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www.harriscrimeprevention.com.au t: (02) 9804 8771 Security Master Licence 407778164

Crime Risk and Prevention Through Environmental Design (CPTED) Consultancy

Final Report

for

TSA Management

on behalf of

**Uniting Development
Charlestown NSW**

29th August 2022

In Confidence

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Crime Prevention Through Environmental Design (CPTED) Consultancy in relation to the Uniting Development 27 Tiral Street Charlestown NSW

EXECUTIVE SUMMARY

(extracted from the report)

ES1 Engagement, Development Overview and CPTED

Harris Crime Prevention Services (Harris) was engaged to provide Crime Prevention Through Environmental Design (CPTED) consultancy to TSA Management on behalf of Uniting for the development (development or project) at 27 Tiral Street Charlestown NSW. The site is bounded by James Street, Dudley Road and Tiral Street and was the former Hunter TAFE. Proximate distance to the site is the Pacific Highway, an oval, licenced premises, Charlestown Square and swim centre.

The development is proposed to be undertaken in three stages and is anticipated the project will comprise:

- 4 multi-level buildings identified as A,B,C and D
- building A comprising, 120 RAC, 14 ILUs,
- building B comprising 101 ILUs
- building C comprising 120 ILUs
- building D comprising 133 units
- 409 parking spaces across the development
- gym, wellness centre, community centre
- café, chapel, hair salon, swimming pool

The consultancy was required to

- (i) assess the potential and actual crime risks to the development and
- (ii) analyse and recommend the application of CPTED principles to mitigate those risks.

ES2 CPTED Aim, Objectives and Principles

The aim is for the development to become a 'welcoming-and-safe-place' for all residential, commercial, retail, contractor and visitor stakeholders.

To achieve this aim, we identify three overarching CPTED objectives.

- | | |
|-------------|---|
| Objective 1 | To understand the crime risk context and identify potential and actual crime risks. |
| Objective 2 | To affirm and/or recommend (crime) risk mitigation through CPTED solutions. |
| Objective 3 | To ensure (CPTED) compliance with State and/or Council planning instruments. |

Our report's analyses, conclusions and recommendations are based on five acknowledged CPTED principles, adapted by Harris as:

- Principle 1 Territorial definition – clarity about spatial identify, separation, boundaries and purposes,

- Principle 2 Natural surveillance – architecture facilitating strong sightlines for ground plane, basement and/or upper-level observation and surveillance,
- Principle 3 Access control – access-egress definitions - who goes where, when and why,
- Principle 4 Activity support – the influences of (external) lighting, landscaping and signage,
- Principle 5 Target hardening – adding specific and robust architecture and technology.

CPTED-applied architecture aims to ‘block’ opportunistic or pre-meditated anti-social or criminal behaviour within the development footprint and its approaches. The ultimate crime prevention objective is to ensure ‘welcoming-and-safe’ reputational outcomes for all stakeholders.

ES3 Assessed Potential and Actual Crime Risks Impacting the Development

Our crime risk assessment is based on contextual knowledge, local police intelligence/information and published BOCSAR data.

The following assessed crime categories, their risks and incident likelihood, should not be underestimated. This is not to alarm but to caution against mitigation complacency and to direct mitigation opportunities in the first instance towards architecturally related CPTED solutions.

Assessing *potential* risks, levels and incident likelihood of the following categories must always be balanced against the possible ‘consequences’ and *actual* criminal threats or incidents.

Even the most *minor* offence occurring within or near buildings, communal or public spaces and on surrounding streetscapes can have *major* consequences. Hence the need to address each crime category as having potentially serious consequences.

Our assessment is based on risk-to-incident likelihood for all categories: ‘low’ (L), ‘moderate’ (M), ‘high’ (H) and ‘extreme’ (E). (Appendix 2 provides an illustrative crime incident matrix, adapted from Standard ISO 31000:2018, *Risk Management Guidelines*).

Risks and likelihood of categories (i) to (vi) occurring in and around the development context are assessed as

- (i) intimidating anti-social behaviour targeting residents and visitors, (L) to (M)
- (ii) physical and/or sexual assaults against the (i) above categories, especially at night, (L) to (M)
- (iii) unauthorised access to the buildings and basements, (L)
- (iv) damage to buildings, facades, mailboxes, vehicles, infrastructure, landscaping, signs, furniture, fixtures and fittings, (M),
- (v) theft of personal or common property and/or theft from, or of, motor vehicles, (M)
- (vi) contextual or premises-based drug possession, and drug dealing. (H)

There are two other potential categories. They are **not** likely to occur but have significant consequences if they do.

- (vii) arson or explosion(s), (L)
- (viii) injury or death to persons, damage to, or destruction of, property, from targeted and potentially, gang or terror-style attacks, (L).

CPTED Principle 1 Territorial Definitions Conclusions and/or Recommendations

The Uniting development documentation displays definitional design clarity. In CPTED terms, there are no ambiguously allocated spaces or confusing spatial purposes. Internal spatial separation is readily identified within basement, ground and upper level, private, communal and open spaces.

Drawings indicate attention to perimeter security detail in defining boundaries while deterring attempted unauthorised access to the site.

The community spine, internal circulation pathways and the multi-activation spaces are clearly defined to maximise 'welcoming-and-safe-place' objectives.

This broad definitional clarity provides a foundation design statement, upon which to overlay Principles 2 to 5, as part of an integrated security whole.

Off-street vehicle and pedestrian entrances afford strong wayfinding legibility to ground plane and basement entrances. Basement parking, plant, lift lobbies, general storage, waste storage and removal, are CPTED design-appropriate.

Basement designs also appropriately define entry, intra-level ramping and parking bays. We recommend investigations into the most appropriate solution to deter and/or restrict unauthorised access to basement access and intra-basement movement to ensure authorised circulation.

In summary, Revision O drawings indicate:

- (i) the need to review perimeter (boundary) fencing to maximise definitional clarity,
- (ii) clearly identified built form locations, layout and spatial separation ensuring contextual 'knowledge',
- (iii) certainty of intra-site wayfinding, circulation and activation, especially for highly trafficked multi-purpose public open spaces,
- (iv) access certainty to and from each building, interconnecting pathways to residential, staff, visitor and vehicle entry points, including the community spine,
- (v) inviting communal social gathering spaces between and around buildings,
- (vi) purposed internal road (and lane) providing intra-site legibility.

In our opinion, the interconnected (integrated) nature of the development ensures whole-of-site clarity of purpose through well-defined spatial separation and overall legibility. CPTED 'looks for' this clarity.

The (combined) definitional elements present a coordinated and integrated 'whole', supporting the development's marketing and security objectives. In turn, these objectives should mean an overall 'welcoming-and-safe-place' reputation, sustained by the commitment of Uniting to on-going (security) stewardship.

CPTED Principle 2 Natural Surveillance Conclusions and/or Recommendations

The development's overall design elements promote multi-angle proximate and distant sightlines throughout the site. Ground plane surveillance opportunities are strongest.

Reviewed drawings indicate strong natural (passive) observation and surveillance opportunities:

- (i) within the ground plane and contextual streetscapes,
- (ii) approaching, and at, pedestrian, vehicle entrances,
- (iii) from ground plane, podium and some upper-level self-care and residential care units,
- (iv) at fire and emergency exits,
- (v) within the private-communal and open spaces,
- (vi) within vehicle ramping and parking spaces,
- (vii) at and around lift lobbies, and
- (viii) approaching or at internal plant and other infrastructure rooms.

Design development architecture should confirm the above conclusions, detailing specific measures to strengthen surveillance opportunities, thereby ensuring optimum day-night 'eyes and ears' awareness of usual and unusual internal and external activity.

The multi-angle, proximate-distant sightline opportunities, should significantly enhance risk mitigation, including deterring unauthorised pedestrian or vehicle access within the development footprint.

However, reliance on the effectiveness of upper-level casual observation and/or intentional surveillance of the two streetscape frontages and intra-site noisy and/or suspicious behaviour, is not likely to add to overall security, nor facilitate deterrence.

In summary, we conclude that current drawings maximise internal and external natural surveillance objectives; that is, to generate whole-of-site surveillance opportunities to deter and/or prevent unauthorised entry, damage to, property and/or harm site residents, staff, visitors, health consultants and contractors.

CPTED Principle 3 Access Control Conclusions and/or Recommendations

Access control combines physical barriers, human and technology monitoring. All are keys to ensuring the development's 'welcoming-and-safe' place reputation. It is essential that all physical and electronic access control systems be monitored and maintained to ensure performance capability.

It is also important that access restrictions be fully understood, and complied with, by all residents, visitors, staff visiting consultants, emergency personnel and maintenance contractors.

The secure location of the basements must be a design development priority. It is essential that access to plant and associated infrastructure rooms, the loading area, waste storage, waste collection, residents' and general storage areas be strictly controlled.

It is essential that mailboxes are securely installed to prevent unlawful tampering or mail theft.

We recommend that video intercom technology be specified for all self-care residential units as pre-access identification. Staff and contractors accessing sensitive and vulnerable zones should have to produce some form of identification prior to being granted access.

CPTED Principle 4 Activity Support Conclusions and/or Recommendations

A whole-of-site safe-objective lighting strategy should ensure that all luminaires are sufficiently beam-angled to maximise wayfinding or destination throw, spill and (where appropriate) wash, eliminating, shadowing and dark gaps.

Bollards should not be considered for any external lighting within the development.

Landscaping should:

- (i) eliminate possible concealment or entrapment within or around plantings,
- (ii) maximise sightline continuity,
- (iii) prevent the concealment of suspicious packages,
- (iv) deter potential hostile vehicle access, and
- (v) ensure robust outdoor furniture to minimise the risk of 'removal' and/or damage.

Grassed, low shrubs and (low height) tree plantings, together with creative external lighting architecture will define all ground plane and communal spaces as welcoming and safe. Landscape design elements should minimise potential for concealment or entrapment.

Signage should consider first-time and casual visitors, contractors to the site. All signs should be disability inclusive. Strategically selected signage should be back-lit to improve legibility and wayfinding. Pictorial signs should be considered.

Inter-disciplinary coordination of these three 'support elements' is essential to enhance the overall safety (security) of the development. Design development should detail inter-disciplinary solutions.

CPTED Principle 5 Target Hardening Conclusions and/or Recommendations

We recommend targeted IP Network (CCTV) camera surveillance of the development footprint's, vulnerable spaces, covering:

- (i) each off-street entry point,
- (ii) the basement ramp-to-roller shutter entry,
- (iii) the loading dock entry door and corridors leading to delivery points,
- (iv) lift lobbies, including at each basement level,
- (v) waste storage and collection points,
- (vi) entrance doorways to plant and utilities rooms,
- (vii) at both sides of the basement roller shutter(s) and covering internal ramping,
- (viii) the public entrances to retail and forecourt spaces.

The location of cameras should deter opportunities for concealment or entrapment and assist with identification.

Deterring and/or preventing potential out-of-control or planned hostile vehicle drivers targeting the development should be a landscaping design element as part of strengthened street fronting 'edges'.

Help points should be considered, for the basements, given the 24/7 circulation and activation of those zones.

Anti-graffiti coatings are recommended for all ground floor (level) masonry finishes and to other identified vulnerable facades.

From a crime prevention perspective, the above treatments are not 'invasive'. We believe that design development drawings can specify combination solutions without creating a sense of fortressing.

Instrument Compliance Conclusions and/or Recommendations

We are of the view that reviewed drawings of the proposed Uniting Development at 27 Tiral Street Charlestown NSW are consistent with the requirements to apply, or consider applying, CPTED principles to comply with the following planning and/or policy instrumentalities:

- (i) legislation and/or regulations and crime prevention guidelines derived from Section 4.15 of the NSW Environmental Planning and Assessment Act, 1979, as amended,
- (ii) the NSW Planning Secretary's Environmental Assessment Requirements for seniors housing developments, under the State Significant Development Guidelines,
- (iii) Government Architect NSW, State Design Review Panel's advice on the Uniting development,
- (iv) the Development Control Plan (2014) the Crime Prevention Through Environmental Design Guideline (2017) and the Lake Macquarie City Crime Prevention Strategy, (2021 – 2024) of the Lake Macquarie City Council,
- (v) Australian Standard AS 4485, Parts 1 and 2, 2021 – *Security for Healthcare Facilities*, the Australian Health Facility Guidelines,
- (vi) the NSW Police Crime Prevention (Safer-By-Design) Checklist – Revision 2020.

We conclude that, subject to the on-going intentional application of CPTED measures throughout design development-detail documentation, the reviewed drawings support consent by the Lake Macquarie City Council, as that consent relates to fulfilling CPTED conditions.

