
Crime Prevention Through Environmental Design

Stage 1 DA SSDA2 (SICEEP)

March 2013



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1. Introduction

This report supports a State Significant Development Application (SSD 12_5752) submitted to the Minister for Planning and Infrastructure pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The Application seeks approval for the establishment of building envelopes and design parameters for a new neighbourhood and a community hub (referred to as The Haymarket) as part of the Sydney international convention, exhibition and entertainment precinct SICEEP Project at Darling Harbour.

The project will develop The Haymarket into one of Sydney's most innovative residential and working districts. Through the delivery of the overall project, Darling Harbour will also become home to Australia's largest convention and exhibition facilities, Sydney's largest red carpet entertainment venue, and a hotel complex of up to 900 rooms. The SICEEP Project importantly forms a critical element of the NSW Government's aspiration to "make NSW number one again".

1.1 Overview of Proposed Development

The proposal relates to a staged development application and seeks to establish concept plan details for The Haymarket, located within the southern part of the SICEEP site.

The Haymarket will include student housing, public car parking, a commercial office building, and four mixed use development blocks (retail/commercial/residential podium with residential towers above) centred around a new public square to be named Haymarket Square.

More specifically concept approval is sought for the following:

- Demolition of existing site improvements, including the existing Sydney Entertainment Centre (SEC), Entertainment car park, and part of the pedestrian footbridge connected to the Entertainment car park and associated tree removal;
- North-west block – construction of a part public car park and part commercial/office building;
- North-east block – construction of a mixed use podium (comprising retail, commercial, above ground parking, and residential) with three residential buildings above;
- South-east block - construction of a mixed use podium (comprising retail, commercial, above ground parking, and residential) with three residential buildings above;
- South-west block - construction of a mixed use podium (comprising retail, commercial, above ground parking, and residential) with three residential buildings above;
- North block – construction of a mixed use building comprising retail, commercial and residential;
- Student housing – construction of two buildings providing for up to 1,000 beds;
- Public domain improvements including a new square, water features, new pedestrian streets and laneways, streetscape embellishments, and associated landscaping. (It is intended that a Stage 2 DA seeking approval for parts of the public domain (The Boulevard and Haymarket Square) will be lodged with the first residential stage);
- Reconfiguration and upgrade of Darling Drive (part);
- Remediation strategy; and
- Car parking rates.

1.2 Background

The existing convention, exhibition and entertainment centre facilities at Darling Harbour were constructed in the 1980s and have provided an excellent service for Sydney and NSW.

The facilities however have limitations in their ability to service the contemporary exhibition and convention industry which has led to a loss in events being held in Sydney.

The NSW Government considers that a precinct-wide renewal and expansion is necessary and is accordingly committed to Sydney reclaiming its position on centre stage for hosting world-class events with the creation of the Sydney International Convention, Exhibition and Entertainment Precinct.

Following an extensive and rigorous Expressions of Interest and Request for Proposals process, Darling Harbour Live (formerly known as 'Destination Sydney' - a consortium comprising AEG Ogden, Lend Lease, Capella Capital and Spotless) was announced by the NSW Government in December 2012 as the preferred proponent to transform Darling Harbour and create the new Sydney International Convention, Exhibition and Entertainment Precinct.

Key features of the Darling Harbour Live Preferred Master Plan include:

