



**URBIS**

# **CPTED ASSESSMENT**

475 Badgerys Creek Road,  
Bradfield

Dharug, Dharawal and  
Gandagara Land

Prepared for

**INGHAM PROPERTY GROUP**

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# CONTENTS

<b>Executive Summary</b>	<b>1</b>
CPTED Assessment Requirement	1
Methodology	1
Assessment and Recommendations	1
<b>1. Introduction</b>	<b>4</b>
1.1. CPTED Assessment Requirement	4
1.2. Aim	4
1.3. Methodology	5
<b>2. Proposal</b>	<b>6</b>
2.1. Proposal overview	6
2.2. Design Quality Strategy	9
<b>3. Site Context</b>	<b>10</b>
3.1. Context Description	10
3.2. Policy Context	12
3.3. Social Baseline	13
3.3.1. Demographic Profile	13
3.3.2. Crime Profile	14
3.4. Engagement Outcomes	15
3.4.1. Consultation with Liverpool City Council	15
3.4.2. Consultation with NSW Police	15
3.5. Implications for the Proposal	15
<b>4. CPTED Assessment</b>	<b>16</b>
4.1. Surveillance	16
4.2. Access Control	19
4.3. Territorial Reinforcement	21
4.4. Space and Activity Management	23
<b>Conclusion</b>	<b>25</b>
<b>Disclaimer</b>	<b>26</b>

## **Appendix A Crime Profile**

## **Appendix B Western Sydney Aerotropolis Development Control Plan 2022: Design for Safe Places**

### **FIGURES**

Figure 1 CPTED principles	4
Figure 2 Architectural Master Plan	6
Figure 3 Small scale local centre master plan	7
Figure 4 Structure plan	8
Figure 5 Landscape master plan	9
Figure 6 Aerial photograph of the site and existing surrounding development	10
Figure 7 Location of the site within the Western Sydney Aerotropolis	11
Figure 8 Map of site and Badgerys Creek suburb	13

### **TABLES**

Table 1 Crime rates per 100,000 people, March 2023 – March 2024	28
Table 2 Two-year crime trend, March 2022 – March 2024	28
Table 3 Performance outcomes and benchmark solutions	30

# EXECUTIVE SUMMARY

This Crime Prevention Through Environmental Design (CPTED) assessment has been prepared by Urbis Pty Ltd (Urbis) on behalf of Ingham Property Group (IPG) to inform a Master Plan at 475 Badgerys Creek Road, Bradfield (the site). The Master Plan seeks to facilitate development for an industrial estate for employment and enterprise purposes at the site. The plan is made up of key land uses comprising enterprise and light industry, business and enterprise and employment zone centres.

## CPTED ASSESSMENT REQUIREMENT

The CPTED assessment been undertaken to fulfil the requirement outlined in the Master Plan Request document issued by the Department of Planning, Housing and Infrastructure (DPHI) and has assessed the proposed Master Plan and supporting documentation against crime and safety considerations relevant crime and safety policies and principles. These include:

- Part 1, Section 29 (Safety and Security) of the Liverpool City Council DCP 2008
- Section 2.14 (Design for Safe Places) of the WSADCP 2022
- The four CPTED principles (surveillance, access control, territorial reinforcement, and space management) outlined in the Crime Prevention and the Assessment of Development Applications (2001).

## METHODOLOGY

The methodology applied for this CPTED assessment is outlined below.

Local context analysis	Proposal analysis	Recommendations
<ul style="list-style-type: none"><li>▪ Desktop review of the site and its surrounding land uses</li><li>▪ Review of relevant state and local policies to understand the strategic context and approach to crime and community safety</li><li>▪ Analysis of relevant data to understand the existing context and crime activity.</li></ul>	<ul style="list-style-type: none"><li>▪ Review of site plans and technical assessments</li><li>▪ Consultation with Liverpool City Council to discuss potential crime and safety risks</li><li>▪ Review of proposal against CPTED principles.</li></ul>	<ul style="list-style-type: none"><li>▪ Detailed design and operational recommendations</li><li>▪ Draft and final reporting.</li></ul>

## ASSESSMENT AND RECOMMENDATIONS

The assessment has found that the Master Plan demonstrates alignment with the above policies and the four CPTED principles (surveillance, access control, territorial reinforcement and space and activity management). The Design Quality Strategy, which accompanies the Master Plan and guides future development within the site, also promotes the incorporation of CPTED principles within future developments.

To further increase safety and reduce crime risk, the following recommendations outlined below should be implemented. Not all recommendations provided in the assessment will be the responsibility of the proponent to implement. Some recommendations will be the responsibility of future developers / tenants (for individual warehouse sites) and Liverpool City Council (for recommendations relating to management of public domain and open space areas).

## **Surveillance**

### **All areas**

- Once operational, the proposal will be activated 24/7 by light industrial activities. To enhance perceived and actual feelings of safety during the day and night, the proposal should provide adequate lighting in all public areas, entrances to buildings and warehouses, car parking areas and concealed corners around the precinct, in accordance with Australian Standards. Adequate lighting ensures there are no dark corners and passive surveillance is maintained both day and night to deter potential offenders, provide natural wayfinding and reduce risk of vandalism.

### **Built form**

- Future design of the buildings in the small scale local centre and proposed offices within the warehouses should incorporate visual transparency as much as possible to enhance passive surveillance from and to the public domain and assist in deterring potential offenders. Balanced glazing should be used to avoid the mirroring of glazing at night and enable clear sightlines in and out of the office areas.
- Once operational, the small scale local centre should accommodate businesses that operate at extended hours (i.e., gyms, restaurants) to attract night shift workers and increase opportunities for passive surveillance during the night.
- For future warehouse and small scale local centre development, consider installing CCTV to provide mechanical surveillance in areas where it is difficult to achieve passive surveillance.

