN; Urbis

ADDITIONAL POPULATION AND JOBS – WESTERN CITY



Source: Bureau of Transport and Statistics

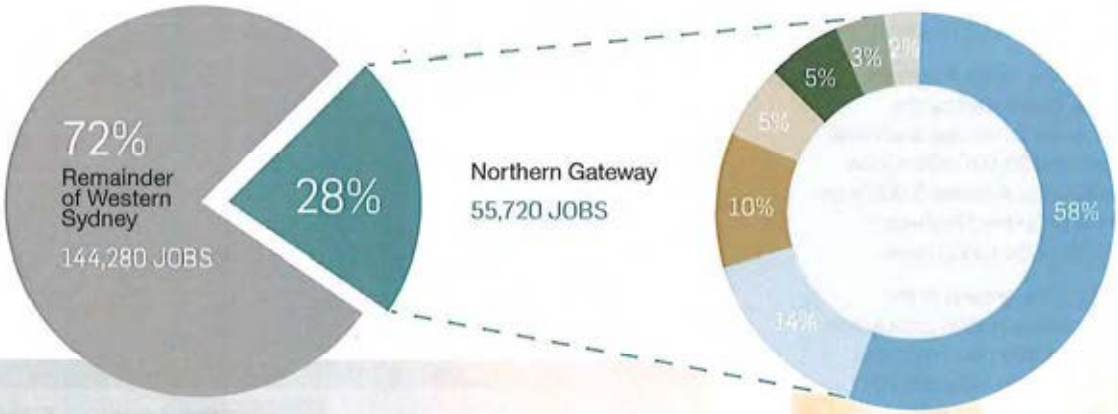
Government has set a target for Western Sydney to accommodate 200,000 jobs. The Northern Gateway can play a key role in achieving this goal by delivering 28% of these jobs (Note: this is a conservative estimate as the Northern Gateway job estimate represents FTE jobs while the Western Sydney target is in absolute jobs).

Over 50% of the jobs at the Northern Gateway will be within the Professional, Scientific and Technical Services sector, while the remainder will in the Retail, Health Care, Education, Administrative Services, Arts and Recreation, and Transport, Postal and Warehousing sectors.

This diversity of employment opportunities will ensure suitable jobs are available for all residents in Western Sydney.

- Professional, scientific and technical services
- Retail trade
- Health care and social assistance
- Education and training
- Administrative and support services
- Arts and recreation
- Transport, postal and warehousing

WESTERN SYDNEY JOBS TARGET



JOBS BY INDUSTRY
NORTHERN GATEWAY PRECINCT

GENERATING OVER 28,000 INDIRECT FULL-TIME EQUIVALENT JOBS ACROSS THE LOCAL REGION AND STATE

The 55,720 FTE jobs that will be directly created at the Northern Gateway will also generate a further 28,040 indirect FTE jobs across the local region and State.

Generally speaking, the development of employment land uses in an area, such as the Northern Gateway, creates direct employment.

These additional direct jobs go on to generate indirect, or multiplier, employment across the broader regional and state economies. This is due to flow-on effects that occur as the industry that is finally impacted on changes its demand for inputs required from other industries. These industries will in turn respond by changing their input demands, leading to additional economic activity and employment across the region.

The creation of 55,720 direct FTE jobs at the Northern Gateway is therefore forecast to result in significant flow-on benefits for the regional and State economies. These benefits include the creation of a further 28,040 FTE jobs dispersed across the wider region.

For every direct job created at the Northern Gateway, another ~0.5 indirect supply-induced jobs will be generated through multiplier effects.

	JOBS		
LAND USE	DIRECT	INDIRECT	TOTAL
Education	2,654	439	3,093
High-tech Business / Manufacturing	5,929	3,708	9,637
Logistics	1,187	942	2,129
Retail	7,598	1,880	9,478
International Convention Centre	149	74	223
Office	29,371	18,587	47,958
Hospital / Medical Research	5,604	879	6,483
Culture & Community Facilities	1,399	908	2,307
Hotel & Serviced Apartments	1,793	611	2,404
Student Accommodation	36	12	48
TOTAL	55,720	28,040	83,760

Indirect supply-induced jobs generated by the Northern Gateway

28,040

Direct jobs in the Northern Gateway

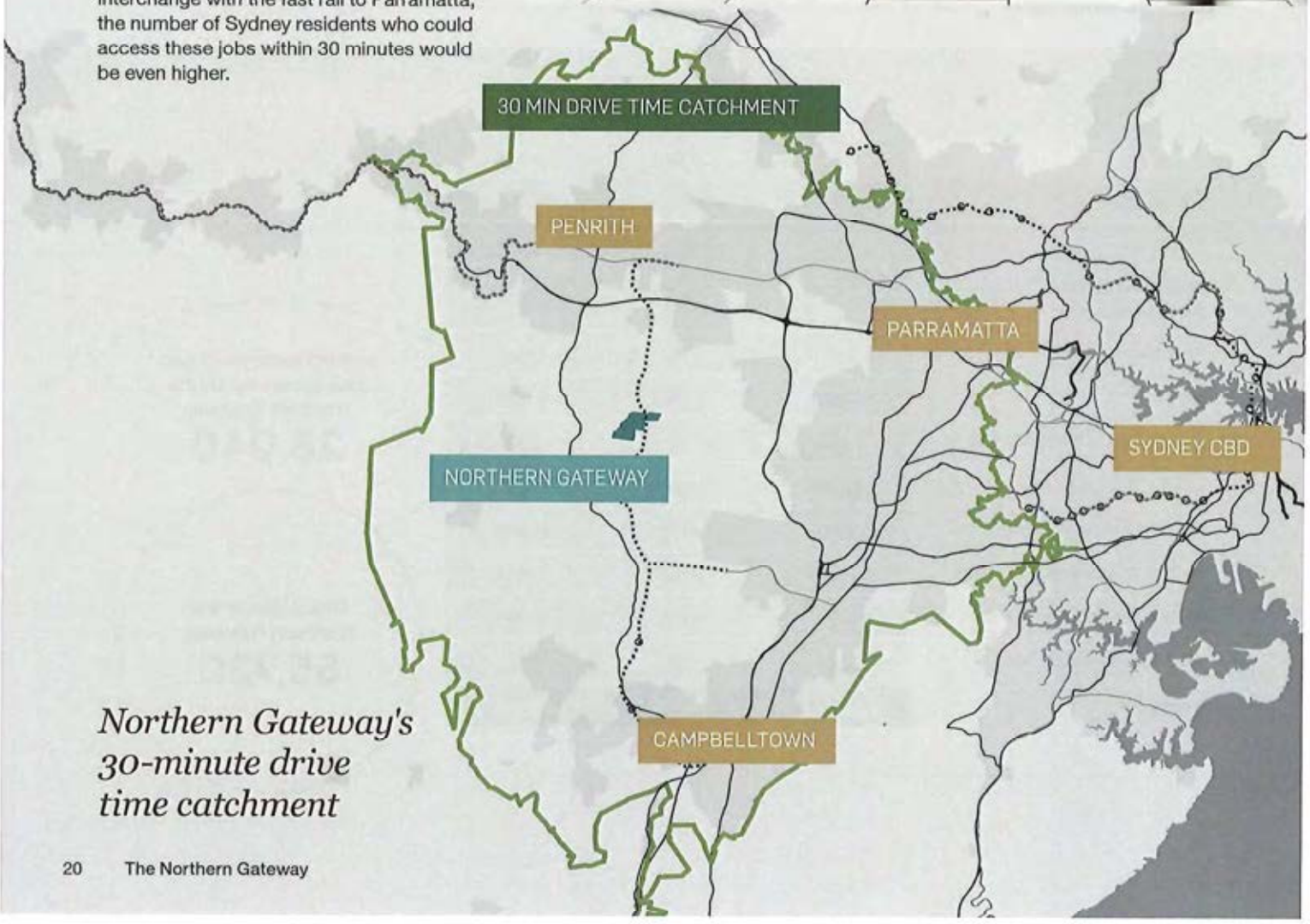
55,720

FACILITATING ACHIEVEMENT OF A 30-MINUTE CITY

The Northern Gateway is envisioned to become a highly integrated development that facilitates achievement of a 30-minute city by providing over 55,000 jobs within a highly accessible and walkable precinct.

The mix of transport systems and efficient infrastructure will also provide connectivity to other key employment precincts such as Sydney Science Park, the Western Sydney Airport and the broader Aerotropolis.

By 2051, residents of the Northern Gateway will have access to over 1 million jobs within 30 minutes. Additionally, the jobs based at the Northern Gateway will be accessible to over 2.75 million residents within 30 minutes. With an on-site interchange with the fast rail to Parramatta, the number of Sydney residents who could access these jobs within 30 minutes would be even higher.



Northern Gateway's 30-minute drive time catchment

ESTABLISH A HUB FOR HEALTH AND MEDICAL RESEARCH

The Northern Gateway will deliver significant health and medical research uses across 140,000 sq.m of floorspace.

These health uses will include a new hospital, dedicated medical research and innovation facilities, and the Charlie Teo Wellness Centre.

This wellness centre will bring new technologies and expertise to Australia to service the burgeoning market for high quality health and wellbeing services. The centre will include a state-of-the-art Women's facility that will provide IVF services to patients across Western Sydney, and is expected to be the driver of unprecedented medical tourism in Australia.

The clustering of these synergistic uses within the Northern Gateway will drive greater economic growth, attract overseas visitors and investment, and establish a world-class health precinct in the Western City.

3 SECURING WESTERN SYDNEY'S FUTURE

The Northern Gateway will:

- *Attract and retain skilled and young workers*
- *Provide modern spaces to attract the skilled and creative jobs of the future*
- *Catalyse the development of Sydney's third city*

The Western Sydney Airport and Aerotropolis are game-changers for Greater Sydney and the Western City. However, the airport alone will not be enough to catalyse the development of a true third city.

As per the World Bank's Competitive Cities for Jobs and Growth: What, Who, and How reports, successful cities around the world have only been able to catalyse development and become competitive by employing a number of strategies:

- Focusing on development of export-focused industries
- Directing economic development efforts to multiple sectors within targeted industries
- Promoting industry clustering to leverage benefits of agglomeration
- Improving liveability
- Strengthening human capital by improving education facilities and attracting new talent with liveability improvements.

While the Western Sydney Airport will provide a source of competitive advantage and act as a starting-point for the Western City's development, the Northern Gateway's substantial scale and diverse mix of uses will be the catalyst that provides the critical mass needed to deliver a true third city.

The Northern Gateway will play a crucial role in accelerating the development of the Aerotropolis by providing a highly integrated precinct that is able to attract and retain skilled and young workers in the skilled and creative jobs of the future, across a diversity of industry sectors.

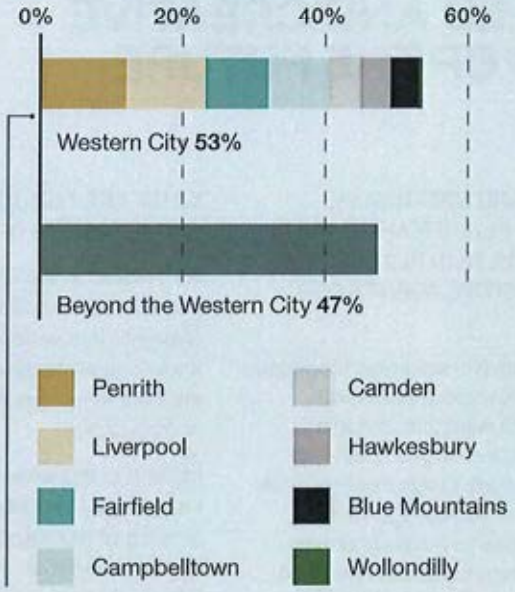
ATTRACTING AND RETAINING SKILLED AND YOUNG WORKERS

Western Sydney currently struggles to retain workers. As at 2016, around 47% of employed Western City residents worked outside of the Western City. This equates to an employment self-containment rate of only 53%.

This failure to retain workers is partially attributable to the lack of opportunities in high-value sectors – e.g. Professional, Scientific and Technical Services. Currently, the mix of jobs in the Western City reveals a focus on Health Care (13% of jobs), Retail Trade (11% of jobs) and Manufacturing (10% of jobs).

The Northern Gateway will help Western Sydney shift its job mix to higher value sectors. Of the 66,360 jobs expected to be supported at the Northern Gateway, 55% will be within the Professional, Scientific and Technical Services. This will include high-tech business, innovation and research jobs which require highly-educated and driven workers.

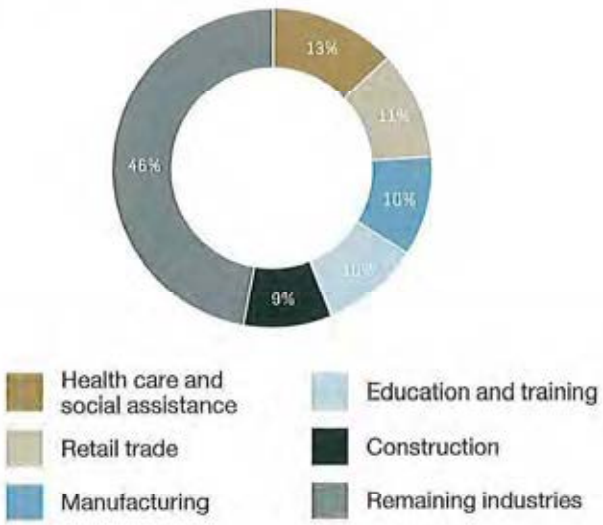
LOCATION OF WORK
WESTERN CITY RESIDENTS



Source: ABS 2016 Census

The Northern Gateway's highly walkable design, integrated mix of high-value employment opportunities, cultural, retail, education and entertainment uses will provide a compelling and attractive offer to young talented workers seeking a vibrant place to work and play.

JOBS BY INDUSTRY
WESTERN CITY DISTRICT



Source: ABS 2016 Census

Not only is job mix important, but attracting and retaining skilled workers increasingly means creating places that appeal to Millennials.

According to the ABS, Millennials will account for 75% of the Australian workforce by 2025. Millennials are likely to seek the following qualities when choosing a place to live and work;

- Ease of commuting: a variety of transportation options with efficient connections between modes to minimise travel time.
- Distinct placemaking: vibrant restaurants, arts and culture scene, community facilities to draw interest.
- Workplaces that are involved with local institutions: integration with local universities, medical research and high tech firms often draw Millennial talent.

PROVIDING MODERN SPACES TO ATTRACT THE SKILLED AND CREATIVE JOBS OF THE FUTURE

GLOBALLY AND NATIONALLY, INNOVATIVE PLACE MAKING AND DESIGN RESULTS IN PLACES THAT BECOME POSITIVE AGENTS FOR CHANGE.

Places such as Norwest and Macquarie Park today are important centres for business in Australia, but this required a step-change in planning and development. Large multinational corporations in knowledge-driven industries chose to locate precincts not just because the area is home to large populations of skilled workers, but rather because they offer the appropriate floorplates and buildings, and well-connected environments with excellent amenity and proximity to education and health nodes. The success of these places as connected employment nodes has fostered a new wave of integrated high density living.

The Northern Gateway master plan delivers space to accommodate the jobs required for the region, and the jobs that Sydney needs going forward.

WHAT ARE THE JOBS THAT SYDNEY NEEDS IN THE FUTURE?

As detailed in the Creating Great Australian Cities reports, Sydney's innovation economy and knowledge-intensive industries are behind its international comparators.

Growth in this area will become increasingly important due to a slowing of the resources sector, digital automation of traditional jobs, and the exponential rate of technological advancement.

Skilled and knowledge-based industries

Fewer process and pattern related jobs

Higher creativity and innovation

Technology developers and operators

WHERE WILL THESE JOBS GO?

Simply creating office or industrial space is not enough to attract skilled workers – "good jobs don't go to bad places".

Rather, the provision of amenities within walking distance of workspaces and homes is the key factor in attracting skilled jobs to Western Sydney.

This is a product of the rise of the 'experience economy' – the idea that the experience and sense of enjoyment is increasingly important when shopping, dining and working. The Northern Gateway design is underpinned by this principle.

Skilled and knowledge-based industries

Fewer process and pattern related jobs

Higher creativity and innovation

Technology developers and operators

"Good jobs don't go to bad places"

– Professor Ed Blakely

WHAT TYPE OF WORKSPACES WILL THESE JOBS NEED?

The rapid evolution of the innovation economy will continue to drive dramatic improvements in technology and communication for knowledge workers, resulting in opportunities to work from anywhere.

This will be compounded by the 'sharing economy' and 'gig economy', which reflect the efficient allocation of jobs to the most skilled and most effective workers. The result of this will be more part time and freelance workers, and lower requirement for fixed office space. Digital nomads can work globally and will flock to places that offer the best of everything.

Flexible workspaces

Collaborative offices

Appeal of the whole neighbourhood

HOW WILL THE NORTHERN GATEWAY ATTRACT THESE JOBS?

The proposal includes over 1,000,000 sq.m of high-tech business, commercial, and research space within a master planned precinct with the following strengths and opportunities for attracting knowledge workers:

PROPOSAL STRENGTHS	PROPOSAL OPPORTUNITIES
Lifestyle and retail amenity	Clustering of knowledge based industries
Co-located education and commercial uses	North South Rail Line
Work and play in one place	High-tech business and innovation hub
Open spaces	Medical research hub
Walkability	Flexible work spaces
Attractive urban landscapes	Collaborative offices
Diversity of dwelling types	

CATALYSING THE DEVELOPMENT OF SYDNEY'S THIRD CITY

The Government has set a number of objectives and targets for the Western Sydney Airport Aerotropolis and the Western City:

- 200,000 new jobs across a wide range of industries
- Residents will have access to the best in education and skills training opportunities
- The North South Rail Link will contribute to achieving a 30-minute city
- Growth will be balanced with maintaining the local character of the Western City

While these goals are achievable, it will take more than just the new Western Sydney Airport to deliver a true third city. The Northern Gateway has the scale and diversity of uses to provide the critical mass needed to catalyse the development of the Western City.

The Northern Gateway will accelerate the development of the Western City and help it achieve its targets by:

ESTABLISHING A FOCAL POINT OF ACTIVITY IN A COMPACT LOCATION

The Northern Gateway's strategic location next to the future Western Sydney Airport means that its various uses will be able to develop and leverage synergies with the airport and broader aerotropolis.

Its concentration of employment and accommodation uses right on the airport's doorstep will provide a compact focal point for activity in the area.

REDUCING LAND TENURE AND GOVERNANCE FRAGMENTATION RISK

BHL is in a unique position to deliver a large-scale integrated precinct development. These developments are often delivered through a consortium which have high fragmentation risk.

The Northern Gateway will avoid this through its single-ownership model. This creates greater certainty which will attract further private sector investment to the area.

PROVIDING CRITICAL MASS TO ENSURE INFRASTRUCTURE VIABILITY

Timely delivery of infrastructure, such as the North South Rail Link, is crucial to ensuring that Western Sydney develops into a true third city.

The Northern Gateway will provide the critical mass of workers, residents and visitors needed to ensure that delivery of the rail, and other infrastructure, will be economically and commercially viable as soon as possible.

DELIVERING GOOD GROWTH MANAGEMENT SYSTEMS

The Northern Gateway will be a model development that emphasises public transport, major employment uses, and medium density, highly accessible placemaking. Future expansion will occur via increased densification rather than urban sprawl.

The Northern Gateway will demonstrate how highly efficient, active and liveable precincts can be delivered in greenfield areas and contribute to Sydney's sustainable development.

The experience of vibrant cities across the world has demonstrated that merely meeting local consumption-based demand is not enough to support the variation and extent of employment and land uses found in these locations.

The economies of these cities also fulfil demand from the wider economy – from metropolitan to global. Therefore, the sustainable employment development strategy for the Western City must take a two-pronged approach of pursuing both organic growth that caters to local consumption needs and accelerated growth which leverages the natural competitive advantages of the project to meet demand at the broader metropolitan to global levels.

The key to this accelerated growth model is the creation of industry clusters that are able to benefit from agglomeration. Agglomeration occurs when a critical mass of businesses and industry locate in an area (i.e. clustering) – this creates synergies between businesses, results in a higher density of economic activity, and facilitates the achievement of economies of scale. Research and analysis undertaken by the European Union and European Regional Development Fund found long run clustering of industry and service sectors resulted in a 13-14% boost in economic growth in a local area.

The Northern Gateway is well-positioned to drive accelerated growth by virtue of its diverse mix of integrated employment and accommodation uses opposite the future Western Sydney Airport. This is further supported by the significant scale of development proposed which is critical to achieving agglomeration.

EXAMPLES OF WHERE THE ACCELERATED GROWTH MODEL HAS BEEN UTILISED:

FUKUOKA, JAPAN

Fukuoka is a key example of a city that is benefiting from accelerated growth driven by agglomeration and cross-sector collaboration.

The public sector, industry, educational institutions and citizens have collaborated to develop a strategic growth vision to increase Fukuoka's global competitiveness through innovation.

The local government fosters start ups, new businesses and overseas investors by offering tax breaks and eased visa requirements for international entrepreneurs. This has resulted in a clustering of knowledge and creative industries. Fukuoka is now well known as Japan's 'start-up city'.

Driven by its accelerated growth, Fukuoka overtook Kobe in 2015 to become Japan's fifth-largest economy. It also now enjoys the highest population growth rate of any Japanese city, as well as the highest ratio of young residents.

MIAMI, USA

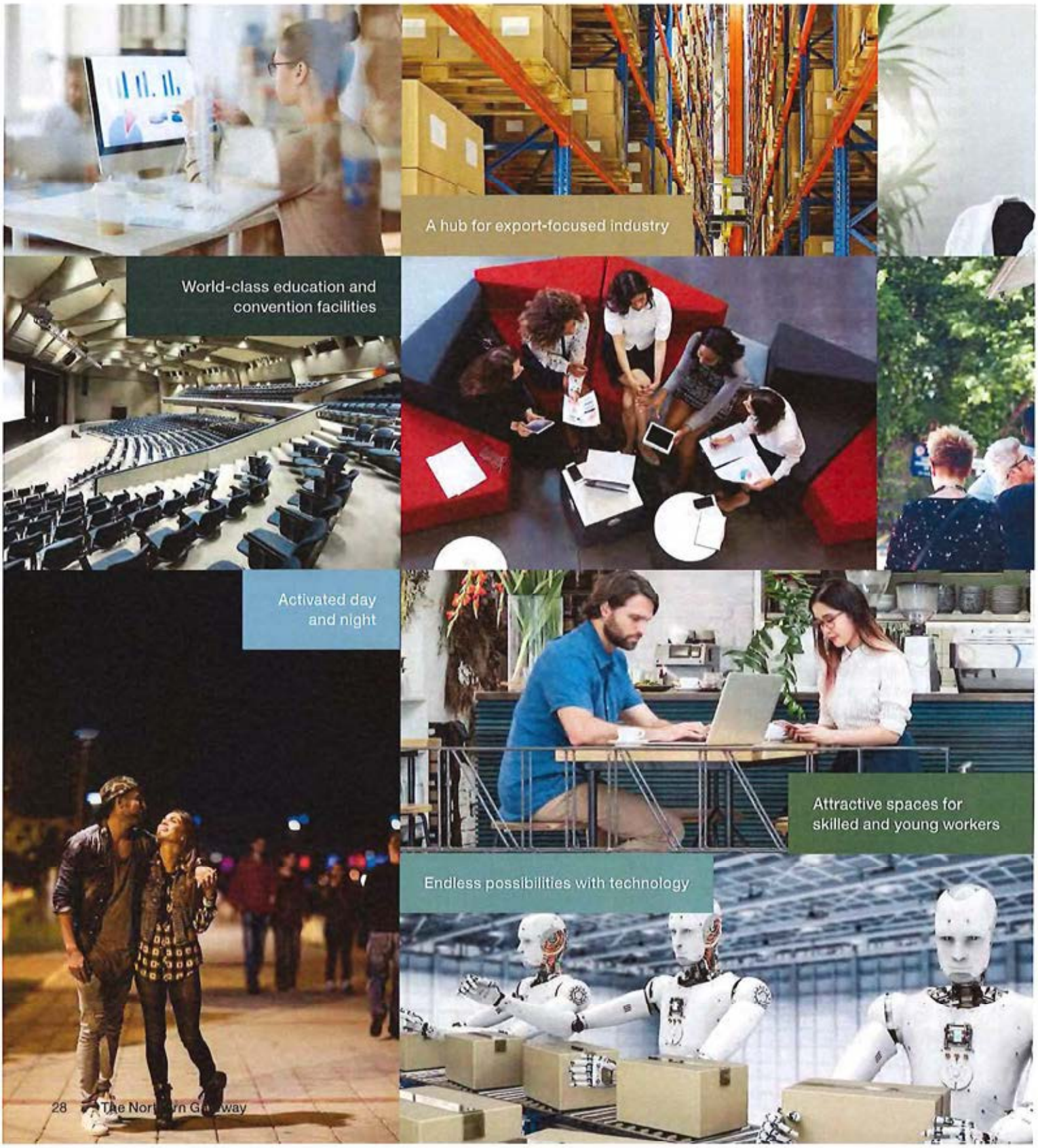
Metropolitan Miami has harnessed economic diversification to secure the city's long term growth.

The public and private sector have worked in collaboration with the community to develop a long term plan to diversify the city's economic base from tourism alone to seven globally traded sectors.

While landowners and philanthropic foundations brought new events, anchors and districts to develop Miami's arts and culture scene, business and academic institutions have developed a talent network to connect people with skills to internships and apprenticeships.

By leveraging Miami's natural competitive advantages and developing its export-focused industries, Miami has been able meet demand at a global level and boost economic growth.

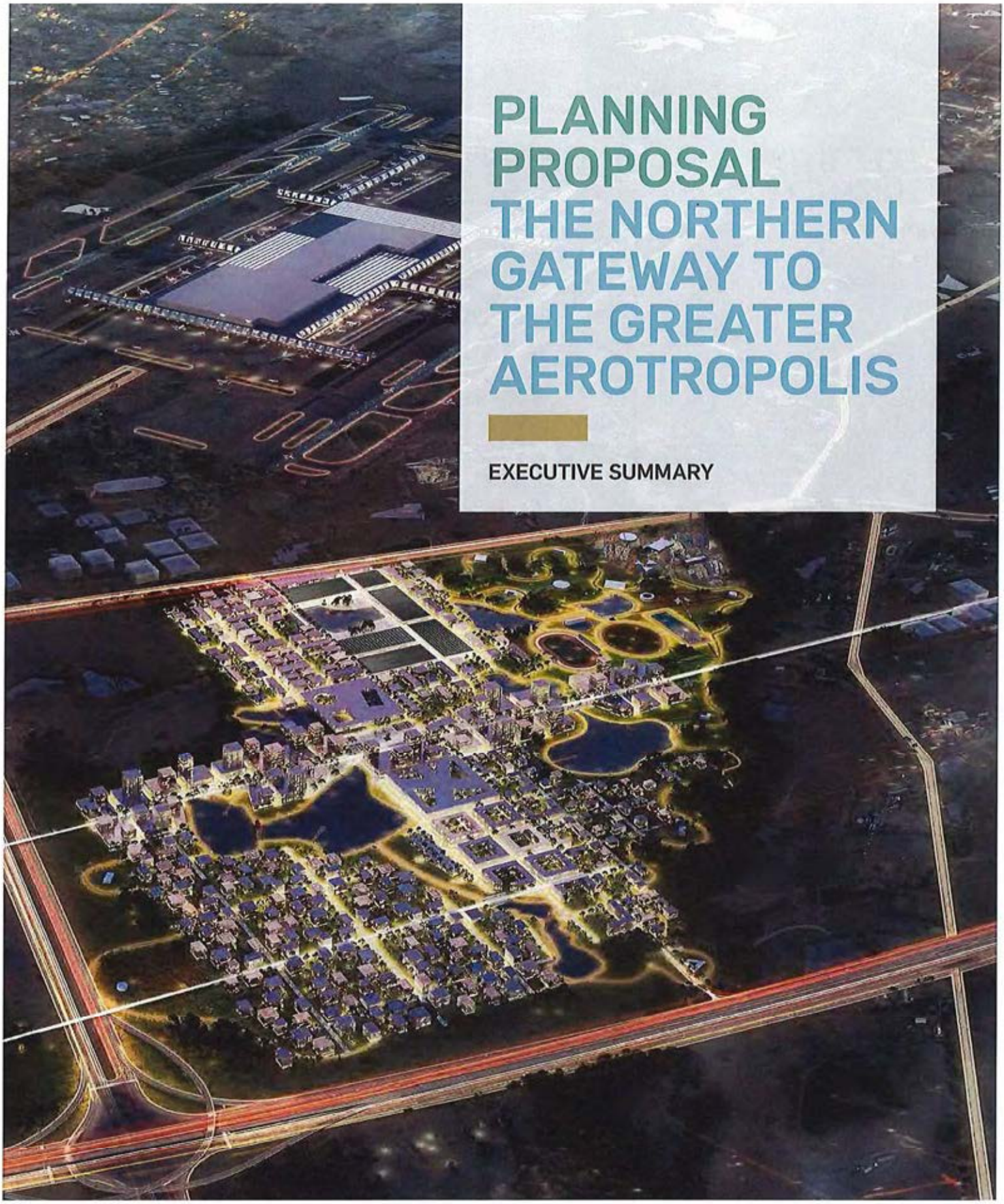
WHAT WILL WESTERN SYDNEY LOOK AND FEEL LIKE WITH THE NORTHERN GATEWAY?



Vibrant community
and lifestyle
Enhancing and
leveraging open space
A centre for high-tech innovation

PLANNING PROPOSAL THE NORTHERN GATEWAY TO THE GREATER AEROTROPOLIS

EXECUTIVE SUMMARY

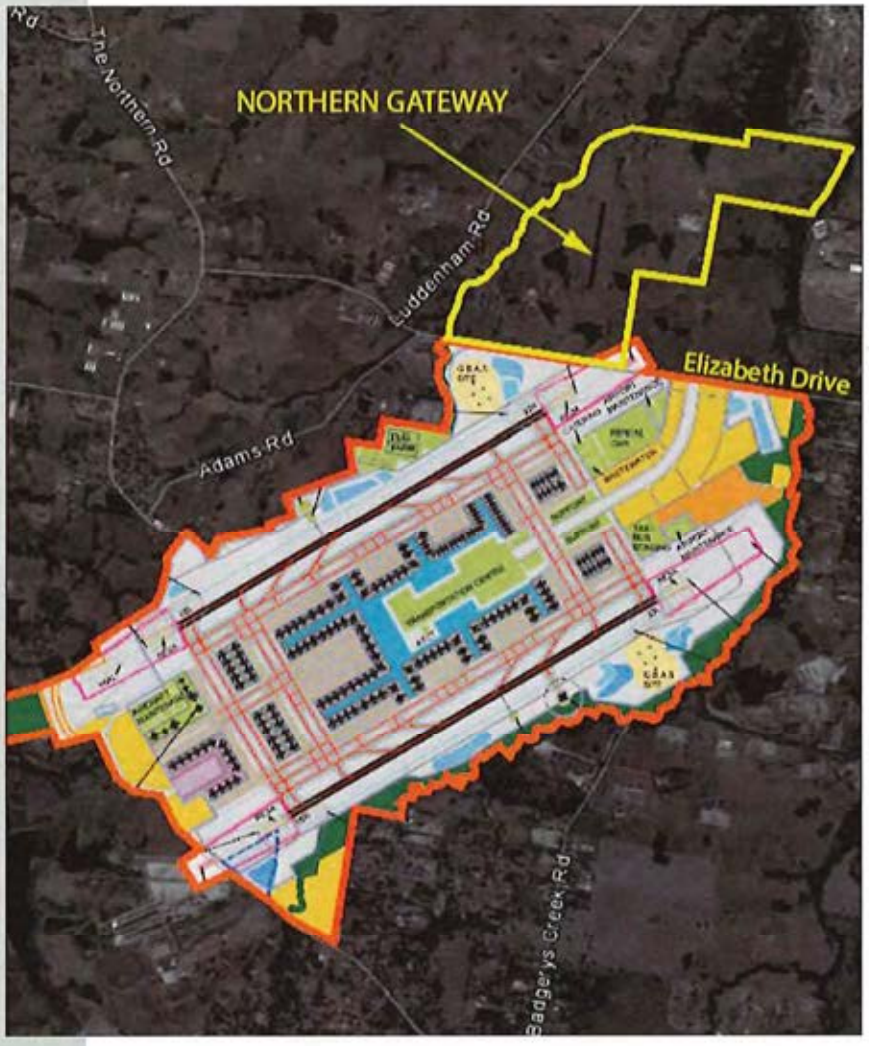


MAY 2018

BHL

EXECUTIVE SUMMARY

*The **Northern Gateway** to the Greater Western Sydney Airport Aerotropolis is a 344ha catalytic development site immediately to the north of the Western Sydney Airport (WSA) fronting Elizabeth Drive. This significant landholding is in single ownership by BHL. Along with its key foundation partners, Western Sydney University, Charlie Teo, Scentre Group, and LOGOS, BHL is ideally positioned to deliver this significant city shaping development concurrently to the development of the WSA and its associated road and rail infrastructure.*



Northern Gateway and Western Sydney Airport
Source: OMA

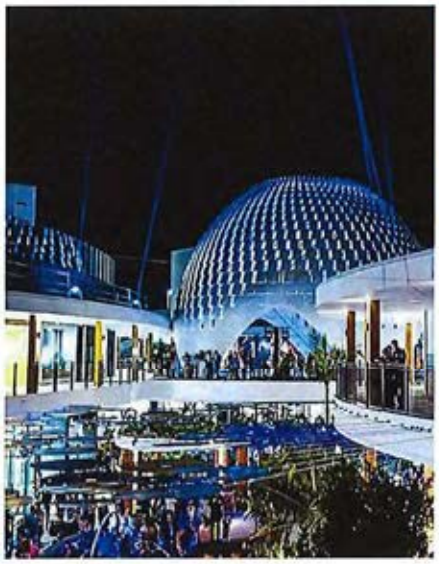
Indicative Railway Station Typology, Berlin
Source: Getty Images.

