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# **Environmental Impact Statement**

State Significant Development Application  
(SSD 25452459)

**First Building – Bradfield City Centre  
Advanced Manufacturing Research Facility  
215 Badgerys Creek Road, Bringelly**



Prepared for the Western Parkland City Authority

Submitted to the Department of Planning, Industry and  
Environment

**November 2021**

## Certification of Environmental Impact Statement

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### Proposed development

<b>Applicant</b>	Western Parkland City Authority
<b>Applicant's address</b>	10 Valentine Ave, Parramatta NSW 2150
<b>Land to be developed</b>	215 Badgerys Creek Road, Bringelly
<b>Legal description</b>	Part Lot 10 in DP 1235662
<b>Project description</b>	The Application will seek consent for construction, fitout and use of the proposed First Building as an advanced manufacturing research and development facility, including site preparation works, site access and parking, utilities infrastructure, landscaping/ public domain, signage, and other ancillary works.

### Declaration

We certify that the content of the Environmental Impact Statement, to the best of our knowledge, has been prepared in accordance with the requirements of clauses 6 and 7 of Schedule 2 of *Environmental Planning and Assessment Regulation 2000*; contains all available information that is relevant to the assessment of the development and that to the best of our knowledge the information contained in this report is neither false nor misleading.



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Revision	Prepared by	Reviewed by	Date	Revision Type
1	NN	KW	18/11/21	Final
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## List of Abbreviations

ACHAR	Aboriginal Cultural Heritage Assessment Report
Aerotropolis SEPP	<i>State Environmental Planning Policy (Western Sydney Aerotropolis) 2020</i>
AHD	Australian Height Datum
AHIMS	Aboriginal Heritage Information Management Systems
AMRF	Advanced Manufacturing Research Facility
ANEF	Australian Noise Exposure Forecast
APZ	Asset Protection Zone
AQIA	Air Quality Impact Assessment
AWRC	Advanced Water Recycling Centre
BPM	Bushfire Protection Measures
BC Act	Biodiversity Conservation Act 2016
BDAR	Biodiversity Development Assessment Report
BHA	Bushfire Hazard Assessment
CBD	Central Business District
CIV	Capital Investment Value
CER	Civil Engineering Report
CLM Act	<i>Contaminated Land Management Act 1997</i>

CNVIA	Construction Noise and Vibration Impact Assessment
CNVMP	Construction Noise and Vibration Management Plan
DCP	Development Control Plan
District Plan	Western City District Plan
DR	Design Report
DPIE	Department of Planning, Industry and Environment
DSI	Detailed Site Inspection
EIS	Environmental Impact Statement
Environment SEPP	Draft State Environmental Planning Policy (Environment)
ENT	Enterprise Zone
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPI	Environmental Planning Instrument
ESD	Ecologically Sustainable Development
ESCP	Erosion and Sediment Control Plan
ESDR	Environmental Sustainability Design Report
FERP	Flood Emergency Response Plan
FIA	Flood Impact Assessment
GSC	Greater Sydney Commission
GFA	Gross Floor Area
ISEPP	<i>State Environmental Planning Policy (Infrastructure) 2007</i>
ICNG	Interim Construction Noise Guideline
IOP	Interim Operating Pump Station
LGA	Local Government Area
LLEP 2008	<i>Liverpool Local Environmental Plan 2008</i>
LLSPS	Connected Liverpool 2040, Liverpool Local Strategic Planning Statement
MU	Mixed Use Zone
NABERS	National Australian Built Environment Rating System
NML	Noise Management Levels
OLS	Obstacle Limitation Surface
ONVIA	Operational Noise and Vibration Impact Assessment
PBP 2019	<i>Planning for Bushfire Protection 2019</i>
Phase 1 DCP	<i>Western Sydney Aerotropolis Development Control Plan – Phase 1</i>
Phase 2 DCP	Draft Western Sydney Aerotropolis Development Control Plan 2021
PNTL	Project Noise Trigger Levels
PSI	Preliminary site Inspection
RAP	Remediation Action Plan
RAAF	Royal Australian Air Force
Region Plan	<i>The Greater Sydney Region Plan, A Metropolis of Three Cities</i>
SEARs	Secretary's Environmental Assessment Requirements
SHR	State Heritage Register
SIC	Special Infrastructure Contribution
SOHI	Statement of Heritage Impact
SDRP	State Design Review Panel
SEPP	State Environmental Planning Policy
SEPP 33	<i>State Environmental Planning Policy No. 33 – Hazardous and Offensive Development</i>
SEPP 55	<i>State Environmental Planning Policy No. 55 – Remediation of Land</i>
SREP 20	<i>Sydney Regional Environmental Plan No 20—Hawkesbury-Nepean River (No 2—1997)</i>
SRD SEPP	<i>State Environmental Planning Policy (State and Regional Development) 2011</i>
SSD	State significant development
SSI	State Significant Infrastructure
STEM	Science, Technology, Engineering, Mathematics
TIA	Traffic Impact Assessment

VET	Vocational Education and Training
VIA	Visual Impact Assessment
WARR strategy	<i>NSW Waste Avoidance and Resource Recovery Strategy 2014-2021</i>
WSUD	Water Sensitive Urban Design
WPCA	Western Parkland City Authority
WSAP 2020	<i>Western Sydney Aerotropolis Plan 2020</i>
WSSDG 2020	<i>Western Sydney Street Design Guidelines 2020</i>



## Executive Summary

This Environmental Impact Statement (EIS) has been prepared by *Keylan Consulting Pty Ltd* (Keylan) on behalf of the Western Parkland City Authority (WPCA, the Applicant) to support a State significant development (SSD) application for the construction, fit out and use of the First Building within the Bradfield City Centre.

The First Building is located to the southeast of the Western Sydney International (Nancy-Bird Walton) Airport, at 215 Badgerys Creek Road, Bringelly in the Liverpool local government area (LGA).

The proposed development will be an advanced manufacturing research, development and training facility (AMRF) to support the development of an advanced manufacturing sector and the requisite workforce skills within the emerging Western Sydney Aerotropolis.

The development meets the criteria of SSD under Schedule 1, clause 11(a) of *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP) as it involves development of a research facility that has a capital investment value of more than \$30 million. The Minister for Planning and Public Spaces is the consent authority for the application.

The EIS has been prepared under section 4.38 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) in accordance with the Secretary's Environmental Assessment Requirements (SEARs) issued by the Department of Planning, Industry and Environment (DPIE) on 6 September 2021. It is also prepared in accordance with Schedule 2, Part 3 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation). The EIS should be read in conjunction with the appended supporting information and plans.

### The Site and Locality

The site is located at 215 Badgerys Creek Road, Bringelly in the Liverpool LGA and is legally described as Part Lot 10 in DP 1235662. The site comprises an area of approximately 3.63 hectares (ha) within the larger 114.9 ha Bradfield City Centre site and is located approximately 44 kilometres (km) from Sydney's CBD. The site is located within the Western Parkland City, specifically within the Aerotropolis Core Precinct of the Western Sydney Aerotropolis.

The site has an 80 metre (m) wide access handle located at its north-western corner connecting to Badgerys Creek Road which is a regional road linking The Northern Road and Elizabeth Drive. The highest point of the site is located at the western end of the access handle near Badgerys Creek Road with the lowest point adjacent to Thompsons Creek in the eastern edge of the site. The site is generally clear of vegetation with small stands of native vegetation along the western edge of the site and within the Thompsons Creek riparian corridor.

The site's existing surrounding context is characterised by rural and rural-residential land uses. The area to the east and south-east of Thompsons Creek comprises a series of large-lot rural residential properties accessed from Kelvin Park Drive which typically comprise single detached dwellings with small-scale rural or lifestyle uses. Further to the east and north-east is the suburb of Rossmore which includes a mix of more intensive agricultural uses such as greenhouses and poultry farming.

## The Proposal

The proposal involves construction, fitout and use of the proposed first building in Bradfield City as an AMRF, including site preparation works, site access and parking, utilities infrastructure, landscaping/public domain, signage and other ancillary works.

The AMRF will support the development of the advanced manufacturing sector within the Western Sydney Aerotropolis by housing shared high-tech manufacturing equipment for research and development. Specialised equipment and machinery not normally accessible to individual enterprise will be accommodated within the First Building and made available to a broad range of users to fast-track innovation and business development.

The advanced manufacturing operations of the First Building will be carried out by the AMRF team. As an entity governed by the WPCA, the AMRF will recruit and build a team of advanced manufacturing development engineers who will work with academia and industry to develop and demonstrate innovations, productivity improvements and supply chain capability for industries such as space and defence.

Key components of the development include:

- proposed building height of 16.7 m
- combined gross floor area (GFA) of approximately 2,840 m<sup>2</sup>, including approximately 1,009 m<sup>2</sup> GFA of manufacturing space and 1,054 m<sup>2</sup> GFA of office and meeting space
- provision of 51 parking spaces
- landscaping of resilient native and endemic species
- incorporation of ESD principles to support a green city & address climate change
- use of facility as an advanced manufacturing research facility
- use of facility as an office space
- ancillary use of facility as a function centre
- provision of public and private domain upgrades

## Permissibility

The site is located on land zoned ENT- Enterprise Zone and MU Mixed Use Zone under *State Environmental Planning Policy (Western Sydney Aerotropolis) 2020* (Aerotropolis SEPP). The proposed use of the building meets the definition of *high technology industry* pursuant to the Standard Instrument and would be permissible with consent under the Enterprise (ENT) and Mixed Use (MU) zones by virtue of the Aerotropolis SEPP.

## Strategic context

The site is set to be within the Bradfield City Centre of the Western Sydney Aerotropolis which is to be Australia's next global economic city. As outlined in the Western Sydney Aerotropolis Plan 2020 (WSAP 2020), the Western Parkland City will be a liveable, productive and sustainable metropolis hub which will support the economic growth of Western Sydney over the next decade, using the new Western Sydney International Airport as a catalyst for growth.

The development demonstrates strategic merit as it is consistent with the aims and objectives of the following strategic plans:

- Greater Sydney Region Plan: A Metropolis of Three Cities
- Western City District Plan
- Western Sydney Aerotropolis Plan 2020
- Future Transport Strategy 2056
- Draft Aerotropolis Precinct Plan
- Western Sydney Aerotropolis Development Control Plan – Phase 1
- Draft Western Sydney Aerotropolis Development Control Plan 2021 (Phase 2)
- Connected Liverpool 2040, Liverpool Local Strategic Planning Statement (LLSPS)

Strategic justification for the proposal is further outlined in Section 6.

### **Statutory context**

The relevant statutory requirements that relate to the development, including environmental planning instruments (EPIs) and other planning and environmental policies are addressed at Section 7. The following legislation is addressed:

- *Environmental Planning and Assessment Act 1979*
- *Environmental Planning and Assessment Regulation 2000*
- *Rural Fires Act 1997*
- *Biodiversity Conservation Act 2016*
- *Contaminated Land Management Act 1997*
- *Heritage Act 1977*

Section 7 of the EIS also addresses the following EPIs that relate to the development:

- *State Environment Planning Policy (Western Sydney Aerotropolis) 2020*
- *State Environmental Planning Policy (State and Regional Development) 2011*
- *State Environmental Planning Policy (Infrastructure) 2007*
- *State Environmental Planning Policy (Major Infrastructure Corridors) 2020*
- *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development*
- *State Environmental Planning Policy No. 55 – Remediation of Land*
- *State Environmental Planning Policy No. 64 – Advertising and Signage*
- *Sydney Regional Environmental Plan No 20—Hawkesbury-Nepean River (No 2—1997)*
- *Draft State Environmental Planning Policy (Remediation)*
- *Draft State Environmental Planning Policy (Environment).*
- *Liverpool Local Environmental Plan 2008*

## **Environmental assessment**

A detailed assessment of the potential environmental impacts of the proposal is contained in Section 8. A summary of the conclusions made regarding potential environmental impacts is provided below.

### ***Built form***

Architectural Plans and a Design Report (DR) have been prepared by Hassell for the development and is included in Appendix C. The DR outlines the proposed design, materials, master plan and how the development will integrate with its environment.

The AMRF building has been designed to reflect its initial context within the rural/rural residential character but also as an urban pavilion in the future context of the Bradfield City. The building's lower scale-built form provides a more human scale structure which is served by public space for relief in the city centre.

The built elements are at varying levels and is stepped to respond to the topography which falls to the East and South. These level changes add a dynamic and theatrical experience whilst maintaining equitable access and connectivity between the spaces. The layout, orientation and configuration of the facility was determined on the following basis:

- orienting the longest facade to the north, minimising solar heat gain.
- locating the workplace to the north for optimal natural daylight.
- potential for expansion in the future, the building is modular and can grow to the East if required.

Architectural plans for the development are included at Appendix C.

### ***Design Excellence***

The Architectural DR prepared by Hassell Studios is provided at Appendix C. The report demonstrates the facility exhibits architectural merit as a high standard industrial building.

In accordance with Part 5 of the Aerotropolis SEPP, the design process has included review by the State Design Review Panel (SDRP), with the initial SDRP review undertaken on 7 October 2021. The SDRP review indicated in-principle support for the design of the development and made recommendations for the design to address the following aspects:

- connecting with Country and landscape design – including connecting with water, empowering and enterprise in the Aboriginal Community and strategies to contribute to native fauna habitat
- block structure - developing a better understanding of the building as part of the larger block and how the block can inform the wider masterplan
- architectural elements, including the prominence of the address as the First Building, use of glass façade and heat retention, access and security, amenity, level difference challenges and the green roof
- procurement and staging strategy

The built form of the structure has been amended to respond to the SDRP's recommendations following its review of the design on 7 October 2021.

### ***Visual Character***

The key visual impacts of the development will occur during construction and the initial years of operation, until the development of other buildings in the precinct commences. The most potentially impacted receptors are located to the immediate west of the site, which is currently planned as the future site of the Bradfield City Centre education precinct.

The AMRF has been designed to be sympathetic to the current rural/rural residential character with a vegetated environment but also as an urban pavilion in the future context of the city. The building designs incorporate features to address the initial context of the building's surroundings, with the use of a transparent approach to the building at ground level. This enables the structure to be connected with country and the surrounding landscape.

While the building will be visible to surrounding visual receptors during and following construction, any visual impacts will be temporary and combined with visual impacts of other development in the precinct, including the Western Sydney Airport Metro station and other future buildings of the new city.

### ***Ecologically Sustainable Development***

An Environmental Sustainability Design Report (ESDR) has been prepared by Flux Consultants Pty Ltd and is included at Appendix M. The ESD design strategy for the development has been developed to respond to the Bradfield City Centre sustainability framework and aim to achieve Living Building Challenge set by the Living Future Institute of Australia.

The ESDR concluded that the building can achieve the sustainability targets set through the strategic objectives of the Aerotropolis.

### ***Landscaping***

The proposal incorporates landscaping around the AMRF consistent with the objectives of WSAP 2020. The Architectural Design Report at Appendix C includes a conceptual landscape plan which provides details on landscaping species, locations, heights and density of the proposed landscaping.

In recognition of the traditional connection with Wianamatta-South Creek, the Landscape Plan includes conceptual objectives to maximise the extent of permeable ground surfaces and celebrate the site's connection with water. The site will be planted with species from the Cumberland Plain community, contributing to broader restoration efforts of the ecological community.

### ***Soil and Water***

A Civil Engineering Report (CER) has been prepared by AECOM and is provided at Appendix D. The CER addresses civil engineering components of the development and provides an overview of the proposed infrastructure requirements for the site.

The CER includes an Erosion and Sediment Control Plan (ESCP) to manage site runoff during construction. The ESCP demonstrates that adequate controls can be established to avoid the pollution of receiving waters during construction of the development.

A Flood Impact Assessment (FIA) was prepared by Advisian and is included at Appendix R. The FIA notes that the site is not affected by flooding of Thompsons Creek with the key flooding issues associated with overland flows. These flows will be managed through the site stormwater capture and release system, described in the CER and civil design plans.

### **Contamination**

A Preliminary site Investigation (PSI) has been prepared by Environmental Resources Management Australia is included at Appendix I. The PSI draws on historical assessments of the broader area associated with future development of the Aerotropolis.

The PSI identifies that a Detailed site Inspection (DSI) is required to be carried out to determine whether a Remediation Action Plan (RAP) or Site Management Plan is required to ensure the site can be made suitable for the proposed development, subject to the successful implementation of all mitigation measures for the site.

### **Hazards and risk**

The development does not involve the storage or handling of hazardous materials or dangerous goods and therefore will not exceed the relevant risk screening thresholds under *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development*. The application therefore does not trigger the requirement for a Preliminary Hazard Analysis.

### **Traffic and transport**

A Traffic Impact Assessment (TIA) for the proposed development has been prepared by SCT Consulting Pty Ltd and is included at Appendix N. The TIA considers the existing traffic conditions surrounding the site, assesses the potential traffic implications as a result of the development and considers the car parking requirements that will be generated by the proposal.

During the initial stages of construction of the First Building, vehicles will use the Metro station construction access until the preliminary operational road network is constructed. The operational road network during initial years of operation will primarily service the First Building and be within the formation of the future road network of the Bradfield City Centre.

The initial stage of the development includes 51 temporary car parking spaces to the east of the building. The temporary parking area will be replaced by buildings in the future as the Bradfield City development progresses. At that stage, long term parking will be provided through dedicated parking stations near the site, not subject of this application. Long-term parking at the site will be capped at 18 spaces.

The traffic and parking assessment concludes that the site will be sufficiently serviced by transport solutions in the short term and will transition to reduced reliance on cars as infrastructure is developed throughout the Aerotropolis.

### **Infrastructures and services**

A Civil Engineering Report (CER) has been prepared by AECOM and is provided at Appendix D. The CER addresses civil engineering components of the development and provides an overview of the proposed infrastructure and services requirements for the site, including

potable water, waste water, gas, electricity and communications. The CER confirms the site is capable of being serviced by existing and future infrastructure.

### **Noise and vibration**

A Construction Noise and Vibration Impact Assessment (CNVIA - Appendix O and an Operational Noise and Vibration Impact Assessment (ONVIA - Appendix O have been prepared by WSP Australia Pty Ltd (WSP).

While the surrounding area is soon to be transformed through an urban consolidation process associated with the development of the Aerotropolis, the ONVIA and CNVIA conservatively assumed that the existing noise environment would apply in establishing the assessment noise levels for the assessments.

Construction of the development is predicted to result in exceedances of the construction noise management levels at adjoining receivers to the west of the site, with the closest receivers likely to be highly noise affected. To ensure that construction noise impacts are minimised, a Construction Noise and Vibration Management Plan (CNVMP) is to be prepared and implemented in accordance with the requirements of the ICNG.

CNVIA considered the potential for construction of the Western Sydney Airport Metro to occur during similar periods as the construction of the AMRF. This assessment found that the increased noise levels in this scenario would be minimal and not increase the noise levels experienced at surrounding receivers. The ONVIA anticipated that any increase in road traffic noise levels due to construction traffic would be minimal and will comply with relevant noise goals.

Operation of the development is predicted to comply with the relevant assessment noise criteria during all periods of the day. Given the low numbers of vehicle movements generated during operation of the development, road noise is predicted to comply with the relevant road noise criteria.

Overall, the ONVIA concluded that the proposed development will have limited acoustic impacts on the existing environment and the applicable environmental noise criteria can be complied at the nearest sensitive receivers.

### **Air quality**

An Air Quality Impact Assessment (AQIA) is included at Appendix Q. The AQIA provides an assessment of air quality impacts during construction and operation of the development (in accordance with the relevant EPA guidelines) and recommends mitigation, management and monitoring measures to address potential air quality impacts.

The AQIA concluded that air quality impacts during construction of the First Building could be adequately managed using best practice mitigation and management measures. The AQIA also concluded that all the assessed air pollutants generated by the operation of the development would comply with the applicable assessment criteria at the surrounding receptors and therefore would not lead to any unacceptable level of environmental harm or impact in the surrounding area.



## **Heritage**

A Statement of Heritage Impact (SOHI) was prepared by Extent Heritage and is included at Appendix K. The SOHI noted two items of heritage significance in the vicinity of the site, with the closest approximately 500 m to the east. The SOHI concluded that the distance to these items the impacts on these items are minimal.

Extent Heritage has conducted a Preliminary Aboriginal Cultural Heritage Assessment Report (ACHAR) of Aboriginal heritage values of the site and surrounds (Appendix L) and conducted test excavations within the First Building site and consulted with the Registered Aboriginal Parties with a registered interest in the site.

The subject area of the First Building site is generally highly disturbed, with the removal of the upper part of natural soils leaving a thin layer of soil with low potential to contain Aboriginal objects. No registered Aboriginal objects and/or places are located within or in close proximity of the First Building development footprint.

A broader site specific ACHAR is currently in preparation which will detail the outcomes of the cultural values workshops, test excavations and consultation activities. The Preliminary ACHAR will be provided to the Registered Aboriginal Parties (RAPs) for the minimum 28-day consultation to address the requirements of relevant NSW and Commonwealth heritage guidelines.

## **Waste**

The development will target a 90% resource recovery rate for all waste during construction with the aim to generate less than 5 kg of waste per GFA of development. This will exceed the waste objectives in the *NSW Waste Avoidance and Resource Recovery Strategy 2014-2021* (EPA, 2014)

A Construction Waste Management Plan (CWMP) and Operational Waste Management Plan (OWMP) will be prepared as part of the relevant Construction and Operational Environmental Management Plans for the development, respectively.

The management plans will aim to ensure that all waste generated in all phases of the development is managed in an effective and environmentally responsible manner, in accordance with the relevant regulatory requirements and with a focus on improving sustainable waste management outcomes where possible.

## **Bushfire**

A Bushfire Hazard Assessment (BHA) for the development was prepared by Eco Logical Australia Pty Ltd (ELA) (Appendix J), which provides an assessment of the development against the relevant provisions of *Planning for Bushfire Protection 2019* (PBP 2019). The review concludes that the proposal will achieve the relevant performance outcomes and provides appropriate solutions against the control.



## Conclusion

The EIS has been prepared in accordance with the SEARs issued by DPIE and provides a comprehensive assessment of the potential impacts associated with the development. It addresses all relevant strategic and statutory documents, policies and instruments.

The EIS concludes that the development is justified on the basis that the AMRF is consistent with the GSC's Strategic Plans, The Western District Plan, The Western Sydney Aerotropolis Plan and the relevant Aerotropolis SEPP and Western Sydney Aerotropolis development control plans.

The conclusions and recommendations provided in the accompanying technical reports confirm the proposal will not have a detrimental impact on the surrounding environment.

Further, the EIS demonstrates the development has strategic merit as it is consistent with the aims and objectives of the relevant strategic plans that apply to the site including the Greater Sydney Region Plan, Western Sydney District Plan and the Western Sydney Aerotropolis. The development will strengthen opportunities in the Western Sydney Parklands and provide for the first building in the Aerotropolis Core.

The AMRF will be the first building within the Aerotropolis to spark future growth within the emerging city. Over the next 10 years, development will support this growth. The AMRF will be the first step in realising the strategic vision for the Western Parkland City.

The development is therefore considered to be in the public interest and warrants approval.

# 1 Introduction

## 1.1 Purpose of this Environmental Impact Statement

This Environmental Impact Statement (EIS) supports a State significant development (SSD) application for the First Building of the Bradfield City in the Western Sydney Aerotropolis, at 215 Badgerys Creek Road, Bringelly (SSD 25452459).

The application has been prepared on behalf of the Western Parkland City Authority (WPCA, the Applicant) and is submitted to the Department of Planning, Industry and Environment (DPIE) pursuant to section 4.38 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The development involves the construction, fitout and use of an advanced manufacturing research and development facility (AMRF), including site preparation works, site access and parking, utilities infrastructure, landscaping/public domain, signage and other ancillary works.

The proposal is classified as SSD in accordance with *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP). Under Schedule 1, clause 11(a) of the SRD SEPP, development that has a capital investment value of more than \$30 million for manufacturing industries, specifically for research and development is considered to be SSD.

The CIV for the project is estimated at \$36,369,573. A quantity surveyors report is included in Appendix A.