### **Public domain**

- Considering the 24/7 operation of the precinct, investigate opportunities to integrate lighting into urban design of the riparian corridors and open space areas to enhance visibility and visual interest of these areas at night. This will help to create spaces that workers will feel safe in at night.
- Include a maintenance schedule for landscaping in land under private ownership in an Operational Environmental Management Plan (OEMP). As proposed in the Exempt and Complying Development Framework Report, an OEMP is to be prepared prior to the issuing of occupation certificates for future buildings.
- Provide seating within the small scale local centre promenades, footpaths and laneways. A variety of different types of seating should be provided (i.e., benches, lounges, and picnic tables, plantar bed seating) to encourage activation, pedestrian permeability and increase opportunities for passive surveillance. Seating areas should be shaded and strategically located to support public transport users and people who may have to walk far distances.

## **Access Control**

### **Built form**

- Future development should clearly delineate between private and public space through the design of individual warehouse sites. The use of different materials (permeable planting paving, paving, turf and decking) can provide environmental cues that differentiate the uses across the site's outdoor areas (public footpaths, carparks and building entry points) and indicate to users when they are transitioning between public, semi-public and private areas, helping to reduce risk of trespass.
- Future development should ensure that main building entry points are clearly visible from primary street frontages and enhanced with awnings, building signage and high-quality architectural detail. This will ensure good visibility from the public realm and will assist in natural wayfinding.
- Future development should consider access control measures to restrict unauthorised access to proposed vehicle entry points, private office areas within warehouses and warehouse entry points out of hours of operation. This could include the installation of signage with universal legibility, swipe cards, safety mirrors, audible alerts, boom gates and bollards.
- Pedestrian access points from the footpath to warehouse entrances should be detailed on individual lot plans in the detailed design stage. Consider providing dedicated pedestrian paths that are separated from heavy and light vehicle entry points to reduce risk of pedestrian and vehicular conflict.

## **Public domain**

- Implement wayfinding signage with universal legibility around the precinct and along the riparian corridors to assist with internal and external wayfinding. Signage should identify the location and distance between different destinations internally (i.e., the location of and distance between one riparian corridor accessway/exit to another).
- Provide bollards or other similar low visual impact barriers, such as landscape planter boxes, to control vehicle access and increase pedestrian safety in pedestrian-only areas (e.g. the small scale local centre promenades).

## **Territorial Reinforcement**

### **Built Form**

- Future development should use landscaping to delineate between public and private spaces rather than hard barriers (e.g., solid fences). Hard barriers can be easily vandalised, which can induce fear and avoidance behaviour.
- As outlined in the Architectural Design Statement and the Design Quality Statement, future development should avoid large, blank surfaces, and instead consider internal and external surfaces and cladding for facades, including public art, glazing and highly textured/articulated elements. This will enhance community ownership over the site, whilst deterring graffiti by having elements that can't be easily vandalised.

## **Space and Activity Management**

### **Public domain**

- Provide an adequate number of waste bins in the public domain, including along the riparian corridors, in proximity to BBQs and large open spaces, as well as outdoor carparking areas, to encourage cleanliness and upkeep by future users.
- Consider providing traffic calming measures (i.e., speed bumps, pedestrian crossings) in the small scale local centre and at key intersections to reduce risk of pedestrian and vehicular conflicts. Future developments should also provide separate pedestrian and vehicular entrances and consider installing visual or audible alerts to notify pedestrians when a heavy vehicle is entering or exiting the site.
- Future PoMs should include provisions which support the regular maintenance of landscaped areas to minimise safety risks. This includes ensuring the lowest tree limbs are above average head height when a person is standing or seating (e.g. mature gum trees) and ensuring low lying planting does not obstruct footpaths or provide opportunity for concealment or entrapment.
- Future CEMPs for individual sites should consider any neighbouring areas of the site that are yet to be redeveloped, and apply appropriate measures to maintain amenity and safety (e.g. fencing to prevent people from accessing undeveloped land).

# 1. INTRODUCTION

This Crime Prevention Through Environmental Design (CPTED) assessment has been prepared by Urbis Pty Ltd (Urbis) on behalf of Ingham Property Group (IPG) to inform a Master Plan at 475 Badgerys Creek Road, Bradfield (the site). The master plan seeks to facilitate development for an industrial estate for employment and enterprise purposes at the site. The plan is made up of key land uses comprising enterprise and light industry, business and enterprise and employment zone centres.

## 1.1. CPTED ASSESSMENT REQUIREMENT

The requirement to prepare a CPTED assessment is outlined in the Master Plan Request document issued by the NSW Department of Planning, Housing and Infrastructure (DPHI) on 7 September 2022.

Section 4.15 of the *Environmental and Planning Assessment Act 1979* also requires the likely impacts of a development be considered and assessed as part of the planning process. This includes the impacts on the natural and built environments, as well as the social and economic impacts in the locality.

This CPTED assessment has been prepared with consideration of the crime and safety objectives and controls in the Liverpool City Council Development Control Plan 2008 and the Western Sydney Aerotropolis Development Control Plan 2022 prepared by the DPHI.

## 1.2. AIM

A CPTED assessment is a specialist study undertaken to help reduce opportunities for crime by using design and place management principles. A CPTED assessment employs four key principles as shown in Figure 1.

Where CPTED risks are identified in the proposed design, recommendations are made within this report to help reduce the likelihood of the crime from occurring.

Figure 1 CPTED principles



## 1.3. METHODOLOGY

Our methodology for completing this CPTED has included three main stages.