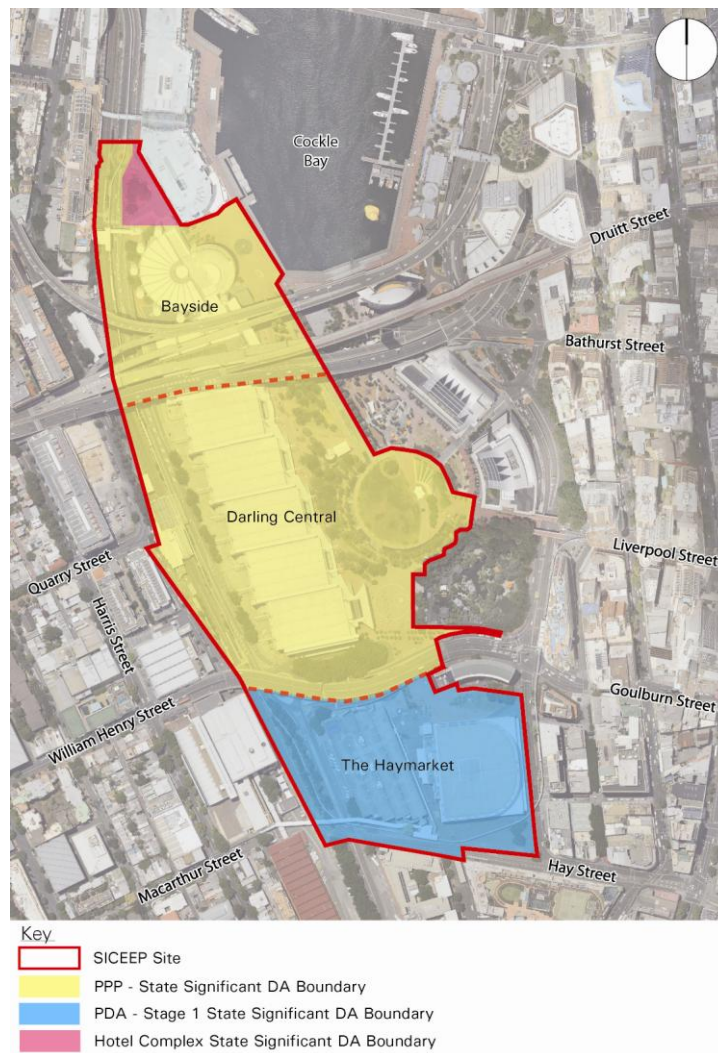
- Delivering world-class convention, exhibition and entertainment facilities, including:
 - Up to 40,000m² exhibition space;
 - Over 8,000m² of meeting rooms space, across 40 rooms;
 - Overall convention space capacity for more than 12,000 people;
 - A ballroom capable of accommodating 2,000 people; and
 - A premium, red-carpet entertainment facility with a capacity of 8,000 persons.
- Providing up to 900 hotel rooms in a hotel complex at the northern end of the Precinct.
- A vibrant and authentic new neighbourhood at the southern end of the precinct, called 'The Haymarket', home to an IQ Hub focused on the creative industries and high-tech businesses, apartments, student accommodation, shops, cafes and restaurants.
- Renewed and upgraded public domain, including an outdoor event space for up to 25,000 people at an expanded Tumbalong Park.
- Improved pedestrian connections linking to the proposed Ultimo Pedestrian Network drawing people between Central, Chinatown and Cockle Bay Wharf as well as east-west between Ultimo/Pymont and the City.

1.3 Site Description

The SICEEP Site is located within Darling Harbour. Darling Harbour is a 60 hectare waterfront precinct on the south-western edge of the Sydney Central Business District that provides a mix of functions including recreational, tourist, entertainment and business.

With an area of approximately 20 hectares, the SICEEP Site is generally bound by the Light Rail Line to the west, Harbourside shopping centre and Cockle Bay to the north, Darling Quarter, the Chinese Garden and Harbour Street to the east, and Hay Street to the south.

The SICEEP Site has been divided into three distinct redevelopment areas (from north to south) – Bayside, Darling Central and The Haymarket. The Application Site area relates to the Haymarket as shown in Figure 1.