This planning proposal seeks to amend the Penrith Local Environmental Plan 2010 (PLEP 2010) to include Northern Gateway as an Urban Release Area. This will ensure the necessary land use parameters to facilitate a significant development that can immediately grow and align with the substantial investment in infrastructure by both the Commonwealth and State Governments.

The proposal will deliver the following substantial benefits to Western Sydney.

- Price Waterhouse Coopers, 2018 (PwC) estimates that the proposal will provide **1.3 million** square metres of employment floor space. This will provide **38,000 new jobs** across a range of sectors and will provide **$14.3 billion** in local economic output (PwC, 2018).
- The Masterplan has been designed to include significant long term regional transport corridors including the M12 Motorway, Outer Sydney Orbital, North South Rail link, future freight rail corridor and future metro rail connection to Parramatta. The proposed relocation of these transport corridors enables the **full economic potential** of the site to be realised bringing significant public benefits through both job creation and maximising the ability **to activate the planned North South Rail Link** which is critical for the lasting success of this piece of city shaping infrastructure.
- The proposal will integrate land use and transport and support the **30-minute city.** The proposal plans for a significant mixed use urban development which provides a new centre, employment uses and residential population that is integrated with, and optimise opportunities of, the public value and use of the future North South Rail Link.
- Foundation partner **Western Sydney University (WSU)** will assist in the creation of a new **International Education Precinct.** WSU seeks to enhance and foster innovation in Western Sydney by establishing an education, research and industry hub with global connectivity. The goal is to provide a collaborative environment for both domestic and international students and global business and industry, encouraging knowledge sharing and industry-integrated teaching and research. This will enable the precinct to grow new markets in education and further develop educational and business links to jobs of the future including aerospace industries, freight, advanced logistics and health care, leveraging and contributing to the activation of the Western Sydney Airport.
- The proposal will provide **100,000 sqm** of Gross Floor Area (GFA) for a **Wellness Centre of Healthcare Excellence and Centre for Cognitive Enhancement (WCHE and CCE)** to be developed in partnership with world renowned neurosurgeon, **Charlie Teo.** The centre will include Wellness Centre, multi model health care operations, teaching and research facility and medi-hotel/ aged care facility. This centre will serve the growing population of Western Sydney in addition to attracting medical tourism which is a burgeoning industry in the Asian-Pacific region. The Wellness Centre will be delivered in stages over 10 years and will deliver approximately 2,900 direct jobs.
- The proposal will provide a **new town centre** to be delivered by foundation partner, **Scentre Group.** The new town centre will be delivered in stages and will provide 200,000 sqm of retail, entertainment and restaurant floor space within a new type of living centre that will connect and enrich the community at a key transport node to create a unique international 24/7 destination. The centre will be highly activated and sustainable and will provide a distinct human scale at the ground plane.

The proposal will integrate land use and transport and support the 30-minute city



Indicative Retail Typology. Left: Westfield Chermside, Right: Westfield London
Source: Scentre Group

- The proposal recognises the importance of logistics and freight to the function of the WSA through the proposed Northern Gateway Logistics Estate to be delivered by LOGOS. The Masterplan provides up to **280,000 sqm** of GFA for **Logistics, High- Tech Industry and Manufacturing.** This development cluster will be located adjacent to the airport and surrounding road network to ensure the efficient distribution of good and services. A range of building types and sizes will be provided to suit the market demand and scale of end user requirements.
- The proposal will provide **300,000 sqm of commercial office space** in both traditional office towers along a central east west spine and large floor plate campus style business/ technology park buildings within the logistics and freight cluster adjacent to the airport.
- The proposed Masterplan leverages industry opportunities associated with the WSA and includes **30,000sqm** for the development of a **new International Convention Centre (ICC).** Some **120,000sqm** of GFA is provided for associated **tourist and visitor accommodation** to be delivered in partnership with a reputable world leader in hotel development.

Indicative Business Park Typology
Novartis HQ, Basel, Switzerland
Source: OMA

The Masterplan has been designed using a placed based approach to develop a city of the future.

Proposed Central Spine
Source: OMA

- The proposal will provide **880,000sqm GFA for residential and student accommodation.** The provision of residential within the Northern Gateway ensures additional housing supply, choice and affordability with direct access to jobs services and transport associated with the Northern Gateway and Greater WSA Aerotropolis. The additional housing also supports the **Western City District Plan** which envisages a growth in housing of **184,500 new dwellings** within the Western City District by **2036** (25% of the total for Greater Sydney).
- The Masterplan has been designed using a **placed based approach** to develop a city of the future. The centre will use a major transport node on the site to prioritise people over vehicles. The open space network contains the proposed urban form into a compact, resilient, networked and walkable city. At street level an active and permeable ground plane will be developed to encourage activation and streets with high amenity.

Indicative Student Housing Typology

- The proposal will deliver **408,700sqm of open space** networked throughout the site providing both passive and active recreation areas. These areas will ensure the protection of the sensitive riparian areas around the Cosgroves Creek Corridor. The extensive network of landscaping will increase the urban tree canopy which will reduce the overall 'urban heat island' effect.

Indicative Open Space and Landscaping
Source: OMA

Indicative WSA context with BHL Masterplan
Source: OMA

BHL and its foundation partners are committed to delivering their vision for the Northern Gateway through the implementation of a bold Masterplan by OMA who are worldwide leaders in the masterplanning and development of Airport Cities. The Masterplan is aimed at building a globally recognised mixed-use precinct which will support the growth and future economic development of Western Sydney Airport and the Greater Aerotropolis.

The proposal is consistent with the statutory strategic planning framework including the *Objectives and Actions of the Greater Sydney Region Plan – A Metropolis of Three Cities and Western City District Plan.* The proposal is consistent with other strategic policies and strategies including the *Western Sydney Rail Needs Scoping Study, Future Transport 2056 Strategy, NSW State Infrastructure Plan and Western City Deal.*

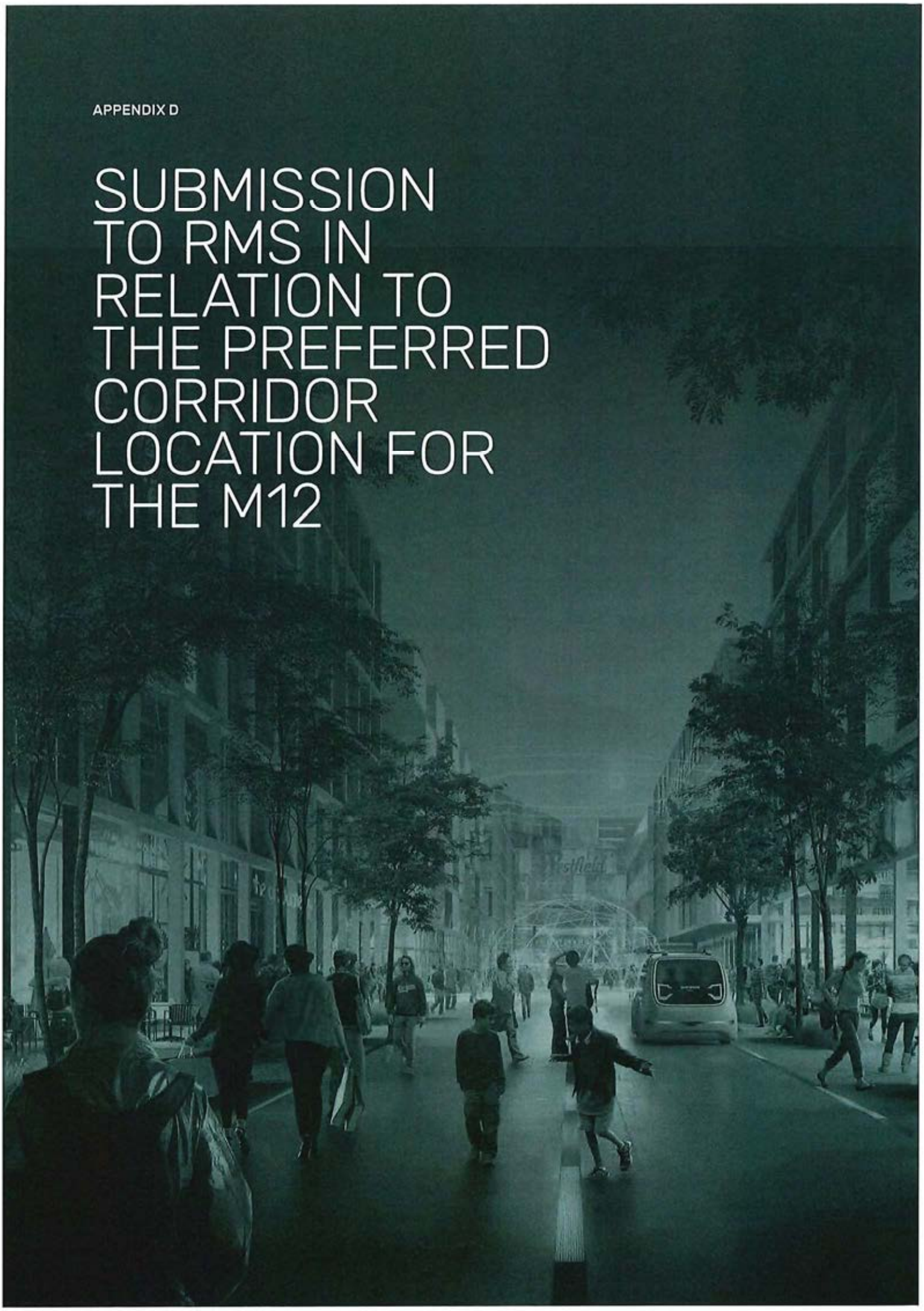
Indicative BHL Masterplan
Source: OMA

BHL's vision is to create and deliver a creative and connected city which will enable innovative businesses to thrive to deliver thousands of quality jobs for Western Sydney. A flexible approach to future land use will ensure health and education precincts, high-tech industry clusters and neighbourhood living areas will exist side by side to cater to the entire community's needs. BHL and its partners have a proven track records in delivering sustainable, liveable places that will ensure that these principles are the foundation of the development of the Northern Gateway.

The benefits generated by the planning proposal demonstrate that it has significant strategic and site-specific planning merits. The proposal to develop this strategically significant site is capable of both contributing and complementing Government and Penrith Council's longer-term objectives which aim to bring lasting socio-economic benefits to residents of Western Sydney through this once in a generation opportunity presented by the Western Sydney Airport (WSA).

APPENDIX D

SUBMISSION TO RMS IN RELATION TO THE PREFERRED CORRIDOR LOCATION FOR THE M12



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DARLING PARK, 201 SUSSEX ST
SYDNEY NSW 2000

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Urbis Pty Ltd
ABN 50 105 256 228

28 March 2018

M12 Motorway
Roads and Maritime Service
PO Box 973
PARRAMATTA NSW 2124

Dear Sir/Madam,

SUBMISSION IN RESPONSE TO PRELIMINARY DESIGN FOR M12 MOTORWAY 1953-2109 ELIZABETH DRIVE, BADGERYS CREEK

This submission has been prepared on behalf of Boyuan Holdings Limited (BHL) and its foundation partners in response to public exhibition of the preliminary road design and access for the future M12 Motorway. Our submission includes:

- Description of the BHL land holding and its existing and likely future local and regional context.
- Details of previous submissions made by BHL regarding strategic land use and transport planning matters including a detailed Vision and Master Plan with alternative M12 alignment.
- Submission in response to the preliminary design and access strategy based on significant impacts on the Northern Gateway site and the benefits of the alternative proposal.
- Technical advice and documentation prepared by Cardno which is referred to within our submission and attached to this correspondence.

It is our strong view that the proposed M12 Motorway should be relocated to the northern part of the BHL land based on the significant public benefits of the alternative alignment, including:

- Preservation of an unparalleled opportunity to unlock the development potential of a large single landholding within the Western Parkland City by BHL and its partners whose commitment and track record will ensure the Vision and Master Plan are delivered.
- Delivery of the 30-minute Western Parkland City including substantial job creation and business investment aligned with the objectives of the Western City Deal, *Greater Sydney Region Plan* and *Western City District Plan*.
- Significant potential cost savings to the State Government regarding the construction and delivery of the M12 corridor (and associated future transport infrastructure).
- Economic and orderly use of the land in accordance with the *Environmental Planning and Assessment Act 1979*.

180327 - M12 submission to RMS

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1. SITE CONTEXT

The BHL land holding is located at [redacted]. The legal description of the site is [redacted] in Deposited Plan [redacted] (refer to Figure 1).

The key features of the site and its immediate context are summarised below:

- The site has a total area of approximately [redacted] and is in single ownership.
- The land has been used for agricultural purposes and is largely cleared of vegetation with several man-made waterbodies, primarily within the central and southern parts of the site.
- The site benefits from direct access to Elizabeth Drive with existing road frontage of approximately 1,600 metres along the southern boundary.
- The land holding is located directly opposite the Western Sydney Airport site (refer to Figure 2) within the northern part of the Western Sydney Airport Growth Area (refer to Figure 3).

Figure 1 – Site Location Plan (Source RPData, 2018)

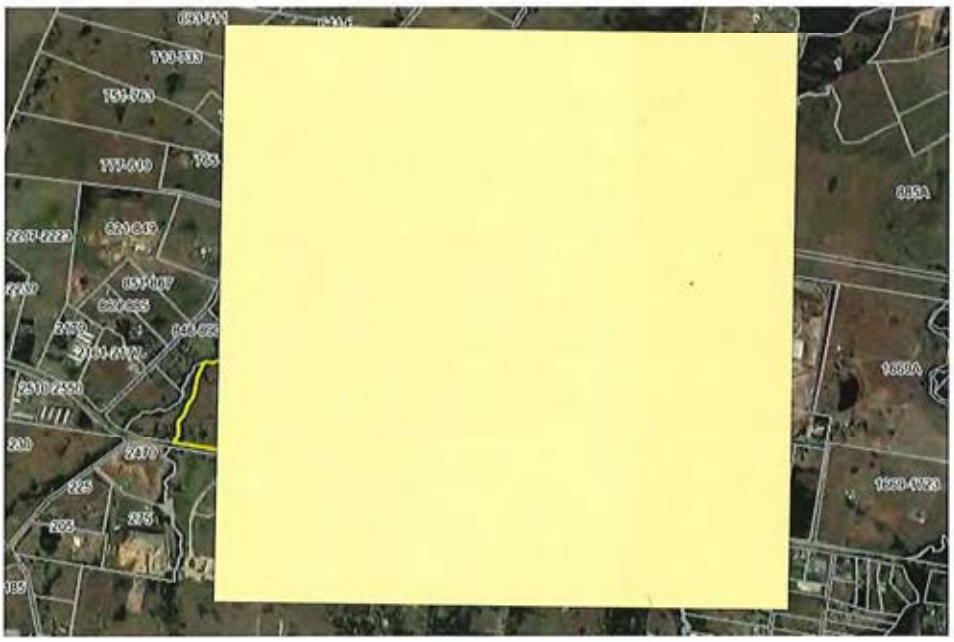

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Figure 2 – Local Context Plan (Source: Urbis, 2018)

Figure 3 – Western Sydney Airport Growth Area (Source: Department of Planning and Environment, 2018)

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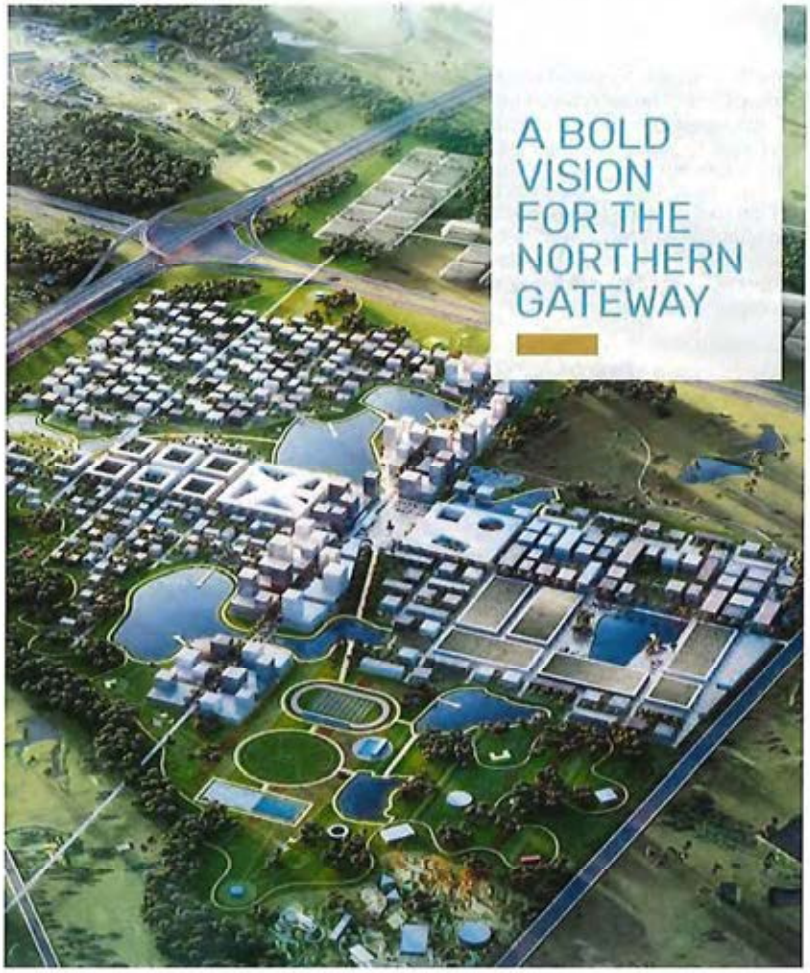
2. "A BOLD VISION FOR THE NORTHERN GATEWAY"

BHL and their foundation partners have prepared a comprehensive Vision and Master Plan for the future development of their land. '*A Bold Vision for the Northern Gateway*' was prepared by OMA and Urbis on behalf of BHL and their project partners to outline this vision and the future development potential of the site to the Western Parkland City and Greater Sydney Region (refer to Attachment A).

Figure 4 – Vision and Masterplan Cover Page (Source: OMA, 2017)



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The Vision and Master Plan was prepared and submitted to the Greater Sydney Commission (GSC) and Transport for NSW (TfNSW) in response to the public exhibition of the draft *Greater Sydney Region Plan*, draft *Western City District Plan* and draft *Future Transport 2056*. It outlines:

- A clear and well-considered Vision and Master Plan for this strategic land holding at the Northern Gateway to the Western Sydney Airport which is aligned with the city-shaping elements identified in strategic land use and transport planning policy; and
- Recommendations to maximise the potential leverage and land use opportunities associated with the Western Sydney Airport and minimise the potential impacts associated with the planned future infrastructure for the city, including the indicative M12 corridor alignment.

One of the four 'Big Moves' proposed within the Vision document included '*Realign Infrastructure to Unlock Strategic Land*'. The submission recognised that the land was benefited and constrained by the transport infrastructure investment associated with the future Western Sydney Airport. Specific concern was raised regarding the potential impacts of the M12 Motorway corridor on the development potential of the Northern Gateway land.

The Master Plan identified the opportunity to relocate the corridor further north, while remaining within the BHL land boundaries. The alternative corridor alignment would facilitate the creation of compact and walkable employment nodes focussed around the future North-South Rail Link and Cosgroves Creek. This approach was proposed to leverage investment in rail infrastructure for maximum benefit, ensuring workers and residents are all within walking distance of the rail station.

BHL and their project team has continued to develop and refine their Master Plan (including the alternative M12 Motorway alignment) since lodging their submissions with the GSC and TfNSW in December 2017. Significant further work which has been completed since Decemver 2017 and is ongoing includes:

- Extensive and ongoing consultation with key stakeholders likely to shape and influence the future development on the BHL land holding, including:
  - Department of Planning and Environment regarding the draft *Interim Land Use and Infrastructure Implementation Plan* for the Western Sydney Airport Growth Area.
  - Roads and Maritime Service regarding the preferred corridor route for the future M12 Motorway (ie prior to public release of the preliminary design and access strategy).
  - Penrith City Council regarding the imminent lodgement by BHL of a Planning Proposal to facilitate the release and rezoning of the BHL land so that the Vision and Master Plan can be delivered on the BHL land.
  - Major internal and domestic corporations, educational establishments and institutions regarding their potential interest in the Northern Gateway site.
- Detailed analysis of the preliminary design and access strategy and preparation of concept engineering drawings which detail the alternative proposal, including potential cost savings for Government in relation to land acquisition and construction of the M12.
- Testing of the Vision and Master Plan to confirm its consistency with the final Region and District Plans released by the Greater Sydney Commission and Transport for NSW on 18 March 2018.

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That testing confirms that the Vision and Master Plan are consistent with the Objectives and Planning Priorities outlined within:

- *Greater Sydney Region Plan: A Metropolis of Three Cities – connecting people*; and
- *Our Greater Sydney 2056: Western City District Plan – connecting communities*

- Preliminary review of the infrastructure corridors released by Transport for NSW on 26 March 2018 (during the preparation of this submission), including:
  - *Outer Sydney Orbital corridor identification*
  - *North South Rail Line and South West Rail Link Extension corridor identification*

3. SUBMISSION TO PRELIMINARY DESIGN AND ACCESS STRATEGY

BHL and their project team have undertaken a detailed review of the preliminary design and access strategy for the M12 Motorway included within the 'M12 Motorway Community Update' dated February 2018 and information available on the RMS website at http://www.rms.nsw.gov.au/projects/sydney-west/m12-motorway/index.html.

It is our view that the current configuration of the proposed M12 corridor would have a significant detrimental effect on efficient and productive use of the BHL land. The preliminary design bisects the site and creates isolated pockets of land along the eastern and south eastern boundaries, reducing the development potential of the site and the orderly and economic use and development of land.

Proceeding with the M12 corridor in this location would mean a significant lost opportunity for Government in its efforts to deliver on the Objectives and Planning Priorities outlined within the *Greater Sydney Region Plan* and the *Western City District Plan*. This includes a missed opportunity to deliver the economic opportunities of the Western Sydney Airport and to attract investment. businesses and job creation to the Western Parkland City.

BHL is proposing an alternative corridor alignment that would retain the M12 Motorway within the northern part of the BHL land, while reducing the corridor's impacts on the development potential of the site. Cardno has undertaken a detailed specialist review of the alternative proposal to confirm that it will satisfactorily address each of the technical engineering requirements. This analysis has also confirmed that the alternative M12 corridor could result in significant cost savings for the State Government, associated with the acquisition of the M12 corridor and construction of the motorway.

Each of the above matters is addressed in further detail within our submission, including the following sections of correspondence prepared by Urbis and the accompanying letter and engineering drawings prepared by Cardno.

3.1. IMPACT ON QUANTITY AND QUALITY OF DEVELOPABLE LAND

The preliminary design for the M12 Motorway has a significant impact on the BHL land. The primary east-west corridor bisects the site, physically separating the northern and southern parts of the site. The interchange between the primary east-west corridor and north-south connection to the Western Sydney Airport exacerbates this impact by creating isolated pockets of land that will be difficult to develop in a sound and logical manner.

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The Vision and Master Plan for the Northern Gateway site includes the proposed relocation of the M12 Motorway further north, generally parallel with the northern boundary of the site. Importantly, the alternative proposal retains the motorway corridor within the BHL land. However, it minimises the impact on the ability to develop the site by facilitating the delivery of a large consolidated developable area on the central and southern part of the site. It also provides for a more efficient interchange design which responds to the irregular configuration of the lot boundaries and minimises the area of land that will be isolated by the future road corridor.

Cardno was engaged to prepare engineering drawings which articulate the alternative M12 Motorway proposal, including the refined interchange. The attached correspondence and engineering drawings prepared by Cardno include a detailed analysis of both the RMS and alternative proposals (refer to Drawing SK004 and Drawing SK005), including an assessment of the potential benefits and impacts of each option. Reduced sized version of the concept drawings are provided as Figure 5 and Figure 6.

Figure 5 – RMS Preliminary Design (Source: Cardno, 2018)

Figure 6 – Alternative BHL Proposal (Source: Cardo, 2018)

The alternative M12 Motorway proposal would result in significant benefits for the BHL land based on the improvements to the quantity and quality of the developable land. The Cardno analysis has also

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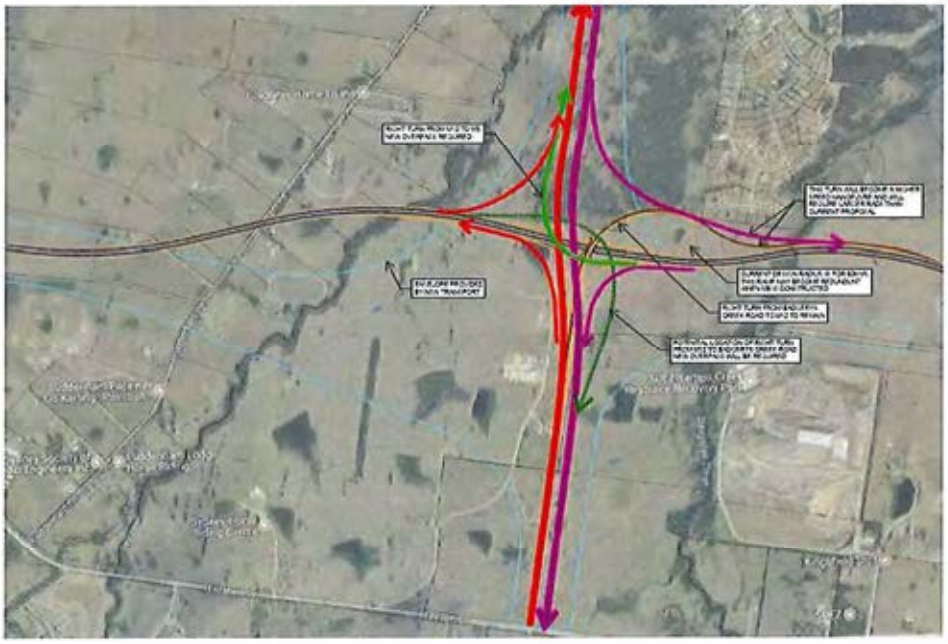
confirmed that there would be significant cost savings of approximately $10 million associated with the construction of the alternative proposal compared to the preliminary RMS design.

The detailed analysis undertaken by Cardno (as outlined within their attached letter) concludes:

> *The shift in the alignment of the M12 interchange contemplated in SK005 (BHL preferred option) provides for design solutions that significantly improve the cut/fill balance compared to the RMS option owing to the prevailing differences in topography at the two locations. This has been factored into the cost estimates carried for each option.*
>
> *Our opinion is that, based on a high level design investigation, cost savings in the order of $10M may be achievable for the Preferred BHL option compared to the RMS option.*

The *Outer Sydney Orbital corridor identification* was released by TfNSW during the preparation of this submission. Cardno has completed a high-level preliminary review of the proposed corridor and potential impact on the alternative BHL proposal. The preliminary review indicates that the alternative M12 Motorway alignment proposed by BHL could accommodate the required connections to the M9 Motorway and Badgerys Creek Road. The preliminary working drawing provided as Figure 7 will be further refined by Cardno following more detailed analysis of the exhibited material. BHL will prepare and lodge a separate submission to TfNSW regarding the proposed future corridors prior to the closure of the public exhibition period (ie by 18 May 2018).

Figure 7 – Preliminary Working Drawing: M12 and M9 Intersection (Source: Cardno, 2018)



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The relocation of the M12 corridor to the north also improves the quality of the developable land within the BHL holding. The consolidation of the developable land offers greater flexibility to accommodate a variety of land use activities within a well-considered site layout.

The consolidation of land within the central and southern parts of the site provides the opportunity to take advantage of the extensive site frontage and existing access to Elizabeth Drive (as discussed further within Section 3.2 below). It also offers greater leverage regarding the economic and employment potential based on the site's proximity to the Western Sydney Airport (as discussed further within Section 3.4).

Relocating the M12 corridor to the northern part of the BHL site will reduce the extent of injurious affection on the balance of the BHL landholding. If the corridor remains in its current location, the 'injurious affection' suffered by BHL will be very significant.

3.2. INTEGRATION BETWEEN LAND USE AND INFRASTRUCTURE PLANNING

The *Western City District Plan* highlights the need to coordinate the numerous land use and transport infrastructure initiatives across the region. One of the Key Planning Priorities includes:

> *Planning Priority W7: Establishing the land use and transport structure to deliver a liveable, productive and sustainable Western Parkland City*

However, the preliminary design for the M12 Motorway appears to not give any consideration to the extensive land use planning and site investigations that have been completed by BHL (and other land owners) in their submissions to the GSC and TfNSW. Further, the preliminary design and access strategy has been publicly released and exhibited prior to the release of the draft *Interim Land Use and Infrastructure Implementation Plan* ('the 'LUIP') for the Western Sydney Airport Growth Area (which is expected to be released imminently).

The preliminary design is likely to have a significant impact on the quality of the places that may be delivered on the BHL land holding, including the:

- types of land use activities that can be supported,
- quality of the connections between those places; and
- amenity of the public open spaces both within and surrounding the proposed centres.

Specific concern is raised regarding the potential impact of the preliminary design on the development opportunities associated with the North South Rail Link. The *Western City District Plan* states (p61):

> *The new North South Rail Link will create the spine of the Western Parkland City and play a vital role in bringing people closer to job opportunities, health, education and leisure activities. New train stations will support development of higher density housing with great transport access, meaning shorter travel times, less reliance on cars and less congestion on roads.*

However, the preliminary design for the M12 Motorway (and the Outer Sydney Orbital corridor) would likely place significant constraints on the potential of the BHL land to accommodate a station and higher density employment generating uses. Inadequate consideration has been given to the potential impact of the preliminary design on:

- Future land use activities, including residential and non-residential uses

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- Delivery of walkable communities with direct and safe pedestrian connections to employment centres and public transport
- Local and regional cycle connections, particularly for short trips to centres, transport interchanges and local services such as schools and health services
- Green grid connections and public open spaces that incorporate existing landscape and waterway features

This approach is inconsistent with the Objectives within the *Greater Sydney Region Plan* and the Planning Priorities within the *Western City District Plan*. Specific concern is raised regarding the compliance of the proposal with the following direction in the *Western City District Plan* (p63):

> *In assessing potential infrastructure corridors, economic, social and environmental outcomes are considered as well as their integration with the long-term land use and transport vision for the area.*

The preliminary design and access strategy for the M12 Motorway does not appear to adequately consider the economic, social or environmental outcomes for the BHL land. The RMS proposal will have a significant effect on the development potential for the site.

The Vision and Master Plan for the Northern Gateway site provides a comprehensive analysis of each of these matters, including the integration of land use activities with transport corridors. The revised M12 alignment will result in significant benefits to the development potential of the BHL land, as well as providing substantial potential cost savings associated with the construction of the motorway.

3.3. LEVERAGING ECONOMIC OPPORTUNITIES FROM WESTERN SYDNEY AIRPORT

The Western Sydney City Deal, *Greater Sydney Region Plan* and *Western City District Plan* are focussed on leveraging the significant economic opportunities that can be delivered in association with the Western Sydney Airport and Badgerys Creek Aerotropolis.

Key priorities include the delivery of more jobs and a greater diversity of employment opportunities to rebalance current inequities between the Eastern and Western Cities within the Greater Sydney Region. The *Western City District Plan* recognises the importance of effective land use and transport planning to realise the delivery of the stated economic and employment objectives (p71):

> *Enhancing the transport connections to the Western Sydney Airport, Badgerys Creek Aerotropolis and Western Sydney Employment Area together with integrated land use, transport and infrastructure planning are fundamental requirements for delivering on this outcome.*

It is critical that short-term decision making associated with the M12 Motorway does not compromise the medium and long term land use and transport planning or the potential future economic outcomes for the Western City District, including the BHL land. This site forms the Northern Gateway to the Western Sydney Airport and the Badgerys Creek Aerotropolis and presents a unique opportunity to drive economic development and jobs growth aligned with the objectives for the Western Sydney Airport Growth Area.

