



Amended CPTED Report Bupa St Ives RACF

Prepared by Inspira Property Group

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Executive Summary

Inspira Property Group has prepared this Amended Crime Prevention Through Environmental Design (CPTED) assessment of the proposed Residential Aged Care Facility (RACF) to be developed on an island site located at 238 – 240 Mona Vale Road, St Ives, in Ku-ring-gai Municipal Council (KMC) local government area (LGA). A Development Application was submitted in April 2013. The design of the proposed RACF has been amended, and in response to those design amendments, including changes to the landscaping surrounding the facility, the CPTED Assessment and this report has been amended.

The proposed development can be summarised as follows:

- Demolition of existing structures and removal of waste;
- Transfer of mature camellia trees in the south-western area of the site to suitable locations on the perimeter of the site wherever possible;
- Construction of a 4 storey RACF with basement parking and utilities;
- Additional landscaping including embellishment with shrub and flower plantings, pathways for linkages and access, new fencing;
- Water re-use is proposed for staff toilets. Refer to the Stormwater Management Plan;
- Council has requested that street trees be removed in the immediate vicinity of the facility on Mona Vale Road and Link Road and replaced with new, healthy specimens in more appropriate locations;
- Two easements for drainage are proposed to be extinguished, and the drainage line relocated to provide a more favourable configuration for the proposed development.

This report will inform the Development Application and Statement of Environmental Effects submitted to KMC.

A site plan of the proposed development is attached in Appendix One and is included with the Architectural Drawings and Landscape Plans.

Crime prevention through environmental design (CPTED) seeks to influence the design of buildings and places by:

- Increasing the perception of risk to criminals by increasing the possibility of detection, challenge and capture
- Increasing the effort required to commit crime by increasing the time, energy or resources which need to be expended
- Reducing the potential rewards of crime by minimising, removing or concealing 'crime benefits'
- Removing conditions that create confusion about required norms of behaviour, (NSW Department of Urban Affairs and Planning, 2001).

This CPTED assessment has concentrated on the proposed new RACF within the context of the locality and its immediate setting.

New South Wales Bureau of Crime Statistics and Research data reveals that the area has a very low level of risk for crime in and around the development site, including assault, break and enter, malicious property damage and motor vehicle theft.

The report reviews the design of the development with regarding to the CPTED principles and concludes that the proposal satisfies the four principles of CPTED and provides a safe and secure facility for residents, staff and visitors.

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1.0 Introduction

1.1 Development Proposal

Inspira Property Group has been requested to conduct a Crime Prevention through Environmental Design (CPTED) assessment of the proposed new Bupa Residential Aged Care Facility (RACF) to be located at 238 – 240 Mona Vale Road, St Ives in Ku-ring-gai Local Government Area (KMC LGA). The proposed facility will comprise 98 beds, support services and basement parking.

This report will inform the Supplementary report to the Statement of Environmental Effects which forms part of the Development Application under Part 4 of the *Environmental Planning and Assessment Act 1979* (EPAA).

The facility is proposed in an area zoned R3 Medium Density under the *Ku-ring-gai Local Environmental Plan (Local Centres) 2012* (Local Centres LEP) and ‘seniors living’ is a permissible use with consent. The *State Environmental Planning Policy (Housing for Seniors or People Living with a Disability) 2004* (Seniors Living SEPP) design principles and development standards apply to the proposed development.

Clause 37 of the Seniors Living SEPP notes in Division 2 Design Principles:

“37 Crime prevention

The proposed development should provide personal property security for residents and visitors and encourage crime prevention by:

- (a) site planning that allows observation of the approaches to a dwelling entry from inside each dwelling and general observation of public areas, driveways and streets from a dwelling that adjoins any such area, driveway or street, and
- (b) where shared entries are required, providing shared entries that serve a small number of dwellings and that are able to be locked, and
- (c) providing dwellings designed to allow residents to see who approaches their dwellings without the need to open the front door.”