Local context analysis	Proposal analysis	Recommendations
<ul style="list-style-type: none"><li>▪ Desktop review of site and surrounding land uses</li><li>▪ Review of relevant state and local policies to understand the strategic context and approach to crime and community safety</li><li>▪ Analysis of relevant data to understand the existing context and crime activity.</li></ul>	<ul style="list-style-type: none"><li>▪ Review of site plans and technical assessments</li><li>▪ Consultation with Liverpool City Council to discuss potential crime and safety risks</li><li>▪ Review of proposal against CPTED principles.</li></ul>	<ul style="list-style-type: none"><li>▪ Detailed design and operational recommendations</li><li>▪ Draft reporting</li><li>▪ Consideration of Technical Assurance Panel (TAP), agency and Council feedback</li><li>▪ Final reporting.</li></ul>



## 2. PROPOSAL

### 2.1. PROPOSAL OVERVIEW

IPG has recently completed a Master Planning pathway with the Technical Assurance Panel (TAP), which is an optional co-design planning process established under the Western Parkland City State Environmental Planning Policy (WPC SEPP) to amend the Aerotropolis Precinct Plan as it applies to the site. The Master Plan will be formally lodged to the DPHI in accordance with the Western Sydney Aerotropolis Master Plan Guidelines.

The Master Plan breaks down the general application of the Enterprise zone across the site and provides a more granular approach to land use planning with considerations made to the opportunities and constraints of the site. The structure plan is made up of key land uses which include enterprise and light industry, business and enterprise and employment zone centres. As outlined in the Economics Assessment, the Master Plan is expected to support 700 construction jobs per annum over six years (including 292 direct jobs and 408 indirect jobs) and 12,429 operational jobs (including 7,144 direct jobs and 5,285 indirect jobs).

Figure 2 Architectural Master Plan



Source: Master Plan Package Revision T (SBA Architects, 23 May 2024)

Figure 3 Small scale local centre master plan



Source: Architectural Design Statement, p. 34 (SBA Architects, 2024)

Figure 4 Structure plan



Source: Urbis Deign Report (Urbis 2024)

**Legend** (Refer to plan on page across)

	Site Boundary		Planned Signalised Intersection
	Enterprise and Light Industry		Left in-Left out Intersection
	Local Centre		Rapid Public Trasnport Corridor
	Indicative Amenity Nodes: Restaurants/Cafés		Indicative Local Bus Network
	400m Radius		Zone Substation
	Roundabout		Open Space
	Active Transport Network - Shared Path (OnRoad)		Local Park
	Active Transport Network - Shared Path (Off Road)		Riparian Corridors
	Active Transport Network - Foot Path (On Road)		Retained HBV Vegetation within Development Lot
	Active Transport Network - Foot Path (Off Road)		Integrated Stormwater Basins
	Future ERR Underpass		Proposed Intersection to be Investigated
	Active Transport Network - Cycleway (On Road)		



Figure 5 Landscape master plan



Source: Public Domain Landscape Strategy, p. 9 (Site Image 2024)

## 2.2. DESIGN QUALITY STRATEGY

A Design Quality Strategy has been prepared by Urbis to guide the assessment of design quality for future development across the Master Plan area. The Design Quality Strategy applies to the whole of the Master Plan area and responds to a range of design guidelines and policies, including the Government Architect NSW's (GANSW) Connecting with Country Framework, Better Placed and Greener Places. The Strategy is also informed by the co-design process between IPG, DPHI and the TAP as part of the Master Planning process.

The Design Quality Strategy adopts a principle-based approach to design quality and a hierarchy approach to the verification and review of the design quality for future development across the Master Plan area. Section 5 of the Strategy sets out the following design quality principles which respond to the Master Plan design considerations:

- Topography / environment
- Land use
- Cultural heritage – Connecting with Country
- Urban built form
- Architecture
- Sustainability
- Public domain

Each design principles contains associated design elements (including a design statement, objectives, and outcomes). These principles and design elements have been considered as part of the CPTED assessment in Section 5 of this report.

In terms of design quality assessment, the Strategy adopts the following three tier system which is based on location (either Enterprise and Industry or Commercial Centre – see Structure Plan at Figure 4), along with bulk or scale:

- Tier 1 – Design Verification by registered architect (as defined in the EP&A Regulation 2021)
- Tier 2 – Design Review Panel
- Tier 3 – Architectural Design Competition.

This results in larger or more prominent developments requiring a greater level of rigour and scrutiny in terms of the proposed level of design quality. Section 4 of the Design Quality Strategy provides further detail on the criteria for each tier, including the relevant approval pathway (either complying development or development application).

## 3. SITE CONTEXT

This section provides an overview of the local and regional site context.

### 3.1. CONTEXT DESCRIPTION

#### Local context

The site is located within the suburb of Bradfield and the Liverpool local government area (LGA) and comprises 184 hectares of land. The site was formerly used by Ingham's as a chicken farm, with the associated sheds and ancillary structures now demolished. It now consists largely of grassland and has cattle agisted on the site.

The site has a direct interface with the Western Sydney International Airport and is bound by two significant riparian corridors, with South Creek to the east and Badgerys Creek to the north-west, plus a central spine. The immediate surroundings of the site are characterised by large rural-residential landholdings used predominately for agricultural and light manufacturing purposes.

An aerial photograph showing the site and existing surrounding development in Figure 6.

Figure 6 Aerial photograph of the site and existing surrounding development



Source: Urbis, 2024

#### Regional context

The site is located within the Western Sydney Aerotropolis which comprises five precincts, each intended to serve a different strategic purpose. The site is located within the Aerotropolis Core Precinct, which will provide land for a range of employment land uses that will benefit from proximity to the Western Sydney Airport. These new employment land uses will provide approximately 50,000 to 60,000 jobs related to advanced manufacturing, research and development, professional services, creative industries and science, technology, engineering and mathematics (STEM) focused educational facilities. The Precinct will also facilitate the emerging aerospace and defence industries. While the land use focus for the Precinct is on employment and economic development, the Aerotropolis Core Precinct will include residential development in areas not significantly affected by aircraft noise.





