



In-fill Affordable Housing:
95-213 Fitzgerald Avenue and 40-64
Yorktown Parade, Maroubra

Crime Prevention Through Environmental Design (CPTED) Report

27 September 2024

Prepared For: Homes NSW

Use of report:

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We note that TBA 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 or appropriately qualified person under the Security Industry Act 1997 is engaged to provide specific advice on the placement, installation, monitoring and maintenance of the CCTV network and other security measures such as bollard/barriers at detailed design stage.

The recommendations contained within this report are informed by the information provided and via observation made at the time of the documents being prepared.

CPTED strategies work best in conjunction with other crime prevention strategies. This report does not guarantee that all risks have been eliminated, or that the area will be free from criminal activity if recommendations are undertaken. 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.

Document control:

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This assessment has been undertaken on behalf of the client and does not represent the opinion and expertise of the NSW Police Force.

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Executive Summary

This Crime Prevention through Environmental Design (CPTED) report has been prepared by TBA Urban for Homes NSW (the client) for a State Significant Development Application (SSD-71454960) for the redevelopment of existing social housing (the Project) at 195-213 Fitzgerald Avenue and 40-64 Yorktown Parade, Maroubra (the Site). It has been prepared in accordance with *Crime Prevention and the Assessment of Development Applications Guidelines* (2001), prepared by the NSW Police in conjunction with the NSW Department of Infrastructure, Planning and Natural Resources (former Department of Urban Affairs and Planning), which is a relevant document for the assessment of CPTED under section 4.15 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). This report also assists the client in addressing the Secretary's Environmental Assessment Requirements (SEARs) for the project issued on 6 June 2024 which identified the following specific assessment requirements:

7. Public Space

Address how Crime Prevention through Environmental Design (CPTED) principles are to be integrated into the development, in accordance with Crime Prevention and the Assessment of Development Applications Guidelines.

In completing this report TBA Urban has reviewed both the Architectural drawings prepared by SJB on 3 October 2024 and the Landscape Masterplan prepared by McLean Design on 3 October 2024.

CPTED aims to create the reality (or perception), through the use of design, that the costs of committing crime are greater than the likely benefits received. This is achieved by creating environmental and social conditions that:

- Increasing the likelihood of detection, challenge and apprehension, therefore maximising risk to offenders of being caught;
- Increasing the time, energy and resources required to commit crime, therefore maximise the effort required to commit crime;
- Minimise the actual and perceived benefits of crime (removing, minimising or concealing crime attractors and rewards); and
- Removing those conditions that encourage/facilitate rationalisation of inappropriate behaviour and therefore minimise opportunities to make excuses for crimes committed.

CPTED employs four key strategies to achieve this being:

1. Surveillance
2. Access Control
3. Territorial Reinforcement
4. Space / Activity Management

The Site is located in the suburb of Maroubra within the Randwick City Council local government area (LGA) and is zoned R3 Medium Density Residential under the

Randwick Local Environmental Plan (LEP) 2012. The Site has a total area of approximately 9,596 square metres (sqm) with frontages to Fitzgerald Avenue to the north and Yorktown Parade to the south.

The suburb of Maroubra maintains low levels of crime, with an elevated level of crime threat occurring more broadly within the Randwick LGA. However, within the suburb of Maroubra, the Site has a 'moderate' to 'high' crime risk profile. Recorded crime rates have remained generally stable over the previous two year period.

Therefore, applying the guidelines prepared by the former NSW Department of Urban Affairs and Planning titled *Crime Prevention and the assessment of development applications* (2001), we can assess the Site in its context as having a 'moderate' to 'high' crime risk profile.

A number of recommendations for the implementation of CPTED features have been provided throughout Section 5 of this report. Should these design features be incorporated within the design of the Project TBA Urban believes it will likely facilitate a development that can be managed to minimise the potential risk of crime. These recommendations should be included in an Operational and Landscape Management Plan for the development to be prepared prior to the issue of an Occupation Certificate.

1 Introduction

CPTED is a situational crime prevention strategy that focuses on the design, planning and structure of an environment. This report has been prepared by TBA Urban for Homes NSW (the client) for a State Significant Development Application (SSD-71454960) for the redevelopment of existing social housing (the Project) at 195-213 Fitzgerald Avenue and 40-64 Yorktown Parade, Maroubra (the Site).

The Project involves the replacement of the 33 social housing units across eight 2 storey apartment buildings and a single storey dwelling with 144 units across four 3 storey buildings and two part 3/part 4 storey buildings.

The purpose of this CPTED report is to:

- review and assess the potential crime risk generated from the proposed development by identifying its design, planning and structural element against the guiding principles of CPTED,
- recommend design principles to reduce the potential for crime, and
- address the Secretary's Environmental Assessment Requirements (SEARs) for the project issued on 6 June 2024 which identified the following specific assessment requirements.

This report has been prepared in accordance with *Crime Prevention and the Assessment of Development Applications Guidelines* (2001), prepared by the NSW Police in conjunction with the NSW Department of Infrastructure, Planning and Natural Resources (former Department of Urban Affairs and Planning), which is a relevant document for the assessment of CPTED under section 4.15 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

1.1 Design review

In preparing this report TBA Urban has reviewed both the Architectural drawings prepared by SJB on 3 October 2024 and the Landscape Masterplan prepared by McLean Design on 3 October 2024 depicting the proposed landscaping throughout the development (proposed designs). These proposed designs have been reviewed within the context of the CPTED Principles outlined within Section 5 of this report.

2 The Site

2.1 Site location and context

The Site is located within the Randwick City Council local government area (LGA) and is zoned R3 Medium Density Residential under the Randwick Local Environmental Plan (LEP) 2012. It is located about eight kilometres (km) to the southeast of Sydney CBD, six km south of Bondi Junction and six km east of Sydney Airport (Kingsford Smith) at Mascot (Figure 1).

The Site has a total area of approximately 9,596 square metres (m²) with frontages to Fitzgerald Avenue to the north and Yorktown Parade to the south (**Figure 2**).

The existing buildings on the Site are currently occupied. There is street trees located along the Fitzgerald Avenue frontage and a series of trees within the Site between the buildings and along both street frontages.

