Crime Prevention Through Environmental Design (CPTED) Report

New High School at Bungendore, NSW

(SSD 14394209)

Prepared on behalf of NSW Department of Education

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

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1 Introduction

This Crime Prevention Through Environmental Design (CPTED) report accompanies an Environmental Impact Statement (EIS) pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act) in support of an application for a State Significant Development (SSD No 14394209). The SSDA is for a new high school located at Bungendore, NSW.

This report addresses the Secretary's Environmental Assessment Requirements (SEARs), notably:

Table 1. SEARs CPTED Requirement

SEAR heading	SEAR content
1. Statutory Context, Strategic Context and Policies	Address the relevant planning provisions, goals and strategic planning objectives in all relevant planning policies including but not limited to the following: […] • Crime Prevention Through Environmental Design Principles
2. Built Form and Urban Design	• Address how CPTED Principles are to be integrated into development.

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 TKD Architects on 29 July 2021.

1.2 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**.

1.3 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 Proposal

The proposed development is for the construction of a new high school in Bungendore. The proposal has been designed as a stream 3 high school to initially provide for approximately 450 students with core 4 facilities aimed to future proof demand forecasted to 2036.

The site is located adjacent to the existing Bungendore Public School to the south enabling the creation of an education style precinct that will enable a cohesive connection between the two schools as well as the wider Bungendore community.

The proposal will include the demolition of the Bungendore Swimming Pool (to be relocated to Queanbeyan-Palerang Regional Council's proposed new Bungendore Sports Hub) and the Bungendore Community Centre; repurposing of existing council buildings; and the construction of new school buildings. New facilities for the high school will comprise of 24 general learning spaces; dedicated science and technology spaces; a gymnasium; library; canteen; outdoor learning and play areas that include two games courts.

A new agricultural plot is also proposed to the north of the main school site including a new agricultural building and scout storage shed, adjacent to the existing scout hall.

The proposal will also provide for shared administration and staff facilities between the high school and existing primary school and construction of a warm shell for community facilities including a community library, council shopfront and community health hub.

Additionally, miscellaneous off-site works, including upgrades to nearby road intersections and infrastructure, crossings, footpaths and the like will be provided to encourage active transport opportunities and respond to changing traffic conditions.