BHL recognises that the M12 Motorway will form an important transport connection for the future Western Sydney Airport and the redevelopment of the surrounding precincts. BHL is not seeking to remove the M12 Motorway corridor from their lands. Rather, an alternative alignment is being

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proposed to minimise the potential negative impacts on the development potential of their land, while also seeking to leverage the potential benefits for the Western City that may be achieved through their proximity to the Western Sydney Airport and the associated infrastructure that will be delivered.

3.4. INVESTMENT AND JOB CREATION IN STRATEGIC CENTRES

The *Greater Sydney Region Plan* and *Western City District Plan* seek to focus investment, business opportunities and employment within Strategic Centres that benefit from access to high-frequency public transport, including existing and future train stations. The Plans recognised that well-planned centres help to stimulate economic activity and innovation, provide jobs closer to where people live and achieve greater leverage from infrastructure investment.

The North-South Rail Link will play a major role in determining the appropriate location of new Strategic Centres within the Western City District. The District Plan (p65) states that the Western Economic Corridor needs to consider '*city-shaping and city-serving transport connections*' as well as:

- *maximising the opportunity to have both strategic and local centres on the first stage of the North South Rail Link and potential extensions taking advantage of local economic activity which will be created by the more than 1.5 million people who will live in the Western Parkland City by 2056*

The Vision and Master Plan for the Northern Gateway site proposes the realignment of the M12 Motorway along the northern boundary to facilitate the creation of compact and walkable mixed-use communities. This includes focussing land use activities within walking distance of a rail station associated with the future North-South Rail Link. This approach would leverage the investment in rail infrastructure for maximum benefit, ensuring works and residents are within walking distance of the station.

However, the preliminary design for the M12 Motorway (and its interchange with the future M9 corridor) would likely sterilise the ability of the BHL land to accommodate a future station due to the conflicts and complexities associated with the road infrastructure. This would have a substantial negative impact upon the opportunities to deliver higher-density uses and high-quality places on the BHL land holding and the Northern Gateway from the Western Sydney Airport.

4. RECOMMENDED NEXT STEPS AND ACTIONS

BHL appreciates the opportunity to make a submission in response to the public exhibition of the preliminary design and access strategy for the M12 Motorway and would welcome ongoing dialogue with the RMS throughout the stakeholder consultation process.

It is our strong view that the preliminary design and access strategy for the M12 Motorway needs to be amended and refined to minimise its potential impacts on the economic, social and environmental outcomes for the BHL land and the delivery of the Objectives and Planning Priorities outlined within the *Greater Sydney Region Plan* and the *Western City District Plan*.

Our work to date suggests that there is a better way of delivering much needed infrastructure, which includes not just cost savings to Government. Our alternate alignment is better capable of aligning public need and benefit with private capital investment that will be so critical for Government to recoup as quickly as possible a return on its own investment.

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Accordingly, we request the RMS reconsider the current preliminary design for the M12 corridor and the relocation of the current alignment further north within the BHL land holding.

BHL would appreciate the opportunity to meet with the RMS to discuss their submission in further detail, including the opportunities and benefits that may be achieved by the alternative corridor alignment proposed by Cardno.

If you have any questions please don't hesitate to contact me on [redacted]

Yours sincerely,

[redacted]

David Hoy
Regional Director

Cardno

Our Ref: 80218056_Letter-01a:GJN
Contact: Garry Neville

27 March 2018

Boyuan Holdings Limited (BHL)
Level 16
5 Martin Place
Sydney NSW 2000

Attention: Joseph Nguyen

Cardno (NSW/ACT) Pty Ltd
ABN 95 001 145 035

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203 Pacific Highway
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Dear Joseph,

M12 ALIGNMENT AND INTERCHANGE OPTIONS
BADGERYS CREEK

This letter is to accompany the M12 alignment and interchange layout options enclosed to clarify assumptions made when developing the preliminary cost estimates and to provide background to the layout comparisons.

The BHL preferred layout, shown on drawing SK001 and SK005 attached, has been developed with reference to the Roads and Maritime Services (RMS) layout released in the 'M12 Motorway Community Update' document as a base case. The interchange radii and dimensions have remained largely consistent with the RMS design, with geometry adjusted to suit suggested amendments to the M12 alignment. The road cross sections have used the indicative information provided in the community update, Austroads Standards and Cardno's engineering experience to determine a corridor width shown in the sketch plans and the 3D modelling images enclosed.

A summary of the main features of the preferred layout compared to the RMS option is summarised on drawing SK005.

We have modelled the concept design for both options (BHL Preferred and RMS) in 3D and made an assessment of likely earthworks volumes to inform indicative cost estimates.

Also, in order to provide some context to the extent of earthworks within the BHL site relative to the wider M12 project, we have carried out high level 3D modelling of the full M12 alignment. This exercise suggests that owing to flooding constraints along the alignment and the need for grade separation to major roads, very large quantities of imported fill are likely to be required for the M12 project.

The shift in the alignment of the M12 interchange contemplated in SK005 (BHL preferred option) provides for design solutions that significantly improve the cut/fill balance compared to the RMS option owing to the prevailing differences in topography at the two locations. This has been factored into the cost estimates carried out for each option.

Our opinion is that, based on a high level design investigation, cost savings in the order of $10M may be achievable for the Preferred BHL option compared to the RMS option.

Details of the cost estimates and associated assumptions are available on request. Key design assumptions are shown in Table 1-1 below.

Australia • Belgium • Canada • Colombia • Ecuador • Germany • Indonesia • Kenya • Myanmar • New Zealand • Nigeria • Papua New Guinea • Peru • Philippines • Singapore • Timor-Leste • United Kingdom • United States • Operations in over 100 countries

Table 1-1 Design Assumptions

• The option presented is conceptual only, based on desktop studies and prepared within the limited time available to respond to the public exhibition. Further studies and design development is required to examine constraints in more detail and there is no guarantee all constraints have been addressed in the concept designs.
• The scope of the concept designs prepared does not consider in detail the proposed rail link. This will be the subject of a separate study.
• Design speed of 110km/hr for the M12 has been adopted for the concept layout.
• Cut/fill batters as shown on SK006 (in the absence of geotechnical advice).
• The indicative estimates prepared do not consider property acquisition, design and management fees, authority fees, contributions and charges.

Please contact the undersigned should you require any further information.

Yours sincerely,

[redacted]

Garry Neville
Senior Civil Engineer / Team Leader
for Cardno
Direct Line: [redacted]
Email: [redacted]

Enc: Sketch Plans SK001, SK004, SK005 & SK006
3D modelling images

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Figure 1-1 RMS Layout Overview

Australia • Belgium • Canada • Colombia • Ecuador • Germany • Indonesia • Kenya • Myanmar • New Zealand • Nigeria • Papua New Guinea • Peru • Philippines • Singapore • Timor-Leste • United Kingdom • United States • Operations in over 100 countries

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Figure 1-2 RMS Interchange Layout

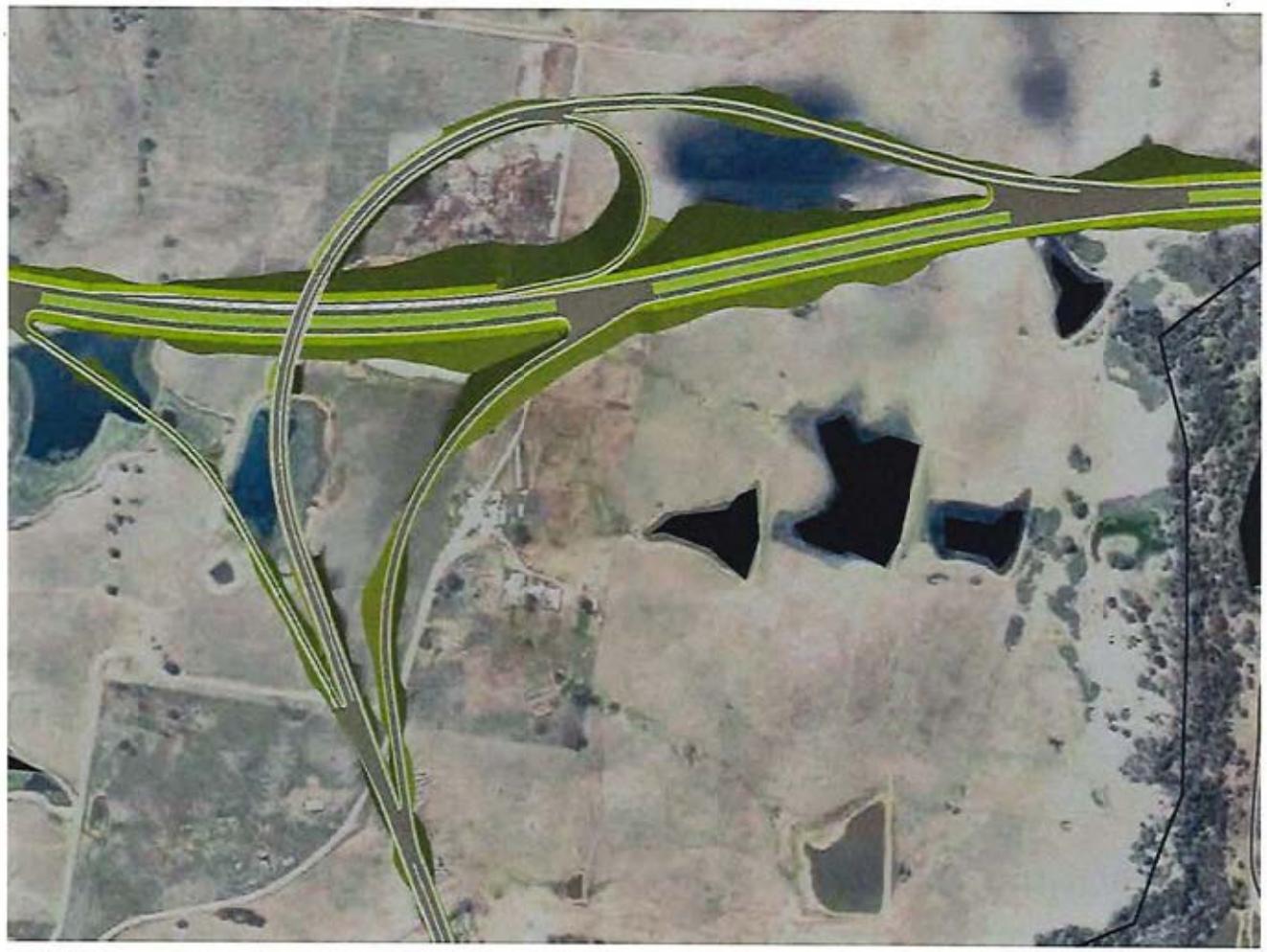

Figure 1-3 RMS Interchange Layout

Figure 1-4 BHL Preferred Layout Overview

Figure 1-5 BHL Preferred Option Interchange Layout

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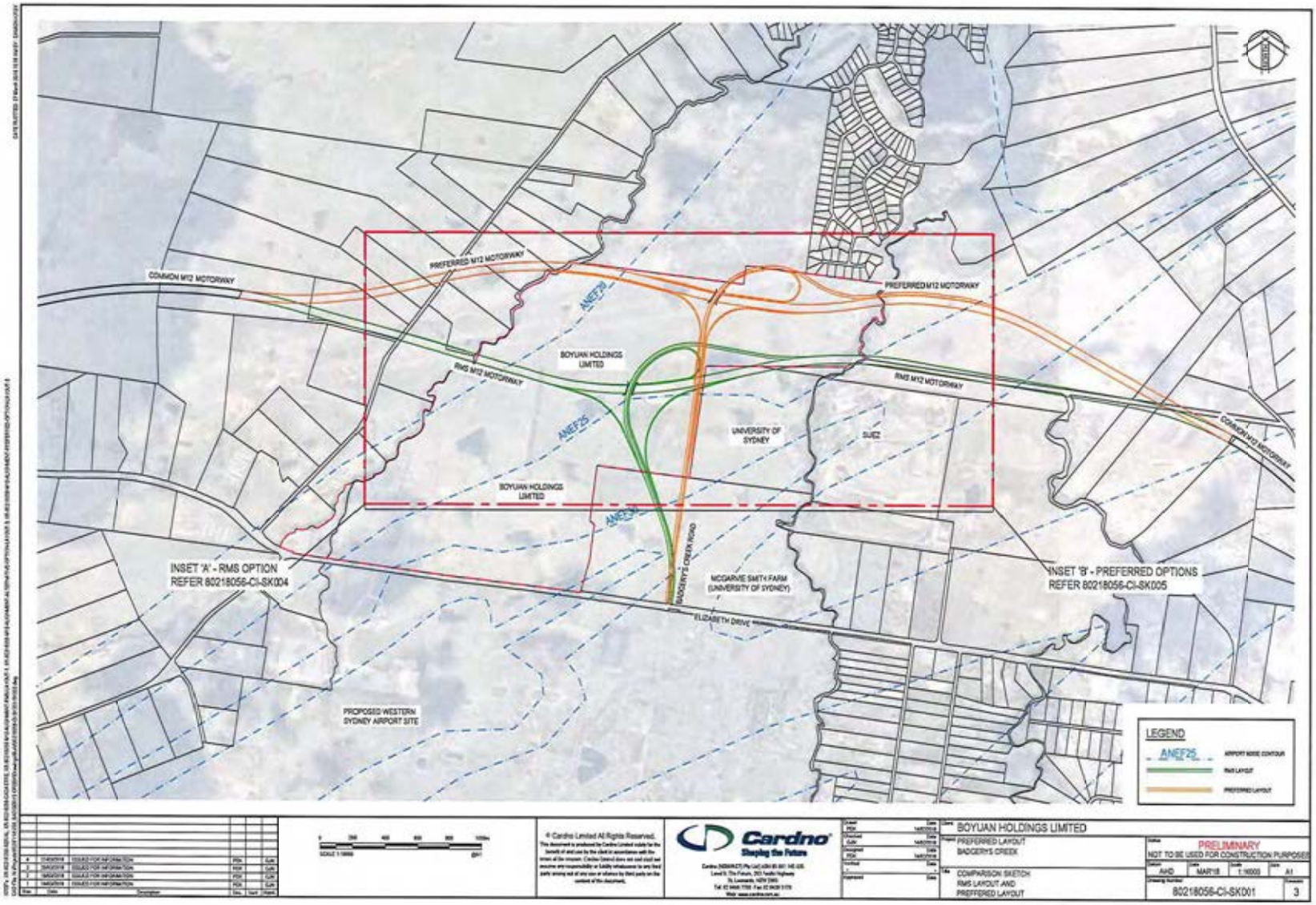
Figure 1-6 BHL Preferred Option Interchange Layout

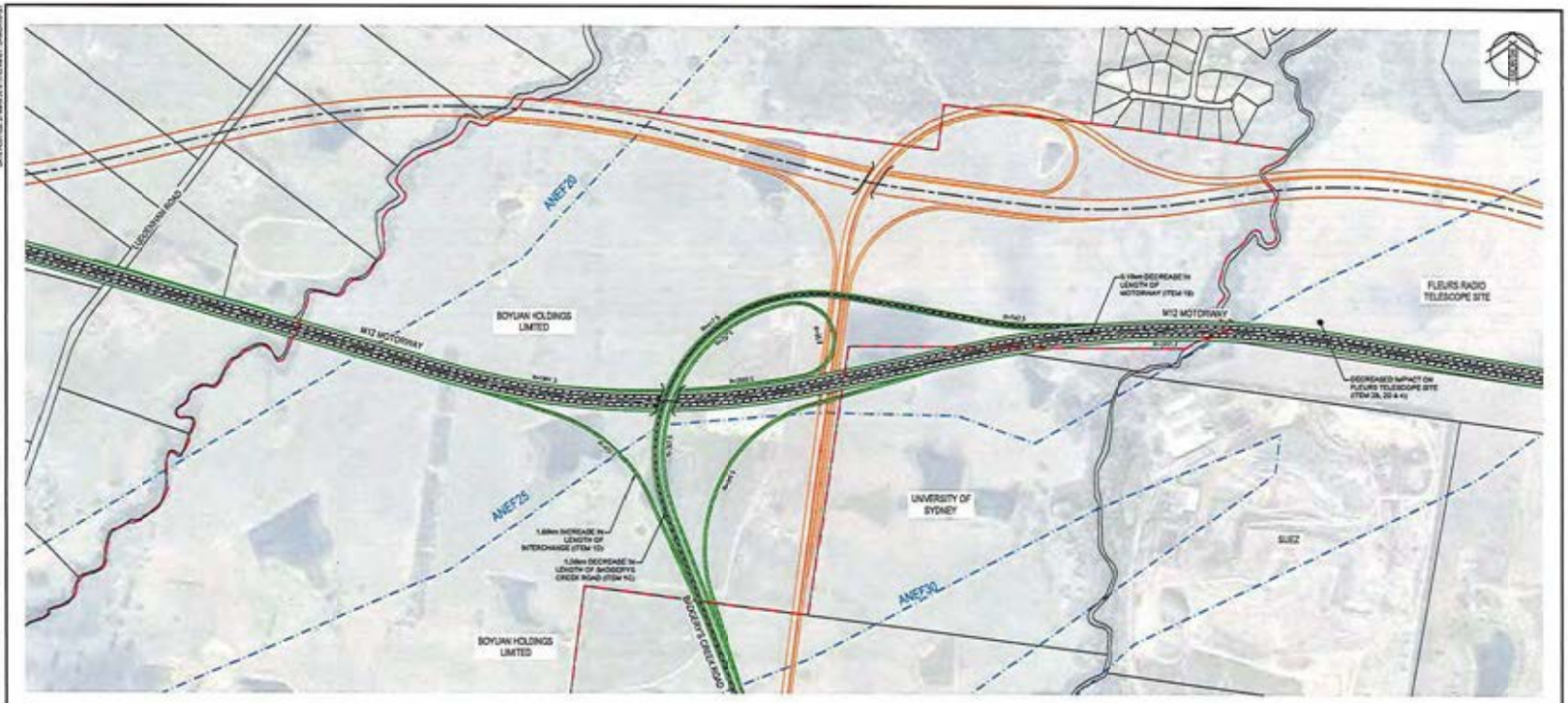
APPENDIX D

SUBMISSION TO RMS IN RELATION TO THE PREFERRED CORRIDOR LOCATION FOR THE M12



APPENDIX D

SUBMISSION TO RMS IN RELATION TO THE PREFERRED CORRIDOR LOCATION FOR THE M12



M12 ALIGNMENT OPTIONS

ITEM		OPTION 1 (PREFERRED LAYOUT)	OPTION 2 (RMS LAYOUT)
1	ROADS		
1A	EARTHWORKS (+/-) (including allowance for filling of existing water bodies/farm dams)		
1B	LENGTH M12 MOTORWAY (km)	0.42	0.24
1C	LENGTH BADGERYS CREEK ROAD (km)	2.69	2.93
1D	LENGTH INTERCHANGE RAMP (km)	1.84	0.76
2	PROPERTY		
2A	AREA TO BE ACQUIRED	Approximately 24 Ha less than RMS option (Option 2).	Approximately 24 Ha more than Preferred option (Option 1).
2B	AFFECTED PROPERTIES	Greater impact than RMS option (WEST: Six additional landowners properties impacted, WEST: one additional property impacted, NORTH: One additional property impacted). No impact to University of Sydney land (northern portion).	Less impact than Preferred option (WEST: Six less - Landowners Flower properties impacted) WEST: one less property impacted, NORTH: No impact. Impact to University of Sydney land (northern portion) approximately 8%.
2C	LAND VALUE CATEGORY (LAND USE)	Majority of interchange situated between ANEF25 and ANEF 30 noise contours, M12 alignment down not found Boyuan Holdings land, containing other commodities for future development.	Majority of interchange situated between ANEF25 and ANEF 30 noise contours, M12 alignment bounds Boyuan Holdings land, containing other commodities for future development.
2D	IMPACTS ON NEIGHBOURING PROPERTIES	NORTH: (Fleurs ownership) One additional property impacted. GASF (CSIRO): Greater impact to Fleurs Radio Telescope site. / SOUTH WEST (Sydney University): No impact to Sydney University land SOUTH (Sydney University): Less impact to McCarrow Creek farm / WEST: Six additional properties impacted.	NORTH: (Fleurs ownership) One less property impacted. GASF (CSIRO): Less impact to Fleurs Radio Telescope site. / SOUTH WEST (Sydney University): Significant impact to Sydney University land (Sydney University): Greater impact to McCarrow Creek farm / WEST: Six fewer properties impacted.
3	HYDROLOGY AND FLOODING	Comparable impact to 100 year flood storage to RMS option.	Comparable impact to 100 year flood storage to Preferred option.
4	HERITAGE	Greater impact to Fleurs Radio Telescope Site. Less impact to McCarrow Creek farm.	Negligible difference between options.
5	BIODIVERSITY	Negligible difference between options.	Negligible difference between options.
6	TRAFFIC	Negligible difference between options.	Negligible difference between options.
7	SOIL CONTAMINATION & WATER	Less impact to farm dams/existing water bodies (Approximately 3.1Ha total). Less risk associated with dewatering, acid sulphate soil management and soil contamination and disposal.	Larger impact to farm dams/existing water bodies (Approximately 4.7Ha total). Increased risk associated with dewatering, acid sulphate soil management and soil contamination and disposal.
8	UTILITIES	No difference between option based on develop utilities study.	No difference between option based on develop utilities study.

Rev.	Date	Description	Dwn.	Vrfd.	Appd.
2	27/06/2018	ISSUED FOR RAP DISTRIBUTION	PGK		GJH
1	28/06/2018	ISSUED FOR RAP DISTRIBUTION	PGK		GJH
1	18/06/2018	ISSUED FOR RAP DISTRIBUTION	PGK		GJH

SCALE 1:5000 @A1

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Drawn	PGK	18/06/2018
Checked	GJH	18/06/2018
Designed	PGK	18/06/2018
Verified		
Approved		

Client: BOYUAN HOLDINGS LIMITED
Project: M12 INTERSECTION REVIEW
BADGERYS CREEK
Title: INSET 'A'
OPTION 1
RMS LAYOUT

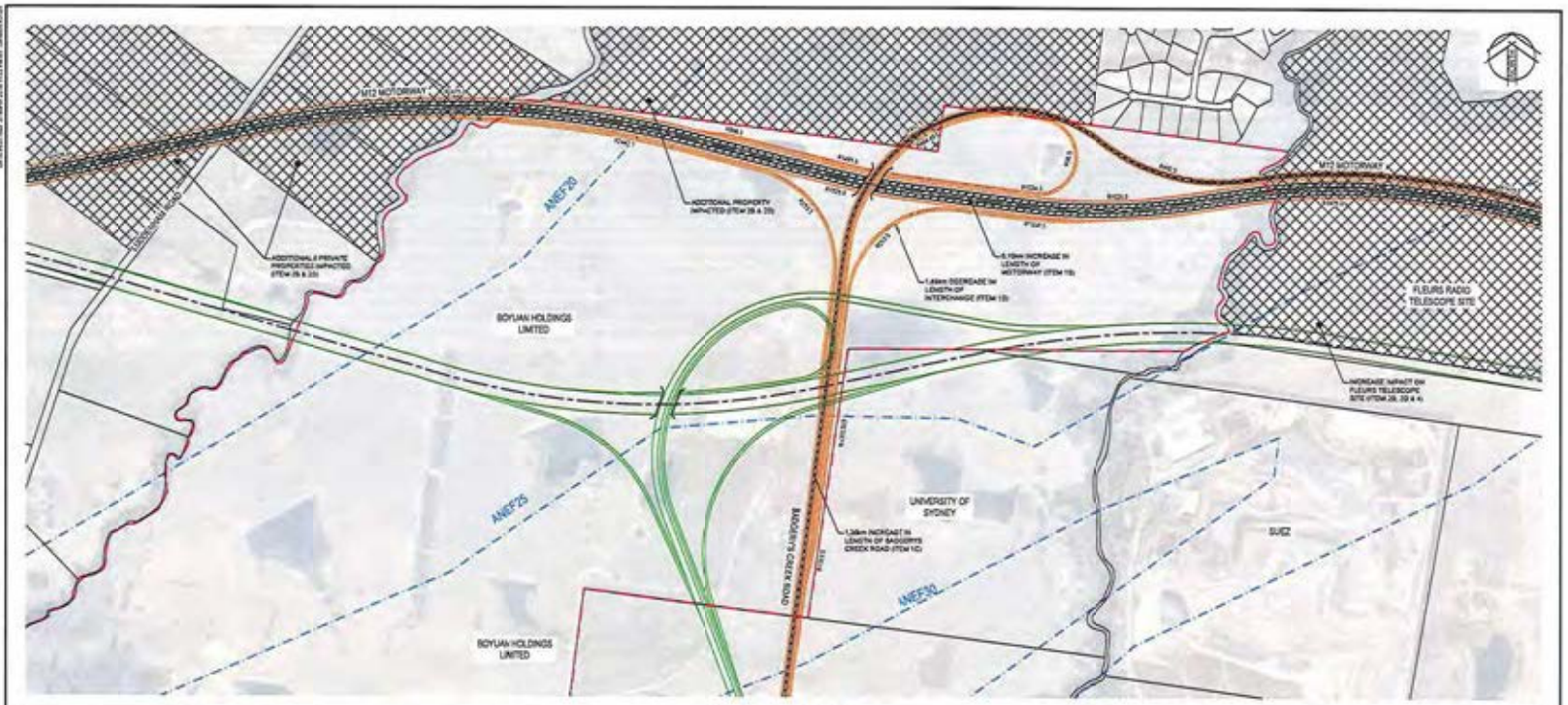
Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Date	Scale	Size
AHD	MAR'18	1:5000	A1

Drawing Number: 80218056-CI-SK004
Revision: 2

APPENDIX D

SUBMISSION TO RMS IN RELATION TO THE PREFERRED CORRIDOR LOCATION FOR THE M12



M12 ALIGNMENT OPTIONS

ITEM		OPTION 1 (PREFERRED LAYOUT)	OPTION 2 (RMS LAYOUT)
1	ROADS		
1A	(ARTIMAGES) HCM (including allowance for filling of existing water bodies/dam dams)		
1B	LENGTH M12 MOTORWAY (km)	6.40	6.28
1C	LENGTH BADGERY'S CREEK ROAD (km)	2.00	2.00
1D	LENGTH INTERCHANGE RAMP (km)	5.04	5.39
2	PROPERTY		
2A	AREA TO BE ACQUIRED	Approximately 3% less than RMS option (Option 2).	Approximately 3% more than Preferred option (Option 1).
2B	AFFECTED PROPERTIES	Greater impact than RMS option (WEST: Six additional Landowners properties impacted, WEST: one additional property impacted, NORTH: One additional property impacted). No impact to University of Sydney land (northern portion).	Less impact than Preferred option (WEST: Six less Landowners Road properties impacted, WEST: one less property impacted, NORTH: No impact. Impact to University of Sydney land (northern portion) approximately 10%.
2C	LAND VALUE (ATTAINMP LAND USE)	Majority of interchange situated between ANEF25 and ANEF 20 more centrous, M12 alignment closer near Fleurs Radio land, enabling other commodity for future development.	Majority of interchange situated between ANEF25 and ANEF 20 more centrous, M12 alignment bears Fleurs Radio land, enhancement other commodity for future development.
2D	IMPACTS ON NEIGHBOURING PROPERTIES	NORTH: (Private ownership) One additional property impacted. EAST (GRIFFIS): Greater impact to Fleurs Radio Telescope site. / SOUTH WEST (Sydney University): No impact to Sydney University land. SOUTH (Sydney University): Less impact to McCarthur-Smith farm / WEST: Six additional properties impacted.	NORTH: (Private ownership) One less property impacted. EAST (GRIFFIS): Less impact to Fleurs Radio Telescope site. / SOUTH WEST (Sydney University): Significant impact to Sydney University land. SOUTH (Sydney University): Greater impact to McCarthur-Smith farm / WEST: Six fewer properties impacted.
3	HYDROLOGY AND FLOODING	Comparable impact to 100 year flood storage to RMS option.	Comparable impact to 100 year flood storage to Preferred option.
4	HERITAGE	Greater impact to Fleurs Radio Telescope Site. Less impact to McCarthur-Smith farm.	Negligible difference between options.
5	BIODIVERSITY	Negligible difference between options.	Negligible difference between options.
6	TRAFFIC	Negligible difference between options.	Negligible difference between options.
7	SOIL CONTAMINATION & WATER	Less impact to farm dams/existing water bodies (Approximately 3.1% total). Less risk associated with dewatering, and sulphate soil management and soil contamination and disposal.	Larger impact to farm dams/existing water bodies (Approximately 4.1% total). Increased risk associated with dewatering, and sulphate soil management and soil contamination and disposal.
8	UTILITIES	No difference between options based on desktop utilities study.	No difference between options based on desktop utilities study.

