

ETHOS URBAN

Crime Prevention Through Environmental Design Assessment

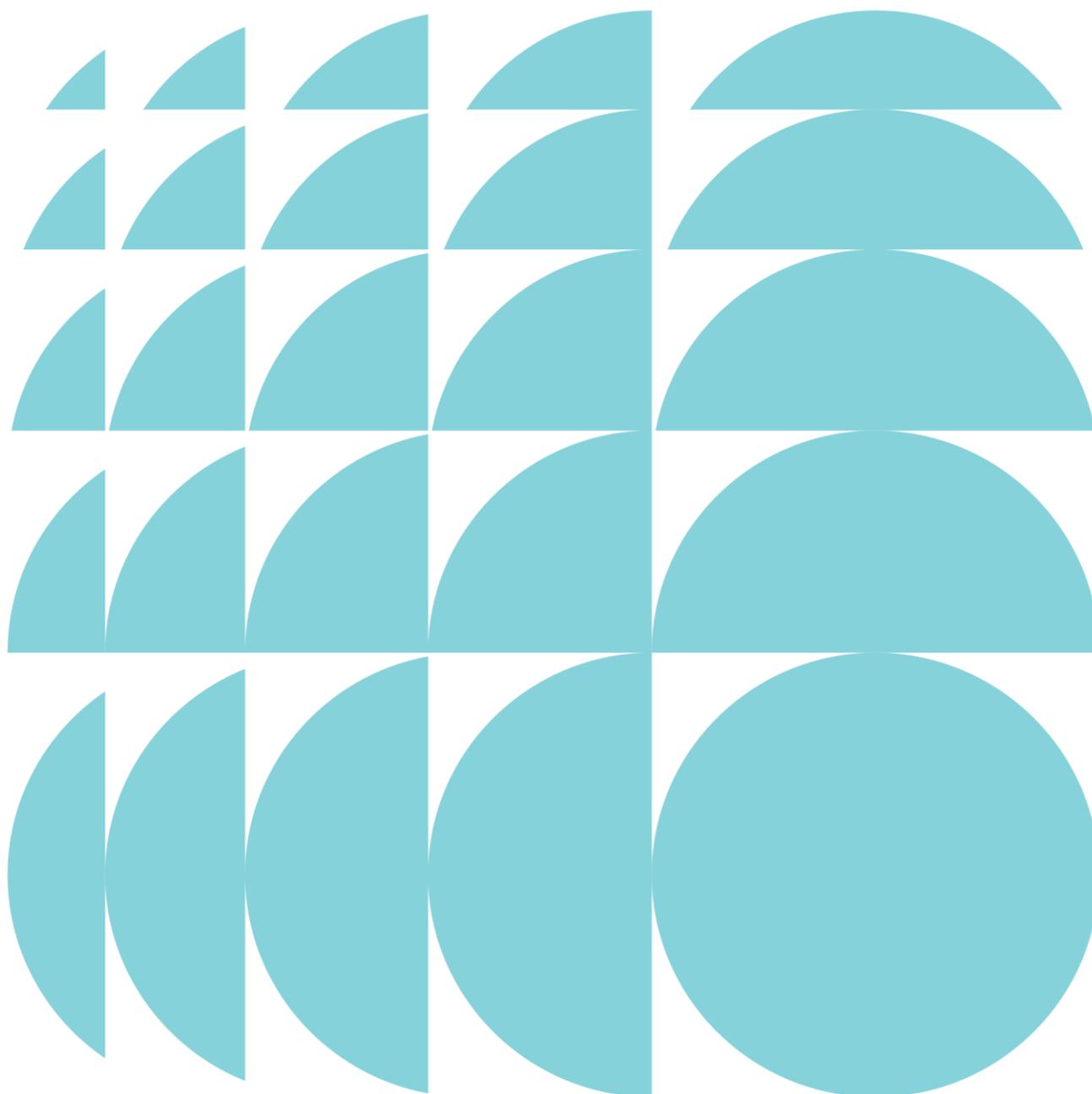
2-6 Pilgrim Avenue and 11-13 Albert Road,
Strathfield

Submitted to Strathfield Council
On behalf of Nascon

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STRATHFIELD COUNCIL
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1.0 Executive Summary