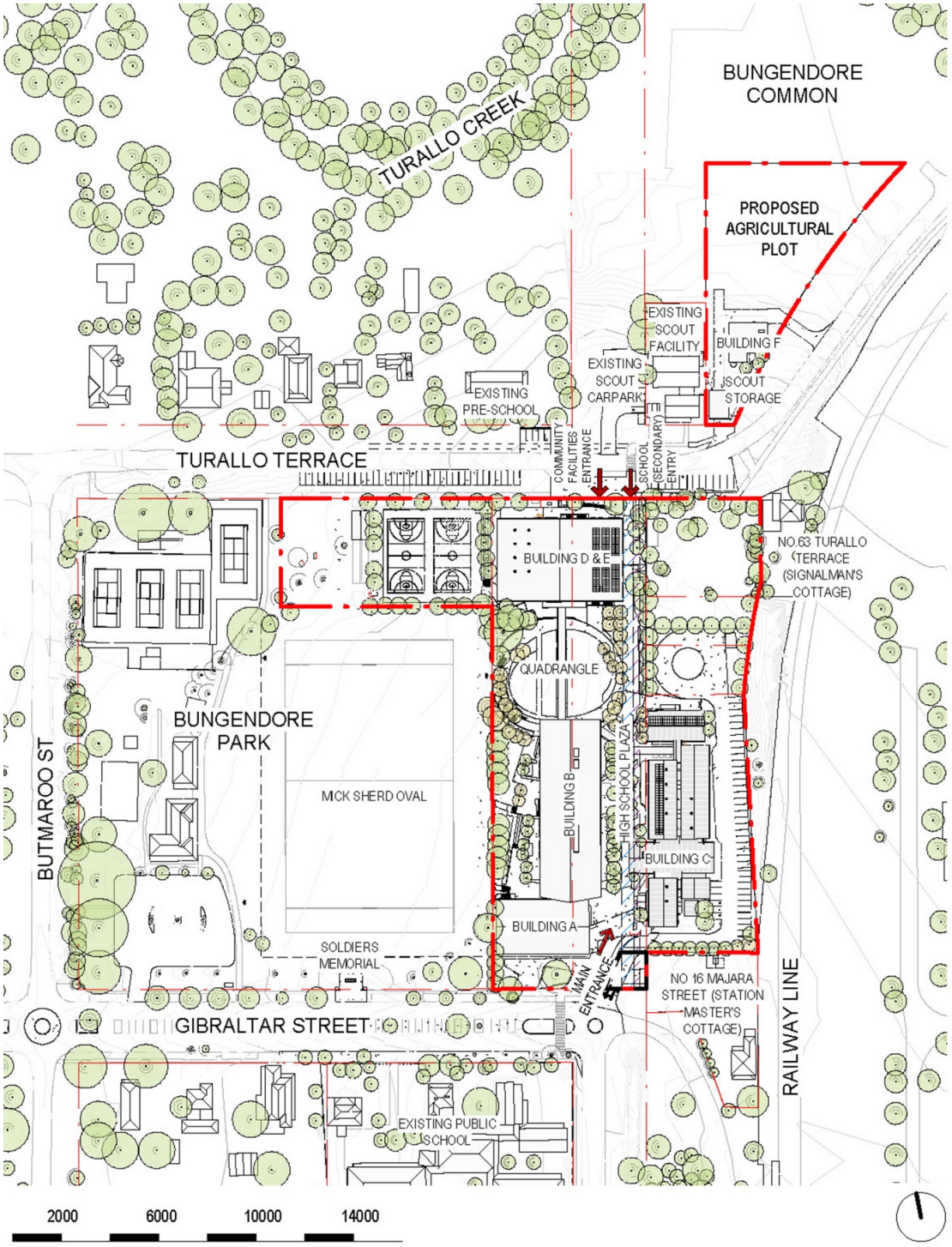

Figure 1: Proposed site plan
Source: TKD Architects

3 Site Description

The proposed development is located within the Bungendore Town Centre within the local government area of Queanbeyan-Palerang Regional Council. The proposal involves the use of land which includes Bungendore Park bounded by Gibraltar Street, Majara Street, Turallo Terrace and Butmaroo Street, the existing former Palerang Council site at 10 Majara Street, the Majara Street road reserve bounded by Turallo Terrace and Gibraltar Streets and Nos. 2, 4 and 6 Majara Street (Refer to Table 1 below).

The site is approximately 29,205m2 in area and consists of a relatively flat topography. It contains part of Bungendore Park, existing Council buildings and maintained public open space areas. The land is mostly cleared of vegetation with some mature trees intersperse throughout subject lots.

The surrounding area generally includes low density residential developments to the north and west, an existing rail line to the east and Bungendore Public School and the Bungendore train station to the south and south west respectively.

Table 2. New high school in Bungendore legal descriptions

Property Address	Lot Numbers
6-14 Butmaroo Street	Part Lot 701 DP1027107
2 Majara Street	Lot 12 DP1139067
4-6 Majara Street	Lot 13 DP1139067 Lot 14 DP1139067
10 Majara Street	Lot 3 DP830878
Butmaroo Street	Part Lot 701 DP96240
Portion of Majara Street (between Turallo Terrace and Gibraltar Street)	N/A

Figure 2: Site aerial depicting the land subject to the proposed High School.
Source: TKD Archietcts

4 Crime Profile

Table 1 below provides a breakdown of major crime rates in Queanbeyan-Palerang Regional LGA based on data from the NSW Bureau of Crime and Statistics and Research (BOSCAR).

The table shows the incident rate ratio of Queanbeyan-Palerang Regional-to-NSW crime rates (with the NSW rate equivalent to 1) from the past year (March 2020 to March 2021).

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 1. Queanbeyan-Palerang Regional LGA Crime Overview – 2020 to 2021

Offence Type	Queanbeyan-Palerang Regional-to-NSW incident rate ratio
Murder	/
Assault – domestic violence related	0.8:1
Assault – non-domestic violence	0.8:1
Sexual assault	0.7:1
Indecent assault, act of indecency and other sexual offences	0.6:1
Robbery without a weapon	0.6:1
Robbery with a firearm	/
Robbery with a weapon not a firearm	0.3:1
Break and enter dwelling	1.1:1
Break and enter non-dwelling	1.1:1
Motor vehicle theft	1.0:1
Steal from motor vehicle	1.4:1
Steal from retail store	1.0:1
Steal from dwelling	1.0:1

Table 1. Queanbeyan-Palerang Regional LGA Crime Overview – 2020 to 2021	
Steal from person	0.5:1
Fraud	0.7:1
Malicious damage to property	0.8:1

Compared to the rest of NSW, Queanbeyan-Palerang Regional generally has **moderately lower crime rates.**

There is no meaningful data on trends at the suburb or Council level. It cannot be determined if crime has increased or decreased over the previous two-year period.