The site is accessible by public transport with services that run along Fitzgerald Avenue with frequent services to Maroubra town centre and Bondi Junction, with connecting services to Sydney CBD.

The site has excellent proximity to established residential infrastructure being about 700 metres (m) to the southwest of the Maroubra Junction town centre, 860m to the west of Maroubra Beach, and is directly adjacent to Coral Sea Park to the south which includes playing fields, a club house and a basketball court.

The Site is formally described as follows:

Lot	Address	Site Area (approx.)
1 DP668769	195-213 Fitzgerald Avenue, Maroubra	5,277 m ²
248 DP36345	42-64 Yorktown Parade, Maroubra	3,666 m ²
249 DP36345	40 Yorktown Parade, Maroubra	653 m ²
	Approximate Total Area	9,596 m²



Figure 1: Site Context

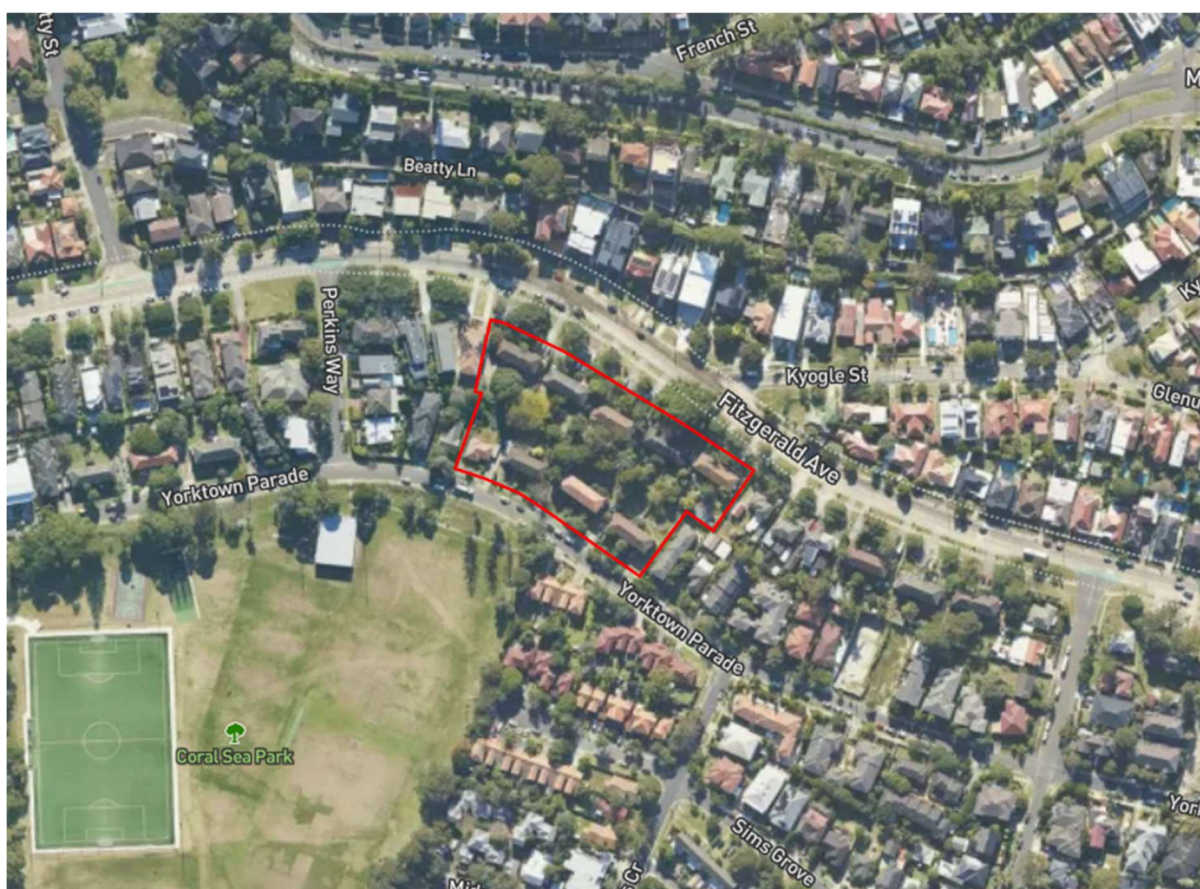


Figure 2: Aerial view of site (Source: MetroMaps)

2.2 Surrounding development

Fitzgerald Avenue is a key connecting street between Anzac Parade and Pagewood to the west and Maroubra Beach to the east. The location is suburban in scale and feel, characterised by sixties era brown and red brick houses/unit blocks as well as new, three storey dual occupancy developments. The surrounding development can be summarised as follows:

North: The northern site boundary fronts Fitzgerald Avenue and is adjacent to a combination of three (3) storey modern residential townhouses and sixties era brown and red brick houses. A large, landscaped verge (approx. 15m wide) is situated along the Fitzgerald Avenue frontage containing a number of large mature fig and banksia street trees.

South: To the south across Yorktown Parade is Coral Sea Park which includes playing fields, a club house including change rooms and a basketball court. This park is surrounded by residential developments creating views lines to and from the park, as well as amenity and active recreation.

East: The eastern site boundary is adjacent to residential development, comprising a mix of detached dwellings, dual occupancies and low-rise apartment buildings (2 – 3 storeys).

West: The western site is very similar to that of the east being adjacent to a mix of similar residential development, comprising detached dwellings, dual occupancies and low-rise apartment buildings (2 – 3 storeys).

3 Crime risk analysis

3.1 Crime risk identification

The NSW Bureau of Crime Statistics and Research (BOCSAR) provides crime profiles of a localities throughout NSW during calendar years. This data can assist in identifying specific crimes prevalent in an area and help guide design to mitigate the circumstance of anti-social behaviour.

The BOCSAR data ranks crime rates on a coloured scale per 100,000 people, TBA Urban have applied a crime threat level description for each of these ranks. With dark red being the 'Highest Level of Crime' and yellow being the 'Lowest Level of Crime' as indicated in the below table:

Table 1 Crime Rates ranks per 100,000 people.

Level of Crime
Lowest Level of Crime
Low Level of Crime
Medium Level of Crime
High Level of Crime
Highest Level of Crime

Applying this crime threat level ranking to the suburb of Maroubra and the Randwick LGA, we can establish which specific crimes threat are relevant for the proposed development within this location.