- This Crime Prevention Through Environmental Design (CPTED) assessment has been prepared to accompany the development application (DA) for a new mixed-use 13 storey development proposed at 2-6 Pilgrim Avenue and 11-13 Albert Road, Strathfield. From this assessment recommendations are provided to reinforce the CPTED principles implemented in the design of the redevelopment and mitigate any potential risks.
- The proposed DA facilitates development in accordance with the approved Planning Proposal for the site which proposed the following amendments to the Strathfield Local Environmental Plan 2012:
 - Amend the maximum building height from 35m to 54m; and
 - Amend the maximum floor space ratio from 3.5:1 to 5:1.
- The proposed DA also facilitates development in accordance with a site-specific DCP that Council requested for the site on 4 October 2018 which takes into account detailed urban design considerations for future development including the provision of public access, built form, boundary setbacks, deep soil areas, tree retention, vehicular access, the potential for a pedestrian access link to the railway station, the residential character of Pilgrim Avenue and any other relevant issues.
- The proposed development has been assessed against the four crime risk principles being surveillance, territorial reinforcement, activity and space management and access control.
- In a general sense the layout of the development provided in this DA promotes clear sight lines, natural surveillance, ease of access and wayfinding. The linear layout of all access ways and walkways promotes sight lines for both ground level pedestrians and from upper floor residential balconies. This layout avoids secluded areas and dead ends, which improves the safety of the site and mitigates the opportunities for crime.
- The Crime Risk Assessment Rating of the proposed development is rated within the 'low' category.
- A summary of the proposed recommendations is provided below:
 - Surveillance: To ensure and maintain opportunities for natural and incidental surveillance through effective lighting, community creation and interaction and environmental maintenance.
 - Lighting and Technical Supervision: All lighting throughout the private and public areas are to meet the minimum Australian Standard AS/NZ 1158 and the implementation of a CCTV network.
 - Territorial Reinforcement: Clearly delineate between public and private space, CCTV signage and wayfinding signage throughout the site.
 - Design Definition and Designation: Appropriate wayfinding signage integrated with the wider site.
 - Activity and Space Management: Encourage the Owners Corporations to take on an active management approach to the public/communal spaces through use of the Owners Corporation Manual.
 - Environmental Maintenance: Ensure there are mechanisms for the ongoing maintenance of the building including a rapid removal policy for vandalism and removal of graffiti and vegetation maintenance.
 - Access Control: Security access measures including gates/doors and swipe access between private and public spaces and appropriate security for the mailboxes.

The recommendations are provided at **Section 7.1** of this assessment.

- It is therefore considered that the proposed development has been designed consistent with CPTED principles and the proposed development is expected to be of low crime risk.

2.0 Introduction

This CPTED assessment has been undertaken to accompany the development application for a new mixed-use building at 2-6 Pilgrim Avenue and 11-13 Albert Road, Strathfield (the subject site). Approval is sought for the construction of a mixed-use residential flat building comprising 351.21sqm of non-residential ground floor gross floor area (GFA), 171 apartments, basement parking, landscaping and associated plant and infrastructure works.

This DA responds to the approved Planning Proposal on site which sought to increase the maximum height of building provision from 35m to 54m and increase the maximum floor space ratio (FSR) provision from 3.5:1 to 5:1 and responds to the provisions created within the site-specific DCP approved on site.

CPTED is a situational crime prevention strategy that focuses on the design, planning and structure of the environment. This assessment aims to identify any potential opportunities for crime which may be created by the proposed development through assessing the development in accordance with the design and place management principles of CPTED.

Ethos Urban has prepared this assessment in accordance with the methods and resources of the NSW Police Force *Safer by Design Course*. This assessment has been prepared and reviewed by experienced CPTED professionals, following their completion of the NSW Police Force *Safer by Design Course*. The assessment uses qualitative and quantitative measures to analyse the physical and social environment in which the proposed development is located, and recommends actions to mitigate any crime opportunity in accordance with the Australian and New Zealand Risk Management Standard AS/NZS 31000:2009.

In accordance with the NSW Department of Planning and Environment's Guidelines (2001) the aim of the CPTED strategy is 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'; and
- removing conditions that create confusion about required norms of behaviour.

The Crime Risk Rating considers the development as proposed in the architectural drawings prepared by Kennedy Associates Architects. The following tasks were undertaken in the preparation of this assessment:

- review of the *Safer By Design Manual* by the NSW Police Force;
- collection and analysis of local and NSW State crime statistics from the Bureau of Crime Statistics and Research (BOCSAR); and
- a crime risk assessment, in accordance with the current NSW policy and practice, of the following regulation and assessment principles:
 1. Surveillance
 2. Territorial reinforcement
 3. Activity and Space Management
 4. Access control

A site inspection was undertaken on 12 November 2020 between the hours of 5.30pm and 6.30pm to assess the current site conditions, situational crime prevention measures and perceived safety of the existing environment.

Disclaimer

CPTED strategies must work in conjunction with other crime prevention strategies and police operations. By using the recommendations contained in this assessment, a person must acknowledge that.

- there is no definitive measure of 'safety'. Therefore, this assessment cannot be used as proof of a definitive measure of safety;

- this assessment does not ensure complete safety for the community, and public and private property;
- assessment and recommendations are informed by information provided, with observations made at the time the document was prepared;
- this document does not guarantee that all risks have been identified, or that the area assessed will be free from criminal activity if recommendations are followed; and
- this assessment has been undertaken on behalf of the applicant and does not represent the opinions and expertise of the NSW Police Force.

The principles of CPTED aim to minimise the opportunity for crime, but it is recognised that environmental design cannot definitively eliminate opportunities for crime, or prevent a determined perpetrator from committing such crimes. We note that Ethos Urban are not specialist security consultants and therefore cannot comment on specific security measures or system requirements.

Therefore, it is recommended that a security consultant with a Class 2A licence under the Security Industry Act 1997 is engaged to provide specific advice on the placement, installation, monitoring and maintenance of a CCTV network and other security measures such as bollard/barriers during the design development phase of the project.