While these principles apply more specifically to independent living units, the safety and security design principles of Crime Prevention Through Environmental Design (CPTED) should be applied to the RACF design, both internally and externally.

Proposed Development

The facility will provide 68 beds for the frail and elderly as well as 30 specialised beds for dementia care. There will also be support services.

Refer to Appendix One: Site Plan.

Site Context

The site is located in the suburb of St Ives, on Sydney’s north shore, and is approximately 440 metres from the St Ives Town Centre. A description of development currently surrounding the site includes:

North: Located to the north on Killeaton Street are large detached dwellings and a retirement village. The dwelling at 89 Killeaton Street is of local heritage significance. The land to the immediate north on Killeaton Street is zoned R2 Low Density under the Local Centres LEP, and beyond that the land to the north is zoned Residential 2(c) under the Kuring-gai Planning Scheme Ordinance (2013).

South and West: to the south and south-west is Link Road and Mona Vale Road, as the site is triangular. Beyond that is the area defined as the Town Centre and environs, which is zoned R4 High Density Residential with 5 storey apartments along the Link Road frontage.

East: To the immediate east of the site is Mona Vale Road. On the opposite side of the road land is zoned R4 High Density and SP2 Educational Establishment.

The assessment has applied crime prevention research and expertise to identify specific design areas that could be enhanced to maximise safety for residents, staff and visitors.

Overall, the design is considered to be robust and congruent with CPTED principles.

1.2 Crime Prevention through Environmental Design

CPTED aims to influence the design of buildings and places by:

- Increasing the perception of risk to criminals by increasing the possibility of detection, challenge and capture;
- Increasing the effort required to commit crime by increasing the time, energy or resources which need to be expended;
- Reducing the potential rewards of crime by minimising, removing or concealing 'crime benefits';
- Removing conditions that create confusion about required norms of behaviour (NSW Department of Urban Affairs and Planning, 2001).

The Government's strategy for assisting with the assessment of development applications includes Guidelines under section 79C of the *Environmental Planning and Assessment Act 1979* which provide examples and information to help implement CPTED principles.

The principles embodied in the Guidelines are as follows:

- Situational crime prevention involves changing various aspects of the environment so that the efforts and risks required to commit crime are increased, and offender's perceived rewards are reduced;
- Situational crime prevention is based on the assumption that people commit crimes for rational motives, and that people will only commit a crime when they perceive the benefits outweigh the risks;
- Situational crime prevention is more effective for some types of crimes, such as those motivated by greed or opportunistic crimes. Crimes such as vandalism, assault, break and enter, theft, trespassing, and motor vehicle theft tend to be more responsive to situational crime prevention strategies. These are the types of crimes that most commonly occur in public spaces.

CPTED applies knowledge about situational crime prevention to the planning and design stages of buildings and public spaces.

CPTED aims to improve:

- Natural surveillance
- Natural access control and
- Territorial reinforcement.

Natural surveillance is a by-product of good design features and routine user activity. Natural observation enables legitimate users of space to control it.

Territoriality promotes:

- Ownership
- Responsiveness
- “Defensible Space”
- Increased perception of risk for illegitimate or abnormal users.

Access controls can be:

- Natural (by product of the normal & routine use of the environment, such as a hedge)
- Mechanical (eg locks)
- Organised (eg guards).

Assessing Space: Designation, Definition, and Design

Key CPTED principles are outlined following.

SURVEILLANCE

There are three main types of surveillance:

- 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. Natural surveillance is a by-product of well-planned, well designed and well-used space.
- Technical/mechanical surveillance is commonly used as a ‘patch’ to supervise isolated, higher risk locations. There is a proven correlation between poor lighting, fear of crime, the avoidance of public places and crime opportunity. Australian and New Zealand Pedestrian Lighting Standard 1158.1 requires lighting engineers and designers to consider crime risk and fear when selecting lamps and lighting levels. Good lighting can assist in increasing the usage of the area.
- Formal (or Organised) surveillance is achieved through the tactical positioning of guardians. An example would be the use of on-site supervisors at higher risk locations.