Table 2 Specific crime threats for the proposed development by location

Crime Type by Location		
Level of Crime	Maroubra (suburb)	Randwick LGA
Lowest Level of Crime	Domestic Assault Non-domestic Assault Assault Police Robbery without a weapon Robbery with a firearm Robbery with a weapon not a firearm Sexual Assault / Act Breaking & enter dwelling & non-dwelling	Domestic Assault Robbery with a firearm Breaking & enter dwelling & non-dwelling

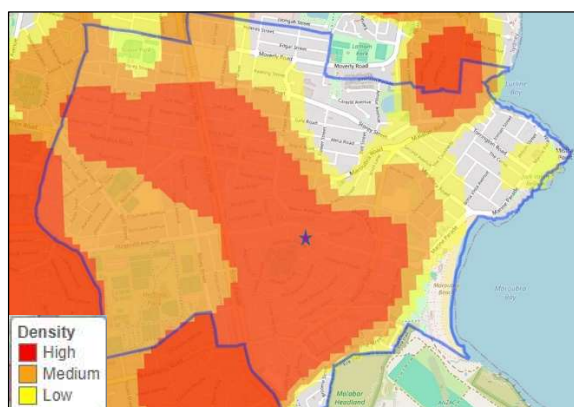
Crime Type by Location		
Level of Crime	Maroubra (suburb)	Randwick LGA
	Receiving/handling stolen goods Motor vehicle theft Steal from motor vehicle Steal from retail store Steal from person	
Low Level of Crime	No relevant crimes	Motor vehicle theft
Medium Level of Crime	Stealing from dwelling	Assault Police Robbery without a weapon Sexual Assault / Act Steal from motor vehicle Steal from retail store Steal from person
High Level of Crime	No relevant crimes	Non-domestic Assault Robbery with a weapon not a firearm Receiving/handling stolen goods Stealing from dwelling
Highest Level of Crime	No relevant crimes	No relevant crimes

Table 3 outlines the two-year crime trend for the suburb of Maroubra, separated into crime profiles, for the year to March 2024 against that of NSW. This table is overlayed with the crime hotspot maps below which indicate areas of crime density within the suburb. These maps show clusters of reported crime only, and do not account for the number of residents of the suburb / LGA or their visitors. Suburbs with crime hotspots do not necessarily have higher levels of crime relative to other suburbs / LGAs, as hotspots only reflect the density of incidents in a specific area, not the number of incidents of crime in the suburb / LGA.

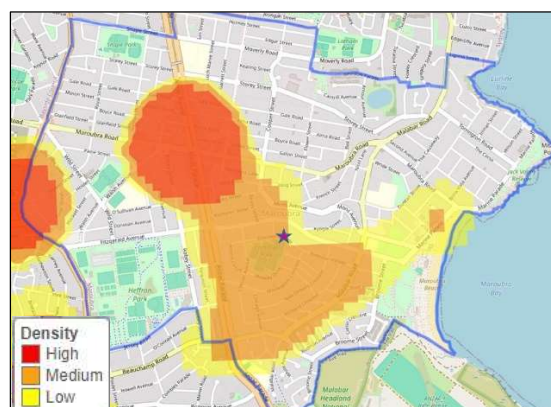
Table 3 Incident rates for Maroubra versus NSW

Crime	Area	24-mth Trend	Rate per 100,000 people	Above or Below NSW Rate	Subject site within Hotspot (Jan-Dec 2023)
Domestic violence related assault	Maroubra	Stable	407.5	Below	High
	NSW	Up 5.5%	447.1		
Non-domestic violence related assault	Maroubra	Stable	381.8	Below	Medium
	NSW	Up 6.5%	423.0		
Robbery	Maroubra	n.c	16.0	Below	Low
	NSW	Stable	23.8		
Break and enter dwelling	Maroubra	Stable	189.3	Below	Medium
	NSW	Up 7.0%	249.1		
Break and enter non-dwelling	Maroubra	n.c	28.9	Below	N/A
	NSW	Up 13.9%	105.5		
Motor vehicle theft	Maroubra	Stable	105.9	Below	High
	NSW	Up 12.9%	177.8		
Steal from motor vehicle	Maroubra	Stable	275.9	Below	High
	NSW	Stable	350.9		
Steal from dwelling	Maroubra	Stable	308.0	Above	High
	NSW	Up 5.3%	197.1		
Steal from person	Maroubra	n.c	22.5	Below	N/A
	NSW	Up 6.3%	26.6		
Malicious damage to property	Maroubra	Stable	555.0	Below	High
	NSW	Up 0.7%	605.3		

BOCSAR Crime Hotspot Maps (Jan 2023 – Dec 2023)

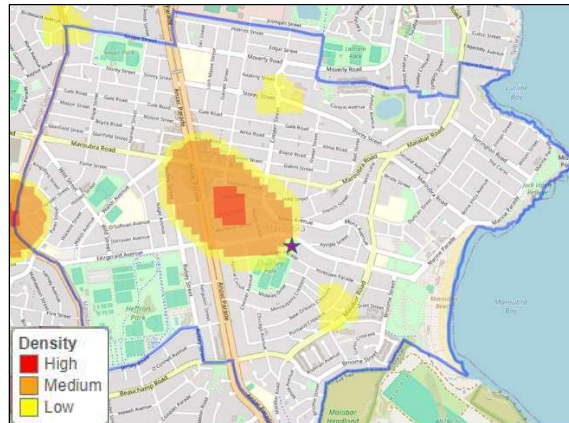


Domestic violence related assault



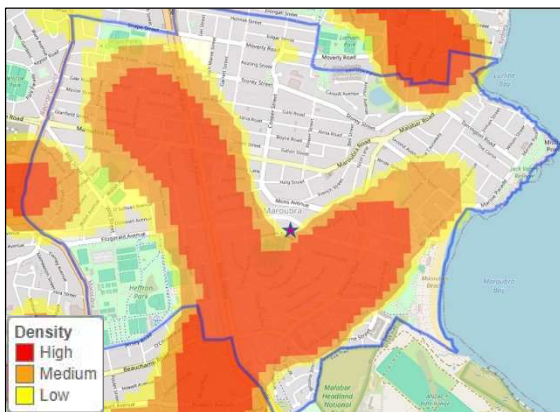
Non-domestic violence related assault

Table 3, and the related hotspot data, indicate that assaults, both domestic and non-domestic, have remained stable over the following 24-months but incidents remain high in and around the subject site. Recommendations are provided in more detail within Section 5 of this report including the use of sightlines to help maximise passive surveillance within the proposed development. Passive surveillance will help minimise opportunistic incidence of domestic and non-domestic assault.