## 3.2. POLICY CONTEXT

The following section provides a summary of relevant state and local policies in relation to crime and safety.

### **Crime Prevention and the Assessment of Development Applications (2001)**

In April 2001, the NSW Department of Infrastructure, Planning and Natural Resources (now the Department of Planning, Housing and Infrastructure) introduced the Crime Prevention and the Assessment of Development Applications (the Guidelines). The Guidelines introduce the four CPTED principles outlined in Section 1. These are: surveillance, access control, territorial reinforcement and space management.

The Guidelines aim to help councils implement and consider the CPTED principles. CPTED assessments seek to influence the design of buildings and places by:

- Increasing the perception of risk to criminals by increasing the possibility of detection, challenge and capture
- Increasing the effort required to commit crime by increasing the time, energy or resources which need to be expended
- Reducing the potential rewards of crime by minimising, removing or concealing 'crime benefits'
- Removing conditions that create confusion about required norms of behaviour.

### **Liverpool City Council, Development Control Plan 2008 – General Provisions (2008)**

Part 1, Section 29 (Safety and Security) of the Liverpool Development Control Plan 2008 (LDCP 2008) outlines CPTED provisions which apply to the proposal. The objective is to provide a safe environment and minimise negative perceptions of safety and security, as well as actual opportunities for crime. A safe and secure environment encourages activity, equitable access, vitality, and viability, enabling a greater level of security.

The following provisions apply to the proposal:

- Ensure developments are safe and secure for pedestrians and reduce opportunities for crime through environmental design
- Contribute to the safety of the public domain and encourage a sense of ownership over public and communal spaces
- Main building entry points should be clearly visible from primary street frontages and enhanced with awning, building signage and high-quality architectural detail
- Barrier free access is to be provided with convenient barrier free access in all multi-dwelling developments to the ground floor
- Pedestrian access ways, entry paths and lobbies must use durable materials commensurate with the standard to the adjoining public domain with appropriate slip resistant materials, tactile surfaces and contrasting colours.

### **Liverpool City Council, Liverpool Crime Prevention Plan 2019 – 2021 (2019)**

The Liverpool Crime Prevention Plan was prepared to address three major crime offenses: steal from retail store; break and enter – dwelling; and steal from motor vehicle. These crime offenses were selected based on the volume of incidents in the Liverpool LGA and the significance of their impact. This approach aims to minimise opportunities for these offences through a targeted action plan to guide the implementation of the plan. Relevant actions that align with the proposal include:

- Council will conduct safety audits of developments and businesses in identified hotspot locations and make recommendations such as:
  - Improvement of physical environment to create natural surveillance
  - Installation of CCTV cameras, signage, fencing, lighting and painting
- Monitor and report on results of safety audits.

## NSW Department of Planning, Housing and Infrastructure, Western Sydney Aerotropolis Development Control Plan 2022

The Western Sydney Aerotropolis Development Control Plan (WSADCP 2022) provides the planning, design and environmental objectives and controls which will inform the preparation and assessment of development assessments and masterplans. Section 2.14 (Design for Safe Places) includes a set of objectives related to the design and safety of new developments. These include:

- Design in accordance with CPTED principles
- Ensure the development contributes to the activity, vibrancy, diversity and safety of streets and the public domain through the day and night.

To achieve these objectives, the WSADCP 2022 provides a list of recommended performance outcomes and specific benchmark solutions. These have been included in Appendix B.

### 3.3. SOCIAL BASELINE

#### 3.3.1. Demographic Profile

The profile of a community can influence the type and likelihood of crime that may impact a development. The following section contains a brief analysis of the characteristics of Badgerys Creek suburb based on data from the Australian Bureau of Statistics (ABS) and the Department of Planning, Housing and Infrastructure (DPHI).

The suburb of Badgerys Creek has been used as the suburb of Bradfield was gazetted occurred post the ABS 2021 Census, and therefore no demographic data is currently available for this geography.

Figure 8 shows the location of the site in relation to the Badgerys Creek suburb.

Figure 8 Map of site and Badgerys Creek suburb



Source: Urbis, 2024



In 2021, there were 168 people living in Badgerys Creek. Key characteristics of this community include:



#### **Parents and homebuilders' population**

Badgerys Creek has a high median age of 40, compared to Liverpool LGA (34) and NSW (37). The dominant service age group in Badgerys Creek is parents and homebuilders aged 35 to 49 (19%).



#### **Culturally and linguistically diverse**

Almost half of Badgerys Creek and Liverpool LGA residents were born overseas (both 49%). The top three countries of birth in Badgerys Creek are China (13%), Italy (6%), and Malta (5%).



#### **High proportion of home ownership and separate houses**

All Badgerys Creek residents live in a separate house (100%) and almost half own their home outright (45%). Compared to Liverpool LGA (73% and 23% respectively) and NSW (56% and 28% respectively).



#### **Mix of employment industries**

Almost half of Badgerys Creek residents are employed as managers (49%). The top three industries of employment are vegetable growing (outdoors) (21%), state government administration (11%), and other heavy and civil engineering construction (9%).



#### **High rates of car ownership**

Almost half of Badgerys Creek households own 3 or more vehicles (49%), compared to Liverpool LGA (23%) and NSW (16%).



#### **Steady population decline**

Badgerys Creek population has been declining due to public and private sector land acquisition of rural-residential properties to facilitate the development of the Western Sydney Aerotropolis. The number of permanent residents declined by 63% from 455 residents in 2011 to 168 residents in 2021.