OVERALL CPTED ASSESSMENT SUMMARY

Application of CPTED Principles and Informing Instrument Compliance

In our professional opinion, the Development Application for the Uniting development at 27 Tiral Street Charlestown NSW, has considered, or will consider, CPTED principles and their application, as assessed, affirmed or recommended in this report, prior to 90+% design development and design detail sign-off.

The development's incorporation of CPTED principles adheres to the State Government's 'social impact' and 'public interest' requirements, under Section 4.15 of the NSW Environmental Planning and Assessment Act, 1979, as amended, and with the Act's regulatory guidelines.

It complies with the NSW Planning Secretary's Environmental Assessment Requirements for seniors housing developments, under the State Significant Development Guidelines.

The Government Architect NSW has provided CPTED (security) advice on key design elements which have been, or are being, applied to relevant architectural aspects.

The development also complies with requirements of Lake Macquarie City Council's requirements as published in the Development Control Plan (2014), the Crime Prevention Through Environmental Design Guideline (2017) and the Lake Macquarie City Crime Prevention Strategy, (2021 – 2024).

CPTED elements have been referenced against Australian Standard AS 4485, Parts 1 and 2, 2021 – *Security for Healthcare Facilities*, the Australian Health Facility Guidelines, and,

CPTED elements have also been referenced against, and comply with, relevant sections of the NSW Police Safer-By-Design (CPTED) Guidelines (2020).

Harris Crime Prevention Services is also of the view that the proposed development should make a positive crime prevention contribution to broader 'community safety' objectives. The development's CPTED-applied architecture could 'showcase' future 'welcoming-and-safe-place' developments promoted and/or approved by the Council.

Crime Prevention Through Environmental Design (CPTED) Consultancy in relation to the Uniting Development, 27 Tiral Street Charlestown NSW

THE REPORT

1 Engagement, Development Overview and CPTED

1.1 Engagement and Development Overview

Harris Crime Prevention Services (Harris) was engaged to provide Crime Prevention Through Environmental Design (CPTED) consultancy to TSA Management on behalf of Uniting for the development (Development or Project) at 27 Tiral Street Charlestown NSW. The site is bounded by James Street, Dudley Road and Tiral Street and was the former Hunter TAFE. Proximate distance to the site is the Pacific Highway, an oval, licenced premises, Charlestown Square and swim centre.

The development will be undertaken in three stages and is anticipated the project will comprise:

- 4 multi-level buildings identified as A,B,C and D
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- 409 parking spaces across the development
- gym, wellness centre, community centre
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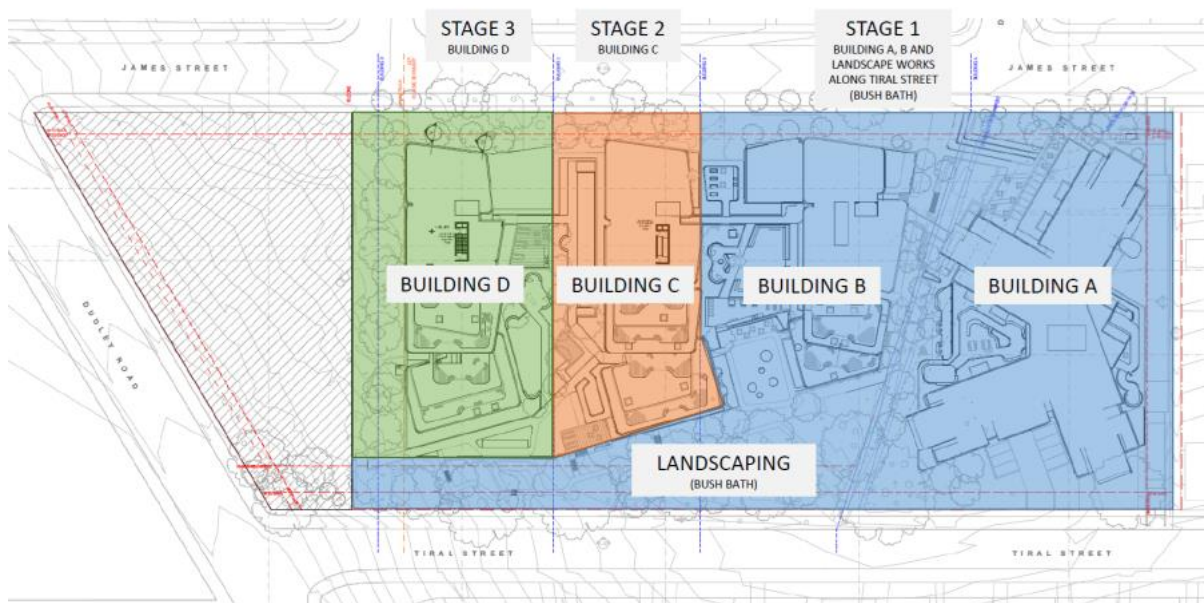


Image 1 Lot staging plan - Uniting

Uniting's objective is to provide..... *"a continuum of care provision and accommodation of residents with varying needs in a well located/connected collocated sites. Uniting Charlestown will create a "unified" community of staff and residents..... Uniting Charlestown will embody a culture that is high in care, love and support for independence whilst providing market priced services."* (Uniting Project Brief – Vision)

An integral part of the 'continuum of care' is whole-of-site crime prevention and personal safety (security) for all user-stakeholders.

The consultancy was required to:

- (i) assess the potential and actual crime risks to the development and
- (ii) analyse and recommend the application of CPTED principles to mitigate those risks.

1.2 CPTED Consultancy Aim and Objectives

The aim is for the development to become a 'welcoming-and-safe-place' for all residents, visitors, staff, health consultants, community users and (maintenance) contractors.

Harris defines 'welcoming and safe place' as: *'built form and public space environments where crime prevention has been a consideration of concept, master-planning, design development and construction processes and where safe place outcomes enhance a community's overall reputation'*.

To achieve this aim, we identify three overarching CPTED objectives.

- Objective 1 To understand the crime risk context and identify potential and actual crime risks.
- Objective 2 To affirm and/or recommend (crime) risk mitigation through CPTED solutions.
- Objective 3 To ensure (CPTED) compliance with State and/or Council planning instruments.

We have reviewed CPTED-relevant drawings and have consulted with the client to ensure the aim and objectives have been met, or will be met, during design development-detail.

Designing-out crime through the application of CPTED principles is an acknowledged crime prevention platform. Harris defines CPTED as *'applying aspects of architecture, engineering and technology to all urban development proposals (projects) as an intentional environmental crime prevention strategy'*.

1.3 CPTED Principles

Our report's analyses, conclusions and recommendations are based on five acknowledge CPTED principles, adapted by Harris from Moffatt (1983) as:

- Principle 1 Territorial definition – clarity about spatial identify, separation, boundaries and purposes,
- Principle 2 Natural surveillance – architecture facilitating strong sightlines for ground plane, basement and/or upper-level observation and surveillance,
- Principle 3 Access control – access-egress definitions - who goes where, when and why,
- Principle 4 Activity support – the influences of (external) lighting, landscaping and signage,
- Principle 5 Target hardening – adding specific and robust architecture and technology.

CPTED-applied architecture aims to 'block' opportunistic or pre-meditated anti-social or criminal behaviour within the development footprint and its approaches. The ultimate crime prevention objective is to ensure 'welcoming-and-safe' reputational outcomes for all stakeholders.

1.4 Informing Instruments and Compliance

CPTED is not mandated or compliance-coded nationally or internationally. Its variously interpreted principles are mostly published as 'guidelines' or Standards. In Australia, government authorities may require the application of CPTED principles as condition(s) of development consents, through local or State government planning instruments.

For this development, the following instruments require CPTED guidelines to be considered in relevant aspects of built form and/or open space design, through inter-disciplinary architectural application. Our analyses, conclusions and recommendations are informed and/or underpinned by:

- (i) the NSW EPA (as amended),
- (ii) the NSW Planning Secretary's Environmental Assessment Requirements,
- (iii) Government Architect NSW,
- (iv) Lake Macquarie City Council,
- (v) Australian Standard AS 4485, Parts 1 and 2, 2021 – *Security for Healthcare Facilities*, the Australian Health Facility Guidelines,
- (vi) NSW Police CPTED (or Safer-By-Design) guidelines; a 'Check List' Revision 2020.

Specific clauses, requirements or conditions of each instrument is covered in **Section 6** of this report.

Our analysis and report is also underpinned by two International Standards, ISO 31000:2018, *Risk Management Guidelines*, which provides a helpful framework to identify and manage any organisational risks, include crime risks, and ISO 22341:2021 *Security and Resilience – Protective Security – Guidelines for Crime Prevention Through Environmental Design*, which provides an acknowledged CPTED framework.

Contextual crime risk information relevant to this report has been obtained from:

- (i) the Crime Prevention Officer (CPO) at Lake Macquarie Police District - Belmont Police Station,
- (ii) data published by the NSW Bureau of Crime Statistics and Research (BOCSAR).

2 Report Structure, Scope, Stakeholders and Informing Instruments

2.1 Report Structure

The report is structured as:

- Section 1 engagement, development overview, CPTED aim and objectives,
- Section 2 report structure, scope, outcomes, informing legislation/Standards,
- Section 3 local crime and crime risk intelligence and data,
- Section 4 assessed crime risks to the development,
- Section 5 CPTED-applied principles for the development's risk mitigation outcomes,
- Section 6 compliance with legislation, regulation, planning and/or policy instruments,
- Section 7 the link between, and value of, a combined CPTED and CPTM strategy, creating and maintaining 'welcoming-and-safe-place' as the interdependent objective,
- Section 8 references, and,
- Appendices supporting Appendices, 1 – 3.

2.2 Consultancy Scope and Outcomes

The scope has addressed crime risk and crime prevention (CPTED) solutions to assist the design team in creating a 'welcoming-and-safe-place' for residents, visitors, staff, health consultants, community users and (maintenance) contractors. We have:

- (i) discussed with design team members Uniting's care, accommodation and community philosophy for the development,
- (ii) clarified with the team members the objectives and outcomes of CPTED further to (i) above and to agree on the crime risk parameters requiring CPTED mitigation,
- (iii) undertaken physical inspections of the development site and neighbourhood to better understand the development's relationship with its surroundings,

- (iv) liaised with the Lake Macquarie Police District Crime Prevention Officer (CPO) to obtain intelligence as to categories, levels and trends in anti-social and/or criminal activity likely to inform CPTED applications,
- (v) assessed potential day-night crime risk 'disruption' to site-wide safe activation, circulation- and interconnectivity between each building's architectural elements, including the communal spaces and vehicle access,
- (vi) progressively reviewed design development drawings as they are prepared for SSDA submission,
- (vii) provided, by way of a Preliminary Report (December 2021), input into built form and landscape designs based on CPTED Principles 1 to 5 (above),
- (viii) provided a draft CPTED report in relation to the above scope.

2.3 Key Stakeholders

Key development stakeholder groups are:

- (i) Uniting Care
- (ii) Lake Macquarie City Council,
- (iii) Residents, visitors, staff, health consultants, community users and contractors,
- (iv) NSW Police,
- (v) adjacent neighbours.

While each stakeholder will have different community safety expectations, their broad expectations are similar in that personal and property safety is a 'given' of the designing-out-crime objectives.

2.4 Supporting Documents

The report has three (supporting) appendices:

- Appendix 1 NSW Bureau of Crime Statistics and Research (BOCSAR) - reported crime statistics for Charlestown over five years, April 2017 – March 2022.
- Appendix 2 The Risk Management Standard ISO31000:2018 (the Standard), its relevance to the development.
- Appendix 3 The Influence of CPTED in Re-designing Public Spaces for Safe and 'Liveable' Activation.

2.5 The Harris Approach

The Harris approach to crime prevention design and management incorporates aspects of architecture, engineering and technology which underpins a 'welcoming-and-safe-place' objective. This approach seamlessly welcomes, defines, guides, directs, encourages, regulates activity, appropriate functional objectives. Safe place design outcomes seek to override opportunistic and deliberate anti-social and criminal behaviour.

2.6 Notes and Disclaimer

Note 1 Harris' consultancy services are provided independently; i.e. we are not affiliated with, nor receive benefits from, any organisation that supplies security hardware, installs security systems, monitors alarm systems or provides guarding/patrol services. This independence is critical to the way we approach security solution options and recommendations.

Note 2 The scope excluded the development/provision of a technical security brief, security systems design and specifications or lighting brief and specifications.

Note 3 The commentary, assessment, conclusions and recommendations outlined in the report are based on information provided to Harris Crime Prevention Services at the time of this assignment.