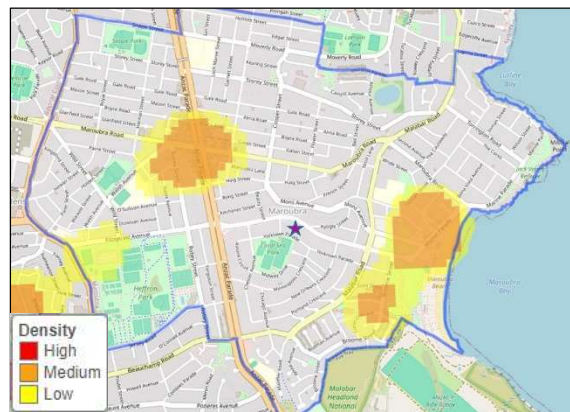


Robbery

It is noted that robbery at the subject site is considered low, with incidents below the NSW's rates per 100,000 people. Mitigating measures such as restricted gates and swipe card entry for residential lobbies should be employed, along with CCTV which should help deter this crime related threat.

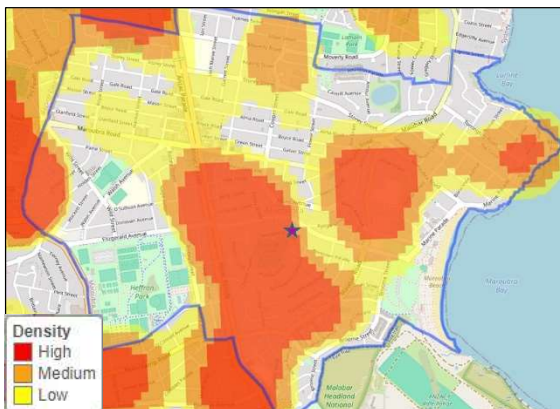


Break and enter dwelling

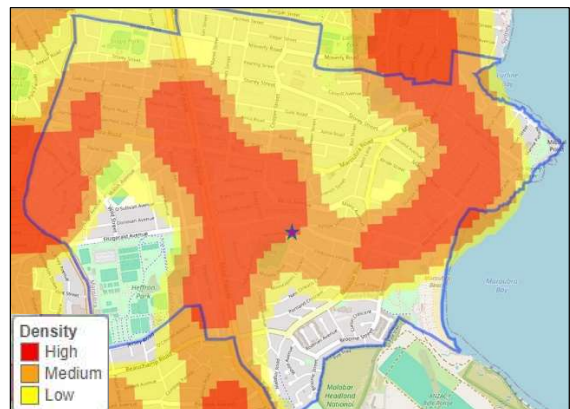


Break and enter non-dwelling

Table 3 indicates that break and enter dwelling are stable over the 24-month period but have a medium risk of occurring within the subject site. Recommendations for the use of access control and surveillance are outlined within Section 5 and if implemented should assist in mitigating this crime related threat.

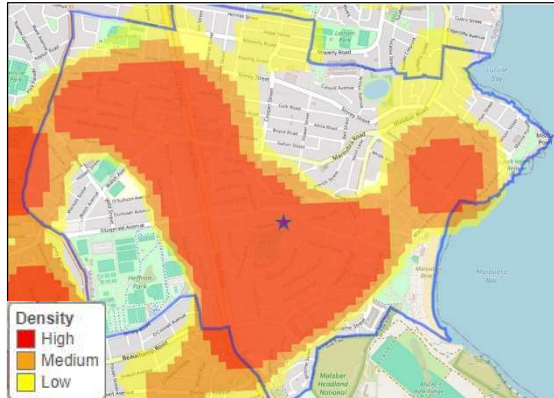


Motor vehicle theft

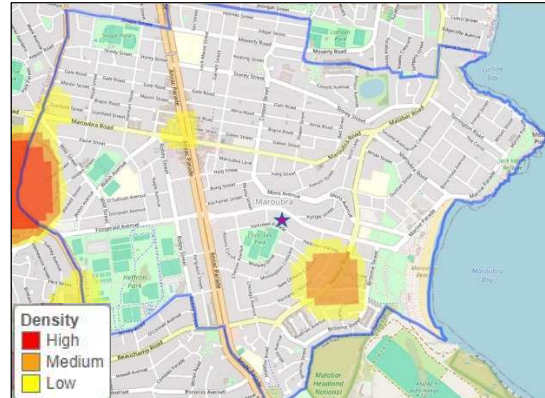


Theft from motor vehicle

The hotspot maps indicate both motor vehicle theft and stealing from a motor vehicle remained elevated within Maroubra with both having a high rating. Mitigation measures associated with basement security and CCTV have been included within the proposed development. Opportunities for passive surveillance of site perimeters and entry and exit egresses from balconies and windows should also act as a deterrent.

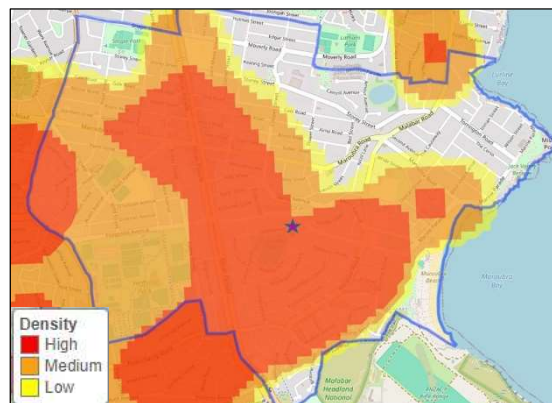


Theft from dwelling



Theft from person

Table 3 indicates that theft from dwellings is a problem within the suburb of Maroubra with the rate of occurrence being above that of NSW. The proposed development will need to give special consideration to the design measures to be implemented to minimise this crime related threat. The use of access control, passive and active surveillance and territorial reinforcement will need to be utilised as outlined within the recommendation of this report.



