Department of Planning, Housing and Infrastructure

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Western Sydney Aerotropolis Development Control Plan 2022

July 2025

Acknowledgement of Country

The Department of Planning, Housing and Infrastructure acknowledges that it stands on Aboriginal land. We acknowledge the Traditional Custodians of the land and we show our respect for Elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

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1.0 Introduction and Administration

1.1 Name of this Development Control Plan

This Development Control Plan (**DCP**) is the *Western Sydney Aerotropolis Development Control Plan 2022*. It has been prepared in accordance with Part 3, Division 3.6 of the *Environmental Planning and Assessment Act 1979* (**EP&A Act**) and the Environmental Planning and Assessment Regulation 2021 (**The Regulations**).

1.2 Aims of this DCP

This DCP provides the planning, design and environmental objectives and controls which will inform the preparation and assessment of Development Applications (**DA's**) and Masterplans.

These objectives and controls supplement those in Chapter 4 of the State Environmental Planning Policy (Precincts—Western Parkland City) 2021 (**Parkland City SEPP**) and the Western Sydney Aerotropolis Precinct Plan (**Aerotropolis Precinct Plan**).

The objectives and controls in this DCP aim to:

1. Facilitate development which is appropriate to the unique natural characteristics and desired future outcomes for each precinct of the Aerotropolis;
2. Safeguard the airport operations of the Western Sydney International (Nancy-Bird Walton) Airport (the Airport);
3. Support high levels of local accessibility, quality place and amenity outcomes to drive business relocation and economic growth;
4. Encourage design that maintains and enhances the character and heritage significance of Aboriginal and European heritage items and heritage conservation areas;
5. Encourage ecologically sustainable development and reduce the impacts of development on the environment; and
6. Deliver development in accordance with the principles of Water Sensitive Urban Design (WSUD).

1.3 Land where this DCP Applies

This DCP applies to land identified in **Figure 1** Land to which this DCP applies
. The DCP does not apply to the Western Sydney (Nancy Bird Walton) Airport and other areas outside of the land application boundary, shown white in **Figure 1** Land to which this DCP applies
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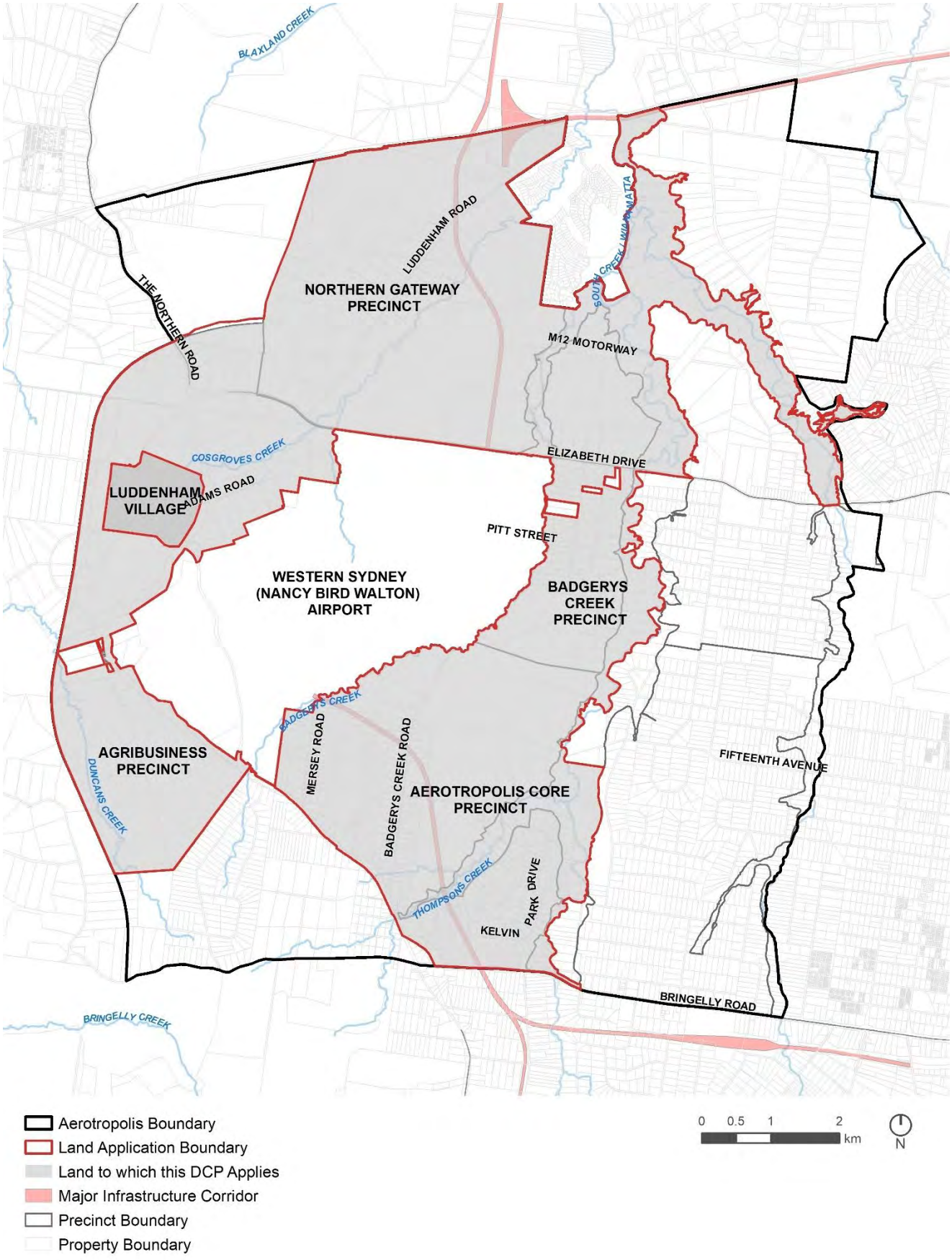

Figure 1 Land to which this DCP applies

1.4 Using this DCP

This DCP is structured into six chapters. Chapter 1-2 apply to all developments while chapters 3-6 contain controls tailored to specific land uses. Table 1 sets out the application of each of the DCP chapters and a summary of the content of each chapter.

Table 1: DCP Structure

DCP Section	Contents
Chapter 1 – Introduction and Administration	This chapter provides information about the administrative provisions of the DCP, such as the name and aims of the DCP, adoption and commencement information, where each section of the DCP applies and how to use the DCP.
Chapter 2 – General Controls	This chapter contains objectives and controls which need to be considered for all development on land where this DCP applies. The objectives and controls are designed to manage the natural and built environment across the Aerotropolis.
Chapter 3 – Development for Enterprise and Industry, and Agribusiness	This chapter contains specific objectives and controls for enterprise and industrial development forms on land identified for Enterprise and Industry, and Agribusiness within the Aerotropolis Precinct Plan.
Chapter 4 – Non-Residential Development in Centres	This chapter contains specific objectives and controls for non-residential development on land in the identified centres of the Aerotropolis Precinct Plan, including. • Commercial Centre – Mixed Use; • Specialised Centre – Mixed Use; • Business and Enterprise; and • Local/Neighbourhood Centre.
Chapter 5 – Residential	This chapter contains specific objectives and controls on land where residential development is identified in the Aerotropolis Precinct Plan, including development for: • Residential development in Mixed Use areas; • Subdivision and associated residential development in the Specialised Centre and Commercial Centre - Mixed Use areas.
Chapter 6 – Certain Land Uses	This chapter contains and refers to specific objectives and controls for certain additional land uses proposed within the Aerotropolis not identified in Chapters 3 to 5. **Note: development within Luddenham Village is also covered by this chapter.**
Chapter 7 – Master plans	This chapter refers to additional provisions for the approved master plan areas. In the event of any inconsistency between any approved Master Plan and this DCP, the approved Master Plan will prevail. Future development proposals within or adjacent to the Master Plan area will need to consider, and demonstrate consistency with, the Master Plan.

1.4.1 Performance Based Approach

This DCP uses a flexible performance-based approach, by providing objectives, performance outcomes and benchmark solutions. Any variations to DCP benchmark solutions must ensure consistency with the intent of the objectives and performance outcomes. Where alternative solutions are proposed, the applicant must justify how the development is meeting the intent of both the objectives and performance outcomes listed in this DCP. While a performance based approach is generally encouraged, where impacts relate to aviation safeguarding these controls need to be adhered to and there is limited flexibility in their application.

1.4.2 Relationship to Other Documents and Instruments

Western Sydney Aerotropolis Development Control Plan – Phase 1

The *Western Sydney Aerotropolis Development Control Plan – Phase 1* (**Phase 1 DCP**) was published on 13 September 2020 and came into effect on 1 October 2020. The Phase 1 DCP identified the precinct planning

principles, objectives, and performance outcomes to allow precinct planning to progress. The Phase 1 DCP is superseded by this DCP.

Liverpool Development Control Plan 2008 and Penrith Development Control Plan 2014

Development Control Plans that previously applied to land to which this DCP applies, no longer apply, unless specific provisions within those DCPs are referenced by this DCP.

This DCP contains references to the application of certain parts of the Liverpool Development Control Plan 2008 (for land in the Liverpool Local Government Area) and the Penrith Development Control Plan 2014 (for land in the Penrith Local Government Area) that apply in certain circumstances for certain land uses. Where specific controls of these DCPs continue to apply, they are specifically referred to in **the relevant sections of this DCP**.

Additional guidelines

This DCP references and should be read in conjunction with:

- Western Sydney Street Design Guidelines and Western Sydney Engineering Design Manual for further guidance on street design and engineering standards;
- Recognising Country: Guidelines for Development in the Aerotropolis; and
- Aviation Safeguarding Guidelines – Western Sydney Aerotropolis and Surrounding Areas.

Western Sydney Aerotropolis Master Plans

The Parkland City SEPP requires that this DCP is considered in the preparation of Master plans, and that Master plans are consistent with the DCP. Following adoption of a Master plan, the application of this DCP to development on a Master plan site will depend on the specific provisions and approval pathways established by the Master plan. Master plans within the Aerotropolis contain additional and alternative controls and should be referred to in addition to this DCP for those sites where master plans apply.

1.5 Adoption and Commencement

1.5.1 Commencement of the DCP

This DCP was adopted by the Planning Secretary or delegate on **26 October 2022** and came into force on **10 November 2022**.

1.5.2 Savings and Transitional Provisions or Arrangements

This DCP only applies to DA's lodged on or after the date the DCP came into force.

1.6 Review of the DCP

The Planning Secretary can amend the DCP in accordance with the *Environmental Planning and Assessment Regulation 2021*. The Department of Planning, Housing and Infrastructure, in consultation with Penrith and Liverpool City Council, will periodically review this DCP.

The review of the DCP is to be undertaken at least once in a five-year period to ensure its continued alignment with Chapter 4 of the Parkland City SEPP and the Aerotropolis Precinct Plan. The objectives and controls of the DCP are to be updated as required to better achieve the objectives of the DCP and or respond to changes in circumstances and land use. Any review of the DCP will include consultation with relevant State Government agencies, the Commonwealth Department of Infrastructure, Transport, Regional Development, Communications and the Arts and Western Sydney Airport as required.

2.0 General Controls

2.1 Recognise County

2.1.1 Starting with Country

Country is central to the identity and wellbeing of Aboriginal people and communities. Country, for First Peoples, relates not only to the cultural group and land to which they belong, it is also their place of origin in cultural, spiritual, and literal terms. The local people with ancestral connection to this Country (Dharug, Dharawal, Gundungara) hold valuable knowledge about caring for the Country.

Starting with Country is mutually beneficial and will provide long term sustainable and enriching outcomes. The planning, design and delivery of places and buildings within the Aerotropolis should reflect and be informed by Aboriginal knowledge and expertise about the local area – both its history and its continuing present-day characteristics and potential. Starting and connecting with Country in planning, design and delivery will fundamentally enhance the identity and placemaking outcomes of developments within the Aerotropolis.

This section applies to State Significant Development (SSD), State Significant Infrastructure (SSI), master plans, development applications (including concept applications) on sites 20 hectares or more in size, development applications progressing under the design excellence process and development located within or that intersects areas of high Aboriginal heritage sensitivity (where deemed appropriate by the responsible planning authority). Other development may choose to opt in and apply the performance outcomes and benchmark solutions outlined in this section.

The performance outcomes and benchmark solutions provided in this section are to be read in conjunction with the *Recognise Country: Guidelines for Development in the Aerotropolis* (**Recognise Country Guidelines**), in accordance with clause 4.28B of the Parkland City SEPP. Where the Recognise Country Guidelines apply, applications must be submitted with a completed *Recognise Country Response Template* (see the *Recognise Country Guidelines*).

***Note**: where a Recognise Country Strategy has been endorsed by the Department of Planning and Environment, this section of the DCP and Guidelines still apply. The endorsed strategy may also be used to build upon the outcomes and inform the completion of a new Recognise Country Response Template.*

2.1.2 Engagement requirements

Where engagement with Aboriginal stakeholders is required (as outlined in the benchmark solutions), proponents must engage with a range of Aboriginal stakeholder types, considering their role and relevance to the project (defined in the table below). Sufficient evidence that genuine engagement has occurred with a variety of Aboriginal stakeholder types to inform a development proposal submission must be provided. Engagement with one Aboriginal stakeholder type will not be accepted, this includes engaging with one Aboriginal stakeholder who may represent different stakeholder types. See the *Recognise Country Guidelines* for further details.

These engagement requirements apply for State Significant Development (SSD), State Significant Infrastructure (SSI), master plans, development applications (including concept applications) on sites 20 hectares or more in size, development applications progressing under the design excellence process and development located within or intersecting areas of high Aboriginal heritage sensitivity (where deemed appropriate by the responsible planning authority). Engagement at the development stage builds upon engagement with Aboriginal groups undertaken in the preparation of the Western Sydney Aerotropolis Plan, Parkland City SEPP and Aerotropolis Precinct Plan.

Aboriginal stakeholder types

Stakeholder type	Role	Relevance to project	Aerotropolis Stakeholders
Dharug Traditional Custodians (Traditional Owners)	Dharug community leaders and Elders that have cultural responsibility and obligations	Technical specialists in Country, Aboriginal heritage, language, song, story, ritual, lore, and customary practices	Dharug Traditional Custodians (this may include individuals and/or representative organisations)

Stakeholder type	Role	Relevance to project	Aerotropolis Stakeholders
	to Country and can help the project team listen to Country		
Other Traditional Custodians (Traditional Owners)	Dharawal and Gandangara community leaders and Elders that have cultural responsibility and neighbour obligations to Country	Technical specialists in Country, Aboriginal heritage, story, ritual, lore, and customary practices	Dharawal and Gundungurra Traditional Custodians (this may include individuals and/or representative organisations)
Knowledge holders	Aboriginal people who are engaged in maintaining and, in some cases, reclaiming cultural practices	Aboriginal Cultural experts of heritage language, song, story, ritual, lore, and customary practices	Community members and local organisations with deep connections to Western Sydney. Other First Nations technical experts
Local Aboriginal Land Councils	Legislative organisations with the purpose to improve, protect and foster the best interests of all Aboriginal persons within the LALC's area	Technical specialists in community development, operations of land acquisition, land use and management, Aboriginal heritage, financial stewardship and management of property	Gandangara and Deerubbin Local Aboriginal Land Councils (depending on location within Aerotropolis)
Broader Aboriginal and Torres Strait Islander community	Aboriginal or Torres Strait Islander people who live in, or have a connection to, an area	May be impacted by or benefit from development outcomes, including both construction and operation	Aboriginal and Torres Strait Islander peoples of Western Parkland City
Aboriginal service providers / businesses	Aboriginal and non-Aboriginal owned and operated businesses and services which offer targeted services and facilitate opportunities for Aboriginal communities	May be impacted by or benefit from development outcomes. May also provide opportunities for partnerships through planning, design, construction and operation	Aboriginal service providers / businesses operating in Western Parkland City
Registered Aboriginal Party (RAP)	Registered individual or organisation involved in undertaking Aboriginal heritage assessments at a development site	Aboriginal Heritage Assessment	Registered Aboriginal Parities *(refer to Heritage NSW)*

Objectives

O1. Establish **cultural safety** by considering Aboriginal peoples perspectives in planning and design decisions.

O2. Ensure diverse opportunities for connection to Country are considered and implemented in the design and planning of development, including through **meaningful engagement** with Aboriginal groups building upon engagement undertaken in the preparation of the Western Sydney Aerotropolis Plan, Parkland City SEPP and Aerotropolis Precinct Plan.

O3. Create opportunities for **capacity building and economic development** for Aboriginal people and organisations across planning, design, construction and operation.

O4. Recognise and reflect Aboriginal **connection to Country** by protecting and enhancing significant natural features, as well as providing access and opportunities to **care for Country**.

O5. **Celebrate Aboriginal culture and language** through naming, wayfinding, public art and cultural infrastructure which supports cultural practice.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
Connecting to culture and Country through Subdivision and Civil Works		
PO1	The cultural values and heritage, waterways and landscapes of Country form a key structuring element of development.	**1.** For development where the Recognise Country Guidelines apply and in conjunction with Aboriginal heritage assessment requirements, cultural values research is to be undertaken by a qualified Aboriginal heritage consultant (with experience in Aboriginal heritage and cultural values research). Cultural values research must be undertaken in consultation with Traditional Custodians

	Development retains and connects and provides access to landscape elements including ridgelines, waterways and native vegetation.	(including through an on-site review). Cultural values research must identify within the proposed development site and any adjoining areas: a. cultural values and heritage significance, particularly within moderate to high areas of Aboriginal heritage sensitivity; b. significant cultural landscape elements, as they relate to cultural values; and c. significant waterways or bodies and areas of surrounding riparian vegetation as they relate to cultural values. **2.** Development proposals must outline how findings of the cultural values research have informed the planning and design, including the spatial layout of the site and the public domain, including areas used for open space, stormwater management and or biodiversity conservation and outline any potential impacts and mitigation measures. **3.** Development is to respect and respond to: **a.** Identified significant sites, places, views, traditional movement corridors and narratives of Country; **b.** The natural landscape, including topography and native vegetation by providing clear and legible links (within the road network and public domain) between ridgetops and creek lines and retaining native vegetation clusters and corridors through the siting of buildings; and **c.** Natural systems, including significant tributaries and waterways in the Wianamatta-South Creek catchment by avoiding significant impacts to ecological condition and the function of ecosystems as well as protect and restore native riparian vegetation. **4.** Development proposal design must ensure water management infrastructure and processes are responsive to Country and prioritise natural solutions that enhance the overall waterway systems condition, function and connections.
PO2	Parks and public open space provide spaces for outdoor cultural practice, learning and play to support connection to culture and Country.	**1.** The design of the public domain within areas of moderate to high Aboriginal heritage sensitivity identified in the Aerotropolis Precinct Plan is to incorporate spaces for outdoor cultural practice and for learning and cultural play, in accordance with outcomes of cultural values research and engagement with Traditional Custodians and other relevant Aboriginal Stakeholders (Knowledge Holders, LALCs and the local Aboriginal and Torres Strait Islander community).
PO3	Development is guided and informed by Aboriginal people and their cultural knowledge and practice of caring for Country.	**1.** Where relevant, development is designed to enable Aboriginal people to continue to care for Country through the integration of traditional knowledge into environmental assessments and management plans (e.g. floodplain management and bushfire hazard management). **2.** Development proposals must demonstrate that the design has been informed by engagement with Traditional Custodians (and Knowledge Holders where appropriate) and incorporates cultural practice requirements and their aspirations for associated enterprise and economic development. **3.** Development proposals must outline how cultural knowledge has been integrated into environmental assessment and management strategies, and should consider opportunities for ongoing land management and enterprise and economic development.
	Connecting to culture and Country through the Built Form	
PO4	Aboriginal culture is celebrated and embedded within building design.	**1.** For development where the Guidelines apply or that is located within or intersects areas identified as having moderate to high Aboriginal heritage sensitivity in the Aerotropolis Precinct Plan, culturally sensitive design must be incorporated. **2.** Development proposals must outline how cultural values research and engagement with Traditional Custodians (and Knowledge Holders where appropriate) have informed the design outcomes. Where previous cultural values research (including overarching master plans and neighbouring sites) has been undertaken, the development proposal is to respond to the findings.
PO5	Development enables appropriate provision of built cultural infrastructure including dedicated spaces for cultural practice,	**1.** Master Plans and sites of 20 hectares or more, within metropolitan, specialised and local centres (see Centres Hierarchy map in the Precinct Plan), should identify appropriate sites (location and size) for the provision of cultural infrastructure based on identified need (see Section 4.3 Aboriginal Culture and Heritage –

	places for sharing culture and specialised infrastructure to meet the needs of the local Aboriginal community	Recognising Country in the Aerotropolis Precinct Plan). This includes specialised stand-alone infrastructure such as education, health and community facilities and services, as well as integrated spaces for gathering (see Section 14.4, 15.5 and 15.6 of the Guideline). **2.** When planning for and designing cultural infrastructure the proponent is to engage with relevant Traditional Custodians and other Aboriginal stakeholder types (i.e. Knowledge Holders, LALCs, Service providers and the local Aboriginal and Torres Strait Islander community) where appropriate (Section 2.1.2 of the Guideline).
PO6	Cultural narratives are embedded in public art.	**1.** Public art should respond to culture and Country, particularly within identified areas of significant Aboriginal heritage and value. **2.** Where a development proposal has identified the opportunity to deliver public art that is responsive to culture and Country, an Aboriginal person with a connection to Western Sydney is to be engaged to: **a.** Provide input into the preparation of the public art brief, and **b.** Contribute to the design of the public art.
	Language and naming	
PO7	Place names incorporate local Aboriginal language to enhance and strengthen the cultural connection to place.	**1.** Where an existing geographical feature or public place already has a non-Aboriginal name, dual naming with the Aboriginal name, should be assigned where appropriate. More information can be found within the NSW Geographical Names Board's Dual Naming – Supporting Cultural Recognition factsheet. **2.** New development including suburbs, public spaces, places, roads or administrative areas should give preference to the use of local Aboriginal language for naming purposes. **3.** For Aboriginal naming and dual naming, the proponent is required to consult with the NSW Geographical Names Board, Traditional Custodians, local language subject matter experts (and Knowledge Holders where appropriate) (Section 2.1.2 of the Guideline). **4.** The proponent is required to seek a statement from Traditional Custodians (and Knowledge Holders where appropriate) in the selection and use of local traditional language.
PO8	Wayfinding signage incorporates Aboriginal language, knowledge and art to enhance and strengthen the cultural connection to place.	**1.** Wayfinding signage for development proposals is to be informed by cultural values research and engagement with Traditional Custodians (and Knowledge Holders where appropriate). **2.** Wayfinding signage is to consider the inclusion of elements that reflect the history and pronunciation of the associated Aboriginal name(s) in the wayfinding strategy. **3.** The proponent is required to seek a statement from Traditional Custodians (and Knowledge Holders where appropriate) in the selection and use of local traditional language.

2.2 Heritage

2.2.1 Aboriginal Cultural Heritage

Objectives

O1. Ensure adequate protection and appropriate management of archaeological resources.

O2. Ensure long-term heritage conservation outcomes are retained or interpreted to reflect the history of the Aerotropolis area.

O3. Preserve the scenic and cultural heritage connections and values of waterways, riparian lands and ridgelines.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	New development adjacent to or within the vicinity of an item or place of Aboriginal heritage significance or cultural value should not impact on that item, or place. Development is to consider visual and physical connections between items and places.	**1.** New development is appropriately sited to ensure that the curtilage or setting of the Aboriginal item or place of cultural value is retained. **2.** The development must consider surrounding landscaping, topography, views and connection with other Aboriginal sites. Possible uses for sites with identified Aboriginal heritage include passive open space, environmental conservation, and riparian corridors.
PO2	Heritage items and landscapes shall provide for long-term conservation outcomes.	**1.** Development on sites containing heritage is to provide opportunities for people to engage with heritage and culture. This may include heritage or cultural values interpretation, artwork, signage, and or public access. Any interpretation or signage is to be delivered in consultation with relevant Aboriginal stakeholders, considering the sensitivity of Aboriginal cultural heritage, knowledge and values. **2.** Development proposals for sites containing Aboriginal cultural heritage and cultural values are to be accompanied by a conservation strategy ensuring long-term conservation and restoration (where relevant) outcomes.
PO3	The archaeological potential of sites is to be determined as part of detailed site investigations. Aboriginal archaeological sites are conserved, and significant archaeological remains are protected and interpreted.	**1.** Any land with the potential to contain archaeological remains is to be subject to detailed investigations and assessment to determine the level of archaeological intervention required. Intervention may include the following: **a.** Unexpected finds procedure; **b.** Monitoring during works; or **c.** Formal salvage excavation.

Notes

Any works, development or other activity that will impact a known site of Aboriginal cultural heritage significance may require approval under the *National Parks and Wildlife Act 1974 (NSW)*, in addition to any approval requirements of the consent authority under the relevant Precinct Plan.

Applicants should consult with Heritage NSW to determine requirements for assessment and approval where developments or other works are to be carried out on or near Aboriginal heritage sites identified on the Aboriginal cultural heritage sites figure, in the relevant Precinct Schedule.

The consent authority or Heritage NSW may require additional investigations to be undertaken as part of a DA to confirm the presence of Aboriginal cultural heritage on the land. Where works uncover items that may be Aboriginal cultural heritage, the proponent is to consult with Heritage NSW and the consent authority to determine an appropriate course of action.

2.2.2 Non-Aboriginal and European Heritage

Objectives

O1. Ensure that development in the vicinity of heritage items is designed and sited to protect the heritage significance of the item and its setting.

O2. Ensure adequate protection and appropriate management of archaeological resources.

O3. Ensure that as much archaeology of Local, State, and potential National heritage significance is retained on site and interpreted within the new developments.

O4. Ensure the continued relevance of historic values through long-term heritage conservation outcomes that reflect the history of the Aerotropolis area.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Inappropriate or unsympathetic alterations and additions of heritage items are removed, and significant missing details and building elements are reinstated.	**1.** Alterations and additions to existing heritage items do not dominate or detract from the original building in terms of scale, materials, siting, landscaping, and views. **2.** Any unsympathetic or inappropriate previous alterations or additions are removed.
PO2	The impact of new development adjacent to or within the vicinity of a heritage item is minimised.	**1.** Development in the vicinity of a heritage item minimises the impact on the setting of the item by: **a.** Providing an adequate area around the building to allow interpretation of the heritage item; **b.** Retaining original or significant landscaping (including plantings with direct links or association with the heritage item); **c.** Protecting and allowing the interpretation of archaeological features; and **d.** Retaining and respecting significant views to and from the heritage item. **2.** Any new development in the vicinity of heritage items should be of a contemporary design that incorporates materials that do not overwhelm any adjacent heritage items. **3.** Open spaces should be planned around heritage items to ensure it maintains its prominent siting and encourage opportunity for active and passive interaction with the place. **4.** Highly activated urban areas in the vicinity of a heritage item must be carefully and respectfully sited, designed and landscaped to ensure that heritage values associated with the heritage item are protected.
PO3	The subdivision of land on which a heritage building is located does not isolate the building from its setting or context, or adversely affect its amenity or privacy.	**1.** Front and rear setbacks are adequate to ensure the retention of the existing landscape character of the heritage item or conservation area and important landscape features. **2.** Any significant historical pattern of subdivision and lot sizes is to be retained. **3.** Subdivision or site amalgamation involving heritage items or contributory buildings do not compromise the setting or curtilage of buildings on or adjoining the site.
PO4	Archaeological sites are conserved, and significant archaeological remains are protected and interpreted.	1. Any works that may impact a known, or potential, archaeological site must have an archaeological assessment undertaken to determine the archaeological significance of the site and appropriate management procedures.

Note

i. Refer to Appendix D25 for guidance on the preparation of Heritage Impact Statements.

ii. This DCP is also consistent with the Australia International Council on Monuments and Sites (ICOMOS) Charter for Conservation of Places of Cultural Significance (The Burra Charter) 2013 which is widely accepted as an industry standard for heritage conservation in Australia. The provisions in this section of the DCP are based on the underlying principles that:

O2. Change should be based on an understanding of heritage significance; and
O3. The level of change should respect the heritage significance of the item or area.

2.3 Stormwater, Water Sensitive Urban Design and Integrated Water Management

2.3.1 Waterway Health and Riparian Corridors

Freshwater waterways are important features of Western Sydney, and riparian areas are the interface between land-based and waterway ecosystems. Riparian corridors provide a variety of functions within urban landscapes. The Natural Resources Access Regulator defines a riparian corridor as “a transition zone between the land, also known as the terrestrial environment, and the river or watercourse or aquatic environment”. Riparian corridors play a major role in bank stabilisation, reducing erosion scour and sedimentation problems within rivers and creeks. Vegetated areas along the creek lines function as ‘buffer zones’ to surrounding land and help filter nutrients,

pollutants and sediments before they reach the creek itself and degrade the quality of water flowing throughout the Aerotropolis. In the Cumberland landscape these riparian areas are likely to represent the main vegetation community patches left in the landscape, which makes them vital connecting agents for ecosystems.

Objectives

O1. Protect and restore native and riparian vegetation to improve the connectivity, ecological condition, and function of ecosystems.

O2. Ensure that development does not adversely affect aquatic fauna.

O3. Effectively manage indirect and ongoing impacts of development adjacent to waterways to ensure vegetation in the riparian area, aquatic fauna, water quality and quantity is protected and maintained.

O4. Reinstate more natural conditions in highly modified waterways and riparian land while not increasing flood risk.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Development retains and restores native vegetation and riparian corridors.	**1.** Development maintains and protects waterways in accordance with the following guidelines: **a.** Strahler Order 1 watercourses with a catchment area of less than 15 hectares can be re-constructed and /or piped, providing stormwater modelling demonstrates the pipe and street network is capable of accommodating flows up to and including the 100 year AEP storm event. **b.** Naturalised trunk drainage paths are to be provided when the contributing catchment exceeds 15 hectares or when 1% AEP overland flows cannot be safely conveyed overland as described in Australian Rainfall and Runoff – 2019. **c.** Waterways of Strahler Order 2 and higher will be maintained in a natural state, including the maintenance and restoration of riparian areas and habitat, such as fallen debris. **d.** Where a development is associated with, or will affect, a waterway of Strahler Order 2 or higher, rehabilitation will occur to return that waterway to a natural state. **4.** Retain areas of the Proteaceae shrubs for the Eastern Pygmy Possum *Cercartetus nanus* along or adjacent to riparian areas to improve and maintain habitat connectivity. **5.** Weeds from creeks, streams and riparian areas are removed and replaced with appropriate native planting. **6.** Locate stormwater infrastructure including pipelines and detention basins wholly on certified-urban capable land consistent with the Plan's biodiversity consistent with the Plan's biodiversity certification approvals. Stormwater infrastructure is not to be located within land identified as avoided or land managed as a reserve.
PO2	Protect key aquatic habitat where it occurs.	**1.** Where aquatic habitat exists, proposed development responds to *Policy and Guidelines for Fish Habitat Conservation and Management* by the Department of Primary Industries and other relevant guidelines. **2.** Aquatic fauna habitat is rehabilitated in streams of Strahler Order 2 and higher. **3.** Existing habitat, such as fallen debris, is retained in streams of Strahler Order 2 and higher.
PO3	Development provides increased connectedness to high quality passive open space and the blue-green grid.	**1.** Road crossings across a waterway of Strahler Order 2 or higher are to be designed to minimise impacts to vegetated riparian areas and species movements in accordance with NSW Department of Primary Industries' requirements to maintain fish passage.
PO4	Riparian streets shown on the Aerotropolis Precinct Plan are delivered as part of subdivision and civil works and riparian corridors are integrated with the public domain and active transport connections.	**1.** Riparian streets are to be designed generally in accordance with the indicative cross sections at **Figure 2** Riparian street indicative cross section - Mixed Use Zone (centres and residential) **2.** and **Figure 3** and Guidelines for Controlled Activities on Waterfront Land—Riparian Corridors Published by NSW Department of Industry in May 2018. **3.** The outer 50% of the riparian zone can accommodate pedestrian and cycle paths (or shared paths) street furniture (including lights and seating), landscaped verges and water sensitive urban design elements that are normally part of the street verge.

		4. On the side of the riparian corridor that is not adjacent to a public road, the outer 50% of the riparian corridor can form part of the front setback of development lots, provided the part of the setback that is within the riparian corridor is used for landscaped area and paths only (with permeable or semi-permeable surfaces). **5.** Despite any other provision of this DCP, for lots in the Mixed Use zone with development that includes active ground floor uses: **a.** If fronting a riparian corridor or street, development may have a zero lot setback to the boundary fronting the riparian corridor or street; or **b.** If there is no street between the riparian corridor, the lot may encroach into the outer 50% of the riparian corridor. Buildings and hard surfaces on the lot must be outside the riparian corridor. **6.** Within the Enterprise zone, development that includes office, retail or other active uses that create an active façade with surveillance to the riparian corridor or street may have a zero lot setback to the boundary fronting the street or riparian corridor. Where there is no street between the riparian corridor and the lot boundary, the lot may encroach into the outer 50% of the riparian corridor providing buildings and hard surfaces are set back at least to the outer boundary of the riparian corridor. **7.** Vehicular access to lots that directly adjoin the riparian zone, or where there is a zero lot setback to the street is to be from the side or rear property boundary (i.e. opposite to the boundary fronting the riparian corridor). **8.** Maintenance access for the stormwater drainage manager must be accommodated in the design of riparian streets. Further details on access requirements for maintenance is provided in Section 2.3.3 of the DCP. ***Note 1:*** *All street cross-sections show the minimum requirements. In certain circumstances these may need to increase to respond to site specific conditions such as topography and the retention of remnant vegetation.* ***Note 2:*** *Further guidance on the width of the riparian element of riparian streets, including the identification of the Strahler order of all riparian streets, is contained in Appendix C.*

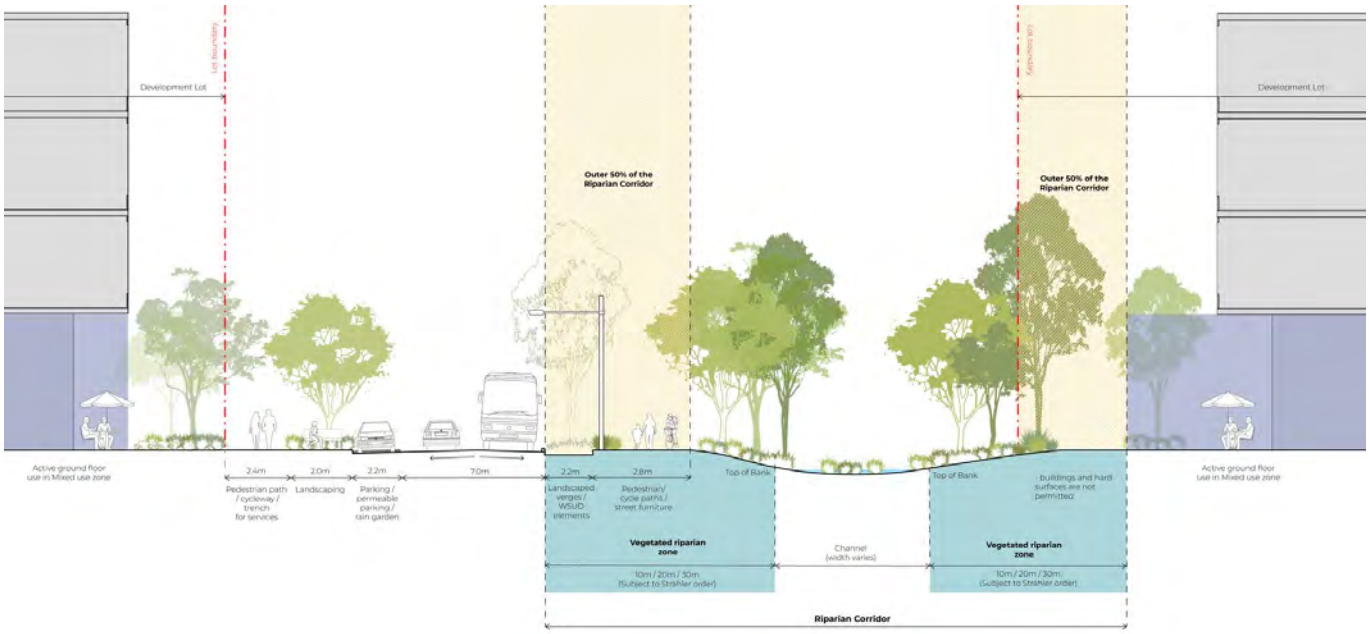

Figure 2 Riparian street indicative cross section - Mixed Use Zone (centres and residential)

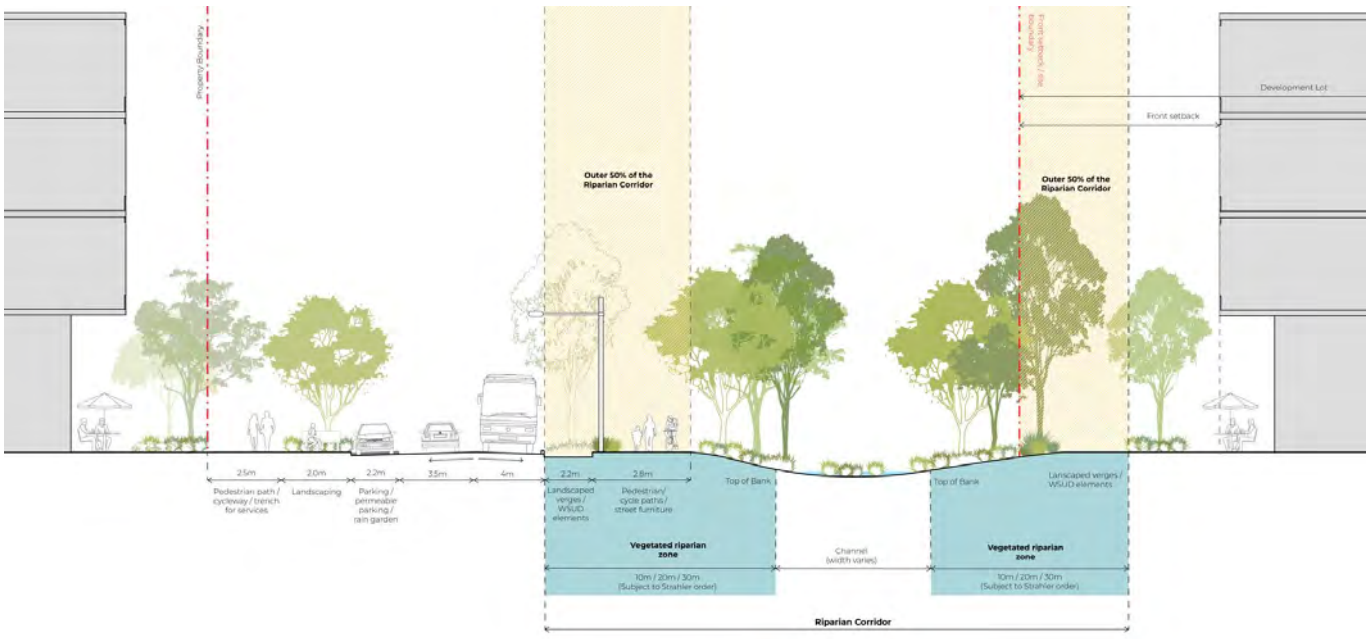

Figure 3 Riparian street indicative cross section – Enterprise Zone

***Note**: Controlled activities are actions carried out on waterfront land, as defined in the Water Management Act 2000. You must obtain an approval from the Department of Industry to carry out activities on waterfront land unless you have an exemption.*
Waterfront land is defined as the bed of any river, lake or estuary, and the land on each side within 40 metres of the river bank, lake shore or estuary's mean high water mark.

2.3.2 Stormwater Management and Water Sensitive Urban Design

The urbanisation of the catchment will increase the flow of stormwater into the waterways of the Aerotropolis. In the long term and without appropriate management, this increase would destabilise the creek lines causing ongoing erosion, loss of riparian corridors and degrading waterway health. Best practice approaches to stormwater management requires a focus on stormwater volume reduction so that the waterways and riparian corridors of the Aerotropolis retain their core ecological and landscape values.

The performance outcomes and benchmark solutions for stormwater management and water sensitive urban design respond to the waterway health objectives and stormwater management targets in the Aerotropolis Precinct Plan.

To support implementation, the NSW Government has released the *Technical guidance for achieving Wianamatta-South Creek stormwater management targets* (DPE, 2022). The guide specifically provides guidance on what modelling to undertake, what assumptions to make and which data to use to demonstrate that the targets are being achieved. It outlines design considerations in context of the vision for the Western Parkland City and landscape constraints and provides calibrated MUSIC modelling. The guide also provides examples of the interim staged measures that can be used until the regional stormwater system is operational.

Objectives

O1. Manage indirect and ongoing impacts of development on waterways to ensure that Wianamatta-South Creek Catchment water quality and flow objectives in the Aerotropolis Precinct Plan are achieved and maintained.
O2. Ensure development is integrated with water cycle management to meet the Wianamatta-South Creek Catchment stormwater management targets.
O3. Utilise stormwater for passive irrigation of street trees to promote healthy trees, optimise canopy cover and contribute to streetscape, urban cooling and amenity.
O4. Ensure overland flows are conveyed in a safe manner to the trunk drainage system.
O5. Protect, maintain and restore the ecological condition, hydrology and hydrogeology of aquatic ecosystems (including but not limited to wetlands and riparian lands).