ACCESS CONTROL

Access control refers to the management of who enters an area so that unauthorised people are excluded, for instance, via physical barriers such as fences and grills.

TERRITORIAL REINFORCEMENT

Territorial reinforcement means that people are more likely to protect territory they feel they own and have a certain respect for the territory of others. This can be expressed through installation of fences, paving, signs, good maintenance and landscaping.

Space management is another important aspect of territorial reinforcement and ensures that space is appropriately utilised and cared for. Space management strategies include: activity coordination, site cleanliness, rapid repair of vandalism and graffiti, the replacement of burned out lighting and the removal or refurbishment of decayed physical elements.

Site Audit

To maximise effectiveness, it is important that crime prevention strategies be tailored to the specific site in which they are to be implemented. Therefore, the Bupa RACF assessment needs to take into account the specific features of the proposed development, the local circumstances and conditions and the constraints imposed by the site and design.

Careful consideration has been taken in preparing this report to ensure recommendations reflect the specialist nature of the site, this includes the need for:

- Disabled access and car parking
- Loading dock access
- Areas where densely landscaped areas are to be protected.

Regulation and Assessment Principles

Conduct of a safety audit in the current NSW policy and practice environment involves consideration of the following regulation and assessment principles:

- CPTED principles endorsed by NSW Police
- Section 79C of the NSW Environmental Planning and Assessment Act, 1979 (EP&A Act), which includes guidelines for the consideration of safety issues in the development approvals process (NSW Department of Urban Affairs and Planning: 'Crime Prevention and the Assessment of Development Applications'(2001).

Due to the nature of the development, consideration has been given to the following matters:

- Physical security of residents, staff and visitors
- Screening of personnel
- Incident procedures
- Electronic surveillance and alarm systems
- Property security.

2.0 Methodology

2.1 Assessment Tasks

The following tasks were undertaken in the preparation of this CPTED assessment:

- Site visit carried out between 3pm and 4pm on Monday 10 December 2012.
- Project designs, montages and landscape plans were reviewed when plans were revised in March 2014 as the plans have changed significantly
- The revised plans of the RACF were reviewed in March 2014
- Review of details of the proposed development
- Collection and analysis of local and NSW state crime statistics from the Bureau of Crime Statistics and Research (BOCSAR)
- Assessment of the function of the proposed development and recommendation of management measures to increase safety
- Assessment of the design of the proposed development to identify the type of security measures proposed by the operator.

2.2 Location Risk Context

The most recent mapped data from NSW Bureau of Crime Statistics and Research (BOCSAR) indicates that the site is in an area of particularly low levels of crime including assault, home invasion, malicious property damage and motor vehicle theft. Crime in the LGA, where it does occur, is concentrated around rail stations and major shopping areas.

The figures following have been extracted from the BOCSAR database.

The statistics reveal that the highest incidence of crime in the local area is 'break and enter' with the majority of crimes occurring between 6 am and 12 midday, when many people would be away at work.