## 1.2 Structure of this Environmental Impact Statement

This EIS should be read in conjunction with the supporting information and plans appended to this report. The structure of this EIS is summarised below:

Section Number	Section Heading	Description
	<b>Executive Summary</b>	A summary of this report and its key findings.
<b>1</b>	<b>Introduction</b>	Overview of the EIS, the proposed development and project objectives.
<b>2</b>	<b>Site Analysis</b>	Description of the site and surrounding development.
<b>3</b>	<b>Development Description</b>	Description of the project and consultation undertaken with key stakeholders.
<b>4</b>	<b>Project Justification</b>	Need for the proposal.
<b>5</b>	<b>Consultation</b>	Identifies consultation activities that has been carried out during preparation of the EIS with the community and government agencies.
<b>6</b>	<b>Strategic Planning Context</b>	Identifies the key strategic plans that relate to the site and the development.
<b>7</b>	<b>Statutory Planning Context</b>	Identifies the key legislation that relate to the site and the development.

Section Number	Section Heading	Description
8	Environmental Assessment	Identifies key activities, provides an assessment of potential impacts on the environment and includes recommended mitigation measures.
9	Summary of Mitigation Measures	Summarises the measures proposed to mitigate potential impacts due to the proposal.
10	Conclusion	A summary of the key findings.

Table 1: Structure of the EIS

### 1.3 Secretary's Environmental Assessment Requirements

This EIS has been prepared in accordance with the Secretary's Environmental Assessment Requirements (SEARs) issued by the NSW Department of Planning, Industry and Environment (DPIE) on 6 September 2021.

The SEARs and where they are addressed in this EIS are set out in Appendix B.

### 1.4 Project Team

The project team is outlined in Table 22:

Expertise	Consultant
Urban planning	Keylan Consulting Pty Ltd
Quantity Surveyor	WT Partnership
Architectural and Landscape	Hassell
Urban Design and Visual	Hassell
Civil Engineering	AECOM
Flooding	Advisian
Contamination	Environmental Resource Management Australia Pty Ltd
Traffic and transport	SCT Consulting
Biodiversity	Eco Logical Australia Pty Ltd
Bushfire	Eco Logical Australia Pty Ltd
Noise and vibration	WSP Australia Pty Ltd
Air Quality	Todoroski Air Sciences
Aboriginal Cultural Heritage –	Extent Heritage Pty Ltd
Non-Aboriginal Cultural Heritage	Extent Heritage Pty Ltd
Bushfire	Eco Logical Australia Pty Ltd
Ecologically Sustainable Development	Flux Consultants Pty Ltd
Community and Stakeholder Engagement	Western Parkland City Authority

Table 2: Project team

## 2 Site analysis

### 2.1 Site location

The site is located within the Western Parkland City, specifically within the Aerotropolis Core and Wianamatta-South Creek Precincts of the Western Sydney Aerotropolis. The site is approximately 2.5 kilometres (km) southeast of the Western Sydney International (Nancy Bird Walton) Airport, which is currently under construction.

The site is located approximately 44 km west of the Sydney Central Business District (CBD) and 27 km southwest of the Parramatta CBD (Figure 1).

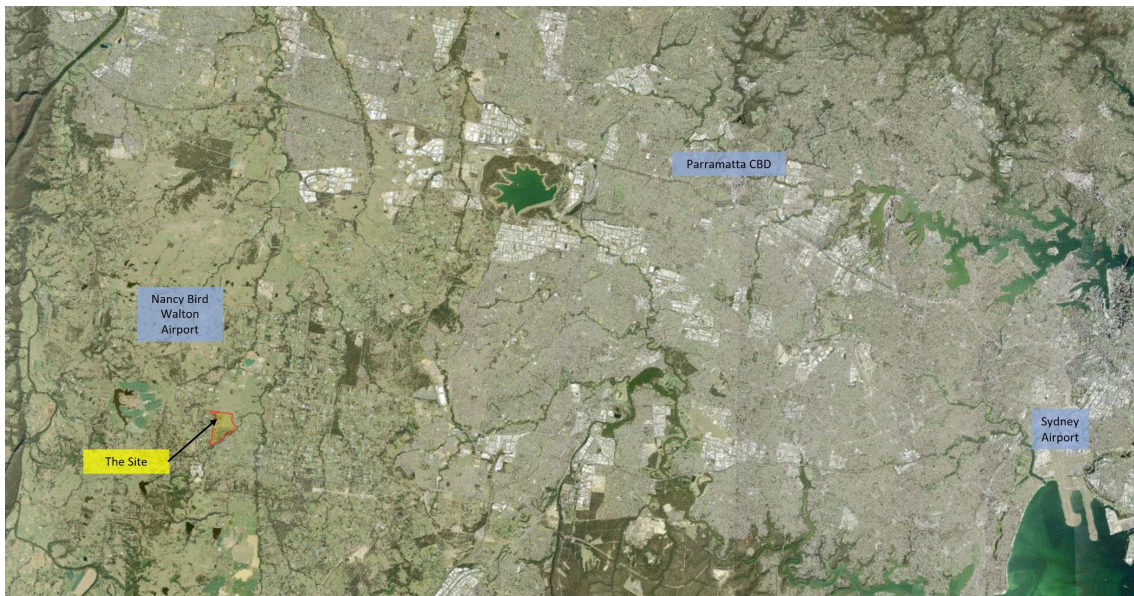


Figure 1: Site location (Source: Six Maps)

The site is located in the Liverpool Local Government Area (LGA) and is zoned ENT Enterprise and MU Mixed Used under the *State Environmental Planning Policy (Western Sydney Aerotropolis) 2020* (Aerotropolis SEPP).

The site is legally described as part Lot 10 in DP 1235662. The site is located within the larger Bradfield City Centre site (Figure 2), which comprises Lot 10 in DP 1235662 and is bounded by Thompsons Creek to the south and east, Badgerys's Creek Road to the west, the proposed Bradfield CBD to the north and The Northern Road to the South.

### 2.2 Site description

The site is irregularly shaped comprising an area of approximately 3.63 hectares (ha) within the larger 114.9 ha Bradfield City Centre site (Figure 2). The site has maximum dimensions of approximately 1 km from east-west and 1.7 km from north to south. At the north-western corner of the site is an 80 metre (m) wide access handle to Badgerys Creek Road, which is a regional road linking The Northern Road and Elizabeth Drive.



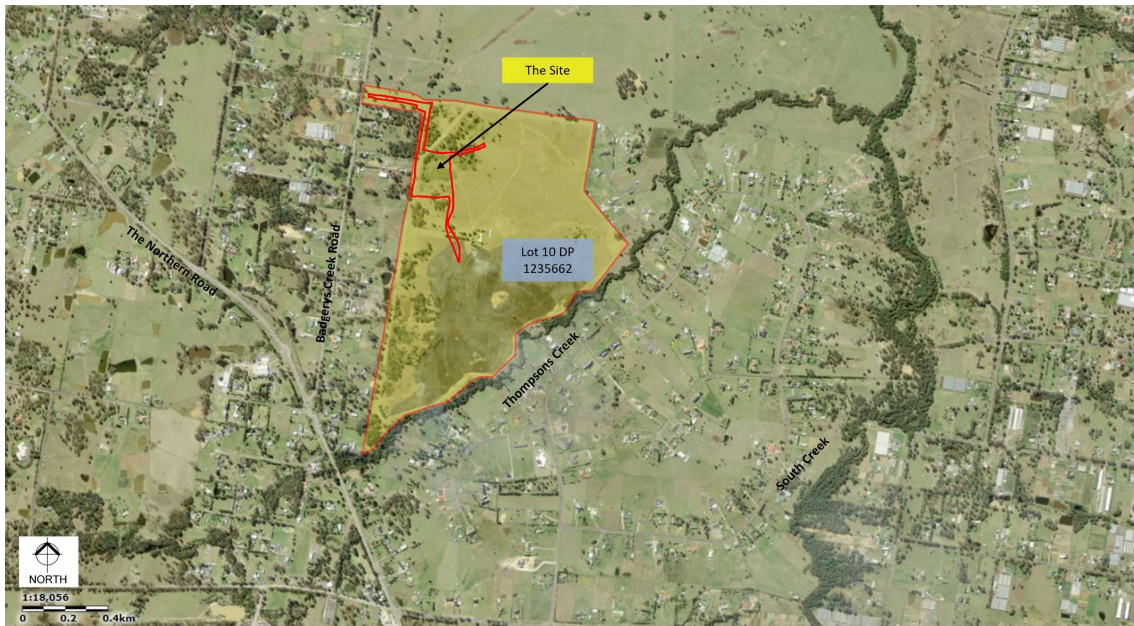


Figure 2: Indicative site boundary (red) within Lot 10 DP 1235662 (Source: Six Maps)

The land generally slopes from high points in the north-west to low points in the east and south-east along Thompsons Creek. The highest point of the site is located at the western end of the access handle near Badgerys Creek Road, with the lowest point adjacent to Thompsons Creek in the eastern edge of the site.

The site is generally cleared of vegetation with small stands of native vegetation along the western edge of the site and within the Thompsons Creek riparian corridor. There are no existing buildings within the site.

### 2.3 Surrounding development

The site's current surrounding context is characterised by rural and rural-residential land uses. The area to the east and south-east of Thompsons Creek comprises a series of large-lot rural residential properties accessed from Kelvin Park Drive which typically comprise single detached dwellings with small-scale rural or lifestyle uses. Further to the east and north-east is the suburb of Rossmore which includes a mix of intensive agricultural uses such as greenhouses and poultry farming.

The site and surrounding development will be transformed throughout the next 10 years as described in the *Western Sydney Aerotropolis Plan 2020* (WSAP 2020). WSAP 2020 indicates how the surrounding Western Parklands City will be supported through a strong mix of compatible land uses, blue and green infrastructure upgrades and associated transport infrastructure.

The construction and operation of Western Sydney Airport Metro is the subject of a State Significant Infrastructure (SSI) Application (SSI 10051), approved on 23 July 2021. SSI 10051 provides for the construction and operation of a new metro line from St Marys to the Bradfield City Centre. This includes the construction of tunnels and a new underground station at Bradfield adjacent to the site. SSI 10051 also includes the construction of a new road connecting the station with Badgerys Creek Road at the north-western corner of the Bradfield City Centre site.

The site in its context with the planned layout of the Bradfield City Centre and Metro station is shown in Figure 3.

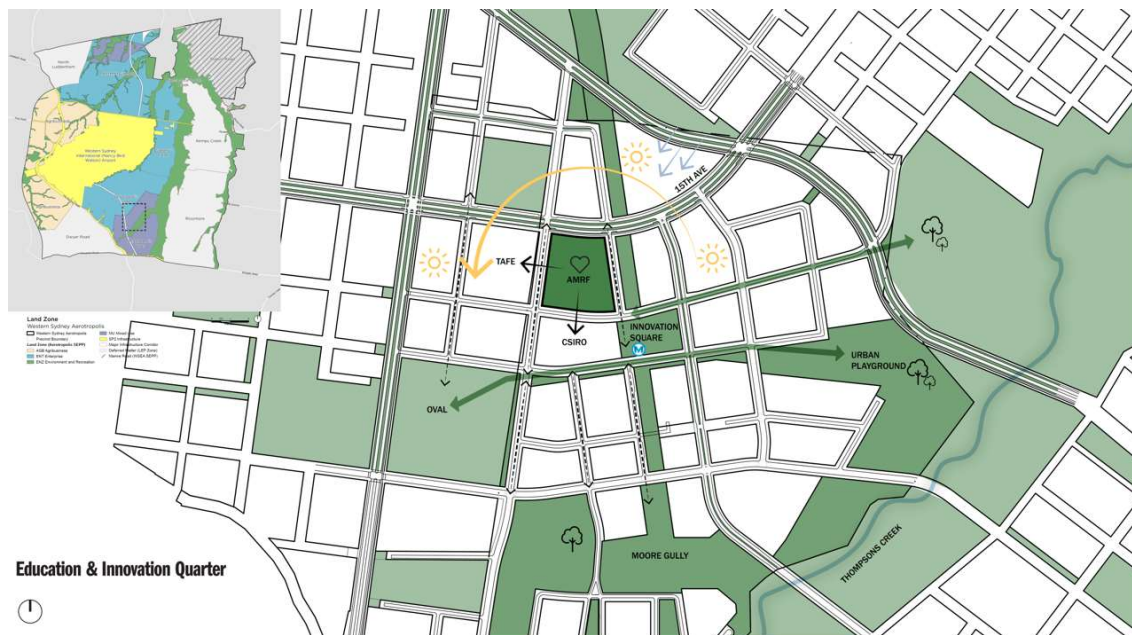


Figure 3: Site within Bradfield City Centre (Source: Hassell)

## 2.4 Site history

The Bradfield City Centre site currently comprises several structures associated with the historical use of the site by the Royal Australian Air Force (RAAF), centred around the main building and transmission tower located within the centre of the site, along with a small number of additional structures and hardstands.

The site was acquired by the Commonwealth in 1959 for use as the RAAF Bringelly Radio Receiving Station, immediately prior to which the site had been used for agriculture including livestock grazing and agistment since the early 19<sup>th</sup> century.

### **3 Development description**

#### **3.1 Development overview**

The First Building within the Bradfield City Centre will be for the purpose of an advanced manufacturing research, development and training facility. The proposal involves the construction and operation of the AMRF, comprising a manufacturing hall, administrative workspaces and an exhibition/event space.

The AMRF will support the development of the advanced manufacturing sector within the Western Sydney Aerotropolis by housing shared high-tech manufacturing equipment for research and development. Specialised equipment and machinery not normally accessible to individual enterprise will be accommodated within the First Building and made available to a broad range of users to fast-track innovation and business development.

The advanced manufacturing operations of the First Building will be carried out by the AMRF team. As an entity governed by the WPCA, the AMRF will recruit and build a team of advanced manufacturing development engineers who will work with academia and industry to develop and demonstrate innovations, productivity improvements and supply chain capability for industries such as space and defence.

Example projects include the demonstration of lightweight component production using carbon fibre composites or additive manufacturing, or increasing productivity and quality in existing supply chains through the implementation of industrial automations and digitisation technology.

The AMRF team will also position Bradfield as a focal point for manufacturers and supporting businesses to build capabilities, networks, business opportunities and the skills of their employees. This focal point will encourage investment into Bradfield by technology providers such as software developers, machine builders and tool manufacturers, further strengthening manufacturing operations in Bradfield and the Western Parkland City. The AMRF team will coordinate dissemination and collaboration events in the First Building which will strengthen collaborations and the sharing of challenges and future manufacturing opportunities.

In its initial phase, the First Building will serve as the public interface to the precinct and the Aerotropolis more broadly. Accordingly, it will comprise both research/development and workplace facilities, combined with publicly accessible information and event spaces for curated display of manufacturing innovation.

The SSD Application seeks consent for construction, fitout and use of the First Building, including site preparation works, site access and parking, utilities infrastructure, landscaping/public domain, signage and other ancillary works.

The site development area subject of the SSD application is approximately 3.63 ha, which includes access to Badgerys Creek Road, interim roads to connect with the approved construction access for SSI 10051 and interim drainage infrastructure (Figure 4).

The development is described in Table 3. A conceptual plan of the proposed development is provided in Figure 4 and Figure 5.

<b>Proposed Works</b>	
<b>Stage 1</b>	
<b>Site Preparation</b>	<ul style="list-style-type: none"> <li>• vegetation clearing</li> <li>• remediation and bulk earthworks</li> <li>• installation of services and drainage infrastructure</li> <li>• access roads and site drainage</li> <li>• land stabilisation and rehabilitation</li> </ul>
<b>Stage 2</b>	
<b>Building works</b>	<ul style="list-style-type: none"> <li>• the AMRF building will comprise a combined gross floor area (GFA) of approximately 2,840 m<sup>2</sup>, including approximately 1,009 m<sup>2</sup> GFA of manufacturing space and 1,054 m<sup>2</sup> GFA of office and meeting space to support the operation of the facility</li> <li>• building height will be at RL 95.7 m with a height varying from 13.65 m to 16.15 m above the modified ground level</li> <li>• approximate site coverage 55.2%</li> </ul>
<b>Equipment</b>	<p>Indicative machinery and equipment to be operated at the AMRF includes:</p> <ul style="list-style-type: none"> <li>• industrial robot/collaborative robot/conveyor and continuous automation</li> <li>• Virtual Reality/Augmented Reality suites</li> <li>• microscopes, metrology and measuring</li> <li>• digital technology (CAD/DM/PLM/MES)</li> </ul>
<b>Access and Car Parking</b>	<ul style="list-style-type: none"> <li>• site access from Badgerys Creek Road and preliminary roads to access the site will match the planned formation of city road alignments</li> <li>• vehicles accessing the site will include medium rigid trucks (up to 19 m) with design swept path capacity for articulated vehicles</li> <li>• to provide access from Badgerys Creek Road, temporary access points will be constructed with sufficient space within the site to avoid queuing of delivery/dispatch vehicles</li> <li>• an estimated 10 truck movements (inbound and outbound) during construction</li> <li>• operational traffic will be limited to service vehicles, delivery vehicles and private vehicles with equipment delivery and maintenance vehicles would access the site sporadically, at approximately 2 week intervals</li> </ul>
<b>Landscaping</b>	<ul style="list-style-type: none"> <li>• detailed landscaping consistent with the objectives of the WSAP 2020 using species endemic to the Cumberland Plain along street frontages and throughout the site</li> <li>• green roof with public viewing platform</li> </ul>
<b>Employment</b>	<ul style="list-style-type: none"> <li>• approximately 150 construction jobs</li> <li>• approximately 60 direct operational jobs</li> </ul>
<b>Capital Investment Value</b>	<ul style="list-style-type: none"> <li>• Approximately \$36,369,573 (excl. GST)</li> </ul>

Table 3: Development summary





Figure 4: Development footprint shown in red (Source: AECOM)

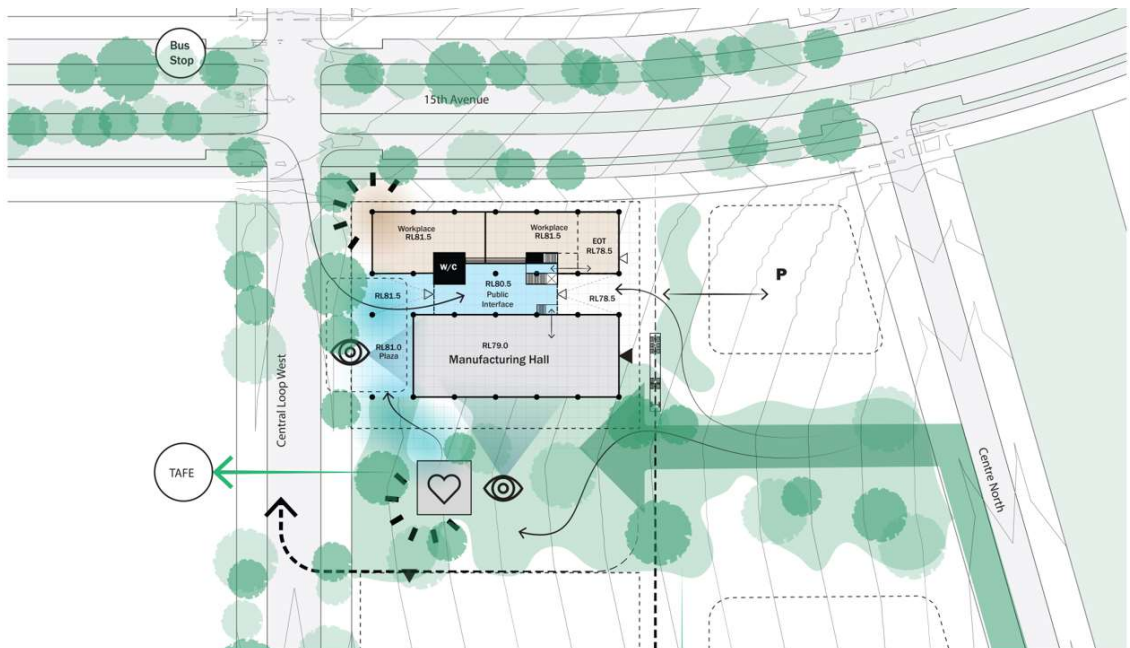


Figure 5: Site layout (Source: Hassell)

Given its position as the first building within the Aerotropolis, the land surrounding proposed development will be subject to the progressive development of other buildings, landscapes, infrastructure and land uses. A conceptual depiction of the progressive development of the site and surrounds is provided in Figure 6.

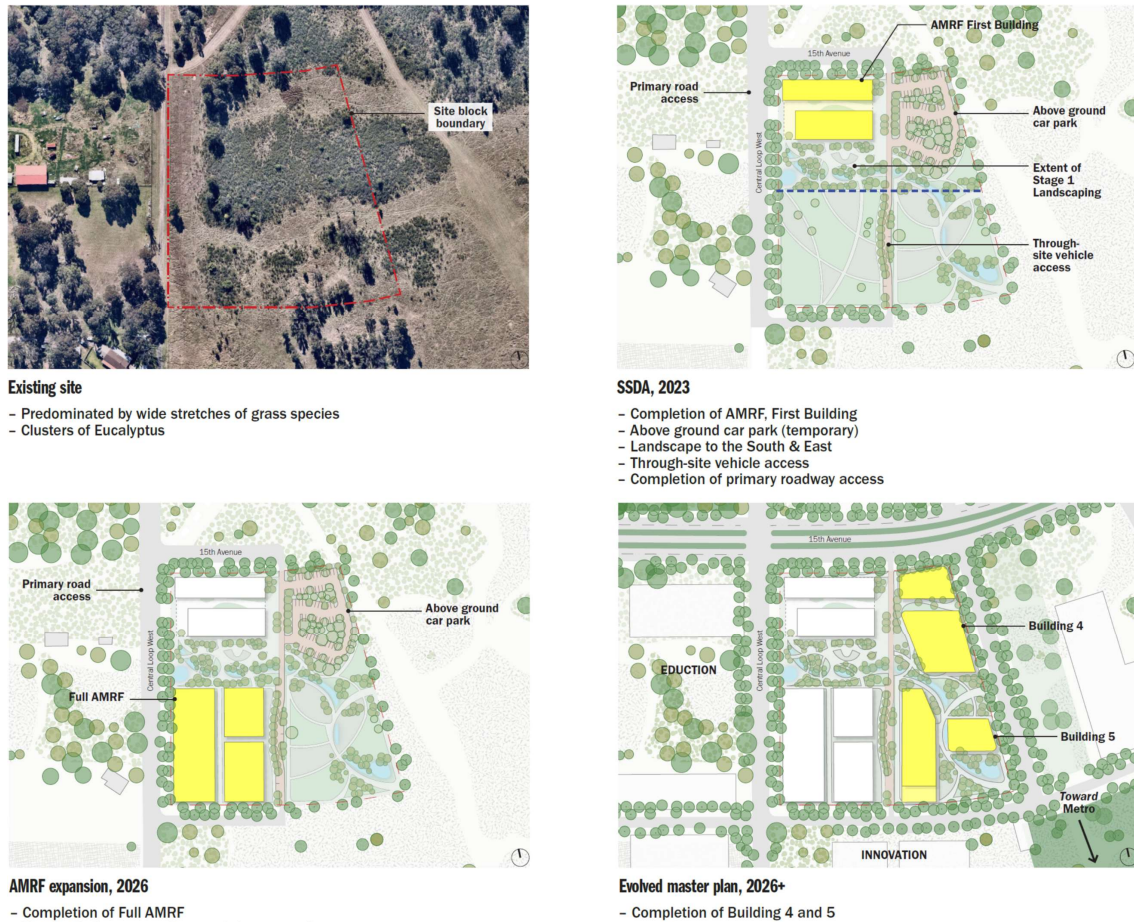


Figure 6: Conceptual development of the AMRF site and surrounds (Source: Hassell)

### 3.2 Built form

Architectural Plans and a DR have been prepared by Hassell for the development and is included in Appendix C. The DR outlines the proposed design, materials, master plan and how the development will integrate with its environment.

The AMRF building has been designed to reflect its initial context within the rural/rural residential character but also as an urban pavilion in the future context of the Bradfield City. The building's lower scale-built form provides a more human scale structure which is served by public space for relief in the city centre.

In accordance with Part 5 of the Aerotropolis SEPP, the design process has included review by the State Design Review Panel (SDRP), with the initial SDRP review undertaken on 7 October 2021.

The SDRP review indicated in-principle support for the design of the development and made recommendations for the design to address the following aspects:

- connecting with Country and landscape design – including connecting with water, empowering and enterprise in the Aboriginal Community and strategies to contribute to native fauna habitat
- block structure - developing a better understanding of the building as part of the larger block and how the block can inform the wider masterplan
- architectural elements, including the prominence of the address as the First Building, use of glass façade and heat retention, access and security, amenity, level difference challenges and the green roof
- procurement and staging strategy

The proposed building will have a building footprint of approximately 2,675 m<sup>2</sup>, an internal area of approximately 2,350 m<sup>2</sup>, with a maximum building height of approximately 16.7 m above finished ground level. It shall exhibit high-quality architectural design to both showcase the research being conducted within and to reflect the world leading aspirations of the Bradfield City Centre.