Performance Outcomes and Benchmark Solutions

<table>
<tr><th colspan="2">Performance Outcome</th><th>Benchmark Solution</th></tr>
<tr><td>PO1</td><td>Development applications must demonstrate compliance with the stormwater quality targets at all times through interim stormwater management measures incorporated within the development, or by connection to the regional stormwater system once operational.</td><td>
1. Compliance with the water quality targets below are satisfied where development applications demonstrate:
a. To the satisfaction of the Stormwater Management Authority and the consent authority that stormwater discharge from the development will flow into the regional stormwater system; and
b. The requirements of PO4 in Section 2.3.2 are met.
2. Where the Stormwater Management Authority indicates that the regional stormwater system will not be in place to service the development interim measures must be included to achieve the waterway health objectives of the Aerotropolis Precinct Plan. Interim stormwater management measures are to be designed to achieve the stormwater quality targets listed in the table below:
Note: A proponent may opt to undertake works-in-kind to deliver the regional stormwater system in accordance with the Stormwater Management Authority's requirements.
<table>
<tr><th>Parameter</th><th>Stormwater Quality Target – Operational Phase</th></tr>
<tr><td colspan="2">Option 1: Annual Load Reduction</td></tr>
<tr><td>Gross Pollutants (anthropogenic litter >5mm and coarse sediment >1mm)</td><td>90%</td></tr>
<tr><td>Total Suspended Solids (TSS)</td><td>90%</td></tr>
<tr><td>Total Phosphorus (TP)</td><td>80%</td></tr>
<tr><td>Total Nitrogen (TN)</td><td>65%</td></tr>
<tr><td colspan="2">Option 2: Allowable Loads</td></tr>
<tr><td>Gross Pollutants (anthropogenic litter >5mm and coarse sediment >1mm)</td><td>< 16 kg/ha/y</td></tr>
<tr><td>Total Suspended Solids (TSS)</td><td>< 80 kg/ha/y</td></tr>
<tr><td>Text Total Phosphorus (TP)</td><td>< 0.3 kg/ha/y</td></tr>
<tr><td>Total Nitrogen (TN)</td><td>< 3.5 kg/ha/y</td></tr>
</table>
</td></tr>
<tr><td>PO2</td><td>Development applications must demonstrate compliance with the stormwater flow targets at all times through interim stormwater management measures incorporated within the development, or by connection to the regional stormwater system once operational.</td><td>
1. Compliance with the stormwater flow targets below are satisfied where development applications demonstrate:
a. To the satisfaction of the Stormwater Management Authority and the consent authority that stormwater discharge from the development will flow into the regional stormwater system, and
b. The requirements of PO4 Section 2.3.2 are met.
2. Where the Stormwater Management Authority indicates that the regional stormwater system will not be in place to service the development interim measures must be included to achieve the waterway health objectives of the Aerotropolis Precinct Plan. Interim stormwater management measures to be designed to achieve the following stormwater flow targets:
<table>
<tr><th>Parameter</th><th>Stormwater Flow Target – Operational Phase</th></tr>
<tr><td colspan="2">Option 1: Mean Annual Runoff</td></tr>
<tr><td>Mean Annual Runoff Volume (MARV)</td><td>≤ 2 ML/ha/year at the point of discharge to the local waterway</td></tr>
<tr><td>90%ile flow</td><td>1,000 to 5,000 L/ha/day at the point of discharge to the local waterway</td></tr>
<tr><td>50%ile flow</td><td>5 to 100 L/ha/day at the point of discharge to the local waterway</td></tr>
</table>
</td></tr>
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<table>
<tr><td></td><td></td><td>
<table>
<tr><td>10%ile flow</td><td>0 L/ha/day at the point of discharge to the local waterway</td></tr>
<tr><td colspan="2">Option 2: Flow Duration Curve Approach</td></tr>
<tr><td>95%ile flow</td><td>3,000 to 15,000 L/ha/day at the point of discharge to the local waterway</td></tr>
<tr><td>90%ile flow</td><td>1,000 to 5,000 L/ha/day at the point of discharge to the local waterway</td></tr>
<tr><td>75%ile flow</td><td>100 to 1,000 L/ha/day at the point of discharge to the local waterway</td></tr>
<tr><td>50%ile flow</td><td>5 to 100 L/ha/day at the point of discharge to the local waterway</td></tr>
<tr><td>Cease to flow</td><td>Cease to flow to be between 10% to 30% of the time</td></tr>
</table>
</td></tr>
<tr><td>PO3</td><td>Development applications must include a Water Management Strategy (WMS)</td><td>1. The WMS is to provide details of:
a. The approach to WSUD (including conceptual design details of the stormwater drainage, WSUD systems and on site detention) and how the approach will be implemented, including detail of ongoing management and maintenance responsibilities. This includes if the system is to be fenced, landscaped and maintained for the entirety of the operation of the system.
b. Where required under PO1 and PO2, how the approach to WSUD complies with the water quality and flow objectives and targets consistent with the Technical guidance for achieving Wianamatta-South Creek stormwater management targets (DPE, 2022).</td></tr>
<tr><td>PO4</td><td>The regional stormwater system includes requirements for on lot as well as streetscape measures to ensure the Targets in PO1 and PO2 are met.</td><td>1. Development includes the following stormwater management measures within each lot created by the development:
a. Minimum pervious areas to meet the requirements of PO8.
b. Gross pollutant traps (GPTs) designed in accordance the Regional Stormwater Authority technical guidance.
c. Passively irrigated street trees are provided in accordance with the provisions of clause 2.4.5 of this DCP.</td></tr>
<tr><td>PO6</td><td>Development must not increase existing urban salinity or result in increased salt loads in waterways, wetlands, drainage line or soils</td><td>1. A salinity and or sodicity hazard assessment is required to ensure no impacts to both the waterways and built infrastructure.
2. All WSUD systems must incorporate an impervious liner, unless a detailed Salinity and Sodicity Assessment demonstrates infiltration of stormwater will not adversely impact the water table and soil salinity (or other soil conditions).</td></tr>
<tr><td>P07</td><td>Drainage is designed to safely convey overland flows</td><td>1. Designs shall ensure that flows are safely conveyed to avoid unsafe conditions for pedestrians and vehicles and to meet the requirements of Australian Rainfall & Runoff Guidelines 2019.
2. Trunk drainage capable of conveying 1% AEP flow shall be designed as naturalised channels connecting to the existing stream system.
3. Trunk drainage is to be located through natural creek lines or constructed natural drainage channels to help detain flows and contribute to biodiversity, public amenity and safety.
4. Naturalised trunk drainage channels will commence when 15 ha of catchment contribute runoff flows.</td></tr>
<tr><td>PO8</td><td>Lots achieve minimum perviousness to meet stormwater drainage manager requirements and green and cooling objectives</td><td>1. Development is to demonstrate that the perviousness rates identified below are achieved.
Development in the Mixed Use Zone:
i. Mixed Use Centre (over 2:1 FSR) – 30%
ii. Mixed Use Centre (up to 2:1 FSR) – 35%
Development in the Enterprise and Agribusiness Zone:
iii. Employment – business, commercial, light industrial (three storeys and above) – 30%</td></tr>
</table>

		iv. Employment – Large format industrial and light industrial (up to two storeys) – 15% ***Note 1**: If there is more than 1 building on a lot, the number of storeys for the purposes of this clause must be determined in accordance with the Business Zone Design Guide dated December 2021 and published on the NSW planning portal (see Figure 4).* ***Note 2:** Where an application includes the delivery of streets, streets are to be included in the pervious surface area calculations.* **2.** The site area pervious requirement is to be calculated in accordance with the following index: • Deep soil (one metre or more in depth, connected subsoil) – 100% • Shallow soil (less than one metre in depth, not connected to subsoil) – 75% • Permeable pavement – 50% Hardstand – 0% ***Note:** as an example of application of the above ratios:* *i. Site area (comprising development lots and streets) is 1,000 square metres in a large format industrial area (up to 2 storeys)* *ii. 150 square metres of pervious area would be required if it is 100% deep soil* *iii. 300 square metres of pervious area would be required if it is 100% permeable pavement* iv. *areas of deep soil, shallow soil and permeable pavement can be used in combination to achieve the equivalent required pervious area.*

Height in Storeys - Multiple Buildings

Where there are multiple buildings on a site, or where a single building has multiple volumes of varying heights, the average height in storeys across the site is used to determine the maximum site coverage.

The average height in storeys is measured as the average of the heights of all buildings on the site in proportion to their footprint:

$$\frac{(a^1 \times b^1) + (a^2 \times b^2) + (a^n \times b^n)}{y} = \text{avg height in storeys rounded up}$$

Where:
a = height in storeys
b = building footprint
y = total footprint of all buildings

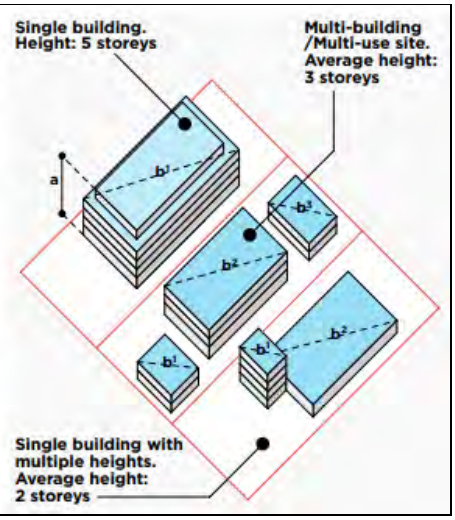


Figure 4 Calculating the average height in storeys on a site

2.3.3 Management and access to Regional Stormwater Infrastructure and Waterways

Access for the regional stormwater authority (Sydney Water) is required for the purpose of carrying out restoration, rehabilitation and revegetation for riparian management, creek hydraulics for stormwater flows, monitoring for water quality conditions and ecological state, necessary to deliver the water quality and flow objectives, drainage conveyance and any other level of service required by government.

Performance Outcomes and Benchmark Solutions

	Performance Outcome	Benchmark Solution
P01	Regional infrastructure Stormwater assets (including land and infrastructure) are managed and maintained	**1.** Where land for regional infrastructure stormwater assets (including open drainage corridors as a part of riparian streets) are not identified for acquisition on the Land Reservation Acquisition Map in State Environmental Planning Policy (Precincts – Western City) 2021 development is to: **a.** Provide an allocation of sufficient, suitably located land area to allow for stormwater assets in agreement with the stormwater drainage manager.

	by the stormwater drainage manager.	**b.** Where stormwater assets are not dedicated to Sydney Water, appropriate legal access rights are required for ongoing management and maintenance. The legal right of access must be undertaken in consultation with the Regional Stormwater Authority, Sydney Water. **c.** All costs associated with the value of land and easement creation are to be borne by the developer.
P02	Development provides management access to the stormwater drainage manager.	**1.** The design of development shall ensure where a riparian zone is identified in the Riparian Plan or Drainage Scheme Plan the landowner is to provide a legal right of access for the stormwater drainage manager to undertake required revegetation, management, and maintenance works. **2.** The maximum area of land to be designated for access for this purpose is the vegetated riparian zone or the 1% AEP, whichever the greater, for all waterways. All costs associated with the value of land and easement creation are to be borne by the developer. ***Note:*** *The stormwater drainage manager will only be responsible for undertaking defined waterway, stormwater, and riparian zone management activities on this land.*

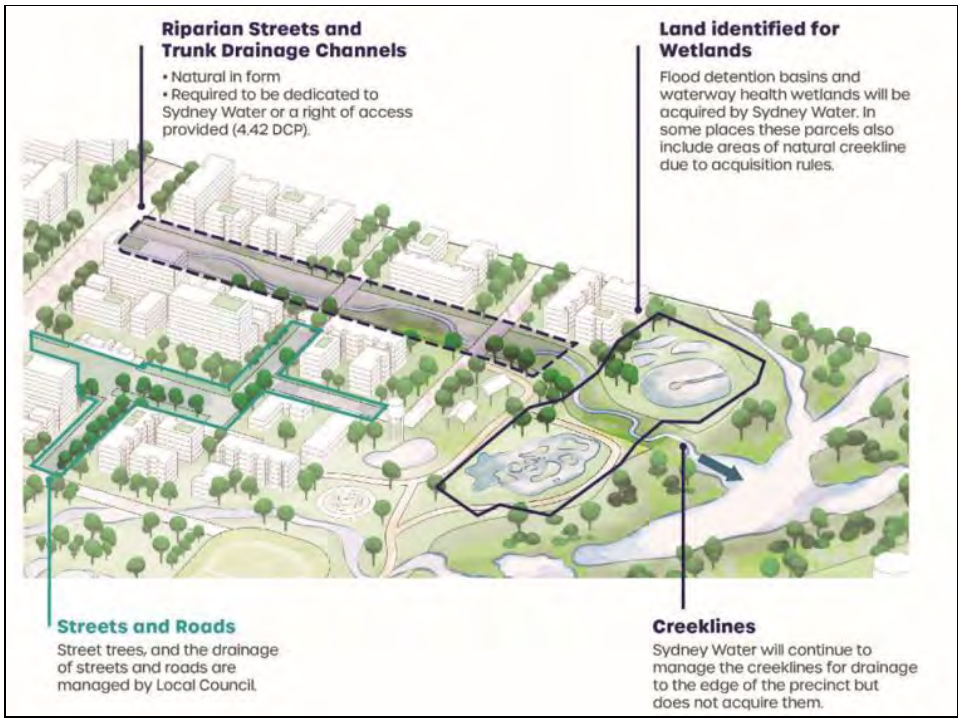


Figure 5 Indicative stormwater management for Aerotropolis

Source: Sydney Water

2.4 Vegetation and Biodiversity

2.4.1 Deep Soil and Tree Canopy

Objectives

O1. Provision of de-compacted deep soil zones to provide sufficient space for sustainable tree growth to increase the canopy cover across the Aerotropolis.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Consolidate areas of deep soil and tree canopy and provide minimum	**1.** Tree canopy and deep soil is provided in accordance with **Table 2**. Applicants must also have regard for the site coverage and relevant pervious surface targets outlined in this DCP. **2.** Deep soil areas are to be a minimum 3m by 3m in dimension.

	dimensions which allow for sufficient tree planting.	**3.** Consolidate deep soil areas by establishing them right up to abutting boundary walls and fence lines. **4.** Consolidate deep soil in setback areas and locate with adjoining deep soil areas in adjoining properties. **5.** Other than Urban Parks available under the Aerotropolis Precinct Plan, a minimum tree canopy of 45% for open space is to be achieved. Where open spaces include sports courts or fields, the 45% tree canopy shall be provided outside the spaces identified for the court or field area. **6.** Deep soil planting areas are to be de-compacted before planting with no services to be installed within these zones.

Table 2 Tree Canopy, Deep Soil and Tree Planting Requirements

Recommended Guidance	Minimum tree Canopy Target (% of site area)	Minimum deep soil (% of site area)	Minimum Tree Planting Rates*
Attached dwellings – separate lots (or appearance of), separate driveway/parking, all dwellings face a public road.			
Less than 150m^2	15%	15%	At least one small tree is to be planted in the deep soil area.
150m^2 – 300 m^2	20%	20%	For every 200m^2 of site area, or part thereof at least one small tree is to be planted in the deep soil area.
Greater than 300m^2	25%	25%	For every 225m^2 of site area, or part thereof at least one medium tree is to be planted in the deep soil area.
Multi dwelling housing – strata/community lots, ground floor access, shared driveway parking, not all dwellings face public road.			
Less than 1,000m^2	20%	20%	For every 300m^2 of site area, or part thereof at least one medium tree is to be planted in the deep soil area.
1,000m^2 – 3,000 m^2	25%	25%	For every 200m^2 of site area, or part thereof at least one medium tree is to be planted in the deep soil area.
Greater than 3,000m^2	30%	30%	For every 350m^2 of site area, or part thereof at least two medium trees or one large tree is to be planted in the deep soil area.
Apartments – (refer to requirements in the Apartment Design Guide)			
Commercial			
All lots	35%	25%	For every 300m^2 of site area, at least two medium trees or one large tree is to be planted in the deep soil area.
Large format industrial and light industrial			
All lots	25%	15%	For every 400m^2 of site area or part thereof, at least two medium trees or one large tree is to be planted in the deep soil area.

2.4.2 Protection of Biodiversity

Objectives

O1. Ensure consistency with the requirements of the relevant biodiversity certification for the subject land where applicable.

O2. Ensure construction and operational works avoid and minimise impacts to native vegetation and ecological communities.

O3. Retain and protect native vegetation areas, particularly those with Aboriginal cultural value, and provide for areas with a size and configuration that will allow for the survival and improvement of the native vegetation communities.

O4. Implement the Sydney Region Growth Centres Biodiversity Certification Order where applicable.

O5. Implement the Cumberland Plain Conservation Plan (CPCP) where applicable.

O6. Manage fire risk by regimes that protect biodiversity and habitats in the long term.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO2	Populations of threatened species are retained, and the condition of suitable habitat improves within areas of the Cumberland subregion most likely to support long-term viability.	**1.** Mitigation to be undertaken in accordance with the following best practice guidelines for threatened ecological communities (TEC): **a.** *Best Practice Guidelines: Cooks River/Castlereagh Ironbark Forest* (NSW Department of Environment and Climate Change, 2008) within and adjacent to the TEC; and **b.** *Recovering Bushland on the Cumberland Plain: Best Practice Guidelines for the Management and Restoration of Bushland* (NSW Department of Environment and Climate Change, 2005). **2.** Fencing is to be constructed where required to protect threatened species habitat. Site design allows access to fencing for ongoing maintenance. **3.** Temporary protective fencing to be erected around areas identified for conservation on or immediately adjoining the site prior to construction commencing. **4.** Allow public access to temporary fencing to ensure ongoing maintenance throughout construction. **5.** Protect integrity of temporary fencing during construction. **6.** Implement open structure design for roads adjacent to known populations of Cumberland Plain Land Snail in accordance with actions under the Save our Species Program (EES, 2020). **7.** Locate Asset Protection Zones (APZs) for bushfire protection wholly within certified land. The appropriate APZ distance is determined by Planning for Bush Fire Protection 2019 and Rural Fire Service Standards for Asset Protection based on vegetation type, slope and development type. **8.** Contain domestic cats and dogs within certified-urban capable land, consistent with relevant council guidelines as permitted and appropriate. **9.** Provide for the reuse of native plants (including but not limited to seed collection) and topsoil from development sites that contain known or potential native seed bank.
PO3	Development facilitates the connected movement of native animals through the landscape.	**1.** Avoid impacts to habitat features which provide essential habitat for native fauna including ground cover and shrub layers, emerging trees, mature trees, dead trees capable of providing habitat, natural drainage lines and rock outcrops and avoid impacts to soil within the Tree Protection Zone (TPZ) of the retained trees and the subject and neighbouring sites. **2.** Movement of fauna is facilitated within and through wildlife corridors by: **a.** Ensuring that development, services and landscaping associated activities do not create barriers to the movement of fauna along and within wildlife corridors. **b.** Protect fauna from potential construction hazards during pre-construction and construction. **c.** Prepare a pre-clearance native fauna survey immediately prior to clearing of native vegetation to ensure that arboreal mammals, roosting and hollow-using birds, bats and reptiles are stopped from accessing any vegetation to be cleared and are translocated prior to clearing. Translocation may require a licence from NSW Environment, Energy and Science under the Translocation Operational Policy. **d.** Adopt and implement open structure design for roads adjacent to known populations of the Cumberland Plain Land Snail in accordance with actions under the NSW Government's *Saving Our Species* program.
PO4	Within land subject to the *Cumberland Plain Conservation Plan* only, development adjoining conservation areas provides ecological setbacks to threatened species.	**1.** The following threatened species require setbacks: Grey-headed flying fox: i. Grey-headed flying fox camp requires 100m setback to any buildings and development; ii. The setback area should be maintained free of flying fox roosting habitat; and

		iii. A flying fox management plan should be provided to demonstrate management and mitigation measures. Raptors: i. Raptor nests require a 500m circular setback from where nests are in extensive undisturbed bushland; and ii. Where nests are located closer to existing developments, a minimum circular setback distance of 250m should be maintained along with an undisturbed corridor at least 100m wide extending from the nest to the nearest foraging grounds.
PO5	Noise and light adjacent, and near, conservation areas does not result in any disturbance to wildlife.	**1.** High intensity lighting including industrial or commercial lighting, sports field lighting, lighting within carparking areas and associated with any industrial or commercial-scale retail development shall be designed to avoid light spill into adjoining parks and biodiversity areas (AS 4282 Control of the Obtrusive Effects of Outdoor Lighting, or updates to that standard, are to be considered as a minimum). **2.** Install warm coloured LED street lighting where a development footprint contains or is within 100m of known microbat colonies or habitat likely to support microbat colonies to deter insects. **3.** Manage light spill and noise producing activities where wildlife impacts are likely to arise from the proposed development and where development is adjacent to avoided land. Measures shall include appropriate noise treatment barriers along major roads and other light and noise attenuation mitigation measures. **4.** Ensure that any residual noise impacts on wildlife arising from development are appropriately mitigated.
PO6	Bushfire risk is minimised.	**1.** Ensure appropriate fire management regimes and hazard reduction techniques for native vegetation areas, waterways, and riparian zones.
PO7	Retain and protect koala populations and their habitats through mitigating indirect and ongoing impacts from development.	**2.** For all certified-urban capable land adjacent to koala habitat, the following controls apply: **a.** Design subdivision layout, including perimeter roads and asset protection zones to reduce impacts to, and protect areas of, adjacent koala habitat. **b.** Signpost areas adjoining koala habitat to identify koalas in the area and associated penalties for non-compliance. **c.** Exclude planting tree species in open space, recreation areas and urban streets that are koala feed tree species set out below by Schedule 2 – Central and Southern Tablelands and Central Coast Koala Use Tree Species of the State Environmental Planning Policy (Koala Habitat Protection) 2021. **d.** An ecologist shall be present through the duration of any pre-clearance koala surveys and vegetation clearing works to maintain oversight and responsibility of the activities and koala translocation. **3.** Where a koala exclusion fence is not installed between koala habitat and certified-urban capable land, the following development controls apply: **a.** Prepare a pre-clearance koala survey immediately prior to the removal of native vegetation to ensure minimal disturbance to koala habitat. Implement a translocation plan if koalas are found. Translocation may require a licence from NSW Environment, Energy and Science (EES) under the Translocation Operational Policy. **b.** Implement a tree-felling protocol to avoid impacts to koalas in trees to be cleared. **c.** Enforce vehicle wash-down points for machinery, equipment and tyres prior to entering and leaving the construction site to control the spread of vegetation pathogens known to affect koala feed trees. **Pre-construction Temporary Fencing** **d.** Erect temporary protective fencing designed for koala protection to protect adjacent koala habitat on or immediately adjoining the site prior to construction to ensure koala protection. **Dog Containment Fencing** **e.** Design and construct public dog recreation areas with secure containment fencing. **f.** Design residential lots with dog containment fencing in accordance with Council requirements.

		Development Operation **g.** Manage roadside vegetation to increase the visibility of koalas. **Vehicle Strike** **h.** Implement traffic calming measures for all development i. Implement 40km/hr speed limit restrictions on local roads adjacent to koala habitat. ii. Install koala information signposts on perimeter roads and roads adjacent to wildlife habitat areas in accordance with Austroads, Roads and Maritime Services (RMS) technical guidelines, Council Guidelines and relevant Australian Standards. iii. Install traffic calming devices such as speed humps and audible surfacing along perimeter roads adjacent to koala habitat. iv. Install koala-friendly road design structures, such as underpasses, fauna bridges and overpasses as required. Reference to the RMS Biodiversity Guidelines is to be made.

2.4.3 Protection of Trees and Vegetation

Objectives

O1. Conserve and manage existing vegetation and contribute to the increase of habitat and tree canopy cover within the Aerotropolis.

O2. Retain and preserve significant trees and other vegetation to contribute to the Western City Parkland vision, vegetated ridgelines, and urban cooling and to mitigate effects of climate change.

O3. Protect and enhance native vegetation communities, threatened ecological communities, significant tree habitat and canopy, while appropriately mitigating risks from natural hazards.

O4. Mitigate impacts of development and associated works on threatened ecological communities to improve and enhance ecological condition over the long term.

O5. Prioritise development on land clear of vegetation and avoid locating development on steep and densely vegetated land.

O6. Where site conditions require it, adopt the use of underground engineered tree pits to harvest rainwater and provide sufficient space for the development of tree roots and avoid conflict with surrounding infrastructure.

Performance Outcomes and Benchmark Solutions

Performance Outcome		**Benchmark Solution**
PO1	Existing trees and vegetation are retained, protected, enhanced, and incorporated into the development, wherever possible.	**1.** Development is designed to minimise impacts on trees, except for invasive species and/or noxious weeds. **2.** Development is designed to minimise removal of trees (includes vehicular access, utility installations and ancillary development). ***Note:*** *Applications involving the removal of trees must refer to the Liverpool Council Tree Management Policy or the Penrith Council* Guidance *for Tree Removal and pruning available on the respective Council's website.*
PO2	Minimise threats to the long-term survival of existing trees through tree preservation zones and pruning techniques.	**1.** Works and construction activities are excluded within the Tree Protection Zone (TPZ) of trees unless a qualified arborist has assessed the tree and provided guidelines as to how the work can be carried out with minimal risk to the long-term survival of the tree and this has been included in an approved Tree Protection Plan (Drawing and Specification) **2.** Any pruning or tree removal works that may impact threatened ecological communities are to adhere to the following best practice guidelines: **a.** *Best Practice Guidelines: Cooks River/Castlereagh Ironbark Forest* (Department of Environment and Climate Change NSW, 2008) within and adjacent to the threatened ecological community; and

Performance Outcome		Benchmark Solution
		b. *Recovering Bushland on the Cumberland Plain: Best Practice Guidelines for the Management and Restoration of Bushland* (Department of Environment and Climate Change NSW, 2005). **3.** Development is designed to avoid impacts on trees, except for priority weeds in accordance with the Council's weed policy. **4.** Existing trees have appropriate soil volumes and setbacks from buildings, footpath, road/kerb and gutter and services to provide sufficient space for root and canopy development to ensure the tree reaches its identified mature height and spread.
PO3	Where hollow-bearing tree cannot be retained and are removed, they shall be replaced with nesting boxes, as close as possible to where the removed tree was located.	**1.** The removal of the hollow bearing trees shall be offset by the installation of nesting boxes. The size of the nest box is to reflect the size and dimensions of the hollow removed. Alternatively, the tree hollow could be appropriately mounted on one of the retained trees in a manner where it will not pose a risk to life or property. **2.** All nesting boxes and hollows shall be mounted at least 5m above the ground. **3.** Requirement for 60% of nest boxes (replacement habitat) to be in place prior to clearing of hollow-bearing trees.

2.4.4 On Lot and Streetscape Landscaping and Preferred Plant Species

Objectives

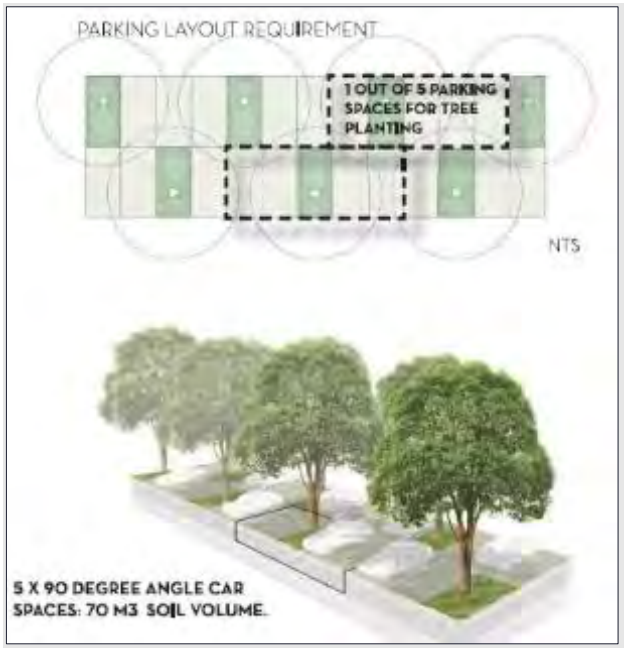
O1. Enhance the streetscape and promote a scale and density of planting that softens the visual impact of buildings.

O2. Provide a mix of canopy trees, shrubs, and groundcover to manage effects of urban heat and support environmentally sensitive design.

O3. Landscaping and green (vegetation) assets are effectively managed, maintained and consistent with airport safeguarding requirements.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Plant species are provided in accordance with the preferred species identified for the Aerotropolis.	**1.** Landscaping in development is to incorporate a diverse range plant species, as per the Aerotropolis DCP preferred Species List provided at **Appendix B** of this DCP. Prioritise use of Cumberland species, followed by other species that are suitable for the purpose and the microclimatic conditions of the site.
PO2	Landscape design reflects the cultural landscape and is integrated with the design intent of the architecture and built form.	**1.** Landscaping is to highlight architectural features, define entry points, indicate direction, and frame and filter views into the site along sight lines. **2.** Size and scale of landscaping is responsive to the bulk and scale of the development.
PO3	Landscaping complements the views to and from the public domain, as well as to and from public and private open spaces within the site.	**1.** Use appropriate species to screen side (where sufficient width permits) and rear boundaries and enhance visually obtrusive land uses or building elements (e.g. waste enclosures).
PO4	Trees are planted in locations and distances apart to support their ongoing growth without causing conflict, including with the Obstacle Limitation	**1.** Trees are planted in unobstructed spaces where they have a minimum of 3 x mature trunk diameter space to grow and to limit upheaval of pavements and infrastructure. **2.** Trees are not to penetrate operational airspace and tree heights should encourage wildlife movements below the OLS, where practical.

	Surface and utility services.	**3.** Demonstrate that species have been selected to ensure that at maturity, heights and root systems will achieve adequate clearance from streetlights and underground services such as stormwater pits. **4.** If required, trees can be planted in underground engineered tree pits to provide sufficient underground space to sustain the tree to maturity and beyond. **5.** Trees are planted and spaced to ensure the locations and spacings permit the trees to establish and reach maturity with their canopy and trunk being unimpeded.
PO5	Landscaping design promotes safety and surveillance.	**1.** Within high use areas (e.g., car parking areas, children's play areas and walkways), trees at maturity have clean trunks to a height of 1.8m around facilities. **2.** Medium height shrubs (0.6m – 1.8m) are avoided along paths and close to windows and doors to maintain sight lines and allow for passive surveillance. **3.** Landscaping in the vicinity of a driveway entrance does not obstruct visibility for the safe ingress and egress of vehicles and pedestrians.
PO6	Landscaping is integrated with vehicular access and car parking areas on development lots to soften their visual impact, provide protection from glare, and reduce heat island effect.	**1.** Provide 1 medium tree for every 5 at grade car spaces, and maximise shading (as listed and shown in the image below) by: **a.** Orienting the tree parallel to the parking space; **b.** Staggering the configuration rather than linear; **c.** Selecting a tree with a Leaf Area Index of >4; and **d.** Using structurally engineered pits or vaults and WSUD design principles to provide appropriate space for tree root development.  **2.** Landscaping shall not restrict driver sightlines to pedestrians, cyclists, and other vehicles on the frontage road. **3.** Where basement car parking extends beyond the building envelope, a minimum soil depth of 1.5m is provided above the basement, measured from the top of the slab, and including the required drainage. This will not be calculated as part of the deep soil zone nor included as part of the urban typology (site coverage) for the site.

2.4.5 Street Tree Planting Requirements

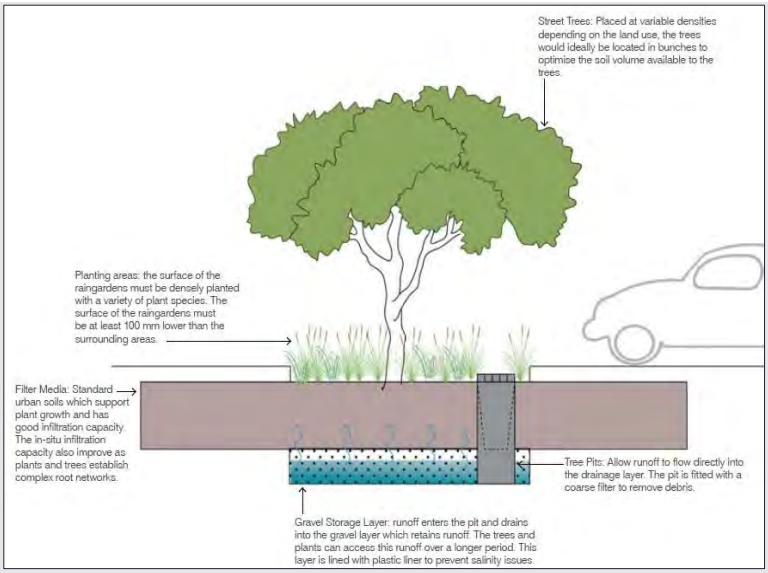
Objectives

O1. Utilise stormwater for passive irrigation of street trees to promote healthy trees, optimise canopy cover and contribute to streetscape and amenity.

O2. Facilitate canopy street tree planting that reaches a mature height that is commensurate with the width of the street and the height of development fronting that street, to enhance the amenity and identity of the street.

O3. In preparation for planting the site is to be de-compacted to ensure that a growing environment capable of supporting the sustainable growth of a tree is provided.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Development is to incorporate street trees within public road reserves, designed to be passively irrigated through the stormwater drainage system and maximise stormwater losses through evapotranspiration.	**1.** Street Tree heights and canopy spread are to be commensurate with the road reserve dimension. **2.** Street trees are to be planted at a maximum of 10m intervals (trunk to trunk) on all local streets and designed in accordance with specifications below: 
PO2	Continuous tree canopy cover is achieved along both sides of the street.	**1.** Provide verge street trees as indicated below:  *Source: Western Sydney Street Design Guidelines* ***2.*** Provide kerb extension trees as indicated below:

		 Street tree planting in kerb extension, Nagurra Place, Rozelle. credit: ASPECT Studios *Source: Western Sydney Street Design Guidelines* ***3.*** Provide carriageway trees as indicated below:  Street trees in the carriageway on Pennyroyal Boulevard, Denham Court. credit: ASPECT Studios *Source: Western Sydney Street Design Guidelines* **4.** Provide median street trees as indicated below:  Retrofitting median street trees in Primrose Avenue, Rosebery. credit: ASPECT Studios *Source: Western Sydney Street Design Guidelines* **5.** Retain and supplement trees along all proposed streets so that they provide green linkages across Aerotropolis.
PO3	Streets trees mitigate urban heat.	**1.** Provide 50% of north-south oriented streets with shade for active transit users during the hottest times of the day. **2.** Provide 80% of east-west oriented streets with shade for active transit users during the hottest times of the day.

		3. Provide for deep soil planting within the streetscape, to enable trees to reach mature heights and contribute to canopy cover. **4.** Provide landscaping within at grade car parking areas.

2.5 Flooding and Environmental Resilience Management

2.5.1 Flood Management

Objectives

O1. Ensure development in the floodplain is consistent with the *NSW Flood Prone Land Policy* and the principles of the *NSW Floodplain Development Manual*.

O2. Embed Aboriginal cultural knowledge and caring for Country practices to minimise the impact of development on flood behaviour and function of the floodplain and avoid adverse impacts to the existing flora, fauna and community.

O3. Minimise the flood risk to life and property, including to uses downstream, associated with the use of land considering the full range of flooding.

O4. Enable key community services and infrastructure that respond to flood threats to function during flooding.

O5. Allow development on land that is compatible with the flood function and behaviour on the land, taking into account projected changes as a result of climate change.

O6. Consider areas within the floodplain for amenity and recreation use where compatible with flood function and flood risk.

O7. Development is not intensified in a floodway or flood storage area.

O8. Avoid adverse or cumulative impacts on flood behaviour and the environment.

O9. Enable the safe occupation and efficient evacuation of people in the event of a flood.

Performance Outcomes and Benchmark Solutions

Performance Outcome		1% AEP Floodway and Critical flood Storage Areas (defined in Appendix A) ***Unsuitable for urban land uses***	Between 1% AEP Floodway / Critical Flood Storage and Flood Planning Area (defined in Appendix A) ***Unsuitable for Critical and Sensitive Land Uses***	Outside Flood Planning Area to Probable Maximum Flood (defined in Appendix A) ***Unsuitable for Critical Land Uses***
PO1	Conveyance and storage of floodwaters through the floodplain is managed. The siting and layout of development considers flood constraints, including risks to personal safety during the full range of floods. The site layout and built form of the development is compatible with flood constraints and potential risk.	**1.** Except for concessional development, development is not permissible in this area – refer to clause 4.24 of the Parkland City SEPP. **2.** For concessional development, the applicant is to demonstrate that the structure can be undertaken in accordance with a Flood Impact and Risk Assessment (FIRA). **3.** The FIRA is undertaken by a suitably qualified professional engineer and considers the impacts of: **a.** Flooding on the development; **b.** The development on flooding; **c.** Flooding and the development on property and the existing and future community; and **d.** Climate change consistent with the objectives of this DCP. **4.** The FIRA has considered the impacts on flooding due to encroachment of structures and the associated collection of debris and potential for blockage. **5.** The FIRA assesses flood constraints for both pre and post development cases to ensure there are no significant detrimental impacts on flood behaviour or the community within and outside the development site.	**1.** Applicant to demonstrate that development as a consequence of a subdivision or development proposal, can be undertaken in accordance with a FIRA. **2.** The FIRA is undertaken by a suitably qualified professional engineer and considers the impacts of: **a.** Flooding on the development; **b.** The development on flooding; **c.** Flooding and the development on property and the existing and future community; and **d.** Climate change consistent with the objectives of this DCP. **3.** The FIRA assesses flood constraints for both pre and post development cases with and without climate change to ensure there are no significant detrimental impacts on flood behaviour or to the community upstream, downstream, or adjacent to the site. **4.** The FIRA considers: **a.** Car parks; **b.** The type of car park; **c.** For open car parks, the restraints used to secure and prevent floating vehicles from leaving the car park; and **d.** For enclosed carparks, how floodwaters will be stopped from entering the enclosed car park. **5.** For all zones, any development that includes a residential component has Habitable Floor Levels equal to or greater than the 1% AEP flood level plus 500mm freeboard.	**1.** Applicant to demonstrate that development as a consequence of a subdivision or development proposal, can be undertaken in accordance with a FIRA. **2.** The FIRA is undertaken by a suitably qualified professional engineer and considers the impacts of: **a.** Flooding on the development; **b.** The development on flooding; **c.** Flooding and the development on property and the existing and future community; and **d.** Climate change consistent with the objectives of this DCP. **3.** The FIRA assesses flood constraints for both pre and post development cases with and without climate change to ensure there are no detrimental impacts on flood behaviour or to the community upstream, downstream, or adjacent to the site. **4.** Critical and sensitive land uses are to have floor levels equal to or greater than the PMF level, where intended to be utilised during flooding.

			6. Building Floor Levels are equal to or greater than the 1% AEP flood level plus 500mm freeboard in the following areas: **a.** Enterprise Zone; **b.** Agribusiness Zone; and **c.** Mixed Use Zone.	
PO2	Development has minimal impact on flood behaviour.	**1.** In addition to concessional development, the only structures to be considered in this area are for the purposes of creek crossings (pedestrian bridges and road bridges). **2.** The FIRA demonstrates that the structure will not increase flood affectation to existing and proposed development within and outside the development site. **3.** The FIRA considers the cumulative impact of potential future development from the upstream hydraulic control to the downstream hydraulic control. **4.** The FIRA demonstrates that the peak flow at the downstream hydraulic control is maintained with development and that the shape of the flood hydrograph is generally maintained for events up to and including the 1% AEP flood event.	**1.** The FIRA demonstrates that development will not increase flood affectation to existing and proposed development within and outside the development site. **2.** The FIRA demonstrates the cumulative impact of potential future development from the upstream hydraulic control to the downstream hydraulic control. **3.** The FIRA demonstrates that the peak flow at the downstream hydraulic control is maintained with development and that the shape of the flood hydrograph is generally maintained for events up to and including the 1% AEP flood event.	**1.** The FIRA demonstrates that development will not increase flood affectation to existing and proposed development within and outside the development site. **2.** Except for single detached dwellings and alterations and additions to existing dwellings, an engineer's report is required to certify that the development will not increase flood affectation to existing and proposed development.
PO3	Structures are designed and constructed so that they remain structurally sound for the life of the development considering flood and debris forces.	**1.** In addition to concessional development, the only structures to be considered in this area are for the purposes of creek crossings (pedestrian bridges and road bridges). **2.** In addition to concessional development, the only structures to be considered in this area are for the purposes of creek crossings (pedestrian bridges and road bridges). **3.** All structures are of flood-compatible building components below or at the flood planning level. **4.** An engineer's report is submitted to certify that the structure can withstand the forces of floodwater including debris and buoyancy up to and including the	**1.** All structures are of flood-compatible building components below or at the flood planning level. **2.** An engineer's report is submitted to certify that the structure can withstand the forces of floodwater including debris, immersion, and buoyancy up to and including the flood planning level. **3.** The FIRA demonstrates that all new electrical equipment, power points, wiring, fuel lines, sewerage systems or any other service pipes and connections can be waterproofed and/or located above the flood planning level.	**1.** Critical and sensitive land uses are of flood -compatible building components below or at the PMF level, where intended to be utilised during flooding. **2.** An engineer's report is submitted to certify that the structure can withstand the forces of floodwater including debris and buoyancy up to and including the PMF level for sensitive development or essential community facilities intended to be utilised during flooding.

		flood planning level (based on the 1% AEP flood plus 500mm freeboard).		
PO4	All fill ensures the long-term stability of the development site and is not affected by erosion.	**1.** The FIRA demonstrates that any fill as a result of the development will not be impacted by erosion and will have long term stability.		
PO5	The safety of users of developed areas located on the floodplain for the full range of flooding is ensured.	**1.** Applicant demonstrates that evacuation of the proposed development can be undertaken in accordance with the Local Flood Plan or SES flood emergency management strategy for the area. **2.** The FIRA demonstrates that evacuation can be undertaken consistent with the Local Flood Plan or SES flood emergency strategy for the area.	**1.** Vehicular and pedestrian access ensures access /egress is provided to above the predicted peak level of the PMF. **2.** The FIRA demonstrates that evacuation can be undertaken consistent with the Local Flood Plan or SES flood emergency strategy for the area.	**1.** Vehicular access to precincts is designed to ensure rising road access/egress is provided to above the predicted peak level of the PMF. **2.** FIRA for sensitive and critical development demonstrates that evacuation can be undertaken consistent with the Local Flood Plan or SES flood emergency strategy for the area.
PO6	Public safety and the environment are not adversely affected by the detrimental impacts of floodwater on hazardous materials manufactured or stored in bulk.	**1.** No external storage of materials which may cause pollution or be potentially hazardous during any flood.	**1.** No external storage of materials which may cause pollution or be potentially hazardous during any flood.	**1.** No external storage of materials which may cause pollution or be potentially hazardous during any flood.
PO7	Fencing is designed and constructed so that it does not impede and/or direct the flow of floodwaters, add debris to floodwaters or increase flood affectation on surrounding land.	**1.** Use open type fencing. **2.** Fencing is not permissible unless it can be shown, through a FIRA, not to impact on flood conveyance or behaviour.	**1.** Fencing is constructed in a manner that does not obstruct the flow of floodwaters. **2.** Fencing of flow paths is limited to permeable open type fences.	N/A
PO8	Earthworks including cut and fill do not impact flood storage areas.	**1.** The FIRA demonstrates earthworks will not affect flood storage capacity or flood behaviour for the full range of flood events. **2.**	**1.** The FIRA demonstrates that earthworks will not affect flood storage capacity or flood behaviour for the full range of flood events. **2.**	**1.** The FIRA demonstrates that earthworks will not affect flood storage capacity or flood behaviour for the full range of flood events. **2.** Any fill platform associated with development does not create a local site-specific flood island isolating the user from safety during flooding

*Areas identified in *Wianamatta (South) Creek Flood Study – Existing Conditions* prepared by Advisian for Infrastructure NSW in November 2020 or subsequent versions of this report by Advisian for Infrastructure NSW and the Department of Planning and Environment.

Note: Refer to Appendix A of this DCP for a definition of terms referred to in this section, including definitions for critical and sensitive land uses, as well as concessional development.

2.5.2 Mitigating Urban Heat Island Effect

Objectives

O1. Design built form, including public and private open spaces with measures that reduce the impact of very strong and extreme heat stress days on residents, workers and visitors.

O2. Manage urban heat island effects to ensure a high level of comfort for workers and residents throughout the year, with a focus on hot days and the summer period.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Site layout of development and public domain mitigates urban heat island effect.	**1.** Evaporative cooling is enabled through implementation of design initiatives and features, including: **a.** Misting infrastructure in public places during high and extreme heat days; and **b.** Irrigation of private open spaces (using harvested stormwater) with 50% of grassed areas and 100% trees irrigated. **2.** Use pavements which are permeable and have high albedo, resulting in less solar absorption. When using permeable pavers, it must be demonstrated that there is no impact on the salinity or sodicity of underlying soils. **3.** Public seating has adequate shading.
PO2	Buildings minimise cooling demand indoors and heat absorbance through orientation, the design of roofs and facades and materials.	**1.** Orientate buildings to take advantage of prevailing winds, natural ventilation, and solar access. **2.** Provide western and northern facades with external shading devices to shield the building from hot summer sun, while allowing direct sunlight in winter. **3.** Integrate green infrastructure into buildings, including healthy vegetation, green walls, and irrigation in open spaces. **4.** A minimum of 50% of non-industrial rooftops are to be either vegetated, light coloured or irrigated using harvested stormwater. **5.** Low heat conductive materials, appropriate insulation, wider eaves on northern and western facades reduce passive internal heating of the building. **6.** To minimise energy use, buildings can: **a.** apply green roof and green façade/wall elements to reduce heat loads on internal spaces; **b.** Use external shading on north and north west facades; **c.** Use sub floor ventilation; and **d.** Provide outdoor clothes drying facilities.

2.5.3 Salinity

Objectives

O1. Manage and mitigate the impacts of development in relation to salinity processes, to prevent any degradation of soils, groundwater or vegetation, where present in the landscape.

O2. Minimise salt movement in the landscape to promote landscape-led design approaches and ensure development will not significantly increase the salt load in existing watercourses.

O3. Ensure application of water to the landscape and developable areas does not adversely impact the environmental value and the ecological health of waterways, groundwater dependent ecosystems, soil quality, trees, and vegetation.

O4. Assist government agencies, land management authorities and landholders in developing appropriate salinity management practices.

O5. To avoid or mitigate the impacts of salinity on development, including damage to buildings and infrastructure and the loss of productive agricultural land.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	The extent and location of salinity in the landscape and hydrogeologic regimes are accurately identified.	**1.** Undertake salinity investigations prior to development and prepare a Salinity Management Plan. **2.** Where required, the Salinity Management Plan considers water application rates, size of the block and timing and management of irrigation to ensure overwatering and salt movement is minimised. **3.** A detailed salinity analysis, to be prepared by a qualified expert, will be required if: **a.** An initial investigation shows the site as saline or affected by salinity; or **b.** The site of the proposed development has been identified as being a moderately saline area on the Western Sydney Potential Salinity Map.
PO2	Development avoids disturbing high-risk saline soils to minimise the movement of salt in the landscape, increase soil health and prevent soil structural decline.	**1.** Demonstrate that disturbance to the natural hydrological system is minimised by: **a.** Maintaining effective drainage, or where modification occurs, the modification provides effective drainage systems; **b.** Reducing waterlogging on the site and the potential for waterlogging via landscape-led design; **c.** Having minimal impact on the water table; and **d.** Having minimal impact on the hydrogeologic regime for sub soils, lateral flows, and deep groundwater systems.
PO3	Salinity management and codes of practise are adhered to and based on NSW and local government guidelines.	**1.** Implement the following salinity management guidelines and codes of practise (or updates thereto) for land development (not limited to): **a.** Western Sydney Salinity Code of Practice (Western Sydney Regional Organisation of Councils, 2003). **b.** Western Sydney Hydrogeological Landscapes: May 2011 (First Edition) data package. **c.** Relevant Australian Standards, including AS 2159, AS 2870, AS 3600, AS 3700 and AS 2870; and **d.** Local Government salinity initiative documents, including: i. Site Investigations for Urban Salinity; ii. Land Use Planning and Urban Salinity; iii. Building in a Saline Environment; and iv. Roads and Salinity. **2.** Where soil sampling is required to be undertaken as part of salinity investigations, provide the following details: **a.** Location of investigation soil samples and bores on plan; **b.** Electrical conductivity (EC) and texture profiling down the soil profile; **c.** Density of sampling; **d.** Use of electromagnetic (EM) survey; and **e.** Preliminary block layout to allow for development plans to address salinity issues.
PO4	Achieve healthy ecosystems by supporting soil ecology and support water retention in the clay landscape of the Cumberland Plain.	**1.** Retain undisturbed soil networks that occur in riparian corridors, parks, nominated streets and specially designed natural soil corridors.