Rev	Date	Description	Drn	Chkd	Appd
A	17/10/2014	ISSUED FOR INFORMATION	PGK	GJR	
B	28/10/2014	ISSUED FOR INFORMATION	PGK	GJR	
C	18/02/2015	ISSUED FOR INFORMATION	PGK	GJR	

SCALE 1:5000 @A1

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		Date
Drawn	PGK	10/07/2014
Checked	GJR	10/07/2014
Designed	PGK	10/07/2014
Verified		Date
-		Date
Approved		Date

Client: BOYUAN HOLDINGS LIMITED
Project: M12 INTERSECTION REVIEW
BADGERYS CREEK
Title: INSET 'B'
OPTION 2
PREFERRED LAYOUT

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Drawn	Checked	Scale	Date	Size
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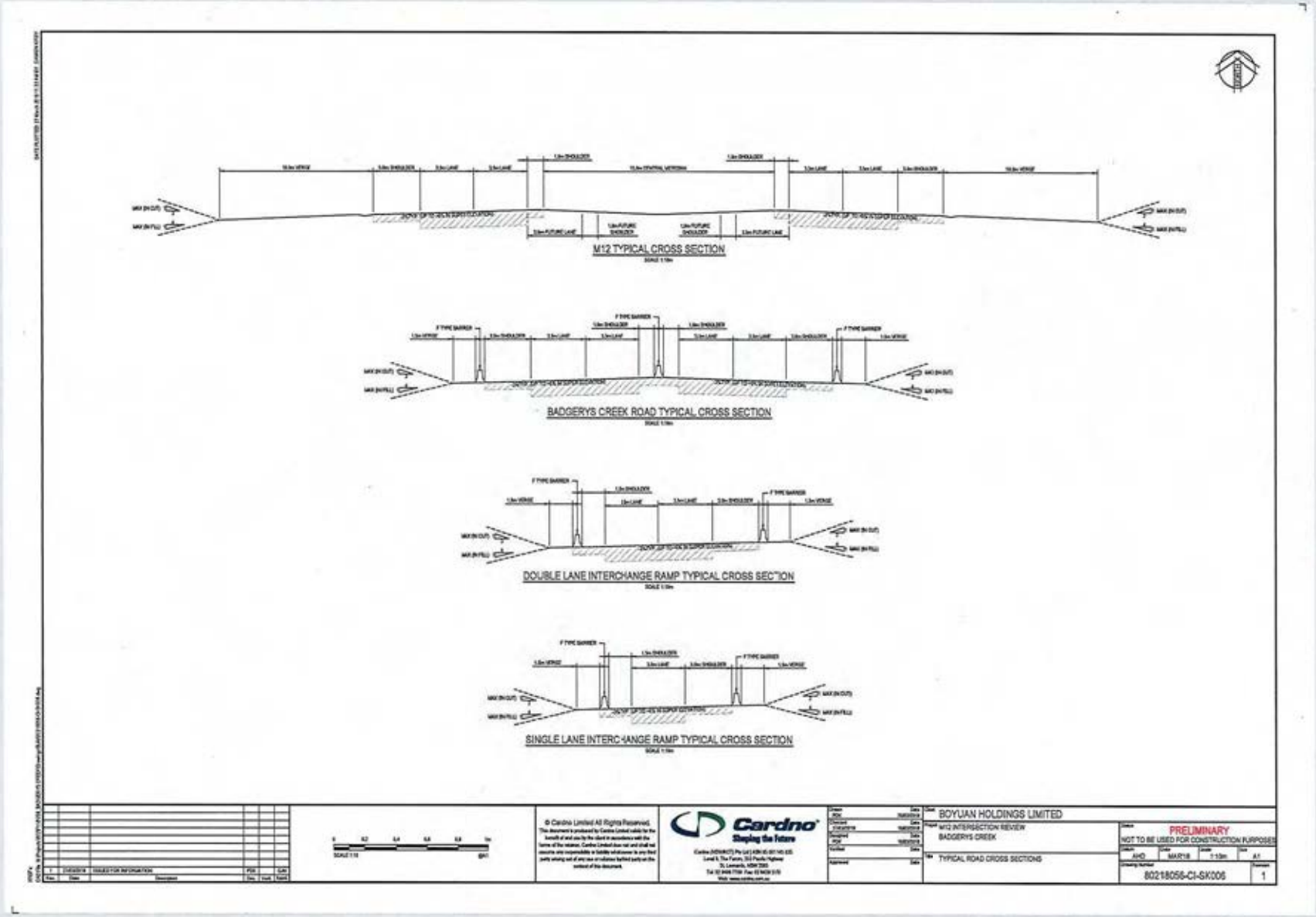
Drawing Number: 80218056-CI-SK005
Revision: 3


M12 TYPICAL CROSS SECTION
BADGERYS CREEK ROAD TYPICAL CROSS SECTION
DOUBLE LANE INTERCHANGE RAMP TYPICAL CROSS SECTION
SINGLE LANE INTERCHANGE RAMP TYPICAL CROSS SECTION
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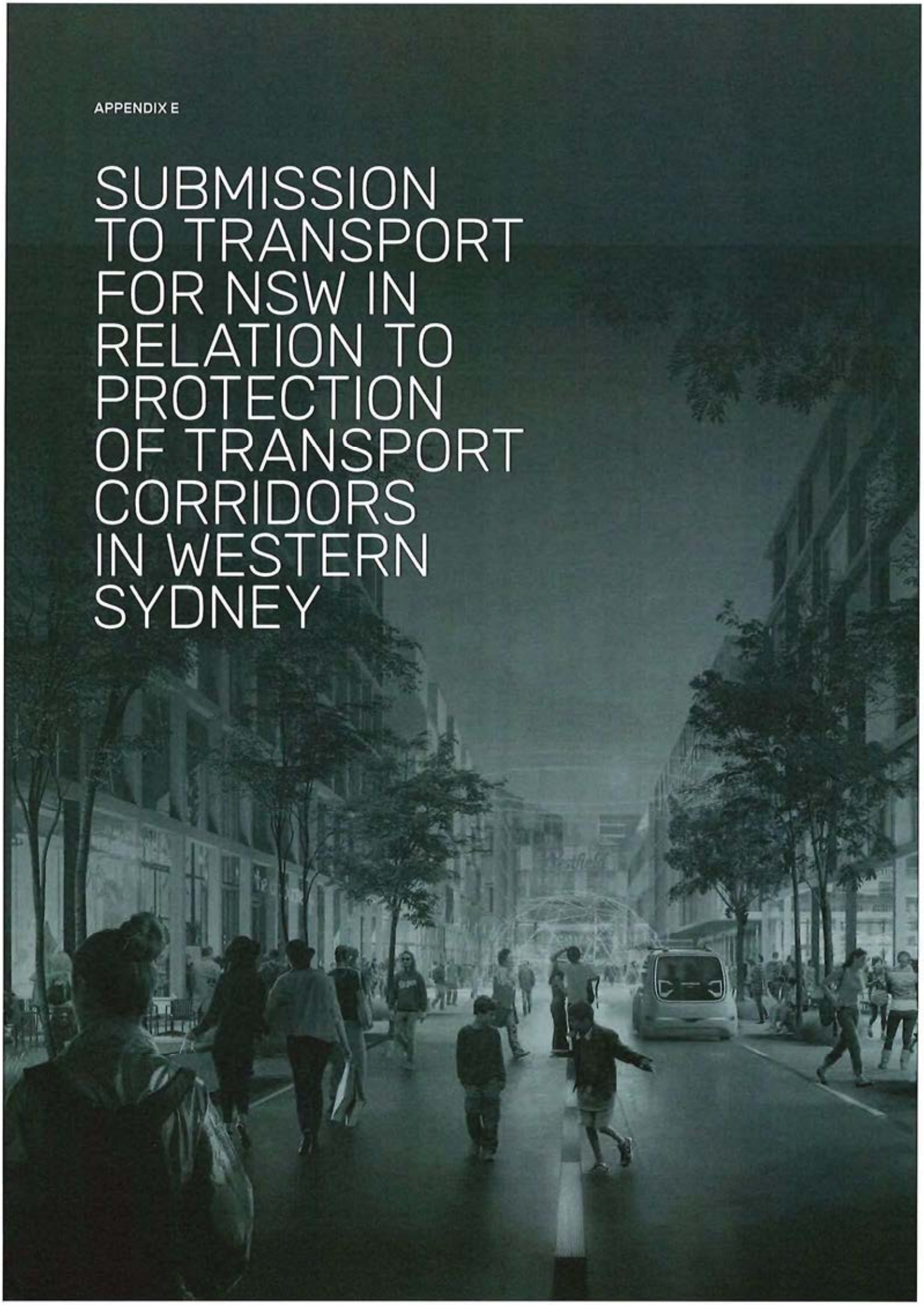
BOYUAN HOLDINGS LIMITED
M12 INTERSECTION REVIEW
BADGERYS CREEK
TYPICAL ROAD CROSS SECTIONS
PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES
80218056-CI-SK006

APPENDIX E

SUBMISSION TO TRANSPORT FOR NSW IN RELATION TO PROTECTION OF TRANSPORT CORRIDORS IN WESTERN SYDNEY



URBIS

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Urbis Pty Ltd
ABN 50 105 256 228

8 June 2018

Geoff Cahill
Director, Corridor Preservation
Transport Networks | Freight, Strategy and Planning
Transport for NSW
(by email: [redacted]

Dear Geoff,

SUBMISSION TO PROTECTION OF TRANSPORT CORRIDORS IN WESTERN SYDNEY (NORTH SOUTH RAIL LINE AND OUTER SYDNEY ORBITAL) [redacted] BADGERYS CREEK

This submission has been prepared on behalf of Boyuan Holdings Limited (BHL) and its foundation partners (including Western Sydney University, Dr Charlie Teo, Scentre Group and LOGOS) in response to the public exhibition of the proposed transport corridors in Western Sydney.

Our submission focuses on the potential impacts and implications of the North South Rail Line and the Outer Sydney Orbital on the planned redevelopment of the Northern Gateway site at 1953-2109 Elizabeth Drive, Badgerys Creek.

This submission includes:

- Description of the BHL land holding and its existing and likely future local and regional context
- Details of previous submissions regarding strategic land use and transport planning matters including a Vision and Master Plan and Planning Proposal with alternative transport corridors.
- Submission in response to the public exhibition of North South Rail Line ('**NSRL**') and Outer Sydney Orbital ('**OSO**') Corridors, including potential impacts on the BHL land and an alternative solution which avoids or minimises these impacts and optimises potential benefits
- Supporting documentation prepared by Cardno, GHD and PwC which is referred to within our submission and attached to this correspondence

It is our strong view that the proposed NSRL and OSO Corridors (including the intersection with the proposed M12 Motorway) should be relocated within the BHL land parcel to deliver significant public benefits associated with the alternative alignment, including:

- Preservation of an unparalleled opportunity to unlock the development potential of a large single landholding within the Western Parkland City by BHL and its partners whose commitment and track record will ensure the Vision and Master Plan are delivered

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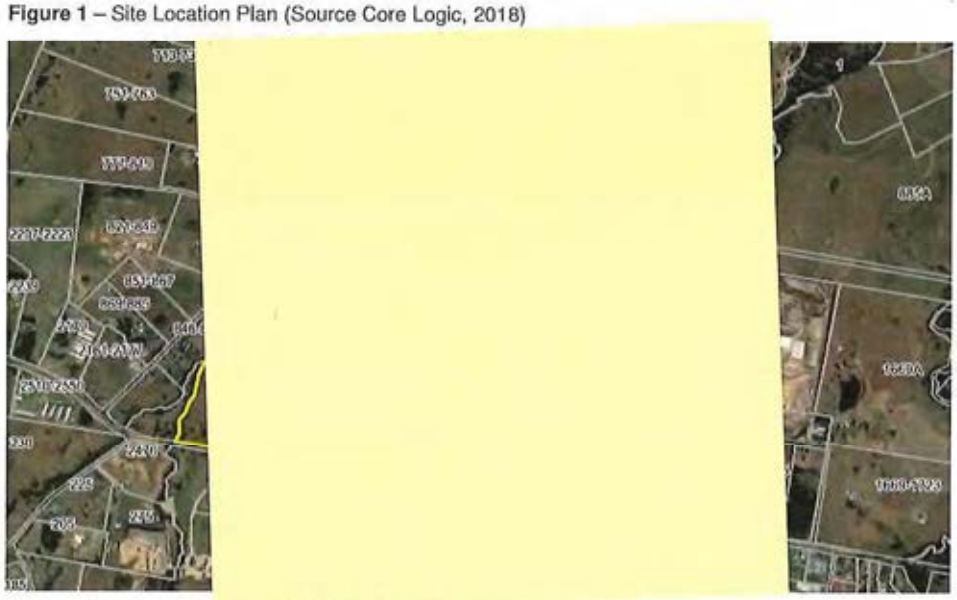
- Delivery of the 30-minute Western Parkland City aligned with the objectives of the Western City Deal, *Greater Sydney Region Plan* and *Western City District Plan*
- Significant potential cost savings to the State Government regarding the construction and delivery of the future transport infrastructure, including a substantial reduction in required earthworks and associated environmental and economic benefits
- Substantial economic and employment benefits that will be delivered by the alternative transport corridor alignment, including 1.3 million sqm of employment floorspace, 38,000 new jobs and $14.3 billion in local economic output

Each of the above matters are clearly demonstrated and discussed in further detail within the following sections of our submission.

1. SITE CONTEXT

The BHL land holding is located at [redacted] Badgerys Creek. The legal description of the site is [redacted] Deposited [redacted] refer to **Figure 1**).

Figure 1 – Site Location Plan (Source Core Logic, 2018)



The key features of the site and its immediate context are summarised below:

- The site has a total area of approximately 344 hectares and is in single ownership
- The land has been used for agricultural purposes and is largely cleared of vegetation with several man-made waterbodies, primarily within the central and southern parts of the site

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- The site benefits from direct access to Elizabeth Drive with existing road frontage of approximately 1,600 metres along the southern boundary
- The land holding is located directly opposite the Western Sydney Airport site (refer to **Figure 2**)
- The site is located within the northern part of the Western Economic Corridor and Western Sydney Airport Growth Area in the Western Parkland City (refer to **Figure 3**)

Figure 2 – Local Context Plan (Source: OMA, 2018)

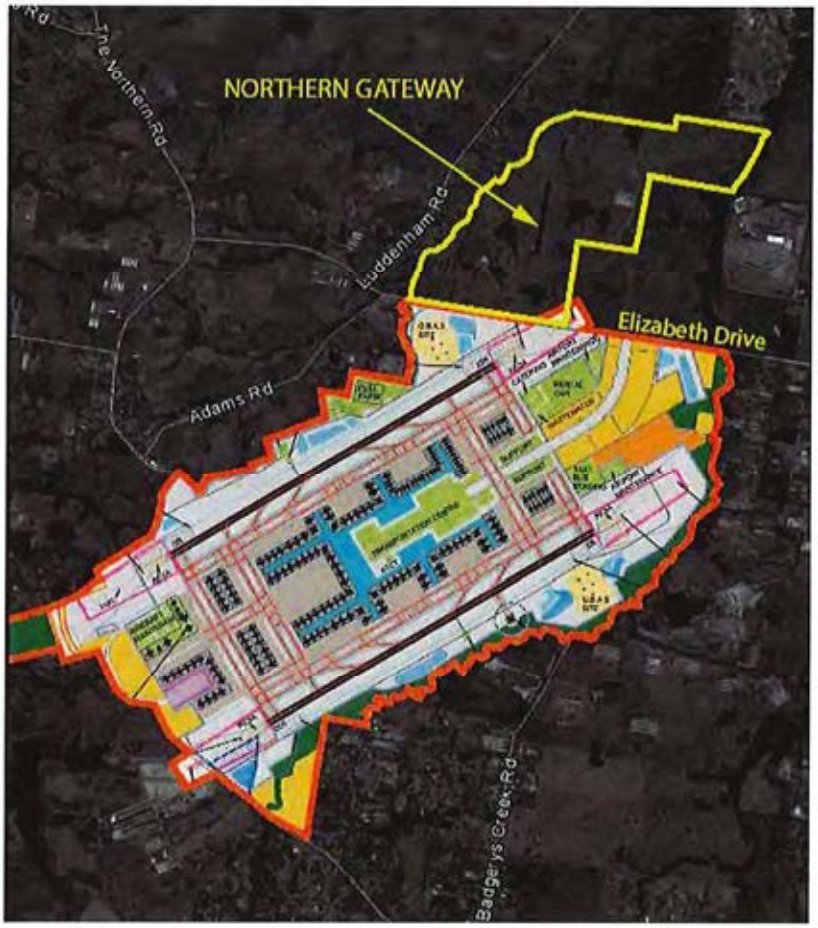

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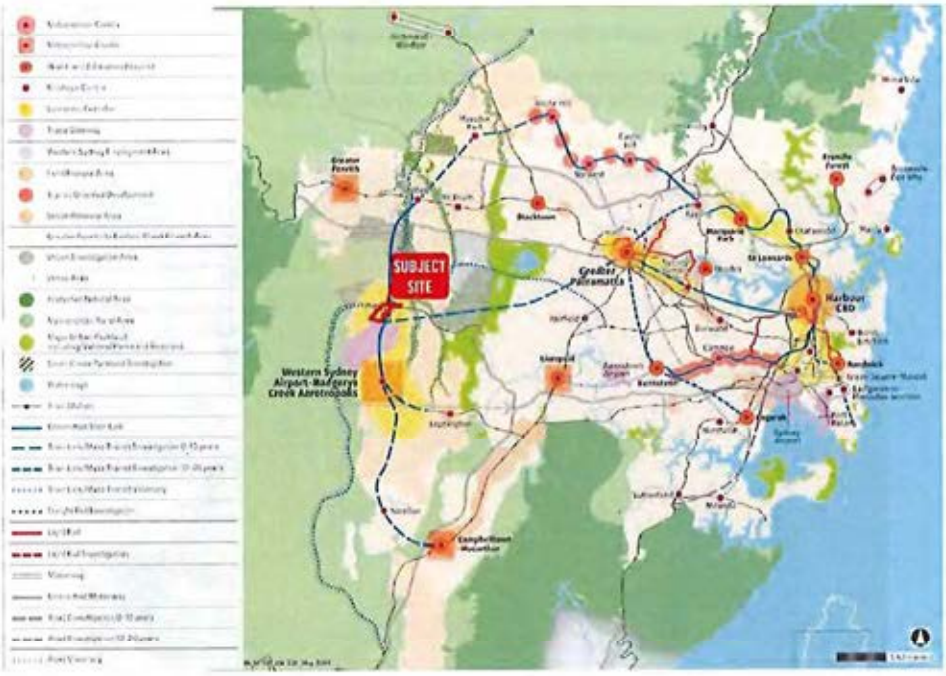
Figure 3 – Greater Sydney Region Plan and Western City Context Plan (Source: Urbis, 2018)



2. "A BOLD VISION FOR THE NORTHERN GATEWAY"

BHL and their foundation partners prepared a comprehensive Vision and Master Plan for the future development of their land. '*A Bold Vision for the Northern Gateway*' was prepared by OMA and Urbis on behalf of BHL and their project partners to outline this vision and the future development potential.

The Vision and Master Plan was prepared in response to the public exhibition of the draft Greater Sydney Region Plan and draft Western City District Plan by the Greater Sydney Commission (GSC) in November 2017. A key principle of the Master Plan and submission to the GSC included the realignment of transport infrastructure to unlock this strategic land holding and optimise the benefits of this significant infrastructure investment, while avoiding or minimising the potential impacts.

Specific concern was raised regarding the unnecessary fragmentation of this significant land parcel and an alternative solution which relocated the infrastructure further north within the BHL land boundary. The alternative corridor alignment would facilitate the creation of compact and walkable employment nodes, focussed around the north-south rail link and Cosgroves Creek.

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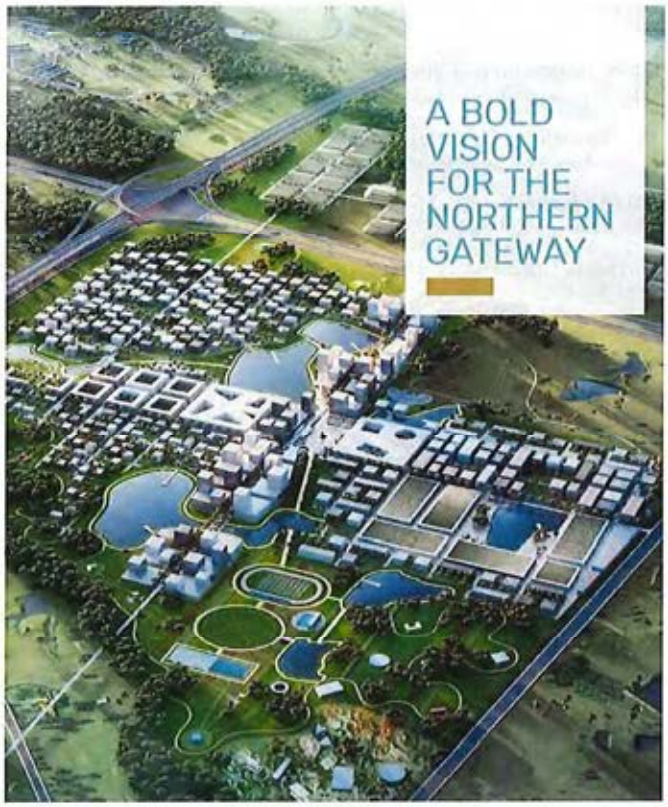
Figure 4 – Vision and Master Plan Cover Page (Source: OMA, 2017)



The draft Plans were subsequently finalised and publicly released by the GSC in March 2018. The Vision and Master Plan has continued to be further refined, including the detailed design and development of the alternative road and rail transport corridors. Additional tasks have included:

- Extensive and ongoing consultation with key stakeholders likely to shape and influence the future development on the BHL land holding, including:
  - **Department of Planning and Environment** regarding the draft *Interim Land Use and Infrastructure Implementation Plan* for the Western Sydney Airport Growth Area
  - **Roads and Maritime Services ('RMS')** regarding the preferred corridor route for the future M12 Motorway (prior to public release of the preliminary design and access strategy) and follow up meetings to discuss the BHL submission, including the alternative location

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- **Transport for NSW ('TfNSW')** regarding the BHL submission in response to exhibition of the M12 Motorway and potential benefits of the alternative location, including optimising the alignment of the NSRL and future station location
- **EY (on behalf of Commonwealth and State governments)** regarding market sounding for delivery of the NSRL, including opportunities to accommodate a station on the BHL land
- **Penrith City Council** regarding a Planning Proposal lodged with Council on 29 May 2018 to facilitate release and rezoning of the BHL land and delivery of the Vision and Master Plan
- **Major international and domestic corporations, educational establishments and institutions** regarding their potential interest in the Northern Gateway site

- Detailed review of the infrastructure corridors released by Transport for NSW on 26 March 2018 (during the preparation of this submission), including *Outer Sydney Orbital corridor identification* and *North South Rail Line and South West Rail Link Extension corridor identification*
- Preparation of concept engineering drawings which detail the alternative proposal, including potential cost savings for Government in relation to land acquisition and construction costs associated with the North South Rail Line and Outer Sydney Orbital if constructed as per the alternative BHL proposal

A Planning Proposal has been lodged with Penrith City Council to facilitate the release and rezoning of the BHL land holding in accordance with the refined Master Plan, including the alternative road and rail transport corridors. The rezoning and redevelopment of the land in accordance with the Planning Proposal will deliver substantial benefits to the Western City District, including:

- An estimated 1.3 million sqm of employment floorspace which will provide 38,000 new jobs and $14.3 billion in local economic output (PwC, 2018)
- Delivery of regional transport corridors and activation of the North South Rail Link with a range of land use activities and significant public benefits
- Integration of land use and transport to support the '30 Minute City'
- Creation of a new International Education Precinct with Western Sydney University to foster innovation and global connectivity, with potential for 6,000 students to be attending the new campus from the opening day
- A Wellness Centre of Healthcare Excellence and Centre for Cognitive Enhancement to be developed in partnership with Dr Charlie Teo will serve the growing population in Western Sydney and attract medical tourism from the Asia-Pacific region
- A new town centre delivered by Scentre Group will provide a highly activate centre focussed on the future station and including retail, entertainment and restaurants

The progression of the Planning Proposal will require a whole-of-Government response to enable the integration of the land use and transport planning initiatives to optimise the development and employment-generating potential of the site.

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Further discussion regarding the Master Plan and Planning Proposal is provided within the following section of our submission. This includes the potential impacts of the exhibited corridors and the potential benefits associated with the alternative solution.

3. SUBMISSION TO TRANSPORT CORRIDORS IN WESTERN SYDNEY

The *Protection of Transport Corridors in Western Sydney: Discussion Paper on the proposed State Environmental Planning Policy to protect Western Sydney Corridors* was placed on public exhibition on 26 March 2018 and included four recommended corridors in Western Sydney:

- Outer Sydney Orbital (Stage One)
- Bells Line of Road-Castlereagh Connection
- North South Rail Line/South West Rail Link extension
- Part of the Western Sydney Freight Line

This section of our submission focuses on the NSRL and OSO Corridors and their potential impacts on the BHL land holding (refer to **Figure 5** and **Figure 6**). This submission is based on a detailed review of the public exhibition material, including:

- *Protection of transport corridors in Western Sydney: Discussion Paper on the proposed State Environmental Planning Policy to protect Western Sydney Corridors*
- *Passenger rail corridors identification: Consultation on recommended corridors of land for the North South Rail Line and the South West Rail Link Extension*
- *Maps for consultation: North South Rail Line & South West Rail Link Extension recommended corridors*
- *North South Rail Line and South West Rail Link Extension Corridors: Draft Strategic Environmental Assessment*
- *Outer Sydney Orbital corridor identification: Consultation on a recommended corridor of land for future motorway and freight rail line*
- *Maps for consultation Outer Sydney Orbital recommended corridor*
- *Outer Sydney Orbital Transport Corridor: Draft Strategic Environmental Assessment*

It is our view that the NSRL and OSO Corridors as publicly exhibited would have a significant detrimental effect on BHL's ability to deliver the Vision and Master Plan and would represent the loss of an unparalleled opportunity to unlock the development potential of a large single landholding within the Western Parkland City. The following sections of this submission outline each of these matters in further detail, including:

- Impacts on the quantity and quality of developable land, incorporating specialist technical input from Cardno and GHD (refer attached reports) which demonstrate the substantial benefits of relocating the proposal corridors

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- Improved integration of land use and transport infrastructure planning to deliver enhanced environmental, social and economic outcomes aligned with Government priorities
- Opportunities to better leverage the economic opportunities from Western Sydney Airport, including comparative economic impact analysis undertaken by PwC (refer attached) which demonstrates the significant benefits of the alternative corridor proposal, including 38,000 new jobs and $14.3 billion in local economic output
- Delivery of a new Strategic Centre and a compact and walkable mixed-use community focussed around the future station, with associated investment and employment benefits

Figure 5 – North South Rail Link Plan (Source: Transport for NSW/Urbis, 2018)

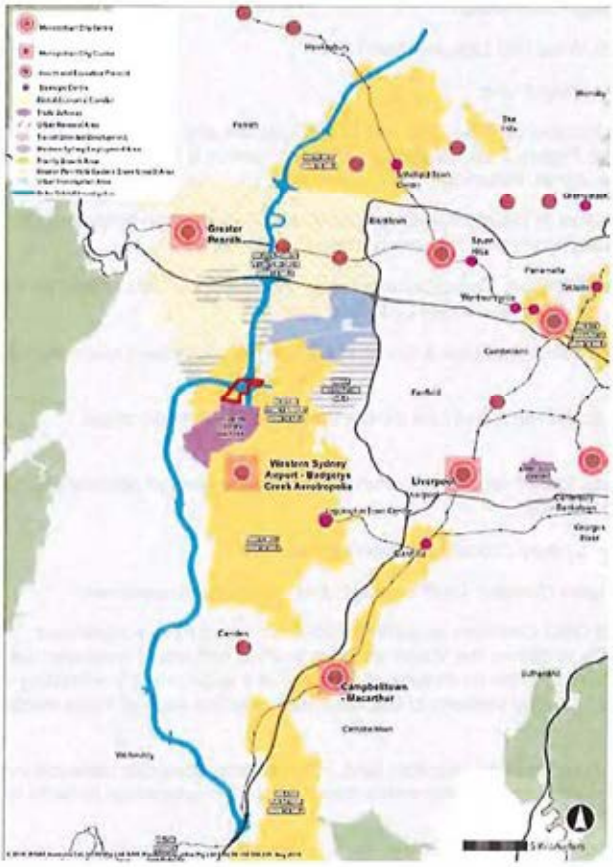

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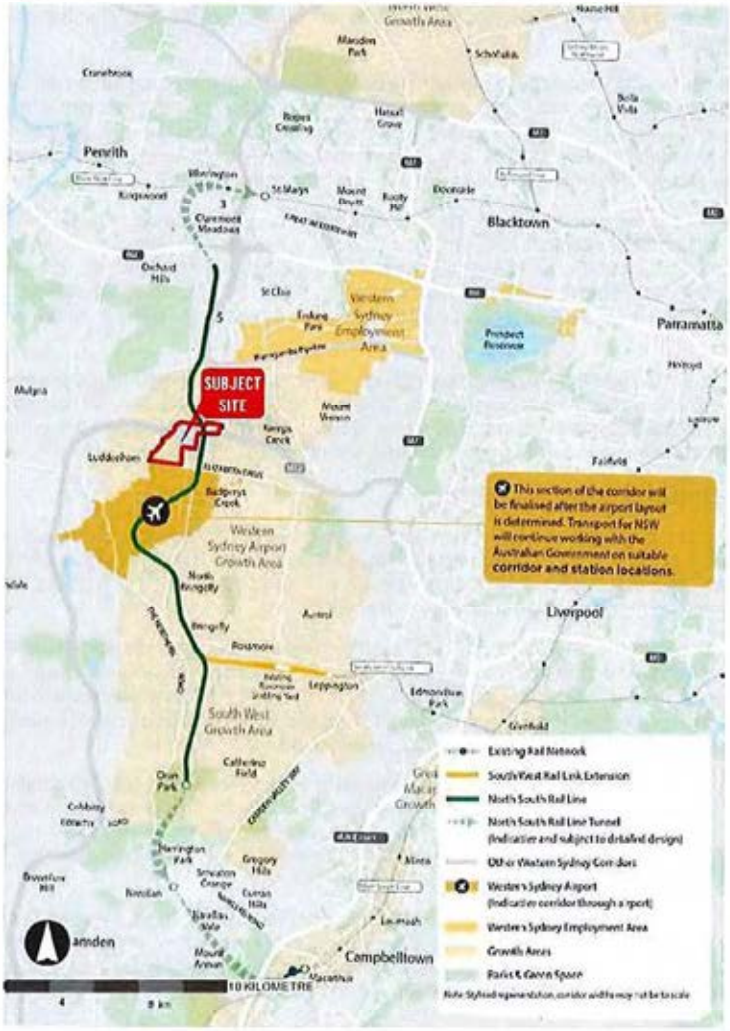
Figure 6 – Outer Sydney Orbital Plan (Source: Transport for NSW/Urbis, 2018)



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3.1. IMPACT ON QUANTITY AND QUALITY OF DEVELOPABLE LAND

The corridors to be protected for the NSRL and OSO as shown within the public exhibition material would result in a significant adverse impact on the development potential of the BHL land for the reasons outlined below:

- The OSO Corridor (and M12 Motorway preliminary design) has a significant impact on the BHL land. The primary east-west corridor bisects the site, physically separating the northern and southern parts of the site. The interchange between the primary east-west corridor and north-south connection to the Western Sydney Airport exacerbates this impact by creating isolated pockets of land that will be difficult to develop in a sound and logical manner.
- The NSRL Corridor seeks to reduce potential land acquisition and transport costs by proposing an aboveground rail corridor co-located with the OSO Corridor. However, the proposed co-location of the two corridors would result in an inferior land use planning outcome. The OSO would constrain the potential development that could be accommodated around the NSRL and associated station, placing significant constraints on the opportunity to deliver a compact and walkable centre around a future station.

The Vision and Master Plan and the Planning Proposal for the Northern Gateway site provides an alternative layout which includes the relocation of the OSO and NSRL within the BHL site boundaries. The alternative corridor locations are described in further detail within the following sections and the specialist technical advice provided by Cardno and GHD and attached to this submission.

3.1.1. Outer Sydney Orbital Corridor

Cardno was engaged by BHL to review the preliminary design of the M12 Motorway which was on public exhibition until 28 March 2018. A separate submission was prepared by Urbis with specialist technical input from Cardno, including an alternative design which relocated the M12 Corridor further north, generally parallel with the northern boundary of the site.

This alternative proposal for the M12 Motorway retained the corridor within the BHL land. However, it aimed to minimise the impact on the ability to develop the site by facilitating the delivery of a large consolidated developable area within the central and southern part of the site. It also provided for a more efficient interchange design which responded to the irregular configuration of the lot boundaries and minimised the area of land that would be isolated by the future road corridor.

Cardno has reviewed the additional documentation released in association with the public exhibition of the OSO Corridor and its intersection with the M12 Motorway. The attached correspondence and engineering drawings include a detailed analysis of the alternative proposal compared to the publicly exhibited corridors, including an assessment of the potential benefits of the alternative proposal. A copy of the Cardno correspondence is attached to this letter.

The impacts of the OSO Corridor on the development potential of the BHL land are depicted in the maps prepared by Cardno and shown as reduced-sized versions as **Figure 7** and **Figure 8** on the following page. The orange outline depicts the OSO Corridor as publicly exhibited by Transport for NSW and the black outline depicts the alternative alignment proposed by BHL.

It is evident from the Cardno maps that the Government's exhibited option would have a major impact upon the development potential of the BHL land. The potential impacts would affect both the quantum and quality of land available for development, considering the fragmentation of the parcel into

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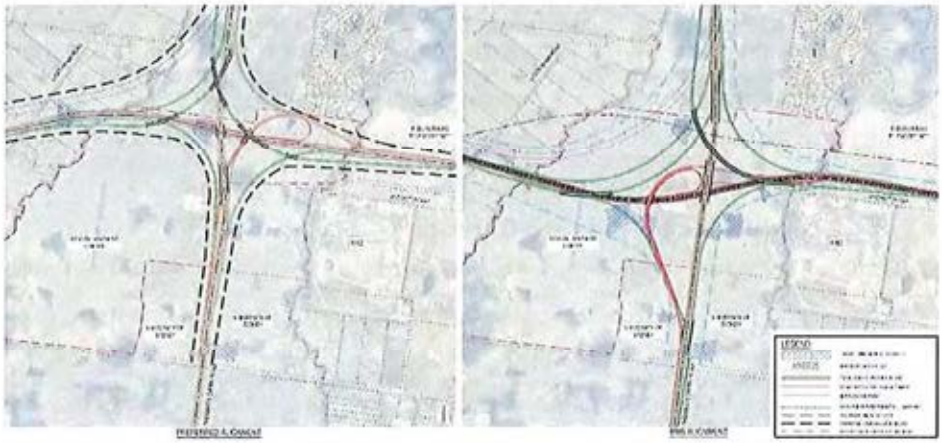
separate and disconnected separate parcels that would be difficult to develop for employment-generating land uses.

Figure 7 – RMS Corridor and BHL Preferred Corridor (Source: RMS/TfNSW/Cardno, 2018)

Figure 8 – Concept Alignment Comparison (Source: Cardno, 2018)



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The alternative corridors are consistent with the previous submission lodged with the RMS in response to the public exhibition of the preliminary design for the M12 Motorway. It is also generally consistent with the Vision and Masterplan document and the Planning Proposal lodged with Penrith City Council.

The preliminary assessment by Cardno indicates the alternative BHL proposal would result in a reduction of 1.5 million cubic metres of imported fill compared to the exhibited proposal, resulting in significantly reduced environmental impacts and economic costs. A summary of the potential benefits is listed within the Cardno correspondence as follows:

- *Significantly less reliance on imported fill for Motorway construction – resulting in significant savings in construction cost and program;*
- *Less impact to existing waterbodies and farm dams – resulting in lower costs for decommissioning waterbodies and a reduction in cost risks associated disposal of potentially contaminated sediment;*
- *Comparable impact to ecologically threatened areas;*
- *Less road pavement construction – subject to design development;*
- *Less elevated motorway construction – based on high level concept design;*
- *An equivalent level of service to and from Badgerys Creek airport – no compromise in access, travel distances, design speeds and compliance with RMS road design criteria*

The map extracts provided as **Figure 7** and **Figure 8** clearly show how the alternative alignment would allow for the consolidation of land within the central and southern parts of the site, taking advantage of the extensive site frontage and existing access to Elizabeth Drive (as discussed further within **Section 3.2** of this submission). It also offers greater leverage regarding the economic and employment potential based on the site's proximity to the Western Sydney Airport (as discussed further within **Section 3.3** and **Section 3.4**).