The structure will appear rectangular in shape with soft curved edges when viewed from the street level (Figure 7). The structure will appear as a single storey when viewed from the street but will accommodate two storeys internally. This is done to soften built form and provide for a structure in tune with the landscape.



Figure 7: North Elevation of the AMRF (Source: Hassell)

The large roof surface area will incorporate green roof mechanisms such as photovoltaic cells and water sensitive urban design (WSUD) as well as providing a place for the community to engage with a viewing platform, which provides view lines throughout the district.

The structure's unique visual appearance provides for an almost transparent structure which allows for community engagement through visual interest with the internal operations of the facility. The mezzanine floor like the roof structure is designed to be modular and can expand if required in the future.



### 3.3 Access and car parking

There is currently limited vehicular access to the site. The proposal involves the construction of vehicular access from Badgerys Creek Road to the site with the roads to follow the planned alignment of future roads within the city (Figure 8).

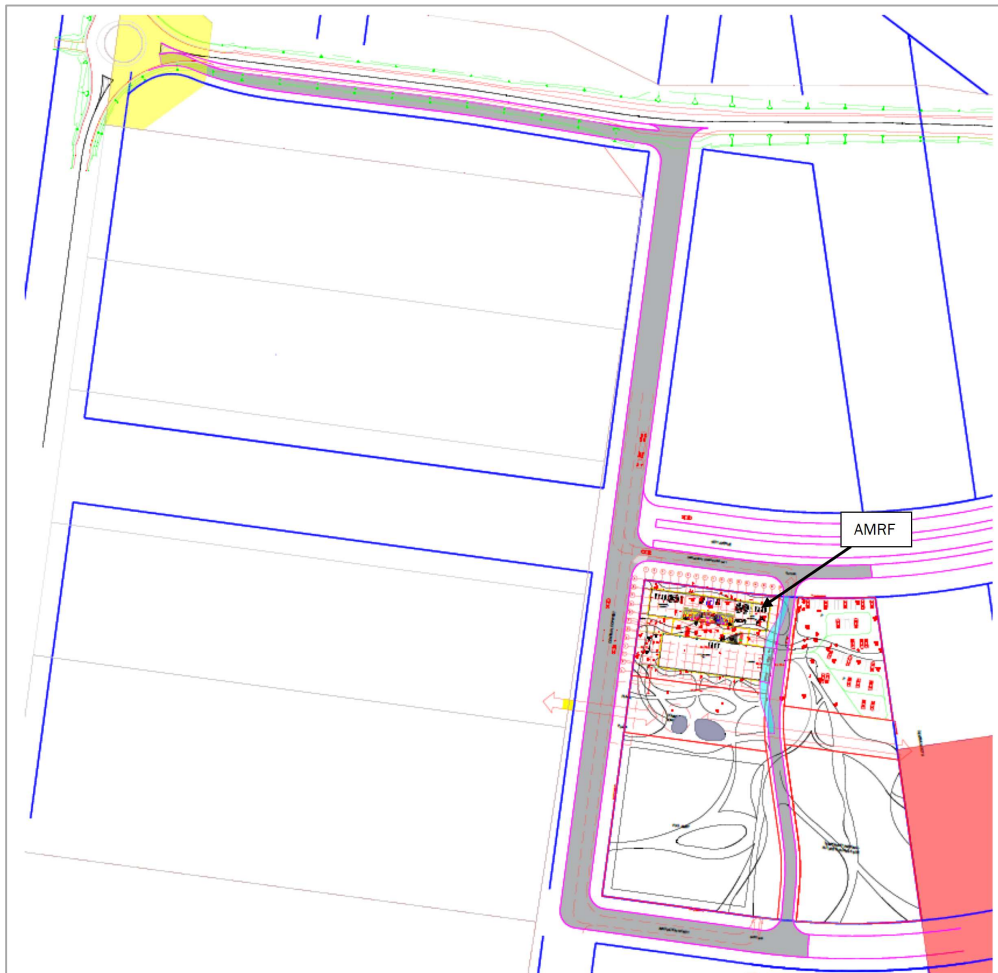


Figure 8: Proposed and future road network (Source: STC)

As part of Western Sydney Airport Metro enabling works, a roundabout is proposed at the intersection of Badgerys Creek Road and the current access handle to the site. The roundabout will be constructed to facilitate access to the Aerotropolis Station construction site during Sydney Metro construction.

First Building construction access will also utilise the approved construction access corridor for the Western Sydney Airport Metro under SSI 10051. During the initial stages of construction of the First Building, vehicles will use the Metro station access until the preliminary operational road network (shown in Figure 8) is constructed.

The initial stage of the development includes 51 temporary car parking spaces to the east of the building. The temporary parking area will be replaced by buildings in the future as the Bradfield City development progresses. At that stage, long term parking will be provided

through dedicated parking stations near the site, not subject of this application. Long-term parking at the site will be capped at 18 spaces.

In the short term no pedestrian or cyclist movements are expected near the site due to the lack of active transport infrastructure. In the longer term site access will be integrated with the extensive walking and cycling network to accommodate active transport movements. The provision of on-site bicycle facilities and visitor bicycle parking would meet the needs of potential bicycle users.

### 3.4 Landscaping

The proposal incorporates landscaping around the AMRF consistent with the objectives of WSAP 2020. The Architectural Design Report at Appendix C includes a conceptual landscape plan which provides details on landscaping species, locations, heights and density of the proposed landscaping. A conceptual landscape plan is provided in Figure 9.



Figure 9: Conceptual landscape plan (Source: Hassell)

The development aims to celebrate the cultural history, ecology and landscape of the Cumberland Plain through immersing users and activities within a richly planted, permeable ground plane of locally, underused species. This will play an important role in re-establishing an ecological identity for the site and set an important precedent for future development of Bradfield.

In recognition of the traditional connection with Wianamatta-South Creek, the Landscape Plan includes conceptual objectives to maximise the extent of permeable ground surfaces and celebrate the site's connection with water. The site will be planted with species from the Cumberland Plain community, contributing to broader restoration efforts of the ecological community.

### 3.5 Infrastructure and services

A Civil Engineering Report (CER) has been prepared by AECOM and is provided at Appendix D. The CER addresses civil engineering components of the development and provides an overview of the proposed infrastructure and services requirements for the site. The services required for the development include potable and recycled water, wastewater and sewer, electricity, gas and communications.

Sydney Water is the servicing authority for potable water on the site. An existing 150 mm water main is located on Badgerys Creek Road which is to be upgraded to support the growth of the Aerotropolis. The development will connect to the water mains through a 150 mm water main along the alignment of the new roads accessing the site. In addition a 150 mm recycled water main will be installed and connected with the existing potable main until a new recycled mains network is installed by Sydney Water. This will be addressed during detailed design in consultation with Sydney Water.

Sydney Water is also the servicing authority for wastewater and sewage disposal. During the initial stages of the development, wastewater will be serviced through an interim operating pump station (IOP) in the temporary carpark area. The sewer is to be trucked out periodically until the construction of wastewater infrastructure for the future city development. Connection strategies will be coordinated in further detail with Sydney Water.

The First Building will be within the catchment of the Upper South Creek Advanced Water Recycling Centre (AWRC) which will have capacity to treat wastewater generated by the development. The civil engineering report notes that Stage 1 construction of the AWRC is due to be delivered by 2026 to align with the operation of the new Western Sydney Airport. The First Building IOP will be decommissioned after the sewer infrastructure is installed from First Building to AWRC.

Endeavour Energy is the serving authority for electricity to the site. Consultation with Endeavour Energy has confirmed that supply to the AMRF is available from the Bringelly Zone Substation via the existing 11kV feeder along the western verge of Badgerys Creek Road. Additional infrastructure within the site will need to be constructed to service the site. A Service Provider will be engaged to further assess the capacity of the existing system and the requirements for the infrastructure to service the proposed development.

The area is supplied with natural gas through connection to the Jemena Network which services commercial customers in the immediate area of Badgerys Creek Road. Extensions to this network will be required to service the future Bradfield City. The proposed development includes the installation of a new gas main from the existing gas main on Badgerys Creek Road to service the First Building in accordance with the *Western Sydney Street Design Guidelines 2020* (WSSDG 2020).

A range of communications infrastructure is located around the site, varying from 3G to 4G cells and private transmit and receiver assets, located on Endeavour Energy poles and a pit and duct system. The asset owners are made up of utility providers and private operators. The CER notes that further coordination is required with asset providers to deliver the infrastructure. The development will incorporate infrastructure works in accordance with WSSDG 2020.

## 4 Project Justification

### 4.1 Need for the proposal

The site is set to be within the Bradfield City Centre of the Western Sydney Aerotropolis which is to be Australia's next global economic city. As outlined in WSAP 2020, the Western Parkland City will be a liveable, productive and sustainable metropolis hub which will support the economic growth of Western Sydney over the next decade, using the new Western Sydney International Airport as a catalyst for growth.

The Greater Sydney Commission (GSC) envisages the Western Parkland City as a vibrant and productive centre serving dynamic and rapidly growing regions. Using the Western Sydney Airport, the Western Parkland City will be a global hub for trade, logistics, advanced manufacturing, tourism, health and science. The Western Parkland City includes the strategic centres of Penrith, Liverpool, Campbelltown Macarthur and Blacktown.

The AMRF will be the first building within the Aerotropolis to spark future growth within the emerging city. Over the next 10 years, development will support this growth. The AMRF will be the first step in realising the strategic vision for the Western Parkland City. The proposal will actualise the vision and principles established within *The Greater Sydney Region Plan, A Metropolis of Three Cities* (Region Plan) and supporting strategic documents for the growth of Western Sydney's Aerotropolis.

The proposal provides an advanced manufacturing research facility which allows high technology uses within the facility, supporting the economic growth of the Western Parkland City. The facility provides public and private domain upgrades to integrate the facility into the landscape to ensure connection to country is achieved whilst engaging the community with the land-use. The proposal also incorporates green and blue infrastructure upgrades to support a landscape-led approach to planning the precinct as well as planning for resilient cities and addressing climate change through appropriate design.

Leveraging the Western Sydney International (Nancy-Bird Walton) Airport and a significant pipeline of infrastructure projects, the Aerotropolis will become an economic powerhouse driving the productivity of New South Wales and Western Sydney through this century and beyond. The Aerotropolis will play a critical role creating GSC's '30-minute city'.

### 4.2 Proposal alternatives

Schedule 2, Part 3 of the *Environmental Planning & Assessment Regulation 2000* (EP&A Regulation) requires an analysis of any feasible alternatives to the carrying out of the development, including any feasible alternatives.

The alternatives to the proposal considered during the design of the development included various building configurations and alignments along with architectural finishes and building materials. The preferred option includes a reorientation compared with the proposal described in the Scoping Report and refinements of building layout and internal configurations, as described in the Design Report in Appendix C.

The 'do nothing' option would be contrary to the strategic objectives of developing the site as part of the Aerotropolis Core and Bradfield City Centre.

## 5 Consultation

The Applicant has consulted extensively with Council and State Government authorities as part of the project development and preparation of the EIS and in accordance with the requirements of the SEARs.

A comprehensive community information and consultation program was undertaken for the development application for the first building. The consultation program provided information in multiple formats about the proposal, outlined the planning process and indicative timeline and provided multiple opportunities for stakeholder and community feedback via telephone, email, webform, and individual meetings and briefings.

Consultation has been carried out in the following methods:

- introductory email to stakeholders on 11 October 2021
- letters distributed to adjoining landowners on 18 October 2021
- newsletter distribution to 2,500 residences around the Bradfield City Centre area through letter box drops (21 October 2021)
- virtual community drop-in forums between 25 October and 3 November 2021, with 324 visitors
- social media engagement
- direct consultation with the local community
- direct consultation with relevant agencies as directed by the SEARs

Topics raised during the consultation include the proposed use and design of the First Building, sustainability, place making opportunities, accessibility and inclusivity and ongoing consultation.

A detailed summary of the consultation that has been carried out during preparation of the EIS is provided in Appendix E.



## 6 Strategic Planning Context

### 6.1 Greater Sydney Region Plan

The Region Plan outlines how Greater Sydney will manage growth and change in the context of social, economic and environmental matters. It sets the vision and strategy for Greater Sydney, to be implemented at a local level through District Plans. The overriding vision for Greater Sydney in the Region Plan is to rebalance Sydney into a metropolis of 3 unique but connected cities:

- the established Eastern Harbour City
- the developing Central River City
- the emerging Western Parkland City

Historically, Greater Sydney's jobs and transport have been focused to the east, requiring many people to make long journeys to and from work and other services. The 3 cities vision allows opportunities and resources to be shared more equitably while enhancing the local character we value in our communities. By integrating land use, transport links and infrastructure across the three cities, more people will have access within 30 minutes to jobs, schools, hospitals and services.

The Region Plan provides broad Priorities and Actions which focus on the following 4 key themes:

- *Infrastructure and collaboration*
- *Liveability*
- *Productivity*
- *Sustainability*

These themes are addressed through the WSAP 2020, with the proposal's consistency with these themes discussed in Section 6.3. A high-level analysis of the proposal against these themes is provided in Section 6.3.

### 6.2 Western City District Plan

The *Western City District Plan* (District Plan) was prepared by the GSC in March 2018. It seeks to manage growth in the context of economic, social and environmental matters in the Western Parkland City. It provides the district level framework to implement the goals and directions outlined in the Region Plan for the Western Parkland City.

The proposed development is consistent with the District Plan as it:

- will be the first building in the Aerotropolis Core to start development within the Bradfield City and support future development
- will mitigate the urban heat island effect and providing cooler places by extending urban tree canopy and retaining water in the landscape
- protects the natural landscape and is integrated with the landform through an integrated approach to green and blue infrastructure - waterways, bushland, urban tree canopy and open spaces will improve sustainability and amenity through the proposal
- is designed to adapt and accommodate environmental conditions ensuring the facility can provide for resilience against the natural environment

- the structure is being designed to achieve a net zero carbons emissions and incorporate circular economy principles create an efficient building
- will stimulate jobs, investment and growth within the Western Parkland City through the construction of an AMRF
- will use the Western Sydney Airport to its advantage and leverage its growth of this infrastructure to strengthen the Aerotropolis Core

### 6.3 Western Sydney Aerotropolis Plan 2020

The WSAP 2020 sets the planning framework for the Western Sydney Aerotropolis, Australia's next global gateway focused on the Western Sydney International (Nancy-Bird Walton) Airport. The site is located within the Aerotropolis Core precinct of the Aerotropolis (Figure 10).

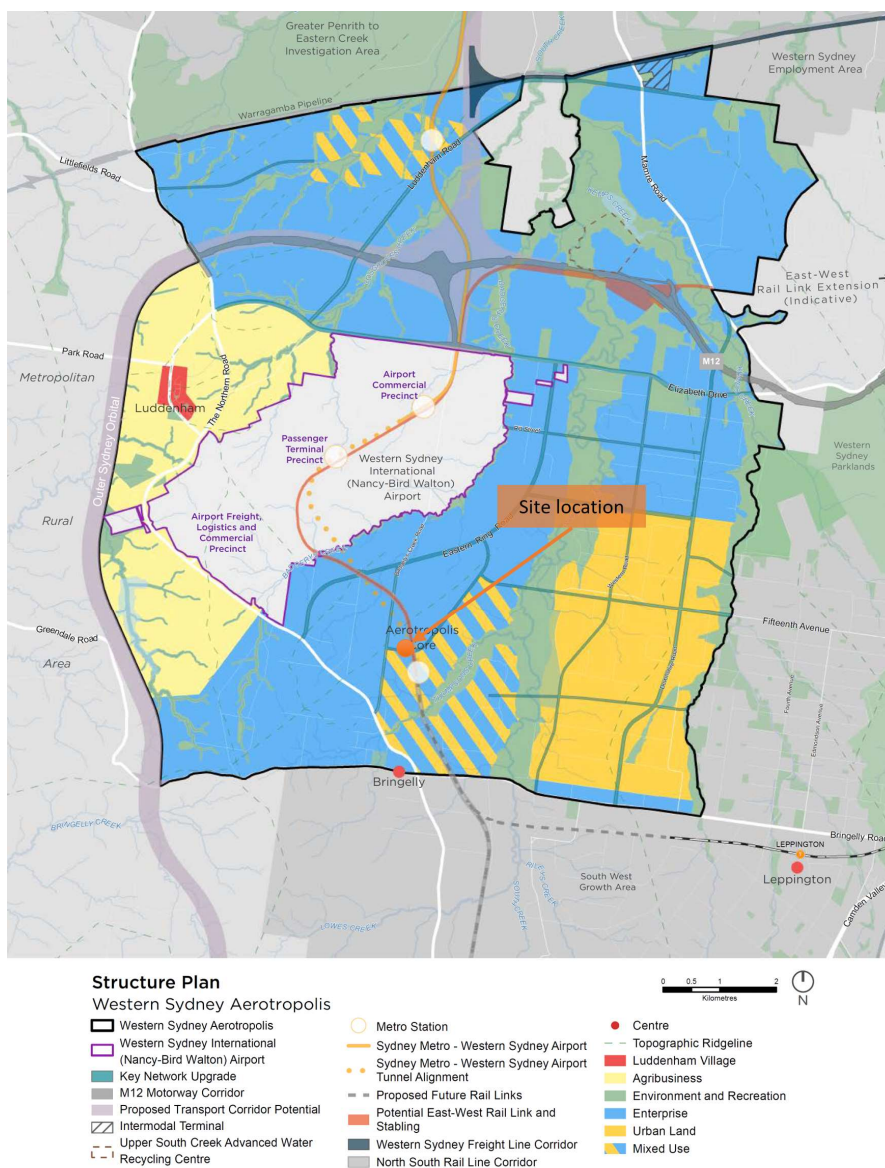


Figure 10: WSAP 2020 extract (Source: WSAP 2020)

The Aerotropolis Core is set to be a 24-hour metropolitan city which connects Western Sydney to the Parramatta CBD with the Western Sydney Airport supporting this vibrant economy. The AMRF is located within the centre of the metropolitan core.

The WSAP 2020 identifies the locality surrounding the AMRF to be research, health and education land uses which are connected to the landscape through an integration of sustainable development practises and water sensitive urban design strategies. The Aerotropolis Core will be supported through passive and active transport solutions, including cycling paths, walkways, public roads and the Western Sydney Airport Metro station.

The Bradfield City Centre within the Aerotropolis Core's predominant land use is focused the Enterprise (ENT) zone and Mixed Use (MU) zone. ENT uses are supported as impacts can be managed on both the operation of the airport and the airports impacts on businesses. Residential and other sensitive purposes are not permitted within the ENT zone and are permitted in the MU zone further from the airport boundary. The intent of the ENT zone and MU zone is to permit land uses that will function well with the Bradfield City centre growing its economy using the Western Sydney Airport and Metro to support the land uses.

The Aerotropolis will support a range of compatible land uses. These can include (WSAP 2020):

- health and education
- research and innovation jobs and services at a diverse range of scales
- a cluster of leading science-based businesses, tertiary institutions and research facilities
- strategic centres that integrate primary and tertiary education, with health facilities and the landscape to create places of learning and wellbeing
- internationally significant research/innovation, science, training and education area (including tertiary, Vocational Education and Training (VET) institutions and secondary school level) within the Aerotropolis Core

The proposed AMRF is highly compatible with the WSAP 2020 desired land uses as the function of the facility provides an advanced research facility which can integrate aero science and defence technology operations into its function.

The plan provides for 4 Themes, 11 Objectives and 50 Principles for guiding development within the Western Parkland City. These core criteria are based on, and consistent with, the Greater Sydney Region Plan. There are several Directions and Objectives that are of relevance to the Proposal which are addressed in Table 4.

Theme	Response
<b>Recognise Country</b>	<p>The design of the proposal, located on Darug Country, acknowledges the traditional custodians and provides opportunities to connect with country, design for country and care for country.</p> <p>The particular theme the proposal has incorporated into its design is "Wianamatta" which is derived from the Dharug language meaning 'Mother Place' ("Wiana" meaning mother and "Matta" meaning water place).</p>

Theme	Response
	The proposal acknowledges and respects the Gomerrigal people as the original custodians of the land and water upon which this project site is located.
<b>Infrastructure and Collaboration</b>	<p>The site is located close to The Northern Road as well as the future Western Sydney Aerotropolis and Western Sydney Airport Metro station. The development will be consistent with creating a 30-minute city and providing for infrastructure and open space compatible with the future growth of the Western Sydney Aerotropolis.</p> <p>The proposal will incorporate publicly accessible space to promote community engagement, innovation and connection to place. The AMRF will be a flagship building where innovation and collaboration will centre around the expansion of the Aerotropolis Core</p>
<b>Liveability</b>	The AMRF will provide an interconnected hub that connects people with the natural landscape and provides community facilities and public domain upgrades. Active and passive transport solutions will be developed throughout the wider precinct to further engage the community. The facility will provide employment opportunities as the Western Parklands City is transformed into a 30-minute City.
<b>Productivity</b>	<p>The proposal provides for an Advanced Manufacturing Research Facility (AMRF) which will provide leading edge technology to support and grow the economic hub of Bradfield City.</p> <p>The AMRF will provide for a land-use that will attract research, manufacturing, innovation, high technology businesses and jobs to the Aerotropolis Core with the new airport facility as a major driver for this growth.</p>
<b>Sustainability</b>	The development will be planned and designed with initiatives to achieve a 5 Green Star 'as-built' rating, and include consideration of water sensitive urban design principles, energy efficiency, and biodiversity conservation. The proposal will incorporate blue and green infrastructure upgrades to support a resilient city, particularly addressing the urban heat island effect through incorporating strategies to provide for a cooler urban environment.

Table 4: Analysis of key themes throughout WSAP 2020

## 6.4 Future Transport 2056

*NSW Future Transport 2056* was published in March 2018 and acknowledges the vital role transport plays with regards to land use, tourism and economic development. The Strategy is supported by a suite of plans to achieve a 40-year vision for transport in New South Wales to cater for the estimated increase in population to 12 million by 2056.

The proposal will be the first building in an emerging city centre which will play a critical role in supporting an agglomeration of land uses and an expanding city. Transport plays a key role in supporting new economic and social opportunities of the Western Parkland City, the Aerotropolis and surrounding employment lands, and connecting the regions of NSW to key corridors and growth areas.



The emerging city will be supported by a variety of transport solutions including.

- road connections.
- pedestrian and cyclist connections.
- public transport connections including buses and railway.
- Western Sydney Airport.
- Western Sydney Freight Line.
- Western Sydney Airport Metro.

The proposal is consistent with the strategic direction for transport planning for Greater Sydney within the Western Parklands Aerotropolis and will provide active and passive transport solutions as the city expands (Figure 11).



Figure 11: Strategic Transport Corridors - Greater Sydney (Source – Future Transport 2056)

## 6.5 Better Placed

*Better Placed* was prepared by the NSW Government Architect in May 2017 and aims to assist in the creation of better places for the future heritage of NSW by advocating the importance of design for better places, spaces and outcomes, supporting industry and government to deliver good design for people and enabling effective design processes to be established and supported in the planning system.

The policy outlines what the NSW Government means by good design in the built environment and outlines a framework for examining places and reviewing proposals from a good design perspective. This includes formal processes such as Design Excellence and Design Review.

The policy is addressed through clause 33 of the Aerotropolis SEPP (Section 7.7.1) which has informed the design of the AMRF.

## 6.6 Draft Aerotropolis Precinct Plan 2020

The Draft Aerotropolis Precinct Plan 2020 establish the strategic vision and general objectives, proposed land uses, performance criteria for development of land, and the approach to both infrastructure and water cycle management.

The precinct plans have been developed consistent with the objectives of the WSAP 2020 and describe the intended outcomes to support the Aerotropolis' place within the Western Parkland City.

The Draft Aerotropolis Precinct Plan 2020 provides for 8 key precinct planning drivers which aim to develop a sustainable urban form and planning for resilience in development.