3.0 Site Analysis

3.1 Site Location and Context

The site at 2-6 Pilgrim Avenue and 11-13 Albert Road, Strathfield and is located approximately 200m north-west of the Strathfield Railway Station which provides access to the wider Sydney Trains network and represents NSW’s third largest railway station.

The subject site is located on the southern side of the Strathfield Railway Station within the Strathfield Local Government Area. The primary frontage is approximately 95m to Pilgrim Avenue, with secondary frontage to Albert Road of approximately 40m.

3.2 Site Description

The site is approximately 2,867m² in area, is irregular in shape and collectively comprises 6 different allotments (refer to **Table 1** and **Figure 1**). The site is currently being used for residential purposes and current development on site comprises three (3) single detached dwelling houses and two (2) two storey walk up unit buildings with rear at grade parking.

Table 1 Lots subject to this DA

Reference	Street address	Legal description	Area
Site A	2 Pilgrim Avenue	SP8785	500 m ²
Site B	4 Pilgrim Avenue	Lot 9 DP15917	472 m ²
Site C	6 Pilgrim Avenue	Lot 8 DP15917	433 m ²
Site D	13 Albert Road	Lot A DP100558	748 m ²
Site E	11 Albert Road	Lot B DP100558	715 m ²



Site Boundaries
 Lots within the Site

Figure 1 Aerial photograph identifying lots within the site

Source: Nearmap & Ethos Urban

3.3 Access

The 6 sites are accessed individually via individual driveways and access points into each respective lot.

3.4 Surrounding Development

The surrounding locality comprises a mix of commercial, retail, low-density residential, high-density residential, public spaces and transport infrastructure land uses.

East

Immediately to the east of the site is a Shell Service Station. Further to the east is the Sandalwood Apartments residential tower (approximately 18 storeys high) and the Strathfield Railway Station approximately 200m from the site. Strathfield Railway Station is a key interchange on the Sydney Trains rail network with a number of key rail services stopping at the station including the T1 North Shore, Northern and Western Line and the T2 Airport, Inner West and South Line provide frequent services from the station into wider Sydney.

South

Across Albert Road to the immediate south of the site is a mix of single and double storey detached residential dwellings, with a new residential tower development on the corner currently under construction, to be approximately 11 storeys.

The Regal Court mixed use development (approximately 18 storeys high) is located to the site's south-east and comprises a number of smaller ground level retail shops with residential above. Further to the south-east is the Strathfield Plaza shopping complex and a mix of commercial and residential buildings.

West

West of the site across Pilgrim Avenue are a number of older style 1970's residential flat buildings that vary between two to four storeys in height. The higher residential unit blocks generally front Elva Street, and overlook the rail corridor. Further to the west the height of the residential flat buildings along Elva Street increases to approximately 10 storeys.

North

The site overlooks the rail corridor to the north. Additional residential areas (within the Canada Bay LGA) are located to the north-east, and generally comprise single storey detached dwellings. A light industrial and warehouse precinct is located approximately 400m to the north-west of the site. Further north is the Strathfield Triangle, which contains a mix of detached dwellings and residential flat-buildings up to approximately 10 storeys.

3.5 Risk Assessment of Existing Site

A site inspection and risk assessment of the subject site in its existing context and form has been undertaken on 12 November 2020 between the hours of 5.30pm and 6.30pm to assess the current site conditions, situational crime prevention measures and perceived safety of the existing environment. Overall, the Crime Risk Rating is considered 'moderate'.

There are several existing factors that contributed to the 'moderate' crime rating for the site which were observable at the time of site inspection, including:

- High evidence of graffiti and vandalism present on site;
- Unkept vegetation and unmaintained landscaping;
- Rubbish dumping both on and around the site;
- Faulty / broken CCTV devices;
- Uninviting residential points of ingress and egress such as broken fences and limited visibility into pedestrian entrances; and
- Broken windows and high evidence of an unmaintained built form.

The above factors have contributed to a site that currently presents as dilapidated. While there are residents present on the site, these appear to be renter occupied. The view of the site from the railway corridor is relatively shielded by existing landscaping however it can appear to be poorly maintained upon closer inspection. From Albert

Road, the observable and obvious graffiti at the front facade (which does appear to have been cleaned previously before being re-graffitied) presents an appearance of a lack of maintenance being undertaken

The key positive elements of the site are:

- Good orientation to the streetscape with dual street frontage to Pilgrim Avenue and Albert Road. Pilgrim Avenue provides good visibility and surveillance across the site.
- There is a clear delineation of site boundaries using fencing.
- There is good passive casual surveillance over the site from surrounding properties.

The DA proposed on site will re-introduce security measures and high quality aesthetic built form with security components which have the ability to repel any opportunities for crime or unacceptable behaviour on site that were previously afforded by:

- Utilising high open style perimeter security fencing to communal areas;
- Introducing a mixed-use ground floor component on site, ensuring casual surveillance during business hours to both street frontages;
- restricted vehicle access and large basement security gates;
- clear delineation of space, with clear ownership of the inner areas.
- The site has good natural surveillance from existing residential and ground floor mixed-use tenancies on both Albert Road and Pilgrim Avenue.
- There is a clear delineation of site boundaries using fencing.
- There is a clear distinction between the level of security within the site by enabling security accessed residential lobbies and side entrances.
- The site has several technical surveillance measures in place including CCTV and secured access points.