Disclaimer: While our research and experience suggest CPTED can be adopted to reduce opportunities for crime, it is not possible to guarantee that actual crime will be reduced or eliminated if these suggestions and/or recommendations are implemented.

3 Local Crime Risk Context, Police Intelligence and Crime Data

3.1 The Crime Risk Context

Charlestown, a suburb of (greater) Newcastle has been undergoing demographic changes in relation to business investment and residential purchases. The main shopping attraction is Charlestown Square, which over recent years has expanded and updated its footprint as an increasingly popular retail and social gathering space. Proximate are fast-food and minor retail-commercial premises. The Square precinct 'hosts' a transport hub and nearby are sporting facilities, schools and churches.

Over recent years, reports by Council, the press and business owners have pictured Charlestown as attracting unwanted anti-social and criminal elements. Police advise that potential offenders are not necessarily 'locals', but often travel to Charlestown to commit an offence.

Charlestown is unfortunately designated as a crime 'hot spot'. Youth crime is causing greatest concern. Theft from motor vehicles, intimidation, assaults, drug dealing, alcohol related offences and break-ins to premises including the local public school are identified crime categories. Weekends and nights are the days and times of most concern. The summer and shoulder seasons 'attract' the most evening outdoor youth gatherings.

The context risk issue for the development is that it is within walking distance of the main shopping and gathering locations. Drug or alcohol-affected individuals or groups could see the footprint's public 'spine', and internal pathways as an 'invitation' to 'explore' the site further with a view to 'testing' the efficacy of design and operational safety (security).

Health care facilities are increasingly being targeted because of the vulnerability of older age residents in independent or assisted living accommodation. Residents, staff and visitors, can be subject to a range of risks to property and people.

The vulnerability of this development is heightened because:

- (i) the brief intentionally encourages community access to parts of the site,
- (ii) the site itself is 'street-fronting' on three perimeters, and
- (iii) there is extensive existing and proposed landscaping, including gardens, pathways and social gathering spaces to facilitate activation by residents, visitors and the public.

There are two primary sources informing on our crime risk assessment:

- (i) The Crime Prevention Officer (CPO), Belmont Police, assessing suburban criminality,
- (ii) NSW Bureau of Crime Statistics and Research (BOCSAR), publishing reported crime.

3.2 Local Police (Crime Risk) Intelligence

We have contacted the CPO at Belmont Police Station who advised that the anti-social behaviour and criminal behaviour around the development's context comprises a familiar list of occurrences and offences, particularly around the Charlestown Square, transport hub, skate park, and other retail and/or recreational 'gathering' spaces. especially on weekends and at night. The CPO confirms the on-going concerns regarding youth crime, including anti-social behaviour mostly occurring at or near the above areas.

The CPO has expressed concern over the design element permitting public access to the site. Any such access allows potential offenders to 'case' the most vulnerable areas, looking for opportunities to breach those areas.

3.3 NSW Bureau of Crime Statistics and Research (BOCSAR) Data

BOCSAR data is published to indicate trends in various offence categories over a 5 year (year-on-year) period for the suburb of Charlestown. Appendix 1 details the latest data. In summary the following year-on-year downward trends have occurred:

- (i) steal from motor vehicle – down 13.1%
- (ii) steal from retail store – down 7.9%
- (iii) break-and-enter dwelling – down 16.1%
- (iv) disorderly conduct – down 21.4%
- (v) malicious damage to property – down 22.4%.

There have been no year-on-year increases in key crime categories. However, there are disturbingly high reported (raw) crime numbers in the above categories and in the categories of assault, intimidation, stalking and harassment and drug offences.

Arguably, many of the 'downward' trends over the last 2 years could have been impacted by Covid lockdowns and other restrictions. No matter the reasons, the downward trends are welcome.

4 Assessed Potential and Actual Crime Risks Impacting the Development

While many of the BOCSAR categories and offences coming under police investigation, occur in public spaces, there are still risks to public and private property within and around the development site.

Predicting when, where, what, how and why risks can become threats and incidents targeting the development footprint, may be influenced by factors such as:

- (i) the surrounding context's potential to 'attract' opportunities for anti-social or criminal behaviour,
- (ii) time of day or night and weather conditions for such opportunities,
- (iii) the emotional 'state' and motive of a person intending to commit an offence,
- (iv) the intended targets – people and/or property, and
- (v) how easy or difficult it is to unlawfully gain access to targets.

The current crime risks require this development's architecture to (a) secure whole-of-site 'safe place' and (b) contribute to contextual crime risk mitigation as part of broader community and Council crime prevention initiatives.

4.1 The Harris-Assessed Contextual Crime Risk Summary

Our crime risk assessment is based on contextual knowledge, local police intelligence/information and published BOCSAR data.

The following crime categories, their risks and incident likelihood, should not be underestimated. This is not to alarm but to caution against mitigation complacency and to direct mitigation opportunities in the first instance towards architecturally related CPTED solutions.

Assessing *potential* risks, levels and incident likelihood of the following categories must always be balanced against the possible '*consequences*' and *actual* criminal threats or incidents.

Even the most *minor* offence occurring within or near buildings, communal or public spaces and on surrounding streetscapes can have *major* consequences. Hence the need to address each crime category as having potentially serious consequences.

Our assessment is based on risk-to-incident likelihood for all categories: 'low' (**L**), 'moderate' (**M**), 'high' (**H**) and 'extreme' (**E**). (Appendix 2 provides an illustrative crime incident matrix, adapted from Standard ISO 31000:2018, *Risk Management Guidelines*).

Risks and likelihood of categories (i) to (vi) occurring in and around the development context are assessed as

- (i) intimidating anti-social behaviour targeting residents and visitors, (**L**) to (**M**)
- (ii) physical and/or sexual assaults against the (i) above category, especially at night, (**L**) to (**M**)
- (iii) unauthorised access to the buildings and basements, (**L**)
- (iv) damage to buildings, facades, mailboxes, vehicles, infrastructure, landscaping, signs, furniture, fixtures and fittings, (**M**),
- (v) theft of personal or common property and/or theft from, or of, motor vehicles, (**M**)
- (vi) contextual or premises-based drug possession, and drug dealing. (**H**)

There are two other potential categories. They are **not** likely to occur but have significant consequences if they do.

- (vii) arson or explosion(s), (**L**)
- (viii) injury or death to persons, damage to, or destruction of, property, from targeted and potentially, gang or terror-style attacks, (**L**).



5 CPTED Applications to Ensure 'Welcoming and Safe Place' Outcomes

5.1 CPTED Principle 1

Territorial Definition: clarity about spatial identity, separation, boundaries and purposes

General Explanation

Defining territorial boundaries, spatial separation and purposes are the elements of this first CPTED principle. The aim is to maximise built form and public domain 'knowledge certainty' for all who have day-night access to a site.

Stakeholder, occupant, visitor or contractor knowledge (identification) of territorial sub-spaces increases destination and circulation confidence; (for example, design of mixed-use spaces including, building entrances, public, communal, sporting, retail, commercial, residential, industrial, social gathering, wayfinding and vehicle access spaces).

When spaces become clearly defined collective 'places', form and function are easily identified. This removes confusion of purpose, enhances safe circulation and maximises alertness to any surrounding risks or threats.

5.1.1 Application – Overall Footprint Definition, Separation and Purposes

From a CPTED perspective, the 'siting' of each building on the footprint is the critical foundation for ensuring site-wide 'knowledge certainty', for regular users/occupiers and for first time 'visitors'.

We have assessed the built form, public and communal spaces, through-site and intra-site links, for the definition clarity objective of providing that certainty and safe wayfinding attractiveness. This assessment includes appropriate site wide spatial separation and purpose clarity.

There is unambiguous definitional certainty with the positioning of all four buildings and their intra-site relationship with open and communal spaces. There is similar certainty with the off-street pedestrian and vehicle entrances from James and Tiral Streets.

Clear sightlines are evident between buildings, pathways and the pedestrian entrances, guiding the public, residents' visitors and contractors from each street boundary to designated locations.



Image 2 indicative perspectives of definitional clarity, separation, purpose and off-street sightlines

This foundational principle is fundamental to meeting compliance requirements of statutory authorities – Refer 1.4 (i) to (vi).

5.1.2 Application – Perimeters

The perimeters are clearly defined either as street fronting entrances, as street boundary fencing and as boundary definitions to neighbouring properties. It is important that all fencing:

- (i) clearly define street and neighbouring property boundaries,
- (ii) maximise on-site and perimeter natural and technical surveillance,
- (iii) respect adjacent property privacy, and
- (iv) deter and/or prevent unauthorised access.

5.1.3 Application – Perimeter (Boundary) Security Fencing

An important CPTED definition is identifying and locating boundary fencing. In this case there are four axes, front-of-house (James Street), back-of-house (Tiral Street) and two side axes. Each boundary should be unambiguous in its definitional purpose. Fencing design and location should 'signal' a 'no unauthorised access' message. Fencing should also take account of protecting (securing) the most vulnerable areas from such access.

Arcadia (August 2022) drawings proposed three types of boundary (perimeter) fencing as:

Type 1 – a bush bath fence for the Tiral Street boundary,

Type 2 – a Palisade style fence for norther and southern side boundaries and

Type 3 – a balustraded community spine fence for the northern end of James Street and its continuance along the James Street boundary length, with appropriate returns.

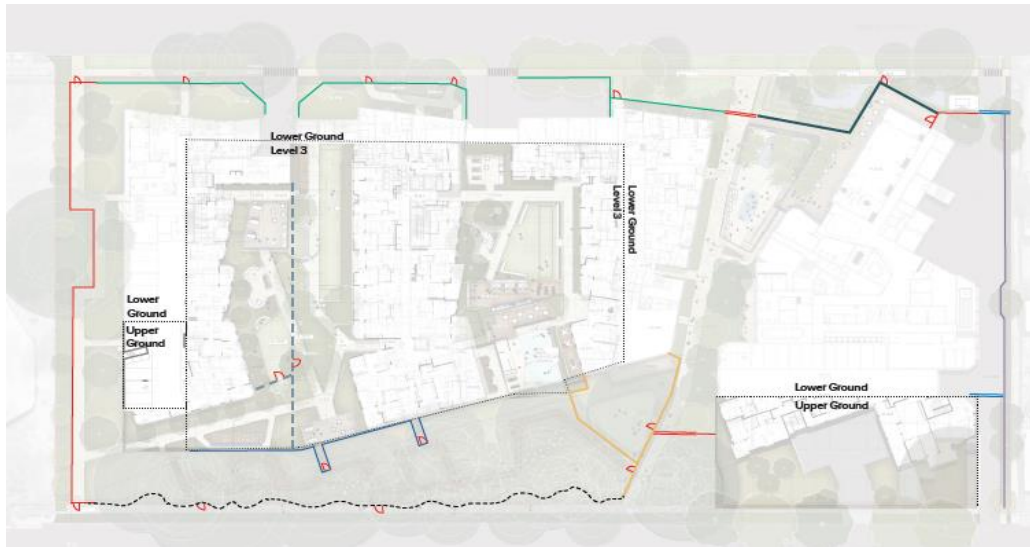


Image 3 perimeter fencing proposal - Arcadia August 2022

We have reviewed the above fencing proposals (Image 3) and from a CPTED perspective, we conclude the following:

- (i) There should be a Palisade 1.5m (Type 2) security fence (incorporating the timber posts and vertical fins), along the Tiral Street boundary, with a return and sliding gate to the 'RAC site' which is less vulnerable due to its from-the-street legibility and 'traffic' circulation. To assist in securing this space, camera surveillance and 'live' monitoring is recommended.

The boundary, up to the through-site link is the most vulnerable in terms of the distance between the street and buildings. Existing and proposed landscaping will attract high-volume resident, guest and public (at designated times) activation if there is user confidence. In our view, comparatively easy (unauthorised) access along this boundary portion negates such confidence.

The proposed bush bath Tiral Street fencing neither defines nor deters unauthorised access into the back-of-site important domain. Its contour-following design impedes proximate and distant sightlines and could conceal or entrap.

We endorse additional lighting and camera installations to further secure this perimeter and the internal landscaped open space.

- (ii) The proposed Palisade 1.5m fencing along the southern (Building D) boundary, mitigates risks to this vulnerable zone. However, we believe the northern boundary is equally vulnerable. Natural surveillance opportunities are significantly reduced along both side (and Tiral Street) boundaries, so we recommend the 1.5m Palisade option for all three.
- (iii) Proposed community spine or similar residential style fencing at 1.2m is supported for the James Street boundary, (as a possible extension of the proposed spine fencing already indicated). The James Street boundary is less vulnerable. It has day-night front-of-site vehicle and pedestrian circulation and activation. Surveillance to and from the buildings, vehicle entry and open-community spaces is proximate and more likely.