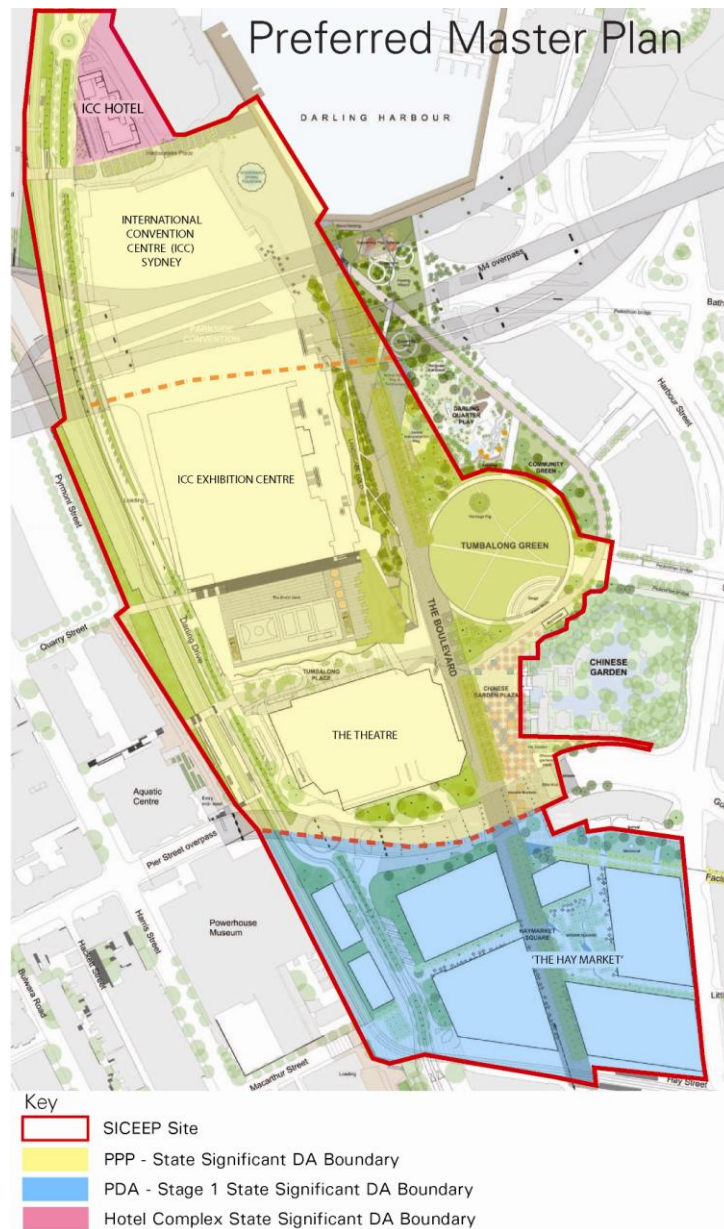


1.4 Planning Approvals Strategy

In response to separate contractual agreements with the NSW Government and staging requirements Lend Lease (Haymarket) Pty Ltd is proposing to submit a number of separate development applications for key elements of the overall Project.

This staged development application involves the establishment of building envelopes and design parameters for a new neighbourhood and a community hub (The Haymarket) within the southern part of the SICEEP Site. Detailed development applications will accordingly follow seeking approval for specific aspects of The Haymarket in accordance with the approved staged development application.

Separate development applications will be lodged for the PPP component of the SICEEP Project (comprising the convention centre, exhibition centre, entertainment facility and associated public domain upgrades) and Hotel complex.



2. The Project and Crime Prevention

The Haymarket master plan (the master plan or project) envisages a vibrant mixed use development of commercial, residential, institutional, recreational, research and retail activity. Around 1400 apartments and accommodation for 1000 students significantly augmented by worker and visitor numbers, will facilitate a precinct-wide eyes-and-ears presence on a 24/7 basis. This presence facilitates, and ultimately promotes, the precinct as a preferred safe destination. Crime Prevention Through Environmental Design (CPTED) is a fundamental architectural strategy supporting precinct vibrancy and presence.

