

Crime Prevention Through Environmental Design (CPTED) Report

TAFE NSW Construction Centre of Excellence

State Significant Development Application

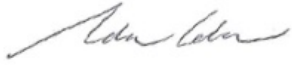
On behalf of
TAFE NSW

March 2021



Project Director

Adam Coburn



Project Planners

Jordan Faeghi
Luke Zajac

*This document is for discussion purposes only unless signed and dated by project director.

Contact

Mecone
Level 2, 3 Horwood Place
Parramatta, New South Wales 2150
info@mecone.com.au
mecone.com.au

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1 Introduction

This Crime Prevention Through Environmental Design (CPTED) report has been prepared on behalf of TAFE NSW and supports a State Significant Development Application (SSDA) submitted to the Department of Planning, Industry and Environment (DPIE) for the TAFE NSW Construction Centre of Excellence.

1.1 Report Purpose

The purpose of this report is to assess the proposal in terms of the key principles of CPTED and to provide recommendations that can be considered as part of detailed design for the site.

This report responds to the Secretary's Environmental Assessment Requirements (SEARs) for the project (described further below). It has been prepared with regard to the following documents:

- Crime prevention and the assessment of development applications – Guidelines under section 79C [now 4.15] of the Environmental Planning and Assessment Act 1979 (Department of Urban Affairs and Planning, 2001);
- "Safer by design – Crime Risk Assessment" (NSW Police Force, 2016); and
- Companion to Safer by Design Crime Risk Assessment (NSW Police Force).

The assessment undertaken in this report is based on drawings package issued by Gray Puksand on 3 March 2021 and is informed by a site visit undertaken on 9 December 2020.

1.2 SEARs

This CPTED report responds to the Secretary's Environmental Assessment Requirements (SEARs) for the project issued on 16 July 2020. The table below outlines the SEARs requirements regarding CPTED.

Items 2 and 4 are addressed in this report. It is assumed that Item 7 is addressed in the separate the transport and accessibility impact statement submitted with the application.

Table 1. SEARs CPTED Requirement	
SEAR heading	SEAR content
2. Policies	Address the relevant planning provisions, goals and strategic planning objectives in the following: <ul style="list-style-type: none">• Crime Prevention Through Environmental Design Principles
4. Built Form and Urban Design	<ul style="list-style-type: none">• Address CPTED Principles
7. Transport and Accessibility	Include a transport and accessibility impact statement, which details, but not limited to the following: <ul style="list-style-type: none">• An assessment of road and pedestrian safety adjacent to the proposed development and the details of

Table 1. SEARs CPTED Requirement

	required road safety measures and personal safety in line with CPTED
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1.3 Report Structure

The structure of this report is as follows:

- Chapter 1 introduces the report;
- Chapter 2 identifies the site and context;
- Chapter 3 provides an overview of the proposal;
- Chapter 4 provides an overview of crime in the area
- Chapter 5 provides a discussion of the development in the context of CPTED principles and provides recommendations for future implementation;
- Chapter 6 concludes the report.

Additionally, an assessment against the NSW Police Force CPTED Checklist is provided at **Appendix 1**.

1.4 About the Author

The author has completed the Safer by Design Course (Attendee ID: 51255068) by the NSW Police Force, which provides CPTED approved courses and qualifies the author to prepare this report.

2 Site Analysis

2.1 Location and Context

The TAFE NSW Nepean Kingswood Campus (the Campus) is located at 12 – 44 O'Connell Street, Kingswood within the Penrith local government area (LGA). The site is located approximately 5km east of Penrith CBD and 2km east of Nepean Hospital.

The Campus is legally defined as Lot 1 in DP 866081 and provides an area of approximately 22 hectares.

A site aerial is provided in **Figure 1**, depicting the extent of the existing Campus grounds and the location of the proposed Centre of Excellence.



Figure 1: Site aerial photograph and location of proposed Centre of Excellence
Source: Mecone MOSAIC

The Campus is bordered by Great Western Highway to the north, vacant land to the south, Western Sydney University Campus to the east and O'Connell Street to the west.

The Campus is occupied by a number of buildings, mainly one and two storeys in height and of double brick or brick veneer construction. The buildings are predominantly situated in the south, west and northern parts of the site.

The most recently constructed building on site includes the Health Services Building, built in 2015. Other buildings have mostly been built through the 1980s and 1990s.

The Campus also includes associated car parking, public domain and recreational areas.

Within the Campus, the Centre of Excellence site is located along the north-eastern edge adjacent to the neighbouring Western Sydney University Campus.

The Campus is serviced by public transport. Buses arrive at the front Gates along O'Connell Street travelling between Penrith and St. Marys Train Stations. These include the 774, 775, 776 and 835 bus services.

2.2 Surrounding Development

The surrounding area is undergoing transition from rural-residential to suburban with a combination of housing, educational uses and centres.

Land to the north on the opposite side of Great Western Highway is transitioning from vacant rural uses to low density residential dwellings. Development to the west on the opposite side of O'Connell Street includes established low and medium density residential development.

Land to the east includes the Western Sydney University Campus. Land to the south is largely vacant, with the notable exception of Caddens Corner Shopping Centre.

A series of site photographs are provided below, depicting the Campus, location of the proposed Centre of Excellence and surrounding development.



Figure 2: View of Gate 2 entrance into the Campus, looking east from O'Connell Street
Source: Mecone



Figure 3: View of Gate 1 entrance into the Campus, looking east from O'Connell Street
Source: Mecone



Figure 4: View of southern car park, looking north east
Source: Mecone



Figure 5: View of central open space, looking east towards the eastern boundary and the Western Sydney University Campus
Source: Mecone



Figure 6: View of potential location of the Centre of Excellence, looking east
Source: Mecone



Figure 7: View of existing path, with proposed location of the Centre of Excellence to the left of frame
Source: Mecone



Figure 8: View of eastern boundary with Western Sydney University Campus right of frame and the proposed Centre of Excellence location left of frame
Source: Mecone

3 Proposed Development

The SSDA seeks approval for a new three storey Centre of Excellence at the TAFE NSW Kingswood Campus. The proposed works generally include:

- Site preparation works, including tree removal and excavation;
- Construction of a 2-3 storey Centre of Excellence, accommodating approximately 8,400m² of GFA. The building will include multiple learning spaces, workshops, amenities, meeting rooms, areas of industry engagement and a café;
- Provision of additional parking and loading areas; and
- Landscaping works.