Our report's **Section 4.1** lists our assessment of crime risk types and levels which support the need for clearly defined boundaries. Local police comment on the development's context, confirm that assessment.

5.1.4 Application – Open Spaces: Public and Communal

Architectural and landscape drawings clearly define designated communal and public open space. Low walled, balustraded, other fencing form and building facades indicate each open space option and boundary.

Uniting's intention is to develop the site for part community (public) access. These spaces are identified by Arcadia (2022) as:

- (i) a community spine between James and Tiral Streets, featuring a central plaza, seating, bridging, lawn, garden and terraced concrete wall elements,
- (ii) a 'forest bath' comprising access from the spine and from Tiral Street, with social gathering and nature play zones, pathways, stepped pathway 'shortcuts' and decked amenity,
- (iii) a 'horticultural edge' along the James Street perimeter, reflecting the former TAFE's legacy,
- (iv) east and west native buffers along those perimeters – the western buffer having a secondary through-site link to both streets.

The public (and communal) concepts promote invitational confidence to, and through, a range of creative landscaped 'surprises'. The community spine architecture engenders user-stewardship.

The design creates a 'welcoming-and-safe-place' objective, particularly by day; one that engenders exploration while indicating 'eyes-and-ears' observation opportunities along the spine and from other communal or private social gathering spaces.

Most community members will welcome the interaction with the site's natural and social gathering spaces. However, those intending to engage in criminal activity would also take opportunities to 'observe' ways to breach site security and privacy. For example, should these spaces be open at night, such opportunities might be 'tested'. Our concern is with:

- (i) the community spine and its connection with the Bath zone,
- (ii) after-hours and night-time spine access from both streets,
- (iii) community access to the western native buffer from both streets.

The intention to 'gate' either end is wise. Gates will be activated at the discretion of Uniting. Some night-time activation could be considered, particularly when community events are scheduled around cultural or plaza, square, café, gathering and water feature spaces. A 'mid-point' gate restricting access to these activation spaces should be considered.



Images 4-6 illustrative of community spine and edging, with strong sightlines - Arcadia

The square, plaza, walled, lawned, planted and water feature precinct will generate safe and welcoming public and resident interaction. Each element is clearly defined. Each is separated or connected, depending on the purpose. There are multi-angular opportunities to observe activities.

Communal and private courtyard oases are clearly indicated as to access and use. They are mostly and safely nestled against buildings at podium level. They provide a variety of secure active and passive recreation, affording shaded gathering and quiet reflective spaces.

5.1.5 Application – Ground Plane Pedestrian Circulation and Activation

The intentional purpose and spatial separation of ‘closed’ and open ground plane spaces invites orderly circulation and activation throughout the site for residents, visitors, members of the public, staff, health care consultants and maintenance contractors.

Drawings indicate confident wayfinding for those unfamiliar with site ‘destinations’. The knowledge certainty objective – ‘authorises’ movement throughout the site’s ground plane.

Drawings also demonstrate clarity of street-to-site access to all pedestrian entry points, including resident access, staff access and public access. The various circulation-activation patterns resulting from this clarity are not likely to cause definitional confusion.

Landscaping architecture will play an important part in ‘demonstrating’ the ‘welcoming-and-safe-place’ objective for these spaces – refer also 5.4.2.

5.1.6 Application – Ground Plane Residential and Staff Entrances

Drawings clearly indicate all points of ground plane residential and staff entrances. They follow CPTED definitional design recommendations for definitional wayfinding certainty.

There are no sightline impediments to lift lobbies. Similarly, fire-exit stairwells are appropriately located, as per coded regulations.

Drawings indicate the secure location of staff and change rooms, for example in relation to the wellness centre. Back-of-house zones for all buildings are appropriately secured.

5.1.7 Application – Ground Plane and Basement Vehicle Entry and Parking

Drawings appropriately define and restrict vehicle access and circulation, accentuating the safe and legible circulation/activation of users for the four buildings. Basement and ground plane vehicle allocations promote spatial certainty.

In our view, all basements are vulnerable spaces. They are easily breached and, with this site, (itself vulnerable), every effort should be made during design development to minimise breaching opportunities at entry and throughout basement zones.

For basement entry, we recommend ramping be configured for ‘split’ entry and exit roller door operation. This better controls vehicle movement and deters attempted unauthorised vehicle entry, including pedestrian or vehicle tailgating. If not feasible, rapid roller doors should be considered at entry and exit points in front of the single roller shutter.

This and other options will require further investigation. Whichever design options are applied, the ultimate objective is to deter and/or restrict unauthorised access to, and through, all basement zones.

We understand that there will be a video intercom system to authorise visitor and contractor access.

Restrictions to shared basement spaces will require clear definitional design for internal ramping, parking bay layouts, loading zones, plant rooms, lift foyers and general circulation.

5.1.8 Application – Basement and Ground Plane Lift Lobbies

Residential and ‘back-of-house’ lift lobbies are appropriately located and defined, including staff and goods lifts, servicing relevant levels for each building. We note that all lobbies are accessible via a

secured doorway. We recommend that secure lobby access doors be glazed, where practical, to promote natural surveillance.

5.1.9 Application – General Storage, Waste Storage and Collection

Drawings indicate clear separation of resident, general and bulk storage within basement precincts. Given the evident 'basement-busyness' it is important that each storage zone is secured to permit specific access by residents, staff and/or contractors. Waste storage and collection points are also appropriately located in secure zones, accessible by staff and contractors.

Procedures for all storage entrances must be strictly followed to ensure no unauthorised access to these zones. We recommend that waste storage locations should be protected by fire detection and suppression systems.

5.1.10 Application – Utilities Infrastructure and Other Plant

Protecting plant and infrastructure is critical. Defining and securing each element forms the basis for a collective approach as to who has access to what and why. We note the (recessed) enclosure of the sub-station, main switch and fire tank rooms. (Substation kiosks are often graffiti targeted and, if externally located near basement or ground plane entrances, can conceal or entrap.) Comms and other plant are appropriately secured.

Ground plane booster pumps and hydrants are securely located within built form. Where pedestal valves are externally located, they should have approved security covers installed, again to deter tampering of valves and pipes.

CPTED Principle 1 Territorial Definitions Conclusions and/or Recommendations

The Uniting development documentation displays definitional design clarity. In CPTED terms, there are no ambiguously allocated spaces or confusing spatial purposes. Internal spatial separation is readily identified within basement, ground and upper level, private, communal and open spaces.

Drawings indicate attention to perimeter security detail in defining boundaries while deterring attempted unauthorised access to the site.

The community spine, internal circulation pathways and the multi-activation spaces are clearly defined to maximise 'welcoming-and-safe-place' objectives.

This broad definitional clarity provides a foundation design statement, upon which to overlay Principles 2 to 5, as part of an integrated security whole.

Off-street vehicle and pedestrian entrances afford strong wayfinding legibility to ground plane and basement entrances. Basement parking, plant, lift lobbies, general storage, waste storage and removal, are CPTED design-appropriate.

Basement designs also appropriately define entry, intra-level ramping and parking bays. We recommend investigations into the most appropriate solution to deter and/or restrict unauthorised access to basement access and intra-basement movement to ensure authorised circulation.

In summary, Revision O drawings indicate:

- (i) the need to review perimeter (boundary) fencing to maximise definitional clarity,
- (ii) clearly identified built form locations, layout and spatial separation ensuring contextual 'knowledge',
- (iii) certainty of intra-site wayfinding, circulation and activation, especially for highly trafficked multi-purpose public open spaces,
- (iv) access certainty to and from each building, interconnecting pathways to residential, staff, visitor and vehicle entry points, including the community spine,

- (v) inviting communal social gathering spaces between and around buildings,
- (vi) purposed internal road (and lane) providing intra-site legibility.

In our opinion, the interconnected (integrated) nature of the development ensures whole-of-site clarity of purpose through well-defined spatial separation and overall legibility. CPTED 'looks for' this clarity.

The (combined) definitional elements present a coordinated and integrated 'whole', supporting the development's marketing and security objectives. In turn, these objectives should mean an overall 'welcoming-and-safe-place' reputation, sustained by the commitment of Uniting to on-going (security) stewardship.

5.2 CPTED Principle 2

Natural Surveillance: architecture facilitating informal observation

General Explanation

The principle of natural (aka informal or casual) surveillance encourages (i) the observation of built form and public domain spaces and purposes by user/stakeholders and (ii) the observation and notation within or around spaces of usual or unusual activity and behaviour, potentially (or actually) leading to anti-social or criminal threats and incidents.

Natural surveillance is purposeful observation. Maximum surveillance impact requires sightline certainty, facilitated by clear proximate-distant and longitudinal-latitudinal fields. The aim is to know who or what is within a surveillance field and to observe specific unlawful action or intent.

Legible and permeable architecture should ordinarily promote natural surveillance in and around clear reference fields. CPTED surveillance-focused architecture adds a crime prevention 'layer' to legible and permeable circulation and activation creativity.

5.2.1 Application – On-site and On-Street (Ground Plane) Surveillance

Across the site, there are sharp, interconnected ground plane sightlines between and around the built form and open spaces. These are key to maximising effective natural surveillance towards, and away from site approaches and entrances to the four buildings from Tiral and James Streets. Interrupted or detached sightlines cause contextual disengagement, reducing the impact of surveillance opportunities.

This development 'solves' the natural surveillance concerns. The footprint, built form, communal and public spaces provide a collective ground plane natural surveillance 'positive'. This is due to:

- (i) the multi-purpose nature of ground plane activation,
- (ii) the encouragement of Uniting for a public access 'mix',
- (iii) intended day (and desirably night) public pedestrian traffic to and through the site,
- (iv) proximity of associated local neighbourhood street activation.

Arcadia is conscious of the need to promote strong sightlines throughout all landscaped spaces. Drawings and discussions reflect this intent in design development-detail.

Given the definitional certainty of the site, observation (surveillance) along and at intersecting circulation-activation axes will be maximised. Proximate sightlines are therefore strong, enhancing opportunities to note, record and/or report suspicious anti-social or crime-related behaviour within or around the site's perimeters.

Distant sightlines to the site will come from the contextual foot and vehicle traffic. Street foot and vehicle traffic will add to ground plane surveillance opportunities.

There are no obvious recesses or blind corners which might lead to concealment or entrapment.

Note: In our experience therefore, and from scholarly research, legible and permeable ground plane surveillance has advantages:

- (i) Sightlines are at eye level facilitating proximate and distant surveillance.
- (ii) The hearing range is closer meaning incidents are more likely to be sight-sound identified, even when there are contextual distractions.
- (iii) There is a sense of context – the observer and/or hearer is usually within or near the same space and is ‘drawn’ to any unusual or disturbing behaviour.
- (iv) There are many examples of individuals or groups physically responding to, and/or reporting on-street or in premises threats or incidents.
- (v) Some on-street eyes-and-ears surveillance may not solicit an immediate response to observed unusual or suspicious behaviour, while retaining memory of what was seen or heard, for later reporting.
- (vi) Night-time on-street person and property surveillance is still effective due to retaining same-plane visual and aural (audible) cues.

Definition + strong sightlines at and around all ground plane spaces will strengthen the day-night ‘eyes and ears’ awareness by observing the usual and unusual. Principle 1 affirmed the development’s definitional design to promote safe casual and purposeful pedestrian circulation around each building, site ‘edges’, open spaces, approach points and basement zones.

5.2.2 Application – Basement Services and Parking Surveillance

Vehicles entering the basements can easily be observed on approach and entry. Within each basement zone, intra-spatial sightlines cover internal ramping, parking bays, general and waste storage, plant rooms and lift lobbies.

5.2.3 Application – Upper-Level Surveillance

The ‘spread’ of Buildings A, B, C and D permit varying opportunities of upper-level surveillance from communal and private (open) spaces. Street, communal, and public space facing windows and/or balconies will enable residents, staff and visitors to observe (and hear) intra-site and street level activity.

Observation from self-care balconies and windows is more likely, given the orientation of Buildings B, C and D. We acknowledge that, even in those buildings, interest and natural surveillance above Levels 2 or 3 is less likely.