- *Key Driver 1: Connecting to Country*
- *Key Driver 2: Landscape-led*
- *Key Driver 3: Great places*
- *Key Driver 4: Transport investment and jobs*
- *Key Driver 5: Circular economy*
- *Key Driver 6: A resilient city*
- *Key Driver 7: Urban comfort and green streets*
- *Key Driver 8: Market factors*

The key drivers have been established to provide guidance for the planning framework throughout development within the Aerotropolis. The planning framework for the draft precinct plan is provided at Appendix F.

The AMRF has been designed in accordance with the key drivers and planning framework established in the Draft Aerotropolis Precinct Plan 2020.



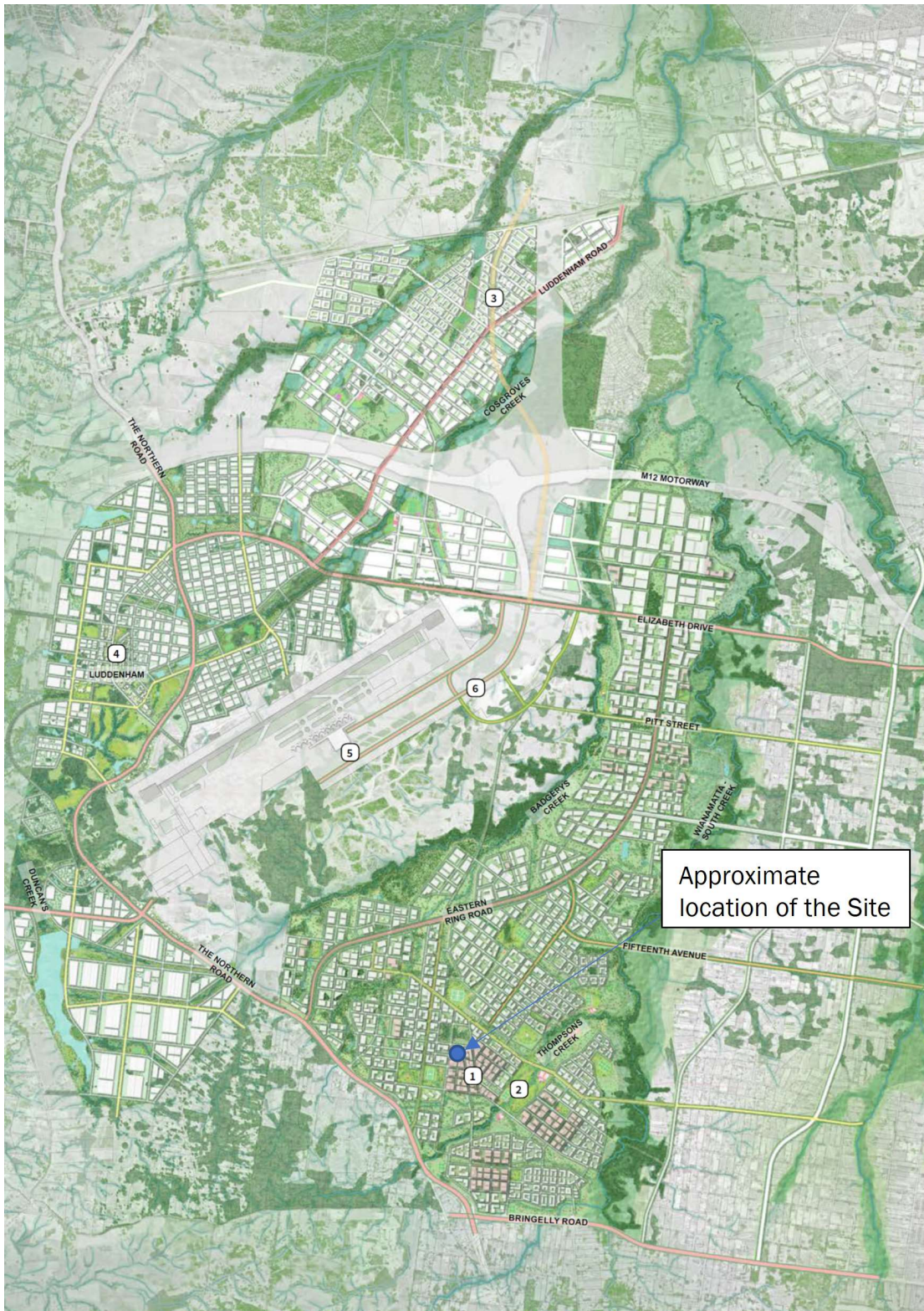


Figure 12: Context of site within the Western Parkland City (Source: Aerotropolis Precinct Plan 2020)

## 6.7 Western Sydney Aerotropolis Development Control Plan 2020 – Phase 1

The *Western Sydney Aerotropolis Development Control Plan – Phase 1* (Phase 1 DCP) came into effect on 1 October 2020 and identifies the precinct planning principles, objectives and performance outcomes to allow precinct planning to progress within the Western Sydney Aerotropolis.

The precinct in which the site is located is earmarked to support 50,000-60,000 jobs and will be a place of business. which focuses on advanced manufacturing, research and development, professional services, creative industries and STEM-focused educational facilities.

The Aerotropolis Core Precinct objectives are addressed at Appendix . The analysis concludes that the AMRF will achieve the objectives of the Phase 1 DCP.

## 6.8 Draft Western Sydney Aerotropolis DCP 2021 (Phase 2)

The *Draft Western Sydney Aerotropolis Development Control Plan 2021* (Phase 2 DCP) was released in October 2021 by the NSW government. The Draft Phase 2 DCP provides a more detailed analysis of specific development controls that applies to land within the Aerotropolis.

This DCP provides controls to supplement the WSAP 2020, the Aerotropolis SEPP and the Western Sydney Aerotropolis Precinct Plan and informs the preparation and assessment of master plans and development applications.

The Draft Phase 2 DCP provides 14 planning provisions that apply to the AMRF. An analysis of these provisions is provided in Appendix H. The analysis concludes the proposal is consistent with the Draft Phase 2 DCP.

## 6.9 Connected Liverpool 2040 Local Strategic Planning Statement

The *Connected Liverpool 2040 Local Strategic Planning Statement* (LSPS) was finalized and published on the NSW Planning Portal in March 2020, the LSPS is a 20 year plan which sets out Council's land use vision and planning priorities for the LGA. An analysis of the proposal against the LSPS is provided in Table 5.

Planning priority	Response
<b>Planning Priority 4</b> <i>Liverpool is a leader in innovation and collaboration</i>	The AMRF provides for a diverse technology hub that offers an environment that innovation, education and collaboration come together. The facility will act as an economic backbone as the Aerotropolis Core expands.
<b>Planning Priority 10 a</b> <i>world-class health, education, research and innovation precinct</i>	The proposal of an Advanced Manufacturing Research Facility which will house first class high technology facilities which will attract innovation to the Aerotropolis Core. Education and research will be the corner stone of the facility.
<b>Planning Priority 11 an</b> <i>attractive environment for local jobs, business, tourism and investment</i>	The facility will provide for innovative and attractive land-use that is integrated into the natural landform. The facility will attract high technology jobs to the emerging Aerotropolis Core.
<b>Planning Priority 12</b> <i>industrial and</i>	The facility will provide for an industrialised land-use which promotes employment and technological growth within the Aerotropolis Core. Using the Western Sydney Airport as support



<b>Planning priority</b>	<b>Response</b>
<b><i>employment lands meet Liverpool's future needs</i></b>	mechanism the facility will meet the future employment growth demands.
<b><i>Planning Priority 13 a viable 24-hour Western Sydney International Airport growing to reach its potential</i></b>	The proposal is near to the Western Sydney International Airport, which will provide a compatible land use with this infrastructure. The facility will support the growth of the airport by providing a high-class facility to attract investors, businesses and technology industries to the facility.
<b><i>Planning Priority 14 bushland and waterways are celebrated, connected, protected and enhanced</i></b>	The proposal involves appropriate green and blue infrastructure upgrades to protect the natural landscape and waterways. The incorporation of WSUD principles and stormwater management strategies are key to the integrity of the proposal.
<b><i>Planning Priority 15 a green, sustainable, resilient and water-sensitive city</i></b>	The facility's core design principles revolve around planning for resilience improving hydraulic processes. The proposal has considered its impact on the Circular Economy, urban heat island effect and Whole Carbon processes. The facility intent is to create a structure that is resilience to the urban and natural environment.

Table 5: Analysis of key themes in Liverpool LSPS

## 7 Statutory Planning Context

### 7.1 Environmental Planning and Assessment Act 1979

The EP&A Act provides the statutory framework for land use planning in NSW. Under Section 4.36 of the Act, certain development types are declared SSD by means of a State Environmental Planning Policy (SEPP) or by order of the Minister for Planning and Open Spaces.

The development meets the criteria of SSD under Schedule 1, clause 11(a) of SRD SEPP as it involves development that has a capital investment value of more than \$30 million for manufacturing research and development.

The development is for an Advanced Manufacturing Research Facility with a CIV of \$36,369,573. A cost estimate summary for the proposal is included at Appendix A.

This report responds to the requirements of section 4.12(8) of the EP&A Act which requires a development application for SSD to be accompanied by an EIS.

#### 7.1.1 Objects of the EP&A Act

Development under the EP&A Act must have regard to the objects of the Act set out under section 1.3 of the Act. The proposed development is considered consistent with the objects of the Act, as outlined in Table 6 below.

The Objects of the Act	Consideration
(a) <i>To promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,</i>	<p>The proposed development is to construct an advance manufacturing research facility in the Bradfield City Centre, located in the Western Parkland City.</p> <p>It is the first building in the Aerotropolis which will promote economic growth for the region. The facility will provide a use which will engage the community and promote social cohesion.</p>
(b) <i>to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,</i>	<p>This EIS provides information on the relevant economic, environmental and social impacts of the proposed development to enable the consent authority to undertake a thorough environmental assessment and assist in its decision-making on the application.</p>
(c) <i>to promote the orderly and economic use and development of land,</i>	<p>The development promotes the orderly and economic use of the land by providing a compatible land-use with the emerging Aerotropolis Core.</p>
(d) <i>to promote the delivery and maintenance of affordable housing,</i>	N/A
(e) <i>to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,</i>	<p>Environmental considerations are discussed further in Section 8 and relevant technical reports.</p> <p>The facility incorporates ESD principles aimed at reducing environmental impacts, protecting</p>

The Objects of the Act	Consideration
	ecological communities and providing a facility that is integrated into the natural landscape.
(f) <i>to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),</i>	<p>The proposed design has adopted the recognition of the cultural values of the area as discussed in Section 3.2.</p> <p>European and Aboriginal Heritage impacts have been assessed as a part of this SSDA. These issues are addressed at Section 8.6 of this report and at Appendix K and Appendix L</p>
(g) <i>to promote good design and amenity of the built environment,</i>	<p>The proposal has been subject to a State design review panel to ensure design excellence is achieved.</p> <p>The facility sets a standard for the urbanisation of the Aerotropolis Core to ensure the built environment is of a high standard and amenity is preserved through good design.</p>
(h) <i>to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,</i>	The development will be constructed in accordance with the proposed mitigation measures in Section 9, any conditions of approval issued by the consent authority and the relevant requirements that relate to health and safety, construction and maintenance.
(i) <i>to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,</i>	This EIS is submitted to DPIE to enable an environmental assessment of the application. It is expected that the EIS will be referred by DPIE to other State agencies for further assessment and comment.
(j) <i>to provide increased opportunity for community participation in environmental planning and assessment.</i>	<p>As part of DPIE's assessment of the application, the EIS will be made publicly available with the community, Council and State agencies invited to provide a submission on the proposal.</p> <p>Any submissions received will be addressed by the Western Parkland City Authority as part of a Response to Submissions Report.</p>

Table 6: Objects of the EP&A Act

### 7.1.2 Section 4.15 Matters for Consideration

The consent authority is required to take into consideration the matters listed under section 4.15 of the EP&A Act when determining a development application. An evaluation of the proposed development against the provisions of section 4.15(1) of the EP&A Act is provided in Table 7 below.

Provision	Consideration
(a) <i>the provisions of:</i>	
(i) <i>any environmental planning instrument, and</i>	Relevant environmental planning instruments relevant are addressed at Section 7.
(ii) <i>any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and</i>	Relevant draft environmental planning instruments relevant are addressed at Section 7.
(iii) <i>any development control plan, and</i>	Under clause 11 of the SRD SEPP, development control plans do not apply to SSD. However, the Aerotropolis Phase 1 DCP and Draft Phase 2 DCP have been addressed in Sections 6.7 and 6.8. and Appendix H.
(iiia) <i>any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and</i>	Discussed in Section 7.9
(iv) <i>the regulations (to the extent that they prescribe matters for the purposes of this paragraph),</i>	The EP&A Regs is addressed at Section 7.2.
(v) <i>(Repealed)</i>	N/A
(b) <i>the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts I the locality,</i>	The likely impacts of the development, including environmental impacts on the natural and built environments, social and economic impacts are addressed at Section 8.
(c) <i>the suitability of the site for the development,</i>	The suitability of the site for the development is considered at Section 2.
(d) <i>any submissions made in accordance with this Act or the regulations,</i>	Any submissions received on the application will be considered and addressed as part of a Response to Submission report.
(e) <i>the public interest.</i>	The development is in the public interest as it will provide for the first development within the Aerotropolis Core and is consistent with the strategic objectives for the development of the Western Parkland City.

Table 7: Section 4.15 Assessment

## 7.2 Environmental Planning and Assessment Regulation 2000

This EIS has been prepared in accordance with form and content requirements of Schedule 2 of the EP&A Regulation. An overview of how the requirements of the EP&A Regulation have been satisfied is included in Table 8 below.

Environmental Planning and Assessment Regulations 2000	EIS Reference
<i>An environmental impact statement must also include each of the following:</i>	
(a) a summary of the environmental impact statement,	Executive Summary
(b) a statement of the objectives of the development, activity or infrastructure,	Section 4.1
(c) an analysis of any feasible alternatives to the carrying out of the development, activity or infrastructure, having regard to its objectives, including the consequences of not carrying out the development, activity or infrastructure,	Section 4.2
(d) an analysis of the development, activity or infrastructure, including:	Section 3 and Section 8
(i) a full description of the development, activity or infrastructure, and	
(ii) a general description of the environment likely to be affected by the development, activity or infrastructure, together with a detailed description of those aspects of the environment that are likely to be significantly affected, and	
(iii) the likely impact on the environment of the development, activity or infrastructure, and	
(iv) a full description of the measures proposed to mitigate any adverse effects of the development, activity or infrastructure on the environment, and	
(v) a list of any approvals that must be obtained under any other Act or law before the development, activity or infrastructure may lawfully be carried out,	
(e) a compilation (in a single section of the environmental impact statement) of the measures referred to in item (d) (iv),	Section 8
(f) the reasons justifying the carrying out of the development, activity or infrastructure in the manner proposed, having regard to biophysical, economic and social considerations, including the principles of ecologically sustainable development set out in subclause (4).	Section 4 and Section 8
<i>Note. A cost benefit analysis may be submitted or referred to in the reasons justifying the carrying out of the development, activity or infrastructure.</i>	
(1) Subclause (1) is subject to the environmental assessment requirements that relate to the environmental impact statement	
(2) Subclause (1) does not apply if:	
(a) the Secretary has waived (under clause 3(9)) the need for an application for environmental assessment requirements in relation to an environmental impact statement in respect of State significant development, and	
(b) the conditions of that waiver specify that the environmental impact statement must instead comply with requirements set out or referred to in those conditions.	

Table 8: Requirements of the EP&A Regulation

### **7.3 Biodiversity Conservation Act 2016**

The *Biodiversity Conservation Act 2016* (BC Act) aims to maintain the diversity and quality of ecosystems and enhance their capacity to adapt to change and provide for the needs of future generations.

Under the BC Act, SSD proposals require an accredited ecologist to prepare a Biodiversity Development Assessment Report (BDAR), except for development on biodiversity certified land.

The site and the majority of the Bradfield City Centre site is certified under the 2007 Biodiversity Certification Order for *State Environmental Planning Policy (Sydney Region Growth Centres) 2006*. Therefore, an assessment of biodiversity impacts is not required for this application.

### **7.4 Contaminated Land Management Act 1997**

The *Contaminated Land Management Act 1997* (CLM Act) establishes a process for investigating and (where appropriate) remediating land where contamination poses a significant risk of harm to human health or the environment.

In accordance with Part 4 of the CLM Act, an EPA accredited site auditor has been appointed. A Preliminary site Inspection (PSI) has been prepared which identifies that a Detailed site Inspection (DSI) is required to be carried out to determine if a Remediation Action Plan (RAP) is required to ensure the site can be made suitable for the proposed High Technology land use, subject to the successful implementation of all mitigation measures for the site.

A DSI is currently underway to assess the potential distribution/extent of contamination in soil and groundwater and potential remediation requirements which will inform future redevelopment works.

The PSI for the site has been prepared by Environmental Resources Management Australia and is included at Appendix I. The PSI notes that the site can be made suitable for the proposed land use following remediation.

Contamination is further discussed at Section 8.2.

### **7.5 Rural Fires Act 1997**

Under section 4.46 of the EP&A Act, the proposal is not required to be referred to the NSW Rural Fire Service as it does not include subdivision for residential purposes or development of a special fire protection purpose.

Notwithstanding, a Bushfire Hazard Assessment (BHA) has been prepared and accompanies this report demonstrating compliance with *Planning for Bushfire Protection 2019*. A copy of this report is provided at Appendix J



## 7.6 Heritage Act 1977

The Heritage Act 1977 makes provisions to conserve the State's environmental heritage. It provides for the identification, registration and protection of items of State heritage significance and constitutes the Heritage Council of New South Wales. A heritage assessment was undertaken by Extent Heritage Pty Ltd as a part of the SSDA process. This is provided at Appendix K.

The site is within the vicinity of two State heritage items. These items are:

- Kelvin (Item #00046) homestead approximately 500 m east of the site
- Church of the Holy Innocents (Item #02005) churchyard and cemetery approximately 4 km southeast of the site

The Statement of Heritage Impact confirms the development will have minimal impact on the significance of these state items and provides any necessary mitigation and management measures to ensure impacts are minimised.

## 7.7 State Environmental Planning Policies

### 7.7.1 State Environment Planning Policy (Western Sydney Aerotropolis) 2020

The *Aerotropolis SEPP* applies to the land within the Western Parklands City. The Aerotropolis SEPP planning controls apply to the nine Aerotropolis precincts, of which the site is within the Aerotropolis Core.

The aims of the Aerotropolis SEPP are:

- to facilitate development in the Western Sydney Aerotropolis in accordance with the objectives and principles of the Western Sydney Aerotropolis Plan,*
- to promote sustainable, orderly and transformational development in the Western Sydney Aerotropolis,*
- to ensure development is compatible with the long-term growth and development of the Western Sydney Airport (including in relation to the operation of the Airport 24 hours a day) and other critical transport infrastructure,*
- to promote employment and world-class innovation and provide for residential development in suitable locations,*
- to recognise the physical and cultural connection of the local Aboriginal community to the land and to incorporate local Aboriginal knowledge, culture and tradition into development,*
- to preserve land for future infrastructure development,*
- to protect, maintain and enhance, and to minimise the impact of development on, trees and vegetation, soil quality and the health of waterways and to contribute to the conservation of biodiversity,*
- to recognise and protect the ecological and cultural value of Wianamatta–South Creek.*

The proposal addresses these aims through the intended use of the building as an innovation and advanced manufacturing research facility and through its design which recognises Country and the surrounding landscape, particularly Wianamatta-South Creek.

## Land use zoning controls

Pursuant to the Aerotropolis SEPP, the site is within the ENT- Enterprise Zone and MU Mixed Use zone as shown in Figure 13. The AMRF First Building is located wholly within the ENT zone.

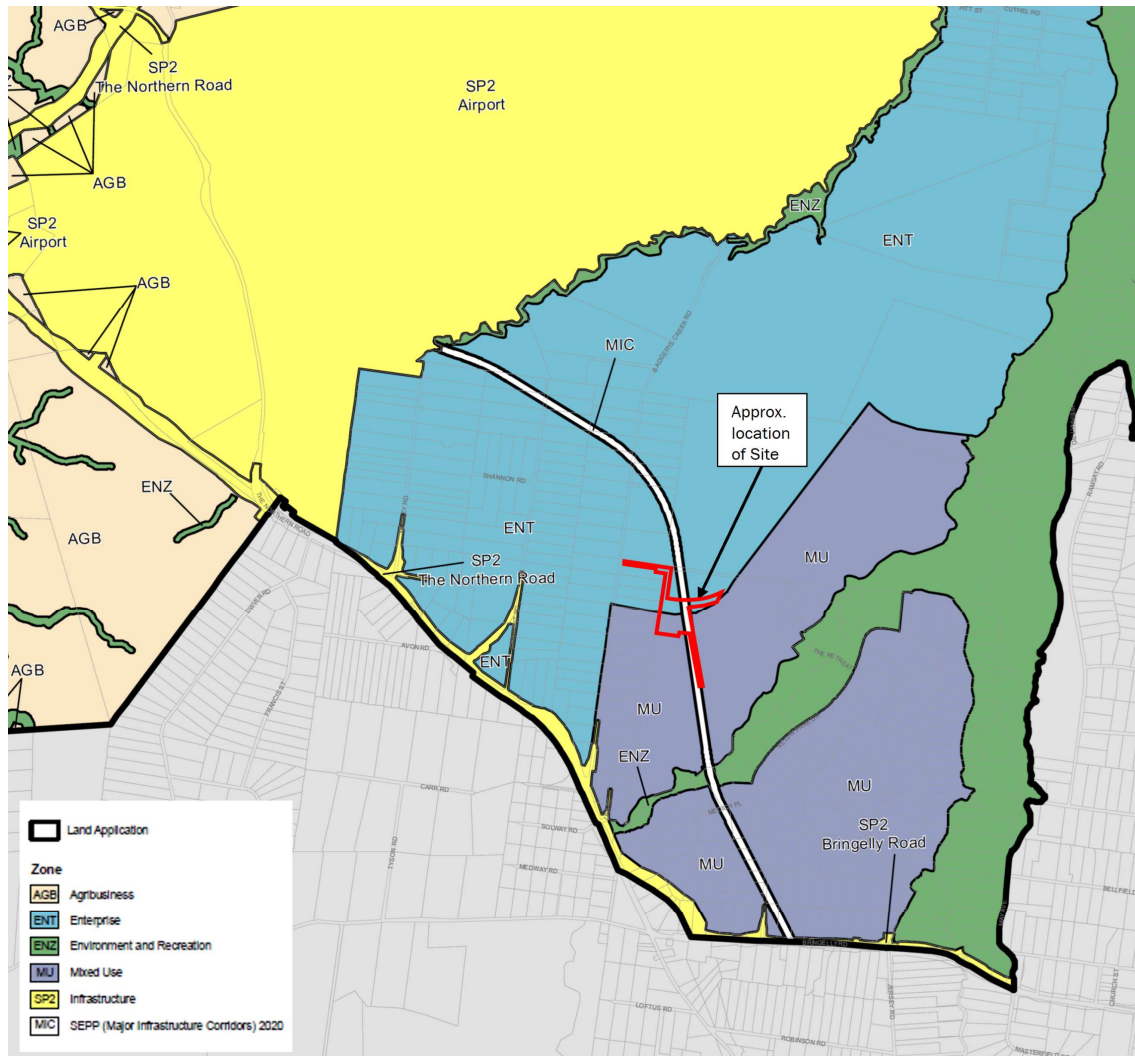


Figure 13: Zoning Extract - Aerotropolis SEPP

## Zone Objectives

The proposed building meets the definition of a “high technology industry” pursuant to the Standard Instrument and would be permitted with consent under the ENT zone. The zone objectives for the ENT zone provide the following.

- To encourage employment and businesses related to professional services, high technology, aviation, logistics, food production and processing, health, education and creative industries.
- To provide a range of employment uses (including aerospace and defence industries) that are compatible with future technology and work arrangements.

- To encourage development that promotes the efficient use of resources, through waste minimisation, recycling and re-use.
- To ensure an appropriate transition from non-urban land uses and environmental conservation areas in surrounding areas to employment uses in the zone.
- To prevent development that is not compatible with or that may detract from the future commercial uses of the land.
- To provide facilities and services to meet the needs of businesses and workers.

The proposal is consistent with the zone objectives of the ENT zone as it provides for a land-use that is compatible with the emerging city. The high technology industry will incorporate a high standard of public amenity and achieve the needs of businesses and workers.

Table 6 summarises the relevant clauses of the Aerotropolis SEPP that apply to the site.