2.5.4 Acid Sulfate Soils

Objectives

O1. Manage and mitigate the impacts of land development in relation to acid sulfate soils, where present in the landscape.

O2. Ensure the environmental value and ecological health of waterways, soil, trees, and vegetation are appropriately protected from the release of acid water from disturbed acid sulfate soils.

O3. Manage and mitigate the impacts on infrastructure within acid sulfate soils and waterways where degradation and accelerated corrosion could occur.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Acid sulfate soils are managed during development to ensure reuse of acid sulfate soil (with treatment) is considered and managed with no adverse impact to the environment, waterways, and infrastructure.	**1.** An Acid Sulphate Soils Assessment is to be provided with all development applications. **2.** Disposal of any acid sulfate soil as waste during development is undertaken in accordance with guidelines made and approved by the NSW EPA. **3.** Where acid sulfate soils are present, an Acid Sulfate Soils Management Plan is prepared by a suitably qualified person and demonstrates that development will have no impact on environmental values or the current level of the water table.
PO2	Infrastructure and concrete and steel structures placed in acid sulfate soil or within waterways for land development is designed to withstand acid sulfate soil environments.	**1.** Development is designed in accordance with relevant standards to withstand increased corrosion and durability impacts associated with acid sulfate soil.
PO3	Land development avoids excavation, dewatering and disturbance of acid sulfate soil.	**1.** Landscape-led design minimises the potential for environmental and waterway impacts from development on acid sulfate soils.

2.5.5 Erosion and Sediment Control

Objectives

O1. Protect the health of Wianamatta-South Creek and its tributaries from construction and building runoff and meet the performance criteria for ambient water quality objectives.

O2. Encourage vegetation retention, protect vegetation during construction and operation, and facilitate prompt rehabilitation through revegetation strategies.

O3. Minimise site disturbance during construction, reduce the amount of erosion, and stabilise construction works as quickly as possible following completion.

Performance Outcomes and Benchmark Solutions

<table>
<tr><th colspan="2">Performance Outcome</th><th>Benchmark Solution</th></tr>
<tr><td>PO1</td><td>Development is to ensure 80% of all flows leaving the construction site achieves total suspended solids of 50mg/L or less and a pH of 6.5-8.5 during the construction and building phases until the site is stabilised and landscaped</td><td>
1. An Erosion and Sediment Control Plan (ESCP) must be submitted for sites less than 2,500sqm and a Soil and Water Management Plan must be submitted for sites greater than 2,500sqm. These plans must be prepared in accordance with Appendix D.21.
2. The ESCP or CPESC must demonstrate compliance with the construction phase targets, outlined in the table below throughout the construction and building phases until the site is stabilised and landscaped.
3. The ESCP or CPESC must illustrate that appropriate controls have been planned which will, when implemented, minimise erosion of soil from the site and, accordingly, sedimentation of drainage systems and waterways.
<table>
<tr><th>Parameter</th><th>Construction Phase Target (reduction in mean annual load from unmitigated development)</th></tr>
<tr><td>Total suspended solids (TSS) and pH</td><td>All exposed areas greater than 2,500m^2 must be provided with sediment controls which are designed, implemented and maintained to a standard which would achieve at least 80% of the average annual runoff volume of the contributing catchment treated (i.e. 80% hydrological effectiveness) to 50mg/L Total Suspended Solids (TSS) or less, and pH in the range (6.5–8.5).
No release of coarse sediment is permitted for any construction or building site.
Sites less than 2,500m^2 are required to comply with the requirements of the Blue Book.</td></tr>
<tr><td>Oil, litter and waste contaminants</td><td>No release of oil, litter or waste contaminants.</td></tr>
<tr><td>Stabilisation</td><td>Prior to completion of works for the development, and prior to removal of sediment controls, all site surfaces must be effectively stabilised including all drainage systems.
An effectively stabilised surface is defined as one that does not, or is not likely to result in visible evidence of soil loss caused by sheet, rill or gully erosion or lead to sedimentation and water contamination.</td></tr>
</table>
</td></tr>
</table>

2.6 Road design for Arterial and Sub-Arterial Roads

This section applies to development that includes Arterial Roads, Arterial Road (Bus Route) or Sub-arterial Roads identified in the Street Network and Hierarchy map in the Aerotropolis Precinct Plan.

Further guidance on street design and engineering standards can be found in the *Western Sydney Street Design Guidelines*, *Western Sydney Engineering Design Manual* and the Aerotropolis Precinct Plan. Provisions for other lower-order roads are also found in **Chapter 3** (Enterprise Light Industry and Agribusiness areas), **Chapter 4** (Centres) and **Chapter 5** (Mixed Use – Residential Areas).

Objectives

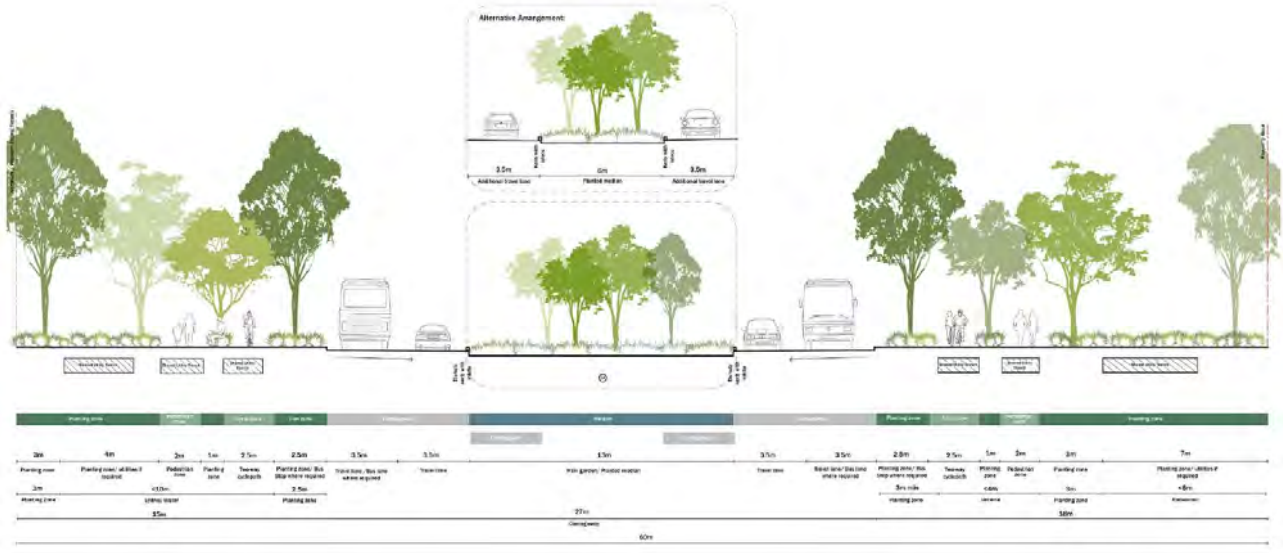
O1. Design street networks to support the objectives of the NSW Government's Movement and Place framework.

O2. Design key regional and state roads consistent with the Precinct Plan.

O3. Design street networks to accommodate diverse modes of transport including heavy vehicles, cars, public transport, walking and cycling.

Performance Outcomes and Benchmark Solutions

PO1	The design, functionality and safety of arterial and sub-arterial roads is consistent across the Aerotropolis Growth Area.	**1.** Direct vehicle access to properties from the Arterial and Sub-Arterial roads identified in the Precinct Plan is not permitted, except for land uses that require or benefit substantially from access to major roads (for example service stations) and where approval is obtained from the relevant roads authority. **2.** Road design for Primary Arterial Roads, Primary Arterial Roads (Rapid Bus), and Sub-arterial Roads as identified on the Precinct Plan are to be consistent with the typical arrangements shown below in Figure 6 to Figure 8. **3.** Implement fauna-sensitive road design elements to minimise environmental impacts, such as vehicle strike during and after road construction and upgrading. ***Note:*** *All street cross-sections illustrate minimum requirements. In certain circumstances these may need to increase to respond to site specific conditions such as topography and the retention of remnant vegetation.*
PO2	Support temporary site access that is required but not currently available	**1.** To enable the development of land where access across adjoining properties is required but not yet provided, the consent authority may consider temporary access to arterial or sub-arterial roads where: **a.** The development complies with all other development standards; and **b.** The consent authority is satisfied the carrying out of the development will not compromise road safety. **2.** Where the consent authority grants such consent, the temporary access must be constructed to the Council's standards except in the case of a State classified road, which must be designed and constructed to TfNSW's standards. Conditions will also be imposed to limit access to the designated road when alternative access becomes available.



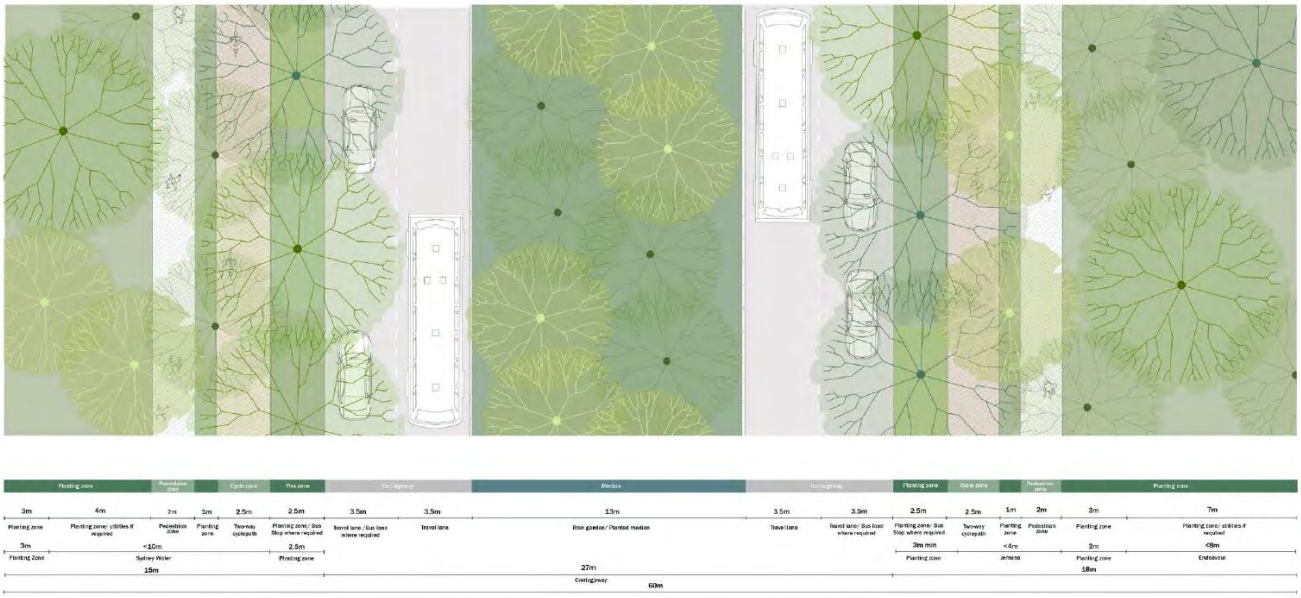
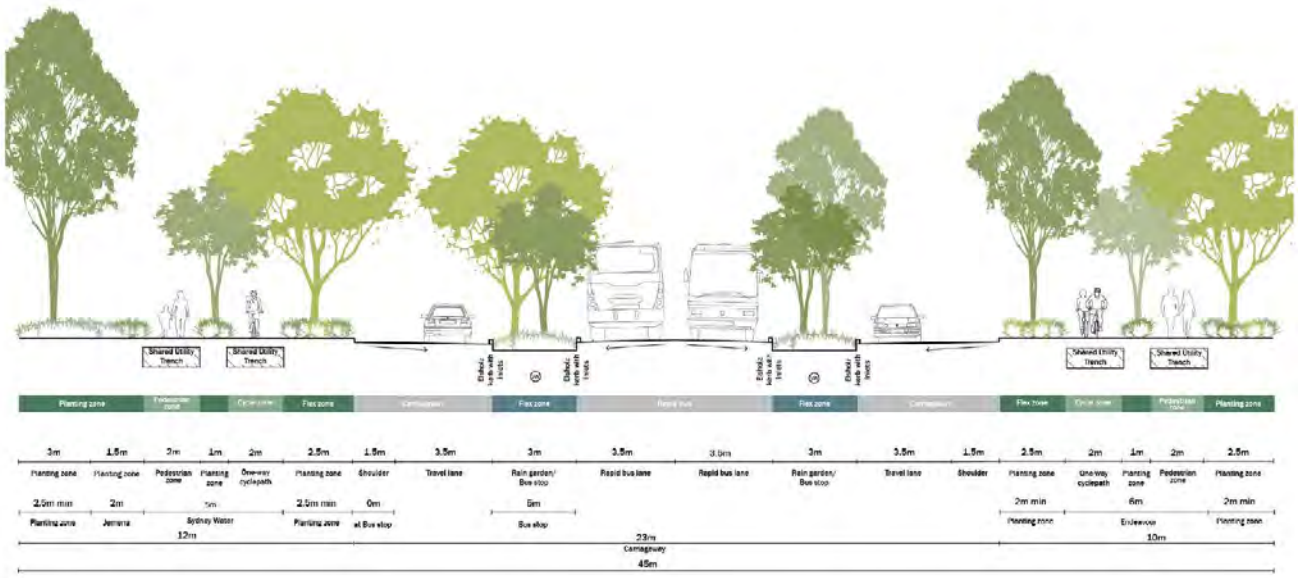


Figure 6 Primary Arterial Road – Typical arrangement



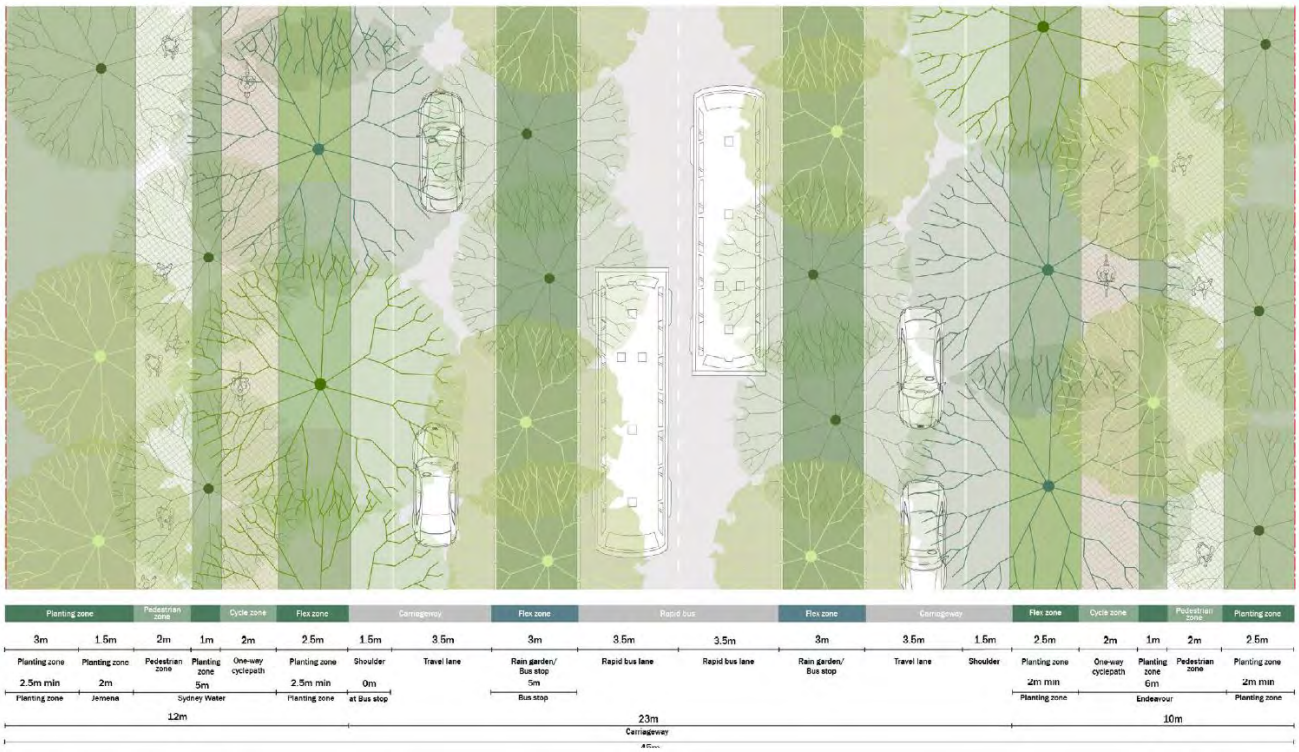
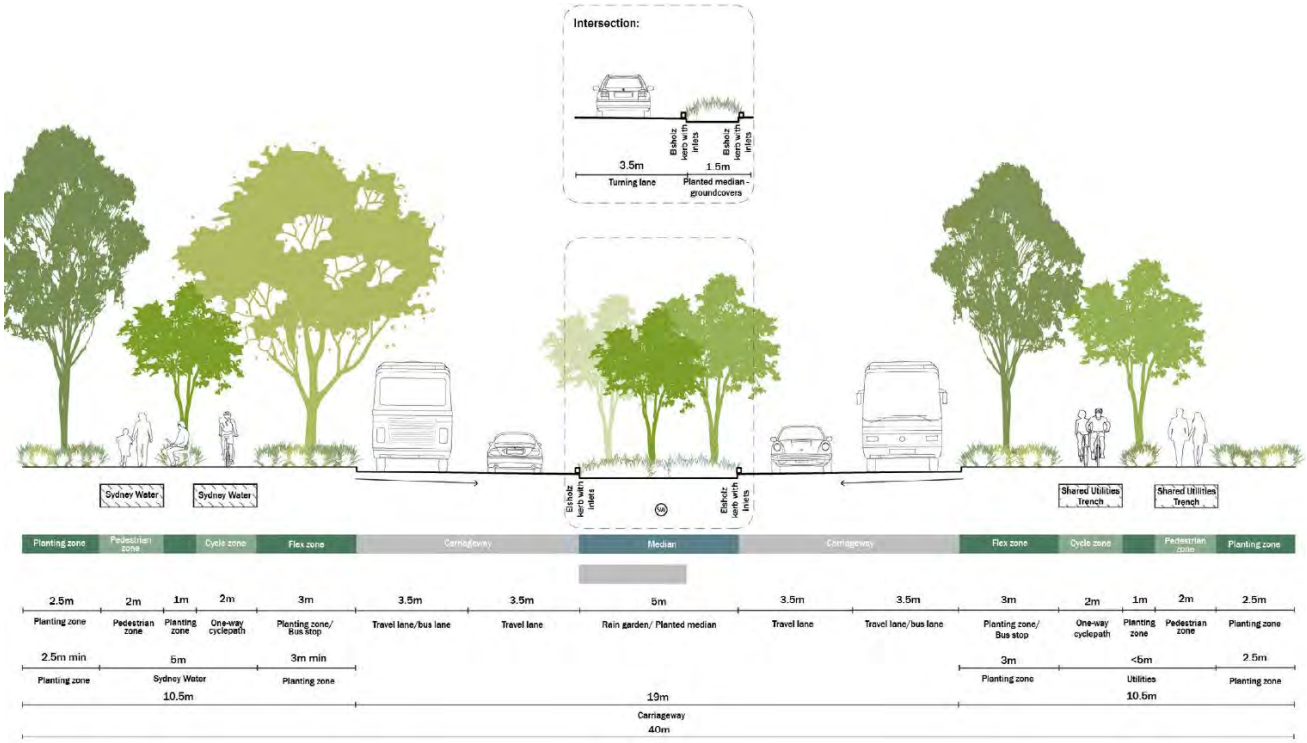


Figure 7 Primary Arterial Road (Rapid Bus) – Typical arrangement



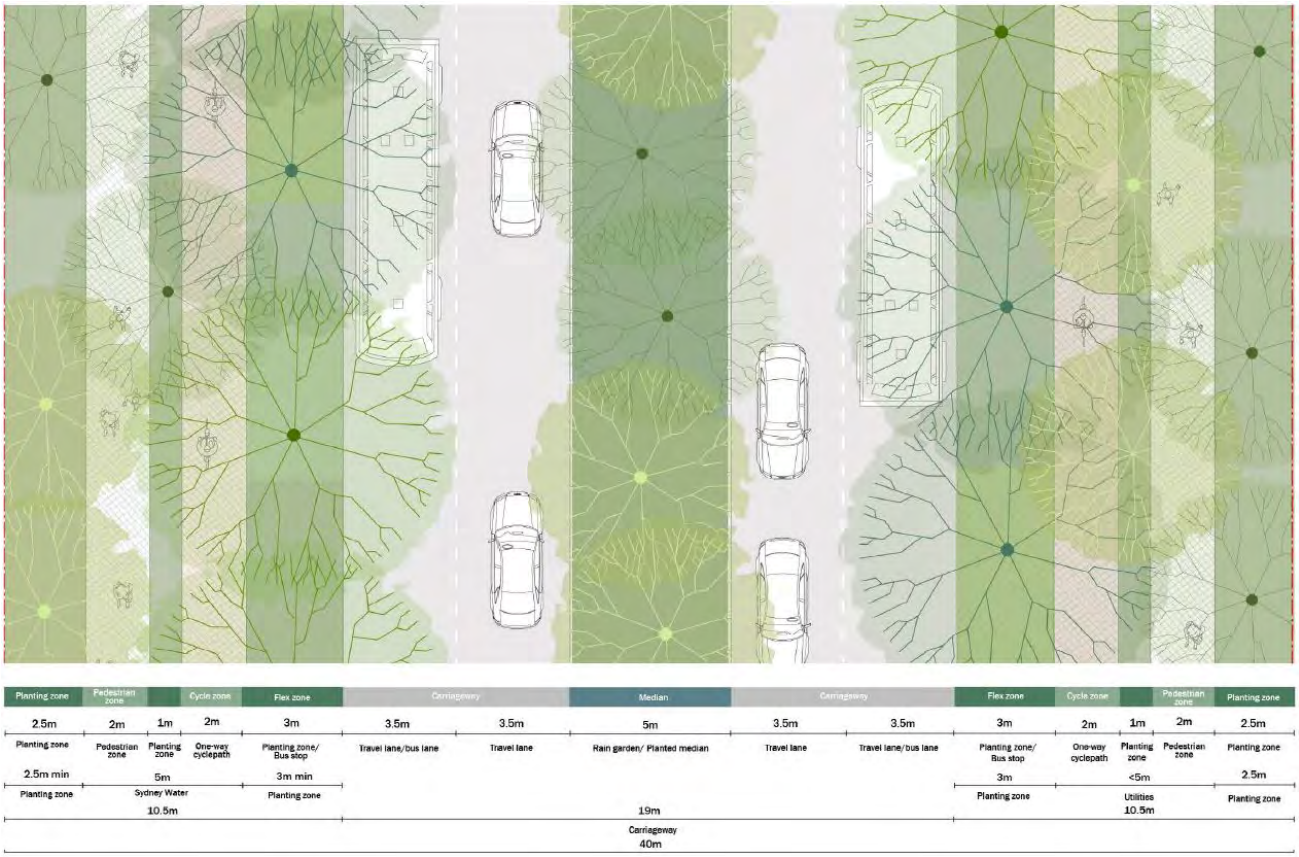


Figure 8 Sub-Arterial Road – Typical arrangement

2.7 Parking design and access

Objectives

O1. Provide functional, safe, and efficient parking areas.

O2. Minimise visual and amenity impacts of car parking on the public domain.

O3. Minimise visual and amenity impacts of loading and servicing on the public domain.

O4. Ensure adaptability of car parking provision and design where accommodated above ground to accommodate other uses over time.

O5. Ensure vehicle access arrangements are appropriate and minimise any adverse impact on infrastructure, road networks, safety, adjoining properties, amenity, and street trees.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	The design and layout of car parking and vehicular access is safe and functional.	**1.** Parking is to meet AS 2890 and AS 1428.
PO2	Prioritise use of basement car parking areas in mixed use areas and Centres.	**1.** A maximum of one 6m wide basement vehicle entry and one 6m wide basement exit is provided per basement. **2.** Basement ceilings are stepped in order to allow for ground floor levels to be provided at natural ground level.
PO3	Where required due to flooding or geological constraints preventing the use of basements, at grade and above ground car parking does not detract	**1.** Parking areas do not significantly interfere with pedestrian through-site links.

Performance Outcome		Benchmark Solution
	from public domain or amenity.	
PO4	Above ground car parking is designed to activate the streetscape and not detract from the public domain.	**1.** Locate vehicle access points on the secondary frontage or via a rear lane. **2.** Development which includes ground floor or above ground car parking contains active uses on ground floor street frontages. **3.** Car parking levels are appropriately screened from the street and/or public domain and integrated into the design of the building.
PO5	Utilise integrated parking solutions to service multiple development sites.	**1.** Where integrated basement car parking is used, these: **a.** Must provide shared access to the integrated basement car parking area; **b.** Must demonstrate how shared access for adjoining sites, including circulation paths and breakthrough walls, will function and are to be accommodated; **c.** Have basement structures at a depth that adequately accommodates services, stormwater drainage and other infrastructure; and **d.** Ensure that the basement level(s) below the public domain are used for circulation areas, ramps, visitor parking, freight and service vehicle parking, loading areas and waste collection points, not individual strata titled spaces.
PO6	Safe and convenient movement of pedestrians and cyclists is prioritised over vehicle movements.	**1.** Locate vehicular access points away from active pedestrian areas and public open space on secondary streets or lanes. **2.** At vehicular access points, seek to minimise voids and areas for concealments to ensure lighting is sufficient to allow facial recognition. **3.** Separate pedestrian and bicycle access from vehicular circulation areas. **4.** For industrial land uses and warehouse and distribution facilities, heavy vehicles be fully separated from staff and visitor parking and entry/exit points and that safe and separated access from staff and visitor parking be provided to office areas. **5.** Change pavement (colour and/or texture) to: **a.** Provide clear demarcation between pedestrian and vehicle spaces; and **b.** Reduce vehicle speeds at entries or key nodes. **c.** For the egress points of larger developments, install stop signs and lines for motor vehicles crossing pedestrian and bicycle. **d.** Provide separate pedestrian access routes to building entries from the public domain and parking areas. **e.** Pedestrian access routes are direct, with good sightlines, intuitive wayfinding, and easy gradients. **f.** Design of pedestrian access routes consider pedestrian comfort and amenity by providing shade, shelter, and rest areas.
PO7	Vehicle access arrangements and queuing areas on a site shall minimise any adverse impact on infrastructure, road networks, safety, adjoining properties, amenity, and street trees.	**1.** Locate vehicle access points on the secondary frontage or rear lanes with access and egress points provided in a forward direction. **2.** 2. Where a site has frontage to a classified road, provide access to an alternate road. **3.** Ensure that all vehicles can enter and exit in a forward direction. **4.** Accommodate turning movements of the largest design vehicle to access the site, with consideration to servicing and garbage collection requirements. **5.** Where the entry to a parking space is also the entry to a waste collection area, access should be possible via a PIN pad and code, to avoid the need for waste truck drivers to carry keys or access cards/fobs with them.
PO8	Car parking spaces and associated infrastructure are designed with the potential to transition to other uses	**1.** All car parking spaces at grade, or if provided above the ground floor level within a building, shall demonstrate what infrastructure will be incorporated into the carpark areas of the building to allow for the easy transition to habitable land uses in the future. This includes consideration of: **a.** Retrofitting of utilities and services (water, electricity, and internet); **b.** Building code requirements for a range of uses; **c.** Removable ramps; **d.** Greater reinforcement, such as steel (as residential/commercial spaces are heavier than car parks); and **e.** Flexible approaches for night-time use (see images below).

Performance Outcome		Benchmark Solution
		2. All at grade or above ground car parking spaces within buildings have a floor to ceiling height of 3.0m to 4.5m (clearance free of mechanical servicing) to allow for adaption to other uses.
PO9	Parking layout, surfacing and drainage design responds to Water Sensitive Urban Design.	**1.** With the exception of heavy vehicle entries, use pervious surfaces for at grade parking and driveway design other than entry for heavy vehicles. **2.** Where appropriate, incorporate a permeable surface in car washing spaces. The use of turfed or gravel surfaces is considered acceptable, provided the water is treated to prevent contaminants from entering the stormwater system.
PO10	Utilise tandem, stacked, and mechanical parking where appropriate.	**1.** Where development includes a mechanical parking installation, such as car stackers, turntables, car lifts or other automated parking systems, a Parking and Access Report is to be provided. **2.** Access to mechanical parking installations is to be designed in accordance with AS 2890. **3.** Tandem or stack parking will only be permitted where: **a.** Each tandem or stacked parking arrangement is limited to a maximum of two spaces; **b.** The maximum parking limit for spaces in the development is not exceeded; **c.** they are used for staff parking only; **d.** They are not used for service vehicle parking; and **e.** The manoeuvring of stacked vehicles is able to occur wholly within the premises. **4.** Mechanical parking installations will be considered for developments involving the adaptive reuse of existing buildings where site or building constraints prevent standard parking arrangements. **5.** Mechanical parking installations, tandem or stacked parking are not to be used for visitor parking or parking for car share schemes. **6.** The minimum length of a tandem space is 10.8m.
PO11	Smart technology to be incorporated in large car parks (over 100 spaces) to improve functionality.	**1.** For development (over 100 spaces), provide technology which tracks real-time car movement such as wireless parking bay sensors and dynamic signage to guide drivers.

2.8 Travel Demand Management

'Travel Demand Management' (TDM) refers to the measures taken to reduce the length of trips (particularly by car), minimise the need to travel, and encourages travel by the most sustainable mode of transport.

Objectives

O1. Implement TDM to align with mode share targets stipulated in the Precinct Plan.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Travel Plans are provided to include measures that reduce car dependency for new developments by encouraging sustainable transport modes.	**1.** A Travel Plan must be submitted for: **a.** Any residential developments containing more than 50 residential units; and **b.** Any commercial or industrial developments which accommodates more than 50 employees.
PO2	Where temporary access is required but not currently available, this shall be provided in a way that regards the safety and efficiency of the transport network.	**1.** To enable the development of land where access across adjoining properties is required but not yet provided, the consent authority may consider temporary access to arterial or sub-arterial roads where: **a.** The development complies with all other development standards; **b.** Subdivisional roads generally conform with the road pattern shown on the Indicative Layout Plan; and

Performance Outcome		Benchmark Solution
		c. The consent authority is satisfied the carrying out of the development will not compromise road safety. **2.** Where the consent authority grants such consent, the temporary access must be constructed to the Council's standards except in the case of a State classified road, which must be designed and constructed to TfNSW's standards. Conditions will also be imposed to limit access to the designated road when alternative access becomes available. ***Note**: Approval from TfNSW will be required for any temporary access to a classified road.*

2.9 Service and loading design

Objectives

O1. To Provide functional, safe, and efficient loading and servicing areas.

O2. Minimise visual and amenity impacts of loading and servicing on the public domain.

O3. Ensure that adequate off-street loading, delivery, and servicing facilities are provided.

O4. Minimise the impacts of loading, deliveries and servicing operations on the safety and efficiency of the surrounding road system and resident/visitor movement.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Provide on-site loading and servicing that meets the demand generated by the development.	**1.** Where a waste collection point is provided within a basement, head height clearances and aisle widths on Level 1 of the basement are to be sufficient for the largest loading vehicle (minimum 5m high) to enter the site, unload and exit the site in only one (1) reverse vehicle movement. **2.** All servicing, including waste and recycling collection, to be carried out wholly within the site with collection points at convenient locations. **3.** Where waste and recycling bin rooms and collection points are located within the basement, a floor to ceiling clearance of 6.5m is required to allow for the overhead mechanical loading of bins within the basement by garbage trucks.
PO2	Loading and unloading facilities are adaptable to future technologies.	**1.** Loading and unloading facilities are adaptable to technology or other services (e.g., food donation operations, or reverse logistics to return items for reuse or repair).
PO3	Service vehicle types are appropriate to the scale and requirements of the proposed development.	**1.** Residential developments containing more than 30 dwellings, but less than 60 must provide at least 1 service delivery space, capable of accommodating at least 1 Medium Rigid Vehicle. **2.** Residential developments containing more than 60 dwellings provide at least 1 service delivery space, capable of accommodating at least a: **a.** Medium Rigid Vehicle (MRV); and **b.** Heavy Rigid Vehicle (HRV). **3.** Swept turning paths provided for HRV and single articulated vehicles (20m). **4.** MRVs and HRVs are deemed to be the same as that described in Section 2 of AS 2890.2 – Parking facilities – Part 2: Off-street commercial vehicle facilities. **5.** Off-street loading and unloading facilities are provided for all commercial and industrial premises. The number and size of loading bays will be determined by the consent authority having regard to the: **a.** Intended use of the premises; **b.** Frequency of deliveries/collections; **c.** Size and bulk of goods to be delivered/collected;

Performance Outcome		Benchmark Solution
		d. Size of vehicles to be used; and **e.** Likely impacts on traffic safety and efficiency on adjoining roads.

2.10 Airport Safeguarding

This section of the DCP is to be read in conjunction with Part 4.3 of the Parkland City SEPP which details airport safeguard development controls in relation to aircraft noise, building wind shear and turbulence, wildlife hazards, wind turbines, lighting, airspace operations and public safety areas.

2.10.1 Protection of Operation Airspace

Objectives

O1. Safeguard the future 24-hour operations of the Airport and provide appropriate protections for the surrounding community.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Development does not generate turbulent emissions into the protected airspace.	**1.** Any plumes caused by a development do not: **a.** Have peak vertical velocities of more than 4.3m/sec; or **b.** Incorporate flares, unless an aviation impact assessment is completed and determines flares are acceptable.
PO2	Development does not impact on aviation or the operation of the Airport regarding light emission and reflective surfaces.	**1.** Development must comply with the provisions of the Civil Aviation Regulations 1988 (Cth) and not cause distraction or confusion to pilots due to its configuration, pattern or intensity or prevent clear reception of aerodrome lights or signals. Significant lighting includes: **a.** Motorway and freeway lighting; **b.** Flare plumes from industrial activities; **c.** Flood lighting from stadiums or outdoor recreation facilities; and **d.** Construction lighting. **2.** Lighting within the primary light control zones – Zones A, B, C and D: **a.** Must not exceed the following intensity of light above a 3-degree horizontal: i. Zone A – 0 candela (cd); ii. Zone B – 50 cd; iii. Zone C – 150 cd; and iv. Zone D – 450 cd. OR **b.** Be fitted with a screen/shroud that prevents the light emission above the horizontal plane. **3.** Proposals within 6km of the Airport: **a.** Must not include coloured or flashing lights; or **b.** Where coloured or flashing lights are to be incorporated, the proposal must be referred to the relevant Commonwealth body. **4.** The appearance, material, reflectivity and aesthetics of the roofscapes consider the flight path and flight zone.

Note: *The relevant consent authority may request a report prepared by a suitably qualified consultant demonstrating compliance with this section of the DCP in support of any development application.*

2.10.2 Noise

Objectives

O1. Safeguard the future 24-hour operations of the Airport and provide appropriate protections for the surrounding community.

O2. Development does not introduce or intensify noise sensitive uses.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Development within the ANEC 20 and above contours (including extensions to existing development) is constructed to achieve indoor design sound levels as per the Indoor Design Sound Levels for Determination of Aircraft Noise Reduction in *AS 2021 – Acoustics Noise Intrusion – Building Siting and Construction*.	**1.** Residential development is constructed in accordance with Table 3. **2.** An acoustic report is provided which specifies the construction standards required to achieve the specified indoor design sound levels. ***Note:*** Residential development within the ANEC 20 and above contours will only be permitted where provided under clause 4.17(4) of the Parkland City SEPP or existing use rights apply. Development of residential accommodation will have the option of either incorporating the specified construction standards or provide an acoustic report. All other noise sensitive development specified within Table 4 of AS2021 will be required to be accompanied by a report prepared by a suitably qualified and experienced acoustic engineer.

Table 3 Residential Acoustic Treatments Required to Ensure Compliance with Indoor Design Sound Levels in AS2021:2015

Building	Aircraft Noise Level dBA	Space	Indoor Design Sound Level	Aircraft Noise Reduction	Treatment
2-storey pitched roof	60-70	Bedrooms	50	20	6mm openable windows plus air conditioning.
		Living rooms	55	15	Standard openable doors and windows plus air conditioning.
	70-80	Bedrooms	50	30	10mm laminated openable windows, acoustic seals plus 75mm insulation (glass wool 20-30kg/m^3) in ceiling and 16mm fire rated plasterboard ceiling plus air conditioning.
		Living rooms	55	25	8mm laminated doors and windows, acoustic seals plus air conditioning.
	80-90	Bedrooms	50	40	Double window system 12mm laminated windows/ 100mm airspace/6mm windows plus 13mm plasterboard under rafters and 75mm insulation (glass wool 20-30kg/m^3) and two layers 16mm fire rated plasterboard ceiling plus air conditioning.
		Living rooms	55	35	Double window and door systems 12mm laminated windows or doors/100mm airspace/6mm windows or doors plus air conditioning.

Building	Aircraft Noise Level dBA	Space	Indoor Design Sound Level	Aircraft Noise Reduction	Treatment
Single storey pitched room	60-70	Bedrooms	50	20	6mm openable windows plus air conditioning.
		Living rooms	55	15	Standard openable doors and windows plus air conditioning.
			55	25	8mm laminated doors and windows, acoustic seals, 75mm insulation (glass wool 20-30kg/m^3) in ceiling, 13mm plasterboard immediately under roof, three layers 16mm fire rated plasterboard ceiling plus air conditioning
	80-90	Bedrooms	50	40	Double window system 12mm laminated windows/100mm airspace/ 6mm windows, pitched roof with 75mm insulation (glass wool 20-30kg/m^3) in ceiling, 13mm plasterboard immediately under roof, two layers 16mm fire rated plasterboard ceiling plus air conditioning
		Living rooms	55	35	Double window and door systems 12mm laminated windows or doors/100mm airspace/6mm windows or doors, pitched roof with 75mm insulation (glass wool 20-30kg/m^3) in ceiling, 13mm plasterboard immediately under roof, two layers 16mm fire rated plasterboard ceiling plus air conditioning

Notes

Note 1: Standard Construction entails:

- **a.** The roof as indicated, no insulation in the ceiling space, 13mm plasterboard ceiling;
- **b.** Sliding windows of 3-6mm glazing; and
- **c.** Sliding glazed doors of 6-8mm glazing.

Note 2: For external noise levels of 80-90 dBA, a flat roof is not acceptable.

2.10.3 Wildlife Hazards

Objectives

O1. Safeguard the Airport from incompatible development that could compromise safe operations.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Development does not attract wildlife which would create a safety hazard to the operations of the Airport.	**1.** All waste bins are designed and installed with fixed lids. **2.** Any bulk waste receptacle or communal waste storage area is contained within enclosures that cannot be accessed by birds or flying foxes. **3.** Any stormwater detention within the 3km and 8km wildlife buffer is designed to fully drain within 48 hours after a rainfall event. **4.** Buildings and structures are designed to minimise the opportunity for roosting areas.

PO2	Landscaping does not attract wildlife that could create a safety hazard to the operations of the Airport.	**1.** Refer to Appendix B for a list of suitable landscape species. **2.** In areas within the 3km wildlife buffer but outside of the Parkland Priority Areas shown in Figure 8, a report prepared by a suitability qualified and experienced ecologist is to be submitted with any application when the landscaping plan: **a.** Incorporates alternative landscape species not listed within Appendix B; **b.** Incorporates landscape species denoted within the landscape species list; **c.** Will result in more than 5 trees being planted in 1 group (group refers to touching mature canopies); and/or **d.** Provides a spacing between a group of 5 or more trees that is less than 100m. **3.** The ecologist report is to consider building, site, and water body design outcomes and/or landscape maintenance measures that will mitigate bird and flying fox attraction and roosting areas.

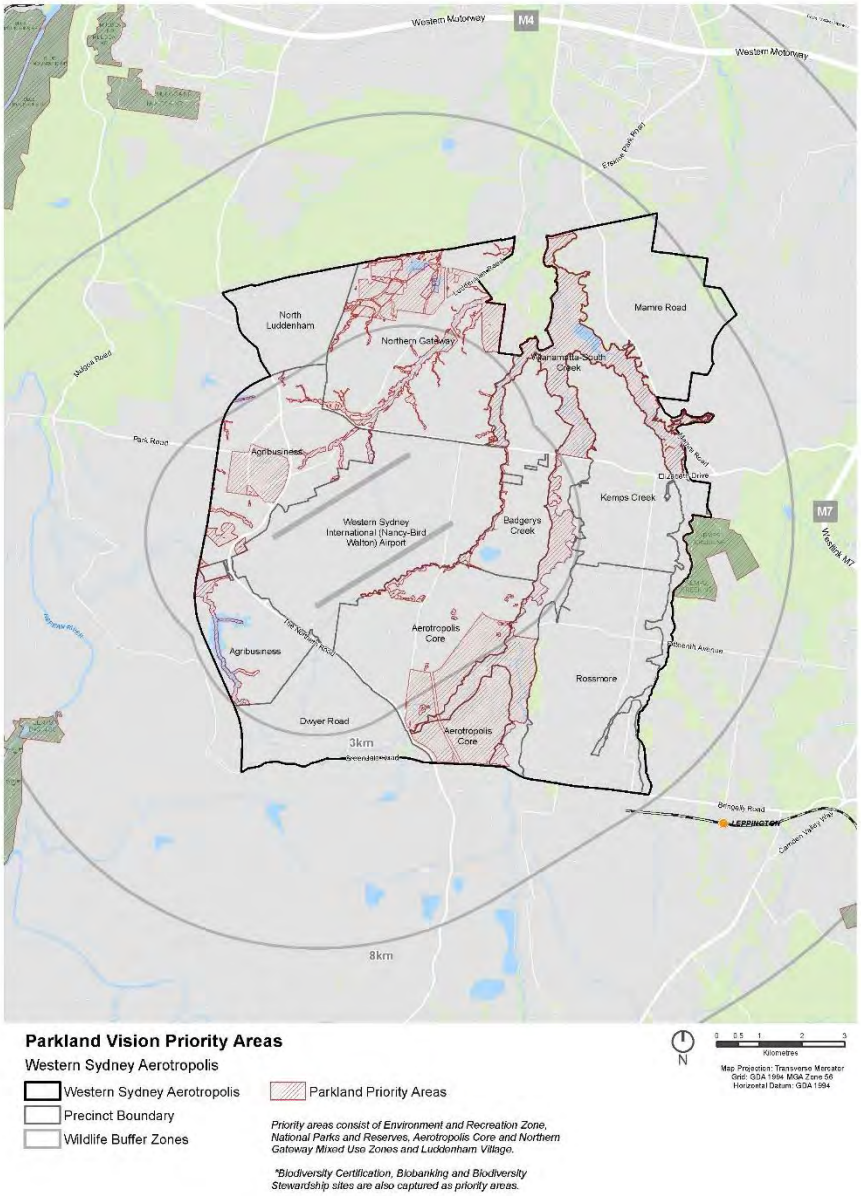


Figure 9 Western Parkland City Vision – Government Commitment Areas map

2.11 Services and Utilities

Objectives

O1. Ensure the construction of utility services/infrastructure provision occurs in a logical and staged manner, and in sequence with development.

O2. Encourage innovative and sustainable utility and servicing across the Aerotropolis to promote effective and efficient delivery of services. Ensure utilities designs and locations consider space for alternative future services.

O3. Design and provide utility infrastructure to integrate with and not negatively impact use of the public realm, liveability, and the environment.

O4. Infrastructure (new and existing) is protected from the impacts of urban development.