Importantly, the design is positioned in a location that interfaces with the existing Western Sydney University Campus to the east and existing educational facilities to the south.

Architectural extracts of the proposed development are provided below.

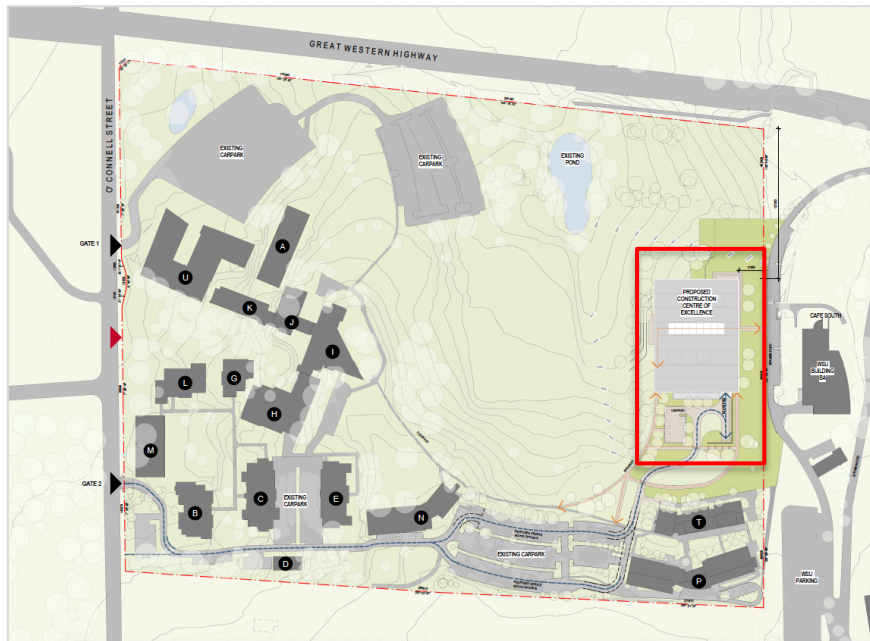


Figure 9: Proposed Site Plan
Source: Gray Puksand

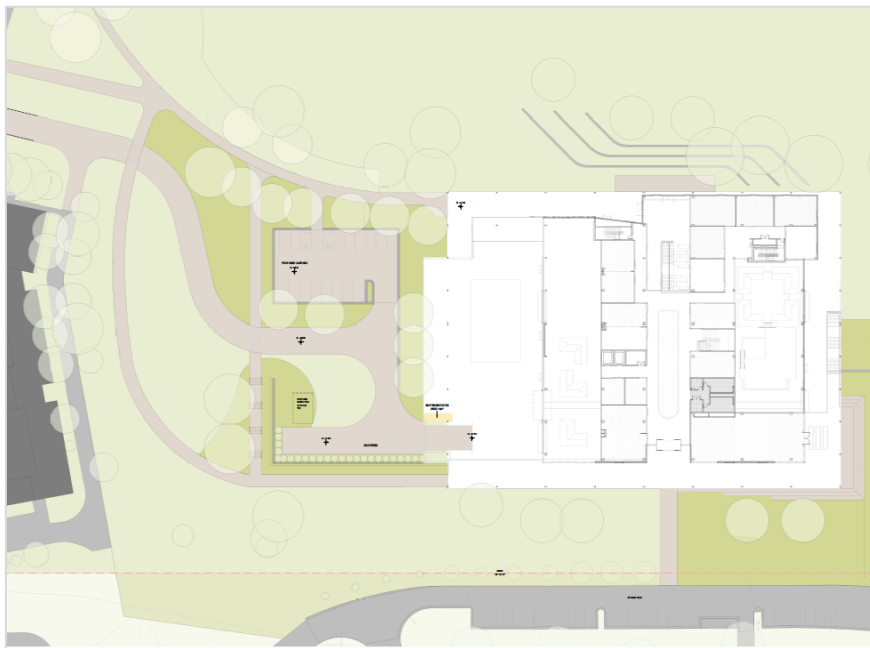


Figure 10: Proposed Building Plan
Source: Gray Puksand



Figure 11: Proposed Lower Ground Floor Plan
Source: Gray Puksand



Figure 12: Proposed Upper Ground Floor Plan
Source: Gray Puksand



Figure 13: Proposed North South Section
Source: Gray Puksand

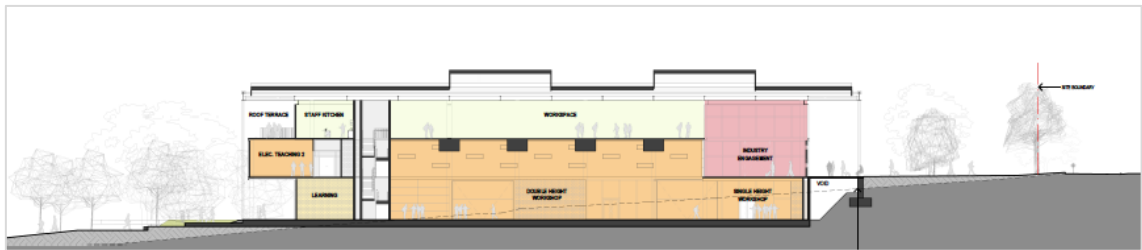


Figure 14: Proposed East West Section
Source: Gray Puksand

4 Crime Profile

Table 2 provides a breakdown of major crime rates in Penrith LGA based on data from the NSW Bureau of Crime and Statistics and Research (BOSCAR).

The table shows the incident rate ratio of Penrith-to-NSW crime rates (with the NSW rate equivalent to 1) from the past year (October 2019 to September 2020).