4.0 Description of Proposed Development

This application seeks approval for a part 11, part 13 storey mixed use residential and commercial development at 2-6 Pilgrim Avenue and 11-13 Albert Road, Strathfield.

Specifically, the DA seeks approval for:

- Demolition of all buildings on the site and removal of five trees;
- Construction of a part 11, part 13 storey mixed use development comprising:
 - 172 dwellings;
 - 3 ground floor commercial spaces;
 - 4 basement levels providing 235 car parking spaces;
- Landscaping works for communal open space; and
- Augmentation of infrastructure and serves as required.

5.0 Nature of Recorded Crime

Crime statistics obtained from the NSW Bureau of Crime Statistics and Research (BOCSAR) represents criminal incidents recorded by NSW Police. A review of the local statistics from 1 July 2016 to 30 June 2020 found that the most commonly occurring crimes relevant to CPTED within the suburb of Strathfield are:

- Break and enter dwelling;
- Steal from motor vehicle;
- Steal from retail store;
- Fraud; and
- Malicious damage to property.

The frequency of the above crimes in the suburb of Strathfield, between 1 July 2016 to 30 June 2020 are detailed in **Table 2** below.

Table 2 Statistics of recorded crime in Strathfield (suburb) between 2016 and 2020

Crime	July 2016- June 2017	July 2017 – June 2018	July 2018 – June 2019	July 2019 – June 2020	2016-2020 Trend	Rate per 100,000 Population	Rating Category
Break and enter dwelling	218	152	111	135	Stable	299	Low
Steal from motor vehicle	262	212	176	147	Down 16.5%	325.6	Very Low
Steal from retail store	73	71	121	113	Stable	250.3	Very Low
Fraud	476	438	420	386	Stable	855.1	Very Low
Malicious damage to property	236	234	179	185	Stable	409.8	Very Low

Source: Bureau of Crime Statistics and Research NSW, 2020

As shown in the above table, Strathfield is identified as having a very low occurrence of crime relative to NSW averages. Based on the above data, breaking and entering of dwelling, fraud and malicious damage to property may be items considered to be relevant to the proposed development due to the occurrence of such in the suburb, however it is noted that these occur at very low levels relative to NSW. Given this, the design, layout and access points of the proposed development have been reviewed in line with CPTED principles, and recommendations are provided below to help mitigate the opportunity for crime to occur.

Hotspots indicate areas of increased crime density (number of incidents per 50m by 50m) relative to crime concentrations across NSW. They are not adjusted for the number of residents and visitors in the area and thus do not reflect the risk of occurrences on a per capita basis. As illustrated in **Figures 2 to 5**, The BOSCAR database indicates that the site is within close proximity of high-density crime ‘hotspots’ for occurrences defined as “Break and Enter Dwelling”, “Steal from Motor Vehicle”, “Break and Enter non-dwelling”, and “Malicious Damage to Property”. It is noted that these ‘hotspot’ areas for these crimes are generally concentrated around Strathfield Station, which sees a high influx of persons travelling on public transport via the bus exchange and the railway station as well as utilising the services offered within the surrounding mixed-use precinct. Strathfield Station is located approximately 200m south-east of the site.