O5. To ensure land use and development is integrated with water cycle management including service planning for potable water, recycled water and wastewater.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Site is serviced with electricity.	**1.** Meet the design requirements as per the *Western Sydney Street Design Guidelines* Section C5.4 Electricity. **2.** Locate electricity supplies within verge.
PO2	Services and utilities (hydrants, NBN boxes etc) are designed and located to integrate with building context and the public realm.	**1.** Infrastructure is designed and located to: **a.** Integrate with building design and the public domain; **b.** Not be visible from the public domain unless appropriately screened by landscaping; and **c.** Make a positive contribution to the public domain. **2.** New streets integrate utilities within the street reservation, with services located underground and in a manner that facilitates tree planting and consistent with the *Western Sydney Street Design Guidelines*. **3.** Where services must be located on a street, they do not dominate the pedestrian experience and are designed as an integrated component of the facade, as per the *Western Sydney Street Design Guidelines*.
PO3	Infrastructure is adequately protected from development.	**1.** Development near a utility service must be in accordance with the relevant service authority's guidelines and requirements and must not adversely affect the function of the service. **2.** Where development is proposed on land containing or adjacent to easements, applicants are to consult with the organisation responsible for the maintenance and management of the easement. **3.** Development adjacent to any future fuel pipeline is subject to a land use risk safety audit with the relevant buffers provided, subject to the airport authority. **4.** Locate infrastructure taking into account any future road widening to minimise relocation of assets.
PO4	Shared utility trenches combine multiple utilities within a compact area of the street verge, and futureproof service location within road cross-sections.	**1.** Refer to the provisions within the *Western Sydney Engineering Design Manual* for details on shared utility trenching. **2.** Avoid placement of services within the road carriageway. **3.** Ensure sufficient width in the utility corridor. **4.** Avoid disruptive works across/ under existing carriageways. **5.** Adopt a 'dig once' policy where spare conduits and road crossings are installed in strategic locations to avoid disturbing the road in the future.
PO5	Infrastructure allows for co-location of compatible similar uses.	**1.** Allow for the installation of the following within the utility corridor: **a.** Recycled water purple pipes; **b.** Vacuum waste collection system; **c.** Hydrogen district cooling/heating systems; and **d.** Micro-grids for energy sharing.
PO6	Provide fast, reliable, and high-speed fixed and wireless internet connectivity across the Aerotropolis to the standards listed in the Australia and New Zealand Smart Cities Council's Code for Smart Communities.	**1.** Demonstrate access to the NBN. Where coverage at time of lot registration is not or will not be above minimum network connectivity speeds, demonstrate how and where allowances for future network augmentation have been made. **2.** Follow the design guidance as per the *Western Sydney Street Design Guidelines* Section C5.6 Telecommunications and Section C6.3 5G Mobile Telecommunications.
PO7	Development is to be serviced by recycled water.	**1.** Where a recycled water scheme (supplied by stormwater harvesting and/or recycled wastewater) is in place, development shall: **a.** Be designed in a manner that does not compromise waterway objectives, with stormwater harvesting prioritised over reticulated recycled water; **b.** Bring a purple pipe for recycled water to the boundary of the site; **c.** Not top up rainwater tanks with recycled water unless approved by Sydney Water; and

Performance Outcome		Benchmark Solution
		d. Design recycled water reticulation to standards required by the operator of the recycled water scheme.

2.12 Sustainability

Objectives

O1. Minimise energy consumption and achieve net zero energy emissions by 2030.

Performance Outcome		Benchmark Solution
PO1	Incorporate renewable energy systems to ensure all buildings can achieve a 100% renewable energy supply by 2030.	**1.** All developments demonstrate how 100% renewable energy supply can be achieved by 2030, whether on or off site. **2.** Where the net zero energy target cannot be accommodated on site, the proponent must provide an offset e.g. with a Power Purchase Agreement.

2.13 Smart Places

Objectives

O1. Support the Aerotropolis as a connected, open data digital city and global innovation hub to improve life for individual citizens, future populations, businesses, and communities, in line with the NSW Smart Places Strategy and Smart Western City Program.

O2. Embrace innovative development by installing new and emerging technologies and utility provision.

O3. Support a resilient and sustainable region that uses technology to manage natural resources efficiently and is focused on environmental, air and water quality.

O4. Build on initiatives over time in line with the Australian Digital Inclusion Index.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Implement multi-function poles (Smart Poles) where street poles are required that accommodate multiple functions.	**1.** Potential services which could be incorporated into multi-function poles include: **a.** RMS signals and signage; **b.** Street lighting; **c.** Telecommunications (such as mobile cellular network providers); **d.** Council digital infrastructure requirements (e.g. CCTV, signage, lighting); and **e.** Relevant sensing networks, with flexibility to enhance these in the future. **2.** Meet the following design requirements: **a.** Placement is a minimum of 600mm from the face of kerb; **b.** Placement avoids impacts on existing and future mature street tree canopies; **c.** Co-locate with other street furniture; and **d.** Pit and pipe to each light pole is provided to enable the future upgrading to 'intelligent' lights and the installation of 'smart meter' to Council specification at each new lot.
PO2	Pit and pipe infrastructure support future requirements to service smart city infrastructure.	**1.** Where developments are providing pit and pipe infrastructure, specifications in the *Digital Infrastructure Technical Report: Western Parkland City* are met to accommodate future smart city infrastructure.
PO3	Buildings utilise smart technologies to promote performance, sustainability, resilience, and resource	**1.** Where new connections to the water and recycled network are proposed, include smart water meters and fittings to minimise water consumption.

Performance Outcome		Benchmark Solution
	management throughout their operational lives.	**2.** Use smart technologies to monitor and self-regulate building environment and operations (e.g. lighting, heat, ventilation, and air conditioning). **3.** Install smart energy solutions to increase self-sustainability and reduce reliance on the main energy grid. **4.** Demonstrate alignment to relevant NSW policy, including but not limited to the *NSW Internet of Things (IoT) policy*, *NSW Cyber Security Policy* and *NSW Smart Infrastructure Policy*.
PO4	Embedding smart technologies enhances experiences in the public domain and creates liveable public open spaces.	**1.** Install smart monitoring equipment, including for water quality, ambient temperature, tree canopy cover and soil moisture content, cycle, and car movements. Specific monitoring requirements for each development are provided by the consent authority. **2.** The following smart solutions meet Council's system interoperability and data source requirements and are to be installed in key locations such as open space and public domain areas: **a.** Dedicated internet/fibre connection points; **b.** Public Wi-Fi network that provides sufficient coverage to the whole public space; **c.** Smart lighting where key locations may be used at night-time for active uses, ensuring lighting is adequate for active and passive uses; **d.** Security cameras at key locations to ensure coverage within the public space; **e.** 'Smart bins' with capacity rubbish bin sensors; **f.** 'Smart park furniture' with USB-charging capacity and potentially Wi-Fi connectivity; **g.** Digital display screen, linked to a Council-accessible network to share key community information, data, and activities; **h.** Weather monitoring network/devices to monitor temperature and weather within the park and have this accessible to the public; and **i.** Wireless connectivity (e.g. Bluetooth) with free access within the community's parks, particularly in proximity to the basketball court/youth spaces.

2.14 Design for Safe Places

Objectives

O1. Design in accordance with Crime Prevention Through Environmental Design (CPTED) principles.

O2. Ensure the development contributes to the activity, vibrancy, diversity and safety of streets and the public domain through the day and night.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Passive surveillance is maximised.	**1.** Visibility and surveillance are provided in all areas of development. **2.** Adjoining buildings overlook public places. **3.** Building frontages face streets and transport corridors to provide passive surveillance. **4.** Use open grill or transparent security (at least 50% visually transparent) shutters to retail frontages (if proposed) (as indicatively shown in Figure 9).
PO2	Access and sightlines promote safe movement. Ensure pedestrian and cycleways are designed in accordance with CPTED to ensure a safe and secure environment that encourages activity, vitality and visibility, enabling a greater level of security.	**1.** Building entrances are accessible, clearly visible, legible and allow users to see into or out of the building before entering / exiting. **2.** Pedestrian paths have well defined routes, clear sight lines and do not channel users into dead ends that are poorly lit or to areas with opportunities for concealment (as indicatively shown in Figure 8) **3.** Minimise corners, poorly lit corridors, laneways with low activity and other kinds of entrapment spots.

Performance Outcome		Benchmark Solution
		4. If entrapment spots are unavoidable, they are to be mitigated using measures such as CCTV surveillance.
PO3	Car parking areas, pathways and other elements of transport network infrastructure are in accordance with Crime Prevention Through Environmental Design (CPTED) principles to enhance public safety by discouraging crime and anti-social behaviour.	**1.** Car parking areas and structures are designed in accordance with CPTED principles. **2.** Car park areas and structures are well maintained and incorporate CCTV as a deterrent to crime and anti-social behaviour. **3.** Ground levels of car park structures are sleeved with active uses to support passive surveillance. **4.** Ensure passive surveillance to and from the public domain for at grade car parking areas. **5.** Pedestrian access points to car parks are clearly delineated and located in areas with good visibility from the public realm. **6.** Facade systems (shown below) are designed to integrate safety barriers and systems while also incorporating visual transparency to facilitate passive surveillance from and to the public realm. *Example of a facade system that facilitates passive surveillance* 
PO4	Safety is ensured via the use of appropriate lighting.	**1.** Lighting design should address the principles of CPTED where there is significant pedestrian activity, late night work-shifts or safety and security issues. **2.** Use public lighting to connect areas between lights and avoid unnecessary areas of darkness. The areas should be lit to the minimum AS 1158.Illuminate public areas, entrances to buildings and concealed corners. **3.** Minimise lighting spillage onto surrounding properties by designing in accordance with AS 4282.
PO5	Public and private spaces are clearly delineated.	**1.** Clearly demonstrate ownership of private and public space in the design of the public realm and built form. **2.** Use landscaping to delineate between public and private spaces rather than building materials (e.g. solid fences).

Figure 10 Interface to Main Streets within Centres

Figure 11 Interface to Main Streets Containing Commercial Activity

2.15 Universal Design and Access

Objectives

O1. Provide equitable, safe, and legible access to the public realm and built form for all people.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Buildings and public places are designed for equity, accessibility and safety.	**1.** Paths, ramps, steps, and lifts comply with *AS 1428-2009 Design for Access and Mobility*. **2.** Provide safe, logical, and predicable pathways that consider:

Performance Outcome		Benchmark Solution
		a. Sight lines; **b.** Legibility; **c.** Weather protection; **d.** Cultural safety; **e.** The needs of children, the elderly, and people with disabilities; and **f.** Access and signage information. **3.** Built form is stepped with the topography to provide at grade access for all ground floor uses. **4.** An access report is required where universal access is a requirement of the *Disabilities Discrimination Act 1992*.

2.16 Waste Management and Circular Economy

Objectives

O1. Incorporate well-designed and innovative waste and recycling facilities in the building design stage.

O2. Encourage circular economy infrastructure including but not limited to reuse and repair facilities, sharing and leasing facilities, reverse vending machines and community recycling centres within the Aerotropolis.

O3. Minimise the amount of waste generated and going to landfill.

O4. Maximise waste separation and resource recovery.

O5. Provide innovative and best practice waste management collection systems and technologies for reuse, recycling, organics collection and product stewardship.

O6. Provide waste and recycling facilities that do not impact on amenity for residents, neighbours and the public, such as visually unpleasant areas, noise, traffic and odours from waste collection services, while also ensuring facilities are accessible, integrated wholly within the built form and easy to use.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Waste management measures are implemented at lot and neighbourhood scale to support circular economy activities.	**1.** Submit a waste management plan to support circular economy activities that also details the quantity and type of waste generated and how this will be managed, reused and recycled. Where possible, incorporate technologies such as vacuum extraction or on-site food processing. **2.** Co-locate and integrate waste infrastructure on sites with multiple uses by providing a single collection point for waste and recycling. **3.** Demonstrate that organic waste can be managed in the building through measures such as: **a.** Multiple options for on-site organic waste to maximise recovery (e.g. communal composting, worm farms, individual composting, dehydrators); **b.** Organics and recycling service to all households; or **c.** Energy generation from organic waste (anaerobic digestion) at lot and precinct scale.
PO2	Waste and recycling facilities promote waste separation and reduce contamination. Materials are separated at source to achieve higher value recovery.	**1.** Collection points (including but not limited to reverse vending machines and e-waste drop-off) must be located with adequate space for servicing, ease of use and to encourage the separation of waste material. Collection points are documented in the waste management plan and are easily accessible. **2.** Provide separate and enclosed storage for liquid, chemicals, and hazardous waste. **3.** Where general waste chutes are used, provide for the collection of recycling and organic waste at each level within the building.

Performance Outcome		Benchmark Solution
		4. Consolidated organic waste drop off points are designed to minimise any potential odour and vermin risks. This includes the provision of rooms that are temperature controlled and suitably ventilated.
PO3	The location of waste management is clearly indicated for each site and neighbourhood.	**1.** Provide uniform waste management design and colour coding in accordance with AS 4123 across residential and commercial developments. **2.** Waste management systems and rooms are located inside buildings to support a heightened amenity and urban design outcome. Waste must not be left outside (excluding during collection) to avoid attracting animals.
PO4	Waste bins are provided to a level commensurate with waste produced for each development as outlined in Council's waste and recycling service.	**1.** Waste storage areas are designed to: **a.** Accommodate the required number and size of waste bins; **b.** Provide space for the bins to be accessed, rotated and manoeuvred for emptying; **c.** Allow for future waste separation practices; and **d.** Account for different uses in mixed use development through the provision of separate and enclosed collection rooms for both residential and commercial uses. **2.** Align building design and collection points with Council's waste and recycling services and collection fleets.
PO5	Implement innovative waste management storage systems that are safe, healthy, and efficient.	**1.** Waste storage areas are to: **a.** Be well-lit and ventilated; **b.** Include water and drainage facilities for cleaning the bins and bin storage area; **c.** Be easily and conveniently accessible for all users and collection contractors; **d.** Be located so that residents do not have to walk more than 30m for access; and **e.** Comply with Local Council Policy and contractual service provisions. **2.** Collection and loading points are to be: **a.** Level; **b.** Free of obstructions; **c.** Easily accessible from the nominated waste and recycling storage area; **d.** Be integrated wholly within the built form to support a heightened amenity outcome; **e.** Be accessible by heavy rigid collection vehicles to permit entry and exit of the site in a forward direction; **f.** Comply with the Building Code of Australia and Relevant Australian Standards; and **g.** Comply with Local Council Policy and contractual service provisions. **3.** Provide safe and easy access to waste and resource recovery areas for residents, building managers and collection contractors. **4.** Ensure waste and recycling areas flexibly adapt to other types of waste and materials storage over time. **5.** Design waste and recycling facilities to prevent litter and contamination of the stormwater drainage system.
PO6	Waste management storage systems minimise negative impacts on the streetscape, public domain, building presentation or amenity of pedestrians, occupants, and neighbouring sites.	**1.** Waste storage and collection areas are to: **a.** Where possible, be integrated wholly within the developments built form; **b.** Not be visible from the street or public domain; **c.** Not adjoin private open space, windows, habitable rooms, or clothes drying areas; **d.** Not be located within front setbacks; and **e.** Comply with Local Council Policy and contractual service provisions. **2.** Collection points and systems are designed to minimise noise for occupants and neighbours during operation and collection.

Performance Outcome		Benchmark Solution
PO7	Recognise waste types, generation rates and separation needs may change during the useful life of a building.	**1.** Waste and resource recovery facilities are sited to enable possible future expanded floor area. **2.** Design waste and resource recovery facilities to enable installation of new, potentially larger equipment.

2.17 Subdivision design

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	To protect biodiversity values and minimise impacts on remnant native vegetation.	**1.** Land zoned Environment and Recreation must not be subdivided unless the consent authority is satisfied appropriate arrangements have been made for revegetation and rehabilitation in accordance with a Vegetation Management Plan, including ongoing monitoring and management.
PO2	To respond to the natural topography and physical characteristics of the land and minimise the need to cut and fill.	**2.** Subdivision design shall balance cut and fill as far as practicable. Development proposals must include an Earthworks Plan, detailing the proposed cut and fill strategy, how the design minimises cut and/or fill, and justification for the proposed changes to the landform. **3.** The impact on environmental values of any earthworks proposed are to be mitigated through the construction of physical barries and sediment controls **4.** Where a proposal is for subdivision of land only, benching is limited to road layouts and to within 15m of each newly created or proposed lot.

2.18 Earthworks and retaining walls

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	To ensure site planning considers the stability of land, its topography, geology and soils.	**1.** Site planning is to respond to the natural topography of the site and protect vegetation, particularly where it is important to site stability. **2.** A Geotechnical Report is to be submitted with applications proposing to change site levels. **3.** Excavation and fill shall be adequately retained and drained in accordance with the Western Sydney Engineering Design Guidelines.
PO2	To ensure that earthworks and retaining wall construction is suitably designed and landscaped to ameliorate its visual presentation to and from the public domain and adjacent properties.	**1.** Level transitions must be managed between lots and not at the interface to the public domain. **2.** Finished ground levels adjacent to the public domain or public road shall be no greater than 1.0m above the finished road level (or public domain level). **3.** Where a level difference must exceed 1.0m and adjoins the public domain or public road, the retaining wall must be tiered. Each retaining wall tier element shall be no more than 2.0m. A 1.5m wide deep soil zone with suitable landscaping is to be provided between each tier. The maximum cumulative height of any retaining walls adjoining the public domain is 6.0m. **4.** The toe (fill retaining wall) or top (cut retaining wall) of all retaining walls are to be setback 2.0m into the property boundary and the setback is to be suitably landscaped. **5.** On sloping sites, site disturbance is to be minimised by using split level or pier foundation building designs. **6.** Retaining wall design and materials shall complement architectural and landscape design.

Performance Outcome		Benchmark Solution
PO3	To encourage reuse of fill material from within the Aerotropolis Precinct.	**1.** Imported fill it is to be Virgin Excavated Natural Material (VENM) or Excavated Natural Material (ENM) and validated by a suitably qualified person. **2.** Where possible, fill material should be sourced from within the Aerotropolis Precinct. **3.** Topsoil should be preserved on site and suitably stockpiled and covered for re-use.

2.19 Public Art

This section supplements the Councils' public art policies and applies only to development greater than 20 hectares or with a capital investment value exceeding $20 million.

Objectives

O1. Enrich and enliven the public and private domain with high quality, aesthetic, and functional art.

O2. . Provide public art consistent with Council's Public Art Policy

O3. Recognise and celebrate Aboriginal heritage, values and living culture in the public domain.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	High-quality public art is integrated into the design and function of the development to embellish and enliven the public domain.	**1.** The strategy should respond to cultural values mapping to deliver a suitable artwork for the development demonstrating that the scale of the public art provided is commensurate to the intensity of use at the site or landscape. **2.** For such development defined above, a minimum of 1 work of public art is provided within the publicly available and accessible spaces of the development such as: **a.** Any frontage to the public domain; **b.** Building entrances; or **c.** Arcades and through site links. **3.** Different types of public art may be incorporated into the following aspects of development: **a.** Murals may form part of the facades of new buildings; **b.** Sculptures may be multipurpose and be integrated into urban furniture (e.g. shade, seating, water/drinking fountains or play/exercise equipment); **c.** Light installations may be combined with public lighting to support the needs of pedestrians or active transport after dark; or **d.** Artworks may form part of landscaping as part of wayfinding or interpretive walking trails.
PO2	Public art is provided to capture and reflect the qualities and essence of place, community values and the stories of past and present cultures, places, and people.	**1.** Artwork is the result of collaboration with an artist to deliver a coordinated and cohesive development and public art response **2.** Public art is created in conjunction with a community consultation process to ensure alignment between public art, cultural/community values, and development. **3.** Commissioning and contract processes prioritise artworks which are: **a.** Created by Aboriginal artists and/or created with direct involvement and collaboration with Aboriginal communities; and/or **b.** Initiated by the local community (i.e. Unsolicited requests for public art). **4.** Public art themes provide a response to elements particular to a place. Considerations include, but are not limited to: **a.** Aboriginal culture and places of significance; **b.** Unique place qualities and attributes; **c.** Natural landscape elements; and/or **d.** Historical land uses; buildings, persons, and events
PO3	Public art is easy to maintain.	**1.** Where art is permanent, use materials that are: **a.** Appropriate to the landscape/environment;

Performance Outcome		Benchmark Solution
		b. Resistant to vandalism; **c.** Safe for the public; and **d.** Require minimal maintenance. **2.** Where art is temporary, develop clear and concise agreements with artists/organisations on expectations and deaccession (the process used to permanently remove an object, artwork, or assemblage). In this case, replacement art is to be provided, so the site has art in perpetuity.

3.0 Development for Enterprise and Industry, and Agribusiness

This Chapter of the DCP applies specifically to development for the purpose of Enterprise and Light Industry, and Agribusiness only. The object of this Chapter is to meet the relevant performance outcomes established for each benchmark solution.

3.1 Local road network and design

3.1.1 Street design

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	To enable a road network that is safe and efficient for all users and minimises through traffic on minor roads.	**1.** Road design for local streets, collector streets and park edge streets as identified on the Aerotropolis Precinct Plan are to be consistent with the typical road cross-sections in this **Figure 12** to **Figure 14**. **2.** Development applications shall be accompanied by a Traffic and Transport Report. The Report shall assess the impact of projected pedestrian and vehicular traffic associated with the proposal and outline the extent and nature of traffic facilities necessary to preserve or improve the safety and efficiency of the road system. **3.** Subdivision and development are to consider the coordinated staging and delivery of surrounding road infrastructure. Development consent will only be granted to land serviced by a suitable road network with traffic capacity to service the development (to the satisfaction of the relevant roads authority). **4.** All parking shall be provided either on site or in centralised off- road locations. **5.** The internal road pattern is to facilitate 'through-roads' with cul-de-sacs to be avoided unless dictated by topography or other constraints. **6.** The road network is to be designed for 30m Performance Based Standards (PBS) Level 2 Type B vehicles and tested for a 36.5m PBS Level 3 Type A vehicles. **7.** To accommodate the design vehicle (i.e. B-double and B-triple) the standard kerb return radius will need to increase from 12.5m to 15.0m. **8.** Road design shall consider arrangements for broken down vehicles and incident response. ***Note:*** *All street cross-sections illustrate minimum requirements. In certain circumstances these may need to increase to respond to site specific conditions such as topography and the retention of remnant vegetation.*
PO2	To encourage the orderly and economic provision of road and intersection works. To encourage the use of public transport, bicycles and walking.	**1.** Internal road network intersections are to be provided at the following minimum intervals: **a.** Local to local industrial road – 40m-60m; **b.** Local to collector/distributor road – 100-200m; and **c.** Collector/distributor to sub-arterial – 400m-500m

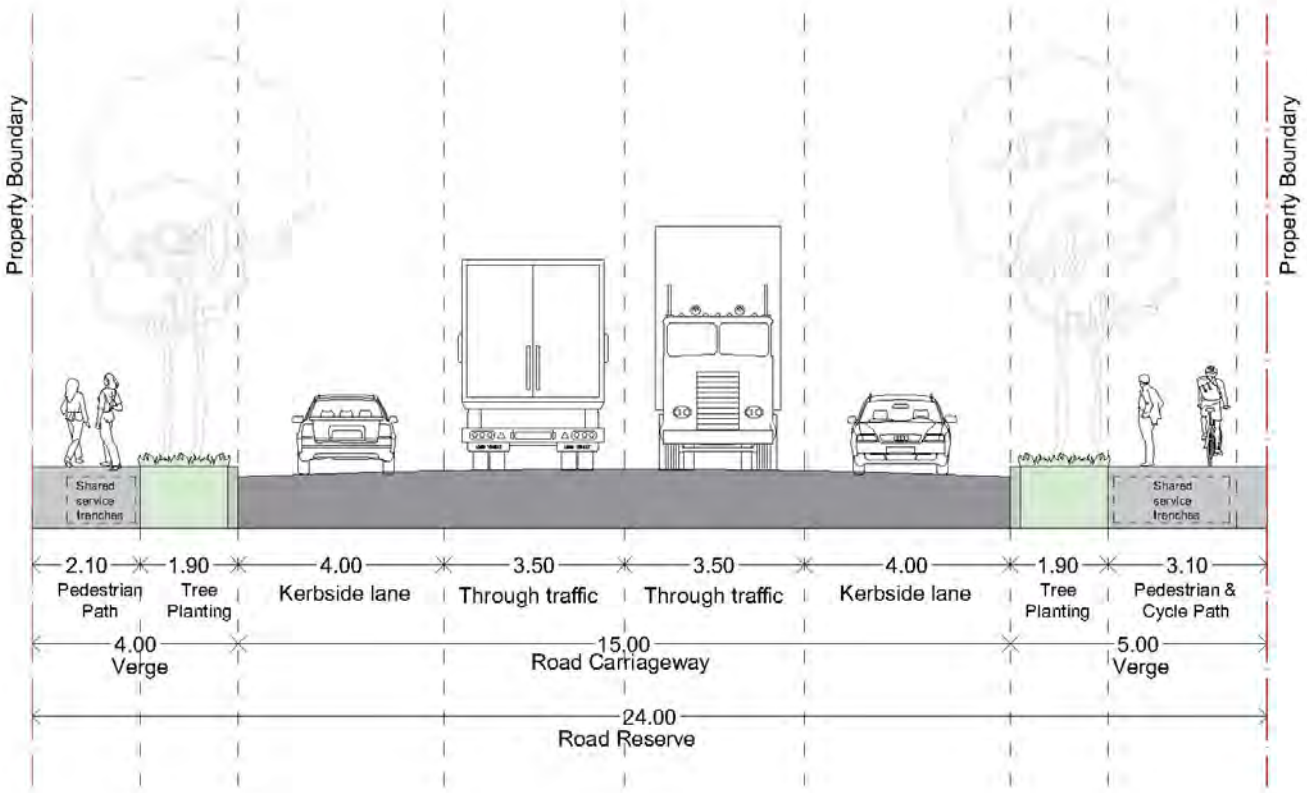


Figure 12 Typical Local Industrial Road

***Note**: Parking may be accommodated in the kerbside lane where appropriate.*

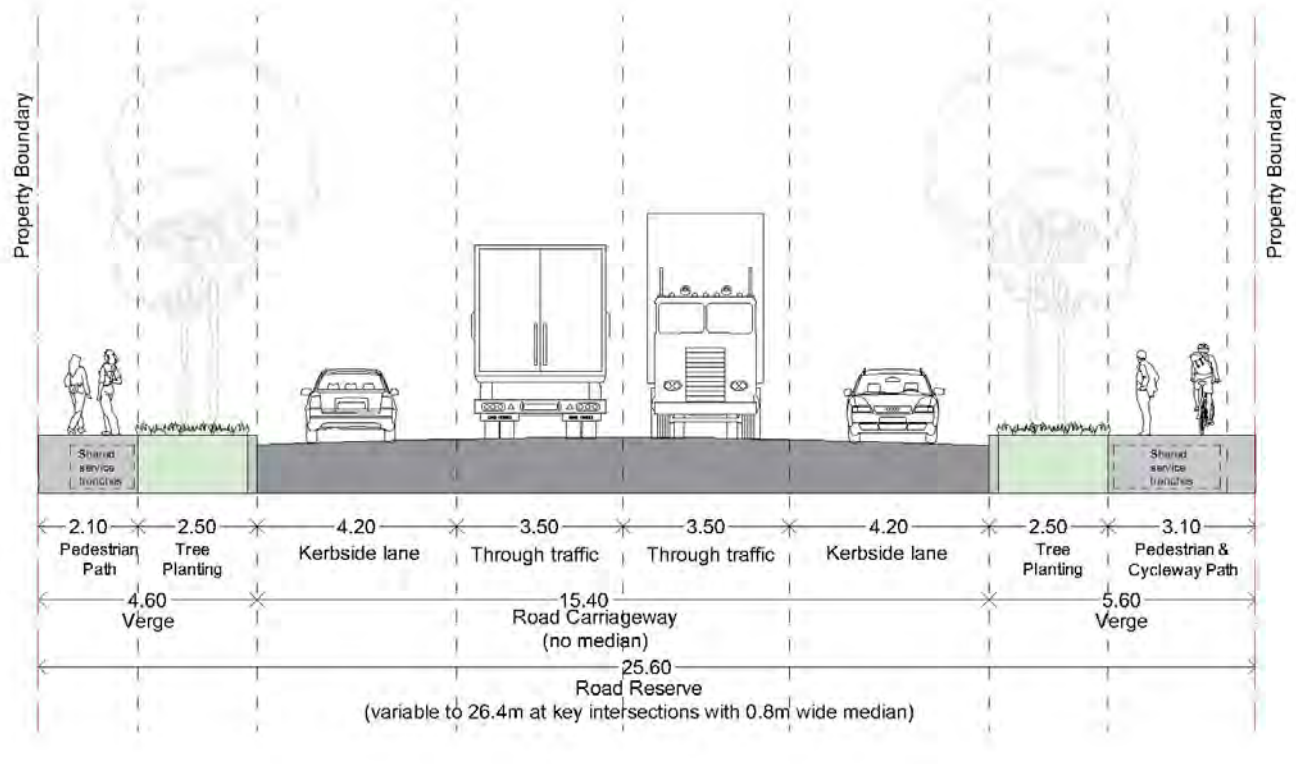


Figure 13 Typical Collector Road

***Note**: Parking may be accommodated in the kerbside lane where appropriate.*

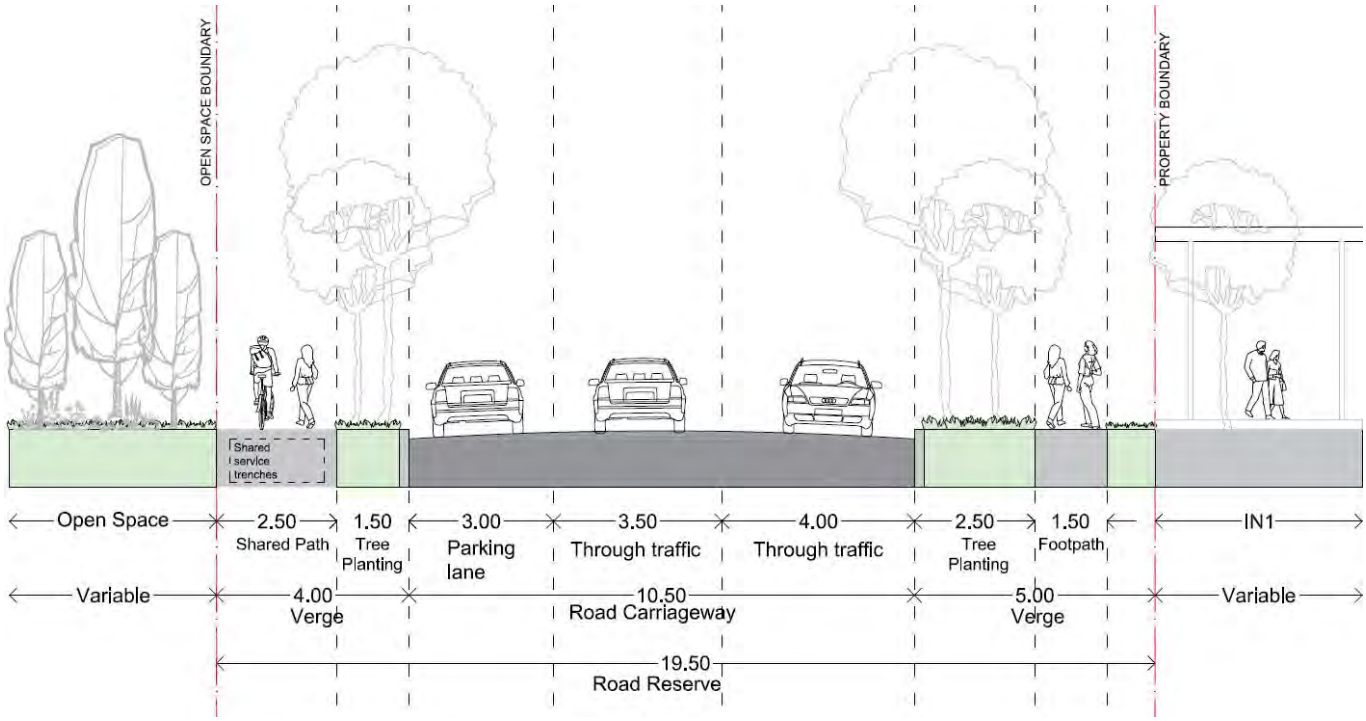


Figure 14 Typical Open Space Edge Road

3.2 Parking and travel management

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	To facilitate an appropriate number of vehicular spaces having regard to the industrial and agribusiness nature of the locality.	**1.** On-site car parking is to be provided in accordance with **Table 4.** **2.** For activities not identified in Table 4, the TfNSW' (formerly RTA) Guide to Traffic Generating Developments (ISBN 0 7305 9080 1) should be referred to as a guide.
PO2	To promote efficient and safe vehicle circulation, manoeuvring and parking (including service vehicles and bicycles).	**1.** Vehicular access and driveways widths must be sweep path tested for the largest vehicle that will access a particular site e.g. 30m PBS Level 2 Type B or 36.5m PBS Level 3 Type A vehicles. **2.** The required threshold should be set within the property to prevent cross fall greater than 4% within the footway area. **3.** Turning circles shall accommodate the largest type of truck reasonably expected to service the site. A standard truck must be able to complete a 3-point or semi-circular turn on-site without interfering with parked vehicles, buildings, landscaping, storage and work areas. **4.** Vehicular ramps less than 20m long must have a maximum grade of 1 in 5 (20%). **5.** Development shall provide on-site loading facilities to accommodate the anticipated heavy vehicle demand for the site. **6.** All loading and unloading areas are to be: **a.** Integrated into the design of developments; **b.** Separated from car parking and waste storage and collection areas; **c.** Located away from the circulation path of other vehicles; and **d.** Located behind the building alignment of any street boundary and where visible from a public place, be provided with appropriate screening.

Performance Outcome		Benchmark Solution
		7. Car park surfaces should use finishes that minimise heat retention e.g. painted in light coloured paint. **8.** Access, parking, manoeuvring and loading facilities shall be in accordance with Performance Based Standards An introduction for road managers (National Heavy Vehicle Register, May 2019) to accommodate vehicle types outlined in **9.** **10.** Table *5*. The design shall have regard to the Standard Vehicle Turning Templates of the former RMS publication Policies Guidelines and Procedures for Traffic Generating Developments
PO3	To minimise the impact of vehicle access points on the quality of the public domain and streetscape.	**1.** Driveways should be: **a.** Located considering any services within the road reserve, such as power poles, drainage inlet pits and existing street trees; **b.** Designed to avoid conflict between heavy vehicle and staff, customer and visitor vehicular and cycle movements, preferably by providing separate access driveways; and **c.** For driveways with high traffic volumes, located away from major roads, intersections, opposite other intense developments, high pedestrian zones, and where right turn movements would obstruct traffic.
PO4	To support the complementary use and benefit of public and active transport.	**1.** The following bicycle destination facilities for staff are to be provided: **a.** For ancillary office and retail space with a gross floor area over 2,500 sqm, at least 1 shower cubicle with ancillary change rooms; **b.** For industrial activities with a gross floor area over 4,000 sqm, at least 1 shower cubicle with ancillary change rooms; **c.** Change and shower facilities are to be located close to the bicycle storage areas; and **d.** Where the building is strata-titled, the facilities are to be available to all occupants. **2.** Bicycle parking, facilities and storage must be in convenient locations, visible, secure, and provide weather protection for the bicycle. Bicycle parking and storage should be near to the entrances and facilities closer to work spaces or other amenities.

Table 4 Car and bicycle parking rates

Activity	Rate		
	Within 800m walking distance of a metro station	Greater than 800m walking distance of a metro station	
	Maximum parking rate	Minimum parking rate	Maximum parking rate
Industry	1 space / 200 sqm	1 space / 200 sqm	1 space / 100 sqm
Warehouses or distribution centres	1 space / 250 sqm	1 space / 300 sqm	1 space / 100 sqm
Freight Transport Facilities	1 per transport vehicle present at peak vehicle accumulation plus 1 per 2 employees, or to be determined by a car parking survey of a comparable facility.		
Vehicle Body Repair Workshops/ Vehicle Repair Stations	3 spaces per 100m2 of gross floor area or 6 per work bay, whichever is greater		
Ancillary office space	1 space per 40 sqm of gross floor area		
Neighbourhood shops	1 space per 40 sqm of gross leasable area		
Other Uses	In accordance with TfNSW Guidelines or if there are no parking guidelines for a specific use, then a site specific car parking analysis will be required. This may require the applicant to submit a car parking report from a suitably qualified traffic consultant.		
Accessible Parking	Accessible car spaces should be in accordance with the *Access to Premises Standards*, *Building Code of Australia* and AS2890.		
Bicycle Parking	1 space per 600 sqm of gross floor area of office and retail space (over 1200m^2 gross floor area) 1 space per 1,000 sqm of gross floor area of industrial activities (over 2000m^2 gross floor area)		

Table 5 Minimum design vehicle requirements for Enterprise and Industrial, Industrial and Agribusiness developments

Site Area	Design Vehicle
Up to 1,500 sqm	Medium Rigid Vehicle (MRV)
1,500 sqm – 4,000 sqm	Heavy Rigid Vehicle (HRV)
4,000 sqm – 20,000 sqm	Articulated Vehicle (AV)
Greater than 20,000 sqm	30m PBS Level 2 Type B

3.3 Built form

3.3.1 Building siting and design

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	To encourage building form that responds to the topography of the site and the relative position of the allotment to other allotments and the street. To minimise the impact of buildings upon the surrounding public realm, including areas of environmental significance, landscape value and residential uses.	**1.** Building height should respond to the natural landscape and scale of adjoining development, with lower elements towards the street, pedestrian paths, adjoining rural-residential areas, environmental and open space areas, riparian corridors and ridgelines.

3.3.2 Building setbacks

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	To provide a consistent streetscape design and landscaped transition to the public realm. To enhance the visual quality of development and the urban landscape. To minimise the impact of overshadowing to adjoining buildings and open space.	**1.** Building setbacks are to be in accordance with **Table 6**. **2.** Notwithstanding control (1) above, the following development is permitted within the defined setback for any road (excluding primary arterial roads): **a.** Landscaping; **b.** Maintenance/rehabilitation of biodiversity corridors or areas; **c.** Utility services installation; **d.** Cross-overs; **e.** Fire access roads; **f.** Approved signage; **g.** Street furniture; or **h.** Drainage works. **3.** Side and rear boundary setbacks may incorporate accessways and driveways (not permitted in setbacks to designated roads), where an alternative arrangement cannot be achieved. **4.** Setbacks to public roads may also incorporate loading dock manoeuvring areas and associated hardstand and off streetcar parking provided the minimum setbacks in Table 5 are achieved. In addition to the setback requirements in Table 5, setbacks that incorporate an off-street parking area must demonstrate the location of the car parking area: **a.** Promotes the function and operation of the development;

Performance Outcome		Benchmark Solution
		b. Enhances the overall design of the development by implementing design elements, including landscaping, that will screen the parking area and is complementary to the development; and **c.** Does not detract from the streetscape values of the locality. **5.** Additional setbacks may be applicable to avoid construction over easements. **6.** For corner sites, setbacks must ensure clear vehicular sight lines for perpendicular traffic.

3.3.3 Landscape setbacks

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	To provide functional areas of planting that enhance the presentation of a building, provide amenity, cooling and shade, and contribute to overall streetscape character.	**1.** Landscaped area is to be provided in accordance with **Table 6**. Note control (4) and (7) in PO1 of Section 3.6.2 allows different landscape setbacks to those identified in **Table 6** for loading dock manoeuvring areas and on-site car parking. **2.** A Landscape Plan prepared by a Landscape Architect is to be submitted with all development proposals. **3.** Existing remnant vegetation and paddock trees shall be retained where practical within setback areas and integrated with landscaping plans. **4.** Landscaped front setbacks should include canopy trees whose mature height is in scale with the proposed development. **5.** Setbacks shall include suitable tree planting along the northern and western elevations of buildings to provide shade and assist with cooling. **6.** Developments adjoining existing sensitive receivers (e.g. educational establishments) shall be designed to mitigate impacts on sensitive receivers such as through generous buffer zones and landscaping, and locating noise generating activities away from the sensitive interface, as well as traffic management measures to improve safety and minimise conflicts. **7.** Tree planting in the form of island planter beds shall be provided at a rate of one planter bed per 10 car spaces within car parks to reduce the heat island effect of hard surfaces that are a minimum 1.5m dimension. **8.** Evergreen shrubs and trees shall screen car parks, vehicular manoeuvring areas, garbage areas, storage areas from the street frontage. **9.** Paving, structures and wall materials should complement the architectural style of buildings.

Table 6 Building and landscape setbacks

Location	Building Setback (from site boundary)	Landscape minimum width (from the site boundary)
Lots fronting primary arterial and sub-arterial roads	20m	10m
Lots fronting collector streets	12m	6m
Lots fronting local streets	7.5m	4m
Secondary road frontages (corner lots)	5m	3m
Rear and side boundaries	5m	2.5m No minimum requirement for side boundaries
Lots adjoining land zoned Environment and Recreation	10m boundary adjoining Environment and Recreation land, unless separated by a road (streets setbacks above apply).	5m landscape setback from the edge of the E&R zoned land, unless separated by a road.
Development within defined building setbacks		
Lots fronting a public road with a setback containing loading dock manoeuvring **areas and associated hardstand**	**As per relevant setback for each public road above**	**Minimum 6m**

Location	Building Setback (from site boundary)	Landscape minimum width (from the site boundary)
Lots fronting a public road with a setback containing off street car parking areas	**Minimum 13m**	**Minimum 6m**

Note: Refer to the Aerotropolis Precinct Plan Section 4.6.2 for relevant road hierarchies.

3.3.4 Building and architectural design

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	To ensure buildings achieve a high level of sustainability and environmental performance.	**1.** Buildings should take advantage of a north or north-easterly aspect to maximise passive solar illumination, heating and natural cross-ventilation for cooling. **2.** Development proposals shall demonstrate Ecological Sustainable Design (ESD) measures have been incorporated into the design, including a consideration of: **a.** Building and window orientation; **b.** Window size and glass type; **c.** Insulation; **d.** Natural ventilation and light with generous, all weather openings; **e.** Utilise extensive roof areas for energy and water collection; **f.** Air flow, ventilation and building morphology to support cooling; and **g.** Circular economy in the design, construction and operation of buildings, public domain, infrastructure, and energy, water and waste systems.
PO2	To ensure new development contributes to a visually cohesive urban environment and responds to the adjacent scale and character of the area.	**1.** Buildings shall be oriented so building frontage is parallel with the primary street frontage. **2.** Building design should minimise overshadowing within the site and on adjoining buildings.
PO3	To encourage innovation and a high standard of architectural design, utilising quality materials and finishes.	**1.** External finishes should contain a mix of materials and colours and low reflectivity to minimise glare and reflection. **2.** Elevations visible from the public domain must be finished with materials and colours and articulation that enhance the appearance of that façade and provide an attractive and varied streetscape. **3.** Large expanses of wall or building mass should be relieved using articulation, variation in construction materials, fenestration or alternative architectural enhancements. **4.** Entrances to buildings must be highlighted by architectural features consistent with the overall design of the building. **5.** The design and location of roof elements and plant and mechanical equipment, including exhausts, is to minimise visual impact from the street or from elevated locations, such as screening with an integrated built element such as parapets. **6.** The design of the main office and administration components shall: **a.** Be located at the main frontage of the building and be designed as an integral part of the overall building, rather than a 'tack on' addition; **b.** Have a designated entry point that is highly visible and directly accessible from visitor parking and the main street frontage; and **c.** Incorporate the principles of Universal Design. **7.** Roof forms should help to visually articulate the use within the building. This may include transitions between foyer, office and larger warehouse uses. **8.** Roof design must provide natural illumination to the interior of the building.

3.3.5 Communal outdoor areas

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	To contribute to amenity for employees	**1.** Each building shall be provided with at least 1 communal outdoor area for the use and enjoyment of employees and visitors to that development. The space shall be commensurate with the scale of the development and be accessible from the main office. **2.** In locating communal areas, consideration should be given to the outlook, natural features of the site, and neighbouring buildings. **3.** Communal areas shall be embellished with appropriate soft landscaping, shade, paving, tables, chairs, bins, and access to drinking water commensurate with the scale of the development, activities, and anticipated number of workers. **4.** Communal areas shall be relatively flat and not contain impediments which divide the area or create physical barriers which may impede use. **5.** Communal areas must receive a minimum of 2 hours direct sunlight between 11am and 3pm on 21 June. **6.** Outdoor communal areas shall immediately adjoin a staffroom/lunchroom with kitchen facilities. Where this is not possible, the outdoor communal area is to be provided with a suitably designed weatherproof outdoor kitchen for the use of staff.