The crime figures discussed in this section of the report are only those crimes that have been recorded by NSW Police and as such cannot be seen to represent all crimes committed in the area.

Also, levels of reported crime are sensitive to a range of factors, such as the willingness or ability of people to report a criminal activity and the levels and nature of police activity.

Table 2. Penrith LGA Crime Overview – 2019 to 2020	
Offence Type	Penrith-to-NSW incident rate ratio
Murder	1.5:1
Assault – domestic violence related	1.7:1
Assault – non-domestic violence	1.4:1
Sexual assault	1.3:1
Indecent assault, act of indecency and other sexual offences	1.2:1
Robbery without a weapon	1.7:1
Robbery with a firearm	0.7:1
Robbery with a weapon not a firearm	1.5:1
Break and enter dwelling	1.2:1
Break and enter non-dwelling	1.2:1
Motor vehicle theft	1.3:1
Steal from motor vehicle	1.3:1
Steal from retail store	1.6:1
Steal from dwelling	1.0:1
Steal from person	1.9:1
Fraud	1.2:1

Table 2. Penrith LGA Crime Overview – 2019 to 2020

Malicious damage to property	1.3:1
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Compared to the rest of NSW, Penrith generally has moderately higher crime rates.

There is no meaningful data on trends at the suburb level, but the Penrith LGA data shows that the large majority of major crime rates in the LGA have been stable over the previous two-year period.

While Penrith LGA broadly displays moderately higher crime rates, it is important to note that the suburb of Kingswood and the location of the proposed Centre of Excellence is not located within a designated “hotspot”.

As shown in the images below, BOSCAR data for Kingswood suburb indicates that the site is located on the periphery of a “hotspot” for the following crimes:

- Domestic assault;
- Steal from motor vehicle; and
- Malicious damage to property.

Hotspots indicate areas of high crime density (number of incidents per 50m x 50m) relative to crime concentrations across NSW.

It should be noted that hotspots are common to medium to high density urban areas and do not necessarily indicate a need for extraordinary design responses. Nonetheless, the site of the proposed Centre of Excellence is not situated within a designated “hotspot” for the identified offences.

It is noted that there are no pubs or licensed premises in the immediate vicinity, which reduces the risk of public order incidents.