The alternative OSO Corridor and M12 Motorway would result in potential cost savings to Government including land acquisition and construction costs. Relocating the corridors to the northern part of the BHL site will reduce the extent of injurious affection on the balance of the BHL landholding. If the corridor remains in its current location, the 'injurious affection' suffered by BHL will be very significant, noting the potential impacts on the development potential of the site.

The proposed relocation of the OSO Corridor also facilitates the opportunity to realign the NSRL Corridor and provide a station within the BHL land holding. The alternative NSRL Corridor is discussed in further detail within **Section 3.1.2** below.

3.1.2. North South Rail Line Corridor

GHD was engaged by BHL to review the publicly exhibited documentation associated with the NSRL Corridor and provide advice regarding the potential impacts on the development potential of their land and potential refinements to the proposed rail line and station location as shown within the Vision and Master Plan document.

GHD has prepared a comprehensive report which identifies the potential impacts of the NSRL on the development potential of the BHL land holding and assesses alternative rail alignment options that

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may be better placed to leverage the substantial infrastructure investment associated with the NSRL and facilitate the delivery of employment growth within the Western Sydney Airport Growth Area.

Alternative rail alignment options were identified based on the potential infrastructure constraints and additional assumptions outlined in Section 4.1 of the GHD report (refer attached). Consideration was given to passenger rail design standards, assessment of local geometric conditions and future transport infrastructure proposals. Three preliminary options were identified as shown in the reduced size map extracts provided as **Figure 9, Figure 10** and **Figure 11** on the following pages (and in further detail within Section 4 of the attached GHD report).

Option 1 has been identified as the preferred option as it has the longest straight section through the site and provides the opportunity for a well-located station consistent with the Vision and Master Plan for the BHL land holding. It also provides the opportunity to deliver an underground rail line and station, subject to further investigations and discussions with Government. Detailed drawings of the preferred option have been prepared for both elevated and underground scenarios to demonstrate the way in which the alternative rail alignment could potentially be delivered. The report concludes:

- Sufficient evidence is provided to justify the realignment of the North-South Rail Link
- Rail design parameters can address State Government planning and design guidelines and standards
- Detailed design of the Preferred Option 1 Rail Alignment should be progressed in collaboration with Commonwealth and State Governments, considering the interface with the Western Sydney Airport station and rail connection to the north and delivery of a station within the central part of the Northern Gateway site

The proposed alternative NSRL Corridor presents a significantly enhanced outcome for the delivery of employment and economic growth within the Western Sydney Airport Growth Area and the Western City, as well as for the development of the BHL land. This approach will leverage investment in rail infrastructure for maximum benefit, ensuring workers and residents are all within walking distance of a rail station. Further discussion regarding the benefits of integrated land use planning and economic and employment benefits are provided within the following sections of this submission.

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Figure 9 – Rail Option 1 (Source: GHD, 2018)

Figure 10 – Rail Option 2 (Source: GHD, 2018)

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Figure 11 – Rail Option 3 (Source: GHD, 2018)

3.2. INTEGRATION BETWEEN LAND USE AND INFRASTRUCTURE PLANNING

The *Western City District Plan* highlights the need to coordinate the numerous land use and transport infrastructure initiatives across the region. One of the Key Planning Priorities includes:

> *Planning Priority W7: Establishing the land use and transport structure to deliver a liveable, productive and sustainable Western Parkland City*

However, the proposed corridors to be protected for the OSO and NSRL do not give any consideration to the extensive land use planning completed by BHL in their submissions to the GSC and TfNSW or the Planning Proposal recently lodged with Penrith City Council (which reflects the earlier submissions). The proposed corridors are likely to have a significant impact on the quality of the places that may be delivered on the BHL land holding, including the:

- Types of land use activities that can be supported,
- Quality of the connections between those places; and
- Amenity of the public open spaces both within and surrounding the proposed centres.

Specific concern is raised regarding the proposed location of the NSRL within the OSO Corridor and the poor integration between this importance infrastructure and the developable land within the BHL land holding.

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The *Western City District Plan* states (p61):

> *The new North South Rail Link will create the spine of the Western Parkland City and play a vital role in bringing people closer to job opportunities, health, education and leisure activities. New train stations will support development of higher density housing with great transport access, meaning shorter travel times, less reliance on cars and less congestion on roads.*

The proposed co-location of the OSO and NSRL Corridors on the BHL land would place significant constraints on the potential of the BHL land to accommodate a station and higher density employment activities as proposed within the Vision and Master Plan submission and the Planning Proposal. Inadequate consideration has been given to the potential impact of the proposed corridors on:

- Future land use activities, including residential and non-residential uses
- Delivery of walkable communities with direct and safe pedestrian connections to employment centres and public transport
- Local and regional cycle connections, particularly for short trips to centres, transport interchanges and local services such as schools and health services
- Green grid connections and public open spaces that incorporate existing landscape and waterway features

This approach is inconsistent with the Objectives within the *Greater Sydney Region Plan* and the Planning Priorities within the *Western City District Plan*. Specific concern is raised regarding the compliance of the proposal with the following direction in the *Western City District Plan* (p63):

> *In assessing potential infrastructure corridors, economic, social and environmental outcomes are considered as well as their integration with the long-term land use and transport vision for the area.*

The proposed OSO Corridor as publicly exhibited does not adequately consider the economic, social or environmental outcomes for the BHL land. The alternative road corridor alignment proposed by Cardno will result in a superior outcome considering:

- Flooding constraints would require large quantities of fill to be imported to deliver the exhibited proposal. The alternative solution would significantly improve the cut/fill balance due to the difference in the prevailing topography between the two corridor locations.
- The alternative road corridor would require less road pavement construction and less elevated motorway construction, reducing the potential environmental footprint of the proposal.
- Significant cost savings would be achieved in association with the construction costs and programme to deliver the alternative road corridor for the reasons outlined above.

Further, the proposed NSRL Corridor as publicly exhibited does not optimise the potential economic and social benefits that may be delivered by this important public transport infrastructure. The proposed realignment of the NSRL through the BHL land provides the opportunity to better leverage the substantial investment in this rail corridor by providing higher intensity employment land use activities and economic growth focussed around a future station. This will provide for improved access to jobs and services for Western Sydney residents, aligned with the Government's vision of a 30 Minute City.

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The Vision and Master Plan document and the Planning Proposal for the Northern Gateway site provide a comprehensive analysis of each of these matters, including the integration of land use activities with transport corridors. The revised OSO and NSRL Corridors will result in significant benefits to the development potential of the BHL land, as well as providing substantial potential cost savings associated with the delivery of this important transport infrastructure.

3.3. LEVERAGING ECONOMIC OPPORTUNITIES FROM WESTERN SYDNEY AIRPORT

The Western Sydney City Deal, *Greater Sydney Region Plan* and *Western City District Plan* are focussed on leveraging the significant economic opportunities that can be delivered in association with the Western Sydney Airport and Badgerys Creek Aerotropolis.

Key priorities include the delivery of more jobs and a greater diversity of employment opportunities to rebalance current inequities between the Eastern and Western Cities within the Greater Sydney Region. The *Western City District Plan* recognises the importance of effective land use and transport planning to realise the delivery of the stated economic and employment objectives (p71):

> *Enhancing the transport connections to the Western Sydney Airport, Badgerys Creek Aerotropolis and Western Sydney Employment Area together with integrated land use, transport and infrastructure planning are fundamental requirements for delivering on this outcome.*

BHL recognises that the OSO and NSRL will form important road and rail connections for the future Western Sydney Airport and the redevelopment of the surrounding precincts. BHL is not seeking to remove the OSO or NSRL corridors from its land. Rather, alternative corridor alignments are proposed to minimise the potential negative impacts on the development potential of BHL's land, while also seeking to leverage the potential benefits for the Western City that may be achieved through proximity to the Western Sydney Airport and the associated infrastructure that will be delivered.

Price Waterhouse Coopers (PwC) was engaged by BHL to undertake a comparative analysis of the potential economic benefits arising from the currently proposed corridors and the alternative solution proposed by BHL within their Vision and Master Plan document and the Planning Proposal. A copy of the Economic Impact Assessment (EIA) is attached to this submission.

The EIA clearly demonstrates that the potential benefits from the alternative corridors will be significant, considering the increased developable area and potential for higher-intensity employment activities, including increased opportunity to deliver 'smart' jobs aligned with Government objectives. The PwC analysis indicates that the alternative Master Plan proposal equates to an additional:

- *"6,700 direct jobs and 10,200 indirect jobs during construction*
- *26,100 direct jobs and 17,000 indirect jobs once fully operational*
- *$8.4 billion uplift in economic output from direct jobs*
- *$9.4 billion uplift in economic output from indirect jobs."*

It is evident from comparative economic impact analysis that the proposed alternative corridors would have a substantial employment and economic benefit which is aligned with Commonwealth, State and local government priorities expressed within the Western Sydney City Deal, *Greater Sydney Region Plan* and *Western City District Plan.*

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3.4. INVESTMENT AND JOB CREATION IN STRATEGIC CENTRES

The *Greater Sydney Region Plan* and *Western City District Plan* seek to focus investment, business opportunities and employment within Strategic Centres that benefit from access to high-frequency public transport, including existing and future train stations. The Plans recognised that well-planned centres help to stimulate economic activity and innovation, provide jobs closer to where people live and achieve greater leverage from infrastructure investment.

The NSRL will play a major role in determining the appropriate location of new Strategic Centres within the Western City District. The District Plan (p65) states that the Western Economic Corridor needs to consider '*city-shaping and city-serving transport connections*' as well as:

- *maximising the opportunity to have both strategic and local centres on the first stage of the North South Rail Link and potential extensions taking advantage of local economic activity which will be created by the more than 1.5 million people who will live in the Western Parkland City by 2056*

The Vision and Master Plan for the Northern Gateway site proposes the realignment of the OSO and NSRL Corridors to facilitate the creation of compact and walkable mixed-use communities. This includes relocating the OSO Corridor to the northern part of the site, creating the opportunity to focus land use activities around a future NSRL station. This approach would leverage the investment in rail infrastructure for maximum benefit, ensuring works and residents are within walking distance of the station.

However, the OSO and NSRL Corridors as publicly exhibited would sterilise the ability of the BHL land to accommodate a future station due to the conflicts and complexities associated with the road and rail infrastructure. This would have a substantial negative impact upon the opportunities to deliver higher-density uses and high-quality places on the BHL land holding and the Northern Gateway from the Western Sydney Airport.

4. RECOMMENDED NEXT STEPS AND ACTIONS

BHL appreciates the opportunity to make a submission in response to the public exhibition of the proposed transport corridors for Western Sydney and would welcome ongoing dialogue with Transport for NSW throughout the stakeholder consultation process.

It is our strong view that the proposed corridors for the OSO and NSRL should be refined to minimise their potential impacts on the economic, social and environmental outcomes for the BHL land, preserve the opportunity to unlock the development potential of a large single landholding within the Western Parkland City and enhance the delivery of the Objectives and Planning Priorities outlined within the *Greater Sydney Region Plan* and the *Western City District Plan*.

Our work to date, including the detailed submissions prepared by Cardno and GHD, suggest that there is a better way of delivering much needed infrastructure to Western Sydney. The alternative OSO and NSRL Corridors proposed within our submission will better align public need and benefit with private capital investment that will be so critical for Government to recoup as quickly as possible a return on its own investment.

Accordingly, we request Transport for NSW reconsider the proposed corridors as publicly exhibited, including relocating the OSO further north within the BHL land holding and the realigning the NSRL to

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the west. This alternative proposal would enable the delivery of a station surrounded by high-density employment uses to support the growth of the Western Sydney Airport Growth Area, the Western Economic Corridor and the Greater Sydney Region.

BHL would appreciate the opportunity to meet with Transport for NSW to discuss their submission in further detail, including the opportunities and benefits that may be achieved by the alternative corridors proposed by Cardno and GHD.

If you have any questions please don't hesitate to contact me on [redacted].

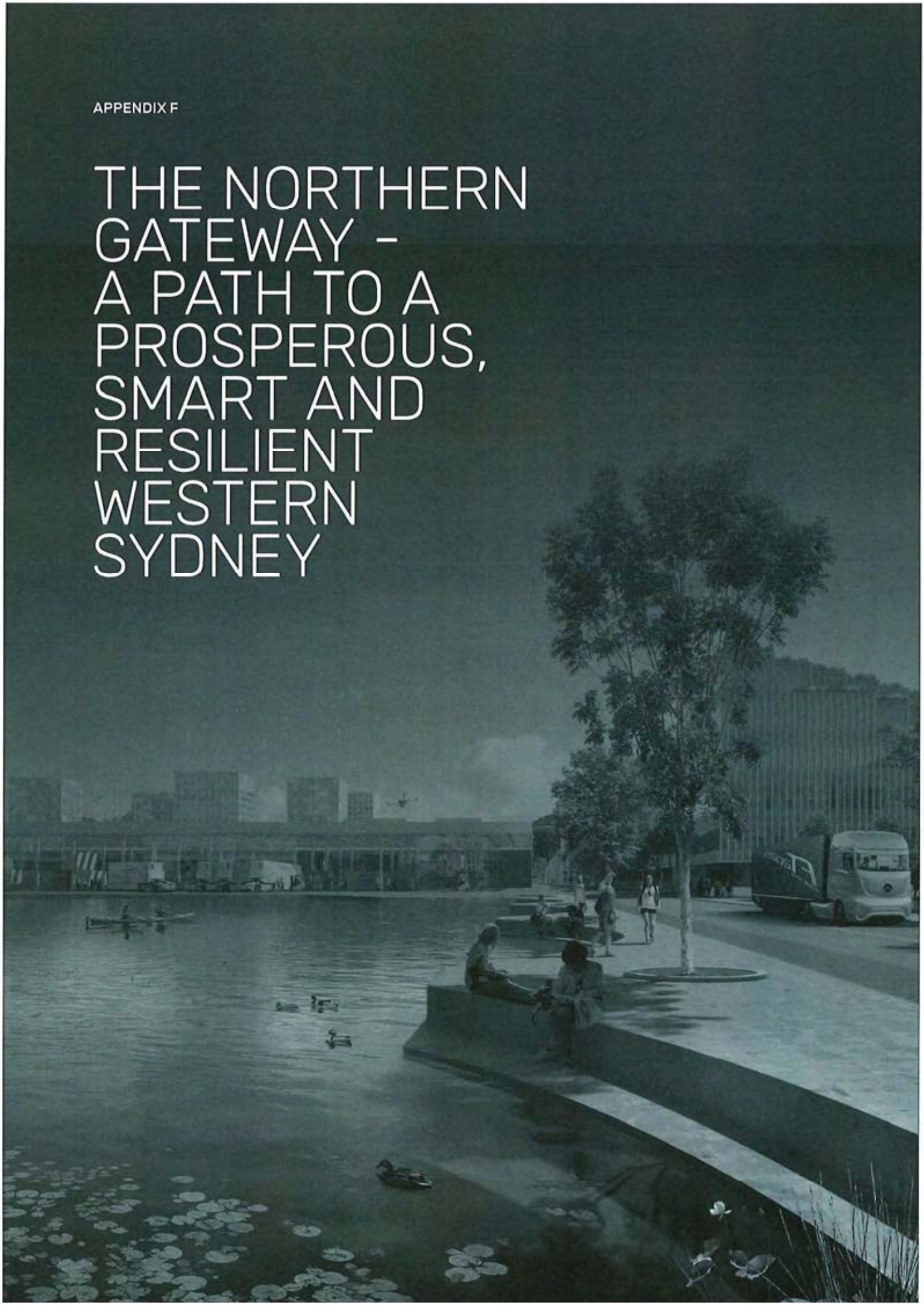
Yours sincerely,

[redacted]

David Hoy
Regional Director

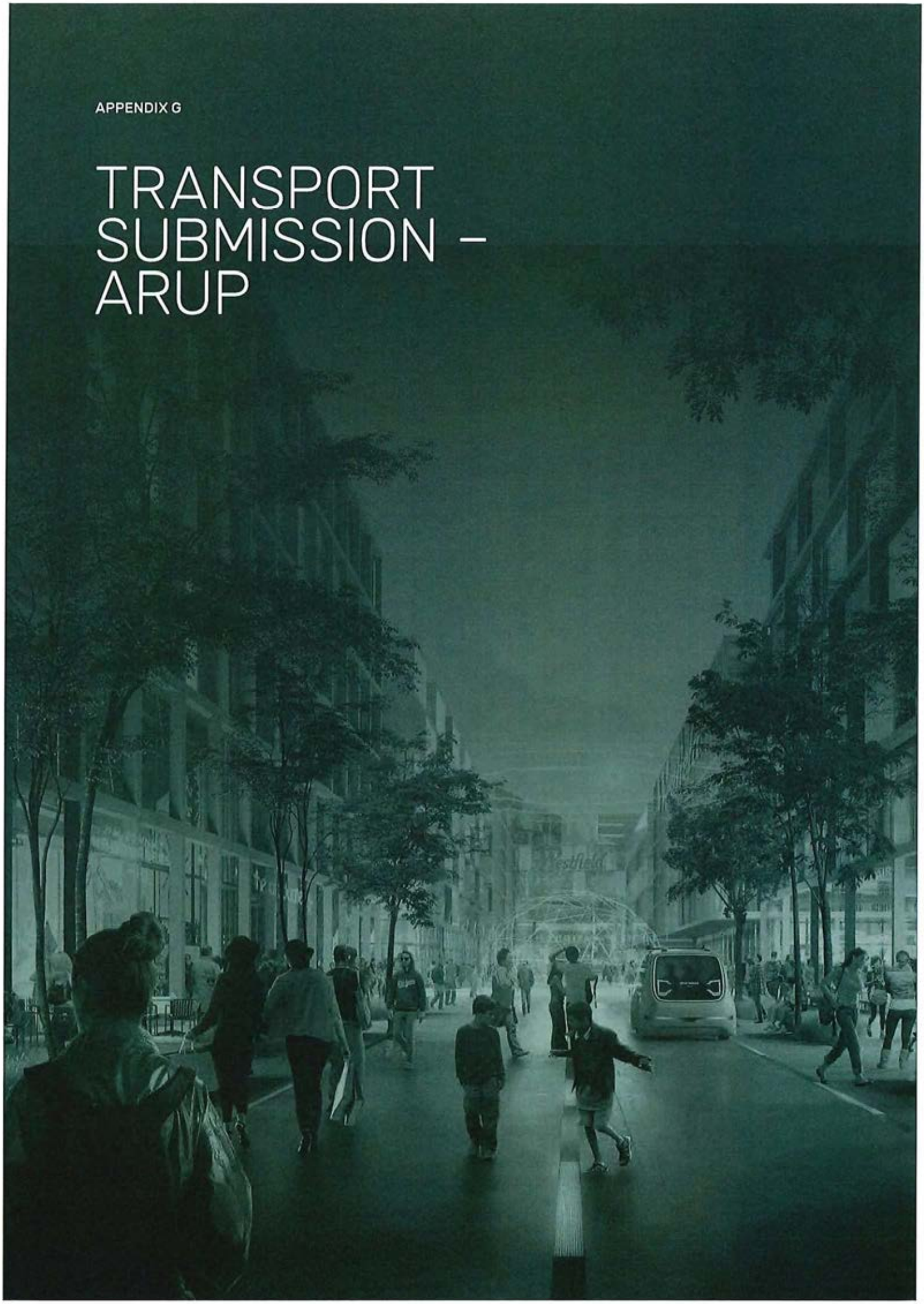
APPENDIX F

THE NORTHERN GATEWAY – A PATH TO A PROSPEROUS, SMART AND RESILIENT WESTERN SYDNEY



APPENDIX G

TRANSPORT SUBMISSION – ARUP



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Project title	BHL Badgerys Creek	Job number	263337-00
cc		File reference	
Prepared by	John Fahey, Terry Lee Williams	Date	11 October 2018
Subject	LUIIP Review - Transport		

1 Introduction

Arup has been engaged by BHL to review the Land Use and Infrastructure Implementation Plan (LUIIP) for Western Sydney Aerotropolis with respect to BHL's lands adjacent to the airport site.

BHL and their foundation partners have prepared a comprehensive Vision and Masterplan for the future development of their land. '*A Bold Vision for the Northern Gateway*' was prepared by OMA and Urbis on behalf of BHL and their project partners to outline this vision and the future development potential of the site to the Western Parkland City and Greater Sydney Region.

A key principal of the Masterplan is the realignment of infrastructure to unlock strategic land. The land is both benefited and constrained by the transport infrastructure investment associated with the future Western Sydney Airport. Of specific concern, however, is the potential impacts of the M12 Motorway corridor on the development potential of the Northern Gateway land.

The Masterplan identified the opportunity to relocate the corridor further north. The alternative corridor alignment would facilitate the creation of compact and walkable employment nodes on the site, focussed around the future Sydney Metro Western Sydney Airport rail line and Cosgroves Creek. This approach leverages investment in rail infrastructure for maximum benefit by ensuring that workers and residents are both within walking distance of the new rail station.

This note reviews the strategic outcomes set out in the LUIIP for the Northern Gateway and compares this with the opportunities and outcomes that can be achieved as a result of the Masterplan with a particular focus on movement, access and connectivity by all modes.

File Note

263337-00 11 October 2018

2 LUIIP Vision

The Land Use and Infrastructure Implementation Plan (LUIIP) for Western Sydney Aerotropolis is a Stage 1 Plan which provides an overview of proposed land uses and the sequence of development that will deliver Sydney's newest economic hub. It identifies a first-stage structure plan to illustrate the rationale for the three initial precincts and how future development in the Aerotropolis could be arranged.

The LUIIP sets out a vision for the Northern Gateway precinct that aligns with the BHL Masterplan:

"The Northern Gateway will be a major airport interface, serving as a key strategic centre within the Western Economic Corridor – linking the Western Sydney Airport with the Metropolitan Cluster. The Northern Gateway will harness existing and emerging economic opportunities that are catalysed from the Western Sydney Airport. Residential development will be located in appropriate locations to ensure that Western City District residents have the opportunity to live in the 30-minute city".

The LUIIP also sets out a number of strategic outcomes sought by the Government in relation to land use and transport planning, including:

- *Residential development limited to the centre and focused on centre serving transport*
- *Educational establishments limited to the centre where accessible by public transport*
- *All stages and sub-precincts adopt a grid layout at the centre of public transport networks for public transport, cycling and pedestrians*
- *Protection of transport corridors and prevent possible conflict with adjoining land*
- *Access points kept to a minimum from Elizabeth Drive to service private development*
- *Road layout and subdivision pattern supports Elizabeth Drive as an east-west city-serving corridor for moving people and goods. Collaborate with NSW Roads and Maritime on Elizabeth Drive upgrade, function and configuration (Planning Partnership)*

The LUIIP also notes key challenges for the Northern Gateway in achieving this vision, including:

- *Permeability and treatment of major infrastructure corridors to complement the landscape and topography*
- *Relationship to surrounding metropolitan rural area*
- *Aircraft Noise – ANEC and ANEF restrictions*
- *Flood management*

File Note

263337-00 11 October 2018

3 Strategic Outcomes

To realise the aspiration for the site (as set out in the Masterplan), while also achieving the strategic outcomes for the Northern Gateway (as set out in the LUIIP), a realignment of infrastructure is required to unlock key areas of development. This too is aligned with the LUIIP, and aims to avoid conflicts with adjoining land from transport corridors.

The following sets out the options for realigning this infrastructure and presents the resulting opportunities provided in terms of movement, access and connectivity.

3.1 M9/M12 interchange realignment

A key principal of the BHL Masterplan is the realignment of infrastructure to unlock strategic land. The currently proposed alignment significantly reduces the development potential of the site, restricting the site to potential logistics/manufacturing type of lands uses with limited number of residents and very limited employment.

The aspiration to create a vibrant town centre and community with a mix of land uses is reliant on the ability to create a compact development with ease of access to transit, goods and services for the community. Key to achieving this is the realignment of the M9/M12 interchange to the north of the site.

A high-level review has determined that it is possible to construct the interchange in the north-east corner of the site, within typical corridor and performance constraints. BHL is keen to work with the Government via its corridor protection team to enable the M12 corridor to be preserved in a way that potentially reduces acquisition and construction costs to Government while increasing the economic and social benefit able to be unlocked from its site.

Some of the mutual benefits that would be shared with Government by relocating the interchange, including

- Significantly reduced corridor protection costs
- A less contested interchange location with developer support, preventing delays and significantly lessening potential legal costs to government
- Potential reduction in construction costs due to positional advantage (subject to additional investigations as the design develops)
- The ability to deliver significantly more jobs and affordable accommodation close to the location of the major jobs hub within WSA, and to provide a great deal of local amenity close to the airport.

While the M9 is still in strategic consideration, the M12 is a funded project and is in detailed design prior to being put to market. The LUIIP clearly demonstrates the desirability of ensuring that a significant site such as BHL's is not materially limited by a poorly placed alignment option. This is particularly important given that the M9 may not yet come to fruition. To therefore gamble the loss of so much productive land use when the proposed interchange, which has driven the original alignment, is not a commitment is counter to the Government's LUIIP.

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Key LUIIP Strategic Outcome:

- *Protection of transport corridors and prevent possible conflict with adjoining land*

3.2 Rail corridor realignment and new station

With a realignment of the possible future M9/M12 interchange unlocking the land available on the site, a moderate realignment of the proposed Sydney Metro Western Sydney Airport corridor and the delivery of a station on the site would realise the aspiration of the masterplan, and of the LUIIP.

BHL has considered options for the realignment of the rail corridor through the site and potential station locations. The review has determined it is possible to construct a rail line and station within the preferred envelope identified in the Masterplan, within typical corridor and performance constraints. Furthermore, it was found that there is a range of station locations available.

The review found that, depending on the operational characteristics of the chosen rail mode, that up to four viable alignments were available. Assuming the highest rail speed mode for urban commuter rail services, it was found that a station could be located within 400m of the notional town centre without compromising approach speeds or needing to close radii. It is also noted that the proximity of the proposed town centre to the WSA is such that the highest typical rail operating speeds are unlikely to be required, and thus there are likely more viable options, enabling below grade, trench and at grade options for track and station alignments.

File Note

263337-00 11 October 2018

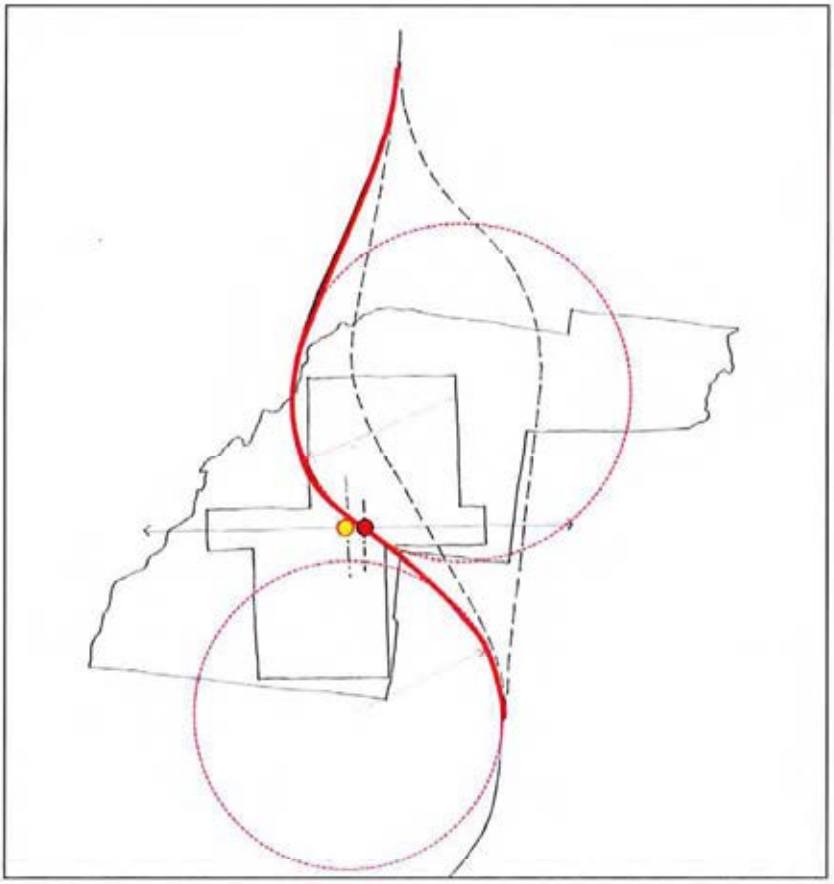

Figure 1 Location of station relative to notional town centre location (source: Arup)

The opportunity that the rail realignment and provision of a station close to the centre of the site presents cannot be overstated in terms of development potential, connectivity and urban design options.

BHL will work with Sydney Metro to plan and facilitate the development of a station on the site. Benefits in terms of access and connectivity would include:

- Increased bi-directional patronage for the rail line, providing a destination not reliant on air travel, a residential base and a range of employment and activity bases to create all day demand
- Creation of a compact town centre with a focus on employment and education, supported by residential
- Making the proposed educational and medical research facilities far more accessible without reliance on car use

File Note

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- Reducing the size of the internal road network, and subsequent connections to the surrounding network, with greater reliance on walking and cycling to connect with a train
- Improved landscaping and streetscape potential, with reduced parking requirements enabling increased planting and canopy
- Encouragement of sustainable travel modes and reduced reliance on access by private car from the commencement of development
- Potential for mix of land uses and increased densities within the walk catchment of the station (including residential and educational uses), creating a transport oriented design which is atypical in the region
- Connectivity of the site to the wider region (e.g. Sydney Science Park, WSA and Central Aerotropolis) for residential and employment trip purposes
- A more robust business case for the establishment of the Sydney Metro Western Sydney Airport project, with earlier realisation of benefits.

In addition to the above, the site can also provide future protection for an on-site interchange for the Airport to Parramatta rail link, should it be of interest. Outside of the airport, the site provides an ideal interchange location that would enhance regional access to and from the Northern Gateway. Depending on the timing of the delivery of a future east-west link, it may be significantly more difficult to construct such an interchange within the WSA lands themselves. The Northern Gateway provides a highly proximate option, lower construction costs, far less complex site constraints and a supportive land owner.

It is noted that interchange locations any further north than the Northern Gateway would increase travel times between WSA and Parramatta in the future and are unlikely to be viable.

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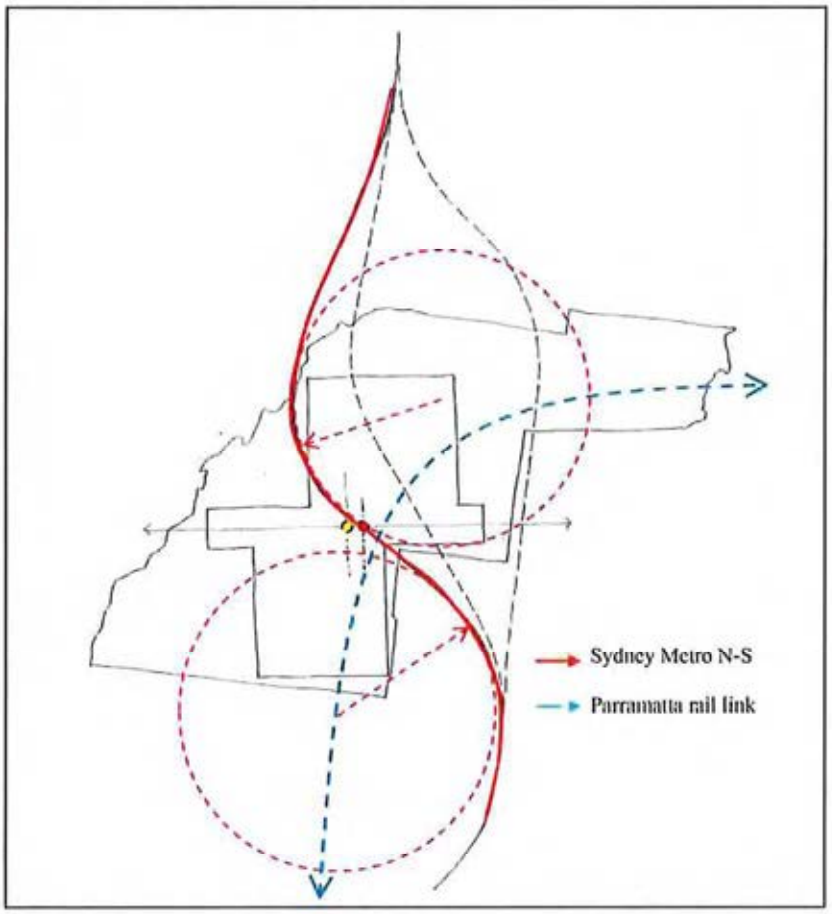

Figure 2 BHL alternative station alignment with east-west spur line (source: BHL Masterplan)

Key LUIIP Strategic Outcomes:

- *Protection of transport corridors and prevent possible conflict with adjoining land*

File Note

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3.3 Vehicular access and street layout

The transport structure plan for the BHL development is a compact urban development that adopts a grid layout. At the centre of the development are streets which prioritise active modes of travels, with access for cars limited. Servicing by vehicles will be to the periphery of the area and below ground, thereby removing many large and heavy vehicle movements from the proposed town centre, further enhancing the sites walkability.