### **3.3.2. Crime Profile**

Crime data from the Bureau of Crime Statistics and Research (BOCSAR) was analysed to understand the crime and safety context around the site. As crime data for Bradfield is currently not available, data for Badgerys Creek suburb has been applied. Data for Liverpool LGA and NSW has also been applied to help assess risk compared to LGA and state-wide averages. The full crime profile is contained in Appendix A.

Key crime findings relevant to this assessment include:

- The most recent crime data (April 2022 to March 2024) indicates Badgerys Creek's small population and largely undeveloped landscape makes the rates of crime per 100,00 people too low to identify clear rates of crime or two-year trends. At the time of writing (June 2024) hotspot crime data was not available on the BOCSAR website.

- However, as the site is developed, there is potential for Badgerys Creek to become susceptible to similar crimes that are being experienced in the Liverpool LGA. 'Motor vehicle theft' and 'steal from motor vehicle' was the only relevant offences that were higher in Liverpool LGA, compared to NSW in the year between March 2023 and March 2024.
- Two-year crime trends from April 2022 to March 2024 indicates that 'motor vehicle theft' (26% per year) and 'non-domestic assault' (+ 8% per year) offences have increased in the Liverpool LGA. These types of crimes and those who are likely to be impacted by them, should be considered as part of the design and operation of the proposal.

## **3.4. ENGAGEMENT OUTCOMES**

### **3.4.1. Consultation with Liverpool City Council**

Urbis held a videoconference with representatives from Liverpool City Council's social planning, strategic planning and city design and public domain teams on 18 May 2023. The purpose of the meeting was to discuss crime and safety and social impact considerations of the proposed master plan.

A summary of the crime and safety component of the discussion is provided below:

- The proposed walkways through the linear open space and riparian corridors must be safe for workers and visitors throughout the day and during the night.
- Consider how casual surveillance of streets and riparian areas can be achieved.
- Consider place-making opportunities such as food trucks and pop-up cafes to activate open spaces.
- Consideration should be given to centralised management of the precinct.
- Undertake consultation with the Liverpool Police Area Command (PAC).

### **3.4.2. Consultation with NSW Police**

Urbis contacted NSW Police to request an interview with officers from the Liverpool PAC. The purpose of this interview would be to discuss crime and safety considerations for the proposed Master Plan. At the time of writing, no response has been received.

## **3.5. IMPLICATIONS FOR THE PROPOSAL**

Badgerys Creek's low rates of crime can be attributed to the areas current rural agricultural land uses and small population. However, this is expected to change as the land use transitions to accommodate light industrial and business enterprise land uses that will support a new worker population. As the proposal is within Liverpool LGA, there is potential for the proposal to be susceptible to the types of crimes being experienced in the local area.

Established industrial areas and large open spaces with low pedestrian activity generally have increased incidents of crime due to the lack of passive surveillance that is provided by pedestrian activity and a greater diversity of land uses. As the proposal will be developing a new industrial area that will operate 24/7, a key consideration will be designing, managing, and maintaining safe access to, from, through and around the site by minimising potential levels of actual and perceived levels of crime. To maintain adequate passive surveillance across the site, future development should give consideration to the design of facades, ground floor uses, car parking areas and the main pedestrian and vehicular entrances to individual sites and how they interact with the public domain.

## 4. CPTED ASSESSMENT

This section contains an assessment of the Master Plan and supporting documentation against relevant crime and safety policies and principles. These include:

- Part 1, Section 29 (Safety and Security) of the Liverpool City Council DCP 2008
- Section 2.14 (Design for Safe Places) of the WSADCP 2022
- The four CPTED principles (surveillance, access control, territorial reinforcement, and space management).

The assessment has been structured by CPTED principle, with commentary and recommendations provided under the following two categories:

- Built form. This comprises the future enterprise and industry and small scale local centre development.
- Public domain. This comprises the proposed streets, landscaped areas, open spaces, riparian corridors and commercial core promenades.

While the assessment is aligned to this early master planning stage, recommendations for consideration during the detailed design are also provided.

Not all of the recommendations provided in the assessment will be the responsibility the proponent to implement. Some recommendations will be the responsibility of future developers / tenants (for individual warehouse sites) and Liverpool City Council (for recommendations relating to the management of public domain and open space areas) to implement. The recommendations provided in this report should therefore be discussed with the relevant stakeholders at the appropriate stage of construction and/or operation.

### 4.1. SURVEILLANCE

Places that are well supervised through passive, mechanical or organised surveillance are less likely to attract criminal behaviour. Important considerations for passive surveillance are building orientation and location, design of spaces, landscaping, and lighting. Technical surveillance is achieved through measures such as CCTV. Organised surveillance is achieved through measures such as security guards and staff members.

Surveillance is an important consideration as it can make people feel safe when they are able to see and interact with others. Crimes are less likely to occur in places that are well supervised. BOSCAR crime data indicates that the site may experience high rates of crime relevant to the proposal that are being experienced in the Liverpool LGA. These include 'steal from motor vehicle', 'non-domestic assault' and 'steal from retail store'. The use of surveillance will therefore be important to reduce the likeliness of these types of crime from occurring.

#### Assessment of proposed development

The proposal incorporates the following CPTED principles:

##### Built form

- The indicative building envelopes provided in the Master Plan show that warehouses and associated office areas address the street network. This will help facilitate a connection between occupants and visitors. The proposed locations of the warehouses, offices and outdoor carparking areas are designed so that passive surveillance is provided over the public domain and the street network.
- The Design Quality Strategy also includes provisions to encourage passive surveillance across the site. This includes providing design outcomes and criteria so that buildings are oriented towards streets to maximise passive surveillance of the street, and where development adjoins the riparian corridor, the buildings address the corridor.