On 21st January 2013 the NSW Department of Planning and Infrastructure issued the 'Director General's Requirements' (DGRs) pursuant to Schedule 2 of the Environmental Planning and Assessment (EPA) Act, Regulation 2000. These requirements seek compliance with Safer-by-Design principles in relation to built form, with specific reference to the Public Domain. Safer-by-Design principles are in turn based on Crime Prevention Through Environmental Design (CPTED) an internationally accepted model for applying aspects of architecture, engineering and technology to reduce or prevent crime in urban environments. Reference to this requirement falls within "Point 3 – Urban Design", of the DGRs covering the Project's design.

CPTED principles are required to be integral to aspects of the Haymarket's master plan in fulfilling one of the precinct's reputational aims; that of personal and property safety (security). Ultimately, this aim is realised by applying the principles to staged design development and, later, to the precinct's post-construction safety management.

The project's corollary purpose is to provide new corridors of re-connection between Sydney's south-western CBD, the existing Haymarket, Ultimo and SICEEP's central and northern sectors. The safety design and management of the new Haymarket will hopefully influence and/or impact these precincts through positive behaviour displacement.

3. The Consultancy

Harris Crime Prevention Services (Harris) has reviewed concept/master plan drawings (refer Section 15) to be submitted for the Stage 1 Haymarket precinct proposal. The review is in response to the requirements by the Director General of Planning and Infrastructure NSW (DGRs) that Crime Prevention Through Environmental Design (CPTED) principles be incorporated into the precinct's built form and public domain architecture.

4. Consultancy Scope

The consultancy scope involved:

- (i) reviewing current drawings to understand the design philosophy for proposed built form and public domain activity purposes and linkages;
- (ii) reviewing inter-precinct (north, south, east, west) connectivity with the master plan; streets, roads, footpaths and laneways;
- (iii) commenting on current contextual anti-social and criminal behaviour patterns and trends;
- (iv) meeting with relevant project representatives to clarify scope rationale;
- (v) ensuring that CPTED principles are incorporated into concept and master plan documentation aimed at maximising the perception and reality of 'welcoming and safe place'.

5. Explanatory Terms

Harris defines, explains and/or interprets the following terms relevant to this report:

(i) Crime Prevention

Social, economic, policing, community and personal initiatives, practices or policies aimed at identifying, containing, reducing and ultimately preventing opportunistic or planned anti-social or criminal behaviour.

(ii) Security Design [inter alia Safer-by-Design]

Comprehensive (holistic) crime prevention strategies, codes or guidelines; applying aspects of architecture, engineering and technology design to master planning (macro), design development (meso) and design detail (micro) project briefs.

(iii) Crime Prevention Through Environmental Design (CPTED)

CPTED is a coined version of security design; a model based on the concept of 'defensible space' and the design elements of territoriality, surveillance and access control. The CPTED model has largely been adopted throughout the developed world as legitimate crime prevention strategies.

(iv) Security Management [inter alia Crime Prevention Through Environmental Management (CPTM)]

Post-security design management initiatives by police, security and facilities operatives by (a) coordinated (crime) risk analysis and monitoring, (b) maintenance and renewal of security technology and (c) engaging project stakeholders and the wider community in awareness of and/or participation in, safe space and welcoming place experiences.

(v) Holistic Crime Prevention Project Profiling

Engaging inter-disciplinary design-and-construct and operational specialists to plan and execute crime prevention (security) design and management strategies over the life of a project; that is from concept to operational occupation.

(vi) Safe Space

Physical and social private, communal and public zones, areas, places or precincts where security design and security management are interdependently incorporated into built form development

(vii) Welcoming and Safe Place

A built environment that welcomes, defines, guides, directs, encourages, regulates, challenges and limits pedestrian and vehicular activity to override and prevent opportunistic and planned anti-social and criminal behaviour through simultaneous (security) design and management initiatives.

Harris is of the view that security design (CPTED) and security management (CPTM) strategies are interdependently and inexorably linked. Often they are not and, in circumstances where security design has been overlooked, traditional operational security management and technology are substituted.

Disclaimer

The recommendations outlined in the report are based on information provided to Harris Crime Prevention Services at the time of this assignment. Research and experience that suggest certain design and policy approaches 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.