The site vehicular access connection points would be from Elizabeth Drive to the south, and potentially directly with the motorway network to the north. The number of access points from Elizabeth Drive would be limited. A north-south collector road would form an intersection with Elizabeth Drive, providing the primary route through the site and distributing traffic throughout the site. Individual properties will not have direct access from Elizabeth Drive, supporting the vision for Elizabeth Drive as an east-west city serving corridor for moving people and goods.

Of course, if the rail link is provided, it is expected that many commuter trips would be to nearby jobs distributed along the rail link.

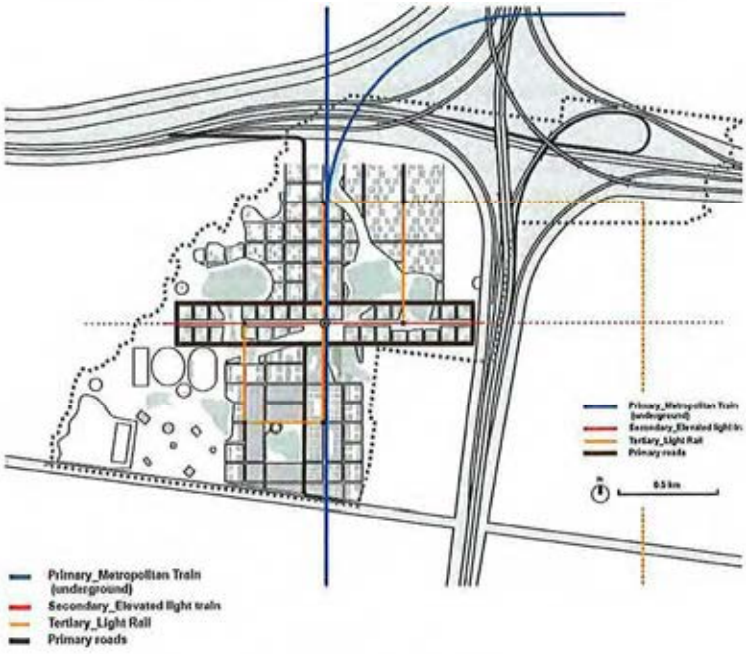

Figure 3 Transport structure plan (source: BHL Masterplan)

File Note

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Key LUIIP Strategic Outcomes:

- *All stages and sub-precincts adopt a grid layout at the centre of public transport networks for public transport, cycling and pedestrians*
- *Access points kept to a minimum from Elizabeth Drive to service private development*
- *Road layout and subdivision pattern supports Elizabeth Drive as an east-west city-serving corridor for moving people and goods. Collaborate with NSW Roads and Maritime on Elizabeth Drive upgrade, function and configuration (Planning Partnership)*

3.4 Urban structure

The compact urban development and mix of land uses proposed as part of the Masterplan are conducive to sustainable transport patterns. The provision of residential, retail, educational and commercial developments within close proximity of the station will create jobs and reduce the reliance on travel by private car. Complementing this urban structure with high quality urban design and landscaping can produce a sustainable and walkable precinct. The diverse range of uses proposed will actively promote a 24/7 activation of the precinct.

Some of the mutual benefits shared with Government by enabling an urban centre at this location include:

- The ability to deliver key jobs and affordable accommodation close to the location of the major jobs hub within WSA, and to provide a great deal of local amenity close to the airport.
- Enabling the provision of education lands and a diversification of employment opportunities at a location that will encourage people to locate to, rather than commute from further afield.
- Enable a slow build of the total north-south spine of economic and social opportunity through creating interconnected and interdependent small centres that will over time grow into a connected megaregion

The alternative, a small, sprawling and low-density community that is car dependent is unaligned with the LUIIP.

Key LUIIP Strategic Outcomes:

- *Residential development limited to the centre and focused on centre serving transport*
- *Educational establishments limited to the centre where accessible by public transport*
- *Flexible employment hubs with supporting uses that create and enhance sense of place (22,500+ jobs within the Northern Gateway lands listed as an expected outcome)*

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4 Summary

The LUIIP provides an overview of proposed land uses and the sequence of development that will deliver Sydney's newest economic hub, setting out a number of strategic outcomes for the three initial precincts, including the Northern Gateway.

The potential of the BHL site to provide significant, early economic uplift through the location of employment generating development, plus key worker accommodation, is potentially at risk if the LUIIP does not guide decision making as intended. The business cases for both rail and road will be much stronger with a highly performing BHL site generating patronage.

There is significant benefit in shifting the Motorway to the north-eastern corner of the site to facilitate the development of a town centre around a station. The benefits to the Western Parkland City and the region include:

- Lowering the cost to Government of realising the benefits of the LUIIP
- Decreasing the time of development, thus accelerating benefits generation
- The ability to deliver significantly more jobs and affordable to complement the WSA, and to provide a great deal of local amenity close to the airport
- Integrated land use and transport planning
- Adding to the well-connected network of centres, enabling a slow build of the total north-south spine of economic and social opportunity through creating interconnected and interdependent small centres that will over time grow into a connected city.
- Employment and education uplift relatively early in the development of a major Aerotropolis, allowing a diversification of employment and experience opportunities in particular that will encourage people to locate to the new city, rather than having one family member commute to it.
- Connection to the airport, enhancing the ability of the airport to access local employees, but also giving employees access to greater amenity and choice a few minutes away.
- Sustainable walkable development

BHL is willing to collaborate and partner with government to plan the following infrastructure:

- Repositioning of the Motorway alignment in a way that reduces cost and risk to the State
- Delivery of the Sydney Metro Western Sydney Airport alignment and station placement such that it improves the business case for and early performance of the service
- Potential protection for an on-site interchange for the Airport to Parramatta rail link, should it be of interest.

'*A Bold Vision for the Northern Gateway*' outlines the vision and the future development potential of the BHL site to the Western Parkland City and Greater Sydney Region. The opportunity for the Government in achieving its vision for the new western city based around the Aerotropolis is significantly enhanced by BHL's vision, if the compromises can be reached. Unlocking the real

File Note

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potential economic and social benefits of the site to Western Sydney is less likely to occur without realignment and public transport services.

The provision of a station connected to the centre of the site would enable a mix of uses and an urban structure which is conducive to sustainable travel patterns. It will enable the creation of town centre within a compact development with ease of access to transit, goods and services for the community.

The site will be well-connected and accessible to new development areas to the north and south, while also future-proofing for any future east-west rail connections. It would enable the sustainable growth of the region with centres clustered around rail stations that can grow with the economy. The alternative, a series of small, sprawling and low-density communities cleaved by roadways is unaligned with the GSC's three cities vision and the consequent LUIIP.

In conclusion, it is recommended that the alternative infrastructure corridors be considered given the opportunities it can provide in terms of creating a new vibrant town centre with access to jobs, housing and education that is well connected to the wider area and supports the investment cases for the infrastructure. These outcomes are consistent with the Strategic Outcomes set out in the LUIIP for the Northern Gateway.

File Note

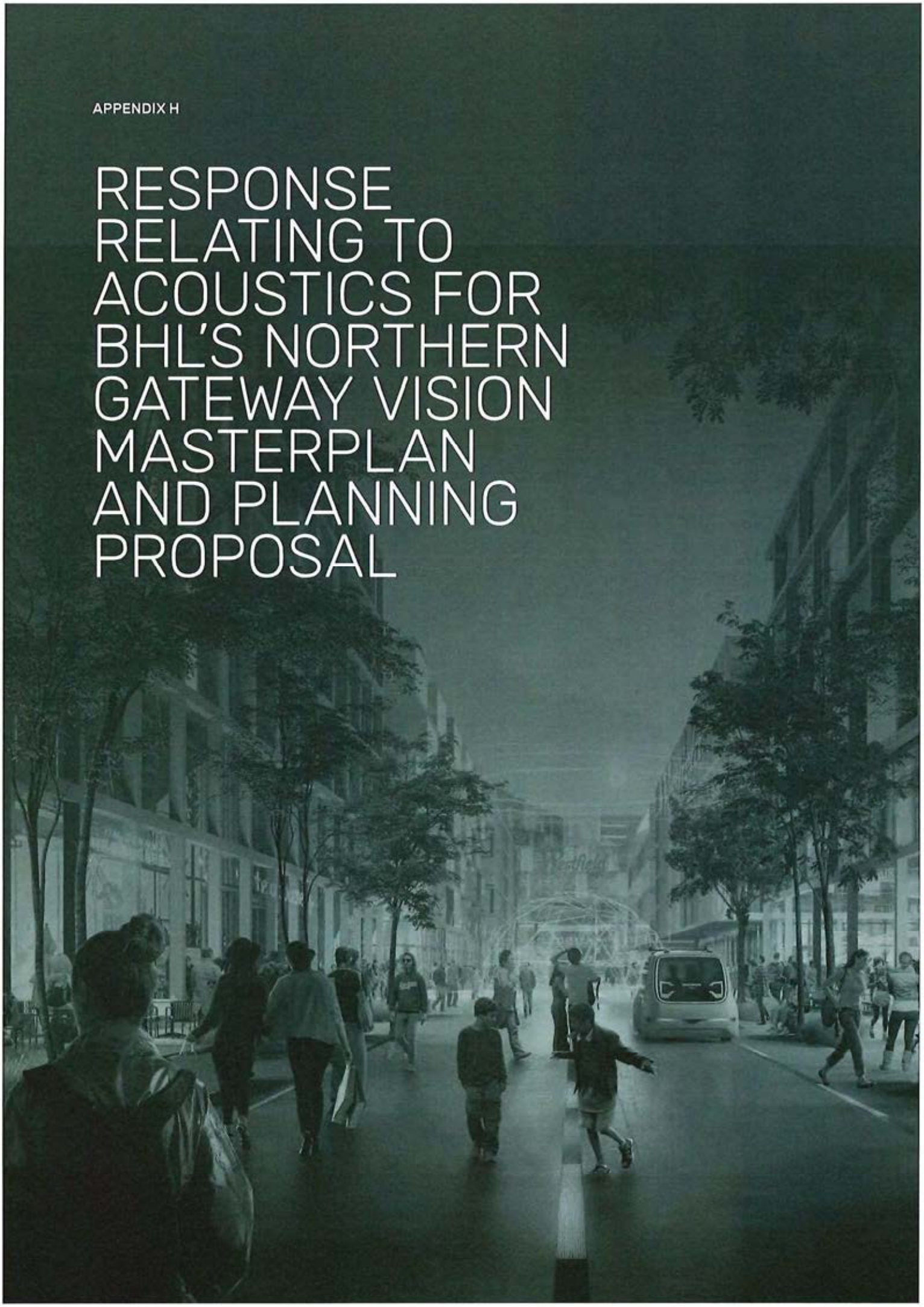
263337-00 11 October 2018

DOCUMENT CHECKING (not mandatory for File Note)

	Prepared by	Checked by	Approved by
Name	John Fahey, Terry Lee Williams		
Signature			

APPENDIX H

RESPONSE RELATING TO ACOUSTICS FOR BHL'S NORTHERN GATEWAY VISION MASTERPLAN AND PLANNING PROPOSAL



APPENDIX H

RESPONSE RELATING TO ACOUSTICS FOR BHL'S NORTHERN GATEWAY VISION MASTERPLAN AND PLANNING PROPOSAL

5 October 2018

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Boyuan Holdings Limited
C/- Christophe Charkos
Senior Consultant
Urbis
Level 23, Darling Park Tower 2, 201 Sussex Street
Sydney, NSW 2000

Re: Response to Land Use and Infrastructure Implementation Plan (LUIIP) relating to acoustics for BHL's Northern Gateway Vision Masterplan and Planning Proposal

Dear Chris,

1 Introduction

EMM Consulting Pty Limited (EMM) has been engaged to provide a response on the Land Use and Infrastructure Implementation Plan (LUIIP) as relevant to acoustics and its implications for BHL's site, the Northern Gateway to the Greater Aerotropolis, Badgerys Creek.

2 Scope of this report

This response provides a review of the critical principles of the LUIIP relevant to acoustics (aircraft noise and other acoustic matters as relevant), including:

a) consideration of BHL development objectives within the Vision Masterplan;

b) consideration of the Planning Proposal and BHL's submission to the Regional and District Plans entitled 'A Bold Vision for The Northern Gateway';

c) examples to support recommendations/ findings (where applicable);

d) a summary of the key points to be included within BHL's LUIIP submission document.

3 LUIIP and noise

The most critical issue with the LUIIP with respect to aircraft noise is that the approach prescribed diverges from AS2021 without justification or any supporting reference studies. Hence, there is no basis upon which the approach is founded nor can it be scientifically examined. The LUIIP states 'New residences will be prevented from being developed in the higher noise zone (above ANEC/ANEF 20) around the airport. This restriction is one of the most important factors in protecting the new Aerotropolis community from any potential noise-related impacts of airport operations.'

Key points are as follows:

- The fundamentals of the LUIIP include a catalyst for growth, investment and numerous job creation centres. However, the plan does not facilitate housing availability for future occupants within reasonable proximity to their new employment. The plan restricts housing to areas removed from the airport than otherwise would be the case under current land use planning approaches as prescribed in AS2021 and as adopted by Councils throughout NSW. The approach to managing aircraft noise within the LUIIP goes against this key element because the restrictions on residential land use is significantly stricter than previous land use planning approaches that have been adopted in Australia for decades – ie AS2021.

- The LUIIP sights 'Housing affordability', but this is contradicted by the approach to aircraft noise, which requires the consideration of treatment to new homes outside of ANEC20, a requirement additional to the current scope prescribed in AS2021.

- LUIIP states that there will be a new Ministerial Direction developed. The current Ministerial Direction 117 for the area applies AS2021, and so any new Ministerial Direction will be contradictory if it is to be consistent with the LUIIP requirements for new residential uses.

- The LUIIP acknowledges the requirement for acceptable internal noise levels and building fabric design, something which is consistent with AS2021, and states 'These new residential areas, built in a way that minimises noise intrusion, ...'. This can be achieved for ANEC20 and ANEC25 affected land as it always has been under AS2021.

- 'Using the Airport's projected 'Practical Ultimate Capacity' contours, activity levels and the associated 20 ANEC contour, a more conservative approach to aircraft noise is being used than at existing airports.' The inference that AS2021 applies to existing airports appears to preclude its use for future airports. AS2021 does not explicitly preclude its application to future airports and this should be made clearer. The adoption of ANEF contours for land use planning purposes by AS2021 does imply the airport is in operation (and therefore existing), but there is no technical reason the standard cannot be applied to future airports such as Badgerys Creek. At Appendix B of AS2021, reference to future runways and ANEC contours is used, and therefore confirms the land use planning principles of AS2021 can be used for future events.

- The LUIIP states 'Development up to the 20 ANEC/ANEF contour will need to adopt appropriate design and construction standards to reduce any further potential for aircraft noise impacts.' This statement would result in a very ambiguous outcome as it does not define at which point acoustic design would not be needed, which could mean assessing all development sites where aircraft noise is detected or audible to work out whether treatment for a dwelling (for example) is required to meet AS2021 internal targets.

- The approach of adopting a stricter ANEF/ANEC than AS2021 is seen as a global 'one size fits all' method of controlling encroachment on the WSA. There appears to be some possibility to convince regulators that a case by case approach can apply for some situations/sites. Whether residential development is permitted outside 20ANEC (LUIIP) or outside 25ANEC (AS2021), aircraft noise intrusion is required to be considered and building fabric design could be required in both zones. For the BHL site, the aircraft movement frequency is identical for both ANEC zones, ie the number of events 'observed' in both zones for the BHL site will be the same. The aircraft noise level for a given event will not be significantly different (ie more than 5dB) in the two ANEC zones across the BHL site. Beyond the BHL site boundary to the north west, noise levels can be expected to dissipate appreciably. This is demonstrated in the preliminary study by Noise Impacts Assessment (SLR 2018) where maximum noise contours are plotted for specific events.

One approach that should be considered for protecting the proposed WSA 24/7 operations is that used for the Carter Street Precinct. Section 4.6 of the Carter Street Precinct DCP 2016 provides internal noise criteria for proposed developments. The Carter Street Precinct DCP has two internal noise criteria, recommended and maximum. The maximum criteria have been provided to acknowledge that a development is near an entertainment precinct and therefore "relaxed" internal noise criteria may be allowed, subject to council approval. For the Carter Street development the use of maximum noise criteria is considered appropriate. It is accepted that residents living in the proposed development will expect some degree of entertainment noise ingress.

The criteria apply to all surrounding noise sources including road traffic noise and Sydney Olympic Park (SOP) event noise.

Further to internal noise criteria provided in Section 4.6, Section 4.8 of the Carter Street Precinct DCP provides advice on how noise impact from SOP within the Carter Street Precinct is to be managed. The objective of the DCP requirement as quoted from Section 4.8 is:

> a. To ensure that development does not restrict the continued use of Sydney Olympic Park by the Sydney Olympic Park Authority in the exercise of its statutory functions in relation to events.

The recommended controls in the DCP to satisfy this objective are then provided in Section 4.8 as follows:

> 1. Relevant development approvals are to note that:
>
> - residents are not able to complain in any forum or seek to make any claim or institute action against the Sydney Olympic Park Authority in relation to major events in accordance with the Sydney Olympic Park Act 2001, and
>
> - proximity to Sydney Olympic Park results in impacts of noise and lighting, restrictions on vehicle or pedestrian access and security measures associated with certain events.

It is noted that Section 4.8 is mostly to prevent ongoing noise complaints and does not remove the requirement to provide an acceptable level of internal noise amenity when events occur.

The above is one example of how the WSA 24/7 operations could be protected and achieves a sensible balance for coexistence of varying land uses.

3.1 BHL's Vision Masterplan objectives

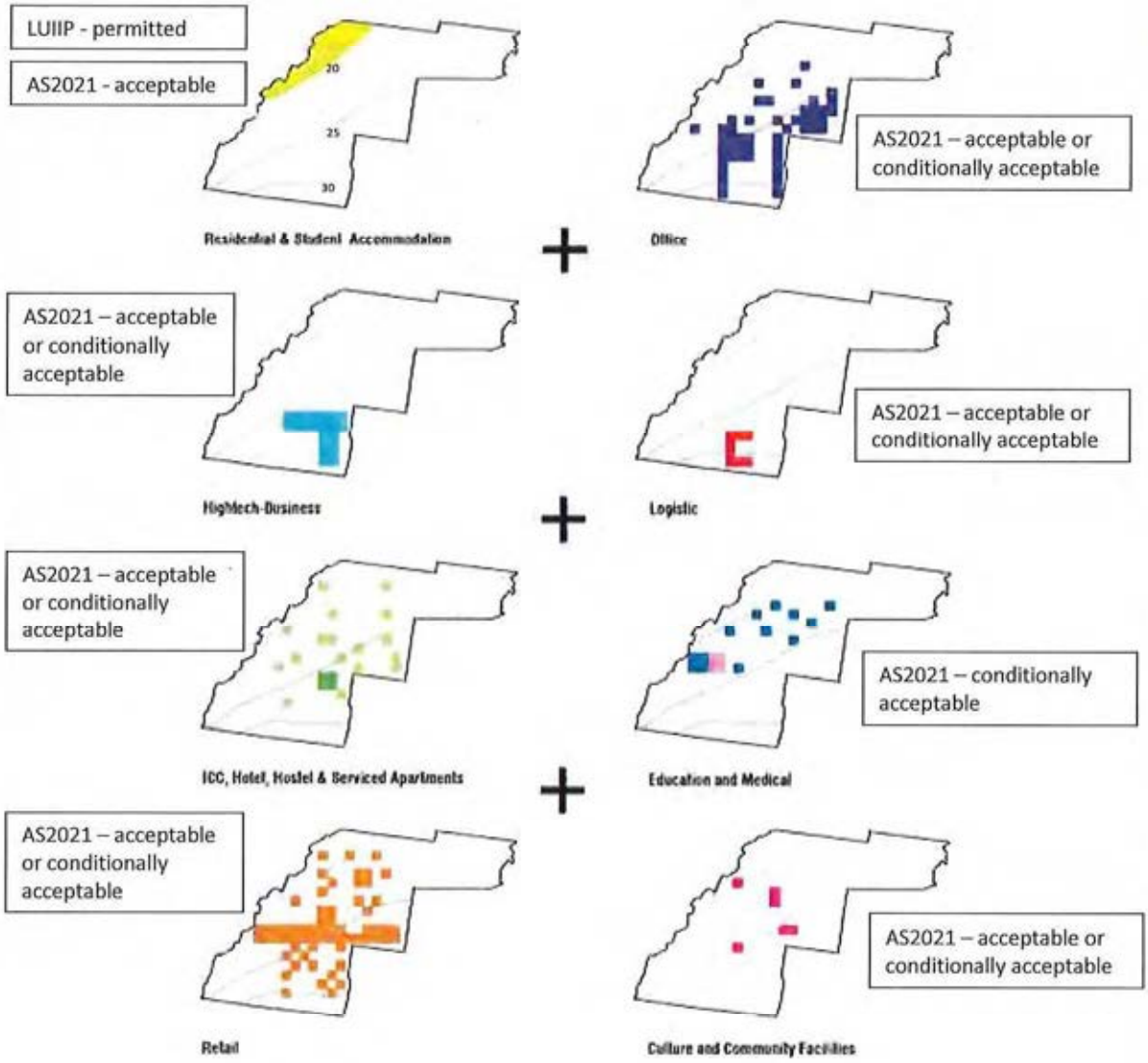
The BHL objectives are to:

- encourage diverse employment opportunities;
- provide access to green and blue resources; and
- provide a connected parkland city.

The developable areas of the site will contain mixed use clusters to create unique, activated and connected neighbourhoods with excellent amenity and diverse opportunities.

Figure 3.1 provides the urban structure as depicted in the site's Vision Master Plan (Urbis, May 2018), as modified for residential land use types. The dashed line work on Figure 3.1 are indicative ANEC contours for airport operations in 2063 (dual runway configuration) as developed by Urbis. Commentary on each area with respect to the LUIIP (for residential) and AS2021 (for non-residential uses) is also provided.

Note that the LUIIP is silent on non-residential land uses and therefore the only other option is to adopt AS2021 to non-residential land uses.



(Source: Urbis)

Figure 3.1 Vision Master Plan urban structure and ANEC20, 25, 30 for 2063 – aircraft noise assessment

3.2 Planning proposal Northern Gateway and BHL's submission A Bold Vision for the Northern Gateway

The Penrith Local Environmental Plan 2010 (PLEP) is the principal Environmental Planning Instrument governing the development on the Northern Gateway. The planning proposal seeks to amend the Penrith Local Environmental Plan 2010 (PLEP 2010) to include Northern Gateway as an Urban Release Area.

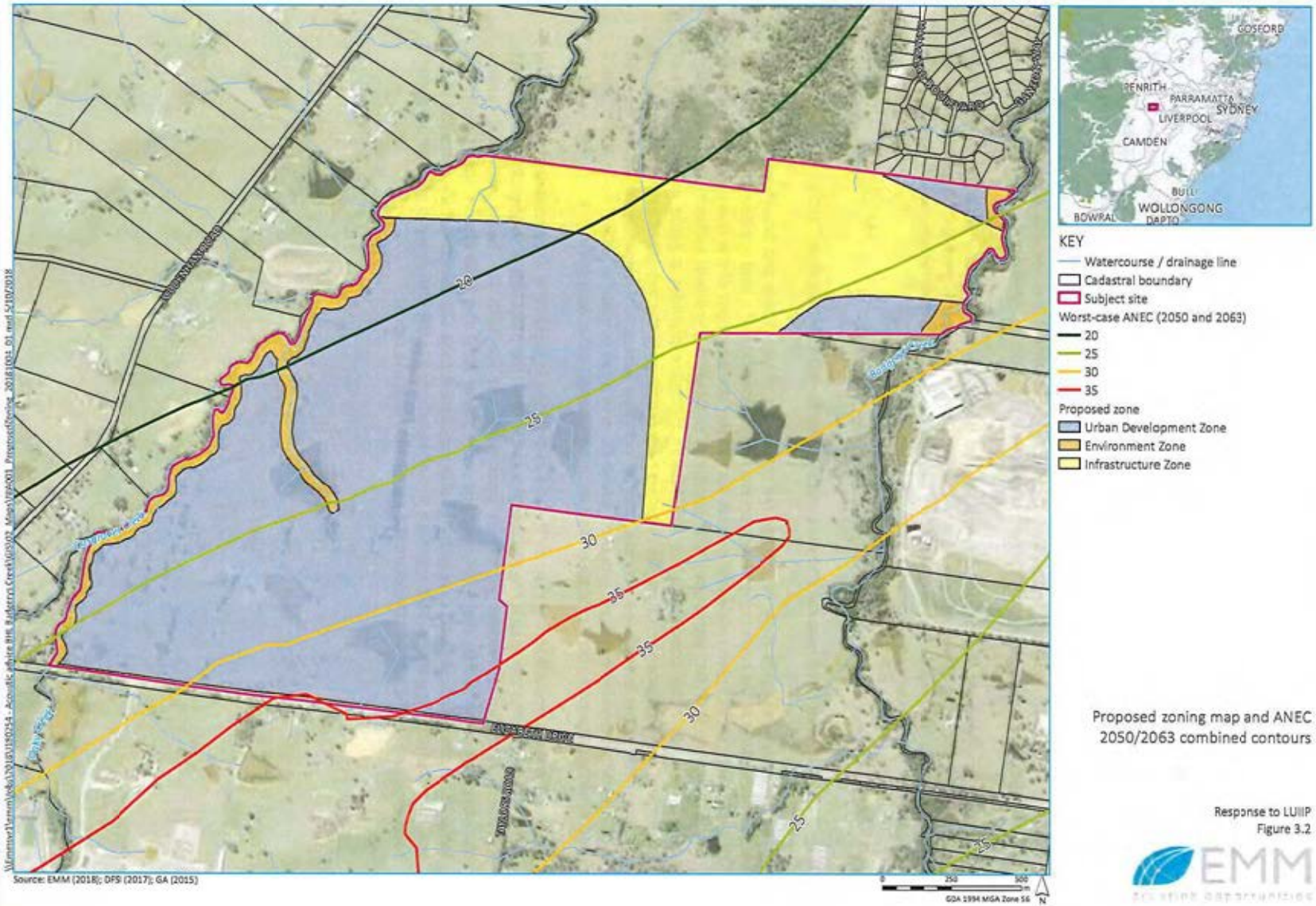
Importantly from an acoustics perspective, the PLEP 2010 Clause 7.9 references Australian Standard 2021 for land use planning purposes specific to land around the proposed Badgerys Creek airport site.

An alternate alignment is proposed by BHL for the North South Rail Link (NSRL) and the M12/M9 Motorway interchange. This is of relevance to the potential noise impacts from such future and existing (eg Elizabeth Drive) transport elements on BHL's land uses and land use development will need to apply the relevant government requirements. These include:

- State Environmental Planning Policy (Infrastructure) 2007; and
- DPE's Development near rail corridors and busy roads – Interim Guideline (2008).

These provisions normally apply to existing rail corridors and busy roads and would be assessed on a case by case basis at the rezoning or Development Application stage of a land use development proposal that, for example, included residential uses. In such cases, the developer of the noise sensitive land use would follow the SEPP (Infrastructure) 2007 provisions to satisfy the approval authority that their design satisfies relevant noise conditions. The DPE Interim Guideline provides a guide as to the level of assessment required when sensitive developments are proposed in the vicinity of existing road and rail corridors. For example, detailed acoustic and/or vibration assessment would normally be required where sensitive developments are proposed within 60 m of a rail corridor or within up to 300 m from a road corridor (depending on traffic speed and volumes amongst other factors).

Figure 3.2 is the proposed zoning map for the site as depicted in supporting documentation prepared by Urbis. Overlayed onto this map is the ANEC contours based on the proposed WSA Environmental Impact Statement (EIS) (for all modes of airport operations and for both the single and dual runway configurations combined (ie the outer envelope contours for 2050 and 2063 airport operations)). This provides for the potential worst case aircraft noise exposure for the site to account for either the single or dual runway configurations. This approach should be adopted in the final analysis of potential aircraft noise exposure for the site and therefore the permissible land use types.



Proposed zoning map and ANEC 2050/2063 combined contours

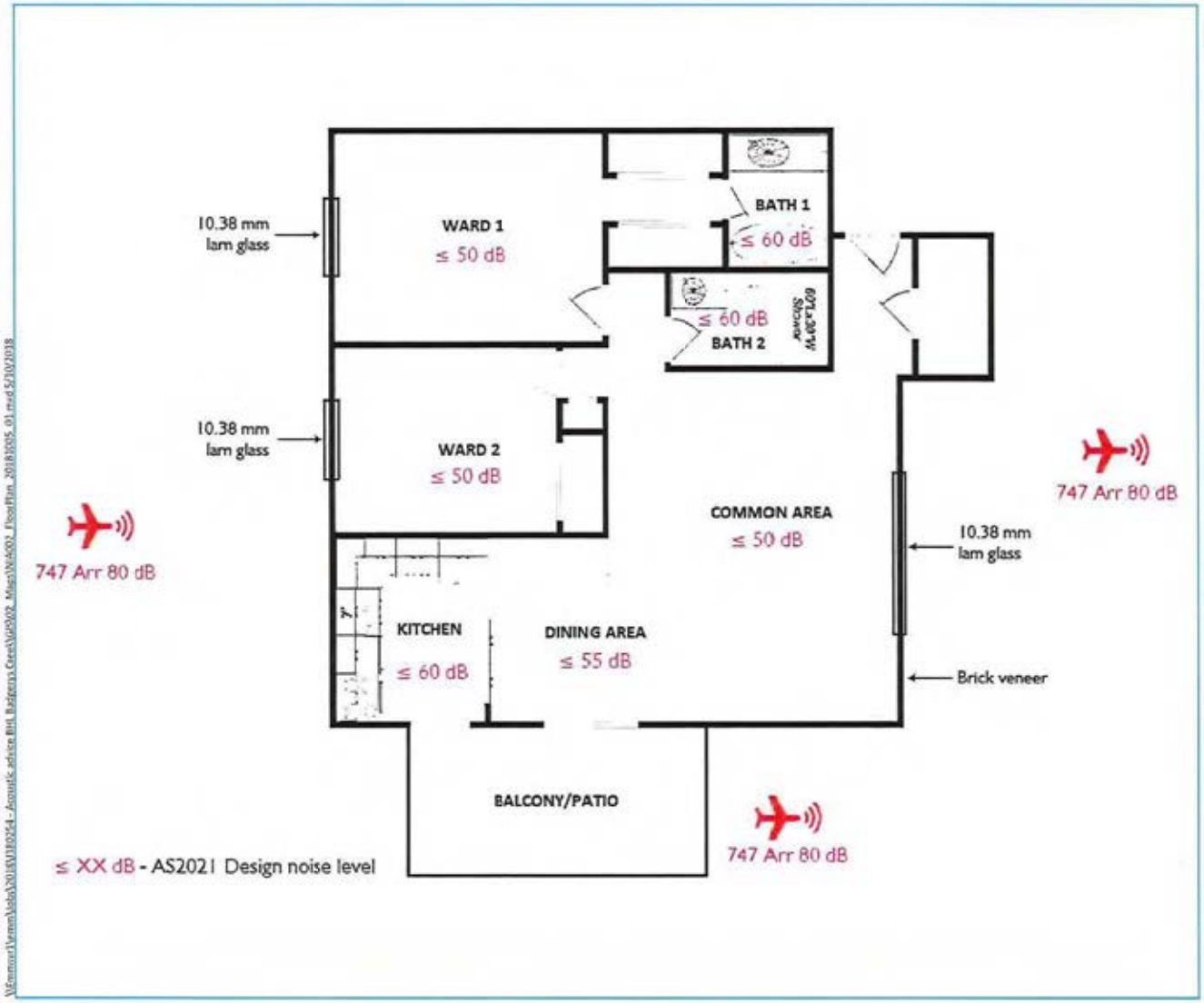
Response to LUIIP
Figure 3.2

3.3 Educational and medical land uses

A key element of the BHL proposal is the potential for educational and medical facilities to exist within the proposed B4 zone shown in Figure 3.1 and Figure 3.2. These areas of the site are shown to be within future ANEC20 to 25 for WSA. As described earlier, these land use types are conditionally acceptable in this ANEC/ANEF zone according to AS2021-2015.