Note: Again, our research shows that above street-level surveillance in residential settings, especially in self-care and residential care retirement complexes has seen diminishing response ‘returns’ over recent decades. Among the reasons are:

- (i) Upper-level owner-occupiers are reluctant to ‘become involved’, even to report, any unusual on-street sights or sounds, which they typically consider as risking their personal safety or security.
- (ii) Persons on upper-level balconies, terraces or inside occupied space can only observe and hear at angled visual and aural fields, which may be further impacted by landscaping, vehicle flow or other activation in peak times.
- (iii) Upper-level surveillance is less likely where owner-occupiers are focussed on internal issues, particularly after dark.
- (iv) Upper level surveillance separates the observer from the street – context detachment.
- (v) Separateness or detachment fosters disengagement – the concern (for example excessive and/or intimidating noise, or incident becomes someone else’s problem).

In natural surveillance terms, this lack of involvement and decline in engagement has been progressive with apartment living. Privacy and isolation have become sought-after features of purchase and/or rental occupancy. The sense of neighbourhood stewardship or ‘guardianship’ coined by Danielle Reynald (2010) is being, or has been, lost in favour of a sense of withdrawal and retreat into non-involvement.

Notwithstanding, the above notes, we affirm that the Uniting built form design and layout, communal and public access/space design, will be a significant contributor to site and contextual natural surveillance, especially at ground plane locations.

CPTED Principle 2 Natural Surveillance Conclusions and/or Recommendations

The development's overall design elements promote multi-angle proximate and distant sightlines throughout the site. Ground plane surveillance opportunities are strongest.

Reviewed drawings indicate strong natural (passive) observation and surveillance opportunities:

- (i) within the ground plane and contextual streetscapes,
- (ii) approaching, and at, pedestrian, vehicle entrances,
- (iii) from ground plane, podium and some upper-level self-care and residential care units,
- (iv) at fire and emergency exits,
- (v) within the private-communal and open spaces, and,
- (vi) within vehicle ramping and parking spaces,
- (vii) at and around lift lobbies, and
- (viii) approaching or at internal plant and other infrastructure rooms.

Design development architecture should confirm the above conclusions, detailing specific measures to strengthen surveillance opportunities, thereby ensuring optimum day-night 'eyes and ears' awareness of usual and unusual internal and external activity.

The multi-angle, proximate-distant sightline opportunities, should significantly enhance risk mitigation, including deterring unauthorised pedestrian or vehicle access within the development footprint.

However, reliance on the effectiveness of upper-level casual observation and/or intentional surveillance of the two streetscape frontages and intra-site noisy and/or suspicious behaviour, is not likely to add to overall security, nor facilitate deterrence.

In summary, we conclude that current drawings maximise internal and external natural surveillance objectives; that is, to generate whole-of-site surveillance opportunities to deter and/or prevent unauthorised entry, damage to, property and/or harm site residents, staff, visitors, health consultants and contractors.

5.3 CPTED Principle 3 Access Control: who goes where, when and why

General Explanation

Access control is a consequential extension of defining territory (Principle 1) and natural surveillance (Principle 2). Open and/or restricted access must be: (a) readily identified through the appropriate built form (approach) architecture, (b) supported by physical and electronic access control systems (pacs) and (c) able to prevent and/or identify unauthorised access.

5.3.1 Application – Access To, and Through, The Site

There is deliberate invitational public access to and through the site. Authorised entry points, distinguish and deter public 'trespassing' into restricted areas, while promoting (public) exploration of the many visually captivating walks and destinations.

Invitational public access will hopefully increase the sense of community user-stewardship, providing some level of 'guardianship' towards potential 'disrupters' seeking unauthorised access to built form and associated spaces.

Access by residents, visitors, staff, consultants and contractors through the open spaces will also assist in the site-stewardship objective.

We support the indicative Arcadia recommendations regarding differential pedestrian and vehicle access gates/doors, (refer 5.1.2).

5.3.2 Application – Ground Plane, Basement and Upper-Level Building Access

Buildings A, B, C and D have secured and designated access for residents, their (invited) visitors, for staff, consultants, emergency personnel and contractors. Design development will detail how each entrance will be secured and monitored.

It is important that through-site circulation by each stakeholder-user follow strict protocols and procedures, to avoid confusion and potential security breaches.

Basement access must be strictly controlled – (refer also 5.1.6). Electronically operated perforated roller shutter or tilt doors are the primary means of ensuring authorised entry. All other internal basement spaces including residents', general, bulk and waste storage, must be controlled by mechanical or technological means. None of the basement footprints should have unrestricted access.

5.3.3 Application – Storage, Plant, Waste and Utilities Infrastructure

Plant and comms rooms located at ground plane, basement or upper-level locations must be appropriately signed as controlled and access limited zones, secured and accessible by staff, emergency personnel and maintenance contractors exclusively.

We reinforce the earlier mentioned security benefits of enclosing ground plane meters, hydrants and boosters and pedestals, emphasising the need to deter, tampering, including the extreme but unlikely possibility of explosive device 'plants' and hostile vehicle targeting. Externally caged infrastructure should be free from any obscuring landscaping.

We note that waste storage and collection points are internally located and secured, accessed only by service vehicle contractors.

5.3.4 Fire Stair Access

It is essential that all fire stairs remain for egress purposes only. All fire stairs should be electronically alarmed to prevent and/or advise doors being accidentally or intentionally left ajar.

We note that a fire stair associated with Building D will also be used for access by 'authorised' users, either by programmed fobs or video intercom.

All fire stairs should be restricted to egress only and, ideally electronically locked with emergency egress capabilities. There are two forms of monitoring fire door security breaches, (a) electronically alarmed doors monitored by security personnel able to respond or (b) localised door-open-too-long (DOTL) alarms. Either system should alert intended or accidental breaches of this restriction.

All fire stair exit doors should be under camera surveillance and be appropriately lit.

5.3.5 Application – Access to Mailboxes

Police have highlighted increasing incidents of mailbox tampering. Installations should specify the secure location in particular, of cluster mailboxes. Mail theft is an increasing concern as it can lead to identity theft. They (and we) are particularly concerned about mail theft in retirement complexes.

Each building's mailbox cluster should follow the recommend police CPTED checklist recommendation to where possible, (a) locate boxes within or near entrance foyers or (b) secure mailboxes against solid masonry facades or walls if externally located, but in high trafficked areas. External installations should be free from landscaping and should be illuminated at night. Design development should ensure one or both options.

CPTED Principle 3 Access Control Conclusions and/or Recommendations

Access control combines physical barriers, human and technology monitoring. All are keys to ensuring the development's 'welcoming-and-safe' place reputation. It is essential that all physical and electronic access control systems be monitored and maintained to ensure performance capability.

It is also important that access restrictions be fully understood, and complied with, by all residents, visitors, staff visiting consultants, emergency personnel and maintenance contractors.

The secure location of the basements must be a design development priority. It is essential that access to plant and associated infrastructure rooms, the loading area, waste storage, waste collection, residents' and general storage areas be strictly controlled.

It is essential that mailboxes are securely installed to prevent unlawful tampering or mail theft.

We recommend that video intercom technology be specified for all self-care residential units as pre-access identification. Staff and contractors accessing sensitive and vulnerable zones should have to produce some form of identification prior to being granted access.

5.4 CPTED Principle 4 Activity Support: influences of (mainly external) lighting, landscaping and signage

General Explanation

Activity support applies (external) lighting, landscaping and signage architecture to a footprint's form and function design, 'supporting' definitional clarity, passive and technical surveillance and access control (Principles 1 to 3).

External (and where appropriate Internal) Lighting should reflect 'purpose' consistency: wayfinding, destination, social gathering and decorative-aesthetic. Each requires differing luminarie styles, lighting types, spread, throw, spill, wash and lux levels, to accord with lighting Standards and architectural briefs.

CPTED lighting applications can (should) often exceed those Standards and briefs so as to highlight spaces and circulation - activation 'corridors'.

Differential lighting should avoid cross-over colour (temperature) clashes to enhance surveillance identification of property and people. All external lighting should optimise sightline legibility, to facilitate proximate-distant wayfinding and destination confidence.

Landscaping should combine aesthetics and purpose with an intent to prevent concealment or entrapment.

Signage supports wayfinding and destination certainty, access limiting (controlling), warning and emergency awareness. It should have day-night visual impact.

5.4.1 Application – External and Internal Lighting

Lighting applications relate to external site-wide spaces, internal building entry and basement zones. From a CPTED perspective, this development's lighting strategy is critical in the 'welcoming-and-safe-place' objective. Uniting has a combined welcoming policy – encouraging the community to share the exploratory experiences with residents, visitors and staff.

Arcadia notes: “A variety of lighting will be used within the public domain to provide a safe and vibrant public space for after dark activation. Lighting should be coordinated with the architecture. It should provide safe passage to destination points while avoiding dark areas where anti-social behaviour could potentially take place. The landscape lighting will complement the design by illuminating feature elements such as seating benches, walls, trees and surfaces.”

To maximise the environmental, social, recreational and cultural experiences, for residents and visitors, Arcadia has nominated specific linear path lighting, POD lighting with sensors, artwork lighting, tree up-lighting, feature water lighting and fixture lighting.

To maximise the crime prevention aspects, it is critical that these specifics consider and ensure high illumination levels and consistent lighting patterns with each lighting element. Design development around the lighting strategy requires the following brief:

- (i) Linear path lighting should consistently provide an uninterrupted ‘corridor’ of appropriately spaced, overhead, recessed LED luminaires at 4000 Kelvin, the most appropriate colour for highlighting near objects and identifying people.

The white-natural light spectrum has advantages over blue, orange or yellow colour output. Yellow, orange and blue renditions distort natural colour profiles and features. White light installations strengthen contrasting colours and identify individual (personal) features more distinctly.

Pathway lighting for this development is the foundation for the remaining lighting strategies. Many of the pathways will be low-traffic at night, so users must be assured of proximate and mid-distant sightlines facilitating safe wayfinding certainty.

In our experience of wayfinding (linear) lighting, the use of bollard, wall-mounted and other forms of up lighting or low height spherical luminaires are counterproductive and should be avoided. They create glare and tend to interrupt sightline or wayfinding (corridor) certainty. Bollards are also prone to damage and can often be ‘buried’ by mid height landscaping.

The development’s perimeter lighting should coordinate with Council’s street-lighting, that is, if not already installed, changing to 4000K LED luminaires to avoid colour ‘contamination’ throw and spill along the Tiral and James streetscapes.

- (ii) POD, artwork, tree up-lighting and feature water lighting are ‘invitational’ to destination, gathering and recreational spaces. These initiatives will feature a mix of Kelvin temperatures and luminaires to maximise (safe) night-time experiences. It is important to ‘trap’ these lighting features to avoid, where practical, conflicting spill and wash between the pathway and destination lighting. These lighting elements should try to avoid a glare effect on approach.
- (iii) Fixture lighting is proposed for the James Street community and residential experiences within and around the plaza and square. Under-seat (blue) lighting is an option to avoid the temptation to plant drugs or other objects, should there be community participation in night-time activities. Lighting to, and within, muster points should specify high lux levels.

We would define ‘fixture lighting’ to include, entry foyers, basement entry and internal basement lighting. Entry foyers and the basement entry should feature recessed ceiling-mounted luminaires, again at 4000K at highlighted lux levels to clearly identify each entry location.

Internal basement lighting for ramping, parking, lift lobbies, plant and other back-of-house zones, should ensure high lux level output, utilising all overhead fittings. The aim is to eliminate all dark gaps throughout. This includes lighting walled areas of parking bays.

We do not recommend movement-activated LED panel installations (or similar) as the intermittent throw and spill causes confusion and will leave un-activated spaces in the dark.

Throughout all basement spaces, lux levels should exceed the Standard in order to create knowledge certainty. We recommend LED strip lighting for basement walls to ensure consistent illumination of parking bays. We do not recommend separate wall lighting due to probable glare and shadowing potential.

Additional lux levels should be considered either side of roller shutters. The service and loading bay zone requires the same high lux levels to increase legibility and surveillance of the loading and waste collection spaces.