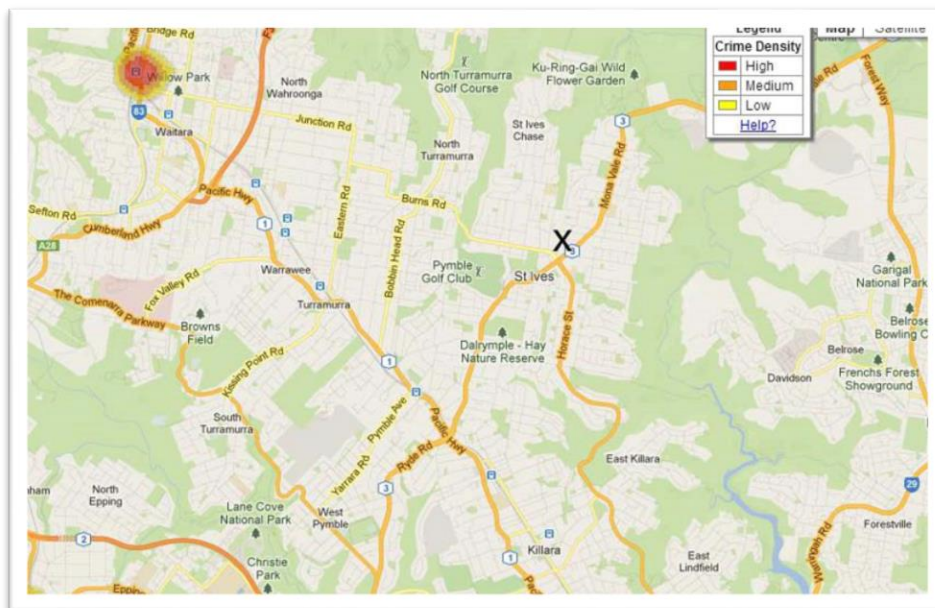


FIGURE 1: INCIDENCES OF ASSAULT, WITH LOCAL AREA MARKED WITH 'X'

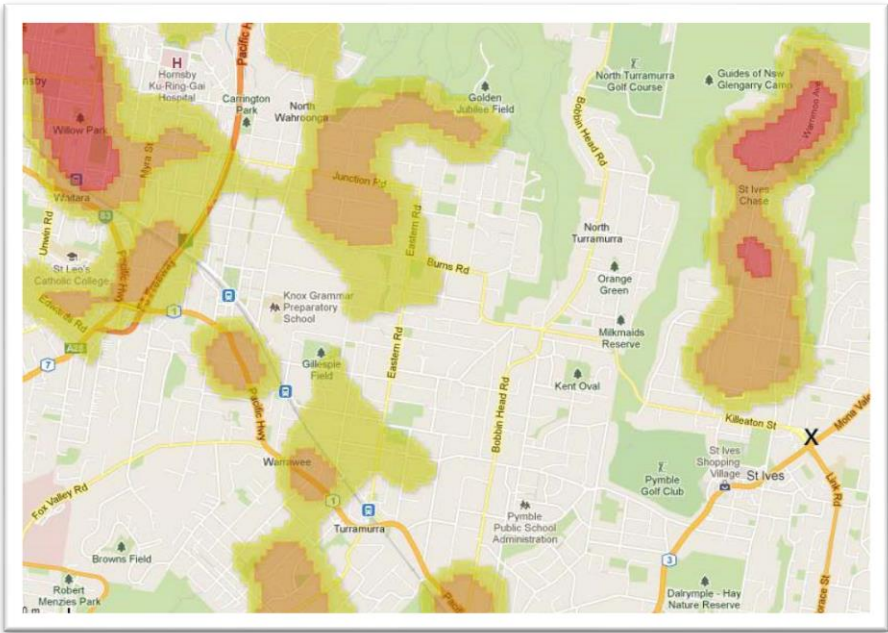


FIGURE 2: INCIDENCES OF BREAK AND ENTER, SITE MARKED WITH 'X'