Malicious damage to property

Incidents of malicious damage to property remain high in and around the subject site. Measures such as passive surveillance and the repair of vandalism, removal of graffiti and the replacement of decayed physical elements will be important to mitigate against this risk.

3.2 Crime risk rating

Utilising the above analysis of crime statistics from the BOCSAR, and applying the guidelines prepared by the former NSW Department of Urban Affairs and Planning titled *Crime Prevention and the assessment of development applications* (2001), we can assess the site in its context, being that of Maroubra as having a 'moderate' to 'high' crime risk profile.

4 Proposed development

4.1 Overview of the proposal

The proposed development is detailed in the Architectural Drawings (dated 3 October 2024) and Design Report (October 2024) prepared by SJB. It comprises demolition of existing buildings and the construction of four 3 storey and two part 3/part 4 storey residential flat buildings to accommodate 144 social and affordable housing apartments, a communal room and a single level basement car park including bulk earthworks, tree removal and associated landscaping and public domain works. Refer to the Site Plan at Figure 3.

All vehicular access into the development is provided via a driveway on the western end of the Fitzgerald Avenue frontage, which provides access to a single level basement car park accommodating 77 car spaces, storage and plant. The basement will be accessed from the lifts and stairs from each of the northern buildings (Buildings 1A to 1D).

A central communal open space spine separates the buildings fronting Fitzgerald Avenue and Yorktown Parade and provides connectivity through the site to public transport and parkland for occupants of the site.

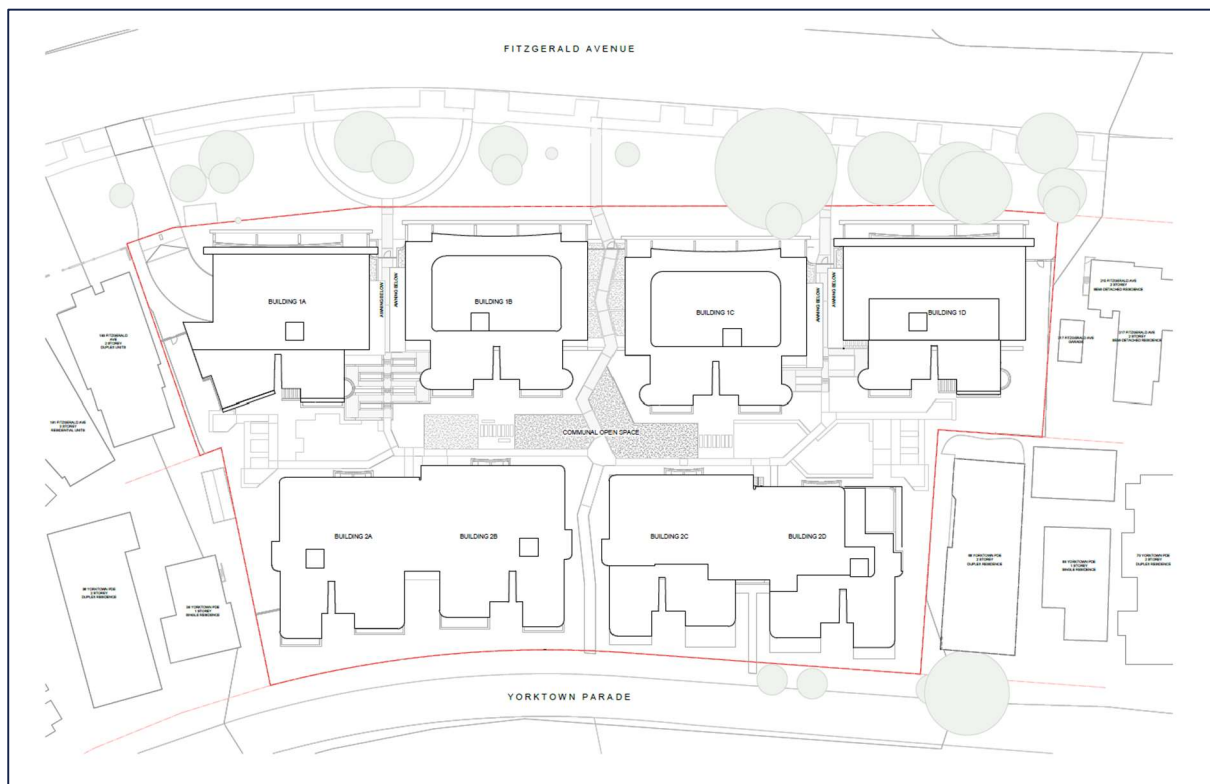


Figure 3 Site Plan (Source: SJB)



Figure 4 3D Render (Yorktown Parade view from Coral Sea Park) (Source: SJB)



Figure 5 3D Render (Fitzgerald Ave looking West) (Source: SJB)

4.2 Internal landscaping / communal open space (garden)

The Landscape Masterplan (**Figure 6**) prepared by McLean Design depicts the proposed landscaping throughout the development. Majority of the landscaped areas form communal open spaces areas accessible to all residents and has been designed to provide a safe and welcoming environment for residents and their visitors and to facilitate interaction.



Figure 6 Landscaping Masterplan (Source: Mclean Design)

The masterplan details a high-quality space that will promote residential interaction and reinforcing community ownership of the area. A landscaped BBQ and outdoor dining area including table tennis facilities, flexible lawn space and a herb garden with seating nook facilitates activation of these spaces.

Following TBA Urban's review, the plans seem to detail a well-conceived canopy structure providing shade to designated seating areas but allows for clear sightlines and passive surveillance from many viewpoints. The proposed garden has been designed to include low shrubs and high canopy trees which will allow the maintenance of sightlines along pedestrian pathways and building entries where required. Open lawn and/or low-level shrubs near residential entry and exit point allow for surveillance and minimise places of potential concealment.

The plans show differentiating paving patterns throughout the area helps to distinguish designated communal areas from footpaths and any private space. Access to communal areas will be controlled by security gates with swipe card access and intercom located between Buildings 1B & 1C and Buildings 2A and 2B to prevent access by the public.