While Queanbeyan-Palerang Regional LGA broadly displays moderately lower crime rates, it is important to note that the location of the proposed school is not located within a designated "hotspot".

As shown in the images below, BOSCAR data for Bungendore indicates that the site is not located in or near any hotspots, with sole incidents relating to domestic assault and malicious damage to property located to the east of the site and the new residential subdivision north of the township respectively. There have been no isolated incidents in the locality of the proposed school.

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

Figure 3: Incidents of domestic assault hot spot map
Source: BOSCAR NSW

Figure4: Incidents of non-domestic assault hot spot map
Source: BOSCAR NSW

Figure 5: Incidents of robbery hot spot map
Source: BOSCAR NSW

Figure 6: Incidents of theft (break and enter dwelling) hot spot map
Source: BOSCAR NSW

Figure 7: Incidents of theft (break and enter non-dwelling) hot spot map
Source: BOSCAR NSW

Figure 8: Incidents of theft (motor vehicle theft) hot spot map
Source: BOSCAR NSW

Figure 9: Incidents of theft (steal from motor vehicle) hot spot map
Source: BOSCAR NSW

Figure 10: Incidents of theft (steal from dwelling) hot spot map
Source: BOSCAR NSW

Figure 11: Incidents of theft (steal from person) hot spot map
Source: BOSCAR NSW

Figure 12: Incidents of malicious damage to property hot spot map
Source: BOSCAR NSW

Overall, the crime data for the suburb of Bungendore and Queanbeyan-Palerang Regional LGA point to a **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 (Safer By Design, 2021) 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:

- Most new buildings are located along a new central plaza that runs between Turallo Terrace and Gibraltar Street. This provides ongoing natural and passive surveillance of the plaza, quadrangle and carpark;

- Buildings are generally aligned to the street frontage, which affords opportunities for passive and natural surveillance and activation along Turallo Terrace, Gibraltar Street and the new school access road;
- The community building is strategically located on the corner of the high school plaza and Turallo Terrace, providing surveillance after school hours;
- The quadrangle will have high levels of visibility throughout school hours and supervised after school hours, if needed;
- The school has been designed to respond to the variety of community uses and public spaces surrounding the school. The orientation of school buildings provides overlooking of Mick Sherd Oval, games courts, the new entrance plaza and adjoining public school;
- The internal access road to the eastern boundary will afford good levels of surveillance via the delivery of materials and goods to the school grounds;
- The school is oriented along a straight, central spine, ensuring constant surveillance of main activity areas;
- The buildings provide glazed facades and on all elevations that allow for good natural surveillance of the site entries, surrounding campus facilities, at-grade car park and outdoor areas;
- It is anticipated Mick Sherd Oval will be adequately lit in the evenings when in use;
- Uses within the building are positioned such that there will be ongoing activity throughout all areas of the building, minimising dead spaces and providing ongoing opportunity for overlooking by staff of the surrounding areas; and
- All frontages will contribute to an attractive, animated streetscape that will encourage pedestrian activity and help create natural community policing.

5.1.2 Recommendations

- Entries and the car park should be illuminated during night-time in accordance with the relevant standards. Flood lighting is indicated for Mick Sherd Oval;
- 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 having regard for the overall use of the site;
- Particular consideration of surveillance should be made between the car park footpath and access to the community building in the event the facility is used at night or after hours;
- Landscaping should utilise low level shrubs interspersed with canopy trees to allow for sightlines at eye-level and to minimise opportunities for hiding, particularly where level changes are significant; and
- Trees should be maintained by a regular maintenance plan that keeps good sightlines to the building entries, particularly within the at-grade car park.