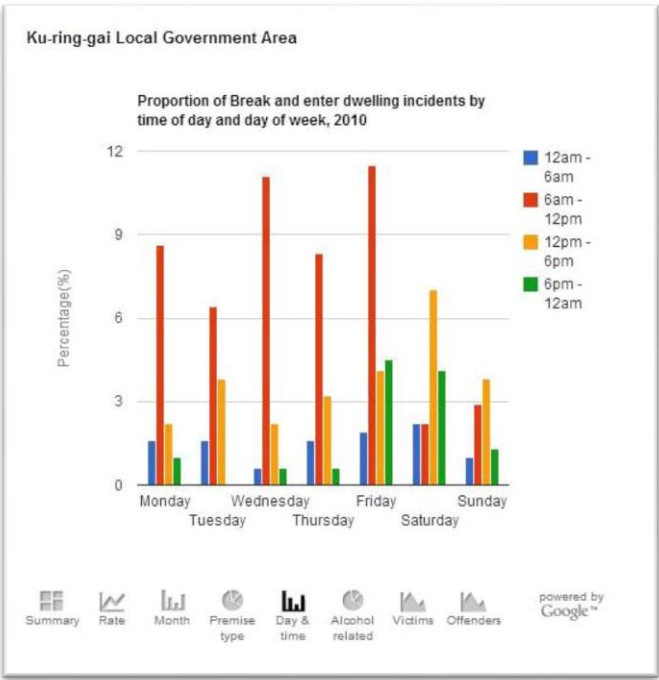


FIGURE 3: TIME AND DAY OF WEEK OF BREAK AND ENTER

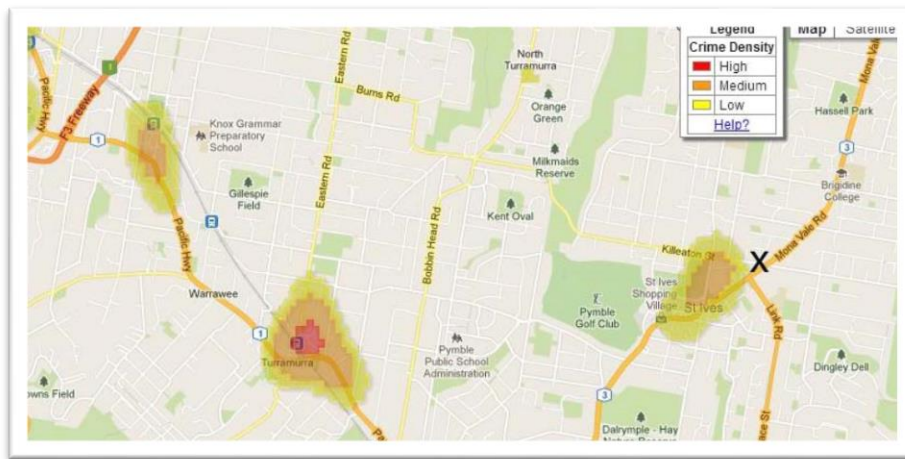


FIGURE 4: MALICIOUS DAMAGE TO PROPERTY, SITE MARKED WITH X

2.3 Site Assessment

A site assessment was carried out in December 2012. The site is currently vacant, with the former improvements associated with its longstanding use as a nursery still in situ.

Front Entrance

The front entrance to the site off Killeaton Street will continue to be the main entrance. The proposed design meets the CPTED requirements for:

- Natural and passive surveillance of the front entrance
- Adequate lighting and signage
- Delineation of public and private areas
- Opportunities for restricting access after-hours.

Courtyard Areas

The proposed courtyard outdoor areas for the residents, staff and visitors have the following characteristics:

- Natural surveillance
- Multiple entry/exit points, including disabled access from the building
- Security fence to perimeter (inside landscaped boundary)
- Perception of safety
- Opportunities for restricting access after-hours.

It is particularly noted that access to the garden areas has been quite dramatically reconfigured from the design in its first iteration. The garden courtyard areas can be viewed down the hallway through sliding doors, providing light, ventilation and amenity. This also allows staff to view residents while they are seated or moving about in the courtyards. It also means that if intruders enter these areas they will be noticed.

Basement car park

The basement car park should include lighting to ensure that there is an increased perception of safety. There will be a secure entry door with controlled access at all times.

Access to the lifts is in an 'open' area to prevent entrapment and to limit opportunities for loitering and concealment.

Semi-open spaces/hallways

The hallways and location of handwash bays have been carefully designed to create a homely rather than an 'institutional' feel while also ensuring that nursing staff can observe residents. Nurses' stations are located at key points along hallways. There are limited opportunities for after-hours access, generally only to staff.