3.4 Signage

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	To permit the adequate display of information concerning the identification of premises, the name of the occupier, and the activity conducted on the land.	**1.** Free standing pylon signage must not exceed 10m in height from finished ground level and 2m width. No signage is permitted in the bottom 2m of the structure. **2.** Building identification signage should have a maximum advertising area of up to 0.5 square metres for every metre of lineal street frontage. **3.** Sky signs and roof signs that project vertically above the roof of a building are not permitted. **4.** In the case of multiple occupancy of a building or site: **a.** Each development should have at least one single directory board listing each occupant of the building or site; **b.** Only one sign is to be placed on the face of each premises either located on or over the door; and **c.** Multiple tenancies in the same building should use consistent sign size, location and design to avoid visual clutter and promote business identification.
PO2	To minimise the visual impact of signage. To prevent distraction to motorists and minimise the potential for traffic conflicts.	**1.** Flat mounted wall signs for business identification signage are to be no higher than 15 metres above finished ground level. **2.** Signs should be confined to the ground level of the building, awning or fascia, unless it can be demonstrated that the building is of a scale, architectural style and in a location that would be enhanced by signage at different elevations. **3.** Signs are to be contained fully within the confines of the wall or awning to which they are mounted. **4.** Illuminated signs are not to detract from the architecture of the building during daylight. **5.** Illumination (including cabling) of signs is to be either: **a.** Concealed; **b.** Integral with the sign; **c.** Provided by means of carefully designed and located remote or spot lighting. **6.** A curfew may be imposed on the operation of illuminated signs where continuous illumination may adversely impact the amenity of residential buildings or the environment.

Performance Outcome		Benchmark Solution
		7. Up-lighting of signs is prohibited. External lighting of signs is to be downward pointing and focused directly on the sign and is to minimise the escape of light beyond the sign. **8.** A maximum of one illuminated sign is permitted on each elevation of each building. **9.** Illuminated signage shall be oriented away from residential receivers.

3.5 Lighting

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	To provide adequate external security lighting for employment activities, whilst minimising adverse impacts on adjoining premises and surrounding rural-residential areas.	**1.** Lighting details shall be provided as part of development proposals. **2.** Lighting is to be designed or directed to not cause light spill onto adjoining sites, sensitive receivers or impact Airport operations.
PO2	To encourage energy efficient lighting.	**1.** Adequate lighting shall be provided to meet security requirements without excessive energy consumption. Lighting powered by solar batteries or other renewable energy sources and the use of sensor lighting, both internally and externally, is encouraged.

3.6 Fencing

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	To ensure that the design and location of fencing is integrated within the development and is suitable for its purpose and setting.	**1.** Fencing along street frontages should provide open style fencing, which does not obstruct views of landscaping from the street or reduce visibility. **2.** Palisade fencing is encouraged. **3.** Solid fences above 1 metre in height are not permitted along street frontages.
PO2	To ensure that the security needs of the development are satisfied in a manner which complements the surrounding landscape design and streetscape quality.	**1.** No fencing other than a low ornamental type may be erected at the front or secondary street site boundary. **2.** High security fencing should be located either behind the landscape setback or alternatively within the landscaped area midway between the site front or secondary boundary and the building line. The design of the landscape setback should consider site security management.

3.7 Noise and amenity

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	To ensure noise and vibration do not adversely impact human health and amenity. To ensure building design adequately protects workers and surrounding receivers from noise and vibration.	**1.** Any machinery or activity considered to produce noise emissions from a premise shall be adequately sound-proofed so that noise emissions are in accordance with the provisions of the Protection of the Environment Operations Act 1997. **2.** Noise should be assessed in accordance with Noise Policy for Industry (EPA, 2017) and NSW Road Noise Policy (Department of Environment, Climate Change and Water, 2011). **3.** An Acoustic Report by a qualified acoustical engineer must be submitted where proposed development, including traffic generated by that development, will create noise and/or vibration impacts, either during construction or operation, that impacts on adjoining developments or nearby rural-residential areas. The Acoustic Report

Performance Outcome		Benchmark Solution
		should outline the proposed noise amelioration strategies and management methods. **4.** Acoustic Reports for individual developments must assess cumulative noise impacts, including likely future noise emissions from the development and operation of the Precinct. The consultant should liaise with the relevant consent authority to determine acceptable amenity goals for individual industrial developments and background noise levels. **5.** The use of mechanical plant and equipment may be restricted in areas close to sensitive receivers, such as adjoining rural-residential development and educational establishments. **6.** Building design is to incorporate noise amelioration features. Roof elements are to control potential breakout noise, having regard to surrounding topography. **7.** Boundary fences are to incorporate noise amelioration features and control breakout noise having regard to developments adjoining rural-residential areas.

4.0 Non-Residential development in Centres

This chapter applies to non-residential development in the following centres of the Aerotropolis, as identified in the Aerotropolis Precinct Plan:

- Commercial Centre – Mixed Use;
- Specialised Centre – Mixed Use;
- Business and Enterprise; and
- Local/Neighbourhood Centre.

This chapter provides specific development controls which look to support the type of development intended for the abovementioned centres. Namely, development which:

- Has a focus on employment hubs and job creation;
- Is of a higher density and finer-grain which can leverage of public transport and interchanges; and
- Supports the needs of workers and surrounding residents through a variety of commercial, social and community uses.

Development controls relating to mixed use residential development in centres and standalone residential development are provided in **Section 5** of this DCP.

4.1 Road network and design

4.1.1 Street design

This section applies to development in centres that includes Collector Roads and Local Streets identified in the Street Network and Hierarchy map in the Aerotropolis Precinct Plan.

Objectives

O1. Design street networks to support the objectives of the NSW Government's Movement and Place framework.

O2. Design the local road network generally consistent with the Aerotropolis Precinct Plan.

O3. Design the local street network to accommodate diverse modes of transport including cars, public transport, walking and cycling.

O4. To contribute to the creation of an interesting and attractive streetscape.

O5. Provide a safe and convenient public transport, pedestrian and cycleway network.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	The design, functionality and safety of Collector and Local roads within Centres is consistent across the Aerotropolis.	**1.** Road design for Collector and Local roads within as identified on the Aerotropolis Precinct Plan are to be consistent with the typical arrangements shown in **Figure 15** to **Figure 18**. ***Note:*** *All street cross-sections illustrate minimum requirements. In certain circumstances these may need to increase to respond to site specific conditions such as topography and the retention of remnant vegetation.*

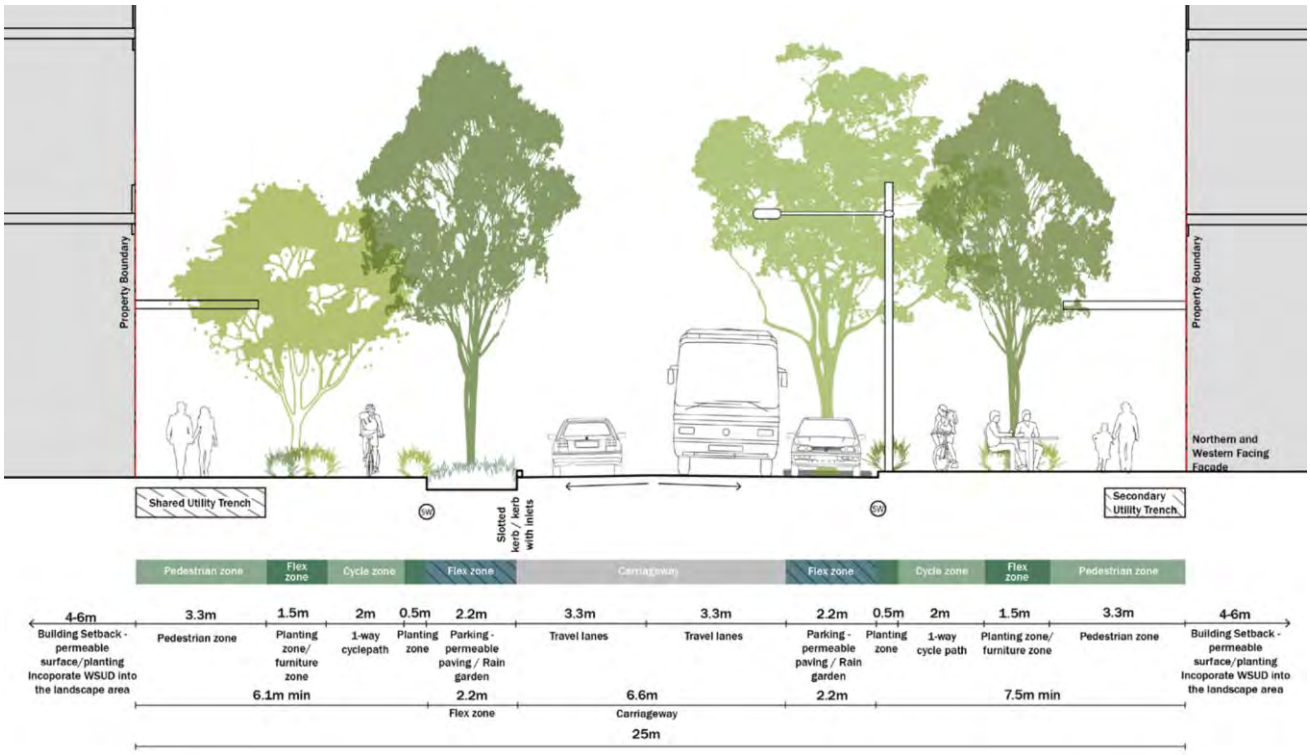


Figure 15 Local street (high street - commercial centre)

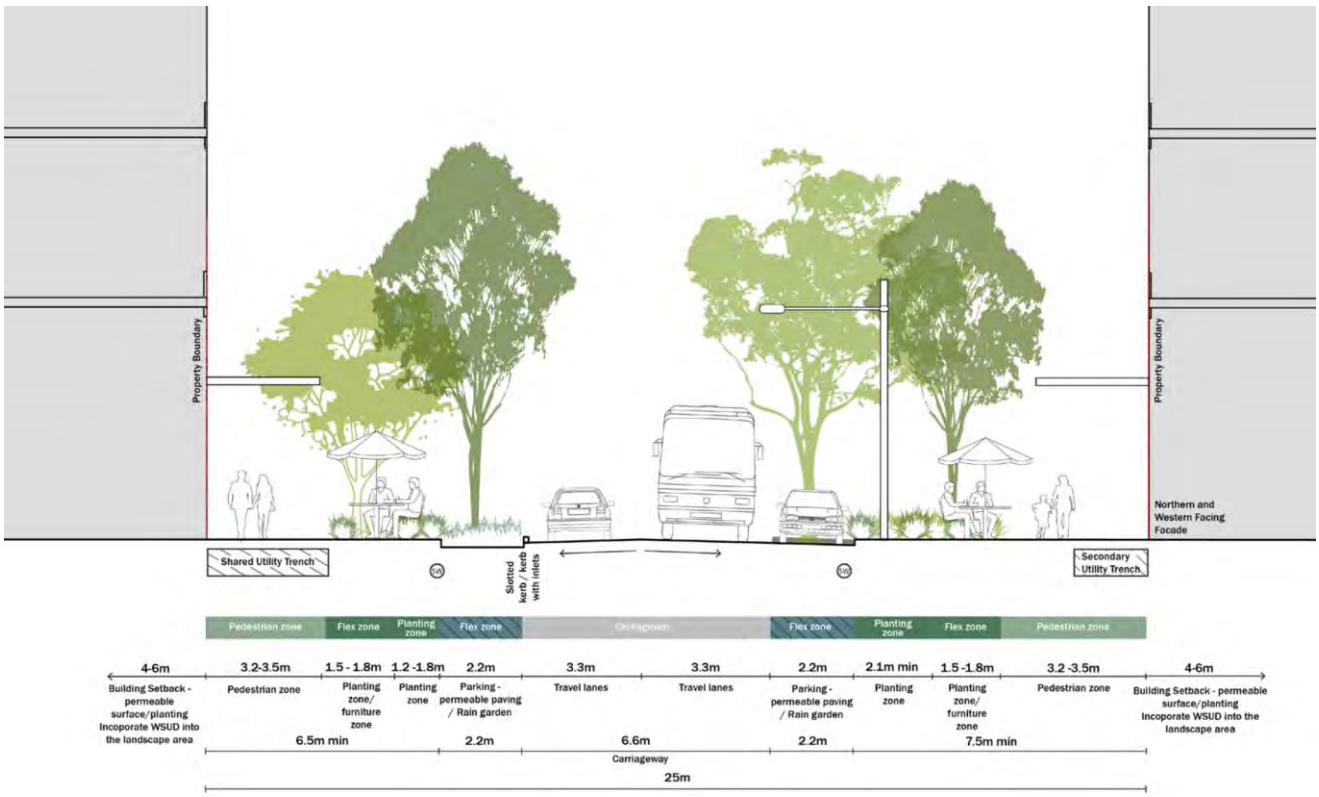


Figure 16 Local street (high street with cycle paths - commercial centre)

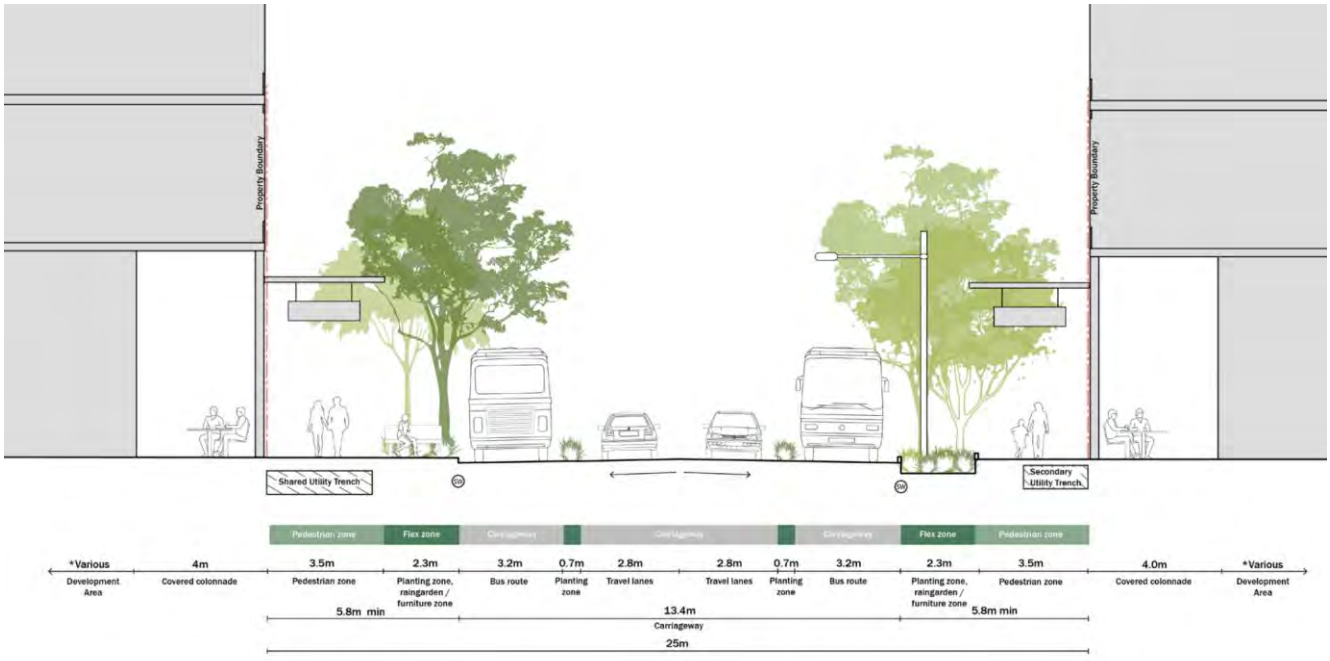


Figure 17 25 metre local street (high street - commercial centre) Bus lane

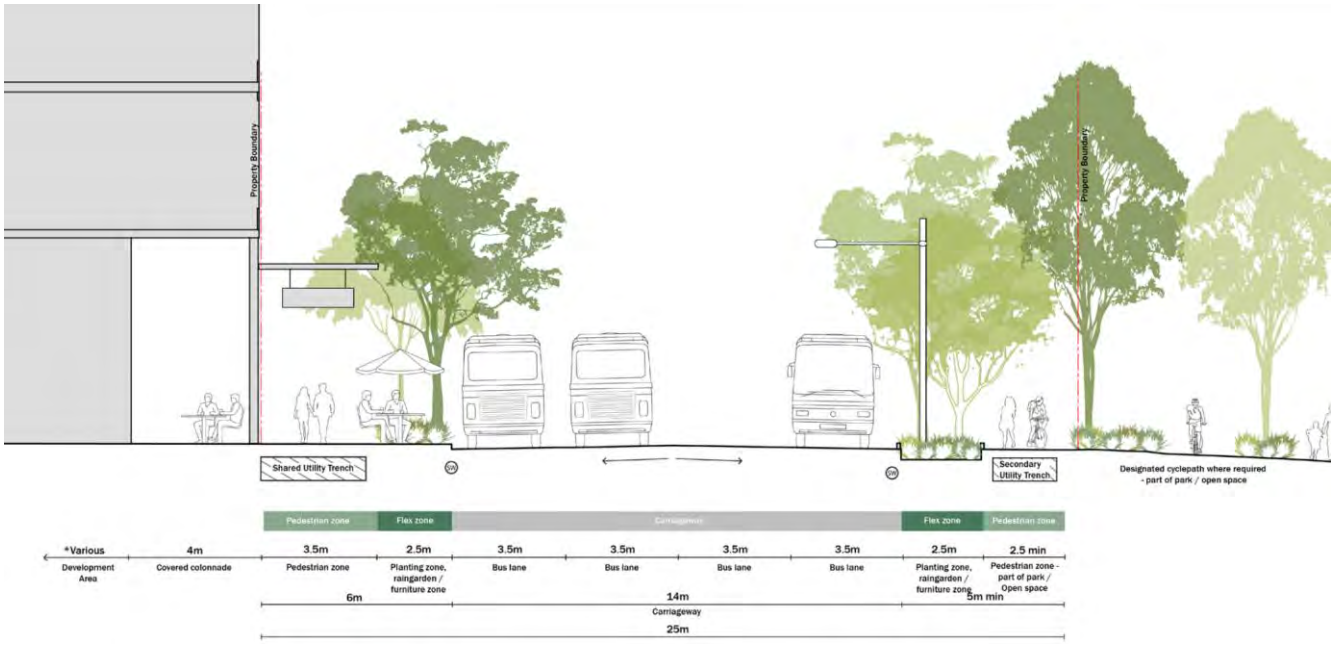


Figure 18 Local street (high street - commercial centre) Rapid bus and active transport only

4.2 Built form

Objectives

O1. Ensure high quality architecture, design and built form outcomes which respond to topography, site characteristics and the public domain.

O2. Encourage pedestrian activity in the streets and other public spaces.

O3. Clearly define the character of the main street by activating the street and public domain.

O4. Provide a high quality public domain to achieve desired employment outcomes.

O5. Establish a consistent front building alignment and landscaped streetscape in accordance with the intended character of the Precinct.

4.2.1 Relationship to the public domain

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Building massing responds to context and future character including significant landforms, topography, landscape, built environment and the public domain.	**1.** Building design responds appropriately to topography, with regular transitions that maximise integration between ground floor level and street level. **2.** Building design is to incorporate a variety of materials and a schedule of materials and finishes is to accompany all development proposals. **3.** Materials provided to building under crofts are to be integrated into the main building facade treatments.
PO2	Built form is orientated to activate the street and public realm, to provide positive address and architectural presence to the street.	**1.** Locate and establish continuity of active uses such as retail outlets and restaurants at ground level street frontages built to the boundary, and offices (or residential) above ground level. **2.** Non-active (i.e. non-retail, non-commercial, non-entertainment or non-community uses) uses to the principal street frontages are to be minimised. **3.** Provide wide and legible entry/lobby areas and pedestrian pathways accessed from a public street or public open space. **4.** Building facades at street level on active frontage streets and facing the public realm are to contain predominately clear glazing free of advertising and be open to the street. Dark glazed facades are not supported. **5.** Upper floors are to be designed to overlook streets and public places to provide casual surveillance.

Performance Outcome		Benchmark Solution
		6. The combined length of walls with no openings, car park entrances and service areas, cannot exceed 20% of the width of the primary street frontage. **7.** Ground levels are to accommodate a range of tenancy sizes, including smaller tenancies that provide visual interest and numerous opportunities for interaction and activity along the street front. **8.** Shopping centres and arcades are to maximise activation of the adjacent street and public domain and enhance permeability between public streets and places. **9.** Ground floor tenancies and building entry lobbies are to have entries and ground floor levels at the same level as the adjacent footpath or public domain.

4.2.2 Amenity and sustainability

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	The floor-to-floor height provides flexibility to adapt to future permissible uses.	**1.** Provide a minimum floor to floor height of: **a.** 5m on the ground floor of commercial buildings; and **b.** 3.6m on the first commercial floor and any commercial the floor above.
PO2	Building depth and length is an appropriate scale to ensure adequate light, cross ventilation, and amenity for occupants. Building design and modulation create interest and suit the functionality of the building.	**1.** Building depth from facade to core is to be 12m. **2.** Podiums are setback 3m from the property boundary fronting existing and new streets. **3.** Any part of a building more than 40m in length must be designed with at least two distinct building components, each of which is to: **a.** Have its distinct architectural character; and **b.** Not exceed 25m in length. **4.** Buildings less than or equal to 40m in length, may have a single architectural character provided that the cohesive elements establish a 'fine grain' articulation. **5.** The maximum gross footprint for a commercial tower is 1,500 sqm.

4.2.3 Building setbacks and separation

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Building setbacks and separation provide for variation of built form in the street, and adequate upper building separation to support privacy, ventilation, and solar access.	**1.** In a commercial building, the setbacks for podium and tower elements are as follows: **a.** Ground floor and podium: Nil setback (built to the property boundary). **b.** Tower: i. A primary street setback of minimum 6m; ii. 6m side setbacks; iii. Rear setback of 12m; and iv. Irrespective of (i), towers may have a nil setback on the primary street, subject to wind and microclimate analysis
PO2	Built form retains high levels of solar access to open spaces and/or public spaces.	**1.** A minimum of 3 hours solar access between the hours of 9am and 3pm on 21 June is to be provided to a minimum of 70% of those public areas impacted by a commercial development.

4.2.4 Built form

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Built form, massing and design will define the placed based character and provide identity to the streetscape and the neighbourhood. Building design is also to serve a functional purpose including solar control, scale, and amenity.	**1.** Building design is to reflect the following: **a.** The part of the building that relates to the public domain; and **b.** The details and building elements including building entries, ground floor, lower floors, top floor, roof and corners. **2.** Building facades consist of a variety of materials and openings (i.e. windows, door, and balconies) to create an architectural response that creates depth and visual diversity. **3.** Incorporation of balconies, openings and other design elements that modulate the facade is encouraged above the ground floor to provide rhythm and interest.

4.2.5 Shelter and shade

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Provide continuous weather protection within centres that is integrated into building entrances and frontages, to optimise the provision of shade and shelter to the public domain.	**1.** Provide continuous awnings along the built form for shading and shelter of the adjacent footpath or public domain (including station plazas). **2.** Awnings are to be designed with: **a.** A soffit height of 3.6m above the finished ground floor level; or **b.** On sloping sites, awning soffit height may vary from a minimum of 3.2m and maximum of 4.0 m. **3.** The design of awnings is to provide: **a.** Integration between neighbouring properties in terms of awning height and setbacks; and **b.** Adequate space to support street trees canopy growth. **4.** Separation between the awning edge and: **a.** Streetlights; **b.** Signage; **c.** The kerb of trafficable lanes to protect from bus and truck overhang; and **d.** Other street infrastructure.

4.2.6 Development in walking catchment of mass transit

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Development within mass transit walking catchments (800m) provide a public realm and built form that links the building with the station.	**1.** New development adjacent to or nearby a station plaza or place, station interchange areas and the Metro station itself is to integrate with that development (as designed or constructed). **2.** All building frontages to a station plaza or interchange addresses and activates the public realm with well-designed and active street frontages, providing for land uses that support both daytime and night-time activity uses. **3.** Built form is to maintain continuity and alignment of the street and to physically define the station plaza. **4.** Driveways, loading docks, electrical substations and servicing facilities are located away from transit entry points and waiting areas, adjoining station plaza areas or significant pedestrian routes to the transit node.

4.3 Parking and travel management

4.3.1 Car parking

Objectives

O1. To facilitate an appropriate number of vehicular spaces having regard to the activities proposed on the land, the nature of the locality and the intensity of the commercial use.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	To facilitate an appropriate number of vehicular spaces having regard to the activities within Centres and the intensity of the use.	**1.** On-site car parking is to be provided between the minimum and maximum rates in **Table 7**. **2.** For activities not identified in Table 7, the TfNSW's (formerly RTA) *Guide to Traffic Generating Developments* (ISBN 0 7305 9080 1) should be referred to as a guide.
PO2	Provision is made, where required, for the integration of car share parking.	**1.** All parking spaces for car share schemes are to be: **a.** Located together in closest proximity to entry and exit points of the building; and/or **b.** Located adjacent to a public road and integrated with the streetscape through appropriate landscaping where the space is external; and **c.** Signed for use only by car share vehicles. **2.** Parking spaces for car share schemes located on private land are to be retained as common property by the Owners Corporation of the site.
PO3	Electric vehicle parking and charging stations are to be integrated into car park design on the development site.	**1.** Design electric vehicle parking spaces with associated charging stations within or immediately adjacent to the parking spaces. **2.** Site on-street charging stations are to be located within the Flex Zone, a minimum of 600mm from the face of the adjacent kerb. **3.** Site charging stations clear of pedestrian paths of travel and do no inhibit desire lines. **4.** Car parking spaces are designed to be easily converted into electric charging stations. **5.** Provide charging points for micro mobility devices and prioritise parking for these vehicles.

Table 7 Car parking in Centres

Land use	Zone / Centre	Within 800m walking distance of a metro station	Greater than 800m walking distance of a metro station	
		Maximum parking rate	Minimum parking rate	Maximum parking rate
Tourist and Visitor Accommodation (Hotel, motel, or serviced apartments, backpacker accommodation)	All	1 space / 5 apartments or rooms, plus 1 space per 5 employees.	1 space / 5 apartments or rooms, plus 1 space per 5 employees.	1 space / 3 apartments or rooms, plus 1 space per 5 employees.
Office or business premises		1 space / 100m^2 GFA		
Bulky goods premises		1 space / 100m^2 GFA	1 space / 100m^2 GFA	1 space / 75m^2 GFA
Shop, restaurant of cafe		1 space / 90m^2 GFA	1 space / 90m^2 GFA	1 space / 45m^2 GFA
Supermarkets		1 space / 200m^2	1 space / 200m^2	1 space / 50m^2
Shopping centre		1 space / 400m^2 GFA	1 space / 400m^2 GFA	1 space / 50m^2 GFA
Entertainment facility		1 space / 100m^2	1 space / 100m^2	1 space / 25m^2
Hospital		1 space / 6 beds plus 1 space / 4 staff.	1 space / 6 beds plus 1 space / 4 staff.	1 space / 4 beds plus 1 space / 4 staff.
Place of public worship		1 space / 100m^2	1 space / 100m^2	1 space / 25m^2
Childcare centre		1 space / 2 employees with a maximum of 3 spaces plus:	1 space / 2 employees with a maximum of 3 spaces plus:	1 space / employee with a maximum of 6 spaces plus

Land use	Zone / Centre	Within 800m walking distance of a metro station	Greater than 800m walking distance of a metro station	
		• 2 spaces if less than 24 enrolment places; or • 3 spaces if 24 enrolment places and above.	• 2 spaces if less than 24 enrolment places; or • 3 spaces if 24 enrolment places and above.	1 space / 10 children in enrolment.
Educational		1 space / 6 staff	1 space / 6 staff	1 space / 4 staff
Medical centre or health consulting rooms		1 space / 200m^2 Proposals for medical centres must include a traffic report accurately predicting traffic generation based on similar sized medical centres.	1 space / 200m^2 Proposals for medical centres must include a traffic report accurately predicting traffic generation based on similar sized medical centres.	1 space / 75m^2 Proposals for medical centres must include a traffic report accurately predicting traffic generation based on similar sized medical centres.
Recreational facilities		5 spaces / 100m^2	5 spaces / 100m^2	7 spaces / 100m^2
Swimming pool		5 spaces / 100m^2	5 spaces / 100m^2	7 spaces / 100m^2
Other land uses				
All uses not listed above	Neighbourhood Centre	1 space / 100m^2 non-residential GFA	1 space / 100m^2 non-residential GFA	1 space / 75m^2 non-residential GFA
	Enterprise Zone	1 space / 250m^2 non-residential GFA	1 space / 250m^2 non-residential GFA	1 space / 150m^2 non-residential GFA
	Mixed Use	1 space / 200m^2 non-residential GFA	1 space / 200m^2 non-residential GFA	1 space / 125m^2 non-residential GFA
Motorcycle parking	All	Motorcycle parking – 1 space / 10 car spaces.		
Accessible car parking		2% of all spaces.		
Car share		Office, business, industrial or retail premises – minimum 1 space per 40 car spaces provided.		
Electric vehicle spaces		Office, business, industrial or retail premises – minimum 1 space per 40 car spaces provided.		

4.3.2 Bicycle parking

Objectives

O1. Minimise the reliance on private car usage.

O2. Prioritise the use of public and alternative transport modes including walking and cycling.

O3. Locate bicycle parking a short distance from the user's destination.

O4. Provide bicycle parking that is highly visible, safe for bicycles and is easy to find.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	To facilitate an appropriate number of bicycle spaces having regard to the activities within Centres, the nature of the locality and the intensity of the use.	**1.** Bicycle parking is to be provided in accordance **Table 8** below. The minimum number of bicycle parking spaces is to be rounded up to the nearest whole number.
PO2	Bicycle parking is to be functional and secure.	**1.** Where bicycle parking for tenants is provided in a basement, it is to be located: **a.** On the uppermost level of the basement and with access to the building lobby; and **b.** Close to entry and exit points.
PO3	Provision is made for electric bicycle charging.	**1.** 1 charging station for electric bicycles is provided for the first 5 bicycle spaces within a development, and for every 10 bicycle parking spaces thereafter.

Performance Outcome		Benchmark Solution
PO4	Bicycle parking is easily accessible.	**1.** A safe path of travel from the bicycle parking to entry and exit points is marked. **2.** Access to bicycle parking areas are: **a.** Rideable (i.e. users do not have to dismount to access); **b.** A minimum of 2m wide to allow a pedestrian and a person on a bicycle to pass each other; **c.** Accessible via a ramp where needed; **d.** Clearly identified by signage; and **e.** Accessible via appropriate security or intercom systems. **3.** Bicycle parking for visitors is provided in an accessible at grade location near a major public entrance to the development and is appropriately signposted.

Table 8 Minimum bicycle parking rates in Centres

Use	Employees	Customers / visitors
Hotel, motel, or serviced apartments	1 space / 4 staff	1 space / 20 rooms
Backpackers accommodation		1 space / 10 beds
Office or business premises	1 space / 150m^2 GFA	1 space / 400m^2 GFA
Bulky goods premises	1 space / 600m^2 GFA	1 space / 1,000m^2 GFA
Shop, restaurant of cafe	1 space / 25m^2 GFA	2 spaces plus 1 space / 100m^2 over 100m^2 GFA
Shopping centre	1 space / 200m^2 GFA	1 space / 300m^2 sales GFA
Pub	1 space / 100m^2 GFA	1 space / 100m^2 GFA
Entertainment facility	N/A	Whichever is greater of: a) 1 space / 15 seats; or b) 1 space / 40m^2 GFA.
Place or public worship	N/A	
Hospital	1 space / 15 beds	1 space / 30 beds
Community centre	1 space / 10 staff	2 spaces plus 1 space / 1,000m^2 GFA
Childcare centre	1 space / 10 staff	2 spaces / centre
Primary school	1 space / 20 staff	1 space / 5 students
Secondary school		
Tertiary educational institution	1 space / 10 staff	1 space / 10 students
Medical centre or health consulting rooms	1 space / 5 practitioners	1 space / 200m^2 GFA
Swimming pool	1 space / 10 staff	2 spaces / 15m^2 of pool area
Library	1 space / 10 staff	2 spaces plus 1 space / 200m^2 GFA
Art gallery or museum	1 space / 1,000m^2 GFA	1 space / 200m^2 GFA

4.3.3 End of trip facilities

Objectives

O1. Provide high quality and innovatively designed end of trip facilities that promote multi-modal trips and efficient use of existing public and private parking facilities.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Change and shower facilities are provided for user needs.	**1.** Lockers and bicycle parking spaces are decoupled. **2.** The following end of trip facilities are provided at the following rates: **a.** 1 personal locker for each bicycle parking space;

Performance Outcome		Benchmark Solution
		b. 1 shower and change cubicle for the first 5 bicycle spaces or part thereof, plus an additional shower for every 10 bicycle parking spaces thereafter; **c.** Showers and change facilities may be provided in the form of shower and change cubicles in a unisex area or in both female and male change rooms; and **d.** Locker change room and shower facilities are located close to the bicycle parking area, entry/exit points.

4.4 Signage in Centres

Objectives

O1. Ensure signs and advertisements contribute positively to the public domain and achieve a high level of design quality.

O2. Ensure that visual and physical amenity are not adversely impacted by visual clutter associated with a proliferation of signs.

O3. Ensure signs are clearly visible without dominating buildings, streets, or public places.

O4. Ensure signs and advertisements do not create a safety risk or hinder direct movement in high volume pedestrian areas.

O5. Support wayfinding.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Businesses are readily identifiable, while the visual and physical amenity of a locality is not impaired by a proliferation of signs.	**1.** Signage placement, design and dimensions comply with **Table 9**. **2.** Signage is provided only for the purposes of business identification or wayfinding. **3.** Where signage is for the purpose of business identification, it clearly identifies the name and street number of the business or activity undertaken on the premises. **4.** For developments with multiple tenancies, one freestanding common tenancy sign is allowed per street frontage and the size is restricted to a maximum size of 10 sqm. **5.** Sculptural features that reflect company branding may be considered as signage on a merit basis. **6.** Signage should be confined to the ground level of the building, awning, or fascia, unless demonstrated that the building is of a scale, architectural style and in a location that would be enhanced by signage at different elevations.
PO2	Signage does not result in adverse impacts on amenity.	**1.** Signage does not include moving, revolving, strobing, or flashing components which would impact Airport operations. **2.** Signage does not cause undesirable overshadowing or impacts on properties overlooking the signage. **3.** Signage is installed/constructed so that it can easily be removed when the business is no longer operating on the premises.
PO4	Signage's level of illumination is safe and does not cause detrimental impacts on the amenity of its locality.	**1.** Illuminated signage may only be permitted where it can be demonstrated that it is necessary, suitable to its context, and will not result in adverse impacts on visual amenity and safety, including aviation safety. **2.** The illuminance, luminance and threshold increment of illuminated signage complies with AS 4282-1997. **3.** Up-lighting of signs is prohibited. Any external lighting of signs is: **a.** Downward pointing; **b.** Focused directly on the sign; and **c.** Prevents or minimises the escape of light beyond the sign. **4.** Illumination must not cause glare, traffic hazard, environmental impacts, or another nuisance. **5.** The maximum night-time luminance of any sign does not exceed 300 cd/sqm. A lighting report may be required in some circumstances.

Performance Outcome		Benchmark Solution
		6. A curfew may be imposed on the operation of illuminated signs where continuous illumination may impact adversely on the amenity of residential buildings, serviced apartments or other tourist and visitor accommodation, or have other adverse environmental effects.
PO5	Signage maintains appropriate levels of safety and not unduly obstruct, or distract, vehicular or pedestrian traffic.	**1.** Signage is structurally sound and securely fastened to prevent accidental damage or injury. **2.** Overhead signage provides a minimum of 2.4m high clearance to a public footpath below any signage device. **3.** Signage must maintain the view of any traffic sign, traffic signals or street name, and does not reduce drivers' line of sight.
PO6	To deliver coordinated and site-specific approaches to signage that complement and support the architectural design of a building and the public domain.	**1.** A signage strategy is to be prepared for all signage applications that contain more than four business premises.

Table 9 Signage in Centres Placement Design and Dimensions

Signage type	Placement/ Maximum size
Shop front sign	Does not project above, below or beyond the return edge of the fascia.
Under-awning signage	Maximum dimensions 2.5m x 0.3m.
Flush wall sign	Maximum 5 sqm.
Building identification sign	Maximum of 1 sign per building.

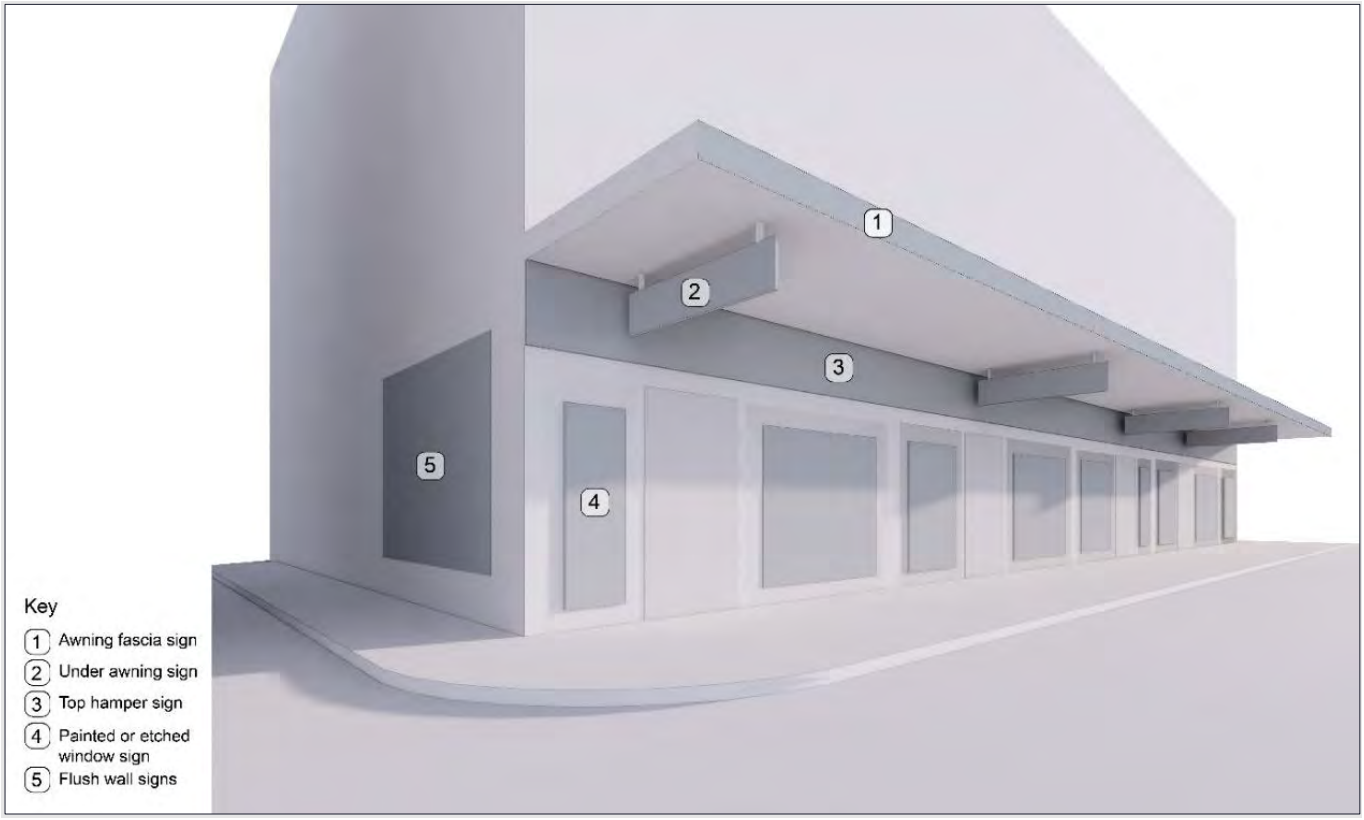


Figure 19 Signage types

5.0 Residential Development

This Chapter applies to residential development on land in the following areas of the Aerotropolis identified for residential development, as identified in the Aerotropolis Precinct Plan:

- Mixed Use residential;
- Subdivision and associated residential development in the Specialised Centre and Commercial Centre - mixed use areas; and
- The Sydney Science Park.

5.1 Road network and design

This section applies to residential development in areas identified for Mixed Use residential and residential development in Specialised Centre and Commercial Centre - mixed use areas that include Collector Roads and Local Streets identified in the Street Network and Hierarchy map in the Aerotropolis Precinct Plan. Further guidance on street design and engineering standards can be found in the *Western Sydney Street Design Guidelines*, *Western Sydney Engineering Design Manual* and the Precinct Plan.

Objectives

O1. Design street networks to support the objectives of the NSW Government's Movement and Place framework.

O2. Design the local road network generally consistent with the Aerotropolis Precinct Plan.

O3. Design the local street network to accommodate diverse modes of transport including cars, public transport, walking and cycling.

O4. To contribute to the creation of an interesting and attractive streetscape.

O5. Provide a safe and convenient public transport, pedestrian and cycleway network.