- The small scale local centre is expected to comprise a mix of retail and commercial uses and interface with open space areas. The inclusion of a mix of uses will help to activate the area and increase foot traffic, which will improve passive surveillance opportunities.
- The height and orientation of buildings within the small scale local centre create opportunities for passive surveillance over the public domain.

#### **Public domain**

- The landscape report proposes a high level of embellishment within the landscaped and key activity areas along the riparian corridors. The inclusion of a range of amenities including large multi-use open spaces, picnic seating, BBQs, nature play areas and recreational equipment (including outdoor gyms and sport courts) will encourage different uses and users and promote activation and passive surveillance opportunities. This high level of embellishment will also help to create a sense of community ownership across the site.
- The design of the riparian corridors comprises of a mix of straight and curved pathways. Straight pathways provide clear sightlines. Informal seating areas, such as the multi-use open spaces, along the curved pathways increase opportunities for passive surveillance by encouraging people to use the space.
- The inclusion of promenades within the small scale local centre encourages pedestrian permeability and activity along the street and will accommodate pedestrians accessing small shops, cafes and restaurants located on the ground level within the small scale local centre.

#### **Recommendations and design considerations**

The following initiatives are proposed for consideration, to enhance alignment with CPTED principles:

##### **All areas**

- Once operational, the proposal will be activated 24/7 by light industrial activities. To enhance perceived and actual feelings of safety during the day and night, the proposal should provide adequate lighting in all public areas, entrances to buildings and warehouses, car parking areas and concealed corners around the precinct, in accordance with Australian Standards. Adequate lighting ensures there are no dark corners and passive surveillance is maintained both day and night to deter potential offenders, provide natural wayfinding and reduce risk of vandalism.

##### **Built form**

- Future design of the buildings in the small scale local centre and proposed offices within the warehouses should incorporate visual transparency as much as possible to enhance passive surveillance from and to the public domain and assist in deterring potential offenders. Balanced glazing should be used to avoid the mirroring of glazing at night and enable clear sightlines in and out of the office areas.
- Once operational, the small scale local centre should accommodate businesses that operate at extended hours (i.e., gyms, restaurants) to attract night shift workers and increase opportunities for passive surveillance during the night.
- For future warehouse and small scale local centre development, consider installing CCTV to provide mechanical surveillance in areas where it is difficult to achieve passive surveillance.

### **Public domain**

- Considering the 24/7 operation of the precinct, investigate opportunities to integrate lighting into urban design of the riparian corridors and open space areas to enhance visibility and visual interest of these areas at night. This will help to create spaces that workers will feel safe in at night.
- Include a maintenance schedule for landscaping in land under private ownership in an Operational Environmental Management Plan (OEMP). As proposed in the Exempt and Complying Development Framework Report, an OEMP is to be prepared prior to the issuing of occupation certificates for future buildings.
- Provide seating within the small scale local centre promenades, footpaths and laneways. A variety of different types of seating should be provided (i.e., benches, lounges, and picnic tables, plantar bed seating) to encourage activation, pedestrian permeability and increase opportunities for passive surveillance. Seating areas should be shaded and strategically located to support public transport users and people who may have to walk far distances.

## 4.2. ACCESS CONTROL

Access control involves the designing of spaces to control who enters and to prevent unauthorised access. Important crime prevention considerations for access control include wayfinding measures, desire lines and the provision of formal and informal routes. Natural design measures include building configuration, definition of formal and informal pathways, landscaping, fencing and gardens. Implementation of security hardware, such as swipe cards and on-site security officers, are technical and formal considerations for access control.

The BOSCAR crime data shows the site may experience high rates of crime of relevance to the proposal that are being experienced in the Liverpool LGA. These include 'steal from motor vehicle', 'non-domestic assault' and 'steal from retail store'. The implementation of appropriate access control measures will be important to delineate worker access and zones from visitor access and areas across the site and reduce likelihood of these types of crime to occur.

### Assessment of proposed development

The proposal incorporates the following CPTED principles:

#### Built form

- The Design Quality Strategy includes provisions to promote safe access control across the site. This includes providing design outcomes and criteria that ensure building lobbies or entrances have clear identifiable entry points, include glazing and are close to the internal roads.
- The Design Quality Strategy also includes design outcomes and criteria to reduce pedestrian and vehicle conflicts in warehouse areas by providing minimum 3m landscape nature strips between the footpath and the truck driveway if these entries are located adjacent to each other.

#### Public domain

- The accessways to the riparian corridors are clearly visible, unobstructed, and easily identifiable from the surrounding street network and buildings.
- The riparian corridors provide links, connecting different areas within the precinct, while also providing opportunities for the pathways to connect to other precincts in the north and south. The use of these corridors for walking, running and cycling by users of the site and neighbouring sites will help to activate and increase passive surveillance within these areas.
- By minimising the number of dead end and cul-de-sac routes, the proposed road network provides pedestrian and vehicular permeability, limiting opportunities for entrapment.
- The proposed public transport route aims to direct and frequent bus services for future workers enabling them to easily access key destinations, such as the small scale local centre, riparian corridors and open spaces. A local bus network is also proposed. Most warehouse areas are located within 400m of these local bus stops, facilitating easy worker access to warehouse buildings.
- Pedestrian crossings are proposed along major intersections and close to public transport nodes to enable safe pedestrian access throughout the site.

### Recommendations and design considerations

The following initiatives are proposed, for consideration, to enhance alignment with CPTED principles:

#### Built form

- Future development should clearly delineate between private and public space through the design of individual warehouse sites. The use of different materials (permeable planting paving, paving, turf and decking) can provide environmental cues that differentiate the uses across the site's outdoor areas

(public footpaths, carpark and building entry points) and indicate to users when they are transitioning between public, semi-public and private areas, helping to reduce risk of trespass.