Access Control

Public Access points into the facility will be clearly defined using appropriate way-finding signage, building form and landscape design.

There will be restricted access to staff-only areas of the facility.

Territorial Reinforcement

The highly visible location of the site on two main roads with a wide frontage to Killeaton Street means that territorial reinforcement requires particular attention.

At the request of Council, a continuous masonry fence will not be constructed along the boundary of the site in order that the general public will be able to continue to view the established Camellias and the Magnolia tree near the corner of Mona Vale Road and Killeaton Street. The benefit of the high profile location is that opportunities for concealment and loitering will be very limited.

There will be an open palisade fence and masonry fencing will only be constructed on corners and the entrance to establish the boundaries and enforce the 'territory' of the building. It will also reflect the landscaping and fencing styles of the local area.

Building Design

The building facades and the building itself have been articulated and modulated to suit the site and provide a functional layout for the RACF. While the design permits casual surveillance of surrounding areas by both staff and residents, privacy for residents is achieved with landscaping, sunscreens, articulated fenestrations and Juliet balconies.

Within the building, the separation of private residential areas (rooms), staff only areas, visitor accessible areas, outdoor courtyards, and access to the rear loading dock, have all been addressed in the detailed design of the building both internally and externally.

There is clear definition and separation of uses through furniture and signage. All areas will be secured after hours.

Resident's personal items, staff belongings, pharmaceuticals and medical and personal records will all be secured with limited access.

Space Management

The proposed development will not result in the creation of space that would compromise the safety of users or surrounding residents, in fact it will improve safety, natural and organised surveillance, and territorial reinforcement.

Landscaped Gardens

The proposed design of the gardens on the corner of Mona Vale Road and Killeaton Street has focussed on retaining and protecting the Magnolia tree and various Camellia specimens, and it creates a sense of refuge and quiet reflection. However the garden is immediately adjacent Mona Vale Road and casual surveillance by pedestrians and those driving by will be possible. The garden will also be visible from the rooms at the end of the wings on each level. As noted earlier, sliding doors permit staff and residents to view this garden from some distance.

Each of the courtyards will be visible by staff and residents through doors and windows.

Tree species have been selected to ensure that lower branches can be under-pruned to ensure good surveillance lines by staff and that residents, staff and visitors are not harmed by protruding branches.

3.0 Building & Development Audit

3.1 General Principles

The following matters will be addressed in the new development to ensure that the CPTED principles are applied. The current operational policies apply across all Bupa Aged Care properties including:

- Business identification and visitor access
- Access control
- Property and space identification
- Telephones and alarms
- Security systems
- Key and valuables controls
- Pharmaceutical cupboard controls
- Information Security
- Fire Security
- Occupational Health and Safety
- Landscaping
- Warning signs.

Landscaping

Landscaping will be designed to reduce opportunities for hiding places or entrapment spots. Boundary fencing will permit sightlines into and out of the site.

Lighting

Appropriate lighting will be installed to ensure that outdoor areas are illuminated when in use after hours. The basement car park will be illuminated at all times. Relevant lighting standards should be considered for lighting plans including AS/NZS 1158 and AS 4282.

There should be suitable external lighting installed to enhance safety and security of persons and property. Motion sensor lighting should be installed in appropriate areas which will not detrimentally impact upon residents. The equipment should be of such a standard it is not inadvertently activated by birds, cats and dogs.

While motor vehicle theft is not a problem in the local area, access to the car park should be restricted out of visitor hours.

Access and egress points should have lighting directed on them, as well as appropriate signage.

Signage

All external signage identifying the site should be illuminated to enable users, including emergency personnel, to be able to readily identify the facility in the dark and during rain.