The External Lighting Strategy (**Figure 7**) demonstrates that all accessible external areas of the development are well lit and other areas such as side setbacks include discreet lighting to facilitate surveillance and deter anti-social behaviour.

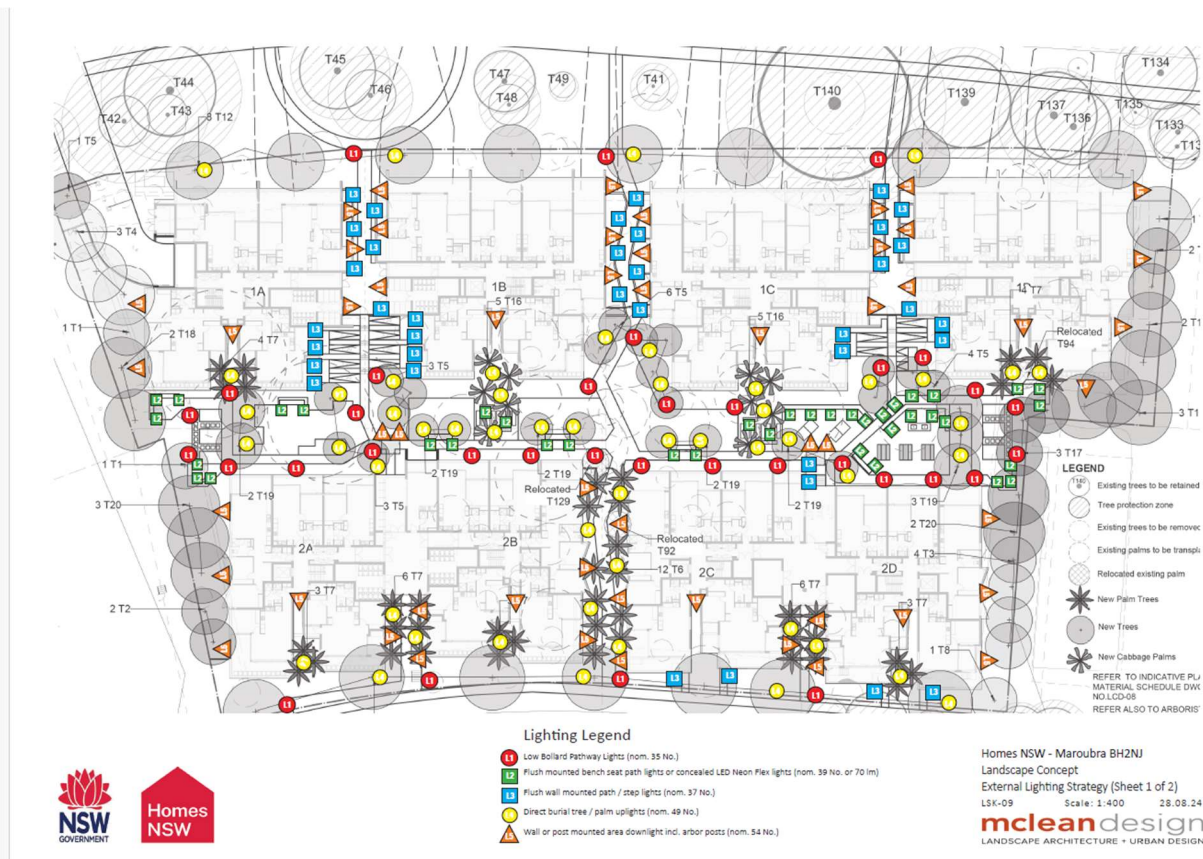


Figure 7 External Lighting Strategy (Source: Mclean Design)

4.3 External landscaping

It is TBA Urbans understanding that all trees within the Fitzgerald Avenue and Yorktown Parade, street verges are to be retained where possible. It is envisaged that future embellishment of land within the verges will be subject to negotiation and agreement with Randwick City Council following the issue of the development consent.

4.4 Access to apartments

Residential apartments will be accessed via ground floor entry points. These entry points / residential lobbies will incorporate restricted access control in the form of key lock, swipe card or intercom entry. Lift access will be restricted in conjunction with access arrangements.

4.5 Car and bicycle parking

Resident and visitor car parking is to be provided in a single basement level. Access to the basement will be controlled by swipe card access and intercom. It is TBA Urban's understanding that CCTV will be utilised to monitor basement parking facilities and the entry and exit of vehicles and people.

Bicycle parking is located at the ground floor of each of the cores of Building 1 and at the ground and lower ground level of Building 2B.

4.6 Waste Management

The Architectural drawings indicate that the waste rooms will be located at the ground floor adjacent to the core of each of the buildings. Four temporary kerbside collection areas are proposed, two on Fitzgerald Avenue and two on Yorktown Parade.

TBA Urban have been informed that the day before the designated collection date, the caretaker will transfer the waste, recycling and organics bins from the waste rooms to the four temporary kerbside collection areas to await collection.

Once all bins have been emptied by Council, the caretaker will return the bins to their respective waste rooms.

5 CPTED Principles

CPTED aims to create the reality (or perception), through the use of design, that the costs of committing crime are greater than the likely benefits received. This is achieved by creating environmental and social conditions that:

- Increasing the likelihood of detection, challenge and apprehension, therefore maximising risk to offenders of being caught;
- Increasing the time, energy and resources required to commit crime, therefore maximise the effort required to commit crime;
- Minimise the actual and perceived benefits of crime (removing, minimising or concealing crime attractors and rewards); and
- Removing those conditions that encourage/facilitate rationalisation of inappropriate behaviour and therefore minimise opportunities to make excuses for crimes committed.

CPTED employs four key strategies to achieve this being:

1. Surveillance
2. Access Control
3. Territorial Reinforcement
4. Space / Activity Management

Under each of these Principles, there are Objectives that state the desired outcome of that principle. These Objectives are to be addressed with the application of suitable or tailored design solutions that give regard to the nature and scale of the proposal.