Image 7 appropriate driveway and bay lighting, but note the dark 'spaces' mid left - Pinterest

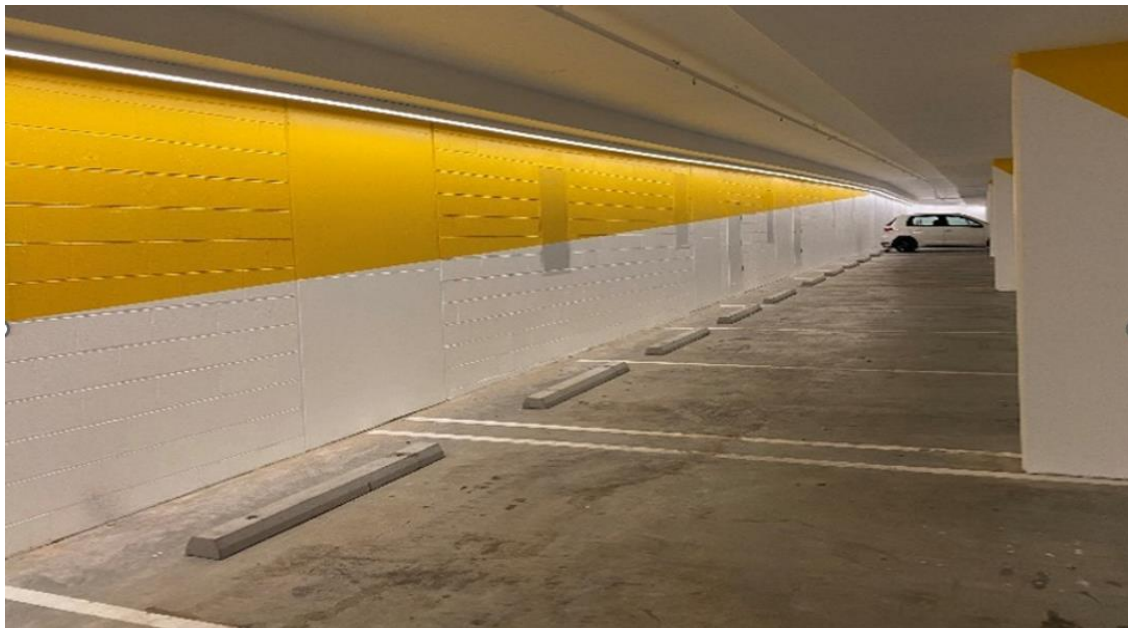


Image 8 practical example to LED strip lighting to highlight all behind-bay walled area - Harris

5.4.2 Application – Landscaping

Aracdia's landscaping master plan and zonal strategies define the site's invitational exploration and experiences, including communal, plaza, square and retail spaces.

Their master plan introduction observes that landscaping will be: *"A space which respects site history, vegetation communities and a continued ecological function while immersing users into a variety of therapeutic natural and social landscape settings."*

The intentional lighting-landscaping combination will define the uniqueness of the master plan. Our review of concept drawings indicates that CPTED 'activity support' objectives will be met through site-wide creative design development, aimed at maximising safe spatial circulation and activation.

One key caution in developing the concepts is to reduce and/or prevent opportunities for concealment or entrapment throughout the site. We acknowledge that, given the concept's comprehensive uniqueness, this 'requirement' will be difficult to adhere to. However, from a CPTED perspective we encourage this principle to maximise personal safety. It is essential that no trees or shrubs obstruct, or be located near, building entrances for similar (concealment or entrapment) reasons.

Unfortunately, there are possible risks and consequences in the plaza-square precinct where public participation can mean opportunity for (a) the dealing of drugs and (b) the intention to cause maximum harm or property damage, especially in crowded spaces.

(a) Should above ground boxed or 'contained' plantings be considered, for example, wire mesh can be placed at minimal depths below mulch, as a deterrent to secreting drugs, other suspicious packages or, in extreme cases, potentially explosive devices in those spaces. (Refer also fixture lighting recommendations, 5.4.1 above.)

(b) There is one other extreme risk we have identified - 4.1.(vii-viii). This relates to the possibility of arson or uncontrolled (accidental) and/or intentional hostile vehicle penetration of the James Street precinct perimeter, impacting people, infrastructure or buildings 'Hard' landscaping, for example block sandstone edging, is a preferred deterrence solution where practicable; that is the incorporation of 'barrier' architecture.

Recommendations (a) and (b) may seem extreme. Given the 'low-risk-to-incident' but 'high consequences' categories of these behaviours, they are smart and cost-effective risk mitigation solutions to consider.



Image 9 landscaping master plan overview, illustrating site-wide new and existing plantings - Arcadia

5.4.3 Application – Signage

Signage will add safety and security value throughout the development's footprint. Ground plane direction signage is the key to wayfinding knowledge. It should reflect a consistency of style aimed at providing wayfinding confidence, destination (arrival) certainty and access-limiting advice.

Throughout and around the development site, signs should be colour coordinated, legible and visually 'readable' to cater for human height differences and should be disability inclusive. International pictorial signage is preferred.

Regular users of the spaces will soon become familiar with signs and their purposes. However, casual, or first-time visitors to the site, including community users, will find visually attractive directional (wayfinding) and destination signage helpful and less confusing.

Emergency (including fire and exit) signage is subject to codified compliance. If emergency or 'help' points are considered (5.5.2), signs should incorporate appropriate contact and response capability.

CPTED Principle 4 Activity Support Conclusions and/or Recommendations

In summary, CPTED lighting aims to:

- (i) strengthen (night-time) surveillance and wayfinding as 'spill' along perimeter and intra-site pathways at 4000K colour temperature, hopefully in colour 'step' with Council's Tiral and James Street lighting initiatives,
- (ii) highlight pedestrian and vehicle entry points to buildings and basements, continue sympathetic illumination with POD, artwork, tree, feature water, and fixture lighting,
- (iii) provide consistent non-movement activated lighting in the basements, at high illuminance to eliminate low light or 'no light' opportunities for concealment or entrapment.
- (iv) holistically illuminate the development site to maximise safe circulation-activation,
- (v) avoid colour inconsistencies (clashes), and
- (vi) ensure high lux levels along lighting 'corridor' pathways, in open and communal spaces.

We recommend recessed, targeted and where practicable, overhead LED luminaires (+ - 4000 Kelvin) for pathway 'corridors' and general wayfinding. under-eaves and basements, including the, basement entry, ramping, parking, storage, loading-service dock and plant room entrances and residential entry lobbies.

A whole-of-site safe-objective lighting strategy should ensure that all luminaires are sufficiently beam-angled to maximise wayfinding or destination throw, spill and (where appropriate) wash, eliminating, shadowing and dark gaps.

Bollards should not be considered for any external lighting within the development.

Landscaping should:

- (i) eliminate possible concealment or entrapment within or around plantings,
- (ii) maximise sightline continuity,
- (iii) prevent the concealment of suspicious packages,
- (iv) deter potential hostile vehicle access, and
- (v) ensure robust outdoor furniture to minimise the risk of 'removal' and/or damage.

Grassed, low shrubs and (low height) tree plantings, together with creative external lighting architecture will define all ground plane and communal spaces as welcoming and safe. Landscape design elements should minimise potential for concealment or entrapment.

Signage should consider first-time and casual visitors, contractors to the site. All signs should be disability inclusive. Strategically selected signage should be back-lit to improve legibility and wayfinding. Pictorial signs should be considered.

Inter-disciplinary coordination of these three 'support elements' is essential to enhance the overall safety (security) of the development. Design development should detail inter-disciplinary solutions.

5.5 CPTED Principle 5

Target Hardening: adding specific and robust architecture and technology

General Explanation

Target hardening is often called 'situational' crime prevention. It aims to reinforce other CPTED principles and to proactively 'strengthen' form, infrastructure, structures, fixtures, fittings and furniture in and around identified vulnerable spaces. Target hardening design is an added crime risk defence layer.

Design measures aim to increase the efforts intending offenders must expend attempting to damage property and/or harm or injure people.

Target hardening can apply additional physical, mechanical, structural and electronic treatments to deny or limit access. Electronic alarms or surveillance cameras are the more common target hardening measures. However, the Principle's design goal is to avoid place 'fortressing'.

5.5.1 Application – IP Network (CCTV) Installations

This target hardening measure complements natural surveillance. Technical 'eyes' are becoming the norm to identify offenders and offences but should be applied sparingly, targeting the more vulnerable spaces. The number and location of installations is to be determined. There should be minimalist strategy, avoiding unnecessary 'site saturation'.

However, the following locations should be considered in the brief.

- (i) pedestrian and basement entrances, including all lift lobbies and foyers,
- (ii) along internal basement ramps and parking bays,
- (iii) the service vehicle zones focusing on unloading, delivery and on waste storage and transfer operations,
- (iv) approaches to ground plane destinations including the James Street plaza-square precinct,
- (v) utilities infrastructure and plant room entrances, focussed on entrance doorways,
- (vi) both street frontages, in conjunction (partnership) with the Council's broader CCTV policy.

There are two 'image-capturing' options, (i) direct image feeds to security or other nominated security contractors or staff, able to respond from hand-held or proximate devices, or (ii) stored image feeds for later review.

5.5.2 Application – Help Points

Although it may seem an extreme measure, consideration should be given to installing *monitored* help points at key locations within the basements, at disability parking bays and lift lobbies, and/or other vulnerable locations, if deemed desirable.

Help points should be within view of surveillance cameras. The condition of installing help point technology is that the 'feed' would need to go to a terminal or to a portable device, for example a smart phone or tablet.

Illuminated 'help point' signage (under camera surveillance) provides a level of reassurance where people feel, or are, vulnerable, for example within the basements. These signs may also act as a deterrent against anti-social or criminal behaviour in these vulnerable spaces.

5.5.3 Application – Building Facades

The building facades are prime targets for 'tagging'. While no masonry coatings can guarantee protection from graffiti damage, we recommend investigating and applying the latest protective material,

and/or coatings to minimise likely defacing of the masonry areas. The coating should also facilitate ease of graffiti removal.

Given the high visual 'exposure' and context of the development, the 'it-is-there-and-it-is-new' challenge may still tempt offenders and 'test' security measures. Causing wall or building damage is a relatively easy 'test' option for potential offenders.

Anti-graffiti coatings should be applied to ground floor (level) and any other vulnerable facades.

CPTED Principle 5 Target Hardening Conclusions and/or Recommendations

We recommend targeted IP Network (CCTV) camera surveillance of the development footprint's, vulnerable spaces, covering:

- (i) each off-street entry point,
- (ii) the basement ramp-to-roller shutter entry,
- (iii) the loading dock entry door and corridors leading to delivery points,
- (iv) lift lobbies, including at each basement level,
- (v) waste storage and collection points,
- (vi) entrance doorways to plant and utilities rooms,
- (vii) at both sides of the basement roller shutter(s) and covering internal ramping,
- (viii) the public entrances to retail and forecourt spaces.

The location of cameras should deter opportunities for concealment or entrapment and assist with identification.

Deterring and/or preventing potential out-of-control or planned hostile vehicle drivers targeting the development should be a landscaping design element as part of strengthened street fronting 'edges'.

Help points should be considered, for the basements, given the 24/7 circulation and activation of those zones.

Anti-graffiti coatings are recommended for all ground floor (level) masonry finishes and to other identified vulnerable facades.

From a crime prevention perspective, the above treatments are not 'invasive'. We believe that design development drawings can specify combination solutions without creating a sense of fortressing.

6 Informing Legislation, Policy and or Planning Instruments: Compliance

6.1 Environmental Planning and Assessment Act, 1979 (as amended)

Consideration of crime prevention for mid to large scale developments in New South Wales derives from Section 4.15 (1) (b) and (e) of the NSW Environment Planning and Assessment (EPA) Act, (as amended).

The Act allows provision for State and local government instruments to regulate or codify issues pertaining to the evaluation of environmental impacts of developments. Social "impacts" (b) and "the public interest" (e) fall within this Section. Under the heading 'Evaluation', Section 4.15 (1) states:

"In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application:"

- (b) *the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,*
- (c) *the suitability of the site for the development,*
- (d) *any submissions made in accordance with this Act or the regulations,*
- (e) *the public interest."*

In the case of 'green' or 'brown' field developments, interpretation of "*the public interest*" includes stakeholder proponents, post-development occupants and, by extension, the wider community.

Local Government authorities in NSW are required to consider the various impacts within S.4.15 when evaluating developments. Councils recognise the importance of mitigating anti-social and criminal behaviour within their constituencies. Many have incorporated the CPTED framework into Development Control Plans and/or Crime Prevention Plans, requiring crime prevention considerations as a specific development consent condition.

The *public interest* interpretation aims to ensure CPTED-relevant architecture creates and promotes 'safe place' outcomes, i.e. to prevent anti-social and/or criminal behaviour which could put at risk people and property associated with a new development footprint.

Ordinarily, the *public interest* is limited to a development footprint. However, public space approaches to, or 'edges' of a development's surrounds, may be considered as an extension of the social and public interest impacts (S.4.15 (b) and (e)).