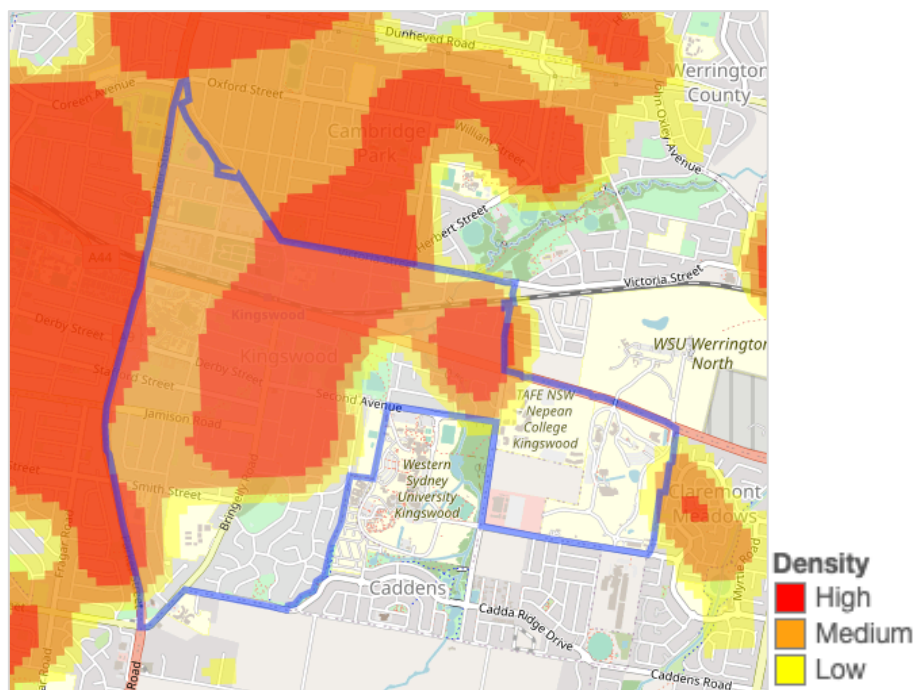


Figure 15: Incidents of domestic assault hot spot map

Source: BOSCAR NSW

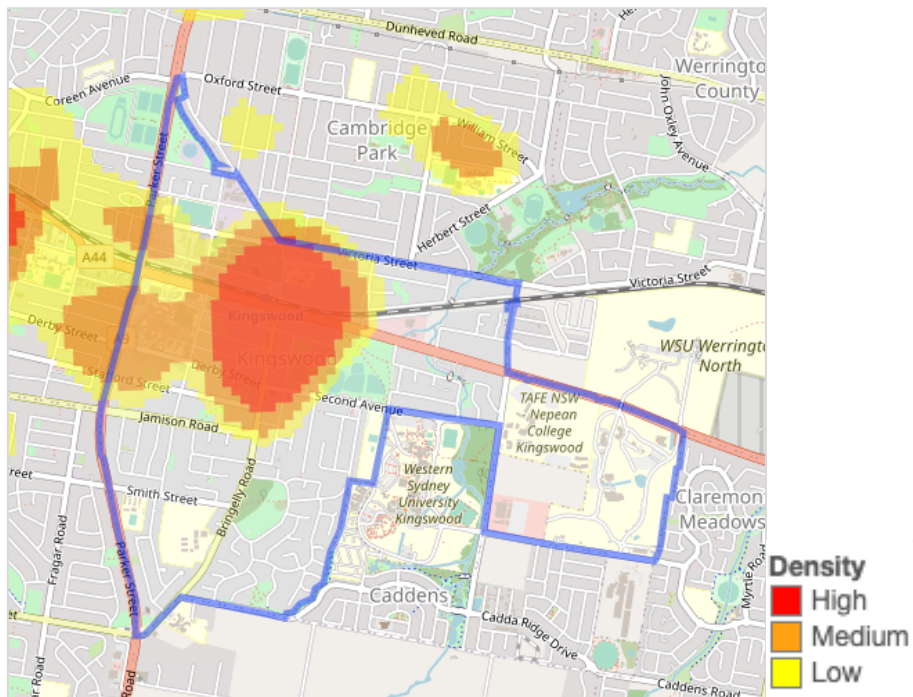


Figure 16: Incidents of non-domestic assault hot spot map
 Source: BOSCAR NSW

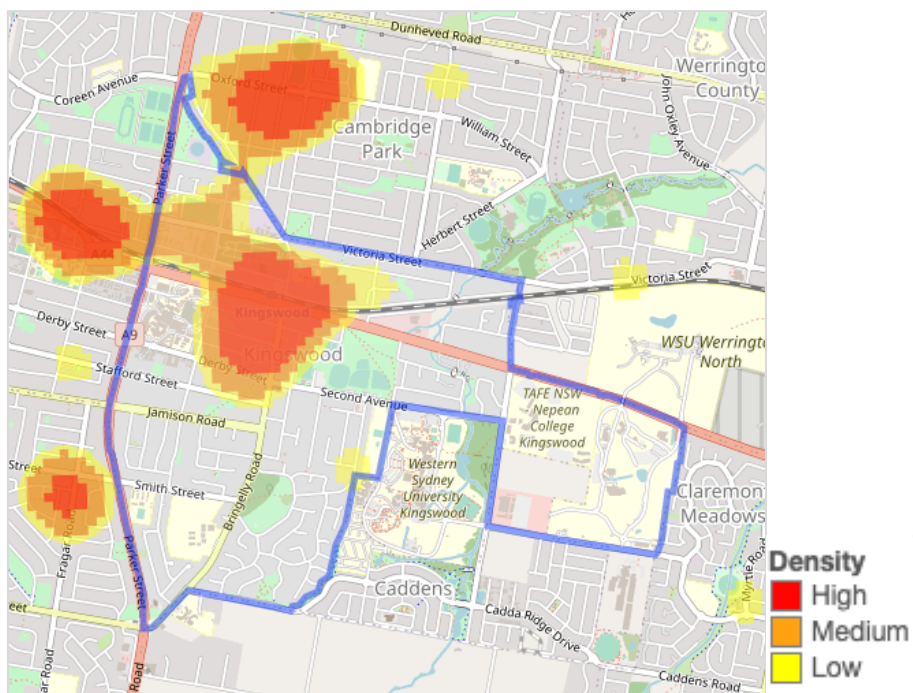


Figure 17: Incidents of robbery hot spot map
 Source: BOSCAR NSW

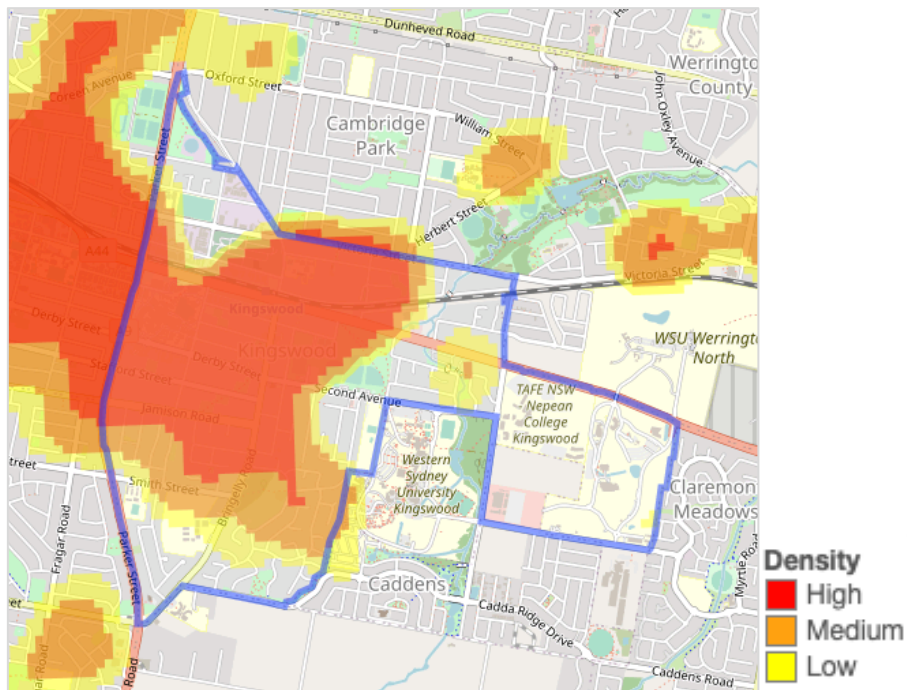


Figure 18: Incidents of theft (break and enter dwelling) hot spot map
Source: BOSCAR NSW