5.1.1 Street design

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	The design, functionality and safety of Collector and Local roads within Centres is consistent across the Aerotropolis.	**1.** Road design for Collector and Local roads as identified on the Aerotropolis Precinct Plan are to be consistent with the typical arrangements shown in **Figure 20** to **Figure 23**. ***Note**: All street cross-sections illustrate minimum requirements. In certain circumstances distances may need to increase to respond to site specific conditions such as topography and the retention of remnant vegetation.*

***Note:** Roads and streets are to be designed in accordance with the Western Sydney Street Design Guidelines, except where specific street cross sections are provided in this DCP for streets as shown on the street hierarchy map at Figure 10 of the Aerotropolis Precinct Plan.*

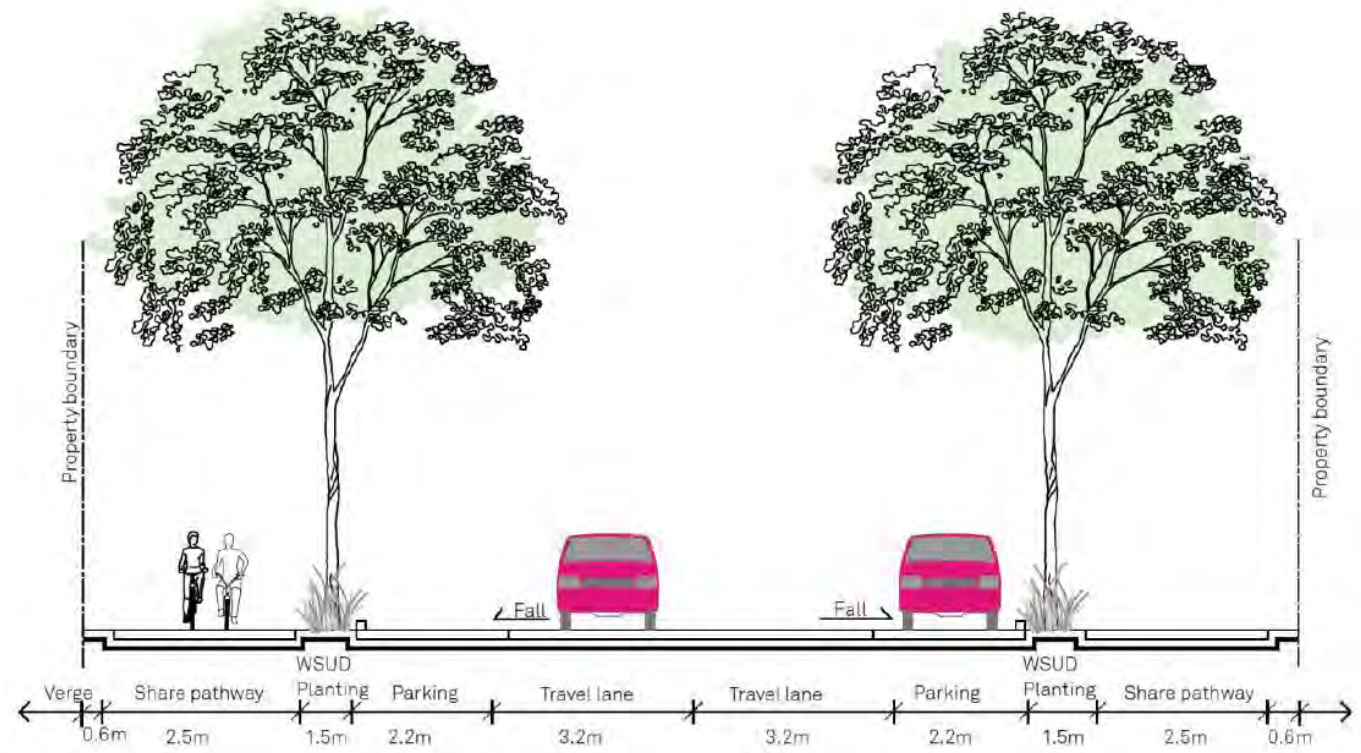


Figure 20 Typical collector road

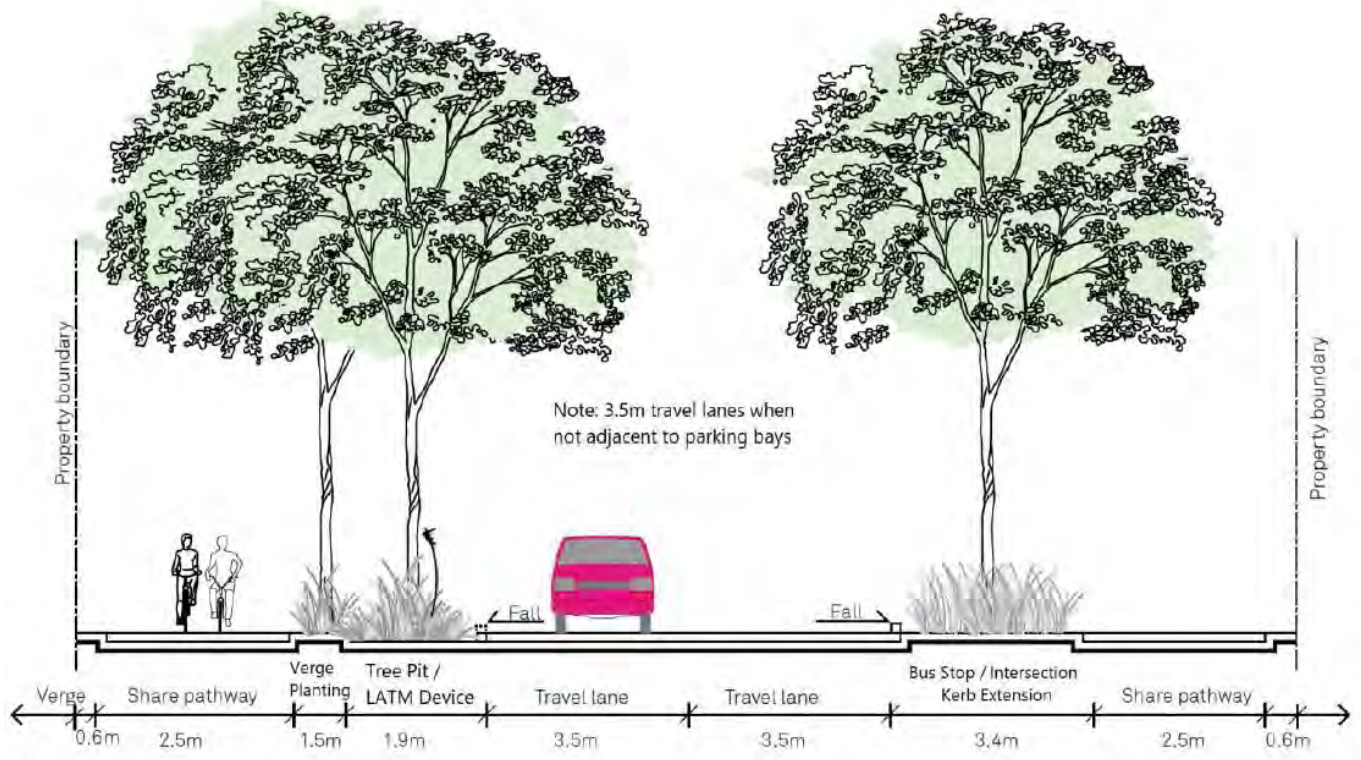


Figure 21 Collector Road LATM, Tree Pit, Bus Stop or Kerb Extension Details

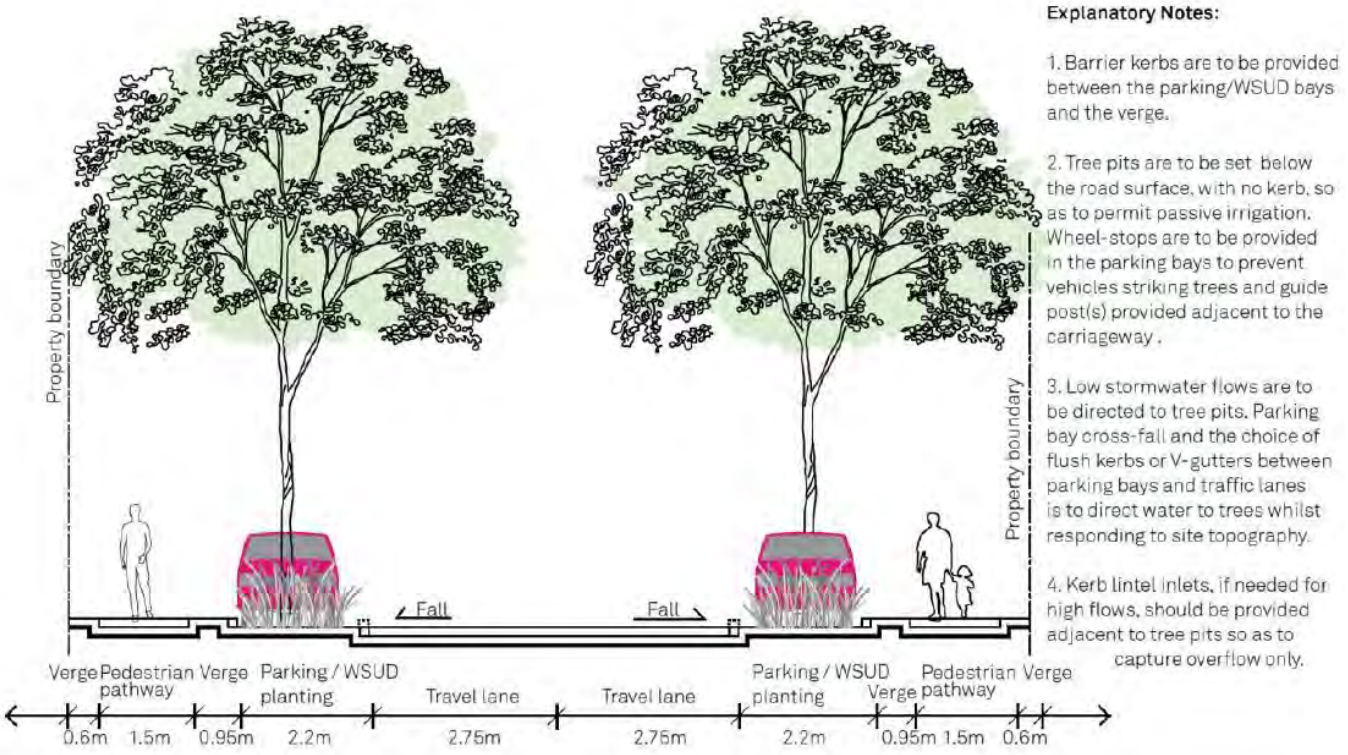


Figure 22 Typical local street

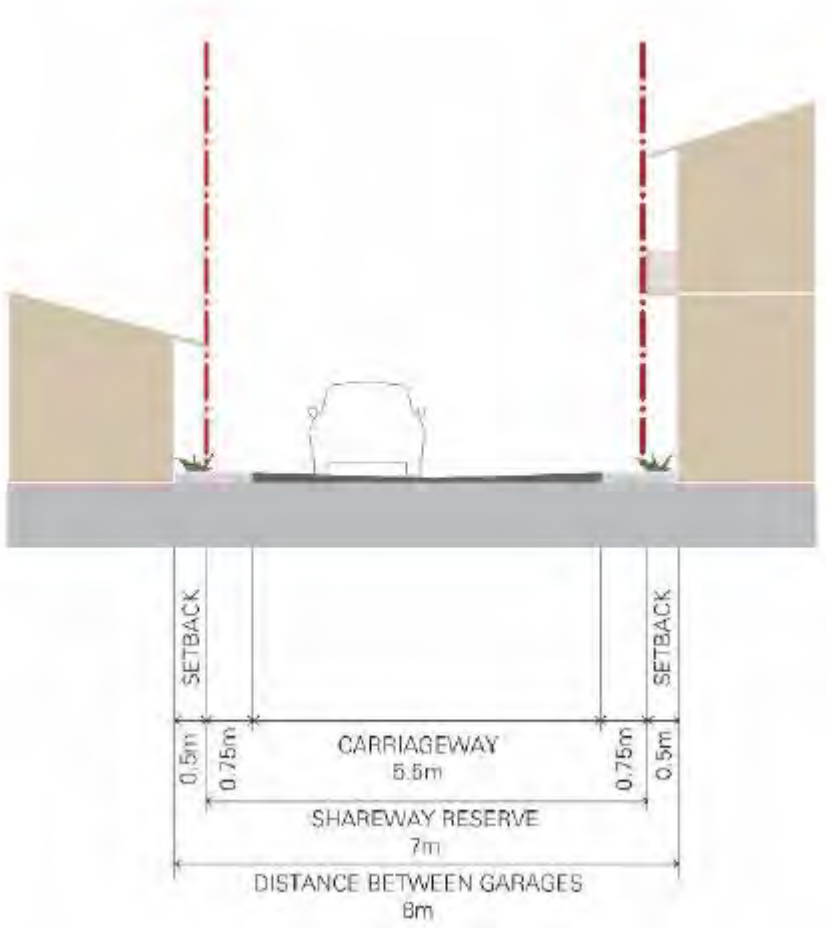


Figure 23 Typical laneway

5.2 Built form

Objectives

O1. Ensure high quality architecture, design and built form outcomes which respond to topography and site characteristics.

O2. To establish a high quality residential environment where all dwellings have a good level of amenity.

O3. To encourage a variety of housing forms within the mixed use residential areas of the Aerotropolis.

O4. Establish a consistent front building alignment and landscaped streetscape for mixed use residential areas of the Aerotropolis.

5.2.1 Relationship to the public domain

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Building massing responds to context and future character including significant landforms, topography, landscape, built environment and the public domain.	**1.** Building design responds appropriately to topography, with regular transitions that maximise integration between ground floor level and street level.
PO2	Built form is orientated to activate the street and public realm, to provide positive address and architectural presence to the street.	**1.** Pedestrian entries are to be clearly visible from the public domain. **2.** Provide wide and legible entry/lobby areas and pedestrian pathways accessed from a public street or public open space. **3.** Residential uses on the upper floors are to be designed to overlook streets and public places to provide casual surveillance. **4.** Non-residential development associated with shop top housing at ground level is to have high activation and street presence. **5.** No hardstand parking spaces are permitted directly in front of any residential building front door or pedestrian entrance point. **6.** Building facades are to be articulated by: **a.** Off-setting walls; **b.** Providing a physical break in the building; **c.** The use of a mix of different materials and detailing; and **d.** The inclusion of balconies, verandas, pergolas, and landscaped beds.
PO3	Fencing is to complement the streetscape, provide separation between properties, and allow for passive surveillance.	**1.** For the primary frontage, fencing: **a.** Must have a maximum height of 1.2m; **b.** Must not prevent surveillance by the dwelling's occupants of the street or communal areas; **c.** Must be at least 30% transparent for elements exceeding 1m in height; and **d.** Must be of a materiality integrates with the design of the development. **2.** For secondary frontages fencing must have a maximum height of 1.2m in height. **3.** For corner lots, fencing may have a maximum height of 1.8m in height, stepping down to allow for casual surveillance from the development to the street frontages.

5.2.2 Amenity and sustainability

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Lot size is appropriate for development.	**1.** Development for the purpose of multi dwelling housing is to contain the minimum lot width and sizes:

Performance Outcome		Benchmark Solution
		a. Minimum lot size is 800 sqm; and **b.** Minimum lot width is 24m.
PO2	Building depth and length is an appropriate scale to ensure adequate light, cross ventilation, and amenity for occupants, visitors and/or workers.	**1.** The maximum gross footprint for a residential tower above 5 storeys in height is 650 sqm.
PO3	Ensure appropriate solar access to living areas and private open space.	**1.** Multi dwelling housing and adjoining properties must receive a minimum of three hours of sunlight between 9am and 3pm on 21 June to the following areas: **a.** 1 living room; and **b.** 50% of the private open space. **2.** Solar access for residential flat buildings and shop top housing is to achieve the solar access requirements set out in the Apartment Design Guide. **3.** Orient habitable rooms and windows to take advantage of northern aspects. **4.** Locate non-habitable rooms, such as service areas and circulation areas on the south side of the buildings. **5.** Provide skylight or clerestory windows to improve solar access and provide shared light to poorly lit parts of a dwelling, where orientation and design cannot achieve performance outcome.
PO4	Provide for cross ventilation within the dwelling	**1.** The internal layout of the dwelling must incorporate cross ventilation. **2.** Natural ventilation is available to each habitable room.
PO5	Ceiling heights are an appropriate height for residential amenity.	**1.** Ceiling heights for multi dwelling housing are to be a minimum of 3.1m on the ground floor and a minimum 2.7m above ground. *(**Note:** This height is measured from the top of the finished slab level).* **2.** Ceiling heights for residential flat buildings and shop top housing are to be in accordance with the Apartment Design Guide.
PO6	Multi dwelling housing contains an area of principal private open space	**1.** Each dwelling provides principal private open space with a minimum dimension of 4m, and a minimum area as follows: **a.** 1 bed / studio: 16 m²; **b.** 2 bed: 25m²; and **c.** 3+ bed: 35m². **2.** Where the minimum 4m dimension cannot be provided at a level gradient due to site constraints, terraced areas may be considered. **3.** One living area should have a direct link to the principal private open space.
PO7	Dwelling layout and site design maximise visual privacy to dwellings.	**1.** Building siting, window location, balconies and fencing are designed to maximise privacy on site and adjoining buildings and outdoor spaces.

5.2.3 Building setbacks

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Building setbacks and separation for high density residential development provide for variation of built form in the street, and adequate upper building separation to support privacy, ventilation, and solar access.	**2.** Multi dwelling housing is to meet the following building setbacks and separation distances: **a.** Minimum front setbacks: 4.5m (ground level) and 5.5m (first floor). **b.** Minimum secondary frontage (corner sites): 2.5m (ground level) and 2.5m (fist floor). **c.** Minimum 6m side and rear setbacks. **d.** Minimum 3m setback to a rear lane. **3.** Residential flat buildings and shop top housing development is to be guided by the guidelines and principles of *State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development* and the Apartment Design Guide.

Performance Outcome		Benchmark Solution
	Provide consistent building alignment.	**4.** Residential flat buildings and shop top housing is to meet the following front building setbacks: **a.** Minimum front setbacks: i. Residential flat building: 6m (balconies and other articulation may encroach up to 4.5m to the boundary). ii. Shop top housing: 0m first floor setback and 4m above the first floor. **b.** Secondary street (corner lot) setback: i. Residential flat building: 6m. ii. Shop top housing: 3m. **5.** The minimum setback from the side and rear property boundaries for residential flat buildings and shop top housing is to comply with the requirements of the Apartment Design Guide. **6.** Zero side setbacks are permitted for the upper floors providing the side wall contains no windows or other openings. **7.** Notwithstanding the setback controls outlined in control (1) or (2) above, balconies and other minor articulation may encroach 1.5m into the building setback provided it can maximise solar access, support landscaping or supports an articulated façade which can improve visual interest and reduce the perceived bulk and scale of development.
PO2	Ensure the amenity of surrounding developments by providing screen planting on the boundary.	**1.** Multi dwelling housing, residential flat buildings and shop top housing is to be supported by a minimum of 3m landscape width along all fence lines for the inclusion of screen planting and boundary planting. **2.** Screen planting on the boundary is to reach a minimum height of 2.5m at maturity. **3.** Landscaping along the boundary is to be strategically placed to have the optimal effect in relation to both the provision of privacy and the achievement of solar access controls.

5.2.4 Diversity and accessibility

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	A diverse range of dwelling types are provided to meet a range of household sizes and income and cultural needs.	**1.** Studio and one bedroom units must not be less than 10% of the total mix of units within each development.
PO2	Universally designed dwellings are provided which cater to a range of household and personal need, (including the changing mobility requirements of people over their lifetime).	**1.** Liveable dwellings are spread throughout the proposed development at the same rate of 1 bedroom, 2 bedroom, and 3 bedroom dwellings. **2.** 10% of all dwellings or a minimum one dwelling, whichever is greater, must be designed in accordance with the Australian Adaptable Housing Standard (AS4299-1995), to be capable of adaptation for people with a disability or elderly residents.

5.2.5 Sydney Science Park

Residential development within the Sydney Science Park is to be in in accordance with the benchmark solutions below.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
Small lot housing		
PO1	Encourage quality-designed dwelling houses that make a positive contribution to the streetscape and amenity of the neighbourhood. Achieve a high level of amenity for the occupants.	**1.** Achieve the following minimum allotment size: **a.** 125 sqm (terrace). **b.** 200 sqm (zero side setback lot). **c.** 200 sqm (small detached). **2.** Maximum allotment size: 450 sqm. **3.** Minimum average allotment width (measured at the primary building line): **a.** 5m (terrace). **b.** 10m (zero side setback lot). **c.** 12m (small detached). **4.** Maximum average allotment width – zero side setback lots only (measured at the primary building line): 15m. **5.** Minimum lot depth: 20m. **6.** Minimum private open space: **a.** 16 sqm (lots under 300 sqm and minimum width 3m). **b.** 24 sqm (lots over 300 sqm and minimum width 4m). **7.** Principal area of private open space is to be directly accessible from living area. **8.** Front setback: **a.** 3.5m (terrace). **b.** 4m (zero side setback lot, small detached) Where a particular street character or urban form is to be created or reinforced, a nil setback may be provided. **c.** 2m secondary street frontage (light weight). **9.** Rear setback: **a.** 4m ground level (0m for terrace rear loaded). **b.** 6m upper level (1m from terrace front loaded). **10.** Side setback: **a.** 1m (except attached and zero side setback lot). **b.** 1.5m upper setback (except terraces). **11.** Corner lots (secondary frontage): 2m. **12.** Lightweight projections within front setback: 2m (within front setback).
Standard Detached Housing		
PO1	Encourage quality-designed dwelling houses that make a positive contribution to the streetscape and amenity of the neighbourhood. Achieve a high level of amenity for the occupants.	**1.** Minimum allotment size: 450 sqm. **2.** Maximum allotment size: 700 sqm. **3.** Minimum average allotment width: 15m. **4.** Minimum lot depth: 20m. **5.** Minimum private open space: **a.** 24 sqm (minimum width 4m). **b.** Principal area of private open space is to be directly accessible from living area. **6.** Maximum building site coverage: 65%. **7.** Front setback: 4m (zero side setback lot, small detached. **8.** Rear setback: **a.** 4m ground level. **b.** 6m upper level. **9.** Side setback: 1m (except attached and zero side setback lot). **10.** Corner lots (secondary frontage): 2m. **11.** Lightweight projections within front setback: 2m (within front setback).

Performance Outcome		Benchmark Solution
Residential Flat Buildings		
PO1	Encourage quality-designed high density dwellings that make a positive contribution to the streetscape and amenity of the neighbourhood. Achieve a high level of amenity for the occupants.	**1.** Minimum frontage width: 20m. **2.** Minimum landscaped area: 20% (suitable for deep soil). **3.** Minimum private open space: 8 sqm. **4.** Front setback: 4m . **5.** Rear setback: 9m upper level. **6.** Side setback: **a.** 5m for buildings up to 4 storeys in height. **b.** 9m for buildings greater than 4 storeys in height. **7.** Corner lots (secondary frontage): 4m.

5.3 Parking and travel management

5.3.1 Car parking

Objectives

O2. To facilitate an appropriate number of vehicular spaces having regard to the activities proposed on the land, the nature of the locality and the intensity of the use.

O3. Encourage the use of bicycles as an environmentally beneficial form of transport and an alternative to the use of private motor vehicles.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	To facilitate an appropriate number of vehicular spaces having regard to residential development.	**1.** On-site car and bicycle parking is to be provided between the minimum and maximum rates in **Table 10**. **2.** Where car parking is not accessed from a rear lane way, at least one (1) car parking space shall be provided for attached dwellings, detached dwellings and small lot housing behind the front setback area. **3.** For activities not identified in **Table 10**, the TfNSW's (formerly RTA) *Guide to Traffic Generating Developments* (ISBN 0 7305 9080 1) should be referred to as a guide.

Table 10 Car and bicycle parking for residential development

Land use	Within 800m walking distance of a metro station	Greater than 800m walking distance of a metro station	
	Maximum parking rate	**Minimum parking rate**	**Maximum parking rate**
Attached and detached dwelling Small lot housing	Studio or 1 bedroom – 1 space / dwelling		
	2 bedroom – 1 space / dwelling	2 bedroom – 1 space / dwelling	2 bedroom – 2 spaces / dwelling
	3 or more bedrooms – 1 spaces / dwelling	3 or more bedrooms – 1 spaces / dwelling	3 or more bedrooms – 2 spaces / dwelling
Multi-dwelling housing	Studio or 1 bedroom – 1 space / dwelling		
	2 bedroom – 1 space / dwelling	2 bedroom – 1 space / dwelling	2 bedroom – 1.5 space / dwelling
	3 or more bedrooms – 1.5 spaces / dwelling	3 or more bedrooms – 1.5 spaces / dwelling	3 or more bedrooms – 2 spaces / dwelling
	Visitor – 0.25 spaces / dwelling with a minimum of 1 space.		
	Provision of a car washing space if there are more than 4 dwellings.		
Residential flat buildings and Shop-top housing	Studio or 1 bedroom – 0.5 spaces / dwelling	Studio or 1 bedroom – 0.5 spaces / dwelling	Studio – 0.5 spaces / dwelling 1 bedroom – 1 space / dwelling
	2 bedrooms – 1 space / dwelling		

Land use	Within 800m walking distance of a metro station	Greater than 800m walking distance of a metro station	
	3 or more bedrooms – 1 space / dwelling	3 or more bedrooms – 1 space / dwelling	3 or more bedrooms – 1.5 spaces / dwelling
	Motorcycle parking – 1 space / 10 car spaces		
	Provision of a car washing space for developments with more than 4 dwellings.		
Accessible car parking	1 space / adaptable dwelling		
	1 space / 20 visitor spaces		
Minimum car share spaces – multi dwelling housing, Residential flat buildings and Shop-top housing	1 space / 60 car spaces provided		
Minimum electric vehicles spaces including charging stations – multi dwelling housing, Residential flat buildings and Shop-top housing	1 space per 60 car spaces provided For all other residential development, provision for the charging of electric vehicles shall be provided.		
Bicycle parking	1 space / dwelling (resident)		
	1 space / 10 dwelling (visitor)		

6.0 Certain Land Uses

This section guides development for certain additional land uses in the Aerotropolis and Identified in the Aerotropolis Precinct Plan.

6.1 Social and cultural infrastructure

Objectives

O1. Create an integrated hierarchy of social and cultural infrastructure within the Aerotropolis that is centrally located, adaptable and flexible to the changing needs of the population.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Social and cultural infrastructure can meet the needs of the future community and the needs of its users including workers, visitors, tourists and residents within the Aerotropolis.	**1.** Social and cultural infrastructure supports (including benchmarks) the Western Sydney Aerotropolis Social Infrastructure Strategy (January 2022), developed as part of the Aerotropolis Precinct Plan. **2.** Master planned sites and sites of 20 hectares or more within Metropolitan, Specialised and Local Centres are to identify areas for cultural infrastructure such as dedicated spaces for cultural practice, places for sharing culture and specialised infrastructure to meet the needs of the local Aboriginal community. **3.** Social and cultural infrastructure can serve multiple purposes and is safe, well located, close to public transport, shops, restaurants and health facilities.
PO2	Social and cultural infrastructure is flexible so that it can respond and adapt as the population, technology, or community (residents and employees) needs change	**1.** Demonstrate that social and cultural infrastructure is designed to be flexible to enable expansion or adaptation for other uses or activities such as: **a.** Large, medium, and small gatherings; **b.** Temporary public or private events; **c.** Public responses to emergencies or disasters; **d.** Changing population; or **e.** Changing technology.

6.2 Night time economy uses

Objectives

O1. Support a safe, diverse, inclusive, vibrant, and accessible night-time economy for the Aerotropolis.

O2. Enable trading hours to support night-time economy uses and activities in appropriate locations.

O3. Ensure that night-time accessibility to centres promotes high levels of activity and a strong night-time economy.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Night-time uses are highly accessible by public transport.	**1.** Prioritise the locations of night-time uses in areas where they can be easily and safely accessed by public transport (walking distance from a Metro station, or a bus stop with high frequency service aligned with proposed hours of operation) or walking and cycling. **2.** The design of key pedestrian routes from public transport nodes to areas of night-time activity provides for safe night-time walking. **3.** Provide wayfinding (signage and lighting) to direct patrons between late-night services and public transport options.
PO2	Night-time uses are designed to have minimal adverse impacts on the comfort and safety of patrons, nearby residents and the broader community.	**1.** Night-time economy uses are to include passive surveillance over the street frontage, avoiding the use of roller doors, blank walls or other components which do not enhance safety of the area. **2.** Night-time uses shall include noise mitigation measures to manage any land use conflicts. **3.** A Plan of Management and a Social Impact Assessment is to be submitted where night-time uses exceed 9:00pm.
PO3	Hours of operation promote a safe and vibrant night-time economy.	**1.** Hours of operation are to be considered on a merit basis, with consideration of the following: **a.** The nature of the night-time use and its likely impacts on surrounding land uses, including residential; **b.** Surrounding hours of operation; **c.** Proposed management measures; **d.** Availability and frequency of public transport; **e.** The likelihood of the proposed use to promote antisocial activities; **f.** Levels of public lighting available at and to the site; **g.** Amenity impacts on surrounding premises; and **h.** Cumulative impact of uses in a location.

6.3 Animal boarding or training establishments

Objectives

O1. Ensure the design and location of animal boarding or training establishments does not adversely impact on the environment or the amenity of existing and future developments.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Development does not impact the amenity of adjacent neighbours.	**1.** Locate animal boarding or training establishments a minimum distance of 150m from existing or future residential areas, including in mixed-use zones. This minimum distance proportionally increases on merit, depending on the number of animals permitted, with a maximum of 40 animals at 300m. **2.** Site selection meets the following criteria: **a.** Minimum street frontage is 90m; and

Performance Outcome		Benchmark Solution
		b. Minimum setback is 60m from any public road. **3.** Concrete floors are provided to all kennels with runs to facilitate cleaning. **4.** Facility design prevents pollution to surface and ground waters (e.g. washdown waters are collected and directed to sewer). **5.** Sound-proofed holding sheds are provided for distressed animals (as per the *NSW Animal Welfare Code of Practice No 5 – Dogs and cats in animal boarding establishments*). **6.** An acoustic report demonstrates that relevant acoustic measures have been implemented to mitigate noise impact on adjoining properties and the public domain. **7.** An odour report in accordance with Chapter 2.9.4 (above) must be provided to demonstrate if the use is appropriately located so as not to impact on the amenity of neighbouring properties.

6.4 Tourist and visitor accommodation

Objectives

O1. Ensure that tourist and visitor accommodation provide acceptable standards of health, safety, cleanliness and amenity for guests and staff.
O2. Ensure that tourist and visitor accommodation operate in manner that does not adversely impact on the amenity of the surrounding locality.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Tourist and visitor accommodation operate in a safe and clean manner that protects the amenity of guests, staff, and neighbours.	**1.** A plan of management for tourist and visitor accommodation is provided with the DA.
PO2	Tourist and visitor accommodation provide adequate amenity for the purpose of short term stays only.	**1.** The maximum length of stay for any guest is 3 months. **2.** Tourist and visitor accommodation provide communal recreation areas of 20m^2 or at a rate of 0.75m^2 per person based on the maximum number of guests, whichever is greater. **3.** Any noise-generating activities and areas that cause exposure to sensitive uses on neighbouring sites are restricted between 10pm-7am.
PO3	Tourist and visitor accommodation are located close to public transport to provide a high level of amenity to guests.	**1.** Tourist and visitor accommodation shall be located within 800m of public transport and within easy access to facilities and services.

6.5 Telecommunication facilities

Objectives

O1. Minimise impacts of telecommunication facilities on the environment, surrounding properties, workers, residents, and future character of the precinct.

Performance Outcomes and Benchmark Solutions

Performance Outcome		Benchmark Solution
PO1	Co-location of telecommunication facilities minimises the number of facilities required.	**1.** The siting and design telecommunication facilities consider the existing and future potential for co-location of additional telecommunications facilities.

Performance Outcome		Benchmark Solution
PO2	Telecommunication facilities do not have adverse impacts on the environment.	**1.** Telecommunication facilities are not located on Environmentally Significant Land or on land below the PMF level.
PO3	Telecommunication facilities ensure human health and safety, including risks associated with the emission of electro-magnetic radiation.	**1.** Consult with the local community and ensure compliance with *NSW Telecommunications Facilities Guideline including Broadband* or any further updates. **2.** Provide a minimum 300m separation from any residential area or other sensitive use. **3.** The level of electro-magnetic radiation emitted from any telecommunications facility does not exceed the limit of 0.2uW/cm^2. **4.** Signs are erected around a telecommunications facility displaying warnings and information to minimise public risk. **5.** The facility is enclosed with a minimum 1.8m high open mesh (or similar) to prevent public access to the site.
PO4	Visual impact on the public domain is minimised.	**1.** Locate the facility so that it does not detract from: **a.** The heritage significance or settings of a heritage item or potential archaeological site; **b.** The amenity of open spaces; or **c.** Key regional and district views and vistas. **2.** Facilities are of a "slimline monopole" construction. **3.** The facility does not include advertising signs, including logos. **4.** The facility does not contain night illumination (except where a proposed telecommunications facility infringes the Obstacle Limitation Surface (OLS) for aircraft safety).
PO5	Landscaping screens the facility from the public domain.	**1.** Locate the facility where vegetation, landform or open space features screen or can reduce its visual impact. **2.** Additional landscaping shall be provided where existing vegetation does not adequately screen the facility.

6.6 Additional land uses

Where the land uses and particular sites identified in **Table 11** are proposed in the Aerotropolis, their development in addition to Chapter 2 of this DCP will also be guided by the existing provisions under the Liverpool Development Control Plan 2008 (for land in the Liverpool LGA) and the Penrith Development Control Plan 2014 (for land in the Penrith LGA). The Council DCPs apply for these land uses in spite of any notes in those DCPs regarding specific land use zones where they apply.

In these instances, both Liverpool and Penrith Council already have established development controls to guide these forms of development which continue to remain relevant and appropriate.

Table 11 Controls for additional land uses

LAND USE	DCP CONTROLS	
	Development in the Penrith LGA	**Development in the Liverpool LGA**
Childcare centres	Section 5.2 of Part D5 (Volume 1) of the PCC DCP 2014	Section 14 of Part 6 of the LCC DCP 2008
Educational facilities / establishments	Section 5.4 of Part D5 (Volume 1) of the PCC DCP 2014	Section 3 of Part 3.8 of the LCC DCP 2008
Places of public worship	Section 5.6 of Part D5 (Volume 1) of the PCC DCP 2014	Section 3.8 of Part 6 of the LCC DCP 2008
Roadside stalls	Section 1.5.5 of Part D1 (Volume 1) of the PCC DCP 2014	Section 9.7 of Part 5 of the LCC DCP 2008
Sex services and restricted premises	Section 3.2 and Section 3.3 of Part D3 (Volume 1) of the PCC DCP 2014	Section 30.1 of Part 1 of the LCC DCP 2008

LAND USE	DCP CONTROLS	
Boarding houses	Section 5.11 of Part D5 (Volume 1) of the PCC DCP 2014	Part 3.9 of the LCC DCP 2008
Alterations and additions to existing residential dwellings	Section 1.2 of Park D1 (Volume 1) of the PCC DCP 2014	Part 5 Section 9.1 of the LCC DCP 2008
Development within the Luddenham Village prior to the finalisation of the Luddenham Village Strategy	PCC DCP 2014	LCC DCP 2008

7.0 Master Plans

This section guides site-specific and place-based development controls to guide future development of the approved master plan sites and its surrounding lands in the Aerotropolis.

Master plans within the Aerotropolis contain additional and alternative controls and should be referred to in addition to this DCP for those sites where master plans apply. Refer to 7.1 List of approved master plans. In the event of any inconsistency between any approved master plans and this DCP, the approved master plan will prevail. Future development proposals within or adjacent to the master plan area will need to consider, and demonstrate consistency with, the master plan.

7.1 List of approved master plans

No.	Master Plan	Date of adoption
WSA_MP02	Bradfield City Centre Master Plan Link: https://pp.planningportal.nsw.gov.au/draftplans/made-and-finalised/bradfield-city-centre-master-plan	September 2024
WSA_MP01	IPG Badgerys Creek Road Master Plan Link: https://www.planningportal.nsw.gov.au/draftplans/made-and-finalised/ipg-badgerys-creek-road-master-plan	July 2025

WESTERN SYDNEY AEROTROPOLIS DEVELOPMENT CONTROL PLAN 2022 – APPENDICES

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Appendix A: Dictionary

Term	Definition
1% AEP	Annual exceeding probability (AEP) is the chance of a flood or larger size occurring in any one year, usually expressed as a percentage. 1% AEP means that there is 1% chance of a flood of this size or larger size occurring in any one year.
30-minute city	A city with access to key destinations within 30 minutes, such as jobs, businesses, schools, services and trade gateways.
5G	Fifth-generation cellular network technology.
Acid sulfate soils	Naturally occurring sediments and soils containing iron sulfides (principally pyrite) or their precursors or oxidation products, whose exposure to oxygen leads to the generation of sulfuric acid (for example, by drainage or excavation).
Active street frontage	A ground floor business, commercial or retail building street frontage, at street level that has direct and level entry and openings allowing physical and visual access that encourages interaction between the inside of the building and the adjoining external areas, including footpaths, road reserves or public spaces. Active street frontages support pedestrian safety and amenity, providing an interface between the public and private domain.
Aerospace	The branch of technology and industry concerned with the research, design, manufacture, operation and maintenance of aircraft, space craft, and their components and supporting services.
Aerotropolis	A metropolitan area where infrastructure, land uses and economy are centred on an airport, including outlying corridors, aviation orientated business and residential development that benefit from each other and their accessibility to the Airport.
Aerotropolis Core	This is the central city of the Aerotropolis and the core of activity associated with the Airport. The combination of uses, activities, development and places are reliant on and complementary to the operation of a global airport.
Agribusiness	Businesses associated with the production, processing, marketing, and distribution of agricultural products, especially at a large and integrated scale.
Agriculture	Generally associated with traditional primary production. It includes the cultivation of land for the growing of crops and breeding of animals.
Agriport	A high-tech food production facility that enables at-scale industry collaboration to intensively and

Term	Definition
	sustainably produce fresh value-added high-quality produce and pre-prepared food.
Airside	All parts of an airport around aircraft and buildings only accessible to authorised personnel.
Amalgamation	Two or more lots joined to form a single development site.
Amenity	The 'liveability' of a place that makes it pleasant and agreeable for individuals and the community. Amenity includes, but is not limited to, the enjoyment of sunlight, views, privacy and quiet.
Ancillary development	Development that is subordinate or subservient to the dominant purpose for which a site is used or proposed to be used.
Areas with benchmark solutions for the Flood Risk Management Chapter	**1% AEP Floodway and Critical flood Storage Areas:** In this area, there would be a significant potential for detrimental impacts on flood behaviour due to development including fill and structures, likelihood of flood damages and/or risk to life. No urban development can occur in floodway's or critical flood storage areas. No land uses other than recreational, drainage infrastructure, landscaping and earthworks associated may be undertaken and are permissible. The floodway and critical flood storages are identified in the Wianamatta (South) Creek Flood Study Existing conditions Advisian, November 2020. **Between 1% AEP Floodway / Critical Flood Storage and Flood Planning Area:** In this area, there may be flood damage and risk to life. These can be managed by the application of appropriate development controls. Sensitive and critical land uses are unsuitable in this area. **Outside Flood Planning Area to Probable Maximum Flood:** In this area, the damages resulting from flooding would be low for most land uses. Critical land uses are unsuitable in this area. *Refer to definitions of sensitive and critical land uses in this appendix.*
Australian Noise Exposure Contours (ANEC)	Anticipated forecasts of future noise exposure patterns based on indicative flight paths around an airport that constitute the contours.
Australian Noise Exposure Forecast (ANEF)	Approved forecasts of future noise exposure patterns around an airport that constitute the contours on which land use planning authorities base their controls.
Articulation	The architectural treatment of the exterior of a building using the different building elements that make up that part of the building. It involves how the building's exterior surfaces, edges, corners, and materials unite to give the building its form.

Term	Definition
Asset protection zone (APZ)	A fuel-reduced area surrounding a built asset or structure which provides a buffer zone between a bushfire hazard and an asset. The APZ includes a defendable space within which firefighting operations can be carried out. The size of the required asset protection zone varies with slope, vegetation, and Fire Danger Index (FDI).
Benchmark solutions	The means by which a development may achieve the intent of a planning objective or performance outcome.
Better Placed	An integrated design policy prepared by the NSW Government Architect.
Biodiversity	The variety of living animal and plant life from all sources and includes diversity within and between species and diversity of ecosystems.
Biodiversity offsets	Measures that compensate elsewhere for the adverse impacts of an action, such as clearing for development. Biodiversity offsets protect and manage biodiversity values in one area in exchange for impacts on biodiversity values in another.
Blue–Green Infrastructure Framework	An interconnected network of natural and semi-natural landscape elements (sometimes referred to as blue or green infrastructure), including water bodies, urban canopy, and open spaces.
Business incubator	A company that helps new and start-up companies to develop by providing services such as management training or office space.
Circular economy	A whole-of-system approach that accounts for the full cost and lifecycle of materials and retains the value of materials in the economy for as long as possible, reducing the unsustainable depletion of natural resources and impacts on the environment.
Circular economy activities	Any activity associated with the operation of Circular Economy Infrastructure. Circular Economy Activities include the way we produce, assemble, sell and use products to minimise waste, and to reduce our environmental impact and encompass the use of materials produced from Circular Economy Infrastructure, including recovered materials, repaired goods, leased products, etc.
Circular economy hub	Circular Economy Hub is defined as a collection of businesses that come together on one site so that the by-products of business can be used as a resource (including materials, energy or water) in another business and are otherwise designed to maximise resource circularity, closing the loop on material use.

Term	Definition
Circular Economy Infrastructure	Circular Economy Infrastructure can encompass facilities that store, transfer, sort, reprocess or repurpose materials and goods to retain their productive value and prevent their disposal to landfill. Examples of Circular Economy Infrastructure includes reuse and repair facilities, sharing and leasing facilities, reverse vending machines, community recycling centres, collection points for producer responsibility schemes, water reuse schemes, material bulking, sorting, storing facilities, material reprocessing and remanufacturing, washing or pelletising facilities, reverse logistics facilities, energy from waste (thermal), anaerobic digestion and chemical treatment of waste, etc. Circular Economy Infrastructure also includes the waste and resource recovery facilities as defined in the Standard Instrument such as resource recovery facilities, transfer stations, compost facilities, and waste disposal facility.
Clean fill	Virgin excavated natural material (such as clay, gravel, sand, soil, or rock fines): a. That has been excavated or quarried from areas that are not contaminated with manufactured chemicals or with process residues from industrial, commercial, mining, or agricultural activities, and b. That does not contain any sulfidic ores or soils or any other waste. This also includes excavated natural material that meets such criteria for virgin excavated natural material as may be approved for the time being pursuant to an EPA gazettal notice.
Climate change	A change of climate attributed directly or indirectly to human activity that alters the composition of the global atmosphere in addition to natural climate variability.
Communications, navigation, and surveillance (CNS) facilities	Facilities that allow: a. Pilots to navigate when en-route between airports; b. Pilots to utilise terminal area navigation aids to conduct instrument approach procedures; c. Dialogue between pilots and Air Traffic Control; and d. Air Traffic Control to monitor and confirm an aircraft location.
Country	For Aboriginal peoples, Country relates not only to the cultural group and land to which they belong, it is also their place of origin in cultural, spiritual, and literal terms. Country includes not only the land,

Term	Definition
	waters, and skies, but also incorporates the tangible and intangible knowledge, cultural practices, identity, reciprocal relationships, belonging and wellbeing.
Communal open space	Outdoor space located within the site at ground level, or on a structure within common ownership, for the recreational use of residents of the development. Communal open space may be accessible to residents only, or to the public.
Concessional Development	Includes limited additions and alterations to existing dwellings no more than 10% or 30sqm (whichever is the lesser), that demonstrate it will not increase flood risk or flood affectation to adjoining properties. Also includes rebuilding a dwelling to substantially reduce the flood affectation to the existing building. Concessional development may also include earthworks where these are intended to improve the flood conveyance where it can be demonstrated that the works would not detrimentally impact flood behaviour, as well as works associated with water management, open space, recreational facilities, pedestrian and cycle connections and environmental protection works. Extensions greater than 30sqm will be treated as new development.
Consent Authority	The same meaning as in Section 4.5 of the *Environmental Planning and Assessment Act 1979*. For the purposes of this Act, the consent authority is as follows: a. In the case of State significant development—the Independent Planning Commission (if the development is of a kind for which the Commission is declared the consent authority by an environmental planning instrument) or the Minister (if the development is not of that kind); b. In the case of development of a kind that is declared by an environmental planning instrument as regionally significant development—the Sydney district or regional planning panel for the area in which the development is to be carried out; c. In the case of development of a kind that is declared by an environmental planning instrument as development for which a public authority (other than a council) is the consent authority—that public authority; and d. In the case of any other development—the council of the area in which the development is to be carried out.