Aerotropolis SEPP Planning control	Comment	Compliance
<b>Part 3 Development controls—Airport safeguards</b>		
19 Aircraft noise	<ul style="list-style-type: none"> <li>the site is not within the ANEF contour of 20 or greater and the proposal is not noise sensitive development pursuant to clause 19(6)</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
20 Building wind shear and turbulence	<ul style="list-style-type: none"> <li>the site is not mapped within Wind Shear Assessment trigger area</li> <li>therefore, the Commonwealth body does not need to be consulted in accordance with this clause</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
21 Wildlife hazards	<ul style="list-style-type: none"> <li>the site is within the 3km &amp; 8 km wildlife buffer zones however the proposal is not relevant development under clause 21(4)</li> <li>the facility will provide for appropriate mitigation methods to safeguard the airport from wildlife strikes</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
22 Wind turbines	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
23 Lighting	<ul style="list-style-type: none"> <li>the site is mapped within the 6km Lighting Intensity Radius zone, however the proposal is not prescribed development in clause 23(2)(a)</li> <li>should construction occur once the operation of the airport commences, lighting will be designed to ensure it is not obtrusive and not impact airport operations</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
24 Airspace operations	<ul style="list-style-type: none"> <li>the site is within the 125.5 m Obstacle Limitation Surface (OLS) contour identified on the OLS Map</li> <li>the proposal does not exceed a height of 125.5m above ground level and complies with the control</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
25 Public safety	<ul style="list-style-type: none"> <li>the site is not within the Public Safety Area identified on the map</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
<b>Part 4 Development controls—general</b>		
26 Flood planning	<ul style="list-style-type: none"> <li>the site is not in the 1 in 100 year event mapped flood land within the Flood Map</li> <li>notwithstanding, a flood report is provided at Appendix R which addresses flooding impacts</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>

Aerotropolis SEPP Planning control	Comment	Compliance
27 Preservation of trees and vegetation in Environment and Recreation Zone and Cumberland Plain	<ul style="list-style-type: none"> <li>the site is not currently in a mapped high biodiversity values area</li> <li>however, under the proposed amendment to the Aerotropolis SEPP, the land is identified to be within a High Biodiversity Value Area</li> <li>accordingly, the proposal includes landscaping with Cumberland Plain species to compensate for any loss of this vegetation</li> <li>this application also constitutes notice to DPIE as anticipated in the Explanation of Intended Effects for the SEPP amendment</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
28 Heritage conservation	<ul style="list-style-type: none"> <li>an Aboriginal Due Diligence Assessment and Statement of Heritage Impact is provided at Appendices K and L</li> <li>the reports conclude the works have minimal impact on both Aboriginal and European heritage values</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
29 Transport corridors	<ul style="list-style-type: none"> <li>the site is mapped in the Transport Corridors Map, specifically the 400m referral zone</li> <li>the proposal must be referred to Transport for NSW for concurrence prior to granting development consent</li> <li>the proposal is considered appropriate in context of the nearby metro station</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
30 Warragamba Pipelines	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
<b>Part 5 Design excellence</b>		
33 Design review panel	<ul style="list-style-type: none"> <li>the proposal was referred to the State Design Review Panel (SDRP) on 7 October 2021</li> <li>the proposed design incorporates the SDRP's feedback</li> <li>refer to Appendix C which addresses the panels comments</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
35 Consideration of design excellence	<ul style="list-style-type: none"> <li>the matters for consideration outlined in clause 35 have been addressed in the architectural designs described in Appendix C and subject to review by the SDRP</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
<b>Part 7 Precinct plans and master plans</b>		
42 Development prior to precinct plan	<ul style="list-style-type: none"> <li>the proposal addresses the requirements of clause 42 (3) through the following:               <ol style="list-style-type: none"> <li>the facility is consistent with the aims of the Aerotropolis SEPP</li> <li>the proposal will not result in further fragmentation of land holdings</li> <li>the facility is located adjacent to the approved metro station and will not hinder the delivery of infrastructure to the site</li> <li>the proposal is consistent and compatible with the Western Sydney Airport and will not adversely affect its operations</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>

Aerotropolis SEPP Planning control	Comment	Compliance
	e) the facility has been designed in consideration of the adjoining metro station and planned road infrastructure and services f) the facility will be serviced through adequate public infrastructure once the metro is completed	

Table 6: Aerotropolis SEPP planning controls

The AMRF has been planned and designed in accordance with the controls of the Aerotropolis SEPP and the proposed development is consistent with the aims and objectives of the Aerotropolis SEPP.

### 7.7.2 State Environmental Planning Policy (State and Regional Development) 2011

The SRD SEPP aims to identify development that is SSD, State significant infrastructure, critical State significant infrastructure and regionally significant development.

As detailed in Section 1 of this Report, the proposed development meets the criteria for SSD under Schedule 1 clause 11(a) of the SRD SEPP. Consequently, the application will be assessed as SSD and determined by the Minister for Planning and Public Spaces (or nominated delegate).

### 7.7.3 State Environmental Planning Policy (Infrastructure) 2007

The *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP) aims to facilitate the effective delivery of infrastructure across the State by improving regulatory certainty and efficiency, providing greater flexibility in the location of infrastructure and service facilities, allowing development of surplus government owned land, identifying environmental assessment categories and matters to be considered in assessments, and providing for consultation with relevant public authorities.

The site is located adjacent to a future railway corridor which has been approved under SSI 10051, which involves the construction of the new Western Sydney Airport Metro. The site is adjacent to the Aerotropolis Core metro station. Division 15 of the ISEPP applies to the proposal.

Clause 85 *Development adjacent to rail corridors* of ISEPP stipulates that before determining a development application a consent authority must give written notice to the rail authority for the rail corridor. The consent authority must consider any response to the notice that is received within the 21 day period.



#### 7.7.4 State Environmental Planning Policy (Major Infrastructure Corridors) 2020

*State Environmental Planning Policy (Major Infrastructure Corridors) 2020* applies to land that is mapped for the purposes of future infrastructure corridor and adjacent land. As shown in Figure 14 the subject site is adjacent to land for this purpose.



Figure 14: Future Infrastructure Corridor Map (Source Major Infrastructure Corridors 2020)

#### 7.7.5 State Environmental Planning Policy No. 33 – Hazardous and offensive development

*State Environmental Planning Policy No. 33 – Hazardous and Offensive Development* (SEPP 33) aims to ensure that in considering any application to carry out potentially hazardous or offensive development, the consent authority has sufficient information to assess whether the development is hazardous or offensive and to impose conditions to reduce or minimise any adverse impact.

The proposal does not involve works that can be categorised as potentially hazardous industry or potentially offensive industry. The use will not involve the storage of potentially hazardous materials. The facility will not isolate the land from future development or impact the biosphere.

Based on the above analysis, SEPP 33 does not apply to the proposal as such a Preliminary Hazard Assessment has not been prepared as part of this application.

#### **7.7.6 State Environmental Planning Policy No.55 – Remediation of Land**

*State Environmental Planning Policy No. 55 – Remediation of Land* (SEPP 55) applies to the State and states that where a DA is made concerning land that is contaminated, the consent authority must not grant consent unless:

- (a) *it has considered whether the land is contaminated, and*
- (b) *if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and*
- (c) *if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.*

A PSI has been prepared by Environmental Resource Management Australia (Appendix I) The PSI found that a further DSI is required to consider if the site is suitable for the proposed land use. The contamination report prepared for this proposal concludes that upon the completion of a DSI the site can be made suitable for the proposal subject to the implementation of a Remediation Action Plan.

#### **7.7.7 State Environmental Planning Policy No. 64 – Advertising and Signage**

*State Environmental Planning Policy 64 Advertising and Signage* (SEPP 64) aims to ensure that advertising and signage is well located, compatible with the desired amenity of an area and of high quality.

SEPP 64 applies to all signage, advertisements that advertise or promote any goods, services or events and any structure that is used for the display of signage that is permitted under another environmental planning instrument.

The proposal includes minimal signage, limited to building identification signage on the roof and wayfinding signage throughout the site. Details of the locations of the building signage can be found in the associated Architectural Plans and DR (Appendix C).

Clause 8 of SEPP 64 requires the consent authority to assess the proposal against the criteria within Schedule 1 prior to granting consent to carrying out of any development on that land. An assessment of these matters is provided below.

Schedule 1	Comment	Compliance
<b>1. Character of the Area</b>		
Is the proposal compatible with the existing or desired future character of the area or locality in which it is proposed to be located?	The proposed signage is compatible with the future character of the area which will comprise a new city.	Complies

Schedule 1	Comment	Compliance
Is the proposal consistent with a particular theme for outdoor advertising in the area or locality?	<p>The proposed signage will ensure compatibility with the desired future character of the area as it will identify the first building within the Bradfield City and aids in wayfinding.</p> <p>The design of the signs is compatible with the proposed design of the building reflected in materials and colour schemes.</p>	Complies
2. Special Areas		
Does the proposal detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas?	The proposal does not detract from the amenity or visual quality of the area as it is ancillary to the operation of the proposed building.	Complies
3. Views and vistas		
Does the proposal obscure or compromise important views?	All signage has been designed to not impact views within the site or for surrounding receivers.  The size of proposed signs ensures they do not dominate the skyline or reduce quality of vistas.	Complies
Does the proposal dominate the skyline and reduce the quality of vistas?		Complies
Does the proposal respect the viewing rights of other advertisers?		Complies
4. Streetscape, Setting or Landscape		
Is the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape?	The signs are considered appropriate for the landscape and setting of the AMRF, both initially and in the long term	Complies
Does the proposal contribute to the visual interest of the streetscape, setting or landscape?	As above	Complies
Does the proposal reduce clutter by rationalising and simplifying existing advertising?	No existing signage within the site	Complies
Does the proposal screen unsightliness?	The signage is incorporated into the design of the building.	Complies
Does the proposal protrude above buildings, structures or tree canopies in the area or locality?	No	Complies
Does the proposal require ongoing vegetation management?	No	Complies
5. site and Building		
Is the proposal compatible with the scale, proportion and other characteristics of the site or building, or both, on which the proposed signage is to be located?	The proposed signage is consistent with signage designs for the building and the future development of the Bradfield City.	Complies

Schedule 1	Comment	Compliance
Does the proposal respect important features of the site or building, or both?		Complies
Does the proposal show innovation and imagination in its relationship to the site or building, or both?		Complies
6. Associated Devices and Logos with Advertisements and Advertising structures		
Have any safety devices, platforms, lighting devices or logos been designed as an integral part of the signage or structure on which it is to be displayed?	No safety devices, platforms, or lighting devices have been designed as part of the signage. The building identification sign has been included in the architectural design of the building.	Complies
7. Illumination		
Would illumination result in unacceptable glare?	The proposed signage is designed to comply with illumination requirements to minimise glare and ensure safety for road users, pedestrians and aircraft	Complies
Would illumination affect safety for pedestrians, vehicles or aircraft?		Complies
Would illumination detract from the amenity of any residence or other form of accommodation?		Complies
Can the intensity of the illumination be adjusted, if necessary?	Yes	Complies
Is the illumination subject to a curfew?	No	Complies
8. Safety		
Would the proposal reduce the safety for any public road?	The signs are located so as to not impact the safety for roads, pedestrians, cyclists or children.	Complies
Would the proposal reduce the safety for pedestrians or bicyclists?		
Would the proposal reduce the safety for pedestrians, particularly children, by obscuring sightlines from public areas?		

Table 7: Schedule 1, SEPP 64 Consideration

### 7.7.8 Sydney Regional Environmental Plan No 20—Hawkesbury-Nepean River (No 2—1997)

*Sydney Regional Environmental Plan No 20—Hawkesbury-Nepean River (No 2—1997)* (SREP 20) applies to land within the Hawkesbury Nepean River Catchment including the Liverpool LGA. The site is located within the catchment. SREP 20 provides for general planning considerations under Part 2 clause (4) and (5). Under clause (6) it provides for general planning policies and recommendations.

The proposal incorporates appropriate strategies water sensitive urban design strategies to ensure consistency with the SREP 20.

### 7.7.9 Draft State Environmental Planning Policy (Environment)

The *Draft State Environmental Planning Policy (Environment)* (Environment SEPP) aims to promote the protection and improvement of key environmental assets for their intrinsic value and the social and economic benefits they provide. Once adopted it will consolidate the following existing SEPPs:

- *State Environmental Planning Policy No.19 – Bushland in Urban Areas*
- *State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011*
- *State Environmental Planning Policy No.50 – Canal Estate Development*
- *Greater Metropolitan Regional Environmental Plan No.2 – Georges River Catchment*
- *Sydney Regional Environmental Plan No.20 – Hawkesbury-Nepean River (No.2-1997)*
- *Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005*
- *Willandra Lakes Regional Environmental Plan No.1 – World Heritage Property*

It is noted that the preliminary maps accompanying the Draft Environment SEPP do not identify the site as urban bushland or a critical habitat area.

### 7.7.10 Draft Remediation of Land State Environmental Planning Policy

The *Draft Remediation of Land State Environmental Planning Policy* (Remediation SEPP) aims for better management of remediation works by aligning the need for development consent with the scale, complexity and risks associated with the proposed works.

Once adopted, the Draft Remediation SEPP will:

- provide a state-wide planning framework for the remediation of land
- require consent authorities to consider the potential for land to be contaminated when determining DAs
- clearly list the remediation works that require development consent
- introduce certification and operational requirements for remediation works that can be undertaken without development consent

As discussed in Section 8.3, the contamination report prepared concludes that the proposal will be suitable for the site subject to the results of a Detailed site Inspection which is currently being prepared for the site.

## 7.8 Liverpool Local Environmental Plan 2008

*Liverpool Local Environmental Plan 2008* (LLEP 2008) is the principal local Environmental Planning Instrument applicable to the land. It aims to establish planning principles and development controls that will promote the orderly and economic use of land.

It also aims to establish planning principles and development controls that will promote the orderly and economic use of land throughout the Liverpool LGA. However, the provisions of the LLEP 2008 do not apply given the site is within the boundaries of the WSEA SEPP.

Notwithstanding, the Applicant has consulted with Council during the preparation of this development application.

## 7.9 Contributions

### 7.9.1 Special Infrastructure Contributions

The Western Sydney Growth Areas Special Infrastructure Contribution (SIC) determination came into effect on 14 January 2011. The SIC applies to development on both residential and industrial zoned land and will help fund key infrastructure to support growth in Western Sydney. The proposal generates a contribution payable under the Special Infrastructure Contribution.

The Draft *Environmental Planning and Assessment (Special Infrastructure Contribution – Western Sydney Aerotropolis) Determination* was exhibited from 10 November 2020 to 26 February 2021. This draft contribution plan has not yet been gazetted, but once in force the proposal would generate a contribution payable under Part 2, Division 1, Clause 6 of the plan.

WPCA would accept a condition requiring it to enter into a Voluntary Planning Agreement with the Minister prior to occupation certificate. In the event that WPCA is unable to enter into a Voluntary Planning Agreement with the Minister WPCA would be required to pay a cash contribution prior to the issue of occupation certificate. This condition would align with the *Environmental Planning and Assessment (Local Infrastructure Contributions – Timing of Payments) Direction 2020*.

In the event that the *Environmental Planning and Assessment (Special Infrastructure Contribution – Western Sydney Aerotropolis)* is not adopted prior to occupation certificate WPCA would accept a condition requiring it to enter into a Voluntary Planning Agreement with the Minister prior to occupation certificate to meet the contribution obligation of the draft plan or plans which may comprise the provision of material public benefits.

In the event that WPCA is unable to enter into a Voluntary Planning Agreement with the Minister, WPCA would be required to pay a cash contribution prior to the issue of occupation certificate at the exhibited rate calculated at the time of payment.

### 7.9.2 Local Contributions

The Draft *Aerotropolis Contributions Plan 2020, Penrith and Liverpool Council* was exhibited from November 2020 to 31 January 2021 and applies to the land. The development is located in the Aerotropolis Core Precinct. Section 13 of the Draft Aerotropolis Contributions Plan 2020, Penrith and Liverpool Council identifies the social and engineering infrastructure required within the Aerotropolis Core, some of the identified infrastructure is on the subject land.

Under the draft Contributions Plan, at the draft contribution rate, a contribution of \$2,577,496 would be required to meet the local infrastructure contribution.

WPCA would accept a condition requiring it to enter into a Voluntary Planning Agreement with Liverpool City Council prior to occupation certificate. In the event that WPCA is unable to enter into a Voluntary Planning Agreement with the Minister WPCA would be required to pay a cash contribution prior to the issue of occupation certificate.

This condition would align with the *Environmental Planning and Assessment (Local Infrastructure Contributions – Timing of Payments) Direction 2020*.



## 8 Environmental assessment

### 8.1 Built form

#### 8.1.1 Built form

As described in Section 3.2, the DR for the development prepared by Hassell (Appendix C) outlines the proposed design, materials, master plan and how the development will integrate with its environment and with the future development of the Aerotropolis.

The AMRF building has been designed to reflect its initial context within the rural/rural residential character but also as an urban pavilion in the future context of the Bradfield City. The building's lower scale-built form provides a more human scale structure which is served by public space for relief in the city centre.



Figure 15: AMRF (Source Hassell Studios)

The structure will incorporate a range of materials including:

- timber
- rammed earth
- glass
- steel
- natural textures and hues
- light grey concrete

The structure's unique visual appearance provides for an almost transparent structure which allows for community engagement through visual interest with the internal operations of the facility. The mezzanine floor, like the roof structure, is designed to be modular and can expand if required in the future.

The built elements are at varying levels and is stepped to respond to the topography which falls to the East and South. These level changes add a dynamic and theatrical experience whilst maintaining equitable access and connectivity between the spaces. The layout, orientation and configuration of the facility was determined on the following basis:

- orienting the longest facade to the north, minimising solar heat gain.
- locating the workplace to the north for optimal natural daylight.
- potential for expansion in the future, the building is modular and can grow to the East if required.

The built form of the structure has been amended to respond to the SDRP's recommendations following its review of the design on 7 October 2021. Table 8 provides a summary of the design's response to the SDRP review.

SDRP Recommendations	Built form response
<b>Connecting with Country and Landscape design</b>	<ul style="list-style-type: none"> <li>• Amongst the seven narratives that Djinjama have identified, the importance of the Water Story and Healing Country to the development of this project. These will guide the form, materiality and movement of the landscape of the First Building.</li> <li>• Refer to design principles in respect of water and healing country in the Architectural Design Report at Appendix C.</li> <li>• The AMRF First Building landscape will re-establish endemic species of the Cumberland Plain into new communities. This will ensure a landscape that is low water use and supports a diverse range of local fauna.</li> </ul>
<b>Block structure</b>	<ul style="list-style-type: none"> <li>• The allotment pattern provides for an interconnected site that will connect with surrounding city core once developed through. This is achieved through:               <ul style="list-style-type: none"> <li>○ water sensitive urban precincts to allow engagement with the natural landscape</li> <li>○ entrances have been located at appropriate points to separate public domain from the operations of the facility</li> <li>○ the flexibility of the design future allows for the building program to adapt and respond to the changing context</li> <li>○ parking is provided to support the facility in the interim with 51 temporary parking spaces, which throughout time will be minimised to 18 to support the operations of the facility</li> <li>○ the site pattern and suggested stages of the wider site mesh with the context of the locality.</li> <li>○ the staging suggests the First Building to be completed in 2023, the AMRF expansion in 2026 and the evolved master plan in 2046.</li> </ul> </li> </ul>
<b>Architecture</b>	<ul style="list-style-type: none"> <li>• Consideration into the locations of entries designing for day one when most occupants will drive to the site and park to the east. Then in the future 15<sup>th</sup> Avenue will be a transport corridor with bus stops and highly activated streets to the west of the site. Whilst also Metro to the Southeast will come online in 2026. This provided a strong case for a dual entry, one from the east and one the west.</li> <li>• Further methods natural heating and cooling are implemented to address the large glass façade including:               <ul style="list-style-type: none"> <li>○ additional vegetation on the roof structure to reduce heat during summer and retain heat during winter</li> <li>○ use of materials that can manage climate conditions</li> </ul> </li> <li>• The public spine can adequately facilitate public access to the roof top viewing platform through the layout of internal access.</li> <li>• The AMRF provides for appropriate amenities, such as end of trip facilities, food prep areas and community spaces.</li> </ul>
<b>Procurement</b>	<ul style="list-style-type: none"> <li>• Sourcing materials for the construction of the facility will rely on sustainable building materials and practices.</li> <li>• Sustainable industrial building typologies are becoming more familiar, primarily due to the advancements in timber technology with larger</li> </ul>

SDRP Recommendations	Built form response
	spans achievable through CLT & MASSLAM to rival that of other structural materials. <ul style="list-style-type: none"> <li>The building's embodied carbon is addressed to ensure the building is resilient and purposeful.</li> </ul>
Staging	<ul style="list-style-type: none"> <li>This aspect is addressed in Section 3.</li> </ul>

Table 8: AMRF Design response to State Design Review Panel

### 8.1.2 Visual Character

The key visual impacts of the development will occur during construction and the initial years of operation, until the development of other buildings in the precinct commences. The most potentially impacted receptors are located to the immediate west of the site, which is currently planned as the future site of the Bradfield City Centre education precinct.

Prior to commencing construction of the building, the landowners of occupied residences to the west of the site will be contacted to discuss the upcoming construction activities and preferred measures of visual mitigation. Measures to be adopted during construction may include the use of directional lighting to ensure minimal lighting impacts during construction (such as during morning and afternoon works in winter) and dust suppression measures as described in Section 8.5.

The maximum height of the building at 16.7 m (RL 95.7 m) provides a human scale structure when compared to the future built form controls outlined within the WSAP 2020 (with the OLS of RL 125.5 m) and the draft Aerotropolis Core Precinct Plan, which indicate building heights in the vicinity can be up to 55 -75 m. An artist's impression of the First Building within the context of future development around the site is provided in Figure 16.

The AMRF has been designed (Appendix C) to be sympathetic to the current rural/rural residential character with a vegetated environment but also as an urban pavilion in the future context of the city. The building designs incorporate features to address the initial context of the building's surroundings, with the use of a transparent approach to the building at ground level. This enables the structure to be connected with country and the surrounding landscape (Figure 17).



Figure 16: Indicative views to the site from the northwest (Source: Hassell)



Figure 17: Artists impression – southern elevation (Source: Hassell)



While the building will be visible to surrounding visual receptors during and following construction, any visual impacts will be temporary and combined with visual impacts of other development in the precinct, including the Western Sydney Airport Metro station (Figure 18) and other future buildings of the new city.



Figure 18: Western Sydney Airport Metro – Aerotropolis Core Station artist's impression (Source: iris)

The AMRF facility will have minimal visual impact on the short-term rural character of the locality and will transition with the Aerotropolis Core as development progress in the Western Sydney Aerotropolis.

### 8.1.3 Ecologically sustainable development

An Environmental Sustainability Design Report (ESDR) has been prepared by Flux Consultants Pty Ltd and is included at Appendix M. The ESDR draws on the architectural designs prepared by Hassell and describes the sustainability objectives of the development.

The ESD design strategy for the development has been developed to respond to the Bradfield City Centre sustainability framework and aim to achieve Living Building Challenge set by the Living Future Institute of Australia.

The project design is guided by the sustainability objectives of the WSAP 2020 and the following aims:

- achieve net-zero operational carbon emissions by 2030, consistent with the broader commitments for the Bradfield City Centre
- outperform a 5-star NABERS energy rated office building in terms of energy consumption
- address the urban heat island effect through the implementation of a green roof, photovoltaic solar arrays
- achieve Living Building Certification



- create a healthy environment for people and the natural ecology
- be resilient to climate impacts and mitigate the urban heat island effect
- generate sustainable social outcomes through placemaking and community building

To achieve these aims, the development includes a range of strategies to be implemented to during the construction and design stage of the proposal. These include.

- use of sustainable materials
- use efficient mechanical and lighting systems
- on-site energy generation
- reducing potable water consumption for non-potable water demand
- implement appropriate waste management
- sustainable transport facilities
- green Roof technology
- Water Sensitive Urban design strategies.

The ESDR found that the First Building would reduce potable water consumption by approximately 74%. The ESDR also found that the building's energy needs can be met through the use of rooftop solar PV, which would contribute to saving 344 tonnes of greenhouse gas emissions per year.

The ESDR concluded that the building can achieve the sustainability targets set through the strategic objectives of the Aerotropolis.