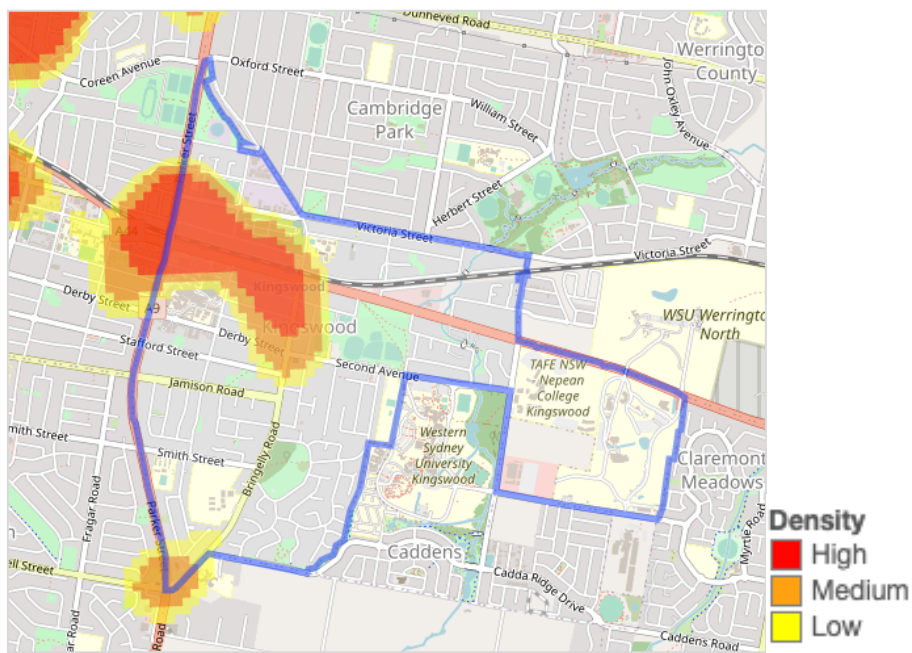


Figure 19: Incidents of theft (break and enter non-dwelling) hot spot map
Source: BOSCAR NSW

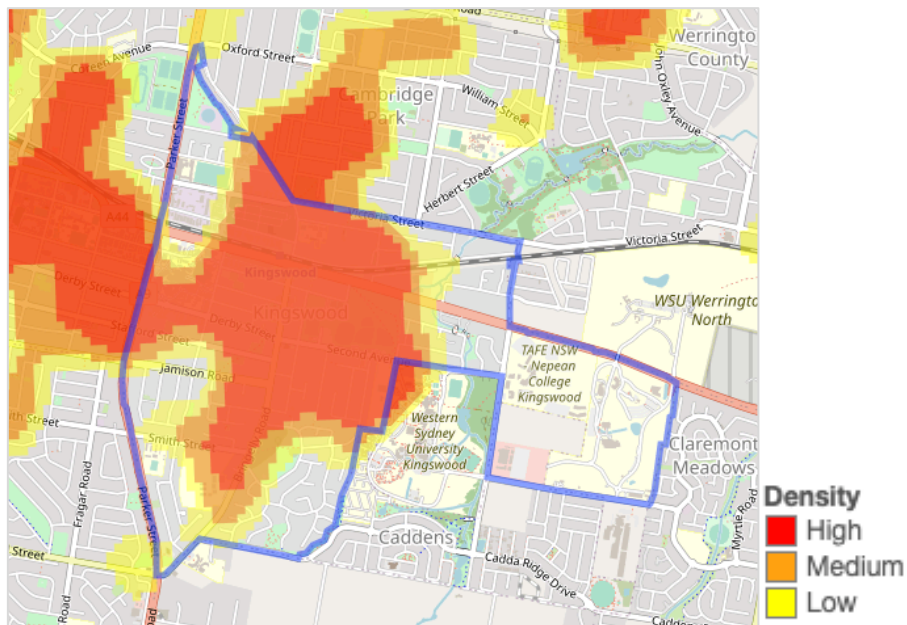


Figure 20: Incidents of theft (motor vehicle theft) hot spot map
Source: BOSCAR NSW

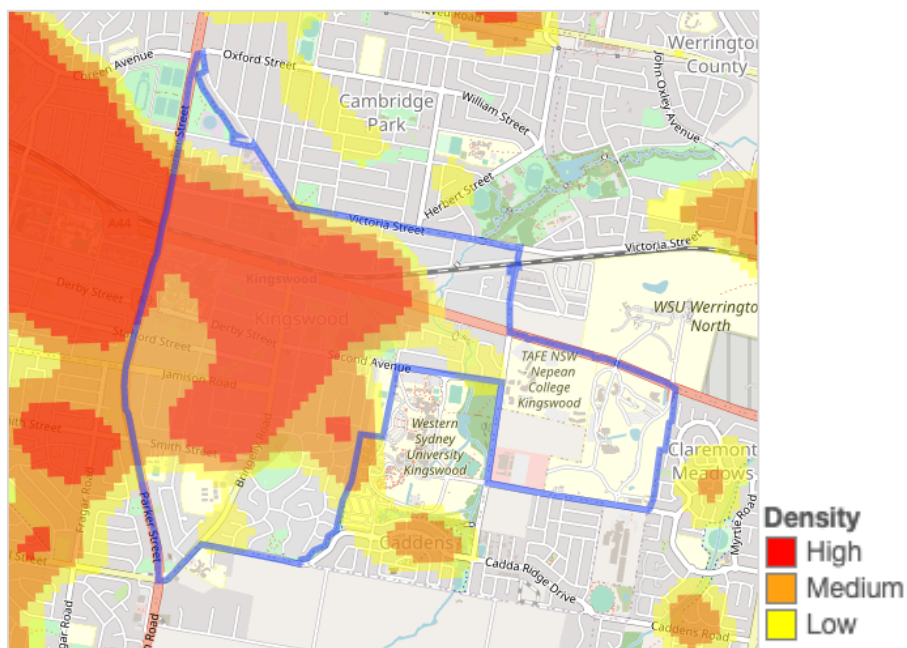


Figure 21: Incidents of theft (steal from motor vehicle) hot spot map
Source: BOSCAR NSW