6. Stakeholders

The ultimate stakeholders are the users of, and visitors to, the Haymarket. Key government, agency, consortium and stakeholders are:

Infrastructure NSW
Darling Harbour Live Consortium
Owner-Operators of premises and facilities
Destination NSW
City of Sydney
Sydney Harbour Foreshore Authority
NSW Police Force
The University of Technology Sydney (UTS)
Technical and Further Education NSW (TAFE)
The people of Sydney and NSW
Future residents
International clients and visitors to the Haymarket.

7. Crime Reduction and Prevention: Critical Haymarket Project Issues

The Haymarket's personal and property (community) safety strategies should match and/or model CPTED strategies for the entire SICEEP footprint. The master plan should comply with the DGRs and, in the interests of welcoming and safe place continuity, should also reflect the City of Sydney's goals to re-define and market the southern CBD as an exciting (safe) 24/7 destination. The DGRs mandate CPTED incorporation initially into concept, master planning and subsequently into design development and/or detail documentation.

Drawings have been reviewed in relation to the master plan's expression of CPTED principles; how those principles are addressed within the development and their potential to impact on the community safety goals of adjoining precincts (neighbourhoods). The Haymarket is central to the City's and State's safe destination goals for the southern CBD. As this area experiences progressive urban renewal, the inclusion of safe design initiatives across all precincts will hopefully broaden the overall crime prevention 'reach'.

Activity generation is critical to one of CPTED's principles – natural (passive or informal) surveillance. The Haymarket's (and the entire SICEEP development) integrated land uses will promote environmental legibility and liveliness facilitating 24/7 surveillance. The proposed retail and gathering spaces are central to encouraging an eyes-and-ears surveillance and safe place 'ownership' culture. There is sufficient published evidence to suggest that anti-social and crime risks are controlled, reduced and prevented by legitimate 'claimed' space activity.

8. Sustaining 'Welcoming and Safe Place'

Sustaining the Haymarket's welcoming and safe place reputation involves a combination of security design (CPTED) and security management (CPTM). Holistic crime prevention is The Haymarket's long term goal. Where design is compromised, (for example fails to penetrate discipline design detail), the ability to monitor and manage on-going crime risk is also compromised. Both strategies have been foreshadowed in early SICEEP documentation.

The DGRs and Infrastructure NSW documentation (High Level Output Specifications, Project Brief Appendix A.08 2.7 and A.63; DGRs Attachment 1 – Deliverables), reference CPTED in the design of built elements and/or the Public Domain. An initial systems management report and early public-private-partnership guidelines for SICEEP, (Ogden, Initial Security Plan 7.3.C.6 and PPP Report Schedule D 5.6.C.3) refer to the need for security design and management regimes throughout SICEEP; the Ogden report detailing security management specifics.

The marketability and longer term reputation of The Haymarket will, in part, stem from attention to post-construction security management; CPTM. Outcome effectiveness will ultimately depend on (i) developing and implementing a consultative CPTM plan and (ii) encouraging owner-occupier stakeholders to understand and participate in the plan, in conjunction with relevant agencies or authorities. A CPTM plan integrates with the Project's broader risk management strategy. We identify five CPTM principles or elements for later consideration; (i) design maintenance (ii) systems management (iii) risk re-appraisal (iv) community engagement monitoring and (v) outcome evaluation.

8.1 The Haymarket: A Contextual Transformation

The Haymarket master plan is transformational; changing the existing footprint into an integral part of SICEEP's 'world class experience' (vision statement 2012).

The DGRs require CPTED design principles to (i) underpin the Precinct's Public Domain 'welcoming and safe place' (5 vii) reputation, and (ii) ensure that the CPTED public domain design principles are integrated with principles to be applied to the mixed use development lots and the student accommodation, and (iii) by implication, (and in accord with Infrastructure NSW), enhance the overall precinct's personal and property safety (security) integrity as part of its 'world class destination' marketability.