6.2 Environmental Planning and Assessment Act, 1979, as amended, Planning Secretary's Environmental Assessment Requirements

The document is headed: "*Any Environmental Impact Statement (EIS) must meet the minimum form and content requirements as prescribed by Schedule 2 of the Environmental Planning and assessment Regulation 2000 (EP&A Regulation) and the State Significant Development Guidelines.*"

The Requirements apply to the design excellence for seniors housing developments, applicable in this case. Under the heading "Public Space" (Section 7), the development must: *... "Demonstrate how the development maximises the amount, access to and quality, of public spaces (including open space, public facilities and streets/plazas within and surrounding the site), reflecting relevant design guidelines and advice from the local council and the Department."*

Design relevance must address the integration of Crime Prevention through Environmental Design (CPTED) principles into the development's public space elements, in accordance with 'Crime Prevention and the Assessment of Development Applications' guidelines.

6.3 Government Architect, NSW

In March 2022, the State Design Review Panel, provided the following under the heading 'Security', points 16 and 17: "*After-hours security must be considered as part of the overall landscape design for the seniors living communal areas and publicly accessible areas, to avoid the installation of undesirable fences and gates at a later date. Provide diagrams and drawings illustrating the site security strategy and how it is integrated with the landscape design. Demonstrate the provision of deep-soil landscape zones so that any required fencing can be screened by soft landscaping of an appropriate height.*"

6.4 Lake Macquarie City Council

6.4.1 Council DCP Requirements

Council's requirements for, and conditions of, this Development are underpinned by its Development Control Plan (DCP) 2014 and its subsequent revisions. There are four broad objectives of the Plan, aimed at guiding developers towards sustainable and quality outcomes, one of which is the prevention of crime through appropriate design, (DCP Introduction – 1.4 Objectives).

6.4.2 Crime Prevention Through Environmental Design Guideline

One of the DCP's support instruments is the Crime Prevention Through Environmental Design (CPTED) Guideline 2017 Revision 1. The Guideline requires attention to four broad CPTED principles. (Please refer to **Section 5**) based on the original (1983) Moffatt model relating to the various interpretations, adaptations and/or definitions of his principles. The Guideline requires the crime prevention to be addressed under the following headings:

"2.3 CRIME OPPORTUNITY:

Is the proposed development susceptible to certain crimes?

Is there existing evidence of crimes or anti-social behaviour (eg vandalism, graffiti, litter – beer bottles) at the site, or in the immediate area around the site? Please refer to Australian Bureau of Statistics – Bureau of Crime Statistics & Research (BOCSAR) Crime Tool for information on crime activity (<http://crimetool.bocsar.nsw.gov.au/bocsar>)"

"2.4 CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED):

CPTED reduces crime opportunities by increasing the risk to offenders, increasing the effort required to commit crime, reducing opportunities for excuse making (eg spatial ambiguity is commonly used by burglars to justify trespassing) and reducing the likely rewards of criminal behaviour. There are four broad principles of CPTED. The Crime Risk Assessment needs to address each of these principles, providing information as to how the aspects of the design (e.g. Australian Standards, timeframes in days/hours) or proposed management practices will help to reduce the risk of crime." (Guideline 2017).

6.4.3 Lake Macquarie City Crime Prevention Strategy – 2021 to 2024

The Strategy cites the value of, and necessity for, CPTED principles to be applied to developments throughout the LGA, particularly with reference to preventing crimes involving vehicle theft and malicious damage to property. Council requires that CPTED principles be applied to all developments. *"Assessment of development applications and Council project designs to ensure CPTED principles are applied to reduce crime opportunity, including damage resistant designs, materials and management plans for damage restoration."*

6.5 Australian Standard AS4485 – Security for Healthcare Facilities

Part1 of Standard (Section 4.3) states: *"Relevant aspects of architecture including engineering and technology, can be applied to a facility's security through Crime Prevention Through Environmental Design (CPTED). AS 4485 provides guidance on the application of CPTED principles as a crime prevention strategy. These principles can also be applied to existing facilities."*

The Standard's Procedures Guide (Part 2 Section 4.2.2 outlines the following: *"One area of security risk mitigation strategy is the application of Crime Prevention Through Environmental Design (CPTED) principles. CPTED should inform the design of many elements, for example perimeter protection, landscaping, lighting, security technology, structural requirements, design of patient service areas, pharmacies and perimeter doors."*

6.6 NSW Police CPTED Check List

We have discussed our assessed crime risks to the development (refer **3.2**) with the District (Command's) CPO who agrees that the development is a vulnerable location, falling within an acknowledged crime 'hot spot'.

Our assessment has made reference to the NSW Police CPTED (or Safer-By-Design) guidelines; a 'Check List' which was revised in 2020. Relevant items in the Check List have been reviewed.

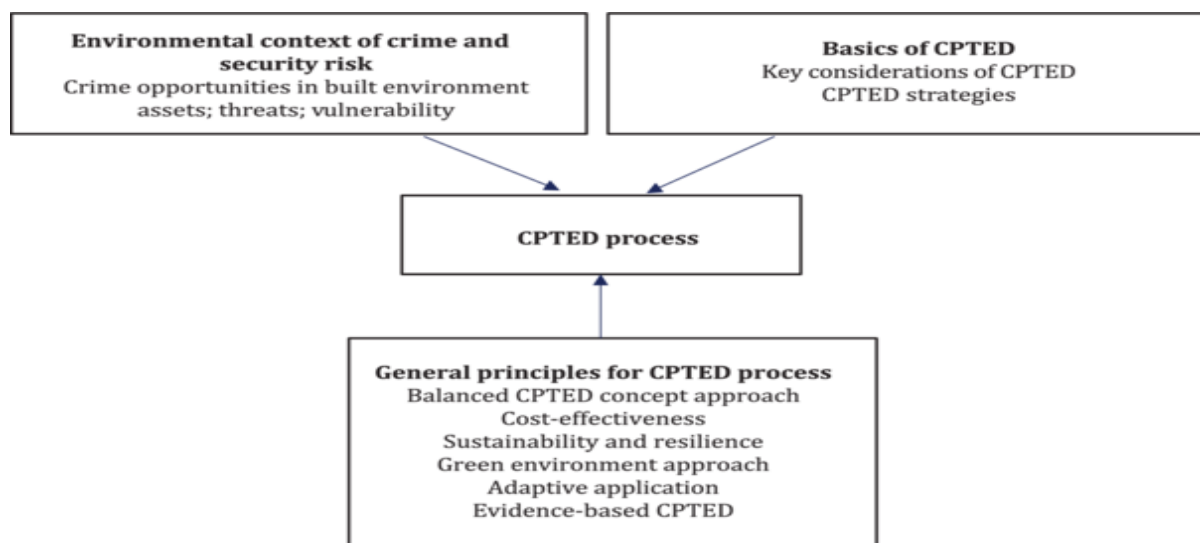
(The NSW Police Force has appointed crime prevention officers (CPOs) to most of the State's Area and District Commands. Their role is to proactively: (a) review anti-social and criminal behaviour 'hot spots' with a view to risk mitigation through increased police or security presence and/or (b) advocate

situational crime prevention measures; that is physical modification of (usually) external built form and public space by applying CPTED principles.)

6.7 International Standards Informing CPTED Principles and Applications

There are no (crime) risk and mitigation absolutes or guarantees. However, there are two International Standards relevant to the application of CPTED. ISO 31000:2018, *Risk Management Guidelines*, provides a helpful framework to identify and manage any organisational risks, include crime risks.

A more recently, and relevant, gazetted Standard is ISO 22341:2021 *Security and Resilience – Protective Security – Guidelines for Crime Prevention Through Environmental Design*. It provides a CPTED framework, illustrated as:



Instrument Compliance Conclusions and/or Recommendations

We are of the view that reviewed drawings of the proposed Uniting Development at 27 Tiral Street Charlestown NSW are consistent with the requirements to apply, or consider applying, CPTED principles to comply with the following planning and/or policy instrumentalities:

- (i) legislation and/or regulations and crime prevention guidelines derived from Section 4.15 of the NSW Environmental Planning and Assessment Act, 1979, as amended,
- (ii) the NSW Planning Secretary's Environmental Assessment Requirements for seniors housing developments, under the State Significant Development Guidelines,
- (iii) Government Architect NSW, State Design Review Panel's advice on the Uniting development,
- (iv) the Development Control Plan (2014) the Crime Prevention Through Environmental Design Guideline (2017) and the Lake Macquarie City Crime Prevention Strategy, (2021 – 2024) of the Lake Macquarie City Council,
- (v) Australian Standard AS 4485, Parts 1 and 2, 2021 – *Security for Healthcare Facilities*, the Australian Health Facility Guidelines,
- (vi) the NSW Police Crime Prevention (Safer-By-Design) Checklist – Revision 2020.

We conclude that, subject to the on-going intentional application of CPTED measures throughout design development-detail documentation, the reviewed drawings support consent by the Lake Macquarie City Council, as that consent relates to fulfilling CPTED conditions.

OVERALL CPTED ASSESSMENT SUMMARY

Application of CPTED Principles and Informing Instrument Compliance

In our professional opinion, the Development Application for the Uniting development at 27 Tiral Street Charlestown NSW, has considered, or will consider, CPTED principles and their application, as assessed, affirmed or recommended in this report, prior to 90+% design development and design detail sign-off.

The development's incorporation of CPTED principles adheres to the State Government's 'social impact' and 'public interest' requirements, under Section 4.15 of the NSW Environmental Planning and Assessment Act, 1979, as amended, and with the Act's regulatory guidelines.

It complies with the NSW Planning Secretary's Environmental Assessment Requirements for seniors housing developments, under the State Significant Development Guidelines.

The Government Architect NSW has provided CPTED (security) advice on key design elements which have been, or are being, applied to relevant architectural aspects.

The development also complies with requirements of Lake Macquarie City Council's requirements as published in the Development Control Plan (2014), the Crime Prevention Through Environmental Design Guideline (2017) and the Lake Macquarie City Crime Prevention Strategy, (2021 – 2024).

CPTED elements have been referenced against Australian Standard AS 4485, Parts 1 and 2, 2021 – *Security for Healthcare Facilities*, the Australian Health Facility Guidelines, and,

CPTED elements have also been referenced against, and comply with, relevant sections of the NSW Police Safer-By-Design (CPTED) Guidelines (2020).

Harris Crime Prevention Services is also of the view that the proposed development should make a positive crime prevention contribution to broader 'community safety' objectives. The development's CPTED-applied architecture could 'showcase' future 'welcoming-and-safe-place' developments promoted and/or approved by the Council.

7 Crime Prevention Through Environmental Management

Although not part of the consultancy brief, Harris Crime Prevention Services strongly encourages an on-going oversight of 'welcoming-and-safe-place' security. For client consideration, Harris has developed CPTM as a framework to complement and support CPTED initiatives.

The framework may be applied to most large mixed-use, single purpose and public realm sites and precincts. It would be implemented by facilities managers, building/site managers and/or security contractors in cooperation with stakeholder owners, operators, residents, tenants, contractors, councils and local police.

Over time, the purposes of developed built form, including public realm, may change. This in turn may lead to design and physical modifications. CPTED and CPTM would therefore require review to ensure original crime prevention objectives are not compromised.

Harris believes that ad hoc and/or intermittent attention to CPTM can negate CPTED's effectiveness and can leave stakeholders exposed to harm or litigation in the event of threats or incidents occurring within premises or precincts.

Harris also believes that CPTED and CPTM are interdependently linked. CPTED is intentionally integrated with concept, master planning and design development briefs. CPTM is focused on post-construction operational 'safe-place' objectives and outcomes.

Harris has identified five CPTM principles.

Principle 1	Design Maintenance
Principle 2	Systems Management
Principle 3	Crime Risk Mitigation
Principle 4	Incident Responses
Principle 5	Monitoring and Evaluating

Principle 1 Design Maintenance

Most physical and mechanical CPTED installations require regular maintenance. Lights, signs, landscaping, security doors, gates, fences and locks should receive scheduled maintenance and appraisal to affirm (design) purpose, capability and integrity. Repairs and/or replacements should be undertaken immediately when failures are identified.

Principle 2 Systems Management

This involves the testing and management of security technology systems to ensure site-wide security and safety operational readiness. This includes physical (electronic) access control, alarm and IP Network (CCTV) surveillance systems. Regular scheduled testing for reliability, obsolescence, redundancy, replacement and re-alignment is essential, in some cases even mandatory.

Maintaining the integrity of security systems is also critical, when they are integrated with fire and emergency systems.

Principle 3 Crime Risk Mitigation

Practical security awareness procedures should be developed to engage steward-stakeholders – owner-operators, security contractors, facilities and/or site managers of retail, residential, recreational, commercial, health, educational, industrial, transport and public realm premises and precincts.

Procedures could be similar to emergency, general office or body-corporate procedures. They should be understandable and practical.