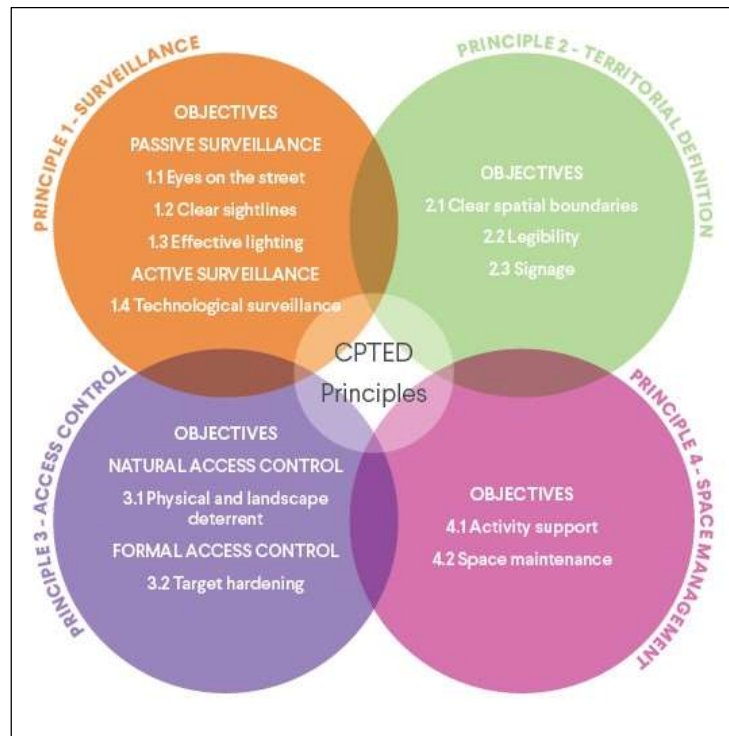


Figure 8 CPTED Principles

5.1 Surveillance

The *Crime Prevention and the Assessment of Development Applications Guidelines* states that 'the attractiveness of crime targets can be reduced by providing opportunities for effective surveillance, both natural and technical'.

Would-be offenders are often deterred from committing crime in areas with high levels of surveillance. From a design perspective, 'deterrence' can be achieved by:

- clear sightlines between public and private places;
- effective lighting of public places; and
- landscaping that makes places attractive, but does not provide offenders with a place to hide or entrap victims.

On review of the proposed design, effective surveillance appears to be achieved via the following aspects:

- The primary access for occupants is highly visible from both Fitzgerald Avenue and Yorktown Parade with a straight formalised walkway leading directly to the main entry doors;
- The entries are complemented by an awning structure which signifies the entry point to visitors to the building;
- Clear sightlines to entry and exit points facilitated by suitable landscaped canopy heights within the residential communal garden, located in the centre of the development;

- With apartments all oriented to the north/south half of units face the street offering good passive surveillance of site perimeters and entry and exit egresses from balconies and windows. The other half of the apartments overlook the central communal open space again providing opportunities for passive surveillance;
- Maximising the use of natural light penetration throughout the development;
- The provision of sufficient light coverage along with lighting at different heights ranges to enhance visibility and sightlines along residential and pedestrian routes, therefore minimising places of concealment;
- A lobby window overlooking the basement entrance ramp, allows passive surveillance of vehicles entering and existing the development;
- Circulation areas are generally linear to provide clear sight lines with no obscured corners;
- Clear sightlines facilitated by suitable landscaped canopy height along both Yorktown Parade and Fitzgerald Avenue;
- Solid areas of front fencing to private open space is kept low so as to demarcate private space whilst maintaining passive surveillance of the streets;
- Residential lobby entry located in a prominent position within the centre of the development and clearly visible from both Yorktown Parade and Fitzgerald Avenue;
- Lobby entries consist of some glazing to facilitate natural surveillance.

The below table indicates a list of potential surveillance issues and recommended measures to be put in place to mitigate against crime.

Surveillance Issues	Recommendations
Development Perimeter	• Minimise density of planting around the perimeter of the site to maintain clear sightlines as per the proposed Landscape Plan. • The perimeter of the development should be well lit at night in accordance with the relevant Australian Standards for lighting of residential buildings. • Consideration should be given to the installation of CCTV at the basement entrance ramp facing the pedestrian pathway.
Entrances	• All entrances should be well lit at night. • Shrubs should be kept to a minimum within close proximity of residential entry and exit point, to minimise place of concealment.
Landscaping	• The planting proposed in the Landscape Plan should not obstruct surveillance along road frontages and site perimeters. • Landscaping should be free from obstructions and allow for clear sightlines along designated pathways. • Clear sightlines should be maintained within areas of mature tree planting.

Surveillance Issues	Recommendations
	- Landscaping should not impede opportunities for natural surveillance of building entry and exit points. - Foliage density should be adequately maintained regularly, especially along Fitzgerald Avenue and Yorktown Parade and within the central communal open space area to promote passive surveillance.
Basement Carpark	- Minimise density of planting around carpark entry to maintain clear sightlines. - Sufficient lighting should be installed to allow illumination at night. - Regular maintenance of the roller shutter gate. - Consider the installation of CCTV in this area.
Lighting and Signage	- Lighting should be vandal resistant, where possible. - Lighting should satisfy the relevant Australian standard. - Effective illumination at ground level should reduce any opportunity for shadowing along access routes. - The basement carpark should be well illuminated, especially in storage areas to reduce area or places of concealment. - Building numbers should be illuminated to promote site identification. - Signs should be erected in areas which are restricted / prohibited to discourage criminal or anti-social behaviour.
Positioning of CCTV cameras	- Consideration should be given to the installation of CCTV overlooking street frontages, residential entry points, landscaped areas / communal garden through the site and pedestrian pathways. - CCTV should be clearly visible to deter potential offenders and at a height to capture a full view of the offender's face.
Other	Consideration should be given to the contracting of a local security firm to undertake regular inspections of the development.

5.2 Access control

Access Control is a security technique that regulates the movement of people, that is it 'attracts, channels or restricts' mobility by using physical and symbolic barriers which minimise opportunities for crime and increase the effort required to commit crime. Effective access control can be achieved by creating:

- landscapes and physical locations that channel and group pedestrians into target areas;
- public spaces which attract, rather than discourage people from gathering; and
- restricted access to internal areas or high-risk areas (like car parks or other visited areas). This is often achieved through the use of physical barriers.