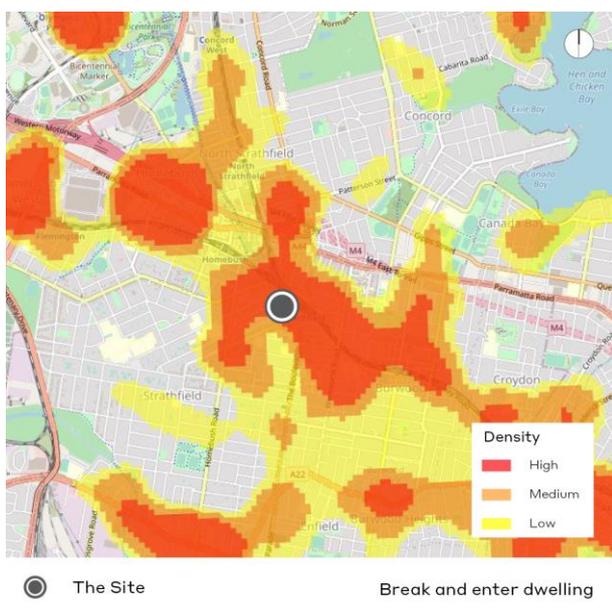


Figure 2 Break and enter dwelling
Source: BOSCAR / Ethos Urban

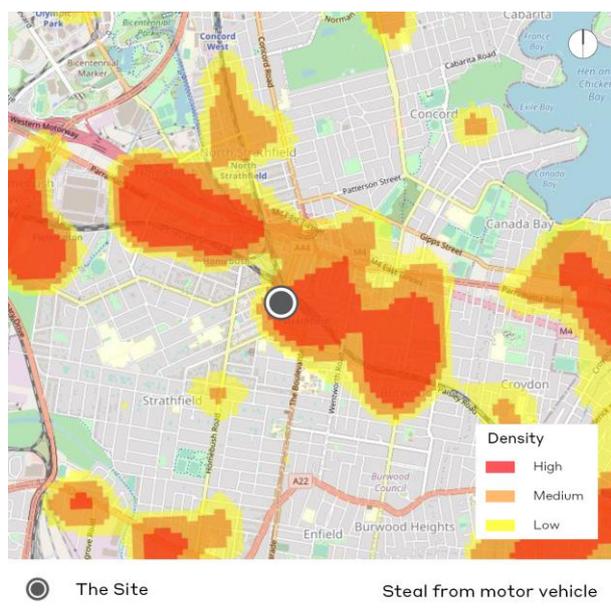


Figure 3 Steal from motor vehicle
Source: BOSCAR / Ethos Urban

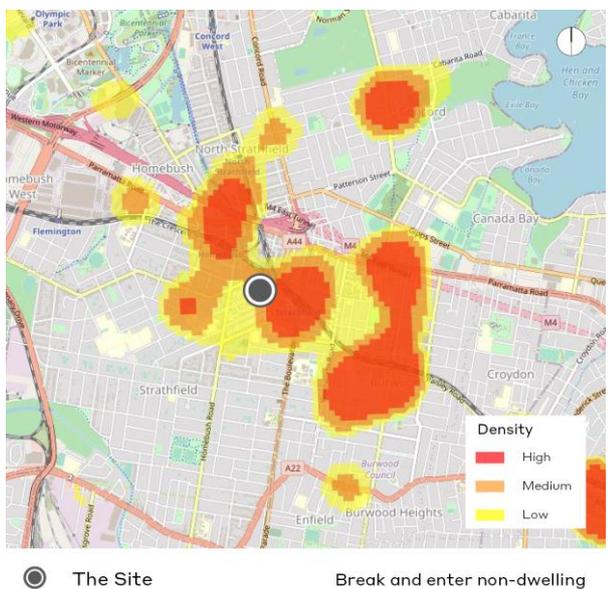


Figure 4 Break and enter non-dwelling
Source: BOSCAR / Ethos Urban

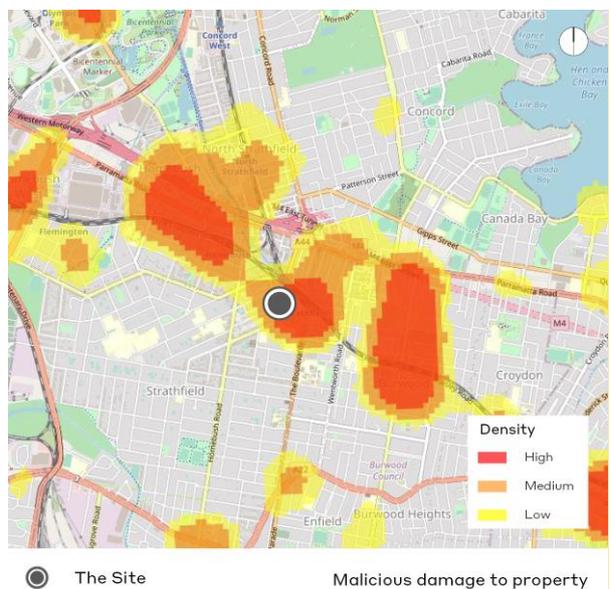


Figure 5 Malicious damage to property
Source: BOSCAR / Ethos Urban

6.0 Matter for Consideration

Historically, and currently, Strathfield has a low rate of crime. Notwithstanding this, the site has been assessed with regard to the above-mentioned crimes in order to ensure the proposed design delivers a 'low' crime risk rating and provides a sense of general safety and security of residents and users upon occupation.

Potential perpetrators generally seek to take advantage of environments, with access and the opportunity for concealment significantly affecting the safety and perceived safety of an environment. Given break and enter, malicious damage to property and steal from motor vehicle have been identified as the most relevant offences to the subject site (despite their low risk of occurrence), the following provides an assessment of the proposed development's ability to mitigate opportunities for such crime.

In accordance with the approved Planning Proposal, DA approval is sought for a mixed-use residential flat building comprising ground floor retail, 171 apartments, basement car parking and associated landscaping and plant services. Understanding the contextual relationship of the proposed development with the surrounding area is essential in the creation of a sense of community ownership and informing recommendations for crime reduction. This context underpins an assessment of the proposed development in accordance with the CPTED principles.

All recommendations are collated and summarised in **Section 7.1**.