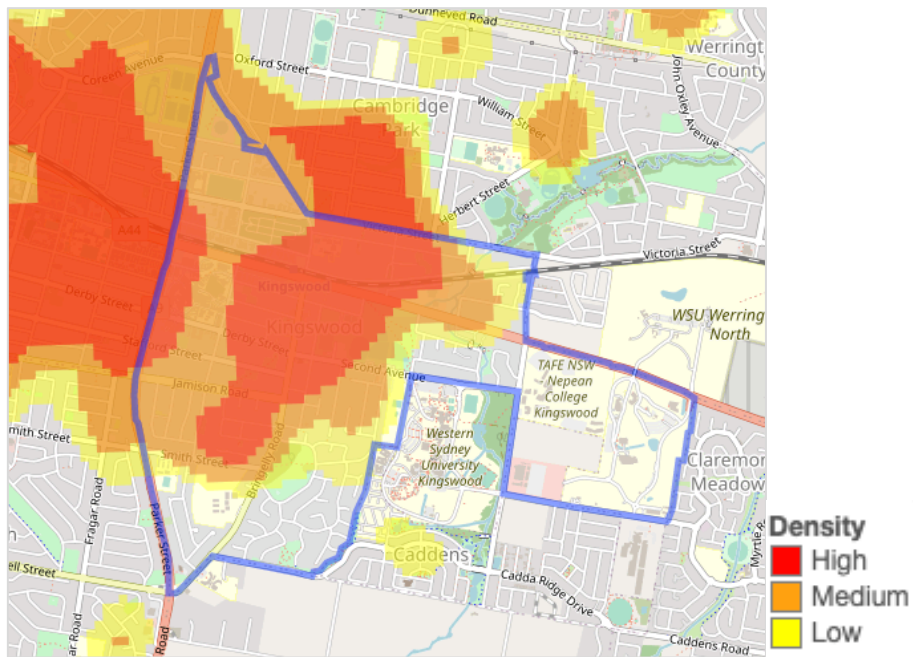


Figure 22: Incidents of theft (steal from dwelling) hot spot map
Source: BOSCAR NSW

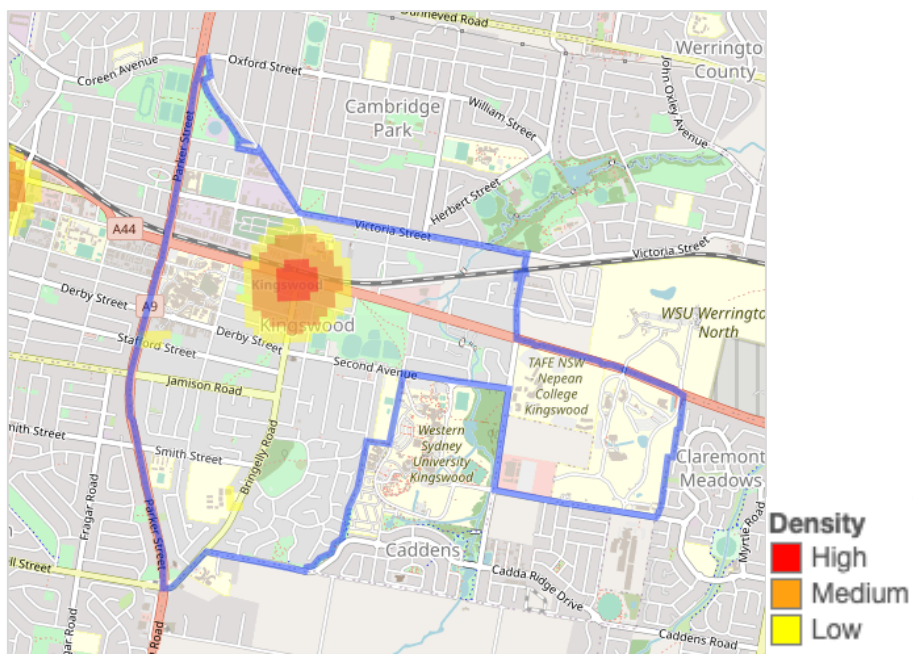


Figure 23: Incidents of theft (steal from person) hot spot map
Source: BOSCAR NSW

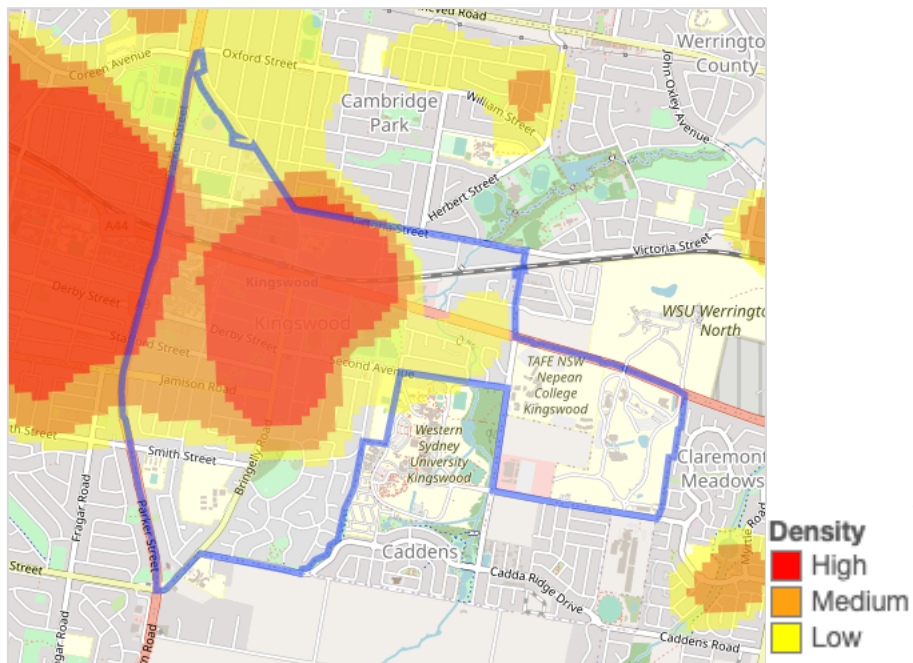


Figure 24: Incidents of malicious damage to property hot spot map
Source: BOSCAR NSW

Overall, the crime information for the suburb of Kingswood and Penrith LGA point to a **stable, relatively low incident crime environment**.

5 CPTED Principles

This report utilises the principles of CPTED, which are based on a situational approach to crime prevention that seeks to minimise the risks for possible crime offences to occur. This is achieved by:

- Increasing the possibility of detection, challenge and capture;
- Increasing the effort required to commit crime;
- Reducing the potential rewards of crime by minimising, removing or concealing 'crime benefits'; and
- Removing conditions that create confusion about required norms of behaviour.

Notwithstanding, this report and approach acknowledge that any design strategy cannot operate effectively in isolation and is just one element of a broader approach to a crime prevention strategy that includes social and community inputs and complementary strategies.