## **8.2 Contamination**

A Preliminary site Investigation (PSI) has been prepared by Environmental Resources Management Australia is included at Appendix I. The PSI draws on historical assessments of the broader area associated with future development of the Aerotropolis.

The PSI identifies the potential risks to human health and sensitive ecological receptors associated with a number of current and historical land use practices undertaken at the site and surrounds. The PSI identified the following areas of concern within the site:

- the potential for buried waste and fill materials
- contaminants associated with weed spraying and pest control
- potential for asbestos service pits and conduits

Potential contamination risks were identified in the broader Bradfield City Centre site including fuel storage, hazardous building materials including asbestos, Per- and Polyfluoroalkyl Substances (PFAS) and other unexpected finds associated with fill materials.

Due to the above finds the PSI recommended that a Detailed site Investigation (DSI) is required to assess the potential distribution and extent of contamination in soil and groundwater and potential remediation requirements which will inform future redevelopment works. A DSI commenced in November and is anticipated to be completed by January 2022.

The DSI will determine whether a Remediation Action Plan is required to ensure the site can be made suitable for the proposed land use, or if a Site Management Plan (SMP) will suffice. The DSI and, if required, the RAP/SMP will be reviewed by an EPA accredited site auditor in accordance with EPA statutory guidelines.

Subject to the successful implementation of any remediation requirements described in a RAP or SMP for the site, the PSI concludes that the site can be made suitable for the proposed development.

### 8.3 Traffic and transport

A Traffic Impact Assessment (TIA) for the proposed development has been prepared by SCT Consulting Pty Ltd and is included at Appendix N. The TIA considers the existing traffic conditions surrounding the site, assesses the potential traffic implications as a result of the development and considers the car parking requirements that will be generated by the proposal.

Public transport infrastructure servicing the site is currently limited, with public transport use only accounting for less than five per cent of trips to the site. Active transport use is also low due to limited employment opportunities in the vicinity and a paucity of cycling and pedestrian infrastructure.

#### 8.3.1 Construction traffic

As noted in Section 3.3, the site is currently accessed from Badgerys Creek Road, with construction vehicles to access the site via the construction roads associated with the Western Sydney Airport Metro project, which includes a purpose-built roundabout at Badgerys Creek Road. The TIA estimates approximately 30 light vehicles will access the site during peak hours and five heavy vehicles would access the site during other periods.

The TIA modelled the effect of construction traffic on the performance of the roundabout intersection at Badgerys Creek Road to be constructed as part of the Western Sydney Airport Metro Project. The results of this modelling are shown in Table 9.

The TIA concludes that because of the low level of expected construction traffic, the roundabout would continue to perform at a good level of service and the impact of construction activities and additional delays to the network is expected to be minor. The management of potential construction traffic impacts would be addressed in a Construction Traffic Management Plan (CTMP) for the development as described in the TIA.

Year	Background Traffic			With AMRF Construction Traffic		
	Delay (seconds)	Level of Service	Degree of Saturation	Delay (seconds)	Level of Service	Degree of Saturation
Weekday morning peak						
2023	7.1	A	0.88	7.2	A	0.887
2028	6.8	A	0.34	-	-	-
Weekday afternoon peak						
2023	10.2	A	0.85	12.2	A	0.850
2028	7.0	A	0.41	-	-	-

Table 9: Roundabout performance with AMRF construction traffic (Source: SCT)

#### 8.3.2 Operational traffic

The TIA estimates approximately 14 vehicles per hour (veh/hr) would access the site during the morning peak period and 11 veh/hr during the afternoon peak. Initially the proposal would be 100% reliant on road vehicles for access and servicing the site. Over time this is anticipated to reduce to 4 veh/hr (between 32% (pm peak) and 34% (am peak)) once the public transport and active transport networks are fully operational.

Parking will include approximately 51 at-grade parking spaces (18 permanent spaces and 33 temporary spaces). All proposed parking spaces will be on permeable surfaces and designed with the potential to transition to alternative uses over time. The site also is proposed to include 17 bicycle parking spaces and 4 end-of-trip facilities to support sustainable travel behaviour.

The surrounding road and public transport network will transform over future years as the Bradfield City centre develops. The city centre will be serviced by an integrated transport network that prioritises walking and cycling for short trips, and bus corridors and arterial roads to provide access both to/from and within the Aerotropolis. The site will be serviced by three future rail lines on an expanded Sydney rail system with the Western Sydney Airport Metro connecting the East-West Rail Link and the Southwest Rail Link extension.

The site will be within walking distance to the Metro station, with rapid transit corridors connecting the site to the surrounding region, greater Sydney and the Western Sydney Airport.

The site will also have access to a network of bus routes, particularly those using Fifteenth Avenue as the main transit corridor connecting the Aerotropolis Core with other major centres in Western Parkland City. In line with the vision of a 30-minute city, the rapid and local bus services will provide the site direct access through suburbs, centres, and transport interchanges within centres.

The site will be connected to the principal regional cycle path network via Badgerys Creek Road and Fifteenth Avenue, which will provide direct access within the city centre and to other precincts and will be integrated with the cycling infrastructure beyond the Western Sydney Aerotropolis. The site will also be connected to a local, permeable street network which connects pedestrian and cycling links to a variety of destination and transport nodes.

The TIA modelled the effects of operational traffic on the performance of the roundabout and concludes that operational traffic would have a negligible effect on the roundabout's operational capacity.

The TIA concluded that the existing and proposed interim road network can accommodate the construction and operation traffic generated by the development. Over the long term, the TIA concludes that traffic generated from the development will be adequately accommodated by the future road and public transport network that would service the Bradfield City.

## **8.4 Noise and vibration**

A Construction Noise and Vibration Impact Assessment (CNVIA - Appendix O and an Operational Noise and Vibration Impact Assessment (ONVIA - Appendix O have been prepared by WSP Australia Pty Ltd (WSP).

These assessments include an assessment of noise and vibration impacts during construction and operation of the development (in accordance with the relevant EPA

guidelines, SEARs and the Aerotropolis DCP) and recommend mitigation, management and monitoring measures to address potential impacts.

#### 8.4.1 Existing noise conditions

The current receiver context is predominantly rural land uses and rural residential purposes and the existing background noise is typical of a rural residential environment. A map of the surrounding receivers is provided in Figure 19.

The closest receivers to the site are immediately to the west along Badgerys Creek Road, approximately 40 – 60 m from the site boundary.



Figure 19: Site context, sensitive receivers and monitoring locations (Source: WSP)

Due to COVID 19 restrictions, no physical noise monitoring could occur at the surrounding receivers. To determine background noise conditions, WSP adopted the publicly available information from the noise assessments undertaken for the Western Sydney Airport Metro project. The noise assessments considered that background noise levels at the receivers near the Project would be influenced by traffic noise along Badgerys Creek Road and distant traffic noise from The Northern Road.

Based on this information the adopted background noise levels, construction noise management levels (NML) and operational project noise trigger levels (PNTL) are summarised in Table 10.



Receiver Location	Time of day	Background noise Level (RBL) LA <sub>90, 15min</sub> dB(A)	Construction NML LA <sub>eq, 15min</sub> dB(A)	Operational PNTL LA <sub>eq, 15min</sub> dB(A)
NM13 – 80 Mersey Rd, Bringelly	Day	38	48	43
	Evening	35	-	40
	Night	34	-	38

Table 10: Background noise and assessment trigger levels (Source WSP)

It is noted that the surrounding area is soon to be transformed through an urban consolidation process associated with the development of the Aerotropolis. The construction of the Western Sydney Airport is underway and construction of the Western Sydney Airport Metro is scheduled to commence at the end of 2021, with geotechnical investigations currently underway.

Notwithstanding, the ONVIA and CNVIA conservatively assumed that the existing noise environment would apply in establishing the assessment noise levels for the assessments.

#### 8.4.2 Construction Noise and Vibration

The CNVIA notes that construction of the Project is anticipated to take up to approximately 12 months. The CNVIA considered four likely construction scenarios and their duration. An overview of the indicative construction scenarios, proposed equipment and estimated sound outputs (sound power level - SWL) is provided in Table 11.

Construction hours will comply with the *NSW Interim Construction Noise Guideline* (ICNG), being 7am to 6pm Monday to Friday and 8am to 1pm on Saturdays.

Construction Stage (duration)	Equipment	Sound power levels (dBA)	Combined SWL (dBA)
Scenario 1 - Demolition/ excavation (3 months)	Excavators	110	120
	Dozers	116	
	Trucks	103	
	Chainsaws	114	
	Bobcat	112	
	Crane	98	
Scenario 2 - Excavation and foundation works (3 months)	Bore Piling	112	112
	Excavators (rock breaker/saw)	118	
	Dozers	116	
	Trucks	103	
	Graders	113	



Construction Stage (duration)	Equipment	Sound power levels (dBA)	Combined SWL (dBA)
Scenario 3 - During erection of structure (4 months)	Cranes	113	121
	Hand tools (angle grinders etc for formwork)	116	
	Concrete Pumps	102	
	Excavators	110	
	Dozers	116	
	Trucks	103	
	Vibratory compactor	109	
	Concrete truck/agitator	109	
	Generator	103	
	Jackhammer	113	
Scenario 4 - Fitout and landscaping (2 months)	Excavators	110	121
	Dozers	116	
	Trucks	103	
	Concrete truck/agitator	109	
	Paving machine	114	
	Cranes	98	
	Hand tools	116	

Table 11: Indicative construction staging and equipment (Source WSP)

### Construction Noise

The assessment has identified that construction noise is predicted to exceed construction noise levels at the nearest receivers. A summary of the construction noise level predictions is provided in Table 12.

Receiver ID	Distance to site (m)	NML (dBA L <sub>EQ</sub> , 15min)	Predicted Construction Noise Level (dBA L <sub>EQ</sub> , 15min)			
			Construction Scenario			
			1	2	3	4
R1	60	48	73 (+25)	75 (+27)	74 (+26)	74 (+26)
R2	40	48	80 (+32)	82 (+34)	81 (+33)	81 (+33)
R3	60	48	79 (+31)	81 (+33)	80 (+32)	80 (+32)

Receiver ID	Distance to site (m)	NML (dBA L <sub>EQ</sub> , 15min)	Predicted Construction Noise Level (dBA L <sub>EQ</sub> , 15min)			
			Construction Scenario			
			1	2	3	4
R4	1500	48	37	39	38	38
R5	660	48	47	49 (+1)	48	48
R6	1200	48	41	43	42	42

Table 12: Predicted maximum construction noise levels per scenario (Source WSP)

Exceedances are indicated in bold font, with highly affected noise levels presented in bold red font.

(1) Exceedances of highly noise affected criteria indicated in red font (applicable to residences only).

Given the proximity of adjacent receivers to the west (R1 to R3), the construction of the development is predicted to exceed the NMLs by between 25 to 34 dBA during all construction scenarios. Receivers R2 and R3 are predicted to be highly noise affected during all construction scenarios.

Construction noise levels at R5 comply with the daytime NML during Scenarios 1, 3 and 4, with a marginal exceedance of 1 dBA predicted during construction scenario 2. Construction noise levels at R4 and R6 are predicted to comply during the daytime period for all construction scenarios

To ensure that construction noise impacts are minimised, a Construction Noise and Vibration Management Plan (CNVMP) is to be prepared and implemented in accordance with the requirements of the ICNG. The CNVMP will be prepared prior to commencing construction works and include details of construction methodology and equipment to be used.

Key recommendations of the CNVIA include:

- minimising the coinciding use of multiple noisy plant items
- equipment which is used intermittently is to be shut down when not in use
- equipment with directional noise emissions would be oriented away from sensitive receivers as much as practicable
- regular compliance checks on the noise emissions of all plant and machinery
- use of non-tonal reversing alarms on plant and heavy vehicles used for construction
- community consultation with surrounding receivers prior to and during construction.

### Construction Vibration

The CNVIA assessed the potential vibration impacts on nearby sensitive receivers during construction of the development. Construction of the building is likely to require major vibration intensive works and equipment including hydraulic hammers, rollers and piling rigs.

An assessment of the construction vibration impact on nearby properties is outlined in Table 13.

Plant Item	Rating/ Description	Minimum Working Distance	
		Cosmetic Damage	Human Comfort
Large hydraulic hammer	1600 kg - 18 to 34t excavator	22 m	73 m
Handheld pneumatic hammer	10 kg	1 m (nominal)	Avoid contact with structure
Vibratory roller, smooth drum	> 18t	25 m	100 m
Pile boring	≤ 800mm	2 m (nominal)	4 m

Table 13: Recommended minimum working distances for vibration intensive plant (Source: WSP)

The CNVIA noted that all privately owned sensitive residential receivers are located outside the minimum working distances for cosmetic damage and human comfort. It concluded that the construction vibration levels will satisfy the cosmetic damage and human comfort criteria. The CNVIA also found that the potential vibration impacts on the Sydney Metro tunnels are expected to be negligible as the works are further than 60 m away.

To minimise the potential for vibration impacts on these receivers, the CNVIA recommends the implementation of the following mitigation and management measures:

- ensuring minimum working distances are applied
- attended vibration monitoring or vibration trials in the unlikely event that works need to occur within the above distances

These measures would be described in the CNVMP for the development, to be prepared prior to commencement of construction works.

The CNVIA concluded that construction of the Project can achieve compliance with relevant vibration controls if the findings and recommendations outlined in the CNVIA report are implemented.

### Cumulative Construction Noise

The CNVIA considered the potential for construction of the Western Sydney Airport Metro to occur during similar periods as the construction of the AMRF. The Metro noise assessment report predicted noise levels of approximately 68 dBA at the nearest affected receivers.

The CNVIA found that where both construction sites are concurrently undertaking works, the increase in noise levels would be minimal at Receivers R1 to R3 (up to 1 dBA louder than the predicted noise levels in Table 14 and the noise assessment for the Metro project). For Receivers R4 to R6, the construction noise from the Metro Station is significantly louder than the construction noise from the project. Therefore, the construction noise levels from the development would not increase the noise levels experienced at these receivers from construction of the Metro Station.

The CNVIA concludes that the construction noise and vibration impacts associated with the development can be managed to achieve acceptable levels, with the implementation of the measures to be described in the CNVMP.

#### 8.4.3 Operational noise and vibration

The ONVIA determined that noise would be generated by the following sources:

- mechanical plant
- noise breakout from internal spaces
- noise from loading and unloading activities
- car park noise
- road traffic noise

The ONVIA includes a noise propagation model using SoundPLAN (Version 8.2) noise modelling software for the proposed development. The noise emissions from the site were predicted using the 3D model and the noise source data for the types of sources listed above.

The predicted operational noise levels are summarised in Table 14. Noise contour mapping of the noise emissions are provided in the ONVIA

Based on the noise levels in Table 14, the development is predicted to comply with the relevant assessment noise criteria during all periods of the day. Given the low numbers of vehicle movements generated during operation of the development, road noise is predicted to comply with the relevant road noise criteria.

Receiver	NPFI Noise Criteria			Predicted Noise Levels			Complies
	Day	Evening	Night	Day	Evening	Night	
R1	43	40	39	34	28	27	Yes
R2	43	40	39	38	34	33	Yes
R3	43	40	39	43	40	39	Yes
R4	43	40	39	<20	<20	<20	Yes
R5	43	40	39	27	<20	<20	Yes
R6	43	40	39	<20	<20	<20	Yes
R7	63 (when in use)			32	<20	<20	Yes

Table 14: Predicted operational noise levels, LAeq,15min, dBA

The ONVIA recommends that an assessment of the mechanical plant to be installed at the development is undertaken during the detailed design stage, to confirm whether the noise inputs used in the ONVIA modelling are valid and/or to determine what, if any, noise attenuation may be required.

Overall, the ONVIA concluded that the proposed development will have limited acoustic impacts on the existing environment and the applicable environmental noise criteria can be complied at the nearest sensitive receivers.

#### 8.5 Air quality

An Air Quality Impact Assessment (AQIA) has been prepared by Todoroski Air Sciences and is included at Appendix Q. The AQIA assesses air quality impacts during construction and operation of the development in accordance with the:

- UK Institute of Air Quality Management (IAQM) *Guidance on the Assessment of Dust from Demolition and Construction* (IAQM, 2014) and
- NSW EPA *Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW* (Approved Methods).

The AQIA recommends mitigation, management and monitoring measures to address potential air quality impacts during the construction and operation of the development.

### 8.5.1 Background air quality

The AQIA includes an analysis of existing air quality conditions at the site and surrounds, including climate conditions sourced from the Bureau of Meteorology's Badgerys Creek automatic weather station 2.5 km to the east of the site.

Sources of air pollutants in the vicinity of the site include industrial and commercial operations and local anthropogenic activities such as wood heaters and motor vehicle exhaust. Other contributors to air pollution include bushfire smoke and dust associated with drought conditions.

Ambient air quality monitoring data was sourced from the nearest DPIE air quality monitors at Liverpool, Bringelly, St Marys and Camden. This was supplemented by continuous site monitoring between 16 September and 21 October 2021.

The existing air quality levels are provided in Table 15.

Pollutants		Averaging period	NSW EPA Criterion	Background level	Units
Total Suspended Particulates (TSP)		Annual	90	65.9	µg/m³
Particulate Matter	PM <sub>10</sub>	Annual	25	18.3	µg/m³
		24-hour	50	Daily varying / 43.5	µg/m³
	PM <sub>2.5</sub>	Annual	8	8.5	µg/m³
		24-hour	25	Daily varying*	µg/m³
Deposited Dust		Annual	2/4	2.9	g/m²/month
Nitrogen Dioxide (NO <sub>2</sub> )		Annual	62	17.7	µg/m³
		1-hour	246	62.0	µg/m³

Table 15: Summary of background air quality levels (Source Todoroski Air Sciences)

Note: \* The AQIA noted that existing background levels of annual average PM<sub>2.5</sub> were above the EPA criteria during 2020 at the Bringelly monitoring station, which indicates that PM<sub>2.5</sub> annual background levels would be above the criteria regardless of the development.

### 8.5.2 Air quality impacts

Construction activities for the development involve land preparation through a cut and fill to level the site prior to establishment of the building. The AQIA estimated approximately 49,000 tonnes of material would be cut and filled at the site with an additional 13,000 tonnes of imported fill required to assist with the land preparation.



The AQIA includes a quantitative assessment of air quality impacts during construction and operation of the development (in accordance with the relevant EPA guidelines) and recommends mitigation, management and monitoring measures to address potential air quality impacts. The AQIA predictions include consideration of proposed mitigation, management and monitoring measures which include:

- visual monitoring of construction activities to identify dust generation
- modifying or ceasing operations during adverse weather conditions as required
- vehicles and plant to be maintained and fitted with pollution reduction devices where practicable and switched off when not operating
- construction vehicle traffic is to be restricted to designated routes
- minimising exposed surfaces and stockpiles with exposed areas to be covered or dampened with water and long term stockpiles stabilised by covers or vegetation
- material handling controls including dampening and reducing drop heights from loading and handling equipment

The AQIA modelled potential emissions during construction which found that all air quality criteria would be met by the development in isolation. The cumulative assessment found that all air quality criteria would be met with the exception of PM<sub>2.5</sub> due to the elevated existing background levels which already exceed the criterion.

The AQIA conducted a Level 2 contemporaneous assessment at the representative receptor locations for both PM<sub>2.5</sub> and PM<sub>10</sub> to verify if any additional exceedances can be attributed to the development. This assessment indicates the construction of the development does not increase the number of days above the 24-hour average criterion for particulate matter.

The AQIA concluded that air quality impacts during construction of the First Building could be adequately managed using best practice mitigation and management measures.

With regard to operational air quality impacts, the results of modelling in the AQIA demonstrate that operation of the First Building would result in minimal incremental effects at surrounding receivers. Odour emissions are also not considered to be a significant source at the project based on the proposed operational activities and unlikely to result in any adverse impact on the surrounding environment.

The AQIA concluded that all the assessed air pollutants generated by the operation of the development would comply with the applicable assessment criteria at the surrounding receptors and therefore would not lead to any unacceptable level of environmental harm or impact in the surrounding area.

## **8.6 Heritage**

### **8.6.1 Historic heritage**

A Statement of Heritage Impact (SOHI) was prepared by Extent Heritage and is included at Appendix K.

The SOHI assessed the site's European historical significance and impact the First Building will have on surrounding heritage items. There are two heritage items listed on the State Heritage Register and the Aerotropolis SEPP in the vicinity of the study area.

- Kelvin (Item #00046), 30 The Retreat, Bringelly
- Church of the Holy Innocents (Item #02005), 130 Rossmore Avenue West, Rossmore

The SOHI identifies that 'Kelvin' is located approximately 500 m from the site. Although there will be no physical impact to the site there is a minor impact to the settings and views from this heritage item. Given the sensitive design and appropriate use of form, scale and choice of materials proposed for the AMRF building, the overall visual impact of the First Building, is considered a minor impact

The SOHI identifies that The Church of the Holy Innocents is located approximately 4 km southeast of the study area. Due to the large distance between the study area and this item there will be no physical impact to the site and no visual impact to the settings and views of this heritage item. The proposed works present no change to the Church of the Holy Innocents.

The SOHI concludes that the development has been designed as a low-scale, two-storey building. The design has sensitively considered the surrounding natural, rural and built environment through the use of muted and natural colours in the woven modular structure and through the low-scale of the development. The use of glass walls on all elevations provide a sense of continuity and transparency through the expansive rural landscape.

Given the sensitive design, form, scale and choice of materials proposed for the AMRF, the overall impact to views and settings of the First Building is considered a minor impact.

### 8.6.2 Aboriginal heritage

Extent Heritage has commenced the preparation of an ACHAR for the broader 114.9 ha Bradfield City development site, on which the First Building site is located. A redacted Preliminary ACHAR is provided in Appendix L, which includes detailed information about the investigations of the First Building site. The Preliminary ACHAR is redacted to exclude information about the broader site which is yet to be confirmed through the consultation process.

As part of ongoing research to inform the planning of Western Sydney Aerotropolis, Extent Heritage has undertaken multiple phases of cultural values assessment. A preliminary cultural values mapping workshop was held on 23 June 2020 for the broader Aerotropolis project. This was followed by additional cultural values engagement specifically for the Bradfield City precinct in November and December 2020.

The Preliminary ACHAR draws the following summary conclusions regarding the cultural values identified for the Bradfield City Centre precinct:

- *The stakeholders stated that it is too early to comment with certainty on cultural values because the archaeological investigations have not taken place, and large parts of the landscape have not been extensively investigated during prior studies. Traditional owner and Land Council access to walk Country will be needed for subsequent stages of investigation.*
- *The cumulative impact of the project is a key issue of cultural concern. When the stakeholders were asked what they would most like to see if they were to return to the study area in fifty years, the consensus answer was a large, conserved portion of the Cumberland Plain. The consensus was also that this conservation area would not just include conserved creek corridors, but also a representative range of remnant terrain. The stakeholders expressed a*

*strong preference for natural vegetation patterns as opposed to human-designed plantings (e.g., not 'trees planted in rows').*

- *Unusual and well-preserved landforms such as exposed sandstone outcrops, areas of remnant old growth vegetation, and well-preserved creek corridors should be protected where possible.*
- *There is a need to investigate the results of archaeological assessments undertaken across the Badgerys Creek airport site, as they may shed important light on site and settlement patterns in the region.*
- *The stakeholders present said that it is critical that the traditional owners and LALCs play a key role in future consultation and are given the opportunity to participate in further studies. The stakeholders stated that it is offensive when Aboriginal groups with no connection to country are engaged to do archaeological work.*
- *Any interpretation and story-telling needs to be reviewed by the traditional owners and LALCs to ensure it is culturally appropriate.*
- *There are some family connections to this country and nearby, and those should be recognised through further consultation with the key traditional owner and land council stakeholders.*

The subject area has undergone significant ground disturbance given its history of use for agricultural and pastoral lands from the early nineteenth century to mid-twentieth century. These activities will have impacted surface and subsurface Aboriginal archaeological remains.

A search of the Aboriginal Heritage Information Management Systems (AHIMS) database was completed on 16 June 2020 for the wider Bradfield City Centre masterplan area, which encompasses the First Building study area.

An archaeological survey was completed on 7 December 2020 as part of the ACHA for the broader 114.9 ha Bradfield City Centre masterplan study area, with representatives of the 64 Registered Aboriginal Parties (RAPs). This survey identified 10 Aboriginal sites within 750 m of the First Building site (Table 16). Eight of the sites had been previously registered on the AHIMS database and two sites were identified during the completion of the survey.