6.1 Surveillance

Effective natural and incidental surveillance can reduce the opportunities for crime. The principle indicates that individuals are often deterred from committing offences in areas with high levels of natural surveillance. The following design measures result in optimal natural surveillance:

- Clear sight lines between public and private places and maximising natural surveillance
- Appropriate lighting and effective guardianship of communal and/or public areas
- Minimal opportunity for offenders to conceal themselves

In a general sense the positioning and layout of the indicative scheme within the planning proposal and now the design proposed in the DA, in accordance with the approved site-specific DCP promotes clear sight lines, natural surveillance, ease of access and wayfinding. The dominance of the building occupying 2 street frontages with clear street access points for ground floor tenancies and ground floor units along Pilgrim Avenue promotes natural surveillance from ground level pedestrians and also from upper floor residential balconies at both Pilgrim Avenue and Albert Road.

The proposed design provides frontages with ground floor courtyards and upper level balconies promoting natural surveillance both externally to the public domain and internally within the site. Furthermore, the sense of community ownership of open spaces and public spaces encouraged by the high natural surveillance environment that is proposed will help create a sense of safety and activity, thereby reducing the opportunities for crime.

Where possible all new landscaping should be maintained to enable sightlines. In this regard, ground floor courtyard planting and podium level planter boxes should be maintained as to not impede sightlines between balconies and the ground floor public realm.

Furthermore, to improve a sense of community ownership and resident interaction and ground plane activity, it is recommended that, where possible, the ground level apartment courtyards and/or private frontage areas do not have unreasonably high fencing or landscaping enclosing them to also encourage natural surveillance and effective guardianship.

The proposed design of the development in its current form will increase the opportunities for natural surveillance, effective guardianship and community ownership that are crucial to the perceptions of safety and therefore a heightened sense of risk for potential offenders.

Lighting and Technical Supervision

Effective lighting and discrete technical supervision can reduce fear, increase community activity, improve visibility and increase the likelihood of offenders being detected. Lighting and technical supervision are integral in increasing safety and perceived safety. All lighting provided within and around the development, including communal open space should meet the minimum Australian Lighting Standard AS/NZ 1158 specifically addressing the objectives for crime reduction.

High quality lighting throughout all publicly accessible areas should be adequate to permit facial recognition, allow for long sight lines and reduce dark shadowing which will in turn help reduce opportunity for predatory crime. The development is provided with the opportunity to consider the installation of a discrete CCTV system as part of the wider commercial and residential lobby potential CCTV system.

In this regard the placement of CCTV within the site should specifically focus on providing coverage to key access/egress points at both street frontages, and areas that have limited natural surveillance. For this reason, discrete CCTV should be considered near building entrances (including vehicle entrances) and pedestrian pathways where appropriate. However, as the neighbouring land uses are primarily residential to the south and west of the site, CCTV that monitors the entire site and beyond onto the road carriageway is not considered appropriate.

6.2 Territorial Reinforcement

Territorial reinforcement involves the perceived ownership of communal and public spaces. Users will be more inclined to visit and care for areas that are maintained and to which they feel they have a vested interest in. Designing with clear transition between public and private spaces, and clear design cues indicating the intended use of space is critical. Well maintained public space is critical in encouraging occupancy of space, both in the interior and exterior of the development.

The clear definition of public and private territory, and the introduction of the retail uses on the site will be a deterrent to potential offenders and promote territorial reinforcement. Clear delineation between publicly accessible land and private land is considered of high importance in this type of development given the sites proximity to other public spaces such as Raw Square and Strathfield Station which are highly urbanised and experience high pedestrian flows.

Clear delineation and territorial reinforcement of different land ownership and land use typologies ensures that the ambiguity of spaces and confusion of use are minimised. This promotes a confidence in residents and employees to take effective guardianship of spaces and reduces incidences of crime. Defined landscaping, fencing and glazing along these land ownership and user interfaces is provided for within the designed development in its current form. Signage in terms of business and building identification also assists in this regard to allow residents and visitors to better understand delineations and separate the use of spaces.

The separation between publicly accessible accessways/space and privately accessible accessways/space inclusive of the shared basements and loading docks should be made clear, with no uncertainty or ambiguity regarding the difference between the two and who the principle users of the space are. This could be enforced by restricting access to areas of privately accessible space, through doors, gates or barriers that can only be opened with an access card or similar.

Design, Definition and Designation

The design of the proposed development reflects its purpose, and while potential perpetrators may seek to exploit areas with unclear spatial definition, the design of the proposed development generally benefits from achieving multiple principles of CPTED.

The site is benefitted by its presentation, configuration and orientation to both Pilgrim Avenue, Albert Road and the railway corridor. Maintenance of the vegetation in the frontage to Pilgrim Avenue and Albert Road should occur to ensure that areas do not undermine the principles of CPTED, including access control, natural surveillance, effective lighting and technical surveillance.

Access arrangements will play a pivotal use in clearly delineating between the public and private uses on the site. The main pedestrian access points from Albert Road and Pilgrim Avenue are clear and not ambiguous.

6.3 Activity and Space Management

Similar to environmental maintenance, there is a strong association between activity and space management, and the perceived fear of crime. Unlike environmental maintenance, this principle endeavours to manage the more dynamic activity and use of space.

The management of any publicly accessible areas and open space will be a key element in preventing the potential opportunity for crime and will also have a bearing on residential amenity with regard to restricting noise and light spill into apartments. Furthermore, effective guardianship plays a critical role in the safety and perceived safety of the proposed development. The ability of the future owners' corporation/s to manage and organise on-going activities, events and initiatives etc for future residents improves the sense of community ownership and effective guardianship of public and common spaces.