Positive access control aspects of the proposed design include:

- Vehicular ingress/ egress to the development is allowable by a single point of access via Fitzgerald Avenue.
- The Basement car park is secured via a locked roller door;
- Mailboxes situated within residential lobbies reducing the opportunities for mail theft;
- Restricted gates and lobby's entrance with swipe card and intercom access to minimise conflict and unauthorised access to the development.

Access Control Issues	Recommendations
Entrances	• All building entrances should be secured and controlled via electronic swipe cards and intercom. • Regular maintenance should be carried out on lobby entry doors, communal garden entry gates and basement roller doors. • Ensure emergency exit doors incorporate self-closing hinges / mechanisms.
Landscaping	• Avoid planting large trees adjacent to buildings to prevent use as 'natural ladder'. • Any existing trees in close proximity to balconies should be trimmed or cut back to mitigate them being used as a 'natural ladder'.
Residential communal garden	• Access to communal areas should be restricted through use of swipe card access. • Signage should be prominently displaced indicating hours of operation, if suitable. • CCTV should be used to monitor communal garden especially the entry and exit of patrons.
Basement Carpark	• Access to the residential basement car parking should be controlled by a roller door and operable via swipe card access. • CCTV should be used to monitor basement parking facilities, especially the entry and exit of vehicles. • Signage should be provided to indicate the use of CCTV and designate waste facilities.

Access Control Issues	Recommendations
Other	• Ensure all windows and access points are kept secure. • All glass within areas accessible to the public should be reinforced toughened safety glass. • A designate escape routes and safe areas for residents should be identified and communicated regularly. • Use signage to promote security measures. • All doors should be of solid construction and well fitted. • External doors and windows should be fully secured with good quality locking devices applied. These locks should be regularly maintained and checked by an authorised maintenance officer.

5.3 Territorial reinforcement

Territorial reinforcement is the idea of modifying the environment to emphasis and enhancing the feeling of 'community ownership of public spaces.' Community ownership of public spaces sends positive signals and reduces opportunities for crime.

Community ownership also increases the likelihood that people who witness crime will respond by quickly reporting it or by attempting to prevent it. Territorial reinforcement can be achieved through:

- design that encourages people to gather in public space and to feel some responsibility for its use and condition;
- design with clear transitions and boundaries between public and private space; and
- clear design cues on who is to use space and what it is to be used for.
- clearly visible signage of points of interest and key locations such as egress and ingress points, fire extinguishers and waste facilities.

TBA Urban believe, positive territorial reinforcement is expected to be achieved within the proposed development via the following aspects:

- Design of the residential entrances and lobby provide a clear demarcation between public and private space;
- The communal landscaped areas is of a high quality design and will promote a sense of ownership and ample residential interaction;
- Private courtyard areas are raised and clearly defined with solid brick perimeters and gates direct entries where possible due to flooding, floor levels and location;
- The communal garden area allows for resident interaction and maintenance via the 'vegetable / herb garden'; and
- Inclusion of interactive play spaces and structures designed to connect with Country.

Territorial Reinforcement Issues	Recommendations
Creating Communal Ownership	• The communal open space should be well maintained via a designated Operational and Landscape Maintenance Plan. • The communal garden area should allow for some resident maintenance and additions such as a 'vegetable / herb garden' – promotes communal ownership.
Signage	• Clearly identify entry and exit points and evacuation paths.
Other	• Consider the installation of security alarm systems, where appropriate. • Providing signs indicating the presence of a security system, the use of a security patrol contractor and the use of a CCTV system.

5.4 Space management

A popular space is often attractive, well maintained and well used. Space management 'ensures that spaces are appropriately utilised and well cared for. Strategies to active space management include:

- site cleanliness;
- rapid repair of vandalism and graffiti; and
- the replacement of decayed physical elements.

'Space management' recommendations to minimise crime risk for the development include ensuring the buildings and landscaping are looked after, well maintained with defects, The buildings are looked after, well maintained with defects and vandalism rectified as soon as possible.

This means that buildings should be maintained regularly to minimise the perception of urban decay. Having clean and undamaged areas minimises the fear of crime and avoidance behaviour.

Space Management Issues	Recommendations
Waste rooms	• Waste bin storage areas should be secured for access via swipe card passes only. • Waste rooms should be well maintained, clean and free of rubbish to avoid areas of concealment.

Space Management Issues	Recommendations
	Garbage bins and waste storage receptacles should be regularly emptied to prevent overflowing rubbish.
Lighting	- Install vandal resistant lighting where possible. - Management should ensure that lighting is repaired as soon as possible after any lighting failures or damage.
Maintenance	- A designated asset management and maintenance plan/regime should be put into place to ensure the development is well maintained, clean and always kept clean and tidy. - Implement a Landscape Management Plan to ensure all communal areas are well kept and sightlines to key access points are maintained. - Building perimeters should be cleaned of rubbish including fences with potential climbing aids removed. - Boundary gates and fences should be well-built, kept secure and maintained regularly to avoid unlawful entry. - Undertake regular inspections of buildings and landscaping for damage, graffiti, or general 'wear and tear' and repair as soon as possible.

6 Conclusion & Recommendations

This CPTED report has been prepared to review the design of the proposed in-fill affordable housing development at 195-213 Fitzgerald Avenue and 40-64 Yorktown Parade, Maroubra (the Site). It considers the potential crime risk of this type of development in this location; the proposed design against the principles of CPTED; and provides recommendations to minimise opportunity for crime.

This report has been prepared in accordance with *Crime Prevention and the Assessment of Development Applications Guidelines* (2001) for assessment under section 4.15 of the EP&A Act.

In completion of its review of the proposed design, TBA Urban believe the development in both form and potential for passive and active surveillance along with landscaping opportunities is generally in keeping with the CPTED principles outlined within Section 5. The proposed development appears to be of a high quality, contextual appropriate for the crime risk rating of the location and looks to create a safer, vibrant, welcoming environments for all to enjoy.

Should the recommendations provided throughout Section 5 of this report, be implemented appropriately and in accordance with the proposed design, TBA Urban believes that this will facilitate a development that can be managed to minimise the potential risk of crime. These recommendations should be included in an Operational and Landscape Management Plan for the development to be prepared prior to the issue of an Occupation Certificate.