9. CPTED-Informing Legislation, Instruments and Agencies

The DGRs are underpinned by State environmental law and supported by policies and practices pertinent to CPTED principles enacted or implied by the Sydney Harbour Foreshore Authority, City of Sydney, Transport for NSW and NSW Police Force.

9.1 The EPA Act, 1979 (as amended)

The DGRs are informed by the EPA Act and Regulations whereby developments subject to State or local government approval are required to consider the prevention of crime as a consent condition.

Section 79C (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"*.

Section 79 (1) (b) adds: *"...the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality"*.

Section 79 (1) (e) adds: "...the public interest".

Interpretation of "*the public interest*" includes the relevant stakeholders – in this case, the Haymarket's stakeholders. The public interest in the proposed master plan mirrors that of interest in the entire SICEEP footprint; an interest of personal safety and property security.

9.2 Sydney Foreshore Authority

The Sydney Harbour Foreshore Authority Act 1998, establishes a management framework, setting out functions (a)...*"to protect and enhance the natural and cultural heritage of the foreshore area;* and, (c)...*"to promote, coordinate, organise, manage, undertake, secure, provide and conduct cultural, educational, commercial, tourist, recreational, entertainment and transport, activities and facilities..."* [Section 12 (1)]

While the Act makes no specific reference to the management of anti-social and/or criminal behaviour, the Authority, by implication, seeks an environment within its precinct responsibilities which permits and promotes the wide ranging activities falling within its jurisdiction, including public safety (security).

9.3 City of Sydney

The City of Sydney developed the *Safe City Strategy 2007-2012* to provide "*an overarching to guide the City and its partners in tackling the complex range of crime and safety issues affecting both the Central Business District and our urban villages. This is in recognition that the causes of crime are complex, many and varied and that only working together effectively on a broad range of issues can we continue to create safer, vibrant and more prosperous communities*" (City of Sydney, 2006b: 2). To achieve these goals, the City of Sydney established key community based objectives around preventing anti-social or criminal behaviour.

All development applications in relation to the City's 'village' network (the urban LGA) are required to submit CPTED reports, undertaken either by specialist NSW police or by private planning or security consultants. The Haymarket DGRs and the City's policy instruments are therefore aligned and underpinned by the EPA Act and guidelines.

9.4 Transport for NSW

Transport for NSW has issued planning proposals for the development of (a) the city's light rail network, (b) greater emphasis on seamless bus and light rail interchanges and (c) general improvements to personal safety and property protection across the entire metropolitan network with the creation of the NSW Police Transport Command. These proposals directly impact on, and are impacted by, the Haymarket master plan. In particular, transport policy and procedures affirm the need for CPTED design as part of any re-design of the light rail station and bus stops.

9.5 The NSW Police Force

The NSW Police Force has appointed crime prevention officers within most of the State's local area commands. Their role is to proactively review (a) anti-social and criminal behaviour 'hot spots' with a view to risk amelioration through increased police or security presence and/or through situational crime prevention measures – involving physical modification of (usually) external built form, applying CPTED principles.

City Central Local Area Command (LAC) works closely with City of Sydney 'village' communities, assessing and documenting issues likely to negatively or positively impact on criminality, especially in public domains. The LAC also manages alcohol and crowd control accords within the CBD, in conjunction with City of Sydney staff and private security companies.

The LAC also hosts community safety precinct committees, comprising business and community representatives whose role is to monitor crime risks and recommend crime reduction and prevention initiatives. Police input into, or review of, CPTED design development initiatives for the Haymarket is desirable.

10. The Haymarket's Social Context and Crime Risk Factors

10.1 Haymarket Connectors

The Haymarket connectors are (i) Goulburn Street, Little Pier Street, Factory Street, Little Hay Street and Hay Street from the east, (ii) Quay Street from the south, (iii) Macarthur Street and Dickson's Lane from the west, and (iv) Darling Drive, Harbour Street and the SICEEP Boulevard running along north-south corridors. The connector streets and their sites are the suburbs/zones of the Haymarket, Pyrmont, Ultimo and Sydney's central and southern CBD.