There are four key CPTED principles laid out in the CPTED guidelines:

- Natural surveillance;
- Access control;
- Territorial re-enforcement; and
- Space management.

The following subsections discuss these principles in greater detail in the context of the proposed development. Additionally, an assessment against the NSW Police Force CPTED Checklist is provided at **Appendix 1**.

5.1 Natural Surveillance

NSW police defines natural surveillance as follows:

Natural surveillance is achieved when normal space users can see and be seen by others. This highlights the importance of building layout, orientation and location; the strategic use of design; landscaping and lighting – it is a by-product of well-planned, well-designed and well-used space.

Natural surveillance is achieved by:

- Orienting buildings, windows, entrances and exits, car parks, rubbish bins, walkways, landscape trees and shrubs, in a manner that will not obstruct opportunities for surveillance of public spaces;
- Placing persons or activities to maximise surveillance possibilities; and
- Providing lighting for night-time illumination of car parks, walkways, entrances, exits and related areas to promote a safe environment.

5.1.1 Evaluation

Our review of the plans indicates the following in relation to natural surveillance:

- The building is oriented generally parallel to the adjacent Western Sydney University Campus road to the east, providing opportunity for surveillance from this location;

- The proposed walkways to the west will provide ongoing opportunity for overlooking of the southern car park, loading area and the immediate surrounds;
- The building provides glazed facades and on all elevations that allow for good natural surveillance of the entries, surrounding Campus and public domain;
- Uses within the building are positioned such that there will be ongoing activity throughout all areas of the building, providing ongoing opportunity for overlooking of the surrounding areas;
- All frontages will contribute to an attractive, animated streetscape that will encourage pedestrian activity and help create natural community policing;
- The northern frontage does not adjoin any active uses however, provides a workshop and terrace area to improve surveillance at this location; and
- The entries will serve as a natural link between the Western Sydney University Campus to the east and the commuter car park to the south west.

5.1.2 Recommendations

- Entries and the car park should be illuminated during night-time in accordance with the relevant standards;
- All areas intended to be used at night should allow for appropriate levels of visibility;
- CCTV at entries and in the car park should be considered however, these should be discrete and incorporated into the building design;
- Landscaping should utilise low level shrubs interspersed with canopy trees to allow for sightlines at eye-level and to minimise opportunities for hiding; and
- Trees should be maintained by a regular maintenance plan that keeps good sightlines to the building entries, particularly along the western walkways.

5.2 Territorial Re-Enforcement

NSW Police defines territorial re-enforcement as follows:

Territorial re-enforcement uses actual and symbolic boundary markers, spatial legibility and environmental cues to 'connect' people with space, to encourage communal responsibility for public areas and facilities, and to communicate to people where they should/not be and what activities are appropriate.

Territorial enforcement is achieved by:

- Enhancing the feeling of legitimate ownership by reinforcing existing natural surveillance and natural access control strategies with additional symbolic or social ones;
- Designing space to allow for its continued use and intended purpose; and
- Using landscaping, pavement finishes, art, screening and fences to define and outline ownership of space.

5.2.1 Evaluation

Our review of the plans indicates the following in relation to territorial re-enforcement:

- The development has been designed for a specific purpose as a TAFE building with workshops, learning spaces and amenity areas;
- The design of the building is clearly demarcated in relation to adjoining uses;
- The outdoor hardstand areas should be clearly defined by use of separate paving or materials to ensure the zone is used for its intended purpose;
- The building entries have had regard to existing site topography, interfaces and are located and designed to be easily identifiable;
 - The eastern entry is centrally located along the adjacent street frontage with minor recessions, providing a strong visual cue;
 - The western entry is centrally located along the façade and positioned to meet with the western walkways, resulting in a continuous path of travel and direct sightlines between the commute car parking to the south;
- It is anticipated that building entries will be marked with appropriate wayfinding signage; and
- The development's materials and finishes will distinguish the development from the surrounding public domain.

5.2.2 Recommendations

- The building should incorporate appropriate entry signage and wayfinding signage;
- Outdoor seating areas should be located in areas of active use;
- The development should incorporate distinctive paving and landscaping to serve as transition cues to alert people they are moving between the public domain and the Centre of Excellence; and
- The use of signage and transition cues should be carefully considered primarily around the outdoor workshop area to avoid confusion of this space.

5.3 Access Control

NSW Police defines access control as follows:

Access control treatments restrict, channel and encourage people and vehicles into, out of and around the development. Way-finding, desire-lines and formal/informal routes are important crime prevention considerations. Effective access control can be achieved by using physical and symbolic barriers that channel and group pedestrians into areas, therefore increasing the time and effort required for criminals to commit crime.

Access control is achieved by:

- Using footpaths, pavement, lighting and landscaping to clearly guide the public to and from entrances and exits; and
- Using of gates, fences, walls, landscaping and lighting to prevent or discourage public access to or from dark or unmonitored areas.

5.3.1 Evaluation

Our review of the plans indicates the following in relation to access control:

- The building limits pedestrian entry to two primary locations – a western entry across and an eastern entry. These limited entries will serve to channel people into the desired lobby areas and associated learning spaces;
- Limited information is provided at this stage as to how the outdoor workshop will be secured after hours however, it is acknowledged equipment and works will be stored securely in the outdoor workshop storage areas;
- The building entries are positioned to allow clear and direct access to the surrounding pedestrian network and the pathways to the west;
- The single driveway and loading dock formalises vehicular movements into and out of the site; and
- It is anticipated that appropriate signage will direct pedestrians to the entries and deter pedestrians from moving around the loading dock.

5.3.2 Recommendations

- The learning rooms adjacent to the outdoor workshop should be locked after hours and only be accessible via a security key;
- The pathways to the west should be clearly illuminated to provide a clear and safe path of travel from the car park to the building;
- Treatments should be incorporated to physically separate the outdoor covered workshop from the loading/deliveries area;
- Fire exit doors should be fitted with measures to restrict unauthorised access from the outside.
- All areas should be fitted with doors that comply with relevant Australian Standards.