- The street address should be clearly visible from the street and when approaching in a vehicle.
- Street building address signage should be constructed of appropriate and durable materials and positioned between 1m and 1.5m above ground level.
- Ideally such signage should be of a type and location where possible to minimise the opportunity of vandalism and graffiti.
- All external and internal signage should be large and legible in strong colours and using standard symbols.
- Where statutory or other requirements such as Australian Standards require specific signage size, colours and type (e.g. emergency exits signage) those standards or other requirements should be adhered to.

3.2 Summary & Recommendations

The following provides a summary of the findings of this assessment:

Design Issues

Overall, the proposed building and landscape design is considered to be robust and congruent with CPTED principles. The design assessment has considered:

- External design
- Internal design
- Landscape design.

The assessment identified a number of CPTED issues under the following broad characteristics of the proposed design:

- Hallways
- Courtyards and communal areas
- Loading dock
- Basement Carpark
- Building access points.

Proposed mitigation measures

Broadly, proposed mitigation measures include:

- Regularly review the facility's serious incident management plan to include strategies for enhancing security. Ensure that staff are aware of their responsibilities to assist in implementing this plan.
- Do not store rubbish, timber and other combustibles under the building where they can be used to start fires. Regularly liaise with local NSW Fire Brigade officers and encourage them to provide advice on fire safety.
- Develop a visitor management plan, including requiring visitors to sign in and wear visitor's badges.
- Where intruder detection alarms are installed, do not hang banners or stack items on shelves where they can obstruct detectors. Alarms cannot be triggered if obstructed.
- Install locking devices on portable, valuable and attractive items.
- Prune trees and shrubs, particularly near windows or doors, so they cannot provide hiding places for intruders or stolen goods.
- After visiting hours, lock all doors, windows and gates. Do not place valuable, portable or attractive items near windows or doors, where they can be accessed without triggering alarms. Carefully close blinds so thieves cannot inspect the contents of rooms.

Other CPTED measures for the built environment include:

- After hours management measures such as consideration of adequate levels of lighting, CCTV and security patrols
 - Use of robust materials in finishes to minimise the impact of malicious damage
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- Use of clear signage in relation to pedestrian access clearly marking staff only areas
- Installation of clear and prominent signage reminding users not to leave valuables in their cars
- Installation of appropriate vandal resistant lighting to Australian Standards to maximise surveillance around amenities and car parks. This will assist in minimising loitering, increasing formal surveillance and decreasing the likelihood of opportunistic crime and increase the perception of safety for after-hours users.

Additional issues during construction stage

Consideration has also been given to the management of additional issues during the construction works. This includes consideration of:

- Management of site and stored building materials
- Pedestrian and user safety
- Signage for emergency vehicles (NSW Police & NSW Fire Brigades)
- Storage of waste materials to prevent scavenging.

4.0 Summary of Design Review

The Architect's design statement notes:

“The proposed building will be located directly parallel to Link and Mona Vale Roads, appropriately set back however backing onto these two very busy roads. The site therefore opens up to the north, to the smaller scaled neighbouring buildings and to a quieter pedestrian friendly street.”

The residential accommodation addresses the northern landscaped area of the site, and views to the south-east and south-west of the building are provided from the windows of each room. While the design permits casual surveillance of surrounding areas by both staff and residents, privacy for residents is achieved with sunscreens, articulated fenestrations, balconies and landscaping.

The rear utility/loading dock and sub-basement areas of the building are protected and secured with fencing and sliding gates.

Overall the building and landscape design provides a careful balance between enabling views and passive surveillance while protecting privacy and security.

References

Australian Bureau of Statistics, Census Data 2010 for Ku-ring-gai Municipal Council Local Government Area

Bureau of Crime Statistics and Research, (BOCSAR) local government area data viewed 11 March 2013 on the website.

Department of Urban Affairs and Planning, 2001. *Crime Prevention and the assessment of development applications: Guidelines under section 79C of the Environmental Planning and Assessment Act*. NSW Government

Appendix One: Site Plan