- Future development should ensure that main building entry points are clearly visible from primary street frontages and enhanced with awnings, building signage and high-quality architectural detail. This will ensure good visibility from the public realm and will assist in natural wayfinding.
- Future development should consider access control measures to restrict unauthorised access to proposed vehicle entry points, private office areas within warehouses and warehouse entry points out of hours of operation. This could include the installation of signage with universal legibility, swipe cards, safety mirrors, audible alerts, boom gates and bollards.
- Pedestrian access points from the footpath to warehouse entrances should be detailed on individual lot plans in the detailed design stage. Consider providing dedicated pedestrian paths that are separated from heavy and light vehicle entry points to reduce risk of pedestrian and vehicular conflict.

### **Public domain**

- Implement wayfinding signage with universal legibility around the precinct and along the riparian corridors to assist with internal and external wayfinding. Signage should identify the location and distance between different destinations internally (i.e., the location of and distance between one riparian corridor accessway/exit to another).
- Provide bollards or other similar low visual impact barriers, such as landscape planter boxes, to control vehicle access and increase pedestrian safety in pedestrian-only areas (e.g. the small scale local centre promenades).

## 4.3. TERRITORIAL REINFORCEMENT

Territorial reinforcement is defined by the way in which a community demonstrates ownership over a space. Places that feel owned and cared for are likely to be used, revisited, and protected. People who have a sense of guardianship over a space are more likely to protect it and intervene in crime, compared to passing strangers.

The use of actual and symbolic boundary markers, spatial legibility and environmental cues are ways to connect people and encourage communal responsibility over spaces.

BOSCAR crime data indicates that the site may experience high rates of crime relevant to the proposal that are being experienced in the Liverpool LGA. These include 'steal from motor vehicle', 'non-domestic assault' and 'steal from retail store'. Enhancing territorial reinforcement will be important in reducing the likelihood of these crimes from occurring.

### Assessment of proposed development

The proposal incorporates the following CPTED principles:

#### Built form

- The public amenity nodes located within future industrial developments and shown in the Landscape Report will provide workers and visitors with small public retail or food offerings close to offices and warehouses. These nodes will attract workers from neighbouring warehouses and visitors, providing opportunities for workers to meet and form social connections.

#### Public domain

- Providing signage at riparian corridor 1 to educate and engage the community with the natural environment and the site's history will help to increase territorial reinforcement. Having a greater understanding of the area will help to encourage community ownership and care for the area.
- The Public Art Strategy prepared by Site Image identifies for public art to be located throughout the precinct, including at key gateway points, the local centre, riparian corridors and development lots. The Strategy proposes to incorporate a range of community themes into the public art, including Designing with Country and Indigenous custodian themes, as well as the agricultural history of the area and migrant stories. The incorporation of these community themes will help to attract visitation and encourage communal responsibility over each site.
- The large multi-use open spaces along the riparian corridors will provide opportunities for the local worker population to meet and form social connections. Connections amongst the local worker community can contribute to feelings of safety, as those who are connected are potentially more likely to look out for the wellbeing of others.
- Incorporating community driven principles in the small scale local centre (i.e., spaces for gathering amongst nature and native food gardens), will enhance community ownership and display territorial reinforcement.

### Recommendations and design considerations

The following initiatives are proposed, for consideration, to enhance alignment with CPTED principles:

#### Built form

- Future development should use landscaping to delineate between public and private spaces rather than hard barriers (e.g., solid fences). Hard barriers can be easily vandalised, which can induce fear and avoidance behaviour.



- As outlined in the Architectural Design Statement and the Design Quality Statement, future development should avoid large, blank surfaces, and instead consider internal and external surfaces and cladding for facades, including public art, glazing and highly textured/articulated elements. This will enhance community ownership over the site, whilst deterring graffiti by having elements that can't be easily vandalised.

## 4.4. SPACE AND ACTIVITY MANAGEMENT

Space and activity management involves monitoring site usage, managing site cleanliness, removing graffiti, addressing vandalism and repairing damage, to decrease fear of crime. Spaces that are regularly used by the community are less likely to be vandalised.

Crimes most relevant to the management of space and activity includes 'malicious damage to property' and 'non-domestic assault'. Space and activity management is an important consideration in the design and operation of this proposal to increase offender risk and crime effort.

### Assessment of proposed development

The proposal incorporates the following CPTED principles:

#### Public domain

- The inclusion of ground floor street activation via the retail offering in the small scale local centre will help promote visitation of the site and interactions among workers and encourage a diversity of use throughout the day.
- The proposed street and footpath layout minimises cul-de-sacs and laneways that may generate low activity and other kinds of entrapment spots.
- The Framework Construction Environmental Management Plan (CEMP) prepared by SLR indicates that future CEMPS for individual sites will be prepared in accordance with the complying development process. This will help to maintain safety throughout the staged construction of the precinct, including during earthworks.
- Operational safety and security measures (including consideration for on-site security) will be addressed in Operational Environmental OEMPs which will be prepared for future development prior to the occupation issue.
- The proponent is committed to working with Liverpool City Council to develop a Plan of Management (PoM) for the public domain areas of the site (including the small scale local centre) once the built form is further defined and specific uses are locked in.

### Recommendations and design considerations

The following initiatives are proposed, for consideration, to enhance alignment with CPTED principles:

#### Public domain

- Provide an adequate number of waste bins in the public domain, including along the riparian corridors, in proximity to BBQs and large open spaces, as well as outdoor carparking areas, to encourage cleanliness and upkeep by future users.
- Consider providing traffic calming measures (i.e., speed bumps, pedestrian crossings) in the small scale local centre and at key intersections to reduce risk of pedestrian and vehicular conflicts. Future developments should also provide separate pedestrian and vehicular entrances and consider installing visual or audible alerts to notify pedestrians when a heavy vehicle is entering or exiting the site.
- Future PoMs should include provisions which support the regular maintenance of landscaped areas to minimise safety risks. This includes ensuring the lowest tree limbs are above average head height when a person is standing or seating (e.g. mature gum trees) and ensuring low lying planting does not obstruct footpaths or provide opportunity for concealment or entrapment.