Term	Definition
Conservation (heritage)	Includes all the processes and actions of looking after a place to retain its cultural significance. This includes preservation, protection, maintenance, restoration, reconstruction, and adaptation.
Conservation (vegetation management)	All the processes and actions of looking after a place to retain its natural significance and includes protection, maintenance, and monitoring. Conservation may also include regeneration, restoration, enhancement, reinstatement, preservation or modification, or a combination of more than one of these. Conservation includes conserving natural processes of change (as opposed to artificially accelerated changes).
Contaminated land	Land in, on or under which a substance is present at a concentration above that normally present in, on or under (respectively) land in the same locality, being a presence that presents a risk of harm to human health or any other aspect of the environment.
Controlled activities	Any activity that infringes an airport's protected operational airspace and requires approval before it can be carried out. Controlled activities include: a. Permanent structures, such as buildings; b. Temporary structures, such as cranes; and c. Any activities causing intrusions into the protected operational airspace through glare from artificial light or reflected sunlight, air turbulence from stacks or vents, smoke, dust, steam or other gases or particulate matter.
Cultural Design Principles	A set of broad principles that inform the sustainable management of built and cultural heritage including Aboriginal cultural heritage.
Crime prevention through environmental design (CPTED)	A multi-disciplinary approach to deterring criminal behaviour through environmental design. Crime prevention through environmental design strategies rely upon the ability to influence offender decisions that precede criminal acts. The four principles of the approach are: a. Surveillance; b. Access control; c. Territorial reinforcement; and d. Space management.
Critical Land Uses	Include hospitals, residential care facility and those that are likely to have a high impact on the emergency management resources in times of flood, emergency services facilities, public administration buildings that may provide an important contribution to the notification or

Term	Definition
	evacuation of the community during flood events (e.g. SES Headquarters and Police Stations).
***Cumberland Plain Conservation Plan* (CPCP)**	A landscape-scale plan that seeks to address impacts on biodiversity from urban growth through a conservation program that includes commitments and actions designed to improve ecological resilience and function over the long-term. The CPCP will enable certain land to be certified for development and other areas to be identified as avoided areas, that are to be conserved. The CPCP will enhance a network of green spaces, natural and semi-natural systems in Western Sydney.
Deep soil area	A landscaped area of de-compacted deep soil with a minimum dimension of 3m by 3m, connected horizontally to the soil system and local ground water system beyond and is unimpeded by any building or structure above or below ground with the exception of minor structures. Minor structures are defined as (a) a path, access ramp or area of paving with a maximum width up to 1.2m (b) essential services infrastructure (such as stormwater pipes) with a maximum diameter up to 300mm (c) landscape structures (such as lightweight fences, light poles or seating) requiring a footing with a maximum size of up to 300mm x 300mm in cross section.
Defence	The branch of industry concerned with the research, design, manufacture, operation, and maintenance of military equipment, supplies and services.
Design excellence	The highest level of architectural, urban and landscape design. Design excellence processes can include review panels and design competitions. All processes require a form of design excellence assessment.
Development	As per the *Environmental Planning and Assessment Act 1979*, development includes any of the following: the use of land; the subdivision of land; the erection of a building; the carrying out of a work; the demolition of a building or work; or any other act, matter or thing that may be controlled by an environmental planning instrument.
Development area	Means the land occupied by the development, including the area of land to be used as public road, or reserved or dedicated as public road. The development area does not include the area of any existing road or land to be reserved dedicated or

Term	Definition
	set aside for the purposes of public benefit as identified in the precinct plan.
Development application	An application for consent under Part 4 of the *Environmental Planning and Assessment Act 1979* to carry out development (not including an application for complying development) such as change of use of land, subdivide land, or building, landscaping, and other work.
Development Control Plan (DCP)	Provides detailed planning and design guidelines to support established planning controls.
Ecology corridor	A clearly defined geographical space that is governed and managed over the long term to maintain or restore effective ecological connectivity.
Ecological setback	Located within the development footprint and is an area of vegetation not managed to improve condition. It provides a soft edge between the developable urban land and land with biodiversity values.
Ecologically sustainable development	Same meaning as in Section 6 (2) of the *Protection of the Environment Administration Act 1991*. a. Ecologically sustainable development requires the effective integration of social, economic, and environmental considerations in decision-making processes. b. Ecologically sustainable development can be achieved through the precautionary principle—namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by: a. Careful evaluation to avoid, wherever practicable, serious, or irreversible damage to the environment; b. An assessment of the risk-weighted consequences of various options; c. Inter-generational equity—namely, that the present generation should ensure that the health, diversity, and productivity of the environment are maintained or enhanced for the benefit of future generations; d. Conservation of biological diversity and ecological integrity—namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration;

Term	Definition
	e. Improved valuation, pricing, and incentive mechanisms—namely, that environmental factors should be included in the valuation of assets and services, such as: i. Polluter pays—that is, those who generate pollution and waste should bear the cost of containment, avoidance, or abatement; ii. The users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste; and iii. Environmental goals, having been established, should be pursued in the most cost-effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.
Emergency Management	A range of measures to manage risks to communities and the environment. In the flood context, it may include measures to prevent, prepare for, respond to, and recover from flooding.
End of trip facilities	Designated places that support cyclists, joggers, and walkers in using alternative ways to travel to work rather than driving or taking public transport. These types of facilities also benefit people who exercise during their lunch break. End of trip facilities include: a. Secure bicycle parking; b. Locker facilities; or c. Change rooms.
Environmental planning instrument	An environmental planning instrument (including a state environmental planning policy or local environmental plan but not including a Development Control Plan) made, or taken to have been made, under Part 3 of the *Environmental Planning and Assessment Act 1979* and in force.
Environmentally sensitive area	Any of the following: a. The coastal waters of the State; b. A coastal lake identified in Schedule 1 to State Environmental Planning Policy (Coastal Management) 2018;

Term	Definition
	c. Land identified as “coastal wetlands” or “littoral rainforest” on the Coastal Wetlands and Littoral Rainforests Area Map (within the meaning of State Environmental Planning Policy (Coastal Management) 2018); d. Land reserved as an aquatic reserve under the *Fisheries Management Act 1994* or as a marine park under the *Marine Parks Act 1997;* e. Land within a wetland of international significance declared under the Ramsar Convention on Wetlands or within a World heritage area declared under the World Heritage Convention; f. Land within 100m of land to which paragraph (c), (d) or (e) applies; g. Land identified in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 or any other environmental planning instrument as being of high Aboriginal cultural significance or high biodiversity significance; h. Land reserved under the *National Parks and Wildlife Act 1974* or land to which Part 11 of that Act applies; i. Land reserved or dedicated under the *Crown Lands Act 1989* for the preservation of flora, fauna, geological formations or for other environmental protection purposes; and j. Land identified as being critical habitat under the *Biodiversity Conservation Act 2016*or Part 7A of the *Fisheries Management Act 1994*.
Environmentally Sensitive Design	Environmentally Sensitive Design aims to achieve best practice in environmentally sustainable development from the design stage through to construction and operation. The strategies encourage best practice through a combination of methods, processes and locally available technology that demonstrably minimise environmental impacts. It includes strategies relating to landscape performance, energy minimisation, reduced carbon intensity, integrated water management, transport efficiency, waste management and urban ecology.
Flood	Relatively high stream flow which overtops the natural or artificial banks in any part of the stream, river, estuary, lake or dam, and/or local overland flooding associated with major drainage before entering a watercourse, and/or coastal inundation resulting from super-elevated sea levels and/or

Term	Definition
	waves overtopping coastline defences excluding tsunami.
Floodplain	An area of land which is subject to inundation by floods up to and including the probable maximum flood event, that is, flood prone land.
Flood Planning Area	The area of land below the FPL and thus subject to flood related development controls. For the purposes of this DCP, the flood planning area is the land identified on the Flood Planning Map of the Western Parkland City SEPP 2021
Flood Planning Level (FPL)	Area the combination of flood levels (derived from significant historical flood events or flood specific AEPs) and freeboards selected for floodplain risk management purposes, as determined in management studies, and incorporated in management plans.
Flood Risk	Potential danger to personal safety and potential damage to property resulting from flooding. The degree of risk varies with circumstances across the full range of floods. Refer to the glossary of the Floodplain Development Manual for a description of the types of flood risk.
Flood Storage Areas	Those parts of the floodplain that are important for the temporary storage of floodwaters during the passage of flood. The extent and behaviour of flood storage areas may change with flood severity, and loss of flood storage can increase the severity of flood impacts by reducing natural flood attenuation. Hence, it is necessary to investigate a range of flood sizes before defining flood storage areas.
Floodway areas	Those areas of the floodplain where a significant discharge of water occurs during floods. They are often aligned with naturally defined channels. Floodway areas are those that, even if only partially blocked, would cause a significant redistribution of flow, or a significant increase in flood levels.
Freeboard	Provides reasonable certainty that the risk exposure selected in deciding on a particular flood chosen as the basin for the FPL is provided. It is a factor of safety typically used in the setting of flood levels, levee crest levels, etc. Freeboard is included in the flood planning level.
Greater Sydney	The local government areas within the boundary shown on the map in the *Greater Sydney Region Plan* and Schedule 1 of the *Greater Sydney Commission Act 2015.*
Green Grid	The network of high-quality green spaces and tree lined streets that supports walking, cycling and community access to open spaces. It will provide cool, green links throughout the Aerotropolis and connect more broadly to the Western City District and Greater Sydney.

Term	Definition
Green infrastructure	An interconnected network of natural and semi-natural landscape elements (sometimes referred to as blue or green infrastructure), including water bodies, urban canopy, and open spaces.
Greener Places	An integrated design policy prepared by the NSW Government Architect to guide the design, planning and delivery of green infrastructure across NSW.
Gross footprint	The total footprint of a building including perimeter walls, plant, and enclosed floor area.
Ground truthing	Confirming accuracy of information collected using site survey by on site survey, observation or recording of GPS coordinates.
Growth Area	Identified by the NSW Government as major greenfield development or urban renewal areas.
Habitat	Includes an area periodically or occasionally occupied by a species or ecological community, and the biotic and abiotic components of an area.
Habitable room	In a residential situation: a living or working area, such as a lounge room, dining room, rumpus room, kitchen, bedroom, or workroom. In an industrial or commercial situation: an area used for offices or to store valuable possessions susceptible to flood damage in the event of a flood
Hazardous material	Materials that have the potential to pose a significant risk to human health, life, or property, or to the biophysical environment. These may include materials that are radioactive, flammable, explosive, corrosive, oxidising, asphyxiating, bio-hazardous, toxic, pathogenic, or allergenic. Compressed gases and liquids or hot materials that may be hazardous in specific circumstances may also be included.
Hazardous waste	Any waste that because of its physical, biological or chemical properties, is capable of causing a danger to the life or health of any living thing if it is released into the environment, and/or is, or contains a hazardous material described in the *Protection of the Environment Operations Act 1997*, can include dangerous goods, poisons, coal tar or coal tar pitch waste, lead-acid or nickel-cadmium battery waste, lead paint waste arising from non-residential premises and other waste containing hazardous components.
Hydraulics	Term given to the study of waterflow in waterways; in particular, the evaluation of flow parameters such as water level and velocity.
Infill development	The erection of a new building or buildings on land within an existing developed area. It may involve

Term	Definition
	erection of building/s on a vacant site or following the total demolition of existing building/s.
Integrated water cycle management	An approach to the management of water that considers aspects of water including rainwater, stormwater, groundwater, water supply and use, reuse, and treatment.
Irrigation	The supply of water to land or crops to help growth, typically by means of channels.
Local centre	Smaller-scale places that vary from a few shops on a corner to a vibrant main street and generally serve a local population.
Local Environmental Plan (LEP)	Guides planning decisions in local government areas through zoning and development controls.
Master plan	An optional plan created under the Western Parkland City SEPP for large sites or landholdings of 100 hectares or more. Sites under 100 hectares may qualify for the master plan process if they meet criteria outlined in the *Guideline to Master Planning in the Western Sydney Aerotropolis*.
Mixed use development	A building or place comprising two or more different land uses.
National Airports Safeguarding Framework (NASF)	National land use planning framework to improve community amenity by minimising aircraft noise-sensitive developments near airports and improve safety outcomes by ensuring aviation safety requirements are recognised in land use planning decisions on various safety related issues.
NSW Circular Economy Policy Statement	A Statement by the NSW Government that will help guide decision making to support the transition to a circular economy.
Obstacle Limitation Surface (OLS)	Designed to protect aircraft flying in visual conditions close to an airport by defining a volume of airspace to be protected from development, primarily modelled on the layout and configuration of proposed runways.
Open space (public)	Lands as defined as public open space in the Aerotropolis Precinct Plan. Lands that are within public ownership or identified as lands to be acquired for open space purposes in the Western Parkland City SEPP.
Open space (private)	Open space within private ownership that may not be publicly accessible.
Operational airspace	The volume of airspace above a set of imaginary surfaces. These surfaces are established with the aim of protecting aircraft from obstacles or activities that could be a threat to safety.
Outer Sydney Orbital	A proposed corridor for a motorway and freight rail line in Western Sydney, connecting Box Hill in the

Term	Definition
	north to the Hume Motorway near Menangle in the south.
Performance outcome	A statement to achieve the intent of the applicable objectives of this development control plan.
Peri-urban lands	Land for agriculture undertaken in places on the fringes of urban areas.
Permeable surface	A surface that permits or facilitates the infiltration or penetration of water such as grass, landscaping, or porous paving.
Precinct planning	Identifies the development intent and development capacity across a precinct by allocating land uses, densities, housing types, built form, infrastructure, and environmental and open space.
Primary Frontage/ Primary Street	The allotment address and is usually the short side of rectangular lots.
Principle private open space	An area outside a dwelling that is directly accessible from, and adjacent to, a habitable room in the dwelling, other than a bedroom.
Private open space	An area external to a building (including an area of land, terrace, balcony, or deck) that is used for private outdoor purposes ancillary to the use of the building.
Probable maximum flood (PMF)	The largest flood that could conceivably occur at a particular location, usually estimated from probable maximum precipitation, and where applicable, snow melt, coupled with the worst flood producing catchment conditions.
Procedures for Air Navigation Services – Aircraft Operations Surfaces (PANS-OPS)	The primary surface for protecting aircraft operating under non-visual (instrument guided) conditions generally located above the OLS. Separate procedures for each runway and for the type of navigation system being used and the multiple surfaces are combined to form the PANS OPS.
Public domain	Any publicly or privately-owned space that can be accessed and used by the public and/or is publicly visible.
Public utility infrastructure	Infrastructure for any of the following: a. The supply of water; b. The supply of electricity; c. The supply of hydraulic power; d. The supply of gas; or e. The disposal and management of sewage or drainage services.
Public safety area	A designated area at the end of an airport runway within which development may be restricted in order to control the number of people on the

Term	Definition
	ground at risk of injury or death in the event of an aircraft accident on take-off or landing.
Public space	Includes parks, green spaces, plazas, libraries, streets, landscapes, museums, and public transport.
Remediation	Removing, dispersing, destroying, reducing, mitigating, or containing the contamination of any land; or Eliminating or reducing any hazard arising from the contamination of any land (including by preventing the entry of persons or animals on the land).
Resilience	The ability of a system, community or society that is exposed to hazards to resist, absorb, accommodate and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.
Resilient design	The Australian Institute of Architects defines as: a. Design through mitigation could be considered as 'place friendly' development designed to minimise long-term stresses such as greenhouse gas emissions, affordable housing, and transport congestion; and b. Design through adaptation could be considered as 'place safe' development where design leads to low vulnerability to potential natural hazard impacts such as heatwaves, bushfire, flooding, and coastal hazards.
Ride and car sharing	An arrangement in which a passenger travels in a private vehicle driven by its owner, for free or for a fee.
Riparian corridor	The channel which comprises the bed and banks of a watercourse (to the highest bank) and the vegetated riparian zone adjoining the channel.
Road reserve	Includes: a. Footway; b. Kerb and gutter; c. Road carriageway; and d. Ancillary items to any of the above - any stormwater drainage asset, road/street furniture, edging, lighting, poles, services, signage etc.
Salinity	The salt content in water or soil.
Secondary Frontage/ Secondary Street	Usually the long side of rectangular lots.

Term	Definition
Sensitive land uses	Includes boarding houses, caravan parks, correctional centres, early education and care facilities, eco-tourist facilities, educational establishments, emergency services facilities, group homes, hazardous industries, hazardous storage establishments, hospitals, hostels, information and education facilities, respite day care centres, seniors housing, sewerage systems, tourist and visitor accommodation and water supply systems.
Signage	Any sign, notice, device, representation or advertisement that advertises or promotes any goods, services or events and any structure or vessel that is principally designed for, or that is used for, the display of signage, and includes any of the following: a. An advertising structure; b. A building identification sign; or c. A business identification sign. However, it does not include a traffic sign or traffic control facilities.
Site Coverage	The proportion of a site area covered by buildings. However, the following are not included for the purpose of calculating site coverage: a. Any basement; b. Any part of an awning that is outside the outer walls of a building and that adjoins the street frontage or other site boundary; c. Any eaves; and d. Unenclosed balconies, decks, pergolas, and the like.
Social Infrastructure	Social infrastructure primarily consists of public spaces that are open and accessible to all people, whether they are publicly or privately owned and operated. For the purposes of this DCP, social infrastructure extends only to physical facilities (such as libraries, community centres and recreation facilities) that enable the delivery of social services and activities, as well as support for sport, recreational and leisure uses. Regional social infrastructure includes education, emergency services and justice facilities that are needed to service new communities. Social infrastructure is not limited to that provided by federal, state, and local governments. It includes facilities and services that government see merit in to support the physical, social, cultural, or intellectual development or welfare of the community. It also includes those services and facilities that are operated by non-profit community organisations as well as the private sector.

Term	Definition
Solar access	The ability of a building, part of a building or open space to continue to receive direct sunlight without obstruction from other surrounding buildings or impediments, not including trees.
State Environmental Planning Policy (SEPP)	Environmental planning instruments that address planning issues of State significance.
State Environmental Planning Policy (Sydney Region Growth Centres) 2006	The environmental planning instrument that sets controls for both the North West and South West growth areas of Sydney.
STEM (science, technology, engineering, and mathematics)	An approach to learning and development that integrates the areas of science, technology, engineering, and mathematics.
Stormwater	Untreated water that originates from rainfall or snow/ice melt and soaks into the ground (infiltrate), is held on the surface and evaporates, or runs off to streams, rivers, or other water bodies (surface water).
Strategic centre	Characterised by a high proportion of knowledge-intensive jobs, existing or proposed major transport gateways and increased economic activity.
Streetscape	The character of a street and its close surrounds defined by the spatial arrangement and visual appearance of built and landscape features when viewed from the street.
Sydney Metro – Western Sydney Airport	A new 23km railway line that will link St Marys through to the new Western Sydney International (Nancy-Bird Walton) Airport and Western Sydney Aerotropolis and will have six new Metro stations: a. St Marys; b. Orchard Hills; c. Luddenham; d. Airport site (two stations); and e. Western Sydney Aerotropolis.
Threatened species	A critically endangered species, an endangered species or a vulnerable species listed in Schedule 1 of the *Biodiversity Conservation Act 2016*; or A listed threatened species within the meaning of the *Environment Protection and Biodiversity Conservation Act 1999*.
Transport for NSW (TfNSW)	A NSW Government agency responsible for the safe, integrated, and efficient transport systems for people of NSW
Tree	Tree is defined as in AS4970-2009 as a 'long lived woody perennial plant greater than (or usually greater than) 3m in height with one or relatively few main stems or trunks (or as defined by the determining authority)

Term	Definition
	Tree sizes when referred to in this DCP are: • Small trees are trees with a canopy spread of 6 metres or greater • Medium trees are trees with a canopy spread of 8 metres or greater • Large trees are defined as trees with a canopy spread of 12 metres or greater.
Tree Protection Area	The area (in m^2) where development works have potential for impact to trees (including roots). The area may include protection fences and supplementary ground protection. The Tree Protection Area should be the same size as the Tree Protection Zone unless a reduced area has been assessed and approved by an AQF (Australian Qualification Framework) Level 5 Arborist in accordance with AS4970 – 2009, Protection of trees on development sites in accordance with an approved Tree Protection Plan (Drawing and Specification)
Tree Protection Zone	As defined in AS4970-2009, the tree protection zone on development sites is 12 x DBH (trunk diameter at breast height).
Tributary	A river or stream flowing into a larger river or lake.
Trunk drainage	The purpose of a trunk drainage system is to collect and control stormwater runoff resulting from storm events. Trunk drainage systems have stormwater conveyance function as their primary objective. The trunk drainage system is sized adequately to receive stormwater run-off from a catchment area, prevent overflowing and causing damage to property or loss of life. A trunk drainage system can control stormwater quantity, and also address stormwater quality.
Undisturbed soil network	A network of interconnected undisturbed site soils, occurring in riparian corridors, parks and specially designed natural soil corridors that are the foundation for the health of the Blue and Green Grid.
Upper South Creek Advanced Water Recycling Centre	A new Sydney Water facility that will collect and treat wastewater from the Aerotropolis and South West Growth Area. It will produce advanced quality treated water and provide for a wide range of re-use and substitution opportunities including supplying water for agriculture and environmental flows. It will also support the Circular Economy via

Term	Definition
	the production of renewable energy and bioresources.
Urban heat island effect	An agglomeration of hard and dark-coloured surfaces such as roads and roofs which cause excessive localised warming.
Urban typologies	Precinct-scale snapshots of various forms of urban development incorporating built form, roads and subdivision pattern and open space.
Variation statement	A written statement accompanying a DA demonstrating how the objectives and relevant control and/or performance outcome will be achieved if an alternative to the 'benchmark solutions' is proposed.
Visual Impact	Defined as a change in the appearance of the landscape or building form as a result of development which can be positive or negative.
Waterway	The whole or any part of a watercourse, wetland, waterbody (artificial) or waterbody (natural).
Water sensitive urban design	An approach that integrates water cycle management into urban planning and design. It is used to help mitigate and reduce the impacts of development on our local waterways and retain water in the landscape.
Western Economic Corridor	New economic agglomerations around the Western Sydney Airport, including the Aerotropolis.
Western Parkland City	Broadly, Penrith, Liverpool, Campbelltown, Hawkesbury, Wollondilly, Camden, Fairfield, and Blue Mountains LGAs, anchored around Liverpool, Greater Penrith, and Campbelltown/Macarthur, with the new Airport and Aerotropolis geographically at its centre.
Western Parkland City Authority (WPCA)	A NSW Government body (formerly the Western City and Aerotropolis Authority) established to facilitate the delivery of the Western Parkland City. The WPCA works across all three levels of Government to jointly plan, design, and deliver the best possible outcomes in infrastructure, liveability, investment attraction, job growth and sustainability.
Western Parkland City Metropolitan Cluster	Comprises the Aerotropolis, Liverpool, Greater Penrith, and Campbelltown- Macarthur.
Western Sydney Aerotropolis	Encompasses 11,200 hectares of land roughly bounded by the Warragamba pipeline to the north, Kemps Creek to the east, Bringelly Road to the south and the future Outer Sydney Orbital Road to the west.
***Western Sydney Aerotropolis Plan* (WSAP)**	A strategic plan that provides the vision, principles, and planning framework for the Western Sydney Aerotropolis.

Term	Definition
Western Sydney Airport	A Commonwealth business enterprise established in August 2017 to build the new Airport.
Western Sydney Council's Street Guidelines	Guidelines to deliver liveable and effective pedestrian spaces and thoroughfares in the Western Parkland City through appropriately designed street types and street components
Western Sydney International (Nancy-Bird Walton) Airport	The declared airport site located on approximately 1,780 hectares of land at Badgerys Creek. The airport will be developed in stages and will ultimately comprise two parallel runways serving approximately 82 million passengers annually. The Airport will operate 24/7 without a curfew.
Western Sydney Planning Partnership	A local government-led initiative comprising of representatives of all eight Western Parkland City councils as well as Blacktown Council, and representatives from the NSW Department of Planning and Environment, Transport for NSW, Sydney Water, and the Greater Sydney Commission.
Wianamatta-South Creek Catchment	Includes most of the Cumberland Plain of Western Sydney and is a defining central element of the Western Parkland City and the Aerotropolis.
Wianamatta-South Creek corridor	Wianamatta-South Creek and its tributaries that form the central element of the Western Parkland City, recognising the role of water in supporting healthy, liveable, and sustainable communities.
Windshear	A change in wind speed and/or direction in space, including updrafts and downdrafts.

Appendix B: Western Sydney Aerotropolis Landscape Species List

The species list in Table 1 applies to land inside the Western Sydney Parkland Commitment Areas and beyond the 3km wildlife buffer (Figure 1).

Any alternative landscaping species and/or groupings and spacing (as specified in the DCP) outside the Western Parkland Vision Government Commitment Areas and within the 3km wildlife buffer will require an ecologist report submitted with the landscape plan. The report will need to discuss wildlife attraction in proximity to the airport and will be subject to a merit-based assessment. The proponent will need to demonstrate suitability in relation to wildlife management and/or encroachments into operational airspace.

Within Table 1 where an additional requirement is provided against a species that states “Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction”, this only applies to the use of those species within the 3km buffer that are outside of the government commitment areas.

Figure 1 Western Parkland City Vision – Government Commitment Areas Map

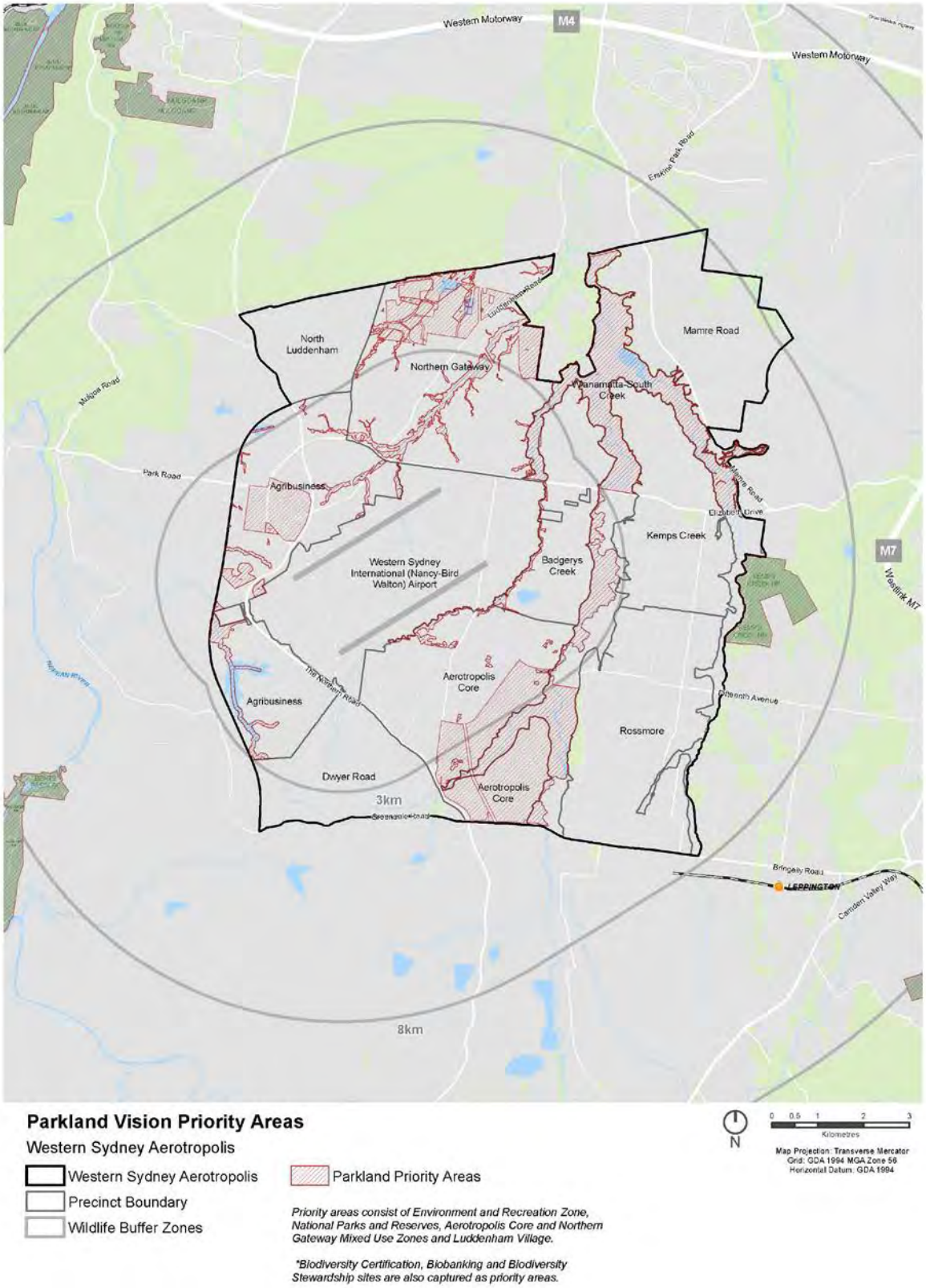


Table 1 Western Sydney Aerotropolis Landscape Species List

Botanic Name	Common Name	Additional Requirements
Trees		
Acacia binervia	Coast wattle	
Acacia decurrens	Black/Green wattle	
Acacia implexa	Hickory	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Acacia parramattensis	Sydney Green Wattle	
Acacia pendula	Boree	
Agonis flexuosa	Willow Myrtle	
Acer buergerianum	Trident Maple	
Acer x freemanii 'Jeffersred' Autumn Blaze	Autumn Blaze Maple	
Acer palmatum	Japanese Maples	
Alectryon oleifolius	Rosewood	
Alectryon subcinereus	Native quince, birds-eye	
Allocasuarina littoralis	Black She-oak	
Alphitonia excelsa	Red ash	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Angophora costata	Smooth Barked Apple	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Angophora bakeri	Narrow Leaf Apple	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Angophora floribunda	Rough Barked Apple	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Angophora subvelutina	Broad leaved Apple	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Araucaria cunninghamii	Hoop Pine	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Araucaria heterophylla	Norfolk Island Pine	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Atalaya hemiglauca (whitewood – inland clay – soil areas)	Whitewood	

Botanic Name	Common Name	Additional Requirements
Trees		
Auranticarpa (Pittosporum) rhombifolium		
Backhousia citriodora	Lemon Myrtle	Not permitted outside the Government Commitment Areas within 3km wildlife buffer
Backhousia myrtifolia	Grey Myrtle	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Brachychiton acerifolium	Illawarra flame ree	
Brachychiton populneus	Kurrajong	
Brachychiton rupestris	Bottle tree	
Buckinghamia celsissima	Ivory Curl Tree	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Callitris endlicheri	Black cypress pine	
Callitris rhomboidea	Port Jackson pine	
Callitris verrucosa	Mallee pine	
Cassia brewsteri	Brewster's cassia	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Callistemon salignus		Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Callistemon viminalis		
Castanospermum australe	Blackbean	
Casuarina cristata	Belah	
Casuarina cunninghamiana	River Oak	
Casuarina glauca	Swamp Oak	
Ceratopetalum gummiferum	NSW Christmas Bush	
Clerodendrum tomentosum	Lollybush	
Corymbia citriodora	Lemon Scented Gum	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Corymbia maculata	Spotted Gum	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Ehretia acuminata	Koda	

Botanic Name	Common Name	Additional Requirements
Trees		
Elaeocarpus reticulatus	Blueberry Ash	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Eucalyptus amplifolia	Cabbage Gum	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Eucalyptus baueriana	Blue Box	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Eucalyptus crebra	Narrow Leaf Red Ironbark	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Eucalyptus elata	River White Gum	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Eucalyptus eugenioides	White Stringybark	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Eucalyptus fibrosa	Red Ironbark	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Eucalyptus globoidea		Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Eucalyptus microcorys	Tallowwood	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Eucalyptus moluccana	Grey Box	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Eucalyptus pilularis	Blackbutt	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Eucalyptus punctata	Grey Gum	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Eucalyptus sclerophylla	Scribbly Gum	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Eucalyptus sideroxylon	Mugga Ironbark	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Eucalyptus tereticornis	Forest Red Gum	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Ficus rubiginosa	Port Jackson Fig	Not permitted within 3km wildlife buffer
Flindersia australis	Crow's Ash	
Fraxinus 'Urbanite'	Urbanite Ash	

Botanic Name	Common Name	Additional Requirements
Trees		
Geijera parviflora	Wilga	
Glochidion ferdinandi	Cheese Tree	
Hibiscus heterophyllus		
Hymenosporum flavum	Native Frangipani	
Jacaranda mimosifolia	Jacaranda	
Koelreuteria paniculata	Golden Rain Tree	
Lagerstroemia indica	Crepe Myrtle	
Leptospermum petersonii	Lemon Scented Tea Tree	
Liquidambar styraciflua	Sweetgum	
Lophostemon confertus	Brushbox	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Melia azedarach	White Cedar	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Melaleuca decora	White Paperbark	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Melaleuca styphelioides	Prickly Paperbark	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Melaleuca linarifolia	Narrow-leaved paperbark	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Myrsine variabilis	Muttonwood	
*Nyssa sylvatica	Tupelo	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Owenia acidula	Gruie, colane	
Podocarpus elatus	Plum pine	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Quercus sp	Oaks	
Rhodosphaera rhodanthema	Deep yellow wood	
Syncarpia glomulifera	Turpentine	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
*Tibouchina spp. and hybrids	Lasiandra	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.

Botanic Name	Common Name	Additional Requirements
Trees		
Waterhousea floribunda	Weeping Lilly Pilly	

Botanic Name	Common Name	Additional Notes/Requirements
Shrubs		
Acacia rubida	Red wattle	
Acacia spectabilis	Mudgee wattle	
Acer palmatum	Japanese Maples	
Alyogyne huegelii		
Atriplex nummularia	Old-man saltbush	
Baeckea virgata	Tall Baeckea	
Brachychiton discolor	Lacebark	
Breynia oblongifolia	Coffee Bush	
Bursaria spinosa	Blackthorn	
Callistemon citrinus	Bottlebrush varies	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.
Coronidium elatum	White paper daisy bush	
Correa alba	White correa	
Correa reflexa	Native fuchsia	
Cotinus spp	Smoke bush	
Crotalaria cunninghamii	Rattlepod	
Cryptandra amara	Bitter cryptandra	
Cryptandra spinescens		
Daviesia ulicifolia		
Dodonea viscosa	Giant Hop Bush	
Doryanthes excelsa	Gymea Lily	
Eremophila mitchellii	Budda	
Grevillea juniperina	Juniper Grevillea	Not permitted outside the Government Commitment Areas within 3km wildlife buffer
Guoia semiglauca		
Hakea salicifolia	Willow Hakea	Not permitted outside the Government Commitment Areas within 3km wildlife buffer
Hakea sericea	Needlebush	

Botanic Name	Common Name	Additional Notes/Requirements
Shrubs		
Indigofera ausrtralis	Australian Indigo	
Kunzea ambigua	Fringed Heath Myrtle	
Kunzea capitata	Tickbush	
Leptospermum parvifolium		
Leptospermum patersonii	Lemon Scented Tea Tree	
Melaleuca ericifolia	Swamp Paperbark	Not permitted outside the Government Commitment Areas within 3km wildlife buffer
Westringia fruiticosa	Coastal Rosemary	
Myoporum montanum	Boobialla	
Pimelea glauca		
Pimelea linifolia	Riceflower	
Pittosporum angustifolium (P. phylliraeoides)	Berrigan, butterbush, native apricot	
Prostanthera incisa	Cut-leaf mintbush	
Prostanthera lasianthos	Victorian Christmas Bush	
Prostanthera ovalifolia	Oval-leaf mintbush	
Prostanthera rotundifolia	Round-leaf mintbush	
Sambucus gaudichaudiana	White elderberry	
Senna artemisioides		
Senna clavigera		
Trema tomentosa	Peach bush	

Botanic Name	Common Name	Additional Notes/Requirements
Ground Covers		
	Couch grass	
Adiantum aethiopicum	Maidenhair Fern	
Ajuga australis	Austral bugle	
Alternanthera sp. A / A. denticulata		

Botanic Name	Common Name	Additional Notes/Requirements
Ground Covers		
Aristida ramosa	Purple Wiregrass	Subject to monitoring and/or maintenance plan to ensure potential for wildlife attraction is managed
Arthropodium milleflorum	Vanilla lily	
Asperula conferta		
Bothriochloa macra	Red-leg grass	Subject to monitoring and/or maintenance plan to ensure potential for wildlife attraction is managed
Bracteantha bracteata	yellow paper daisy	
Brunoniella australis	Blue Trumpet	
Caesia parviflora	Pale grass-lily	
Carex appressa	Tall Sedge	Subject to monitoring and/or maintenance plan to ensure potential for wildlife attraction is managed
Cayratia clematidea	Native Grape	
Chloris truncata	Windmill Grass	Subject to monitoring and/or maintenance plan to ensure potential for wildlife attraction is managed
Chrysocephalum apiculatum	Billy-buttons	
Cissus antarctica	Kangaroo Vine	
Cissus hypoglauca	Water vine, native grape	
Clematis aristata	Old Mans Beard	
Clematis glycinoides	Guwulyari, headache vine	
Clematis microphylla	Old Mans Beard, travellers joy	
Commelina cyanea	Scurvyweed	
Cymbonotus lawsonianus	Bear's-ear	
Cymbopogon refractus	Barbed Wire Grass	Subject to monitoring and/or maintenance plan to ensure potential for wildlife attraction is managed
Dampiera stricta	Goodeniaceae	
Desmodium varians	Tick-trefoil	Subject to monitoring and/or maintenance plan to ensure potential for wildlife attraction is managed
Dianella caerulea	Flax Lily	Subject to monitoring and/or maintenance plan to ensure potential for wildlife attraction is managed
Dianella longifolia	Flax Lily	Subject to monitoring and/or maintenance plan to ensure potential for wildlife attraction is managed
Dichelachne micrantha	Short Hair Plume Grass	Subject to monitoring and/or maintenance plan to ensure potential for wildlife attraction is managed
Dichondra repens	Kidney Weed	
Dichopogon fimbriatus	Chocolate lily	

Botanic Name	Common Name	Additional Notes/Requirements
Ground Covers		
Doodia aspera	Prickly Rasp Fern	
Echinopogon ovatus	Hedgehog Grass	
EinadiA hastata	Saloop	
EinadiA nutans subsp linifolia		
Entolasia marginata	Panic Grass	
Entolasia stricta	Wiry Panic	
Eremophila debilis (sun. Myoporum debile)	AMulla, Winter apple	
Eremophila maculata	Emu-bush	
Eustrephus latifolius	Wombat berry	
Gahnia aspera	Saw Sedge	Subject to monitoring and/or maintenance plan to ensure potential for wildlife attraction is managed
Geitonoplesium cymosum		
Goodenia hederacea	Ivy Goodenia	
Gynochthodes (Morinda) jasminoides		
Hardenbergia violacea	Purple Coral Pea	
Hibbertia dentata	Trailing guinea flower	
Hibbertia scandens	Climbing Guinea Flower	
Hydrocotyle peduncularis		
Imperata cylindrica	Cogon Blady Grass	Subject to monitoring and/or maintenance plan to ensure potential for wildlife attraction is managed
Isolepis nodosa	Nobby Clubrush	Subject to monitoring and/or maintenance plan to ensure potential for wildlife attraction is managed
Jasminum suavissimum		
Juncus usitatus	Common Rush	Subject to monitoring and/or maintenance plan to ensure potential for wildlife attraction is managed
Lomandra filiformis	Wattle Mat Rush	Subject to monitoring and/or maintenance plan to ensure potential for wildlife attraction is managed
Lomandra fluviatilis	Mat Rush	Subject to monitoring and/or maintenance plan to ensure potential for wildlife attraction is managed
Lomandra longifolia	Common Mat Rush	Subject to monitoring and/or maintenance plan to ensure potential for wildlife attraction is managed

Botanic Name	Common Name	Additional Notes/Requirements
Ground Covers		
Lomandra multiflora		
Lotus australis		
Mentha diemenica	Native pennyroyal	
Microlaena stipoides var.stipoides	Weeping Grass	Subject to monitoring and/or maintenance plan to ensure potential for wildlife attraction is managed
Murdannia graminea		
Myoporum parvifolium	Creeping boobialla	
Marsdenia viridiflora subsp Viridiflora		
Oplismenus aemulus	Basket Grass	Subject to monitoring and/or maintenance plan to ensure potential for wildlife attraction is managed
Oxytes (Desmodium) brachypoda	Tick-trefoil	
Pandorea pandorana	Wonga Vine	
Parsonsia straminea	Silkpod	
Passiflora cinnabarina	Red passionflower	
Passiflora herbertiana		
Pelargonium inodorum		
Pennisetum clandestinum	Kikuyu	
Pimelea spicata		
Plectranthus parviflorus	Cockspur Flower	
Poa labillardieri	Tussock	Subject to monitoring and/or maintenance plan to ensure potential for wildlife attraction is managed
Pratia purpurascens	Purpleroot	
Pseuderathemum variabile	Pastel flower	
Pultenaea parviflora		
Pycnosorus globosus (Craspedia)	Drumsticks, billy buttons	
*Pyrostegia venusta	Orange trumpet creeper	Only within 3km wildlife buffer, where supported by ecologist report, confirming landscape design minimises wildlife attraction.

Botanic Name	Common Name	Additional Notes/Requirements
Ground Covers		
RhodAnthe anthemoides	Chamomile Sunray	
Scaevola albida		
Scutellaria humilis	Skullcap	
Senna artemisioides		
Senna clavigera		
Sorghum leiocladum	Wild sorghum	Subject to monitoring and/or maintenance plan to ensure potential for wildlife attraction is managed
Smilax glyciphylla	Sweet sarsaparilla	
Stackhousia monogyna	Creamy candles	
Stackhousia muricata	Western stackhousia	
Stackhousia viminea	Slender stackhousia	
Stephania japonica	Snake vine	
Themeda australis	Kangaroo Grass	Subject to monitoring and/or maintenance plan to ensure potential for wildlife attraction is managed
Thysanotus tuberosus	Fringe lily	
Trachelospermum jasminoides	Chinese Star Jasmine	
Tricoryne elatior	Autumn lily	
Veronica plebeia	Speedwell	
Viola betonicifolia	Native violet	
Viola hederacea	Native Violet	
Wahlenbergia communis	Tufted bluebell	
Wahlenbergia planiflora	Bluebell	
Wahlenbergia stricta	Tall bluebell	
Wisteria sp	Wisteria	
Zornia dyctiocarpa	Twinleaf	

Appendix C: Riparian Streets

The nominal width of Riparian Streets is guided Natural Resources Access Regulator (NRAR) guidelines for controlled activities on waterfront land. The final width of each riparian street will only be confirmed once modelling of the 1% AEP is undertaken to ensure that water can be conveyed during these flood events.

Natural Resources Access Regulator (NRAR) riparian corridor guideline

https://www.nrar.nsw.gov.au/__data/assets/pdf_file/0003/367392/NRAR-Guidelines-for-controlled-activities-on-waterfront-land-Riparian-corridors.pdf

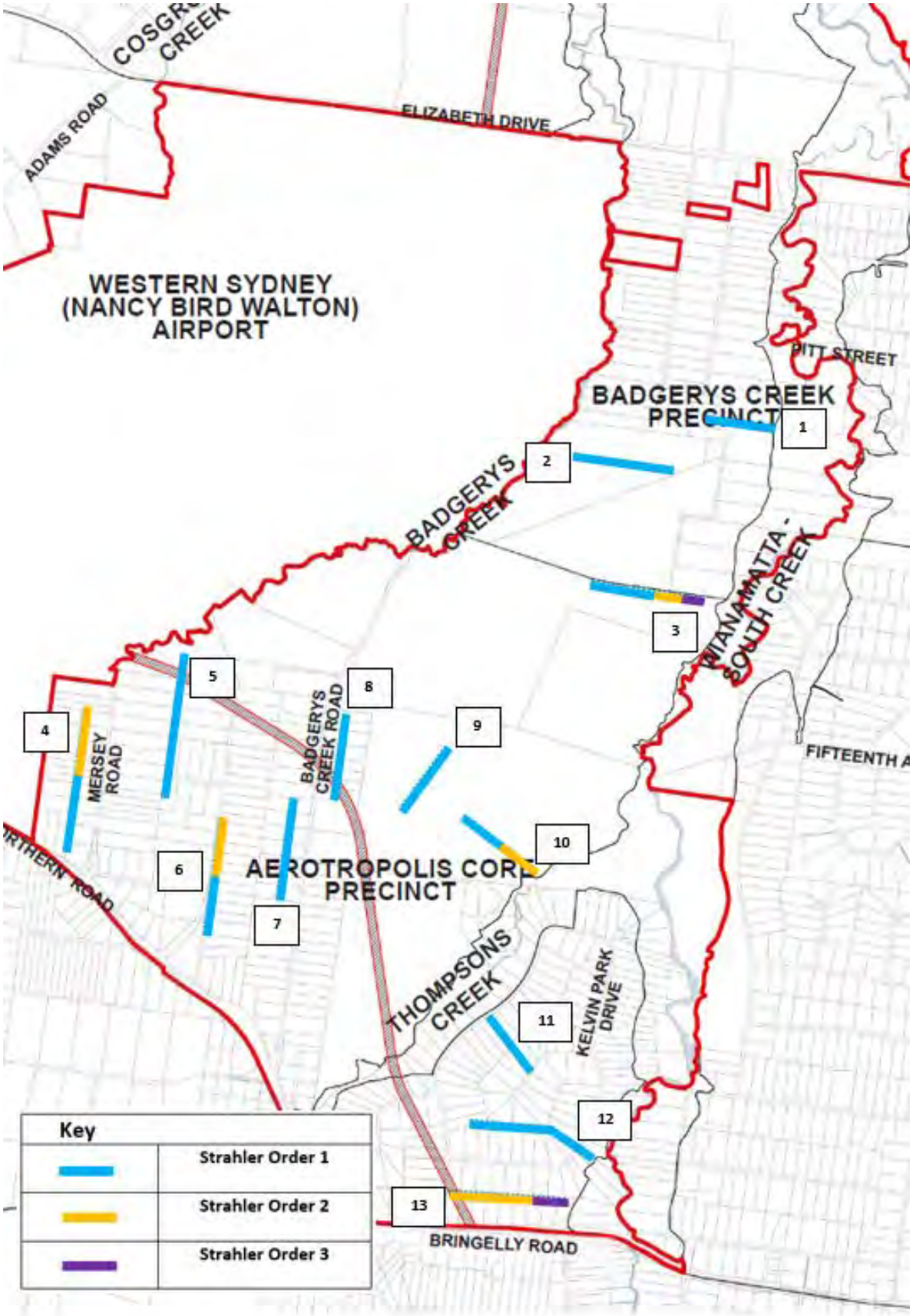
Table 1. Recommended riparian corridor (RC) widths

Watercourse type	VRZ width (each side of watercourse)	Total RC width
1st order	10 metres	20 metres + channel width
2nd order	20 metres	40 metres + channel width
3rd order	30 metres	60 metres + channel width
4th order and greater (includes estuaries, wetlands and parts of rivers influence by tidal waters)	40 metres	80 metres + channel width

The Strahler order of all Riparian Streets have been identified in Figure 2 and are outlined below

Riparian Street Number	Zone	Strahler order
1	Enterprise	1
2	Enterprise	1
3	Enterprise	1, 2, and 3
4	Enterprise	1 and 2
5	Enterprise	1
6	Enterprise	1 and 2
7	Enterprise	1
8	Enterprise	1
9	Enterprise	1
10	Mixed Use	1 and 2
11	Mixed Use	1
12	Mixed Use	1
13	Mixed Use	2 and 3

Figure 2: Riparian Street Strahler Order



Appendix D: Supporting Documentation for Development Application

The following subsections provide a description of each input and the high-level requirements for each study or plan. However, additional studies/plans may be required depending on the use and location.

D.1 Aboriginal and Historical Archaeological Assessment

- An Aboriginal and Historical Archaeological Assessment is to be prepared in accordance with the NSW Office of Environment and Heritage *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* and the NSW Office of Environment and Heritage *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* and Guide to investigating, assessing, and reporting on Aboriginal cultural heritage in NSW (or as updated).
- An Aboriginal and Historical Archaeological Assessment is required for all DAs on greenfield sites on land identified as having moderate and high Aboriginal heritage sensitivity and/or on land where it is thought that there could be items or sites of significance.

D.2 Architectural Plans

- Architectural Plans are to include the plans types below.
- All plans are to:
    a. Be presented at a suitable scale (e.g. 1:100 or 1:200); and
    b. Include a title block with the site address, applicant's name, architect, plan number, date produced, scale and position of true north.