According to AS2021, the strictest recommended internal noise level for schools (eg libraries or study areas) and hospitals (eg wards) is 50dB L_{Amax} from aircraft. For the area of the site where these uses are proposed, the possible external noise level from the nosiest 'design' aircraft potentially operating at WSA is 80dB L_{Amax} from a Boeing747-400 departure. This is according to modelling presented in the WSA EIS (Volume 4 Appendix E1 Figure 4-2) which has been superimposed over the site in the Aircraft Noise Impact Assessment (SLR 22 May 2018).

Figure 3.3 shows how readily building design can mitigate such an external noise level to satisfy AS2021 internal noise targets. For example, single laminated glass would suffice in the example shown for acoustics, a likely minimum construction for hospitals for thermal and other non-acoustic requirements. Hence, acoustics is unlikely to pose any additional design treatment over and above traditional hospital designs. Note this is only an example for a specific situation to demonstrate plausibility of such land use. Other situations where higher noise levels are likely from WSA operations would require detailed design during the development application process.



Example hospital design for aircraft noise

Response to LUIIP
Figure 3.3

We trust the above meets your current needs.

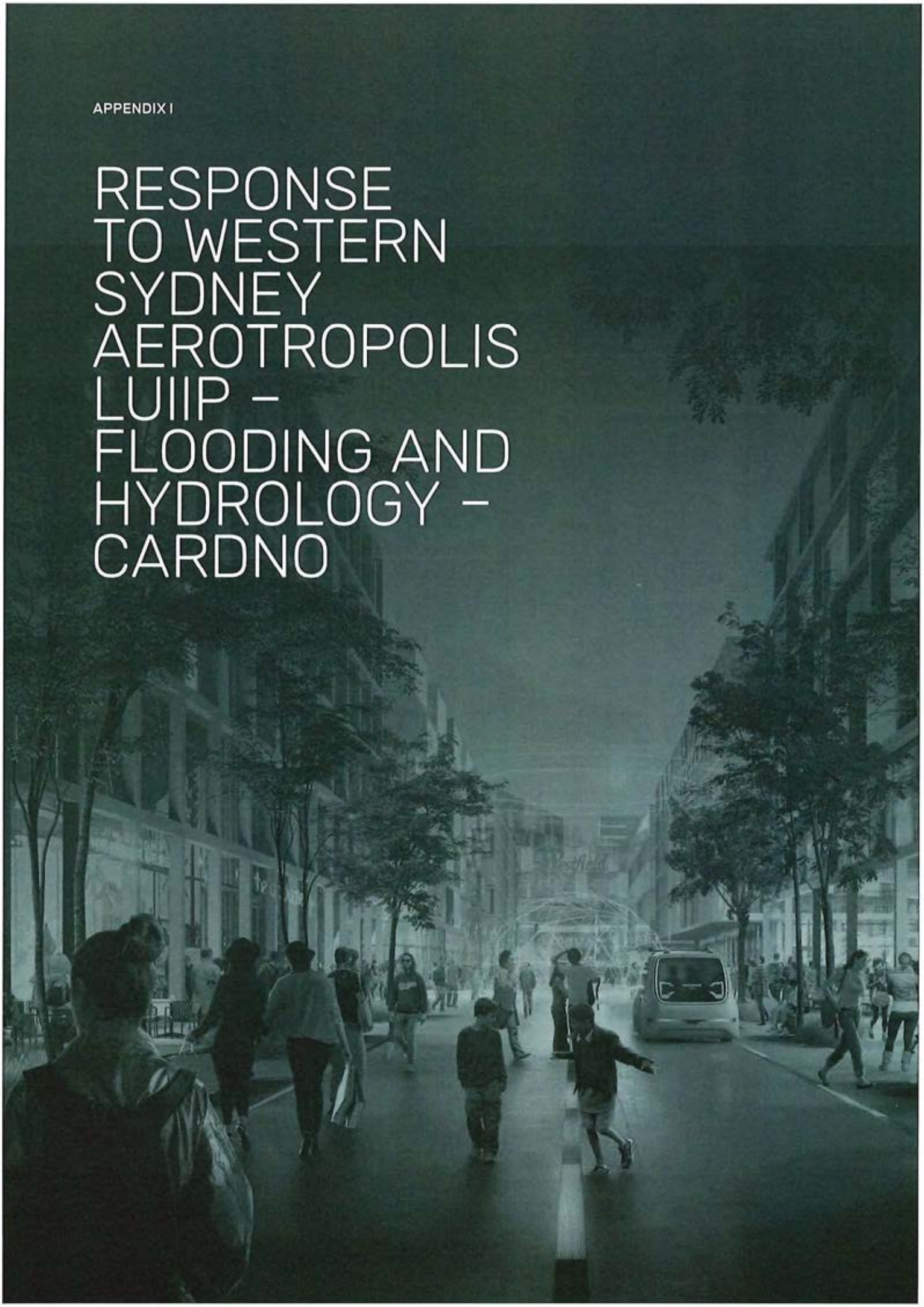
Yours sincerely,

[redacted]

Najah Ishac (MEngSc, BE, MEAust, MAAS, JP)
Director, Acoustics Technical Leader
[redacted]
Review: DW 10.5.18

APPENDIX I

RESPONSE TO WESTERN SYDNEY AEROTROPOLIS LUIIP – FLOODING AND HYDROLOGY – CARDNO



Cardno

Our Ref: 59918152:DS
Contact: David Stone

14 September 2018

Urbis
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SYDNEY NSW 2000

Attention: Christophe Charkos

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Dear Christophe,

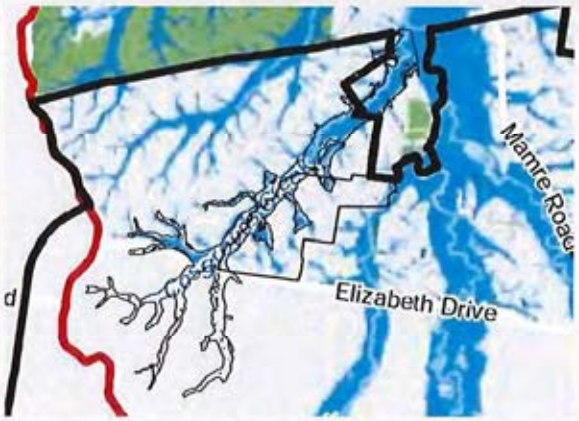
RESPONSE TO WESTERN SYDNEY AEROTROPOLIS LUIIP – FLOODING AND HYDROLOGY

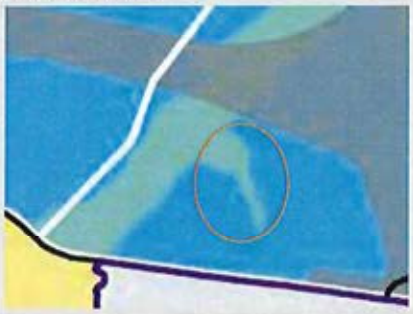
Following your request to undertake a review of the Western Sydney Aerotropolis Land Use and Infrastructure Implementation Plan (LUIIP) (DPE, 2018) we are pleased to provide this letter summarise the key pros and cons in relation to flooding and water cycle management.

To further inform our review, in addition to the LUIIP, we requested the flooding report referenced in the LUIIP (Jacobs, 2017) from Department of Planning and Environment (DPE). However, DPE indicated that this was for their internal purposes only at this point in time and was not able to be available for our review. Our pros and cons outlined below are therefore provided without the benefit of this information.

Australia • Belgium • Canada • Colombia • Ecuador • Germany • Indonesia • Kenya • Myanmar • New Zealand • Nigeria • Papua New Guinea • Peru • Philippines • Singapore • Timor-Leste • United Kingdom • United States • Operations in over 100 countries

Quality
ISO 9001

Category	Discussion Points	Pro or Con
Water Cycle Management	The LUIIP encourages the adoption of Water Sensitive Urban Design (WSUD) principles and the vision includes Integrated Water Cycle Management (IWCM). Adopting WSUD is considered standard practice, although it is unclear if targets will go beyond current Council requirements. At this point there is no indication of what the IWCM strategy will look like or even what measures are being considered. From a conversation with DPE, they are waiting on work by Infrastructure NSW to further define this strategy.	Pro – WSUD and IWCM have the potential to complement the proposed Northern Gateway vision masterplan. Con – uncertainty regarding the targets and measures that are being considered.
Flooding	The PMF flood extents for Cosgroves Creek included in the LUIIP (refer Section 4.3) are generally in agreement with pre-development flood modelling by Cardno (black outline on figure below, overlaid on LUIIP flood extents). Some additional areas are shown as being flooded in the LUIIP for minor tributaries. This is most likely due to different modelling approaches and is not considered to be an issue at this point, especially given these areas haven't generally been classified as Non Urban Land. 	Pro - LUIIP modelling appears to generally be consistent with Cardno modelling. Con – we have been unable to review the LUIIP flood modelling (Jacobs 2017)
Flooding	It is unclear what has been used to define Non Urban Land areas. However, at least in some instances, this appears to have been derived approximately from the PMF flood extents. This is considered inappropriate. The NSW Floodplain Development Manual (2005) specifically aims to not unnecessarily sterilise land on the floodplain. In many instances, flood risk can be appropriately managed to allow urban development within the floodplain.	Con – provides an unnecessary constraint to development.
Flooding	There is an area identified as Non Urban Land (circled on the figure below) which appears to generally be based on pre development PMF flood extents. However, these flood extents are significantly impacted by an existing large farm dam which would be removed, or at the very least significantly modified, as part of any future development. While some of this land would likely	Con

	form a riparian corridor (similar to other tributaries) it is considered inappropriate to classify all of this area as Non Urban Land. 	
Flooding	There is no indication in the LUIIP of how changes to flood behavior, as a result of future development, will be managed at a regional scale. The modelling presented in the report is most likely a representation of 'existing' conditions flood behavior, which would be expected to change as a result of development. The changes may only be minor, but at this point this is unclear.	Con – uncertainty regarding how flood behavior will change at a regional scale as a result of development.

Yours sincerely,

David Stone
Principal Water Engineer
for Cardno
Direct Line: +61 2 9495 8130
Email: david.n.stone@cardno.com.au

Enc: Enter Enclosure 1
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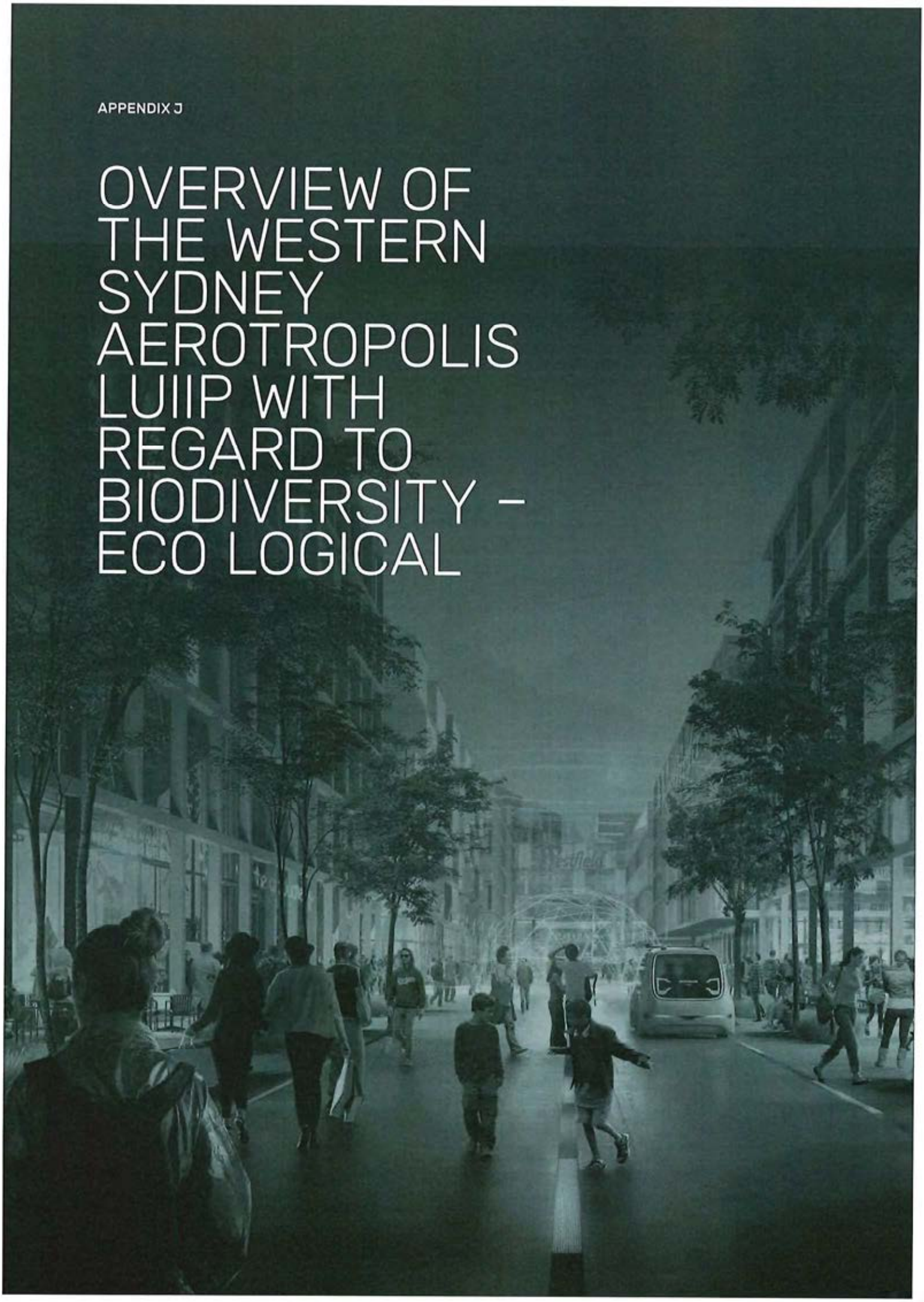
cc: Enter cc

APPENDIX J

OVERVIEW OF THE WESTERN SYDNEY AEROTROPOLIS LUIIP WITH REGARD TO BIODIVERSITY – ECO LOGICAL



APPENDIX J

OVERVIEW OF THE WESTERN SYDNEY AEROTROPOLIS LUIIP WITH REGARD TO BIODIVERSITY – ECO LOGICAL

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Boyuan Holdings Limited (BHL)
Joseph Nguyen
Project Director
Level 16, 5 Martin Place,
Sydney, NSW 2000

Our ref: 18SYD-9675

13 September 2018

Dear Joseph,

RE: Northern Gateway Planning Proposal – Initial overview of the Western Sydney Aerotropolis LUIIP with regard to the biodiversity

The NSW Department of Planning and Environment (DPE) released the draft Stage 1 Western Sydney Aerotropolis Land Use and Infrastructure Implementation Plan (LUIIP) in late August 2018. As part of the Northern Gateway Planning Proposal, Eco Logical Australia (ELA) were requested by Boyuan Holdings Limited (BHL) to conduct an overview of the LUIIP with regard to biodiversity matters against the BHL's Vision Masterplan and Planning Proposal.

Table 1 below presents an initial overview and discussion of the LUIIP. Relevant sections of the LUIIP as they relate to biodiversity have been included in left hand column and notes regarding alignment with the BHL Vision Master Plan and opportunities are included in the right-hand column. The below table is intended to be an initial overview to supplement discussion during the suggested workshop with BHL, Urbis and OMA, which ELA have agreed to attend if required.

In summary, key observations are:

1. The Planning Proposal and Masterplan are generally consistent with the LUIIP with regard to biodiversity and riparian issues.

2. The proposed Structure Plan on page 19 of the LUIIP has a wide area of 'non urban land' along Cosgrove Creek. It appears that this reflects the Probably Maximum Flood (shown on page 39 of the LUIIP) rather than the usual 40 m riparian corridor and may be wider than the current E2 zone. The masterplan should be checked to see if this would prevent any proposed land uses.

3. The LUIIP has many references to the role of riparian corridors in the open space and pedestrian network. The current Planning Proposal is generally consistent with this approach, but it uses quite broad language. Specific references to walking paths, bike tracks and the use of maps and diagrams could help highlight how the Planning Proposal is consistent with the LUIIP on this issue.

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OVERVIEW OF THE WESTERN SYDNEY AEROTROPOLIS LUIIP WITH REGARD TO BIODIVERSITY – ECO LOGICAL

4. The LUIIP refers to tree canopy target of 40 %. As above, the Planning proposal will increase tree canopy. This can be made more specific by including estimates of existing tree canopy versus estimates of proposed canopy and how they relate to the 40 % target.

Table 1: Overview of Western Sydney Aerotropolis LUIIP

Relevant matters within the LUIIP.	Alignment of BHL Vision Masterplan and opportunities.
2. A vision for the Aerotropolis • South Creek catchment and its tributaries will be an environmental asset, part of an integrated water cycle management system, and a central spine for amenity and recreation. It will shape the Aerotropolis's environment and the lifestyles on offer, connected via walking and cycling links, and public transport. The Aerotropolis will be green, smart and sustainable, leveraging the greenfield nature of the area and creating a destination attractive to residents, visitors, companies and workers.	• The masterplan layout is located on Cosgrove and Badgerys Creek, both of which are in the South Creek catchment – but not on South Creek itself. • The BHL's alternative M9/M12 alignment crosses Badgery's Creek in the north eastern portion of the site and therefore impacts on this environmental asset. However, the alignment proposed in the LUIIP also crosses the same waterways and therefore has a similar level of impact. • The Planning Proposal is generally consistent with the approach of protecting riparian corridors and providing open space as part of the green and blue network however the language is quite broad. Specific references to walking paths, bike tracks and the use of maps and diagrams could help highlight how the Planning Proposal is bringing riparian lands to the centre of urban activity and creating a destination attractive to residents, visitors, companies and workers.
Section 4.3.1 Water Smart Planning • Consistent strategic vision for Western Parkland City, the Aerotropolis must develop in accordance with the principles of the Greater Sydney Region Plan that ensures green spaces and landscape are valued. This requires planning to value the quality of the natural environment of the Aerotropolis to achieve a cool, green parkland living and working community. • The LUIIP and the Western City District Plan embrace the natural systems of the South Creek catchment as valuable assets rather than constraints. This requires a new approach that brings riparian lands to the centre of urban activity and form, while improving and preserving environmental values • The Aerotropolis is in one of the warmest parts of Greater Sydney and heat can influence the health and lifestyle of residents and workers. The network of waterways offer potential to create greater environmental, social and amenity benefits through strategies and solutions to mitigate urban heat. • Focus on Water Sensitive Urban Design (WSUD)	• Page 93 (Section 9.2.2) of the Planning Proposal provides a response to the Greater Sydney Region Plan and notes that *"Green and blue infrastructure will strengthen the Parkland City urban structure and enhance scenic and cultural landscapes."* • Recommend including a specific reference in Section 9.2.2 to protection of the Cosgrove Creek Riparian Corridor as well as increasing tree canopy across the site to provide cool, green parkland living and working communities. • Page 98 (Section 9.2.3) provides a response to the Western City District Plan and notes *"The Proposal aims to protect and improve the health and enjoyment of the District's waterways through the protection of the Cosgrove Creek Riparian Corridor."* • Recommend including specific references to walking paths, bike tracks and the use of maps and diagrams could help highlight how the Planning Proposal is bringing riparian lands to the centre of urban activity and form while improving and preserving environmental values and the urban heat effect. • Page 91 (Section 8.1) of the Planning Proposal notes that a DCP will be prepared and will include development controls regarding Stormwater Management and WSUD.

APPENDIX J
OVERVIEW OF THE WESTERN SYDNEY AEROTROPOLIS LUIIP WITH REGARD TO BIODIVERSITY – ECO LOGICAL

Relevant matters within the LUIIP.	Alignment of BHL Vision Masterplan and opportunities.
4.3.2 Contemporary liveable neighbourhoods • The Aerotropolis, at the heart of the Western Parkland City, also provides the opportunity to lead new design approaches to landscape management and the expansion of the tree canopy. The tree canopy will provide shade, cool buildings and prevent roads from becoming heat sinks • Public areas will be designed for people, offering intimate urban spaces and plenty of greenery and tree canopy. Wide footpaths will create space for outdoor dining, places for people to meet, public art and large trees. Public spaces should be designed to be inclusive and to encourage and support creative and cultural uses such as music and performance that bring people together and activate the public domain.	• The LUIIP submission should draw attention to how the proposal: o Expands tree canopies to provide shade, cool buildings and prevents roads from becoming heat sinks (i.e. the green and blue grid) o Offers urban spaces with plenty of greenery and tree canopy. Wide footpaths will create space for outdoor dining, places for people to meet, public art and large trees.
4.3.4 - Environmental conservation in the Cumberland Plain Strategic biodiversity certification • The LUIIP proposes that DPE are intending to pursue biodiversity certification of the entire Aerotropolis. • Strategic biodiversity certification allows for biodiversity values to be considered early in the planning process, protects areas of high conservation value, identifies areas suitable for development and offsets any residual impacts to biodiversity. • Strategic biodiversity certification removes the need for site-by-site threatened species assessment, provides certainty for developers and landowners and enables better environmental outcomes. Cumberland Plain Conservation Plan • The LUIIP proposes that a strategic conservation management plan will support DPE's application for certification of the Aerotropolis and other new development areas in Western Sydney under the *Biodiversity Conservation Act 2016*. • The LUIIP states that the "Cumberland Plain Conservation Plan" will also propose a range of conservation measures, including protection of high conservation value core and corridor areas, revegetation and renewal, protection using development	Summary of key points • Both strategic biodiversity certification of the Aerotropolis and development of the Cumberland Plain Conservation Plan appear to be very early stages, with no details as yet publicly available aside from what is in the LUIIP. • Both matters are stated as being developed concurrently with precinct planning which will occur after finalising the LUIIP. • The Cumberland Conservation Plan will propose a range of conservation measures, including protection of high conservation value core and corridor areas, revegetation and renewal, protection using development controls and investment in species recovery initiatives. Implications • If strategic biodiversity conservation is pursued, it may use a similar model to the North-West and South-West Growth Centres. o Conservation areas are identified early in the planning process - and are expected to be avoided by any further development. o Developable land is 'certified' meaning no further assessment of biodiversity is required at the DA stage. o Developers pay a Special Infrastructure Contribution at the DA stage. The SIC is levied across the growth area regardless of whether the site has biodiversity values or not. • PDF page 43 of the LUIIP shows a low resolution map of currently understood conservation values within and surrounding the Aerotropolis. It includes: o the riparian corridors of Cosgrove's and Badgery's Creek o An un-named tributary to Cosgroves Creek

Relevant matters within the LUIIP.	Alignment of BHL Vision Masterplan and opportunities.
controls and investment in species recovery initiatives • Both certification and development of the conservation plan are proposed to run concurrently with precinct planning. • DPE have undertaken field survey and preliminary mapping to identify biodiversity value in the Aerotropolis to inform precinct planning.	• Current masterplan design generally avoids impacts to higher quality riparian corridors (River Flat Eucalypt Forest), apart from proposed re-alignment of M9/M12 corridor in the north of the site which crosses Cosgroves Creek and Badgery's Creek as well as impacts on low to moderate quality Cumberland Plain Woodland (CPW) predominantly in the north of the site. • The un-named tributary identified on page 43 of the LUIIP was deemed by ELA as not meeting the definition of a "river" under the WM Act and held no aquatic or riparian value. The Planning Proposal could acknowledge this and advise that retention of this as a watercourse is not justified.
6.0 - Funding, coordination and delivery of infrastructure **6.1.4 – Open Space** • Ropes Creek, Kemps Creek, **Badgerys Creek**, Western Sydney Parklands and South Creek will all contribute to an open space network combining recreation, stormwater management and biodiversity conservation functions within the Aerotropolis. The open space network will provide a generous series of interconnected green corridors both north to south and east to west that combine to create a series of connected public areas. • South Creek and its open space will be a key community asset with improved water quality and new crossings. The core open space and conservation corridor will provide for ecological protection and enhancement, high quality stormwater treatment and a regionally significant corridor • Connections across South Creek and Kemps Creek and their floodplains will prioritise active transport. While the strategic road network will need to be flood free, other connections across the landscape will be integrated into the parkland setting. • Returning the floodplain to public ownership in certain locations, where feasible, will integrate passive and active recreation with the natural environment and water management mechanisms, while re-establishing tree canopy cover including Alluvial Woodland and Shale Plain Woodland. • **Badgerys Creek,** which defines the south-eastern boundary of Commonwealth-owned land, and running broadly from the south-west to the north, will create a landscape	• Cosgrove Creek is part of the South Creek catchment, but is not specifically mentioned in section 6.1.4 of the LUIIP. • The Planning Proposal is generally consistent with the outcomes sought in section 6.1.4 of the LUIIP. E.g.: Cosgroves Creek will be protected via an E2 zoning and there are several references to creation of connected open space. Given the emphasis that the LUIIP has on riparian corridors, it is recommended that some more specific wording, maps or diagrams be used to describe the intent of the Planning proposal in these riparian areas.

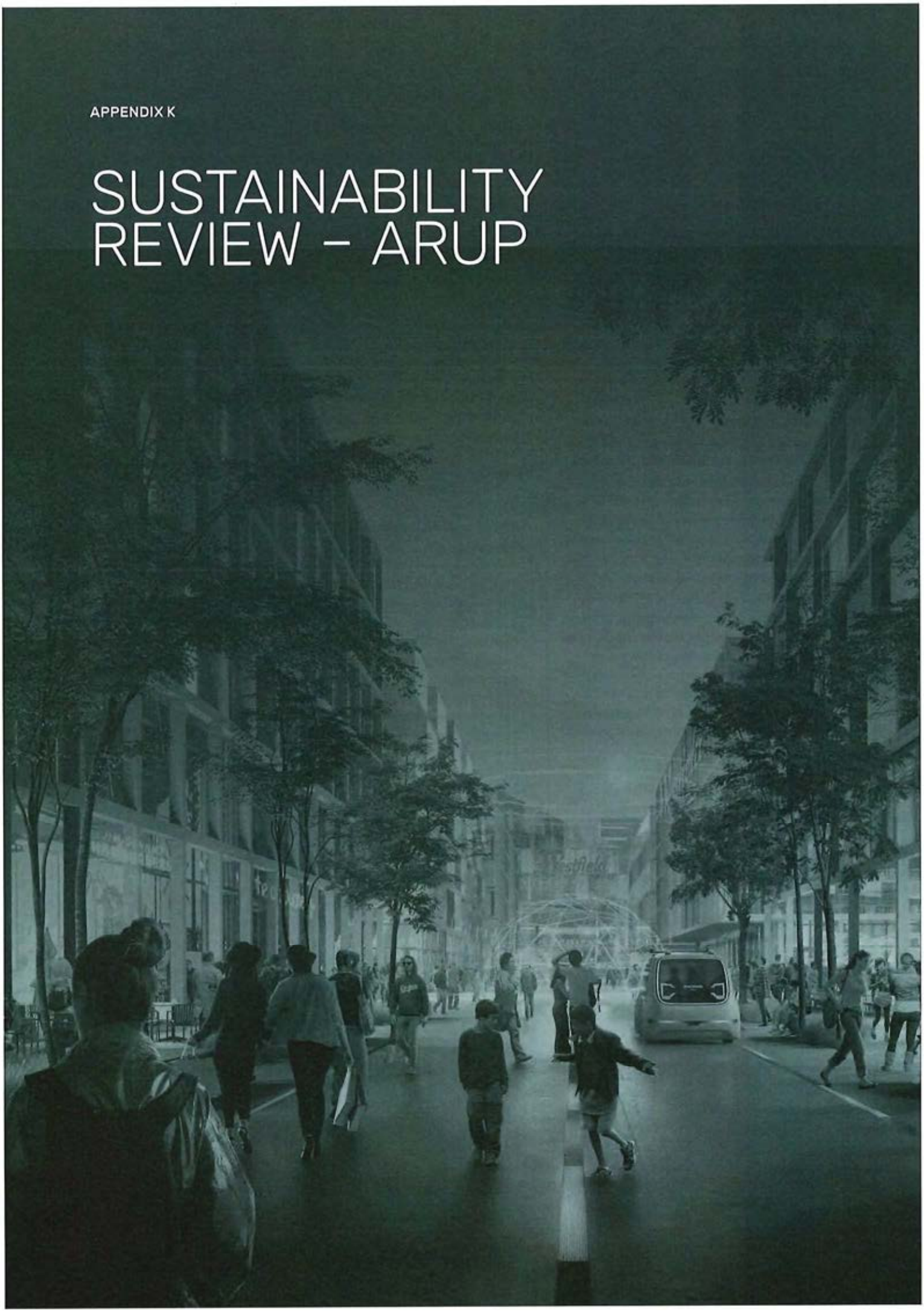
APPENDIX J

OVERVIEW OF THE WESTERN SYDNEY AEROTROPOLIS LUIIP WITH REGARD TO BIODIVERSITY – ECO LOGICAL

Relevant matters within the LUIIP.	Alignment of BHL Vision Masterplan and opportunities.
buffer between future employment lands and the Airport	
Section 8 – Appendices **Section 8.1 – Expected planning outcomes – initial precincts** Northern Gateway Strategic Outcomes / Planning Priorities relating to biodiversity, sustainability and environment • Strong relationship with the underlying topography and scenic values, including South Creek corridor and Greater Sydney Green Grid, incorporating tree canopy and local open space Implementation Strategies relating to biodiversity, sustainability and environment: • Develop a public domain strategy which includes a tree replacement program along Elizabeth Drive (DPE and RMS) • Deliver the 5 Million Trees program to increase urban canopy cover to 40%. An urban tree canopy is to be provided along open space corridors and major roads and road connections to contribute to the amenity of the area (DPE) • Landscaped boulevards along major transport corridors, contributing to urban tree canopy and amenity, including mature trees retained along Elizabeth Drive where possible/feasible, subject to road safety considerations (Planning Partnership and DPE) • Deliver the 5 Million Trees program to increase urban canopy cover to 40%. (DPE)	• BHL masterplan design proposes a green and blue grid where *"Performative webs of parkland and waterways will characterise the identity of the site. These natural resources will promote density at the precincts core, mitigate urban sprawl, and will provide excellent public amenity & potential for sustainable initiatives such as the mitigation of heat, water and noise. These areas will be animated and activated by a variety of public uses which will encourage strong communities and an active lifestyle.* • The Planning Proposal includes several references to increasing tree canopy such as: Page 8 states there will be 408,700 sqm of open space and that extensive network of landscaping will increase tree canopy to reduce heat island effect. Page 96, 98 and 143 state there will be significant planting to deliver an urban-tree canopy cover. • As existing tree canopy is very low in the study area, these sections of the report could include some estimates of tree canopy increase, e.g.: 'Tree canopy will be increased from x% to y% - and then state how this relates to the target of 40%. • Recommend including a specific reference to tree retention (where possible) along Elizabeth Drive, and tree planting in this area.

APPENDIX K

SUSTAINABILITY REVIEW – ARUP



File Note

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Project title	BHL Badgerys Creek	Job number	264458-05
cc		File reference	
Prepared by	Linda Slechta, Natasha Connolly	Date	4 October 2018
Subject	Sustainability Review		

1 Introduction

Arup has been engaged by BHL to review the Land Use and Infrastructure Implementation Plan (LUIIP) for Western Sydney Aerotropolis with respect to their lands at Western Sydney

BHL and their foundation partners have prepared a Vision and Masterplan for the future development of their land. '*A Bold Vision for the Northern Gateway*' was prepared by OMA and Urbis on behalf of BHL and their project partners to outline this vision and the future development potential of the site to the Western Parkland City and Greater Sydney Region.

Sustainability will be a fundamental aspect of the development of Western Sydney and is embedded throughout the LUIIP. We understand that BHL want the Northern Gateway project to be leading the way in sustainable urban development.

This File Note presents:

- A desktop review of relevant policies and strategies as they relate to sustainability and the proposed Project site within the Aerotropolis.
- A review of the LUIIP has been undertaken to identify the Government's sustainability aspirations. Relevant references to sustainability within the LUIIP have been aligned in order to highlight possible challenges or opportunities to help develop a clear direction in developing a sustainability vision for the Masterplan.
- An outline of a number of best practice examples of large scale mixed use developments both locally and globally.

A sustainability vision incorporating opportunities and initiatives will allow sustainability features to be embedded into the design and operation of the Aerotropolis, to achieve sustainable outcomes that respond to both local planning content and global trends.

File Note

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2 Policy Review

A summary of the relevant policies and how these relate to the project in terms of sustainability is provided below.