AHIMS ID	Site name	Site type	Approximate distance to site
45-5-2779	B 17	Artefact scatter	500 m
45-5-2620	B 18	Isolated find	500 m
45-5-2621	B 19	Open camp site	750 m
45-5-2622	B 20	Open camp site	650 m
45-5-2639	B 21	Artefact scatter	625 m
45-5-2640	B 22	Isolated find	200 m
45-5-2641	B 23	Artefact scatter	400 m
45-5-2628	B 38	Isolated artefact	420 m
45-5-5480	ACIF01	Isolated find/PAD	200 m
45-5-5480	ACAS01	Artefact scatter	500 m

Table 16: AHIMS sites near the development (Source: Extent)

There are no registered Aboriginal objects and/or places located within or in close proximity of the First Building development footprint.

Test excavation was conducted at the First Building footprint as part of the Bradfield City Centre ACHA on 5 and 6 October. No Aboriginal objects were recovered from the test excavation. On 13 October 2021, a draft of the First Building site test excavation results was provided to all RAPs for their review with comments due by 10 November 2021. At the end of the consultation period, no RAPs commented on the findings.

The Preliminary ACHAR will be provided to the RAPs for the minimum 28-day consultation to address the requirements of relevant NSW and Commonwealth heritage guidelines. Following this process, the ACHAR will be provided to DPIE for assessment.

Relative to the First Building site, the Preliminary ACHAR concludes that:

- the subject area of the First Building site is generally highly disturbed, with the removal of the upper part of natural soils leaving a thin layer of soil with low potential to contain Aboriginal objects.
- there are no registered Aboriginal objects and/or places located within or in close proximity of the subject area of the proposed First Building site.
- there are no objections to the assessment or recommendations by the relevant RAPs.

An unexpected finds policy will be implemented during the construction of the development, with further test excavations undertaken if any Aboriginal objects are found.

## **8.7 Soil and water**

A CER has been prepared by AECOM and is provided at Appendix D The CER addresses civil engineering components of the development and provides an overview of the proposed infrastructure requirements for the site.

A concept Erosion and Sediment Control Plan (ESCP) is included in the CER. The ESCP demonstrates that adequate controls can be established to avoid the pollution of receiving waters during construction of the development.

Prior to commencing construction, a detailed ESCP will be prepared to include sediment and erosion controls to be designed, installed and maintained in accordance with the requirements of Landcom 2004.

The CER and associated drawings include stormwater management designs for the site which capture site flows within a temporary basin for settlement prior to release via vegetated and stabilised swale (Figure 20).

A Flood Impact Assessment (FIA) was prepared by Advisian and is included at Appendix R . The FIA notes that the site is not affected by flooding of Thompsons Creek with the key flooding issues associated with overland flows. These flows will be managed through the site stormwater capture and release system as shown in Figure 20.

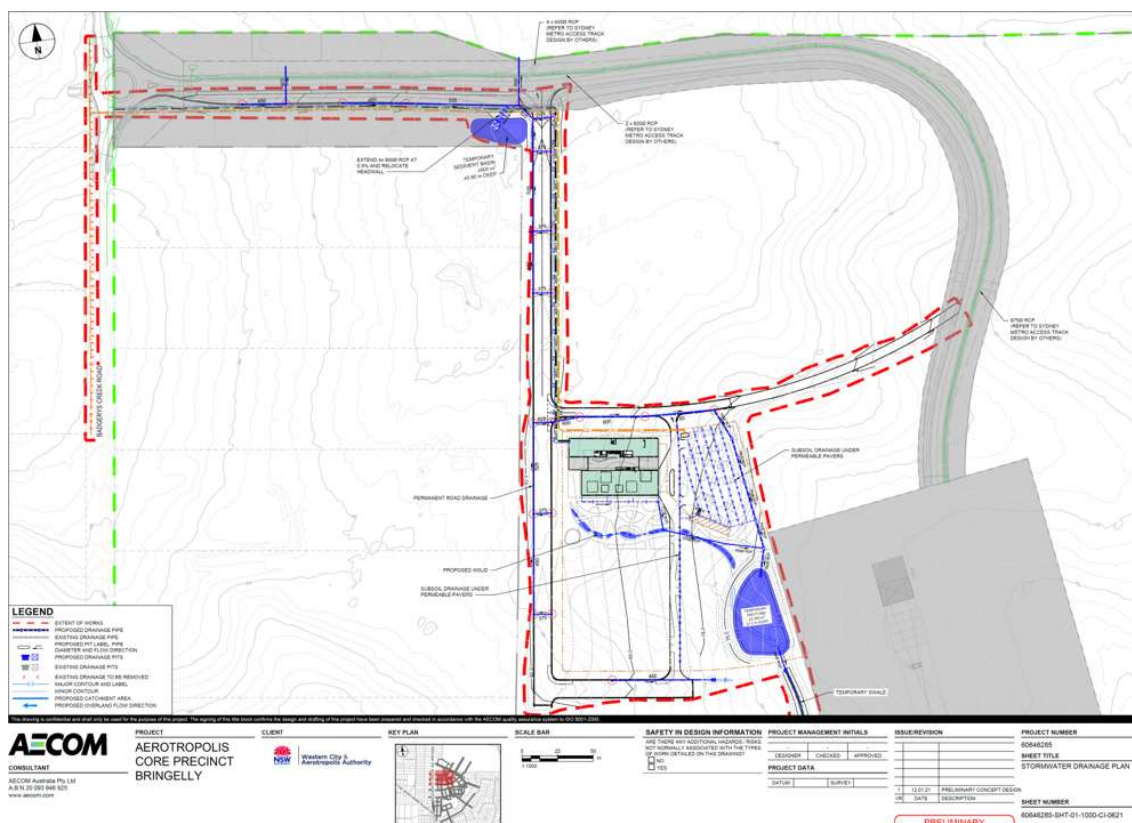


Figure 20: Concept stormwater design plan (Source: AECOM)

## 8.8 Waste

The development will target a 90% resource recovery rate for all waste during construction with the aim to generate less than 5 kg of waste per GFA of development. This will exceed the waste objectives in the *NSW Waste Avoidance and Resource Recovery Strategy 2014-2021* (EPA, 2014) (WARR Strategy).

Waste generation from the operation of the development would be typical of office use and small quantities of waste products associated with the use and maintenance of high technology equipment.

A Construction Waste Management Plan (CWMP) and Operational Waste Management Plan (OWMP) will be prepared as part of the relevant Construction and Operational Environmental Management Plans for the development, respectively.

The CWMP and OWMP will detail the quantities and classification of waste streams to generated during construction and operation of the development and includes measures to ensure the development is consistent with the aims and objectives of the WARR Strategy.

The management plans will aim to ensure that all waste generated in all phases of the development is managed in an effective and environmentally responsible manner, in accordance with the relevant regulatory requirements and with a focus on improving sustainable waste management outcomes where possible. The aims of these plans will include:



- maximise resource recovery by reuse and recycling
- minimise the generation of waste to landfill
- maximise waste material avoidance and reuse on the site
- establish record keeping, monitoring and reporting procedures
- comply with the requirements of the relevant statutory authorities and
- adopt an ongoing improvement approach to improve on best practice waste management principles.

The First Building will be designed to allow for the effective segregation of recyclables. Collection services will be provided by a commercial waste contractor with waste to be transported to a licensed recycling or landfill facility. The collection of other wastes such as e-waste, soft plastic recycling and non-treated timber pallets will take place on an as-needed basis by a qualified private waste contractor.

## 8.9 Bushfire

A Bushfire Hazard Assessment (BHA) for the development was prepared by Eco Logical Australia Pty Ltd (ELA) (Appendix J), which provides an assessment of the development against the SEARs and relevant provisions of *Planning for Bushfire Protection 2019* (PBP 2019). The BHA has been prepared in accordance with the comments received from Endeavour Energy as part of the issued SEARs and identifies the land is Bush Fire Prone Land.

The proposal has been assessed in accordance with the aim and objectives of PBP 2019 for a commercial and industrial development, including Section 8.3.1 (buildings of Class 5 to 8) and Section 8.3.10 (commercial and industrial development). Chapter 7 of PBP 2019 has been utilised as a guide in developing relevant bushfire protection measures commensurate with the bushfire risk to the site.

The BHA notes that the predominant bushfire threat to the proposed development is woodland and unmanaged grassland. The grasslands hazards are considered temporary in and will be removed as the broader Aerotropolis precinct is activated and further development occurs.

A summary of the bushfire hazard assessment is provided in Table 17.

Transect	Slope	Vegetation	Recommended APZ	Comments
1 (North-west)	All upslope and flat land	Grassy and semi-arid woodland	≥50 m	APZ provided within subject land boundary and proposed road corridor
2 (North)	All upslope and flat land	Grassy and semi-arid woodland	≥49 m	APZ provided within subject land boundary and proposed road corridor.
3 (East)	>0° to 5° downslope	Grassland	≥50 m	APZ provided wholly within subject land boundary.

Transect	Slope	Vegetation	Recommended APZ	Comments
4 (South)	>0° to 5° downslope	Grassland	≥50 m	APZ provided within subject land boundary and road corridor.

Table 17: Bushfire hazard assessment, APZ requirements and BALs (Source ELA)

The BHA concludes that the proposed development meets the specific objectives of PBP 2019 subject to the implementation of recommendations in relation to APZs, access, water supply, electricity service, gas service, construction standards and landscaping.

## 9 Summary of Mitigation Measures

In accordance with the SEARs, the following table provides a consolidated summary of the Applicant's commitments in relation to management, monitoring and reporting activities for the proposed development.

Issue	Mitigation measures
Built form and visual amenity	<ul style="list-style-type: none"> <li>final design consistent with the principles of the Aerotropolis SEPP and associated guidelines</li> <li>landscaping to use endemic species representative of woodland on the Cumberland Plain</li> <li>consultation with landowners of occupied residences to the west of the site to establish visual mitigation measures during construction</li> <li>construction lighting to be directed away from occupied residences to the west of the site</li> </ul>
Sustainability	<ul style="list-style-type: none"> <li>achieve net-zero operational carbon emissions by 2030, consistent with the broader commitments for the Bradfield City Centre</li> <li>outperform a 5-star NABERS energy rated office building in terms of energy consumption</li> <li>address the urban heat island effect through the implementation of a green roof, photovoltaic solar arrays</li> <li>achieve Living Building Certification</li> <li>create a healthy environment for people and the natural ecology</li> <li>be resilient to climate impacts and mitigate the urban heat island effect</li> <li>generate sustainable social outcomes through placemaking and community building</li> </ul>
Traffic and transport	<ul style="list-style-type: none"> <li>construction traffic management measures to be described in the CEMP</li> <li>detailed Green Travel Plan to be implemented</li> </ul>
Noise and vibration	<ul style="list-style-type: none"> <li>preparation of a Construction Noise and Vibration Management Plan</li> <li>minimising coinciding use of noisy plant items</li> <li>shutting down intermittently used equipment when not in use</li> <li>regular compliance checks on the noise emissions of all plant and machinery</li> <li>non-tonal reversing alarms used on all items of plant and heavy vehicles</li> <li>noisy equipment oriented away from sensitive receivers where practicable</li> <li>pre-construction and ongoing consultation with adjoining sensitive receivers</li> <li>apply minimum working distances to manage vibration impacts, with attended vibration monitoring where works occur within the minimum distances</li> </ul>
Soil and water	<ul style="list-style-type: none"> <li>Completion of a Detailed Site Investigation to confirm whether any contamination is present at the site and recommend the preparation of a Remedial Action Plan or Site Management Plan, to ensure the site is suitable for the future intended use</li> <li>A Soil and Water Management Plan will be prepared in accordance with the NSW Department of Housing Publication "Managing Urban Stormwater – Soils and Construction (2004)"</li> </ul>
Waste management	<ul style="list-style-type: none"> <li>implementation of a Construction Waste Management Plan to be included in the CEMP</li> <li>implementation of an Operational Waste Management Plan including the following objectives:</li> </ul>

Issue	Mitigation measures
	<ul style="list-style-type: none"> <li>○ maximise resource recovery by reuse and recycling</li> <li>○ minimise the generation of waste to landfill</li> <li>○ maximise waste material avoidance and reuse on the site</li> <li>○ establish record keeping, monitoring and reporting procedures</li> <li>○ comply with the requirements of the relevant statutory authorities</li> <li>○ adopt an ongoing improvement approach to improve on best practice waste management principles</li> </ul>
Air quality	<ul style="list-style-type: none"> <li>• CEMP to include standard air quality control measures, contingency plans and response procedures and suitable reporting and performance monitoring procedures</li> <li>• CEMP to include standard odour mitigation measures for construction including keeping excavation surfaces moist, covering excavation faces and/or stockpiles, use of soil vapour extraction systems and regular monitoring of discharges as appropriate</li> </ul>
Bushfire	<ul style="list-style-type: none"> <li>• establish and maintain asset protection zones as indicated in the BHA</li> <li>• provide fire hydrants in accordance with the BCA</li> <li>• buildings to be constructed in accordance with AS 3959 <i>Construction of buildings in bushfire-prone areas</i> and measures outlined in the BHA</li> </ul>

## 10 Conclusion

The EIS has been prepared in accordance with the SEARs issued by DPIE and provides a comprehensive assessment of the potential impacts associated with the development. It addresses all relevant strategic and statutory documents, policies and instruments.

The EIS concludes that the development is justified on the basis that the AMRF is consistent with the GSC's Strategic Plans, The Western District Plan, The Western Sydney Aerotropolis Plan and the relevant Aerotropolis SEPP and Western Sydney Aerotropolis development control plans.

The conclusions and recommendations provided in the accompanying technical reports confirm the proposal will not have a detrimental impact on the surrounding environment.

Further, the EIS demonstrates the development has strategic merit as it is consistent with the aims and objectives of the relevant strategic plans that apply to the site including the Greater Sydney Region Plan, Western Sydney District Plan and the Western Sydney Aerotropolis. The development will strengthen opportunities in the Western Sydney Parklands and provide for the first building in the Aerotropolis Core.

The AMRF will be the first building within the Aerotropolis to spark future growth within the emerging city. Over the next 10 years, development will support this growth. The AMRF will be the first step in realising the strategic vision for the Western Parkland City.

The AMRF will support the development of the advanced manufacturing sector within the Western Sydney Aerotropolis by housing shared high-tech manufacturing equipment for research and development. Specialised equipment and machinery not normally accessible to individual enterprise will be accommodated within the First Building and made available to a broad range of users to fast-track innovation and business development.

The development is therefore considered to be in the public interest and warrants approval.



## Appendix A

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### Cost Estimate Summary

## Appendix B

### Secretary's Environmental Assessment Requirements

Environmental Assessment Requirement	EIS Reference	Supporting Documentation
<b>General Requirements</b>		
The environmental impact statement (EIS) must be prepared in accordance with, and meet the minimum requirements of, clauses 6 and 7 of Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i> (the Regulation).		
<ul style="list-style-type: none"> <li>a detailed description of the development, including:               <ul style="list-style-type: none"> <li>details of the type of R&amp;D processes to be undertaken on the site including a description of the technology/equipment to be installed</li> <li>alternatives considered including a description of feasible options within the development which may include a layout options analysis</li> <li>likely staging of the development, particularly construction staging and the relationship with the construction/delivery of the proposed Sydney Metro station</li> <li>likely interactions between the development and existing, approved and proposed developments in the vicinity of the site, particularly the Western Sydney Airport and proposed Sydney Metro station</li> <li>infrastructure upgrades or items required to facilitate the development</li> <li>a detailed description of the development including measures to ensure these upgrades are appropriately maintained.</li> </ul> </li> </ul>	Section 3	
<ul style="list-style-type: none"> <li>Consideration of all relevant environmental planning instruments, including identification and justification of any inconsistencies with these instruments</li> </ul>	Section 7	
<ul style="list-style-type: none"> <li>Consideration of issues discussed in the public authority responses to request for key issues (see Attachment 2)</li> </ul>	Section	Appendix E (Consultation report)
<ul style="list-style-type: none"> <li>A risk assessment of the potential environmental impacts of the development, identifying the key issues for further assessment</li> </ul>	Section 8	
<ul style="list-style-type: none"> <li>A detailed assessment of the key issues specified below, and any other significant issues identified in this risk assessment, which includes:               <ul style="list-style-type: none"> <li>a description of the existing environment, using sufficient baseline data</li> <li>an assessment of the potential impacts of all stages of the development, including any cumulative impacts, taking into consideration relevant guidelines, policies, plans and statutes</li> </ul> </li> </ul>	Section 8	

Environmental Assessment Requirement	EIS Reference	Supporting Documentation
<ul style="list-style-type: none"> <li>- a description of the measures that would be implemented to avoid, minimise, mitigate and if necessary, offset the potential impacts of the development, including proposals for adaptive management and/or contingency plans to manage significant risks to the environment</li> </ul>		
<ul style="list-style-type: none"> <li>• A consolidated summary of all the proposed environmental management and monitoring measures, highlighting commitments included in the EIS.</li> </ul>		
<p>The EIS must also be accompanied by:</p> <ul style="list-style-type: none"> <li>• high quality files of maps and figures of the subject site and proposal</li> <li>• a report from a qualified quantity surveyor providing a detailed calculation of the capital investment value (CIV) of the proposal (as defined in clause 3 of the Regulation), including details of all assumptions and components from which the CIV calculation is derived. The report shall be prepared on company letterhead and indicate the applicable GST component of the CIV</li> <li>• an estimate of the jobs that will be created by the development during the construction and operational phases of the proposed development</li> <li>• certification that the information provided is accurate at the date of preparation</li> </ul>	<p>Section 3.1</p> <p>Page ii</p>	<p>Appendix C</p> <p>Appendix B</p>
<b>Key Issues</b>		
<p><b>Statutory and Strategic Context</b> – including:</p> <ul style="list-style-type: none"> <li>• demonstration the proposed land use is permissible with consent</li> <li>• a detailed description of the history of the site, including the relationship between the proposed development and all development consents and approved plans previously and/or currently applicable to the site, including all transport corridors</li> <li>• demonstration the proposal is consistent with all relevant planning strategies, environmental planning instruments, adopted precinct plans, draft district plan(s) and adopted management plans and justification for any inconsistencies. This includes, but is not limited to:             <ul style="list-style-type: none"> <li>- State Environment Planning Policy (Western Sydney Aerotropolis) 2020</li> <li>- State Environmental Planning Policy (Infrastructure) 2007</li> <li>- State Environmental Planning Policy (State and Regional Development) 2011</li> <li>- State Environmental Planning Policy No 33 - Hazardous and Offensive Development</li> <li>- State Environmental Planning Policy No 55 - Remediation of Land</li> <li>- State Environmental Planning Policy No 64 - Advertising and Signage</li> </ul> </li> </ul>	<p>Section 6</p> <p>Section 7</p>	

Environmental Assessment Requirement	EIS Reference	Supporting Documentation
<ul style="list-style-type: none"> <li>- Greater Sydney Region Plan: A Metropolis of Three Cities</li> <li>- Western City District Plan</li> <li>- Future Transport Strategy 2056 and supporting plans</li> <li>- Western Sydney Aerotropolis Plan</li> <li>- Western Sydney Aerotropolis Development Control Plan – Phase 1</li> <li>- Draft Aerotropolis Precinct Plan</li> </ul>		
<b>Suitability of the site – including:</b> <ul style="list-style-type: none"> <li>• detailed justification for the proposal, including its scope and suitability, and the suitability of the site in the context of the Mixed Use and Enterprise zoning and transport corridors applicable to the site under the Aerotropolis SEPP and the Draft Aerotropolis Precinct Plan</li> <li>• detailed justification the site can accommodate the proposed development having regard to its potential environmental impacts, permissibility, strategic context and existing site constraints.</li> </ul>	Section 4 Section 6 Section 7	
<b>Community and Stakeholder Engagement – including:</b> <ul style="list-style-type: none"> <li>• Community and stakeholder participation strategy identifying key community members and other stakeholders</li> <li>• Summarise issues raised in consultation and how addressed by the development</li> <li>• Proposed ongoing consultation strategy</li> </ul>	Section 5	Appendix E
<b>Design Excellence – including</b> <ul style="list-style-type: none"> <li>• Outline how the design has been informed by the design review panel and arrangements for further review</li> <li>• Demonstration of how the proposed development will exhibit design excellence (Part 5 Aerotropolis SEPP, <i>Better Placed</i>, Design Review Panel)</li> </ul>	Section 3.2 Section 7.7.1 Section 8.1	Appendix C
<b>Urban Design and Visual – including:</b> <ul style="list-style-type: none"> <li>• Visual impact assessment (including photomontages and perspectives) of the development layout and design</li> <li>• Surrounding vehicle, pedestrian and cycling networks</li> <li>• Landscape Plans</li> </ul>	Section 8.1	Appendix C
<b>Infrastructure Requirements – including</b> <ul style="list-style-type: none"> <li>• Impacts of the development on existing utility infrastructure and service provider assets surrounding the site</li> <li>• Infrastructure upgrades required on-site and off-site</li> <li>• Infrastructure delivery and staging plan</li> </ul>	Section 3.5	Appendix D
<b>Traffic and Transport –Including</b> <ul style="list-style-type: none"> <li>• quantitative traffic impact assessment prepared in accordance with relevant Roads and Maritime Services and Austroads guidelines</li> </ul>	Section 8.3	Appendix N

Environmental Assessment Requirement	EIS Reference	Supporting Documentation
<ul style="list-style-type: none"> <li>- Traffic generation</li> <li>- Road network analysis</li> <li>- Swept path analysis</li> <li>- Internal road network</li> <li>- Existing and future public transport infrastructure</li> <li>- Pedestrian connectivity</li> <li>- Infrastructure upgrades required on-site and off-site</li> </ul>		
<b>Aboriginal Cultural Heritage – including</b> <ul style="list-style-type: none"> <li>• an Aboriginal Cultural Heritage Assessment Report prepared in accordance with relevant guidelines, identifying, describing and assessing any impacts for any Aboriginal cultural heritage values on the site</li> </ul>	Section 8.6.2	Appendix L
<b>Non-Aboriginal Cultural Heritage – including</b> <ul style="list-style-type: none"> <li>• non-Aboriginal cultural heritage assessment (including both cultural and archaeological significance) which must include:               <ul style="list-style-type: none"> <li>- a SoHI in accordance with guidelines which identifies impacts on State and local heritage items in the vicinity</li> <li>- historical archaeological assessment</li> <li>- details of proposed mitigation measures</li> </ul> </li> </ul>	Section 8.6.1	Appendix K
<b>Noise and Vibration – including:</b> <ul style="list-style-type: none"> <li>• Quantitative noise and vibration impact assessment in accordance with the relevant Environment Protection Authority guidelines and Australian Standards               <ul style="list-style-type: none"> <li>- construction and operational noise and vibration impacts (including cumulative impacts, provision of operational noise contours and sleep disturbance assessment) on nearby sensitive receivers and structures</li> <li>- outline the proposed management and mitigation measures</li> </ul> </li> </ul>	Section 8.4	Appendix O Appendix P
<b>Soils and Water – including:</b> <ul style="list-style-type: none"> <li>• Surface water and groundwater impacts</li> <li>• Site water balance</li> <li>• Stormwater/wastewater management system</li> <li>• Description of the measures to minimise water use</li> <li>• Description of the proposed erosion and sediment controls during construction'</li> </ul>	Section 8.7	Appendix D
<b>Air Quality and Odour –including</b> <ul style="list-style-type: none"> <li>• a quantitative assessment of the potential air quality impacts, including details of proposed mitigation, management and monitoring measures.</li> </ul>	Section 8.5	Appendix Q
<b>Socio-Economic – including:</b> <ul style="list-style-type: none"> <li>• an analysis of any potential social and economic impacts of the development, including a discussion of any potential economic benefits to the local and broader community.</li> </ul>	Section 4	Appendix A