5.2 Territorial Re-Enforcement

NSW Police (Safer By Design, 2021) 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 school has been designed around Mick Sherd Oval and as such, provides a number of buildings and outdoor amenities that are interspersed with the public domain. As such, landscaping, signage and materials should be consistent and thematic to avoid confusion between the public, semi-public and private areas;
- The new community building (Building E) is well positioned in context of the school buildings. Building E is located on the corner of the high school plaza and Turallo Terrace, adjacent to the car park. Its location will assist with legibility, ongoing activation and direct movements from members of the public into the building and avoid unnecessary access or confusion through school grounds;
- The northern and southern entrances are secure via fencing and gates to distinguish the function of the building from the public domain;
- The design of the buildings are clearly demarcated in relation to adjoining uses;
- The building entries have had regard to existing site topography, interfaces and are located and designed to be easily identifiable;
- Building F is located on the highest point of the agricultural plot on the opposite side of Turralo Terrace, facilitating additional natural surveillance over both Turallo Terrace, the school access road and the agricultural plot;
- The main entry to the campus is strategically located on the corner of Gibraltar Street and the high school plaza, with direct pedestrian access provided from the street, car park and high school buildings through the central plaza, providing a strong visual cue;
- It is anticipated that building entries will be marked with appropriate wayfinding signage, this is particularly important from Building E, which will be available to the public; and
- The development's materials and finishes will distinguish the development from the surrounding public domain.

5.2.2 Recommendations

- The buildings should incorporate appropriate entry signage and wayfinding signage at the entrances of the schools grounds and associated buildings;
- 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 school;
- The use of signage and transition cues should be carefully considered primarily around Building F to clearly indicate to members of the public this building is associated with the school;

5.3 Access Control

NSW Police (Safer By Design, 2021) 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 campus limits pedestrian entries to two primary locations set along the central plaza – one the south and one to the north. The limited entries will serve to channel people into the desired lobby areas and associated learning spaces;
- Appropriate fencing is provided across the campus, consisting of a mix of chain link, palisade and timber ranging up to 2.4m high;
- Limited entry points and fit-for-purpose fencing will create a safe and secure school campus;
- The use of shared facilities (Mick Sherd Oval and adjoining courts) will require supervision given they cannot be fenced;
- Specific, separated entrances are provided for publicly accessible buildings (Building E);
- The building entries are positioned to allow clear and direct access to the surrounding pedestrian network, car park and access road;
- The new pedestrian crossing across Turrello Terrace directly adjoining the central plaza will link Building F and agricultural plot to the main campus;
- The consolidated driveway, car park and loading bay formalise vehicular movements into and out of the site; and
- Appropriate signage will direct pedestrians to the entries.

5.3.2 Recommendations

- The campus facilities (except Building D and E when in use by the community) should be locked after hours and only be accessible via a security key;

- Appropriate signage should be implemented that delineates the high school and community access points. This should be particularly considered at the pedestrian crossing over Turallo Terrace, which provides access to the agricultural plot;
- All pathways should be clearly illuminated to provide a clear and safe path of travel from the car park to the buildings;
- 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; and
- Use of shared facilities (Mick Sherd Oval and adjoining courts) are only to occur under teacher supervision.

5.4 Space/Activity Management

NSW Police (Safer By Design, 2021) 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 specific purposes and will be owned and maintained by Department of Education; and
- 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
- 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 a SSDA submitted to the Department of Planning, Industry & Environment for the proposed new high school located at Bungendore, NSW.

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 recommendations 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 new high school 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 to each building faces the central plaza, providing natural surveillance to the corridor. Windows are provided to Building B that overlook the road and proposed car park. Windows in Buildings A, B, D and E will overlook the central plaza, as well as Mick Sherd Oval and the surrounding streets.
	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.	No ATMs are proposed.

NSW Police CPTED Guideline Assessment		
Standard	Provisions	Compliance
	The street number of a building must be visible from the street and made of a reflective material to allow visitors and emergency vehicles to easily identify the location of the building.	Able to be implemented, if required.
	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.	N/A.
	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.	N/A.
	Clear signage should be erected indicating loading docks and other areas which	Able to be implemented.

NSW Police CPTED Guideline Assessment		
Standard	Provisions	Compliance
	cannot be accessed by the general public.	
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.	N/A.
	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.

NSW Police CPTED Guideline Assessment		
Standard	Provisions	Compliance
Vandalism and graffiti	Development minimizes blank walls along all street frontages.	The design includes articulation and modulation in the façade and transparent materials to both express the building and avoid graffiti opportunities.