- Future CEMPs for individual sites should consider any neighbouring areas of the site that are yet to be redeveloped, and apply appropriate measures to maintain amenity and safety (e.g. fencing to prevent people from accessing undeveloped land).

# CONCLUSION

Urbis has undertaken a CPTED assessment for the proposed for the IPG Bradfield Master Plan. The assessment been undertaken to fulfil the requirement outlined in the Master Plan Request document issued by DPHI and has assessed the proposed Master Plan and supporting documentation against crime and safety considerations relevant crime and safety policies and principles. These include:

- Part 1, Section 29 (Safety and Security) of the Liverpool City Council DCP 2008
- Section 2.14 (Design for Safe Places) of the WSADCP 2022
- The four CPTED principles (surveillance, access control, territorial reinforcement, and space and activity management).

The assessment has also been informed by a review of relevant local and State policies, as well as demographic and crime data.

The assessment has found that the Master Plan demonstrates alignment with the above policies and the four CPTED principles. The Design Quality Strategy, which accompanies the Master Plan and guides future development within the site, also promotes the incorporation of CPTED principles within future developments.

To further increase safety and reduce crime risk, the recommendations outlined Section 5 and summarised in the Executive Summary should be implemented.

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This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.

## **APPENDIX A**

## **CRIME PROFILE**

Table 1 Crime rates per 100,000 people, March 2023 – March 2024

Crime type	Badgerys Creek	Liverpool LGA	NSW
Assault (non-domestic)	n.c.	400.8	423
Break and enter non-dwelling	n.c.	68.4	105.5
Liquor offences	n.c.	50.1	83.5
Malicious damage to property	n.c.	515.9	605.3
Motor vehicle theft	n.c.	197.7	177.8
Steal from dwelling	n.c.	189.8	197.1
Steal from motor vehicle	n.c.	409.2	350.9
Steal from person	n.c.	18.8	26.6
Steal from retail store	n.c.	252.8	335.8
Trespass	n.c.	74.7	151

Source: BOCSAR

Table 2 Two-year crime trend, March 2022 – March 2024

Crime type	Badgerys Creek	Liverpool LGA	NSW
Assault (non-domestic)	n.c.	Up 8% per year	Up 6.6% per year
Break and enter non-dwelling	n.c.	Stable	Up 13.9% per year
Liquor offences	n.c.	Stable	Down 30.6% per year
Malicious damage to property	n.c.	Stable	Up 0.7% per year
Motor vehicle theft	n.c.	Up 26.1% per year	Up 12.9% per year
Steal from dwelling	n.c.	Up 21% per year	Up 5.3% per year
Steal from motor vehicle	n.c.	Stable	Stable
Steal from person	n.c.	Stable	Up 6.3% per year
Steal from retail store	n.c.	Stable	Up 12.6% per year
Trespass	n.c.	Stable	Up 11% per year

n.c.: not calculated

Source: BOCSAR

## **APPENDIX B**

# **WESTERN SYDNEY AEROTROPOLIS DEVELOPMENT CONTROL PLAN 2022: DESIGN FOR SAFE PLACES**



Table 3 Performance outcomes and benchmark solutions

Performance Outcome		Benchmark Solution
<b>PO1</b>	Passive surveillance is maximised.	<ol style="list-style-type: none"> <li>1. Visibility and surveillance are provided in all areas of development.</li> <li>2. Adjoining buildings overlook public places.</li> <li>3. Building frontages face streets and transport corridors to provide passive surveillance.</li> <li>4. Use open grill or transparent security (at least 50% visually transparent) shutters to retail frontages (if proposed).</li> </ol>
<b>PO2</b>	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	<ol style="list-style-type: none"> <li>1. Building entrances are accessible, clearly visible, legible and allow users to see into or out of the building before entering / exiting.</li> <li>5. 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.</li> <li>6. Minimise corners, poorly lit corridors, laneways with low activity and other kinds of entrapment spots.</li> <li>7. If entrapment spots are unavoidable, they are to be mitigated using measures such as CCTV surveillance.</li> </ol>
<b>PO3</b>	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 antisocial behaviour	<ol style="list-style-type: none"> <li>1. Car parking areas and structures are designed in accordance with CPTED principles.</li> <li>8. Car park areas and structures are well maintained and incorporate CCTV as a deterrent to crime and anti-social behaviour.</li> <li>9. Ground levels of car park structures are sleeved with active uses to support passive surveillance.</li> <li>10. Ensure passive surveillance to and from the public domain for at grade car parking areas.</li> <li>11. Pedestrian access points to car parks are clearly delineated and located in areas with good visibility from the public realm.</li> <li>12. 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.</li> </ol>

<b>PO4</b>	Safety is ensured via the use of appropriate lighting.	<ol style="list-style-type: none"> <li>1. Lighting design should address the principles of CPTED where there is significant pedestrian activity, late night work-shifts or safety and security issues.</li> <li>13. 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.</li> <li>14. Minimise lighting spillage onto surrounding properties by designing in accordance with AS 4282.</li> </ol>
<b>PO5</b>	Public and private spaces are clearly delineated.	<ol style="list-style-type: none"> <li>1. Clearly demonstrate ownership of private and public space in the design of the public realm and built form.</li> <li>15. Use landscaping to delineate between public and private spaces rather than building materials (e.g. solid fences).</li> </ol>