To address these items, the retail tenant owners (as well as residential) are recommended to be included in the wider Owners Corporation management approach to the public spaces for the site, via the Owners Corporation Manual, to be issued by the proponent prior to the issue of an Occupation Certificate.

Environmental Maintenance

There is a strong association between environmental maintenance and the perceived fear of crime. General image can greatly affect an individual's desire to enter and engage with a space. Environmental maintenance and territorial reinforcement are co-dependent in achieving a safer space and are integral in achieving optimal natural surveillance. The maintenance of the built form, landscaping and lighting will assist in communicating care and the presence of effective guardianship. Routine maintenance is a strong indicator of area management and safety.

The proposed development will improve the quality of the urban environment with a new residential development, appropriate lighting, and landscaping that will increase the level of activity across the site both during the day and at night. Given the quality and design of the proposed development, the proposal will enhance the image and activity of the site, thereby encouraging a sense of shared ownership.

The maintenance of the building and landscaping will be important to balance safety and aesthetics of the site and general area, each of which will contribute to the image of the wider area. It is recommended that the landscaping throughout the development be maintained for the purpose of conveying that the space is well cared for and diligently maintained in order to create and maintain a sense of safety and security. Ongoing maintenance of the site will encourage regular use, activity and resident pride which in turn will enhance the natural supervision and foster feelings of safety.

6.4 Access Control

Access control strategies restrict, channel and encourage the movement of people and vehicles into and through designated areas. Unauthorised entry is reduced by physical and technical barriers, as they increase the effort required, and reduce the possibility, to commit crime. Access control strategies are well considered and clearly evident in the proposed development.

The separation between publicly accessible space and privately accessible space should be made clear, with no uncertainty or ambiguity regarding the difference between the two. This will be enforced by restricting access to areas of privately accessible space, through doors, gates or barriers for the residential flat building. The shared basement can only be opened with an access card or similar. Such access points could include:

- entrance into the private outdoor areas (ie access ways and communal open space areas) of the proposed development;
- entrance into the basement car park;
- access into the retail tenancies;
- access to each building's lift core in the basement;
- access to each residential lobby;
- access to each residential floor individually within the lifts;

- access to utility rooms; and
- access to each residential apartment.

It is recommended that secure access gates/doors are provided to delineate all private areas, in particular the western courtyard and central communal open space landscaped open space areas. These are resident only areas and as such require a secure access.

It is recommended that access to the shared basements is controlled via a secured access. Furthermore, the shared basement is physically divided (via secure doors) into logical sections to separate public, employee (loading), visitors and car share parking areas from the private resident parking areas. Also, each building lift well in the shared basement is recommended to have secured access, only allowing lift access to residents (and their guests), for each particular building.

It is recommended that residents and staff (such as the Building Manager) require an access card or similar to access the secure entries identified above.

To reduce the chance of potential fraud, all apartment mailboxes should be both secure and accessible for residents. Mailboxes should be located immediately adjacent to each building's entry to enable maximum surveillance to avoid mail theft. CCTV may also be considered appropriate to monitor these areas.

7.0 Crime Risk Rating and Recommendation

The Crime Risk Rating considers the development as proposed in architectural drawings prepared by Kennedy Associates Architects, within the site's environment. Further, the Crime Risk Rating acknowledges the set nature of the building's location in with proximity to Strathfield Railway Station.

Acknowledging the site context and the items discussed in Sections 3, 4 and 6, the Crime Risk Assessment Rating of the proposed development is rated within the 'moderate' category. The proposal as well as the below recommendations will assist in converting the Crime Risk Assessment Rating for the site to a "low" category placement, with many of these recommendations already considered and incorporated into the design of the building.

Overall, it is considered that the proposed development will improve the safety and security of the local area and generally increase the image of the area.

Recommendations to ensure the safety and security of the proposed development are detailed below.

7.1 Recommendations

Surveillance

- Ensure opportunities for natural and incidental surveillance are maintained through effective lighting, access control and environmental maintenance.
- In the absence of technical supervision, ensure natural surveillance is maximised in areas of shared amenity, such as open spaces.
- Ensure opportunities for concealment are minimised by seeking to reduce any alcoves and recesses throughout building exteriors.
- Ensure driveways and pedestrian pathways do not lead to concealed spaces.
- The pedestrian entry/egress to/from the site from Albert Road as well as Pilgrim Avenue are to be clearly defined and have an appropriate width, be appropriately lit and be provided with clear sight lines to ensure natural surveillance.
- Where possible all new landscaping and existing vegetation should retain and improve sightlines. In this regard, existing and proposed vegetation, shrubs and trees should not (as far as possible) impede sightlines for pedestrians and should be regularly maintained to minimise concealment opportunities throughout the site. This

is particularly important along the frontage to Pilgrim Avenue and should be detailed in the Owners Corporation Manual to be prepared following issue of an Occupation Certificate.