5.4 Space/Activity Management

NSW Police defines space/activity management as follows:

Space/Activity Management strategies are an important way to develop and maintain natural community control. Space management involves the formal supervision, control and care of the development. All space, even well planned and well-designed areas need to be effectively used and maintained to maximise community safety. Places that are infrequently used are commonly abused. There is a high correlation between urban decay, fear of crime and avoidance behaviour.

Space/activity management is achieved by:

- Ensuring premises are well maintained and cared for; and
- Ensuring rapid repair of vandalism and replacement of lighting.

5.4.1 Evaluation

Our review of the plans indicates the following in relation to space/activity management:

- The building has been designed for a specific purpose as a TAFE building and will be owned and maintained by TAFE; and
- It is anticipated that a management plan/strategy will be put into place to ensure proper building maintenance.

5.4.2 Recommendations

- Consideration should be given to the use of graffiti-resistance materials;
- Graffiti management measures should be incorporated into the maintenance plan/strategy for the building. Research has shown that the most effective strategy for reducing graffiti attacks is the quick removal of graffiti within a 48-hour period;
- The building maintenance plan/strategy should provide information within the building on how to report maintenance or vandalism;
- The building maintenance plan/strategy should also maintain landscaping to ensure the site displays strong ownership; and
- Due to the hybrid outdoor nature of the Centre of Excellence, the design should incorporate a robust material palette, particularly for outdoor spaces in order to reduce susceptibility to vandalism and wear and tear.

6 Conclusion

This CPTED report supports an SSDA submitted to the DPIE for a proposed TAFE NSW Construction Centre of Excellence.

The proposed development has been evaluated in the context of the four key principles of CPTED and relevant data from BOSCAR.

Section 5 of this report outlines measures that will enable the design and ongoing use of the development to align with those CPTED principles to reduce opportunities for crime.

The works/measures identified are minor in scope and can be achieved by means of conditions of consent or otherwise detailed in the Construction Certificate drawings.

This CPTED report demonstrates that the proposed Centre of Excellence at TAFE Kingswood will promote casual surveillance of the public domain and campus, further activate the area and provide appropriate security measures to ensure the safety of students and broader public.

Given the above, we conclude that the development is acceptable from a crime risk perspective.

Appendix 1

NSW Police CPTED Guideline Assessment

NSW Police CPTED Guideline Assessment

Standard	Provisions	Compliance
Natural Surveillance	Openings in buildings are located and designed to overlook public places to maximize casual surveillance.	Entry points are visible and clearly distinguishable.
	The main entry to a building should face the street.	The main entry faces the adjoining Western Sydney University Campus Street, A secondary entry faces inwards towards the Campus and main oval, but this is considered acceptable given the nature of the land use and large site area.
	An external entry path and the foyer to a building must be direct to avoid potential hiding places.	Paths provide no opportunity for potential hiding places and direct line of sight into the building.
	Entry lobby areas to and from car parking areas should be transparent allowing viewing into and from these areas.	Entrances to lobby areas are clearly defined and transparent.
	Landscaping must not conceal the front door to a building when viewed from the street	Able to be implemented.
	Pedestrian access should be well lit and maximize sight lines.	Pedestrian access paths are direct and provide sight lines into the development.
	Landscaping should not inhibit sight lines.	Able to be implemented.
	ATM design and location is within direct view of pedestrian paths so that they can be overlooked from vantage points.	Noted. May be incorporated into detailed design if required.
	The street number of a building must be visible from the street and made of a reflective	Able to be implemented, if required.

NSW Police CPTED Guideline Assessment

Standard	Provisions	Compliance
	material to allow visitors and emergency vehicles to easily identify the location of the building.	
	Landscaping should be designed to maximise sight lines.	Able to be implemented.
Measures /security devices	All windows and doors on the ground floor must be made of toughened glass to reduce the opportunities for 'smash and grab' and 'break and enter' offences.	Able to be implemented.
	A security alarm system must be installed in a building.	Able to be implemented.
	Unless impracticable, access to an outdoor car park must be closed to the public outside of business hours via a lockable gate.	Able to be implemented.
	CCTV system must cover all high risk areas and including all entry areas.	Able to be implemented.
Access control	Loading docks in the vicinity of main entry areas are secured outside of business hours.	Able to be implemented.
	Access to a loading dock, or other restricted area in a building must only be accessible to tenants via a security door, intercom, code or other mechanism.	Able to be implemented.
	Clear signage should be erected indicating loading docks and other areas which cannot be accessed by the general public.	Able to be implemented.

NSW Police CPTED Guideline Assessment

Standard	Provisions	Compliance
Territoriality/ownership	Site planning provides a clear definition of territory and ownership of all private, semi-public and public places.	The site and design make a clear distinction between private and public areas.
Lighting	Both natural and artificial lighting is used to reduce poorly lit or dark areas and therefore deterring crime and vandalism.	Natural and artificial light will improve visibility of the development, the semi-public spaces and the street.
	Lighting must be provided to the following areas of a building to promote safety and security and night; A – an external entry path, foyer, driveway and car park to a building b- shopfront. This may be in the form of motion sensitive lighting or timer lighting c – the underside of an awning.	Able to be implemented.
	Lift access to a car park that are intended for night use must be well lit using a vandal resistant, high mounted light fixture.	Able to be implemented.
	The lighting in a car park must confirm to Australian Standards 1158.1, 2890.1.	Able to be implemented.
	The use of lighting fixtures, and vandal resistant, high mounted light fixtures, which are less susceptible to damage in the car park and laneway areas.	Able to be implemented.
	Car parking areas should be painted in light colours which will increase levels of illumination.	Able to be implemented.
Vandalism and graffiti	Development minimizes blank walls along all street frontages.	The design avoids long expanses of blank walls and includes articulation and modulation in the

NSW Police CPTED Guideline Assessment

Standard	Provisions	Compliance
		façade and transparent materials to both express the building and avoid graffiti opportunities.