Environmental Assessment Requirement	EIS Reference	Supporting Documentation
<b>Waste – including:</b> <ul style="list-style-type: none"> <li>quantities and classification of waste streams to be generated during the development</li> <li>details of waste storage, handling and disposal</li> </ul>	Section 8.8	
<b>Contamination – including</b> <ul style="list-style-type: none"> <li>a site contamination assessment in accordance with the Managing Land Contamination Planning Guidelines: SEPP 55 – Remediation of Land (DUAP, 1998), including characterisation of the nature and extent of any contamination on the site and surrounding area.</li> </ul>	Section 8.2	Appendix I
<b>Hazards and Risk – including:</b> <ul style="list-style-type: none"> <li>a preliminary risk screening completed in accordance with State Environmental Planning Policy No. 33 – Hazardous and Offensive Development and Applying SEPP 33 (DoP, 2011)</li> </ul>	Section 7.7.5	N/A
<b>Airport Safeguarding – including</b> <ul style="list-style-type: none"> <li>a risk assessment of the proposed development on Western Sydney Airport operations and addressing related matters in the Western Sydney Aerotropolis Plan and Aerotropolis SEPP.</li> </ul>	Section 7.7.1	N/A
<b>Bush Fire – including</b> <ul style="list-style-type: none"> <li>a bush fire assessment report that addresses the aims and objectives of Planning for Bushfire Protection 2019, and includes:               <ul style="list-style-type: none"> <li>details of proposed operational access for emergency services personnel</li> <li>details of emergency and evacuation arrangements for occupants/visitors.</li> </ul> </li> </ul>	Section 8.9	Appendix J
<b>Greenhouse Gas and Energy Efficiency – including</b> <ul style="list-style-type: none"> <li>Assess energy use and measures to minimise greenhouse gas emissions</li> </ul>	Section 8.1.3	Appendix M
<b>Ecologically Sustainable Development – including:</b> <ul style="list-style-type: none"> <li>a description of how the proposal will incorporate the principles of ecologically sustainable development in the design, construction and ongoing operation of the development</li> <li>consideration of the use of green walls, green roofs and/or cool roofs in the design of the development</li> <li>a description of the measures to be implemented to minimise consumption of resources, especially energy and water.</li> </ul>	Section 8.1.3	Appendix M
<b>Planning Agreement/Development Contributions – including</b> <ul style="list-style-type: none"> <li>demonstration that satisfactory arrangements have been or would be made to provide, or contribute to the provision of, necessary local and regional infrastructure required to support the development.</li> </ul>	Section 7.9	

Environmental Assessment Requirement	EIS Reference	Supporting Documentation
<b>Plans and Documents</b>		
<p>The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Environmental Planning and Assessment Regulation 2000. Provide these as part of the EIS rather than as separate documents.</p> <p>In addition, the EIS must include the following:</p> <ol style="list-style-type: none"> <li>1. An existing site survey plan drawn at an appropriate scale illustrating:             <ul style="list-style-type: none"> <li>• the location of the land, boundary measurements, area (sqm) and north point</li> <li>• the existing levels of the land in relation to buildings and roads</li> <li>• location and height of existing structures on the site</li> <li>• location and height of adjacent buildings and private open space</li> <li>• all levels to be to Australian Height Datum (AHD).</li> </ul> </li> <li>2. Locality/context plan drawn at an appropriate scale should be submitted indicating:             <ul style="list-style-type: none"> <li>• significant local features such as heritage items</li> <li>• the location and uses of existing buildings, shopping and employment areas</li> <li>• traffic and road patterns, pedestrian routes and public transport nodes.</li> </ul> </li> <li>3. Drawings at an appropriate scale illustrating:             <ul style="list-style-type: none"> <li>• detailed plans, sections and elevations of the existing building, which clearly show all proposed buildings</li> <li>• detailed plans of proposed access driveways, internal roads, carparking and external alterations and services infrastructure.</li> </ul> </li> <li>4. Schedule of materials, colours and additions. finishes</li> </ol>		Appendix C Appendix D
<b>Consultation</b>		
<p>During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners. In particular you must consult with:</p> <ul style="list-style-type: none"> <li>• Liverpool City Council</li> <li>• Department of Planning, Industry and Environment, specifically:</li> <li>• Central Western, Central River City &amp; West Parkland City, Place Design and</li> <li>• Public Spaces Group</li> <li>• Water Group (including the Natural Resources Access Regulator)</li> <li>• Environment, Energy and Science Group</li> <li>• Government Architect NSW</li> <li>• Transport for NSW</li> <li>• Sydney Water</li> </ul>		Appendix E

Environmental Assessment Requirement	EIS Reference	Supporting Documentation
<ul style="list-style-type: none"> <li>• Heritage NSW, Department of Premier and Cabinet</li> <li>• Endeavour Energy</li> <li>• Western Sydney Planning Partnership</li> <li>• Western Sydney Airport Co Ltd</li> <li>• Civil Aviation Safety Authority</li> <li>• surrounding local landowners, businesses and stakeholders</li> <li>• local and regional community and environmental groups</li> <li>• Local Aboriginal Land Council</li> <li>• any other public transport, utilities or community service providers.</li> </ul> <p>The EIS must describe the consultation process and the issues raised and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.</p>		

## Appendix C

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### Architectural Plans and Design Report

## Appendix D

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### Civil Engineering Report



## Appendix E

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### Consultation Outcomes Report

## Appendix F

### Analysis of Draft Aerotropolis Precinct Plan 2020

Precinct Planning Framework	Response	Compliance
<b>3.1 Recognise Country</b>	<ul style="list-style-type: none"> <li>The proposal has been designed in consideration of the Connection to County guidelines currently on exhibition</li> <li>Consultation with Aboriginal communities has occurred.</li> <li>The buildings design and build elements have been integrated to the land through themes, landscaping and naming features</li> <li>The proposal achieves the objectives and requirements of the control</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
3.1.1 Aboriginal heritage	<ul style="list-style-type: none"> <li>Consultation has occurred and an Aboriginal Due Diligence Assessment accompanies this SSD at Appendix L.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
3.1.2 Non-Aboriginal heritage	<ul style="list-style-type: none"> <li>The site is near State Heritage Register items Kelvin (SHR 00046) and the Church of the Holy Innocents (SHR 02005)</li> <li>A SOHI accompanies the SSD at Appendix K which confirms minimal impacts are identified.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
<b>3.2 Blue-Green Infrastructure Framework</b>	<ul style="list-style-type: none"> <li>The AMRF has been designed in consideration of integrating blue and green infrastructure systems into the proposal</li> <li>Appropriate mitigation strategies to reduce urban impacts on the environment are incorporated into the proposal</li> <li>Reduction of the urban heat island effect is a key consideration of the buildings design</li> <li>Open space and stormwater management solutions are provided as a part of the proposal</li> <li>Connection to the natural landscape and biodiversity impacts are also incorporated into the design and proposal</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
3.2.1 Wianamatta-South Creek Corridor	<ul style="list-style-type: none"> <li>WSUD principles are integrated into the proposal, to reduce impacts on the Wianamatta South Creek Corridor</li> <li>Active and passive transport solutions will be integrated into the proposal and wider locality</li> <li>Appropriate biodiversity and water management will occur through the proposal ensuring the natural environment is protected, regenerated and restored.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
3.2.2 Flood management	<ul style="list-style-type: none"> <li>The proposal has been designed in consideration of the 1% AEP</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
3.2.3 Water in the landscape	<ul style="list-style-type: none"> <li>The application has a landscape lead approach to design incorporating WSUD principles into the application</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>

	<ul style="list-style-type: none"> <li>• Ensure the restoration of the natural waterways and hydrological cycles</li> </ul>	
3.2.4 Riparian corridors and farm dams	<ul style="list-style-type: none"> <li>• Dams are located on the site as well as riparian corridors. The proposal will not impact the viability and health of these waterways</li> <li>• The proposal will retain, restore and regenerate the land to ensure the waterways health is continuously improved</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>
3.2.5 Integrated water management and water sensitive urban design	<ul style="list-style-type: none"> <li>• Appropriate water management and WSUD are incorporated into the proposal</li> <li>• Water harvesting methods are incorporated into the roof feature of site</li> <li>• Refer to Appendices C and D for additional information</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>
3.2.6 Undisturbed soil network	<ul style="list-style-type: none"> <li>• The site appears to be mapped as such compliance with the requirements is required</li> <li>• The proposal follows the natural landscape to ensure excavation and soil minimisation is achieved</li> <li>• The proposal will incorporate appropriate landscaping and planting to achieve desired canopy requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>
3.2.7 Public domain and canopy cover	<ul style="list-style-type: none"> <li>• The AMRF will be the first building within the Aerotropolis Core, which will provide for an interconnected facility with appropriate public domain and landscaping</li> <li>• The proposal will provide for deep soil opportunity to ensure appropriate canopy cover is achieved to assist in reducing the urban heat island effect</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>
3.2.8 Biodiversity and vegetation corridors	<ul style="list-style-type: none"> <li>• The facility will be constructed away from the high biodiverse value areas of the site.</li> <li>• There is minimal impact on biodiversity and vegetation corridors.</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>
3.2.9 Scenic and cultural connection	<ul style="list-style-type: none"> <li>• The facility will be constructed with high quality materials and appropriate design to ensure the scenic value of the area is preserved</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>
<b>3.3 Access and Movement Framework</b>		
3.3.1 Transport strategy	<ul style="list-style-type: none"> <li>• The facility is designed to encourage alternative transport methods</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>
3.3.2 Active transport	<ul style="list-style-type: none"> <li>• The facility will incorporate appropriate mix of transport methods to achieve the objective of the control.</li> <li>• A metro station has been approved which will service the site with sufficient public transport.</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>
3.3.3 Bus Network	<ul style="list-style-type: none"> <li>• Not Applicable</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
3.3.4 Freight	<ul style="list-style-type: none"> <li>• Not Applicable</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
3.3.5 Road Network	<ul style="list-style-type: none"> <li>• The proposal involves the construction of road to the facility which will be integrated into emerging road grid.</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>

	<ul style="list-style-type: none"> <li>• Appropriate landscaping will be provided to screen the road structure</li> </ul>	
3.3.6 Travel Demand Management	<ul style="list-style-type: none"> <li>• A traffic and transport assessment is provided which addresses this objective</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>
3.3.7 Protected transport corridors	<ul style="list-style-type: none"> <li>• The facility is located adjacent to the new metro corridor</li> <li>• The facility has been designed to minimise impacts on the corridor</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>
3.3.8 Street hierarchy and typology (including widths)	<ul style="list-style-type: none"> <li>• The proposal will be consistent with the street hierarchy, as it creates a street environment that is safe, functional and integrated into the land</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>
<b>3.4 Land Use and Built Form Framework</b>		
3.4.1 Hierarchy of centres	<ul style="list-style-type: none"> <li>• The facility is in the Aerotropolis Core which is the primary centre of the Aerotropolis</li> <li>• The proposal is consistent with the land use intended in this primary centre</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>
3.4.2 Land use and built form	<ul style="list-style-type: none"> <li>• The facility's land-use is permissible with consent and consistent with the zonings under the Aerotropolis SEPP</li> <li>• The indicative built form complies with the Obstacle limitation surface requirements</li> <li>• The built form responds to the natural landscape and provides a facility with an appropriate bulk and scale in context of the metropolitan core</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>
3.4.3 Height	<ul style="list-style-type: none"> <li>• The site is shown to have a maximum height plan of 55-70 m under the control.</li> <li>• The proposed height of 16.7 m complies with the control</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>
3.4.4 Floor space ratio in mixed use centres	<ul style="list-style-type: none"> <li>• The site is identified to have a maximum FSR between 3.0:1 to 3.5:1 net over the block</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>
3.4.5 Yield and density framework	<ul style="list-style-type: none"> <li>• The proposal requires to provide employment consistent with General Industrial: 25 – 30 jobs/ hectare</li> <li>• The proposal provides for 22.3 jobs per hectare</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>
3.4.6 Urban typologies	<ul style="list-style-type: none"> <li>• The facility has been designed to integrate a landscape led design approach to reflect an integrated built form with the natural environment</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>
3.4.7 Evolution or temporal land use and development	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
3.4.8 Subdivision and block structure	<ul style="list-style-type: none"> <li>• The control requires a lot size pattern of;               <ul style="list-style-type: none"> <li>○ Light industry enterprise</li> <li>○ Maximum 150x150m block size</li> </ul> </li> <li>• The proposal achieves the requirements of the control by providing a block size constituent with the requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Yes</li> </ul>

3.4.9 Open Space Typology	<ul style="list-style-type: none"> <li>Not applicable the site is not identified within the relevant precincts</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
3.4.10 Interface and management with existing uses	<ul style="list-style-type: none"> <li>Existing use rights does not apply</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
3.4.11 sites greater than 5,000sqm	<ul style="list-style-type: none"> <li>The site area is 4,254 m<sup>2</sup></li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
3.4.12 Amalgamation	<ul style="list-style-type: none"> <li>The proposal is consistent with the Enterprise and Mixed use objectives of the control</li> <li>The land size and pattern does not isolate future land from development and will create a pattern and scale which promotes connectivity and an integrated landform with the landscape and environment</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
3.4.13 Roofscapes	<ul style="list-style-type: none"> <li>The roof of the facility provides for photovoltaic cells and rain harvesting methods.</li> <li>The facility incorporates a green roof structure which addresses the requirements of the control</li> <li>Appropriate rainwater reuse methods will be integrated into the roof features</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>

### 3.5 Social and Cultural Infrastructure Framework

3.5.1 Social, community and cultural infrastructure	<ul style="list-style-type: none"> <li>The land is within the Aerotropolis Core.</li> <li>The control requires that one community facility be provided by 2036</li> <li>A community component is incorporated into the proposal</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
3.6 Sustainability and Resilience Framework	<ul style="list-style-type: none"> <li>The facility is designed to the following principles               <ul style="list-style-type: none"> <li>achieve net-zero operational carbon emissions by 2030</li> <li>provide an unrestricted supply of water that is resilient to drought and enable unrestricted use to activate blue/green connections and reduce reliance on potable supplies</li> <li>eliminate waste to landfills and promote circular economy initiatives that create a symbiotic relationship between the residential and advanced manufacturing industries within Bradfield.</li> <li>Create a healthy environment for people and the natural ecology</li> <li>Be resilient to climate impacts and mitigate the urban heat island effect</li> <li>Generate sustainable social outcomes through placemaking and community building</li> </ul> </li> <li>The facility is also aiming to achieve the living building challenge</li> <li>Refer to Section 8.1.3 and Appendix M.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>

### 4.1 Aerotropolis Core, Badgerys Creek and



part Wianamatta-South Creek Precinct		
4.1.1 Active frontages	<ul style="list-style-type: none"> <li>The proposal incorporates an interactive facility which is aimed to engage the facility</li> <li>The design of a glass façade allows viewing of the industrial activities</li> <li>The facility will be a high interactive area which aim is to promote a high technology industry and engage the community</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
4.1.2 Special site: Metropolitan centre	<ul style="list-style-type: none"> <li>The facility is within the metropolitan centre and forms the first building of the Aerotropolis</li> <li>The facility will be integrated with the street grid when further development occurs to ensure connectivity with the metropolitan core</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
4.1.3 State heritage site: Kelvin Park Homestead	<ul style="list-style-type: none"> <li>A statement of Heritage Impact at Appendix K which suggests the proposal does not impact this item</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
5.1 Infrastructure delivery	<ul style="list-style-type: none"> <li>The facility will provide for appropriate infrastructure services including               <ul style="list-style-type: none"> <li>Electricity</li> <li>Water</li> <li>Sewer</li> <li>Gas</li> </ul> </li> <li>Interim solutions are required, however once services provide connect the emerging city with appropriate facilities the building serviced.</li> <li>The facility will be serviced by a pump out sewage system in the short term.</li> <li>Once sewage is constructed to the site the facility will connect.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
5.2 Sequencing Priorities within the Initial Precincts	<ul style="list-style-type: none"> <li>The facility is within the initial precinct for priority development</li> <li>The priority precincts will be serviced with infrastructure first</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
5.3 Out of sequence development	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>

## Appendix G

### Objectives of Aerotropolis Core Precinct

Objective	Response
Develop a vibrant, connected and permeable 24-hour metropolitan city centre, centred on the metro station and a global destination for business, tourism and social experiences.	<ul style="list-style-type: none"> <li>The proposal provides for an advanced manufacturing research facility set to become a high technology hub to support the Aerotropolis Core.</li> <li>The facility will provide for a place which is a cutting-edge facility to attract a global market.</li> </ul>
To become the premier location of choice for advanced manufacturing and high technology industries in Australia.	<ul style="list-style-type: none"> <li>The facility will be the first advanced manufacturing research facility in the Aerotropolis Core.</li> <li>The facility will provide for cutting edge technology global businesses will be attracted too, which will promote economic growth.</li> </ul>
Create an aerospace and defence industries sub-precinct comparable with recognised international benchmark precincts.	<ul style="list-style-type: none"> <li>The facility set a high standard of quality attracting global partners.</li> <li>It will support aerospace and defence industries with the technology the facility holds.</li> </ul>
Create a health and education precinct comparable with recognised international benchmark precincts, incorporating a multiversity with STEM focussed education, leveraging from collaboration with the industrial sectors in neighbouring precincts and underpinned by the superior accessibility of mass transit.	<ul style="list-style-type: none"> <li>The surrounding developments will consist of health and education land uses.</li> <li>The facility will incorporate education, research and innovation into its operation.</li> <li>The facility will collaborate with the surrounding precinct and industry sectors once developed using its location and connection to transit.</li> </ul>
Create a highly distinctive city character with a public domain of outstanding urban design, architectural and landscape merit that responds to site characteristics and context.	<ul style="list-style-type: none"> <li>The buildings design has been undertaken to integrate into the natural landforms, particularly noting the design intent to respond to the natural creek forms within the locality.</li> <li>The facility will incorporate public domain upgrades to engage the community with the work and activities that occurs within the AMRF.</li> <li>The building successfully response to the natural character and landscape it is nestled in.</li> </ul>
Develop street networks and links to rail stations to accommodate public transport infrastructure provision to allow for a 30-minute city and create pedestrian orientated development centred around key destinations and around transport nodes, for example metro stations.	<ul style="list-style-type: none"> <li>The precinct will have a network of active and passive connecting facilities be constructed over the next 10 years.</li> <li>A metro station has been approved near the site.</li> <li>The site will be connected with appropriate transport infrastructure.</li> </ul>
Significantly reduce reliance on single occupancy private motor vehicles for trips, enabling the majority of trips in Precinct to be undertaken using sustainable forms of transport such as public transport, walking and cycling.	<ul style="list-style-type: none"> <li>Once the Aerotropolis city is built, appropriate transport infrastructure will be available to reduce reliance on private motor vehicles.</li> <li>Active and passive transport solutions will be integrated into the Aerotropolis.</li> </ul>

Establish public and private domains which mitigate and adapt to urban heat and support innovative water sensitive urban design.	<ul style="list-style-type: none"> <li>• The AMRF will incorporate a range of resilient development principles to ensure the building adapts to the natural environment and reduces the urban heat island effect.</li> <li>• The facility will provide for WSUD strategies that are incorporated into the public and private domain of the site.</li> </ul>
Protect the operations of the Airport, including 24-hour operations, and provide appropriate protections for the community.	<ul style="list-style-type: none"> <li>• The proposal will be consistent with the objective once the airport is complete.</li> </ul>
Support and integrate sustainable energy, waste and water as well as a circular economy into development and operations.	<ul style="list-style-type: none"> <li>• The building will be design with the concept of circular economy in mind.</li> <li>• Designing the building with a target of reducing embedded carbon into the proposal as much as possible.</li> <li>• The buildings materials will be sourced or constructed in means that support economic and environmental sustainability.</li> </ul>
Achieve high levels of water retention in the landscape to achieve healthy waterways, contribute to greening and cooling, and facilitate and support effective flood mitigation.	<ul style="list-style-type: none"> <li>• The proposal will Incorporate water retention and reuse methods.</li> <li>• The use of WSUD methods will achieve the objective of the Aerotropolis Core.</li> </ul>
Ensure that design minimises energy and water consumption and optimises water management providing pathways to net zero emissions and enhancement of environment across the entire Aerotropolis.	<ul style="list-style-type: none"> <li>• The proposal will aim to achieve a net zero emission in attempt to set a standard for future development to occur within the precinct.</li> </ul>

## Appendix H

### Draft Western Sydney Aerotropolis Development Control Plan 2021 (Phase 2)

Draft Western Sydney Aerotropolis Development Control Plan 2021 guideline	Comment	Compliance
<b>Part 2 General Planning Controls</b>		
Recognise Country	<ul style="list-style-type: none"> <li>The proposal has been designed in accordance with the 3 core criteria outlined by the control.</li> <li>The development has been designed in accordance with the appropriate naming convention to connect the building with the natural landscape.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
Heritage	<ul style="list-style-type: none"> <li>A detailed Aboriginal Due Diligence Assessment and Statement of Heritage Impact accompany this SSDA.</li> <li>The report confirms the development achieves the performance criteria outlined by the control.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
Stormwater, Water Sensitive Urban Design and Integrated Water Management	<ul style="list-style-type: none"> <li>The proposal incorporates a detailed water sensitive urban design strategic to ensure that an integrated water management processes occur within the facility.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
Native Vegetation and Biodiversity	<ul style="list-style-type: none"> <li>The facility responds to the performance objectives of the control.</li> <li>As the site is noted to be within the wildlife buffer zone a requirement for appropriate plant species be incorporated into the design to minimize wildlife strikes onto the western Sydney Airport.</li> <li>The facility incorporates appropriate deep soil measures and canopy trees.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
Access and Movement Framework	<ul style="list-style-type: none"> <li>This section applies to sites greater than 5,000m<sup>2</sup>, where the road network is being implemented, and development proposals include the delivery of a public street.</li> <li>The proposal complies with the requirements of the control.</li> <li>The provision of a road upgrade and appropriate pedestrian connectivity spaces achieves the performance outcomes of the control</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
Travel Demand Management and Parking	<ul style="list-style-type: none"> <li>The proposal generally complies with the requirements of the control</li> <li>The facility provides for 60 spaces and incorporates active and passive transport solutions to address the travel and parking demand generated by the facility.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>

Draft Western Sydney Aerotropolis Development Control Plan 2021 guideline	Comment	Compliance
Building Siting and Design	<ul style="list-style-type: none"> <li>The built form and design of the facility generally complies with the numerical controls outlined within the DCP.</li> <li>Appropriate setbacks, heights and gross floor areas are proposed to ensure view impacts are minimised, overshadowing and visual amenity are achieved.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
Flooding and Environmental Resilience and Adaptability	<ul style="list-style-type: none"> <li>The facility has been designed to incorporate resilient development principles to enable the building to adapt to environmental hazards within the Aerotropolis Core.</li> <li>The proposal incorporates measures to address the urban heat island effect and provides for WSUD measures to address flooding</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
Airport Safeguarding	<ul style="list-style-type: none"> <li>The facility has been designed to ensure the Western Sydney Airport is protected by virtue of the works.</li> <li>Consideration on the facilities impacts on Wildlife strikes, Light impacts, Noise impacts and communicative operational functions on the airport.</li> <li>The proposal generally complies with the performance outcomes of the control.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
Sustainability and Circular Economy	<ul style="list-style-type: none"> <li>The facility has been designed to utilise Circular Economy principles at the beginning and end of the building and component life cycle.</li> <li>The facility incorporates ESD principles to achieve a net zero carbon emission and intent of the facility is to engage with the living building challenge.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
Services and Utilities	<ul style="list-style-type: none"> <li>The facility will be serviced with appropriate infrastructure, services and utilities.</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
Smart Places	<ul style="list-style-type: none"> <li>The facility will provide for an integrated technology systems to achieve a smart city</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> </ul>
<b>Part 3 – Additional Provisions for Large sites</b>		
Benchmarks for Larger sites, Subdivision or Master Planning	<ul style="list-style-type: none"> <li>The facility complies with Targets for site Coverage, Perviousness and Quantum of Public Domain by Typology</li> <li>The facility incorporates a public art and community engagement domain.</li> </ul>	<ul style="list-style-type: none"> <li>TBC</li> </ul>
<b>Part 4 – Additional Provisions for Certain Land Uses</b>		
Certain Land Uses	<ul style="list-style-type: none"> <li>N/A. The facility doesn't match criteria identified by the control as its predominate land-use is a advanced manufacturing facility which is an industrial purpose</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>

## Appendix I

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### Preliminary Site Inspection



## Appendix J

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### Bushfire Hazard Assessment

## Appendix K

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### Statement of Heritage Impact

## Appendix L

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### Aboriginal Heritage Due Diligence Assessment

## Appendix M

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### Environmental Sustainability Design Report

## Appendix N

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### Traffic Impact Assessment

## Appendix O

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### Construction Noise and Vibration Impact Assessment



## Appendix P

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### Operational Noise and Vibration Impact Assessment

## Appendix Q

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### Air Quality Impact Assessment

## Appendix R

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### Flood Impact Assessment