Lighting and Technical Supervision

- All lighting provided within and around the development, should meet or where possible exceed the minimum Australian Lighting Standard AS/NZ 1158 specifically addressing crime reduction.
- Consistent and uniform lighting is recommended throughout all publicly accessible areas and ground level communal areas (where appropriate) within the proposed development. This lighting should also aim to minimise light pollution and light spill on to future residential building windows.
- Lighting along publicly accessible pathways and the frontage to Albert Road should provide a lux level and uniformity level that is appropriate for urban areas. This shall be determined in consultation with an experienced lighting expert with experience in community safety principles.
- In the basement car park, lighting should provide a lux level and uniformity level that is appropriate for large shared basements that service functions. This shall be determined in consultation with an experienced lighting expert with experience in community safety principles. It is noted that a standby lower lux level is acceptable for power saving reasons, but this will brighten to full lux levels where motion is detected.
- Outdoor lighting is recommended to have a minimum Colour Rendering Index (CRI) of 60 for accurate identification of colour. All outdoor lighting within the proposed development should comply with AS4282-1997.
- A lighting design should be prepared by a suitably qualified and experienced lighting expert.
- The implementation of a CCTV network is recommended to be considered for the proposed development, consistent with the existing CCTV presence on site. Should a CCTV network be implemented it is recommended that a discrete style of camera (such as a small dome camera) that is integrated/attached to the street lighting or buildings. This is to minimise the perception of inherent insecurity associated with large and prominent cameras that can have a negative social effect.
- The CCTV network is suggested to cover the entrance/egress points of the site and the basement vehicle entrance/egress points.
- It is recommended that a security consultant with a Class 2A licence under the Security Industry Act 1997 is engaged to provide specific advice on placement, installation, monitoring and maintenance of the CCTV network.

Territorial Reinforcement

- Maintain that the building entrance/s remains free of unnecessary clutter to ensure entry points are highly visible from both Albert Road and Pilgrim Avenue.
- Display CCTV security notice signs to convey that the site is under constant surveillance (if applicable).
- Clearly delineate between publicly and privately accessible areas along the boundary to Albert Road and Pilgrim Avenue with dense landscaping and/or fencing. High landscaping and/or fencing is discouraged.
- Provide signage within internal pathways and the underground car park to direct pedestrian movements.
- In general, street boundary fencing should not visually enclose the site with high fencing for access control purposes, rather the fencing and associated gates should typically be a visual and physical cue not an intruder barrier. Additional treatment to the existing northern boundary which abuts the transport corridor should also be considered to minimise break and enter into the development from the railway corridor land.
- Where and when possible ensure that pathways within lobbies and corridors are unobstructed to avoid blind spots.
- Provide wayfinding signage where appropriate to reinforce perceptions of safety and legibility and clearly define the use of the building.

Design, Definition and Designation

- Appropriate wayfinding signage to be provided in and around the development to achieve a clear spatial definition and clarity.

- Clear wayfinding signage should be provided to the ancillary facilities such as the car park, storage spaces and garbage rooms within the basement to prevent unauthorised individuals from inadvertently or intentionally accessing these spaces.

Activity and Space Management

- The proponent shall require that the Owners Corporation take an active management approach to any public spaces related to the building, via the Owners Corporation Manual to be prepared following issue of an Occupation Certificate.
- Ensure building and wayfinding signage is appropriate to deter access to private spaces and direct pedestrian movements through the site.

Environmental Maintenance

- Ensure mechanisms are in place to facilitate the ongoing maintenance of the building, including the implementation of a rapid removal policy for vandalism repair and removal of graffiti. Anti-graffiti materials should be sourced, given the high evidence of graffiti, which is prevalent on site, even after removal.
- Consistently manage vegetation so that sight lines are maintained and opportunities for concealment are minimised.

Access Control

- Secure access gates/fencing to be provided to prevent public access to the landscaped communal open space to the west of the building. These are resident only areas and as such are to be restricted to the public. Any gates/fencing shall be located behind the front building line.
- The western boundary of the site at Pilgrim Avenue shall be enclosed and secured with appropriate fencing to restrict access to the western landscaped areas of the site to residents and maintenance workers only.
- Any publicly accessible parts of the car park (such as visitor car parking or a car share scheme), be located near the entry to the car park prior to the restricted access area, with the residential car parking being secured.
- Access to the shared basements is via a secured roller door with secured access is recommended. Furthermore, the shared basement (as far as possible and in accordance with the relevant statutory and code requirements) should be physically divided (via secure roller doors or the like) into logical sections to separate public, visitors and car share parking areas from the private resident parking areas.
- Secure lift access for the building is recommended to ensure lift access is only provided to the residents (and their guests), for the building and is not allowable for employees occupying the ground floor retail tenancies.
- It is recommended that residents will require an access card or similar to access to access the secure entries. It is further recommended that access is only provided to the relevant floor of each resident (except for floors with communal areas).
- All apartment mailboxes should be both secure and accessible for residents. Mailboxes should be located immediately adjacent to each building's entry to enable maximum surveillance to avoid mail theft. CCTV may also be considered appropriate to monitor these areas.