Where warranted and practical, there should be scheduled 'desktop' crime risk assessments to build and manage 'risk-change' and risk mitigation options.

Principle 4 Incident Responses

There are occasions when a 'what-to-do-in-the event-of...' scenario occurs.

Knowing how to identify and respond to anti-social and criminal incidents is critical.

Security, facilities, site/building managers should develop and 'rehearse' responses covering the most common major or minor categories. Incident recording and reporting should be (i) factual, (ii) relevant, (iii) accurate, (iv) clear and (v) concise.

Principle 5 Monitoring and Evaluating

Implementation of CPTED and CPTM requires on-going regular monitoring and evaluation; to 'test' and share the relevance, cost-effectiveness and value (real and perceived) of both frameworks. This should lead to improving future security design (CPTED) and security management (CPTM) outcomes. It may also mean that successful CPTED and CPTM measures can be replicated and/or 'modelled' for future developments.

8 References

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Moffatt R E, *Crime Prevention Through Environmental Design – A Management Perspective*, Canadian Journal of Criminology Volume: 25 Issue: 1, January 1983,

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Standard AS 4485, Parts 1 and 2, – *Security for Healthcare Facilities*, the Australian Health Facility Guidelines, 2021,

Standard ISO 31000:2018, *Risk Management Guidelines*,

Standard ISO 22341:2021 *Security and Resilience – Protective Security – Guidelines for Crime Prevention Through Environmental Design*,

Uniting, Project Brief and Vision, undated.

9 Appendices 1 to 3

APPENDIX 1 CRIME STATISTICS FOR THE SUBURB OF CHARLESTOWN NSW

The following crime statistics are supplied by the NSW Bureau of Crime Statistics and Research. They are indicative of reported crime only and can only be taken as a guide to actual crime occurring in Charlestown suburb over the (reported) 5-year period, April 2017 – March 2022.

NSW Crime Statistics April 2017 to March 2022 Charlestown (Suburb)											
	5 Year Trend to March 2022	Year to March 2018 Count	Year to March 2018 Rate	Year to March 2019 Count	Year to March 2019 Rate	Year to March 2020 Count	Year to March 2020 Rate	Year to March 2021 Count	Year to March 2021 Rate	Year to March 2022 Count	Year to March 2022 Rate
Homicide	n.c.	0	0.0	0	0	0	0.0	1	7	0	0.0
Assault - domestic	Stable	34	254.0	49	365.9	43	320.0	46	340.0	45	332.6
Assault - non Domestic	Stable	59	440.8	73	545.2	69	513.9	94	694.9	63	465.7
Sexual assault	n.c.	13	97.1	9	67.2	13	96.7	16	118.3	5	37.0
Sexual touching, sexual act & other sexual offences	n.c.	13	97.1	13	97.1	15	111.7	14	103.5	5	37.0
Robbery without weapon	n.c.	2	14.9	3	22.4	3	22.3	7	51.7	4	29.6
Robbery with a firearm	n.c.	0	0.0	0	0.0	1	7.5	0	0.0	0	0.0
Robbery with weapon not a firearm	n.c.	3	22.4	1	7.5	1	7.5	2	14.8	3	22.2
Intimidation, stalking & harassment	Stable	51	381.0	67	500.4	60	447.0	93	687.5	77	569.2
Other offences against the person	n.c.	0	0.0	4	29.9	2	14.9	3	22.2	4	29.6
Break & enter dwelling	Down 16.1% per year	52	388.5	34	253.9	32	238.3	35	258.7	26	192.2
Break & enter non dwelling	Stable	23	171.8	21	156.9	22	163.6	22	162.6	24	177.4
Motor vehicle theft	Stable	29	216.6	34	254.0	23	171.4	31	229.2	31	229.2
Steal from motor vehicle	Down 13.1% per year	118	881.5	140	1045.8	86	640.5	59	436.1	68	502.7
Steal from retail store	Down 7.9% per year	324	2420.4	324	2420.0	258	1921.6	205	1515.4	236	1744.5
Steal from dwelling	n.c.	20	149.4	33	246.5	24	178.8	18	133.1	25	184.8
Steal from person	n.c.	12	89.6	12	89.6	8	59.4	9	66.5	6	44.4
Liquor offences	n.c.	4	29.9	10	74.7	4	29.8	5	37.0	1	7.4
Disorderly conduct	Down 21.4% per year	70	522.9	67	500.5	21	156.5	51	377.0	27	199.6
Disorderly Conduct (criminal intent)	n.c.	6	44.8	2	14.9	0	0.0	3	22.2	3	22.2
Disorderly conduct (trespass)	n.c.	50	373.5	43	321.2	14	104.3	32	236.5	17	125.7
Disorderly conduct (offensive conduct)	n.c.	9	67.2	12	89.6	4	29.8	8	59.1	5	37.0
Drug offences	Stable	55	410.9	54	403.3	25	185.9	47	347.4	115	850.1
Malicious damage to property	Down 22.4% per year	267	1994.6	245	1830.1	106	788.7	127	938.8	98	724.4
Prohibited and regulated weapons offences	n.c.	17	127.0	30	224.1	19	141.5	27	199.6	22	162.6
Arson	n.c.	1	7.5	4	29.9	11	81.9	6	44.4	2	14.8

APPENDIX 2 THE RISK MANAGEMENT STANDARD

While there are absolutes or guarantees around risk and risk mitigation, the International Standard - ISO 31000:2018 provides a helpful framework to identify and manage *any* organisational risks, including crime risks.

Identifying and mitigating crime risks, incident likelihood and potential consequences is a legitimate adaptation and application of the Standard. The Standard provides a theoretical and practical framework whereby contexts, risks, threats, incidents and consequences can be identified and managed.

The Standard defines generic risk as... *"the effect (impact) of uncertainty on objectives"* (ISO 31000 Clause 2.1). The Standard's objective is to identify and remove or manage the uncertainty so as not to negatively impact on organisational objectives.

Harris has adapted and applied the Standard by defining potential risks-to-incidents within a **context**, assessing **the likelihood of crime categories** and affirming and/or recommending appropriate CPTED treatment to mitigate that likelihood.

The collective term '**risk**' has been more widely defined as: *...'the likelihood of something untoward happening and the consequence(s) if one or more risks become threats or incidents.'*

Threats and incidents are progressive in their definitions. If risks remain unidentified and untreated (unmanaged), they can rapidly and easily become threats or incidents.

A '**threat**' may be defined as *'unacceptable and escalating behaviour stemming from one or more 'uncontrolled' risks, which if not urgently managed, is likely to lead to harm or damage with negative consequences or outcomes.'*

An '**incident**' may be defined as *'an uncontained threat with likely negative harm or damage consequences.'*

2.1 An Adapted (Crime Incident) Identification and Behaviour Matrix

CPTED solutions should 'match' the (Harris adapted) assessed risk-to-incident behaviours. Recommendations and/or affirmation of architectural solutions should be considered (proposed) against this backdrop. The table identifies typical incident behaviours and potential consequences which may apply to this development.

<i>Low Crime Incidents and Potential Consequences</i>	disturbances, intimidation, and aggressive behaviour towards individuals or groups; graffiti and other minor property damage to the façades or street fixtures, fittings, paving, luminaires, plantings and signage.
<i>Moderate Crime Incidents and Potential Consequences</i>	escalating intimidating or threatening behaviour leading to assault, and/or damage to personal property; unauthorised access, damage to and/or theft of property from the building, vehicles and/or vehicle theft
<i>High Crime Incidents and Potential Consequences</i>	'moderate' crime is escalated to intentional (planned) personal harm and /or damage to building facades and structures and/or property including plant and associated utilities infrastructure
<i>Extreme Crime Incidents and Potential Consequences</i>	immediate and dangerous threats to people and/or property, including the building and contents, vehicles, and/or nearby structures and/or utilities infrastructure, including bomb threats and hostile vehicle penetration

It is important to note that 'consequences' cannot be readily determined. Even low (level) crimes can have serious or catastrophic consequences.

APPENDIX 3 THE INFLUENCE OF CPTED IN RE-DESIGNING PUBLIC SPACES FOR SAFE AND 'LIVEABLE' ACTIVATION

3.1 Preventing Crime in Urban Public Spaces

The question of activating and sharing large or small urban public spaces has been occupying city planners globally for the past 40 + years. Prior to 'motorism' public spaces were primarily for pedestrians in major cities, towns and centres. The immediate general question is whether public spaces can and should be designed or re-designed to accommodate the contemporary emphasis on pedestrianisation. Obviously, the answer depends on historic and existing use, and the willingness of stakeholders to change the use.

In this Century, urban public space renewal and re-sharing is becoming a priority. Vehicle take-overs are being challenged by governments, corporations and communities. Pedestrianisation is making its collective presence felt.

There are many reputable architects and planners in numerous countries helping facilitate the urban space-occupancy challenges. Prominent among them is Jan Gehl, a world-renowned architect who, for the past 50+ years has devoted his career, professionally and passionately, to raising issues and solutions for small and large public precinct renewal.

Gehl has written compellingly on (public) spatial sharing versus separation - defining and designing for both options. His research has concluded overwhelmingly that people should re-claim city, town and suburban spaces.

"It's no secret that we have always built cities for people until cars started to invade our lives. So by studying old cities you can get a lot of inspiration for what would also be a good solution for today by looking at people more than we look at making the cars happy." (Gehl 2015)

The added contemporary element in urban reclamation and renewal is *security (crime prevention)*, an all-too-broad a word with many confusing interpretations. CPTED interprets 'security' through design, harnessing architecture and/or engineering to collaboratively *reduce or prevent* anti-social and criminal behaviour.

Harris defines this collaboration to provide 'welcoming and safe (secure) place' as: *'built form and public space environments where crime prevention has been a consideration of concept, master-planning, design development and construction processes and where safe place outcomes enhance a community's overall reputation'*.

CPTED is also referred to as designing-out-crime and/or safer-by-design, defined by Harris as *'applying aspects of architecture, engineering and technology to all urban development proposals as an intentional environmental crime prevention strategy'*. CPTED is a globally recognised designing-out-crime framework. It is our preferred framework for these projects.

3.2 The Influence of CPTED on Community Safety

CPTED's application to, and influence on, urban community safety has a 40+ year track record. Published books and papers began from CPTED's emergence in the 1970s.

Liggett (2004) quotes Greenberg, Rohe and Brantingham and Brantingham in that historical context.:

"The design of the built environment can affect crime through its effect on the degree of access, ease of entrance and exit, and surveillability (Greenberg and Rohe, 1984). For example, alleys and mid-block connections increase the number of escape routes, open a block or a neighborhood to exploration, and aggravate the criminal risk for residential or commercial establishments (Brantingham and Brantingham, 1993).

Kennedy (1993):

"While there have been several notable exceptions (eg Rand, 1983, 1984), most architectural literature pertaining to security deals primarily with the immediate physical structure itself. Criminogenic aspects of the physical environment have not been routinely selected for analysis by design teams... As professional architecture continues to evolve, however, the profession must incorporate those findings of other disciplines which relate so directly to its mission of creating a safe environment."

Contemporary Korean criminologists Jae Seung Lee, Sungjin Park, and Sanghoon Jung (2016) observe:

"Crime prevention through environmental design (CPTED) is one of the most popular urban planning strategies for improving safety in cities. The major purpose of CPTED is to deter potential criminals by modifying urban environments. It is based on the urban design and environmental psychology belief that human behaviour can be

influenced by the surrounding environment. CPTED is often used to renovate declining neighbourhoods that suffer from crime."

CPTED principles should be applied where there is a *primary* intention to create re-development 'attractors' aimed at bringing people into separate or shared social gathering spaces where CPTED supports architecture and engineering in promoting safe activation, reducing or preventing anti-social behaviour and the likelihood of crime.

CPTED is therefore best applied when safe people spaces are the goal, either in the absence of vehicles or at the very least, where vehicle flow and parking are separately defined.

Definitional clarity of place purpose, activation and circulation will determine the application and potential benefits of CPTED in both centres. CPTED emphasises 'welcoming and safe place' in a potentially 24/7 activation environment.

The five CPTED principles – territorial definition, natural surveillance, access control, activity support and target hardening – have informed this report's assessment, conclusions and recommendations.

SUMMARY: CPTED PRINCIPLES SHOULD BE APPLIED WHEN SPACES AND PLACES ARE IDENTIFIED, SEPARATED OR SHARED AND DESIGNED FOR STAKEHOLDER-AGREED PURPOSE(S) WITH AN EMPHASIS ON PEOPLE AND PROPERTY PROTECTION (COMMUNITY SAFETY AND/OR SECURITY).