Plan type	Description
Site Plan	The site plan must clearly identify the site boundaries, existing and proposed site access arrangements, existing and proposed development on the site and its position in relation to boundaries and neighbouring developments.
Site Analysis Plan	The site analysis plan identifies the key features of a site and surrounding sites to reveal the opportunities and constraints of development. It should show natural features and trees on the site, topography, prevailing winds, view lines to and from the site, pedestrian and vehicular access points and locations of utility services.
Demolition Plans	Demolition plans are required when a DA involves the demolition of any existing structures or buildings on a site. Elements to be demolished should be shown in a red dotted line.
Floor Plans	Floor plans provide a birds-eye view of the proposed development and the internal layouts for each level and basement in a building, including the locations of doors and windows. Floor plans should also indicate the different uses associated with different parts of a building.
Elevation Plans	Elevation plans show a side view of a development from the boundary and are required for all new buildings or when alternations or additions result in changes to the external appearance of a building.
Section Plans	A Section is a diagram that cuts through the proposed development to illustrate overall height and floor heights, and the relationship between the building and the public domain and neighbouring sites.
Shadow Diagrams	Shadow diagrams are required for any new development or additions more than one storey in height where it is possible that the development will impact on solar access of adjoining residential uses or public open space. Shadow Diagrams are to be prepared by an architect and are to illustrate the shadows cast at 9am, 12pm and 3pm on 21 June.

Plan type	Description
Schedule of Materials	The Schedule of Materials illustrates the materials to be used, proposed external finishes and proposed facade composition. A schedule of materials is required for all new buildings or when alternations or additions result in changes to the external appearance of a building.
Signage Plans	Signage plans are required for any proposal involving new signage or advertising zones. The plans are to illustrate the size of the signage zone how it will be fixed to a building or the site and any illumination details.

D.3 Access Report

- An access report is required where disabled access is a requirement of the *Disability Discrimination Act 1992*.
- An access report must demonstrate how issues of access for all users are addressed through the development.
- The report must be prepared by a suitably qualified consultant.

D.4 Acoustic Report

- Must be prepared by a suitably qualified acoustic consultant who possesses the qualifications to render them eligible for membership of the Australian Acoustical Society or employed by an Association of Australasian Acoustical Consultants (AAAC) member firm.
- An acoustic report is required for any noise generating development, including but not limited to licenced premises, childcare facilities, gym, and larger developments with the potential to generate noise from plant equipment. It is also required for any sensitive uses in proximity to noise generating uses.

D.5 Air Quality and Odour Assessment

- An Air Quality and Odour Assessment is required for agricultural uses and some agricultural produce industries and industrial uses. It is also required for sensitive uses in the proximity of agricultural, rural, and industrial uses.
- The assessment is to be undertaken by a suitably qualified Air Quality Professionals under the CAQP Scheme administered by the Clean Air Society of Australia and New Zealand (CASANZ) or Suitably qualified Environmental Practitioner under the CEnvP Scheme administered by the Environment Institute of Australia and New Zealand (EIANZ).

D.6 Arborist Report

- An arborist report is to provide detailed information about trees that are proposed to be removed on the site or that will potentially be impacted by the development.
- An arborist report is required where prominent trees (species identified in the DCP) will be impacted or will be potentially impacted by the proposed development.
- The report is to be prepared by a suitably qualified arborist with a minimum AQF (Australian Qualification Framework) Level 5 qualification. The report shall be written in accordance with *AS 4970-2009 Protection of Trees on Development Sites* and apply to all trees on the subject site and neighbouring trees within 6.0 metres of the subject site. The report should apply to all trees impacted, regardless of species and 'prominence' (prominence is subjective and open to individual interpretation).

D.7 Aviation Safeguarding Assessment

- An Aviation Safeguarding Assessment is required when triggered by Section 13 Aviation Safeguarding of this DCP.

- The following table details the matters and various documents that are required as part of an Aviation Safeguarding Assessment.

Matter to be addressed	Details / assessment required
Protection of Airspace	• Details of any crane or construction machinery must be included with the application material. Details are to include maximum heights, for example when crane jibs are stowed. • Landscaping plans must not include plants which, at maturity, will extend into the protected airspace.
Windshear and Turbulence	• Development that penetrates the 1:35 surface in the locations shown on the Lighting Intensity and Wind Shear Map under the Western Parkland City SEPP must be submitted with a Windshear/Turbulence assessment report prepared by a qualified wind engineer.
Airport Public Safety Areas	• Applications for uses within the public safety area that increase the number of people in that area or manufacture or store any hazardous materials must be accompanied by a risk assessment and mitigation plan.
Wildlife Hazards **(Wildlife Hazard Assessment and Wildlife Management Plan)**	• Applications for the following uses within the 3 km and 8 km wildlife buffers must be accompanied with a Wildlife Hazard Assessment and Wildlife Management Plan that incorporates relevant mitigation and monitoring measures: a. Agricultural produce industry; b. Agriculture; c. Aquaculture; d. Camping ground; e. Garden Centre; f. Intensive livestock agriculture; g. Intensive plant agriculture; h. Livestock processing industry*; i. Plant nursery; j. Recreation facility (outdoor); k. Recreation facility (major); l. Recreational area; m. Sewage treatment plant; n. Waste or resource management facility*; o. Waste or resource transfer station*; and p. Water storage facility. Note: Within 3km livestock processing industry, waste or resource management facilities and transfer stations that include any external storage, processing or handling are prohibited. • Applications for the following uses within the 13 km wildlife buffer must be accompanied with a Wildlife Hazard Assessment and Wildlife Management Plan that incorporates relevant mitigation and monitoring measures: a. Livestock processing industry*; b. Waste or resource management facility*; c. Waste disposal facility*; and d. Sewage treatment plant. • Wildlife Hazard Assessment Reports must assess the wildlife attraction risk of the land use, the design of the building and ancillary works including proposed landscaping, water facilities (incl. stormwater infrastructure), waste management, and temporary risks associated construction activity. • The Wildlife Management Plan must respond to the findings and recommendations of the wildlife hazard assessment. • Where monitoring is required to be undertaken in accordance with the Management Plan, copies of the report are to be submitted to the airport lessee company within 28 days of completion.

Matter to be addressed	Details / assessment required
	• A waste management plan for the operation of the use must be submitted for the following uses within the 3km, 8km and 13km buffer: a. Agriculture; b. Agricultural produce industry; c. Aquaculture; d. Camping Grounds; e. Eco-tourist facility; f. Food and Drink Premises; g. Garden Centre; h. Hotel; i. Intensive plant agriculture; j. Intensive livestock agriculture; k. Kiosk; l. Livestock processing industry*; m. Plant Nursery; n. Recreation facility (outdoor); and o. Recreation facility (major). • Landscaping within the Enterprise Zone and Agribusiness Zone must comply with Appendix B: Western Sydney Aerotropolis Landscape Species List, except where the property is subject to biodiversity certification conditions or identified as one of the key government commitments.
Communications, Navigation and Surveillance Systems	• Any development in a mapped building restricted area (details are available from Western Sydney Airport) must include an aviation impact assessment.

D.8 BASIX Certificate

- BASIX is a planning tool which assesses water and energy efficiency of new residential developments.
- A BASIX Certificate is required for any new development that includes one or more dwellings.
- Commitments included on the BASIX Certificate are to be included on the architectural plans.

D.9 Biodiversity Development Assessment Report

- A Biodiversity Development Assessment Report (BDAR) is required when the impacts of a proposed development trigger the Biodiversity Offset Scheme (BOS) on land subject to be assessed in accordance with the *Biodiversity Conservation Act 2016.*
- The BOS applies to:
    - local development (assessed under Part 4 of the *Environmental Planning and Assessment Act 1979*) that triggers the BOS threshold or is likely to significantly affect threatened species based on the test of significance in section 7.3 of the *Biodiversity Conservation Act 2016;*
    - state significant development and state significant infrastructure projects, unless the Secretary of the Department of Planning and Environment and the environment agency head determine that the project is not likely to have a significant impact;
    - biodiversity certification proposals;
    - clearing of native vegetation in urban areas and areas zoned for environmental conservation that exceeds the BOS threshold and does not require development consent; and
    - clearing of native vegetation that requires approval by the Native Vegetation Panel under the *Local Land Services Act 2013.*

- Where the BOS applies to a proposal, an assessor must apply the BAM to assess impacts on biodiversity and document the outcomes in the Biodiversity Development Assessment Report (BDAR). The BDAR must accompany the development application for approval.
- Assesses the biodiversity values of the subject land and the impacts of the proposal on those values in accordance with the Biodiversity Assessment Method (BAM).
- Sets out the measures proposed to be taken to avoid or minimise those impacts.
- Sets out the number and class of biodiversity credits that are required to be retired to offset the residual impacts.
- The Biodiversity Development Assessment Report or Biodiversity Certification Assessment Report must be prepared by an Accredited Assessor under the *Biodiversity Conservation Act 2016.*

D.10 Boarding House Plan of Management

- A plan of management for a boarding house is to provide the following details at a minimum:
    a. Manager and staff arrangements, including responsibilities and contact details;
    b. Incident register procedures;
    c. Occupancy rates for each bedroom;
    d. Hours rules including guest behaviour activities and noise, visitor policies, parking arrangements, hours for communal areas, location of smoking and non-smoking areas
    e. Limitations on noise generating activities between 10pm-7am;
    f. Waste management plan, including cleaning management and schedules, as well as demonstration of sufficient space for the number of bins needed to service the building. This should supplement drawings showing the bin room and collection point;
    g. Furniture and facilities list, including items that are to be provided in bedrooms and communal areas; and
    h. Safety and security plan including an emergency evacuation plan with emergency contact details, surveillance systems, staff training, fire measure, evacuation plan with egress routes.

D.11 Building Code of Australia Compliance Report

- A Building Code of Australia Compliance Report (BCA Report) is required for all new developments.
- A BCA report presents the findings of an assessment of the proposed building against the Performance Requirements of the Deemed-to Satisfy provisions of the Building Code of Australia and identifies whether the development will rely on an Alternate Solution based assessment.
- A BCA assessment and report must be undertaken by an accredited certifier suitably qualified to prepare the report.

D.12 Bushfire Report

- A Bushfire Report is to respond to *Planning for Bushfire Protection 2019* (or any subsequent review of this document) and is required for all development on sites located within a bushfire prone area.
- The report must be prepared by a qualified bushfire consultant.

D.13 Contamination Assessment

- **Preliminary Site Investigation (Stage 1**): Involves a detailed account of the site history and a visual inspection and assessment to understand whether there is any likelihood of contamination on the site. A Stage 1 Assessment is required for all new developments where the land may have previously contained contaminating uses.
- **Detailed Site Investigation (Stage 2)**: If the Preliminary Site Contamination Investigation (Stage 1) indicates a potential for contamination, and/or that the land may not be suitable for the

proposed use, a Detailed Site Investigation is to be undertaken. The Stage 2 assessment involves soil testing.

- **Remedial Action Plan:** If the Detailed Contamination Investigation (Stage 2) indicates that the site is not suitable for the proposed use, a Remedial Action Plan shall be prepared.
- The consultant must be certified under either the Environment Institute of Australia and New Zealand's Certified Environmental Practitioner (Site Contamination) scheme (CEnvP(SC)) or the Soil Science Australia Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) scheme.

D.14 Connection to Country Statement

- A Connection to Country Statement needs to accompany any State Significant development application to identify the ability of Aboriginal people and traditional custodians to access places of cultural significance.
- The Statement needs to be prepared by a qualified heritage consultant, with consultation with local Aboriginal stakeholders.

D.15 Crime Prevention Through Environmental Design (CPTED) Report

- A CPTED Report details how a development has been designed to reduce opportunities for crime by implementing a variety of design and place management principles.
- A CPTED Report is required for all state Significant Development applications and DAs for high impact uses, including residential flat buildings, office building, entertainment premises and restricted premises.
- The report should be prepared by a social planner with experience in CPTED.

D.16 Construction Environmental Management Plan (CEMP)

- A Construction Environmental Management Plan is required for all development.
- The requirements for the plan include:
    a. Pre-construction surveys prior to removal or disturbance to all human made structures, to ensure roosting habitat for microbat species, including subsurface structures such as mine shafts and storm water tunnels to ensure any individuals are dispersed or relocated as per best practice;
    b. A pre-clearance assessment for any native fauna immediately prior to any clearing of native vegetation to ensure that arboreal mammals, roosting and hollow-using birds, bats and reptiles are prevented from accessing any vegetation to be cleared, and are removed if present prior to clearing according to EES' policy on the Translocation of Threatened Fauna in NSW;
    c. Incorporation of best practice site hygiene protocols to manage the potential spread of Phytophthora and Myrtle Rust for land adjacent to land zoned E1 National Parks and Nature Reserves, E2 Environmental Conservation or lands managed as a reserve. In accordance with the best practice guideline 'Arrive Clean, Leave Clean: Guidelines (Commonwealth of Australia, 2015);
    d. Best practice site hygiene protocols to manage the potential spread of chytrid fungus are to be incorporated along Ropes Creek to maintain local Green and Golden Bell Frog populations;
    e. Weed management, site rehabilitation and nest boxes are to be installed on development adjoining land zoned E1 National Parks and Nature Reserves, E2 Environmental Conservation or lands managed as a reserve;
    f. A tree-felling protocol is to be implemented to avoid impacts to birds, arboreal mammals and reptiles, raptor nests (almost all large raptors in Wilton are threatened), dreys, dens, hollows and other nests in trees that are to be cleared;

g. If the presence of Green and Golden Bell Frog is confirmed present along Ropes Creek within the Western Sydney Aerotropolis, incorporate best practice site hygiene protocols to manage the potential spread of chytrid fungus and maintain local species populations; and

h. Reuse of native plants including, but not limited to seed collection and topsoil from development sites that contain native seed bank.

Additional requirements relating to construction traffic are below:

a. Construction traffic is to utilise clearly defined access and egress points to and from a development site to avoid remnant wildlife corridors and native vegetation communities;
b. Construction traffic to keep to designated routes within the development site and to and from the site;
c. Parking and equipment and material laydown areas are to be positioned away from land with biodiversity values;
d. Construction traffic is to adhere to construction zone speed limits of 20km/h across a subject site; and
e. Temporary fencing to be installed prior to site works commencing to limit areas impacted by the works and accessible by construction traffic.

D.17 Dam De-Watering Plan

- Applications for removal of artificial waterbodies are to be accompanied by a dam dewatering plan prepared by a suitably qualified ecologist which documents the approach to dam removal including:
    a. Aquatic fauna survey and relocation strategy;
    b. Water quality management plan;
    c. Silt/sediment waste classification and disposal plan;
    d. Demolition plan;
    e. Restoration plan;
    f. Weed and pest species management; and
    g. Wildlife attraction,

D.18 Design Verification Statement and ADG Assessment

- Any residential/mixed use building with three or more storeys and four or more self-contained dwellings is subject to State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development (SEPP 65). The architect is required to prepare a Design Verification Statement and an assessment of the development against the Apartment Design Guide.

D.19 Dilapidation Report

- A Dilapidation Report is required where excavation is proposed within a zone of influence of another building. The report is to detail the measures to be implemented during excavation works to protect the integrity of adjacent buildings and structures. The report is to respond to Safe Work Australia – Excavation Work Code of Practice - March 2015.

D.20 Ecologically Sustainable Development Report

- An Ecologically Sustainable Development (ESD) Report is to provide a sustainability assessment of the proposed building design and demonstrate the investigation of the ways in which the development achieves best practice and compliance with sustainability requirements.
- An ESD Report is required for all new developments and additions.

D.21 Erosion and Sediment Control Plan

- For an area of disturbance less than 2,500sqm, applicants must submit an Erosion and Sediment Control Plan (ESCP).
- For an area of disturbance greater than 2,500sqm, applicants must submit a Soil and Water Management Plan (SWMP). The SWMP must be developed and certified by a Certified Professional in Erosion and Sediment Control (CPESC) and illustrate appropriate controls have been planned which will, when implemented, minimise erosion of soil from the site and, accordingly, sedimentation of drainage systems and waterways to achieve the Erosion and Sediment Control PO's.
- These plans are to be prepared in accordance with *Managing Urban Stormwater Soils and Construction*, also known as the Blue Book (current edition) and demonstrate how the construction phase targets are achieved; and form part of the engineering design drawings and be documented in the construction plans. They must include a set of plans drawn to scale which show the layout of appropriate sedimentation and erosion control and outline of appropriate sedimentation and erosion control measures. The drawings must be developed and certified by the CPESC who developed the ESCP or SWMP.

D.22 Flood Impact and Risk Assessment

- The Flood Impact and Risk Assessment (FIRA) as a minimum should:
    a. Address the relevant provisions of the NSW Floodplain Development Manual, and existing councils and government studies and guidance;
    a. Adopt the base case existing flood information identified in the INSW South Creek Sector Review Flood Assessment (Advisian 2020) to address existing flood behaviour and flood constraints on the site and its surrounding areas for the full range of events, including 5% AEP, 1% AEP, 0.5% AEP or 0.2% AEP and PMF and assessment on the compatibility of the development and its users with flood behaviour;
    b. Address and document post developed case impacts within the site and external to the site. These include changes in post development flood behaviour, impacts of flooding on existing community and on the development and its future community for full range of events, 5% AEP, 1% AEP, PMF and 0.5% AEP or 0.2% AEP;
    c. Identify and propose management measures to post developed flood constraints and impacts due to development both on and offsite; and
    d. Address the impacts of climate change on design flood modelling comparing the 0.2% AEP as a proxy for assessing sensitivity to an increase in rainfall intensity due to climate change.

    Note:
    * Addressing flood behaviour includes flood volume, extent, depth, level, velocity, duration, rate of rise, flood function and hazard.
    *Addressing flood impacts include impacts on flood behaviour and emergency response management of the site and surrounding areas.

D.23 Flora and Fauna Assessment

- A Flora and Fauna Assessment is an assessment report that identifies all potential threatened species located on the subject site and where applicable surrounds. This report is used to determine the potential impacts of a proposed development on the identified species.
- Required for all developments where clearing is required.
- Where wildlife impacts are likely to arise, the proponent may be requested to carry out additional fauna surveys to determine the likely impacts on biodiversity. Impacts may trigger the requirement to complete a Biodiversity Development Assessment Report (BDAR).
- The assessment and fieldwork are required to be undertaken by suitably qualified and experienced consultants.

D.24 Geotechnical Report

- A Geotechnical Report details the ground conditions of a site and any risks associated with ground stability or proposed excavation. The report is to detail the findings from desktop review of the site and borehole testing where necessary. The report should also recommend appropriate temporary and permanent site support and retention measures.
- A Geotechnical report is required for sloping sites to determine required engineering and earthworks requirements.
- The assessment should be undertaken by a qualified Geotechnical Engineer.

D.25 Heritage Impact Statement

- A Heritage Impact Statement provides a detailed account of the heritage significance of an identified heritage item or conservation area that may be impacted by a proposed development (whether or not there is a heritage item on the subject site or nearby).
- The statement is to detail what impact the proposed work will have on the heritage significance of the item and what design and construction measures can be implemented to ensure the preservation and conservation of heritage.
- A Heritage Impact Statement is to be prepared for any DAs on sites containing a heritage item, adjacent to a site with a heritage item or sites located within a Heritage Conservation Area.
- Ensure planning, urban design and development activates and integrates heritage items into new developments in a sensitive way in accordance with:
    a. Australia ICOMOS *Charter for Places of Cultural Significance* (The Burra Charter) 2013;
    b. *Better Placed: Design Guide for Heritage* by Government Architect NSW;
    c. *Design in Context: Guidelines for Infill Development in the Historic Environment* by NSW Heritage Office & Royal Australian Institute of Architects NSW Chapter;
    d. *New Uses for Heritage Places: Guidelines for the adaptation of Historic Buildings and Sites* by NSW Heritage Office & Royal Australian Institute of Architects NSW Chapter.
- The Heritage Impact Statement must be prepared by an experienced and qualified heritage consultant.

D.26 Interim Travel Demand Management Plan

- Development within a 5km catchment of planned transport services must prepare an Interim Travel Demand Management Plan.
- This plan is to outline how the development will provide interim transport services connecting to existing mass transit services. Strategies may include working with Transport for NSW to support and implement travel behaviour change programs to help manage demand on the transport network.
- The plan is to also require/outline the parameters for the proposed new developments and businesses, the development and implementation of travel plans to encourage the use of sustainable transport choices.

D.27 Landscape Plans

- Landscape Plans are to be prepared by a qualified landscape architect. The plans are to detail:
    a. Soil profile;
    b. Selected species;
    c. Relationship with streetscape;
    d. Landscape character statement;
    e. Landscape design statement;
    f. Landscape analysis to include views, canopy calculations;
    g. Sections and detailed plans, schedule of materials, elevations, show relationship to adjoining development in sections and elevations;

h. Plans to include levels which clearly show the extent of basement and an overlay of all utilities and services;
i. Consideration of site constraints e.gg bushfire risk, salinity;
j. Disease resistance of proposed species;
k. Impacts on any threatened species, populations, ecological communities, or their habitats
l. Location and management of soil stockpiles;
m. Proposed irrigation system; and
n. Ongoing maintenance practices for the life of development.

Note: Engineering and hydraulics plans are to be consistent with the landscape plan and arborist report, e.g. storm water lines and excavation should not be within the TPZTPZ of trees to be retained.

D.28 Noise and Vibration Report

- The following documents (where relevant) must be considered when preparing an acoustic report for submission:
    a. NSW EPA Noise Policy for Industry (NPfI);
    b. NSW EPA Noise Guide for Local Government;
    c. NSW EPA Road Noise Policy;
    d. NSW Department of Planning, Development Near Rail Corridors and Busy Roads – Interim Guideline;
    e. NSW Department of Environment and Climate Change, Interim Construction Noise Guideline; and
    f. All relevant and applicable Australian Standards relating to acoustics and noise generated by different sources (or any subsequent editions of the documents listed above).

D.29 On-site Sewage Management / Wastewater Report

- An On-site Sewage Management Report details onsite wastewater and effluent treatment methods of a development and provides an assessment of the site's capability to sustainably manage treated wastewater. The report will need to include (but not be limited to) consideration of site topography, geology, flood potential and overland flows, buffer distances to features/buildings/infrastructure on site and also to watercourses, dams and bores (the applicable buffer distance to these may include those located off site)
- The report is required to be prepared by an appropriately qualified and experienced person with demonstrated ability and experience in the field.
  Note: There is currently no certification body for this field.
- All domestic wastewater and greywater systems installed in NSW must be accredited by NSW Health.
- The report is required for all developments relying on the use of on-site sewer management.

D.30 Quantity Surveyors Report

- Quantity Surveyors Report is required for any development with a capital investment value of over $3 million.

D.31 Plan of Management

- A Plan of Management details the operational parameters for the use of a building (e.g. a licensed premise or a supermarket). The plan provides the parameters relating to the use (such as hours of operations and capacity) and details the management methods to be employed during operation (such as security and noise).
- The purpose of the plan is to establish management parameters to protect the amenity of surrounding sensitive uses and ensure the wellbeing and safety of patrons and staff.

D.32 Plan of Management for Tourist and Visitor Accommodation

- A plan of management for tourist and visitor accommodation is to provide the following details at a minimum:
    a. Manager and staff arrangements, including responsibilities and contact details;
    b. Incident register procedures;
    c. Limitations on noise generating activities between 10pm-7am;
    d. Waste management and cleaning management and schedules;
    e. Safety and security plan including an emergency evacuation plan with emergency contact details, surveillance systems, staff training, fire measure, evacuation plan with egress routes; and
    f. On site security.

D.33 Rail Noise Assessment

- A Rail Noise Assessment is required for all sensitive land uses within 80m of a rail corridor.
- The assessment report is to be prepared by a suitably qualified acoustic consultant who possesses the qualifications to render them eligible for membership of the Australian Acoustical Society or employed by an Association of Australasian Acoustical Consultants (AAAC) member firm.

D.34 Salinity Management Plan

- A Salinity Management Plan is required for sites identified as having a potential risk of salinity based on an initial site investigation showing the site is saline or is affected by salinity or identified as being subject to a potential risk of salinity.
- A Salinity Management Plan is to address the relevant requirements identified in the site-specific salinity investigations undertaken for proposed development, including:
    a. The Soil Sodicity Assessment conducted in accordance with the requirements of Site Investigations for Urban Salinity;
    b. Identification of salinity presence and salt mobility;
    c. Maps that indicate salinity risk and vertical and horizontal salinity distribution (vertical salt (ECe) profiles); and
    d. In-field observations, in addition to desktop analysis. Investigations and sampling for salinity are to be conducted in accordance with the requirements of Site Investigations for Urban Salinity.
- The Salinity Management plan is to be prepared by a suitably qualified soil or environment scientist/engineer.

D.35 Social Impact Assessment

- A Social Impact Assessment (SIA) provides an assessment of the social consequences of a proposed decision or action, namely the impacts on affected groups of people and on their way of life, life chances, health, culture, and capacity to sustain these.
- It includes the positive and negative impacts associated with a proposed development, as well as the measures to mitigate these impacts.
- Social impact assessment is required for proposals for such as:
    a. All State Significant development (whose SIA must be done in accordance with the Department of Planning and Environment's *Social Impact Assessment Guidelines*);
    b. Larger developments including major retail, sports, or social infrastructure proposals;
    c. A significant change of land use including new highways, loss of agricultural land;
    d. Sale or rezoning of publicly owned land;
    e. New planning policies and plans amendments to them;
    f. The introduction or increases in intensity of potentially harmful uses such as licensed premises and/or

g. Other uses, including controversial uses, deemed necessary for social impact assessment by the planning authority.

- Social impact assessment should be undertaken by appropriately trained and qualified personnel using rigorous social science methodologies and with a high degree of public involvement.
- The resulting social impact assessment should be a public document.

D.36 Statement of Environmental Effects/Environmental Impact Statement

- A Statement of Environmental Effects (SEE) is a written statement that describes the proposed development and provides an assessment of the proposal against the planning controls. The SEE must address the matters for consideration under Section 4.15 of the Environmental Planning and Assessment Act 1979.
- It should also explain the likely impacts of the development during and after construction and how these impacts will be minimised or managed.
- All development applications require a SEE.
- An Environmental Impact Statement (EIS) is required for State Significant Development (rather than a SEE).

D.37 Stormwater Management Strategy

- A Stormwater Management Strategy (the strategy) is required to show where stormwater runoff from structures and hardstand areas will drain to. Depending on the scale of the development, on-site stormwater detention (OSD) may be required.
- The strategy is to detail the location of drainage lines, discharge locations, OSD, water sensitive design components and any rainwater tanks.
- The strategy should be developed in accordance with the design principles and modelling requirements in the *Technical guidance for achieving Wianamatta-South Creek stormwater management targets*.
- The strategy is to be prepared by a qualified stormwater engineer.

D.38 Survey Plan

- A survey plan provides the locations of site boundaries, the site area, the locations of existing buildings and any easements and details the topography of the site.
- A survey plan must be prepared by a registered surveyor.

D.39 Transport Impact Statement

- A Transport Impact Statement is provided for all developments.
- Medium to large scale developments or as requested by the consent authority, must prepare a comprehensive transport impact assessment.
- A Traffic and Parking Study is to detail the expected trips generation of a proposed development and the impact that this will have on the surrounding road network (trip generation inclusive of trips by vehicles, pedestrians and cyclists). It is to detail the existing and proposed parking conditions and the suitability of parking and loading arrangements for the development regarding the parking controls.
- The study is required for all applications which result in trip generation or impact on surrounding road networks or transport requirements, or changes to on-site parking provisions or requirements.
- The study is to be prepared by a suitably qualified traffic engineer.

D.40 Transport Freight Management Plan

- A Transport Freight Management Plan is required for all freight generating uses. The plan is to detail:

a. Access and egress to transport network in conjunction with proposed operation and internal transport layout;
b. Details of light and heavy vehicle movements (including vehicle type and likely arrival and departure times). Details of service vehicle movements (including vehicle type and likely arrival and departure times);
c. Assessment of the impacts of trips generated on surrounding transport network;
d. Access arrangements and swept path plans of largest design vehicle to service site;
e. Any mitigation measures and proposed implementation details; and
f. Last mile distribution strategy for delivery to town centres and commercial districts.

D.41 Travel Plan

- A Travel Plan must be submitted for:
    a. Any residential developments containing more than 50 residential units.
    b. Any commercial or industrial development with more than 50 employees.
- A Travel Plan must include:

    a. Targets – including reductions in single occupancy car trips and increased mode share for sustainable transport.
    b. Travel data – baseline travel demand and mode share estimates derived from experience with comparable developments.
    c. Action plan – which outlines the measures to be implemented as part of the travel plan, associated promotional, information and education initiatives, and management mechanisms to be introduced as part of the Green Travel Plan; and
    d. Commitment – to the on-going maintenance and adaptation of the action plan to ensure its long-term success. Asset managers / strata corporations are to notify any tenants of the Travel Plan.

D.42 Tree Protection Plan

- The Tree Protection Plan (drawing and specification) identifies trees for retention through comprehensive arboricultural impact assessment of a proposed development and determines tree protection measures for trees on public and private land, on the subject and neighbouring sites.
- It provides protection measures for each stage of the development. Protection measures may need to be altered for development stages of the development.
- The Tree Protection Plan (drawing and specification) shall be written by a suitably qualified arborist with a minimum AQF (Australian qualification Framework) Level 5 qualification and in accordance with AS 4970-2009 - Protection of Trees on Development Sites.

D.43 Utilities Plan and Report

- Development plans must show, where applicable, the siting of utilities in relation to proposed works and include a risk mitigation strategy for the construction phase and identification of how ongoing access for maintenance will be retained.
- A Utilities Infrastructure Assessment identifies existing utilities infrastructure for retention, the availability of assets to accommodate the proposed development and any services augmentation required.

D.44 Visual/View Impact Assessment

- A Visual Impact Assessment considers the impacts of a development on the visual qualities of the landscape. The assessment is to document the landscape qualities of the site and surrounds to guide improved design outcomes and avoid negative impacts of the proposal.
- A Visual impact Assessment is required and is to be prepared by a qualified view expert / landscape architect.

D.45 Warragamba Pipeline Guideline – Consistency Statement

- Any development proposing building works on land adjacent to or crossing the Warragamba Pipelines Corridor is to demonstrate consistency with the requirements of the WaterNSW publication 'Guidelines for Development Adjacent to the Upper Canal and Warragamba Pipelines'.

D.46 Waste Management Plan

- A Waste Management Plan details the volumes and types of waste that will be generated by the development. It also details where waste containers will be stored, size of bin rooms, location of any planned equipment for treating waste, or systems for transferring waste (such as chutes), location of collection points and the ongoing management of collection of waste and recycling during operation. A waste management plan is also required for demolition and construction stage of the development.

- All new commercial, mixed use and residential flat buildings or additions to these development types are to prepare a waste management plan.
- Refer to the *Better practice guide for resource recovery in residential developments* for more information on how to prepare a waste management plan and for calculating commercial and industrial waste and residential waste and recycling generation rates.

D.47 Water Management Plan

- A Water Management Plan must be prepared by a suitably qualified engineer and is to include:
    a. Estimates of water demand and sources including the use of alternative water sources such as stormwater and recycled water;
    b. Appropriate modelling to demonstrate compliance with stormwater flow and quality targets provided in the *Technical guidance for achieving Wianamatta-South Creek stormwater management targets (DPE 2022)*.
    c. Catchment plans showing pre and post development catchments and discharge locations.
    d. Development details and plans for pervious and impervious areas (including roof areas).
    e. Details of connections to any relevant regional stormwater infrastructure, or interim arrangements where this infrastructure is not operational at the time of lodgement. Where no satisfactory interim arrangements are proposed or agreed, development consent may be deferred until the required regional infrastructure is delivered.
    f. Detail the proposed approach to water sensitive urban design in a water sensitive urban design strategy. The strategy is to include:
        i. design detail of each WSUD/stormwater system including size, location, level, inflow and outflow levels, batters and embankments.
        ii. Design detail of any stormwater quantity management systems and ultimate drainage connection or outlet locations for WSUD systems.
        iii. details of connections to any relevant regional stormwater infrastructure and recycled water system.
        iv. integration with any on-site detention systems or regional floodplain
        v. proposed initial and ongoing maintenance and management of WSUD assets.
        vi. stagging plan (if relevant) to illustrate how each WSUD system will be delivered with the development stages to ensure compliance with the stormwater targets.
    g. Where regional stormwater infrastructure and recycle water systems are not operational at the time of lodgement, the details of the interim WSUD strategy must be provided to ensure the waterway objectives and stormwater targets are achieved.

D.48 Weed Eradication and Management Plan

- Weed Eradication and Management Plan is required on land adjacent to areas avoided for biodiversity and are to include specific measures to manage the spread of weeds in threatened

ecological communities and threatened flora and fauna populations *(*including land protected by the *Cumberland Plain Conservation Plan)*.

- Subdivision design and bulk earthworks must minimise the likelihood of weed dispersion and include measures to eradicate priority weeds in accordance with the Council's weed policy.
- The Plan is to be prepared by an ecologist and is to outline the weed control measures during and after construction.
- The Plan should include:
    a. An inventory of all Weeds of National Significance, Priority and Environmental weeds on the development site and a site plan indicating the weed infestations with reference to the species and degree of infestation or density (i.e. low, medium, high or expressed as a percentage).
    b. A treatment schedule in tabulated form, specifying for each species:
        - The method of treatment (mechanical or herbicide use);
        - The rates of application methods of all herbicide treatments;
        - The primary control treatment to achieve a minimum 70% kill and a secondary control treatment to achieve a minimum 90% kill; and
        - The timing of treatments.
    c. An annual weed maintenance program indicating the methods to be implemented to maintain a weed-free site.
    d. Details of any methods of disposal of weed material.
    e. Details of monitoring and reporting requirements.

Appendix E: Reference Documents & Further Reading

All standards, acts and documents are relevant as at the date of publication of this DCP. They may be subject to amendments, replacement, or revocation. Where any document has been revised, the most current version is to be referenced when considering provisions in the DCP.

Reference	DCP section	Link
Western Sydney Aerotropolis Precinct Plan (NSW Department of Planning, and Environment, 2022)	Throughout	https://www.planning.nsw.gov.au/Plans-for-your-area/Priority-Growth-Areas-and-Precincts/Western-Sydney-Aerotropolis
Western Sydney Aerotropolis Plan (NSW Department of Planning, Industry and Environment, 2020)	Throughout	https://www.planningportal.nsw.gov.au/draftplans/made-and-finalised/western-sydney-aerotropolis-planning-package
Better Placed (Government Architect NSW, 2017)	Appendix D.25	https://www.governmentarchitect.nsw.gov.au/policies
Greener Places (Government Architect NSW, 2020)	Appendix D.25	https://www.governmentarchitect.nsw.gov.au/policies
Guideline to Master Planning in the Western Sydney Aerotropolis	1.4	https://www.planning.nsw.gov.au/-/media/Files/DPE/Guidelines/Aerotropolis-Master-Plan-Guidelines-2021-12.pdf?la=en
Recognise Country: Practice Notes for Development in the Aerotropolis	1.4, 2.1	Forthcoming
Aviation Safeguarding Guidelines – Western Sydney Aerotropolis and Surrounding Areas	1.4, 2.9	Forthcoming
Connecting with Country Draft Framework (Government Architect NSW, 2020)	2.1	https://www.governmentarchitect.nsw.gov.au/resources/ga/media/files/ga/discussion-papers/draft-connecting-with-country-framework-2020-11-12.pdf
Designing with Country Discussion Paper (Government Architect NSW, 2020)	2.1	https://www.governmentarchitect.nsw.gov.au/resources/ga/media/files/ga/discussion-papers/discussion-paper-designing-with-country-2020-06-02.pdf
Dual Naming – Supporting Cultural Recognition factsheet (NSW Geographical Names Board, 2018)	2.1	https://www.gnb.nsw.gov.au/__data/assets/pdf_file/0004/58837/GNB_Dual_Naming_Factsheet.pdf
Charter for Conservation of Places of Cultural Significance (The Burra Charter) (Australia International Council on Monuments and Sites (ICOMOS))	2.1, Appendix D.25	https://australia.icomos.org/publications/charters/
Policy and Guidelines for Fish Habitat Conservation and Management (Department of Primary Industries, 2013)	2.3.1	http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0009/468927/Policy-and-guidelines-for-fish-habitat.pdf
Forthcoming report on waterway health objectives (Department of Planning, and Environment NSW)	2.3.1	Forthcoming

Reference	DCP section	Link
Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions (Office of Environment and Heritage and the Environment Protection Authority, 2017)	2.3.1	https://www.environment.nsw.gov.au/research-and-publications/publications-search/risk-based-framework-for-considering-waterway-health-outcomes-in-strategic-land-use-planning
Australian Guidelines for Recycled Water (Water Quality Australia)	2.10	https://www.waterquality.gov.au/guidelines/recycled-water
Technical guide to demonstrate compliance with Wianamatta-South Creek waterway health objectives and stormwater management targets' (NSW Department of Planning and Environment, 2021)	2.3.2	Forthcoming
Growth Centres SEPP Biodiversity Certification	2.4.2	https://www.legislation.nsw.gov.au/view/html/inforce/current/epi-2006-0418
Biodiversity Certification Order	2.4.2	https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Biodiversity/Orders-register/western-sydney-growth-centres-order.pdf?la=enandhash=18163D2D08ECEA8B5BF9394E77299A102CFF9F47
Cumberland Plain Conservation Plan (NSW Department of Planning, Industry and Environment, 2022)	2.4.2	https://www.planning.nsw.gov.au/cumberlandplainconservationplan
Best Practice Guidelines: Cooks River/Castlereagh Ironbark Forest (NSW Department of Environment and Climate Change, 2008)	2.4.2, 2.4.3	https://www.environment.nsw.gov.au/resources/threatenedspecies/08601tsdsbpgcooksriver1.pdf
Recovering Bushland on the Cumberland Plain: Best Practice Guidelines for the Management and Restoration of Bushland (NSW Department of Environment and Climate Change, 2005).	2.4.2, 2.4.3	https://www.environment.nsw.gov.au/resources/nature/RecoveringCumberlandPlain.pdf
Translocation Operational Policy (NSW Environment, Energy and Science, 2019)	2.4.3	https://www.environment.nsw.gov.au/topics/animals-and-plants/threatened-species/programs-legislation-and-framework/translocation
Western Sydney Street Design Guidelines	1.4.2, 2.4.5, 2.6, 2.10	https://www.wscd.sydney/s/Street-Design-Guidelines_0920.pdf
Western Sydney Engineering Design Manual	1.4.2, 2.6, 2.10, 5.1	https://www.wscd.sydney/s/Western-Sydney-Engineering-Design-Manual_1220.pdf
Australian Standard – AS 1428-2009 Design for Access and Mobility	2.14	https://www.standards.org.au/standards-catalogue/sa-snz/building/me-064

Reference	DCP section	Link
NSW Flood Prone Land Policy – Section 1.1 (NSW Government, 2005)	2.5.1	https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Water/Floodplains/floodplain-development-manual.pdf
NSW Floodplain Development Manual (NSW Government, 2005)	2.5.1	https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Water/Floodplains/floodplain-development-manual.pdf
Wianamatta (South) Creek Flood Study – Existing Conditions (Prepared by Advisian for Infrastructure NSW, November 2020)	2.5.1	https://flooddata.ses.nsw.gov.au/flood-projects/wianamatta-south-creek-catchment-flood-study-existing-conditions
Planning for Bushfire Protection 2019 (NSW Rural Fire Service, 2019)	Appendix D.12	https://www.rfs.nsw.gov.au/plan-and-prepare/building-in-a-bush-fire-area/planning-for-bush-fire-protection
Western Sydney Salinity Code of Practice (Western Sydney Regional Organisation of Councils, 2003)	2.5.3	https://wsroc.com.au/media-a-resources/reports/summary/3-reports/122-western-sydney-salinity-code-of-practice-march-2003
Western Sydney Hydrogeological Landscapes: May 2011 (First Edition) data package (Data NSW, 2011)	2.5.3	https://data.nsw.gov.au/data/dataset/western-sydney-hydrogeological-landscapes-may-2011-first-editionf20fe
Site Investigations for Urban Salinity (NSW Government, 2002)	2.5.3	https://www.environment.nsw.gov.au/research-and-publications/publications-search/site-investigations-for-urban-salinity
Land Use Planning and Urban Salinity (NSW Government, 2005)	2.5.3	https://www.environment.nsw.gov.au/research-and-publications/publications-search/landuse-planning-and-urban-salinity
Building in a Saline Environment (NSW Government, 2008)	2.5.3	https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Land-and-soil/building-in-saline-environment-080145.pdf
Roads and Salinity (NSW Government, 2003)	2.5.3	https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Land-and-soil/roads-and-salinity.pdf
Australian Standard – AS 2159	2.5.3	https://www.standards.org.au/standards-catalogue/sa-snz/other/ce-018/as--2159-2009
Australian Standard – AS 2870	2.5.3	https://www.standards.org.au/standards-catalogue/sa-snz/other/bd-025/as--2870-2011
Australian Standard – AS 3600	2.5.3	https://www.standards.org.au/standards-catalogue/sa-snz/other/bd-002/as--3600-colon-2018

Reference	DCP section	Link
National Acid Sulfate Soils Sampling and Identification Methods Manual (Department of Agriculture and Water Resources, 2018)	2.5.3	https://www.waterquality.gov.au/issues/acid-sulfate-soils/sampling-and-identification-methods-manual
Managing Urban Stormwater Soils and Construction	Appendix D.21	https://www.environment.nsw.gov.au/research-and-publications/publications-search/managing-urban-stormwater-soils-and-construction-volume-1-4th-editon
Best Practice Erosion and Sediment Control (International Erosion Control Association Australasia, 2008)	2.5	https://www.austieca.com.au/publications/best-practice-erosion-and-sediment-control-bpesc-document
Protection of the Environment Operations Act 1997	3.10	https://www.legislation.nsw.gov.au/view/html/inforce/current/act-1997-156
Australian Standards – AS 2021 – Acoustics Noise Intrusion – Building Siting and Construction	2.9.2	https://ablis.business.gov.au/service/ag/australian-standard-as-2021-2015-acoustics-aircraft-noise-intrusion-building-siting-and-construction/31221
Telecommunications Facilities Guideline including Broadband (NSW Department of Planning, Industry and Environment, 2010)	6.5	https://www.planning.nsw.gov.au/-/media/Files/DPE/Guidelines/nsw-telecommunications-facilities-guideline-including-broadband-2010-07.pdf
Digital Infrastructure Technical Report: Western Parkland City (NSW Department of Planning, Industry and Environment, 2021)	2.12	https://www.planning.nsw.gov.au/-/media/Files/DPE/Reports/DOC21-94178--Western-Parkland-CityDigi-Infrastructure-Technical-Report-2020120221.pdf?la=en
NSW Smart Places Strategy (NSW Department of Planning, Industry and Environment)	2.12	https://www.dpie.nsw.gov.au/our-work/strategy-and-reform/smart-places/smart-places-strategy
Smart Western City Program (NSW Department of Planning, Industry and Environment)	2.12	https://www.dpie.nsw.gov.au/our-work/strategy-and-reform/smart-places/Smart-Places-in-Action-Programs
NSW Internet of Things (IoT) Policy (NSW Government, 2021)	2.12	https://www.digital.nsw.gov.au/policy/internet-things-iot
NSW Cyber Security Policy (NSW Government, 2010)	2.12	https://www.digital.nsw.gov.au/policy/cyber-security-policy
NSW Smart Infrastructure Policy (NSW Government, 2020)	2.12	https://www.digital.nsw.gov.au/policy/smart-infrastructure-policy
Code for Smart Communities (Australia and New Zealand Smart Cities Council)	2.12	https://anz.smartcitiescouncil.com/smart-cities-information-center/code-for-smart-communities
Liveable Housing Guidelines (Liveable Housing Australia 2017)	5.4.5	https://livablehousingaustralia.org.au/wp-

Reference	DCP section	Link
		content/uploads/2021/02/SLLHA_GuidelinesJuly2017FINAL4.pdf
Principles of Universal Design	3.6.4	http://universaldesign.ie/What-is-Universal-Design/The-7-Principles/
NSW Animal Welfare Code of Practice No 5 – Dogs and cats in animal boarding establishments (NSW Government)	6.3	https://www.dpi.nsw.gov.au/animals-and-livestock/animal-welfare/general/welfare-of-dogs/aw-code-5
Design in Context: Guidelines for Infill Development in the Historic Environment	Appendix D.25	https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Heritage/design-in-context-guidelines-for-infill-development-historic-environment.pdf
New Uses for Heritage Places: Guidelines for the adaptation of Historic Buildings and Sites	Appendix D.25	https://www.environment.nsw.gov.au/research-and-publications/publications-search/new-uses-for-heritage-places-guidelines-for-the-adaptation-of-historic-buildings-and-sites