Policy Name	Policy Summary	Relevance to Project
Future Transport Strategy 2056 (2018)	The Future Transport Strategy sets the 40-year vision, directions and outcomes framework for customer mobility in NSW, which will guide transport investment over the longer term	The Project's vision is an integrated approach to social infrastructure, transport and planning which reflects the underlying strategies and actions of the Future Transport Strategy
State Infrastructure Strategy 2018-2038	The Strategy provides advice about infrastructure policy and investment priorities designed to boost the State's economic prosperity and global competitiveness while meeting the challenges of population growth.	Part of the vision of the Strategy is the growth of the Greater Sydney area, of which the planned WSA forms part of. Planning for the Aerotropolis will optimise the economic opportunities from the planned WSA and the emerging Western Parkland City within proximity to the proposal site. Precinct planning will increase residential opportunities whilst boosting the western Sydney area's economic potential.
Western City District Plan 2056	The District Plan is a 20-year plan to manage growth in the context of economic, social and environmental matters to achieve the 40-year vision for Greater Sydney. It is a guide for implementing the draft Greater Sydney Region Plan at a district level and is a bridge between regional and local planning	This proposal may aim to design and implement the strategies and goals outlined in the plan to contribute to the Greater Sydney Commissions overall objectives.
Greater Sydney Region Plan – A Metropolis of Three Cities	This plan is built on a vision where the people of Greater Sydney live within 30 minutes of their jobs, education, services and health facilities. The vision seeks to meet the needs of a growing and changing population by transforming Greater Sydney into a metropolis of three cities, of which the site falls under the Central River City as a strategic centre.	The Plan has a number of key directions which are relevant including: • Increasing the number of dwellings within 30 minute of a strategic centre by the use of public transport options • Providing more affordable housing choices for residents • Valuing green space and landscape areas
A Plan for Growing Sydney	The Plan sets out the NSW Government's strategy for accommodating Sydney's future population growth over the next 20 to 40 years. The plan consists of goals, directions and actions that provide a framework for strengthening the global competitiveness of Sydney and delivering strong investment and jobs growth in Western Sydney.	The Plan sets out four goals which are relevant to the Project including: • A competitive economy with world class services and transport • A city of housing choice with homes that meet needs and lifestyles • Great place to live with communities that are strong, healthy and well connected • Sustainable and resilient city that protects the natural environment The Project aligns with these goals by providing well connected communities and increasing housing choices around urban

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Policy Name	Policy Summary	Relevance to Project
		centres through its support of urban renewal initiatives and job growth within the region.
Western Sydney Airport Plan 2016	The Airport Plan sets out the vision for the development and operation of a Western Sydney Airport at Badgerys Creek.	The Project is leveraging off the Western Sydney Airport development and will rely on the associated infrastructure and transport networks to enable the Aerotropolis to be successfully habited.
NSW Climate Change Policy Framework (2016)	This policy outlines an ambition for NSW to be more resilient to a changing climate including risks and damage to public and private assets, climate change impacts on natural resources, ecosystems and communities and to achieve net zero emissions by 2050	Development of the Aerotropolis, including the surrounding WSA and Western Parkland City will represent a high profile element of NSW infrastructure. The proposal could expect to have to set or respond to emissions reductions targets, or to be informed by the intention of this policy.
NSW Waste Avoidance and Resource Recovery Strategy 2014 – 2021 (2014)	The Strategy is a key component of the Government's vision for the environmental, social and economic future of the state that will be supported financially by the Waste Less, Recycle More initiative.	The proposal represents a significant use of resources and should aim to achieve the recycling and waste diversion targets outlined within the strategy

3 LUIIP Review

The Western Sydney Aerotropolis Land Use and Infrastructure Implementation Plan Stage 1: Initial Precincts (August 2018) provides many references to Sustainability aspirations. In particular the Vision for the whole area and for each individual precinct places a strong emphasis on sustainability. The key themes presented in the LUIIP are summarised below and a suggested project response is provided.

The LUIIP reinforces the importance of developing a Sustainability Vision for the Northern Gateway Precinct which would translate into a Strategy with goals, targets and implementation strategy. To respond to the requirements of the LUIIP it will be important to embed sustainability throughout the whole project design and delivery.

The LUIPP refers to a new Authority being established similar to the Barangaroo Delivery Authority (BDA). It should be noted that the BDA required the appointment of an Independent Sustainability Expert Certifier whose role is to verify the delivery of the sustainability aspirations of Barangaroo South that Lend Lease included in their bid documents and vision. The Certifier will review and verify until project completion (~10 yrs) to ensure the commitments are delivered and the project is keeping up with Worlds Best Practice over the period of project delivery. The new Authority may have a similar process to ensure the commitments are delivered.

File Note

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Key Theme in LUIIP	References in the LUIPP	Opportunities	Possible Challenges
Sustainability	Key theme in the Vision – specifies water, energy, sustainable approaches	Development of a precinct Sustainability Vision and Sustainability Strategy including measurable goals and targets. Strategy needs to be aspirational yet practical and verifiable – allowing for future technologies and changes. Opportunity to specifically address and respond to the UN Sustainable Development Goals	
Sustainable Outcomes	Innovative approaches including incorporation of sustainable, adaptable and durable credentials. Embedded design for sustainability	Use of a third party rating tool (or similar) for external verification for sustainable credentials for whole community / Northern Gateway. Accreditations such as Green Star Communities, Carbon Neutral (NCOS), Well Communities, Living Community Challenge	
Energy	Aspirational energy solutions, sustainable energy infrastructure – innovative technology and distributed energy – clean, reliable & affordable. Locally produced clean energy, energy storage, smart grid s and power purchasing options Refers to technologies such as solar rooftops, solar gardens, solar farms, onsite battery storage	• New precinct allows out of the box approach to energy for the area – focus on reduced demand / efficient use of energy first and then look at energy generation and distribution as part of broader precinct but also a response for the site itself. Eg solar, energy storage (batteries), smart grid. Through to building solutions – on site roof top solar, smart meters & grid, batteries etc • Link with energy & carbon • Incorporate best practice energy efficient design principles and exceeding energy requirements • Incorporate on-site generation into design • Provision of electric cars and facilities for electric vehicle charging and flexibility for future integration of autonomous vehicles	• Use of renewable energy technologies such as solar – may have restrictions or issues with glare and reflectivity near the airport site, placing restrictions on placement and orientation of proposed PV array, depending on location. • Wind turbines will be restricted in placement as they may pose a hazard to aviation and aircraft pathways • Some reliance on what happens at a Aerotropolis scale may limit or enable the energy response for the Northern Gateway

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Key Theme in LUIIP	References in the LUIPP	Opportunities	Possible Challenges
		• Digital monitoring of energy usage with metrics publicly displayed • Renewable energy generation technologies such as solar panels or wind turbines within the non-built up areas	
Carbon	Precinct planning must build in a reduction in carbon emissions. Consideration of initiatives such as zero carbon cities	Carbon reduction approach to design and delivery – consideration of energy, transport, waste through to embodied carbon. Opportunities to be carbon neutral (NCOS) – as per Barangaroo South. Partnerships and research opportunities to investigate new and innovative ways to approach precinct-wide carbon emission reductions	
Water	Aspirational water solutions. Use efficiently and effectively. Keep water in landscape.	As per energy – seek to reduce water demand, increase efficiency, recycling water, water reuse, treatment of water, water sensitive urban design. Water cannot be addressed in isolation – consider combined water, recreation, biodiversity opportunities	• Low gradient of the land and location adjacent to flood plains, means site is susceptible to being affected by flood – meaning outdoor spaces would need to be properly designed to receive and manage surfacewater runoff • Flooding issues may challenge WSUD approach • As the existing site is largely greenfields and covered in vegetation, any development will increase the hardstand areas – changes to the ground surfaces have potential to alter drainage patterns and the levels and rate of surface water runoff, hence appropriate planning and engineered solutions (such as water sensitive urban design) would need to be incorporated

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Key Theme in LUIIP	References in the LUIPP	Opportunities	Possible Challenges
Public areas	Sustainable approach	Maximise, protect, enhance and expand the use of public open spaces within the precinct	Aircraft noise
Built Form	Sustainable approach	Passive design, use of accreditation / rating for built form such as Green Star, Passivhause, NaBERS, Well Buildings, Living Building Challenge. Materials and resource consumption should be a focus. Biophyllic design to increase ecological value	Aircraft noise may impact on some aspects of passive design
Social Infrastructure	Sustainable approach. Community hubs with social infrastructure	Integrate with connectivity – eg walkable, cycleable. Flexible to respond to community needs over the future – ie can be repurpcsed	Some social infrastructure may be Govt Led – eg schools – that may not be built until population reaches need
Climate Change	The document doesn't explicitly refer to climate change however it does refer to resilience once	Undertake a Climate Change Risk Assessment. Design for future climatic conditions (inparticular heat, bushfire, storms, flooding)	The region the site sits within has little influence from coastal areas, as a result the likelihood of more extreme weather events makes it more vulnerable to climate change impacts. Historically, the region has experienced the warmest temperatures within the Greater Sydney area, and the frequency of extreme weather events, including extreme heat days is expected to increase with climate change impacts
Resilience	Embedded design for resilience	Resilience is more than climate. Project needs a Resilient approach in design to ensure a resilient community from future climate conditions as well as economic, social and environmental pressures. Consider the risks to natural hazards and human related threats and resilience outcomes in project business case	
Adaptability	Focus on the changing needs of the community. Diversity of housing	• Built form that is flexible, adaptable -eg car parks that can be repurposed for liveable space when no longer required.	

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Key Theme in LUIIP	References in the LUIPP	Opportunities	Possible Challenges
		• Housing that can be adapted as occupant needs change. • Housing diversity types. • Affordable housing strategy	
Environmentally valuable land / Ecological	Minimise urban footprint. Preservation of South Creek Corridor and Sydney Green grid, Sensitive ecological land / flora	• Conservation and enhancement of ecological value and biodiversity. • Making use of the existing creek and ecosystems to enhance and enrich the overall natural environment of the site • Opportunity to address ecology/biodiversity with recreation, water/ stormwater, open space • Prioritise protection of environmentally sensitive areas, including South Creek corridor and any identified sensitive flora and fauna	Enhancing biodiversity may be a challenge given the change in land use and impacts to existing ecosystems. Attracting birds in close proximity to airport / flight path
Social / Liveable	A diversity of jobs and homes including affordable housing, high-quality public transport, vibrant urban centres and unique amenity, creativity and recreation will attract a new, highly skilled and diverse community.	• Take a consumer-centric approach to design and implementation to deliver maximum community benefit • Opportunity to create a precinct which is planned and designed for people of all ages and abilities with access to jobs, services and facilities	Developing and growing a brand new community in the whole district / region
Connectivity and Transport	Housing within 10 mins of centres and 5 mins of parks and open spaces. Focus housing on centre serving transport	• Masterplan to prioritise pedestrians and cycling, and centre on public transport. • Consider future transport needs / modes not just cars of today • Provision of electric cars and facilities for electric vehicle charging and flexibility for future integration of autonomous vehicles	• Public transport servicing the site • Staging of development with provision of public transport • Distance from the main business district area of Sydney in terms of discontinuity with central business district. There is a need to ensure transport links are sufficient and any

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Key Theme in LUIIP	References in the LUIPP	Opportunities	Possible Challenges
		• Initiatives to encourage car pooling, such as dedicated spaces for cars • Providing digital transport updates in public spaces • Integration with connectivity – eg walkable and cyclable destinations which consider flexibility to respond to community needs over the future – ie can be repurposed • Manage transport demand through sustainable integration of land use with transport	planned road upgrades are considered as part of the precinct development • potential travel time issues in particular by road travel • Long term operation would be reliant on a reliable airport rail connection
Urban Heat	Highlights urban heat as a potential risk of health & lifestyle. Relates to network of waterways as a solution as well as tree canopy as heat sinks	• Consider and address urban heat island effect – emphasis on waterways, open space, vegetated areas, increase urban canopy cover, roof top gardens, building/roof materials. GSC requires >50% of site • Opportunities to increase the amount of shading options to combat the amount of paved and concreted space by planting trees	-
Productive	Jobs, connected, technology, science & creative industries	• Masterplan and delivery provides a diversity of local jobs. Provide work-live housing options. Seek industry opportunities – eg circular economy • Re agriculture – community gardens, productive landscapes, roof top vegetable gardens • Consideration of emerging opportunities in the digital economy through provision of digital interface and communication technologies	Replacement of agricultural productive land

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Key Theme in LUIIP	References in the LUIPP	Opportunities	Possible Challenges
Waste	Innovative approaches to resource recovery and waste management including urban design for collection facilities	• Opportunity to consider and investigate advancements in waste disposal, such as waste to energy facility which can be used to power non-critical on site operations • Opportunity to look circular at waste and resources not just end collection • Consider material use and opportunities for on site treatment (eg treat organic waste for use in community gardens) • Develop solutions to reduce waste generation volumes and waste transport requirement	
Noise & Air Pollution	Compatible with a landscape led approach to urban development. Locating noise sensitive land uses in areas considered acceptable to liveability outcomes to allow unencumbered airport operations.	• Opportunity to use the latest technology and advances in technology to minimise any possible negative effects of the airport on the community (such as noise) • Use of landscaping and soft design to minimise impacts	• 24 hour operations in terms of aesthetics and the continual noise impacts from airport • Height restrictions on buildings due to proximity to the planned airport, means low density and more compact dwellings. • Additional road traffic resulting from combination of planned developments (WSA, Western Parkland City and Aerotropolis) may increase levels of localised air pollutants and smog /air quality impacts • Development beneath the flight path or within close proximity to the flight path may impact on some aspects of the design in terms of passive design and open spaces due to aircraft noise

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4 Best Practice Examples

The table below summarises a few best practice examples both locally and globally.

Development & Sustainability Targets	Key Initiatives
Barangaroo, Sydney Green Star Communities - 6 Star- 'World Leadership' Climate Positive Carbon Neutral	• Targeting net zero waste to landfill by 2020 • Net zero operational carbon emissions • Targeting 97% diversion of construction waste from landfill • 50% public open space • Central chilled water and harbour heat rejection • 100% waterfront access to public • Black water treatment • Onsite solar power • Rain water capture, capabilities for being water positive • Offsite advanced resource recovery facility • Keeping up with Worlds Best Practice over the live of the project
Cloverton, Victoria Green Star Communities – 6 star	• Access to public transport across the site • 130 hectare conservation area • Energy producing playgrounds elements in each of the 18 local parklands on the site • 9 hectare arboretum, for enhancing local biodiversity values, and providing an educational setting for learning about resilient cities and the role of urban trees • Ongoing and open feedback loop with residents to determine the success and impact of delivering sustainability initiatives • Governance in the sustainable communities.
Aurua, Caloundra, Queensland Green Star Communities - 6 Star- 'World Leadership'	• 30% of site 'green space'. More than 700 hectares, nearly one-third of the site, will be rehabilitated from decades of use as a former pine plantation and designated as a conservation area. • New habitats for rare and endangered flora and fauna species will be created with fauna underpasses at every major creek crossing. • Australia's largest urban wetland. • Annual environmental reporting. • Water recycling system consisting of advanced water reticulation, filtration, storage and treatment. • Water sensitive urban design principles (WSUD) integrated throughout the project. • Innovation in low energy street lighting, renewable energy sources and waste management programs. • Aura's sustainable community aims to drive business diversity, innovation, and economic development, providing over 19,500 jobs in the community. • Aura will also integrate an environmental education facility that will host sustainability awareness programs to promote life-long learning among residents and local school children. • Healthy and active living styles within the community will be promoted – the project features nine separate sporting grounds, numerous parks and playgrounds and a 'people's place' and central park alongside a new town centre.

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Development & Sustainability Targets	Key Initiatives
	• All streets will have footpaths on one side to encourage pedestrian activity. • All homes will be close to parks and other recreational facilities, and will be a maximum of one kilometre away from community vegetable gardens.
Dockside Green, Canada LEED Neighborhood Development – Platinum LEED New Construction - Platinum	*'Dockside Green will be a socially vibrant, ecologically restorative, economically sound and just community. It will be a distinct collection of beautifully designed live, work, play and rest spaces designed to enhance the health and wellbeing of both people and ecosystems, now and in the future'* • On-site Waste Water Treatment Facility which treats and filters 100% of the sewage and grey water generated. The residual reclaimed water is reused on-site at a high level for toilets, and roof top garden irrigation, and at a low level for landscape irrigation to maintain the water level of the Greenway. • Storm water collected on-site is absorbed by rain gardens, or is directed into the Greenway via permeable paving, and exposed drainage routes. • The Dockside Green District Energy Plant generates high efficient heat and hot water through either the burning of locally sourced, low-cost biomass fuel sources (sawmill and wood waste), or natural gas. The plant was built with the capacity to supply the entire Dockside Green development (1.3 million sq.ft.). • An Affordable Housing Strategy was created by the Dockside Green Housing Advisory Committee. • Supports innovative, local business through the use and purchase of their products and services, supports local employment and aims to support post-secondary education by collaborating with local learning institutions to support education and training opportunities.

5 Next Steps

The high profile and geographical position of the planned Northern Gateway Project in the Aerotropolis together with the planned expansion of the western Sydney region (including the WSA and Western Parkland City), provides the opportunity for the development to achieve sustainability outcomes above and beyond those that simply meet legislative or policy requirements. Preliminary opportunities for the development have been identified and outlined within this document, in particular the prospect for new technology in terms of energy use, building design and materials and the use of space to enhance both the built and natural surrounds.

Sustainability benchmarking for community and neighbourhoods for projects of this scale is now more common in the global marketplace, including Australia. Green Star Communities was developed by the Green Building Council of Australia (GBCA), which enables community scale developments such as this, to be measured and certified against economic, social and environmental benchmarks. Application of sustainable credentials such as GS Communities can broaden the scope of influence for the development and move beyond building best practice. The project can use the sustainability initiatives and opportunities identified within this document to provide guidance on what the precinct is capable of achieving in terms of the rating scores if application of a sustainability rating tool was applied to benchmark the project.

To deliver a sustainable precinct well beyond its current boundary and respond to the requirements of the LUIIP, the project should consider identifying specific sustainability targets and goals to

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ensure commitments are delivered and the project is keeping up with worlds best practice. Project goals, targets and sustainability aspirations should be developed based on international and national benchmarking of similar projects or developments, review of relevant policies, plans and strategies as outlined within this document. To ensure the relevant policies and strategies are considered and relevant aspects of the LUIIP are adequately addressed, it would be beneficial to map how each of the project specific goals and objectives relates to the respective LUIIP reference and policy document.

The goals and objectives should be translated into an overall sustainability strategy which will provide the direction and identify material sustainability initiatives for the precinct and provide a pathway for the implementation of the sustainability vision. Be ensuring sustainable outcomes and credentials are a key driver for the design and function of the precinct, this provides opportunity for the sustainability vision of the LUIIP to be fully recognised.

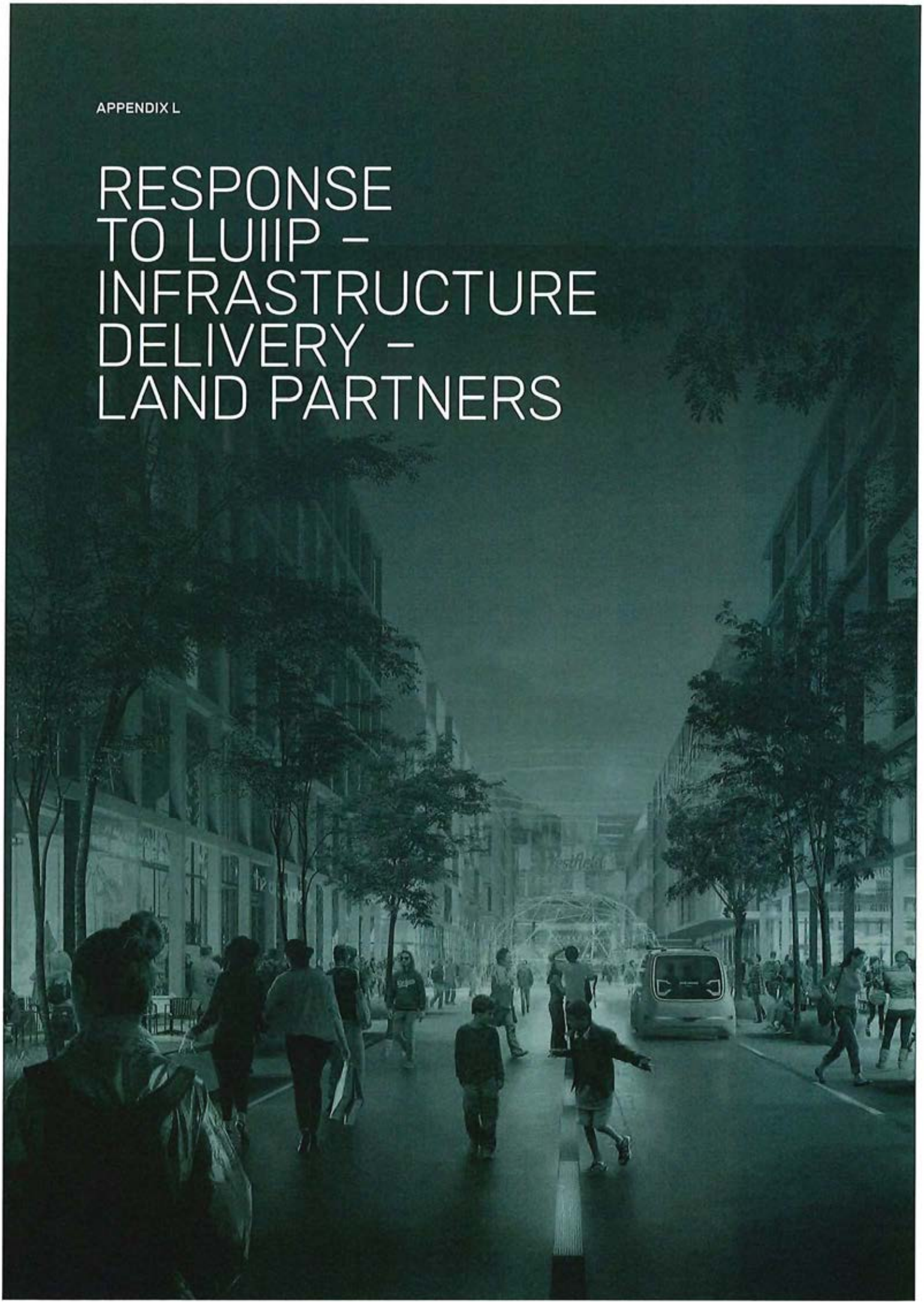
Further work will need to be undertaken – making these challenges and opportunities known at the earliest planning stage allows design responses to the constraints to be developed early and embedded throughout the whole project approach.

DOCUMENT CHECKING (not mandatory for File Note)

	Prepared by	Checked by	Approved by
Name	Linda Slechta	Natasha Connolly	Danielle Ferrari
Signature			

APPENDIX L

RESPONSE TO LUIIP – INFRASTRUCTURE DELIVERY – LAND PARTNERS



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Our Ref: SY074432.000

Wednesday, 26th September 2018

Boyuan Holdings Limited
Level 16, 5 Martin Place
Sydney NSW 2000

Att: Joseph Nguyen

RE: Land Use & Infrastructure Implementation Plan (L.U.I.I.P)

1.1 Introduction

The recently released L.U.I.I.P for the Western Sydney Aerotropolis and surrounding precincts is silent on any detailed utility servicing for the area apart from a "broad based" commentary outlined in Clause 6.2 of the L.U.I.I.P.

Following discussions I have undertaken with developers who have large land holdings in the Northern Gateway, Badgerys Creek and Mamre Rd precincts, Sydney Water and Western Sydney Airport Corporation the following comments regarding essential utility service infrastructure and sections of the L.U.I.I.P. are pertinent

2.1 Potable Water – Servicing the Boyuan Holdings Land

Potable Water supply to the Western Sydney Airport (WSA), southern areas of the Northern Gateway precinct, Badgerys Creek precinct and Kemps Creek Precinct and precincts within the South West Growth centre (Austral, North Rossmore and Kemps Creek) will be provided from the Cecil Hills Reservoir System. To facilitate robust water supply to areas covered by the L.U.I.I.P system area rezoning by Sydney Water will be undertaken to remove some areas currently serviced by the Cecil Hills system.

Sydney Water have indicated that with system area rezonings the Cecil Hills system will be capable of supplying the areas mentioned above. A 1200mm trunk water main is to be constructed from the Cecil Hills reservoir along or adjacent to Elizabeth Drive to serve W.S.A and surrounding precincts. This trunk water main will service the Boyuan Holdings Land.

Sec 6.2 of the L.U.I.I.P notes that trunk infrastructure is NOT to be located within the Elizabeth Drive road corridor but to be located within service roads or easements.

Sydney Water and Endeavour Energy will have trunk infrastructure constructed adjacent to Elizabeth Drive. It is important that liaison between the 2 utility service providers and RMS define the extent of any upgrades, road widenings, road acquisitions or other impediment that will enable both utility providers to plan and acquire necessary easements to install their trunk infrastructure. Discussions with Sydney Water staff indicate Sydney Water is seeking an amendment to the L.U.I.I.P. to remove this requirement. The acquisition of easements from a variety of disparate property owners is considered to be a difficult issue to address in a timely and cost effective manner.

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2.2 Waste Water – Servicing the Boyuan Holdings Land

2.2.1 Sydney Water

Sydney Water have indicated they intend to construct a new Waste Water Treatment Plant (WWTP) within the South Creek corridor, possibly north of Elizabeth Drive near the confluence of South Creek and Badgerys Creek. Sydney Water have indicated that the WWTP could be constructed and operational by early 2025 to cater for timing requirements outlined by Western Sydney Airport Corporation (WSACo).

Location of the WWTP in this area provides ready access from the Boyuan Holding Land to the WWTP due to the topography of the area. Sewer carriers will be constructed from the WWTP which will allow connection of internal reticulation sewers serving the Boyuan land.

Sydney Water have also indicated they are looking at a short tern interim solution of installing an "off the shelf" waste water treatment plant to serve those areas requiring early activation to assist the commercial viability of the airport. The adjacent areas are seen as a key component of the associated facilities required to service the airport. Sydney Water are aware these adjacent areas have to be developed and operational to support the airports activities PRIOR to the commencement of the airports commercial activities.

2.2.2 Alternative Waste Water Option – Water Industry Competition Act (W.I.C.A)

W.I.C.A provides the opportunity for an alternate waste water solution other than reliance on Sydney Water. Should the Sydney Water timeframe not be capable of being met discussions with Western Sydney Airport Corporation (WSACo) have indicated that the airport would install a W.I.C.A licensee treatment facility in the north east corner of the Airport precinct.

WSACo have indicated they would enter commercial agreements with adjoining developers to provide access to this treatment facility. The W.I.C.A licence holder would need to declare the geographic extent of the W.I.C.A licence by amendment/addition to the areas proposed to be serviced.

WSACo have indicated that apart from the primary role of being the developer of the airport they have a role as the catalyst to allow developments to proceed within the areas surrounding the airport. Alternatively, as a stand alone property a W.I.C.A licence could be granted for the Boyuan property and if other adjoining developments wished to proceed they could be granted access to the W.I.C.A WWTP by the licensee.

2.2.3 Alternate Short-term Solutions – Sec 68 of the Local Government Act

Early development could commence with a Sec 68 approval from Council for the discharge of waste water. This process has been followed by Sydney Science Park to facilitate the first stages of that development. This can be achieved:

(a) Temporary pump out and cartage to a disposal facility

(b) Aerobic waste water treatment with biological nutrient removal
(requires sufficient on site area for irrigation of treated water)

3.1 Electrical Supply

3.1.1 Endeavour Energy

Endeavour Energy and WSACo have discussed the required timing and demands generated by the airport development. Initial supply from the Kemps Creek zone substation is required by the airport in 2024. High voltage feeders will need to be constructed along or adjacent to the Badgerys Creek corridor (see comments in Sec 2.1 above regarding the Elizabeth Drive corridor).

Endeavour Energy have indicated that capacity from these feeders would be available to serve early developments within the Northern Gateway, Badgerys Creek and Kemps Creek precinct. Ultimately new zone

substations are required in the Northern Gateway/Badgerys Creek precinct. They would be approximately 90MVa zone substations with associated 66KV or 132KV feeders into the zone substations.

3.1.2 Transgrid

The Transgrid transmission system passes through the airport precinct. WSACo are currently in discussions with Transgrid for the installation of a zone substation within the airport precinct. Surplus electrical capacity will exist that will be available for distribution to adjoining developments if a Trangrid zone substation is installed. Should this concept proceed delivery by 2024 is expected.

3.1.3 Alternative Solutions

The L.U.I.I.P (see 4.3.5) recognises the opportunities to provide renewable energy solutions through the development of solar farms with associated battery storage. Large scale development of logistics warehouses and commercial buildings also allow the installation of solar panels to be used by these facilities with excess capacity being fed back to the surrounding network.

4.1 L.U.I.I.P Commentary

4.1.1 Sec 6.2 Utilities and Services

The development of the Western Sydney Airport is the primary driver for the timely installation of service infrastructure to facilitate developments of surrounding precincts. WSACo has indicated it requires certain major infrastructure (electrical) by 2024 and Sydney Water have indicated they will provide a WWTP by early 2025.

The coordination, funding, location of major infrastructure assets remains unresolved at this time. These issues will need to be addressed shortly to provide certainty to the development industry who will be providing the associated external infrastructure that is associated with the airport facility.

The L.U.I.I.P recognises these issues which will be coordinated by a new Authority working in conjunction with the Western Sydney Planning Partnership.

Sec 6.2 raises the issues of funding of the utility infrastructure. The development industry needs to proceed and make decisions with some certainty about the level of contribution that may be required to fund external and trunk infrastructure. As decisions concerning development are being made now it is imperative that funding models that outline the quantum of funding are resolved as soon as possible.

4.1.2 Sec 6.3 Development Contribution

It is unclear if service infrastructure would be included in a Special Infrastructure Contribution (S.I.C) levy.

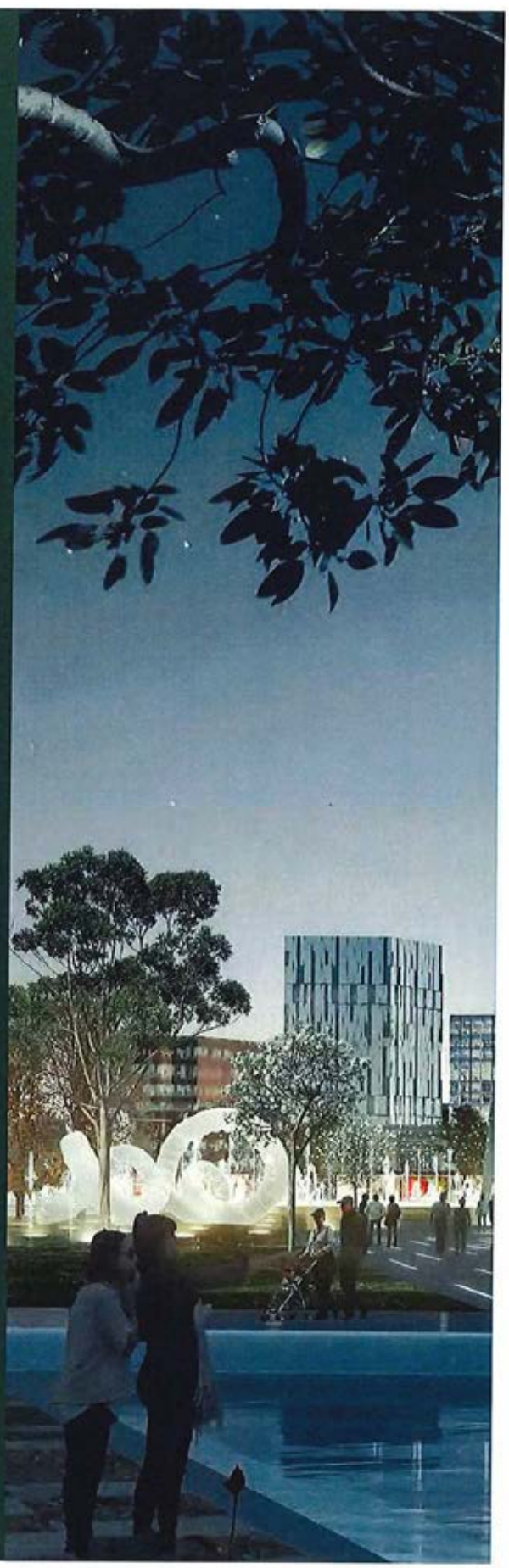
The utility service infrastructure authorities are able to amortise the cost of the infrastructure they provide (waste water treatment plants, reservoirs, zone substations, etc) over a long period of time and recover costs through either their rating base or via IPART approved user costs.

Given the large demand for sewer, waste and electrical infrastructure being provided and required to be provided in other parts of Sydney it needs to be identified if Sydney Water or Endeavour Energy would require capital costs for their infrastructure within the Aerotropolis precinct to be recovered as part of the S.I.C process.

Should you have any enquiries or wish to discuss the matter, please do not hesitate to contact our office.

Yours Faithfully,
LANDPARTNERS PTY LTD

Gregory K Oxley
Registered Land Surveyor/Project Director



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