There is a mixed use similarity between the Haymarket master plan and the surrounding urban footprint, comprising residential, institutional, commercial, retail, hotel, recreational built form with accompanying pocket parks or other public passive or active recreational spaces.

Functionality is therefore diverse and activity generation determined by specific LGA locations. However, the master plan seeks greater connection with these neighbourhoods. In part this will be a 'destination central' hub for them and will most likely be regarded as a neighbourhood extension.

10.2 Crime and Crime Risk Profiles

Data from the NSW Bureau of Crime Statistics and Research (BOCSAR) indicates identified 'hot spots' for intimidating, threatening and criminal behaviour in and around the existing precinct, evidenced by graffiti, vandalism, theft and assaults. Pyrmont, Ultimo, Chinatown and the northern end of Broadway are known crime-vulnerable locations.

The 'hot-spot' data provides a general overview; no specific locations, time of day, outcomes of investigations etc. However the BOCSAR data is indicative of the fact that the crime categories listed are of concern to a city intent on attracting greater visitor numbers, throughout the year, in all seasons and beyond daylight hours. Alcohol and drugs are seen as major negative catalysts in profiling these spaces as unsafe.

The master plan's inclusion of CPTED principles will not only 'signal' safe space within its boundaries, but will signal a perception (and hopefully a reality) of safe space along the connector approaches; that is the master plan becomes a model hub for its surrounding neighbourhoods.

11. The Haymarket Master Plan: CPTED

11.1 CPTED Principles

CPTED's underpinning principles provide a theoretical and purposeful framework whereby architecture re-focuses, re-emphasises and/or re-packages design-against-crime practices that have long existed.

Harris identifies five CPTED principles that should inform The Haymarket's master plan. There are also four spatial zones into which the principles may be applied:

- Zone 1 Public Space - for open and general use; precincts serving a variety of purposes;
- Zone 2 Semi-Public Space - open public precincts but with restricted usage;
- Zone 3 Semi-Private Space - space defined by occupancy and ownership usage;
- Zone 4 Private Space - singly defined purpose usage by specific individuals.

Each of the following principles informs, or is informed by, key planning and design purposes for the Project with regard to the Public Domain and its inter-connectedness with the mixed use development lots and student accommodation. These purposes include the precinct's visibility, liveliness and legibility criteria to secure key 24/7 safe destination objectives.

CPTED Principle 1	Territorial Definition
CPTED Principle 2	Access Control
CPTED Principle 3	Natural Surveillance
CPTED Principle 4	Activity Support
CPTED Principle 5	Target Hardening

Territorial Definition

This is a delineator of one or more of the above spaces. Territorial design defines form and function of spatial ownership, emphasising invitational purpose. Perimeters and creative bounded form confirm spatial integrity and cared for legitimacy.

Surveillance

Spatial design maximises opportunities for surveillance – formal and informal. The design principle increases the number, width, depth, height and length of sight lines: the capacity of people and technology to observe movement and activity at distance. Design legibility and spatial connectivity are key.

- *Natural surveillance* encourages casual observation of all users of known and defined urban space.
- *Social surveillance* encourages regular (and possibly casual) users of space to more deliberately observe and routinely monitor, challenge or report suspicious pedestrian and vehicle movements through precincts or into buildings.
- *Technical surveillance* employs digital and visual recognition technology to manage defined spatial access and support human surveillance activity. Closed Circuit Television or Networked IP Camera technology, alarms and access control systems are now mainstream crime prevention and crime management tools in urban design. While they must be incorporated into security design briefs, their inclusion should be the subject of separate documentation supporting CPTED's design principles. The (eventual) application of technologies throughout the entire Precinct are a given but are not part of this report's considerations.

All forms of surveillance encourages a 'security ownership' of territory and promotes informal 'security intelligence'.

Access Control

Access control design applies subtle architecture in support of territorial definition, by clearly indicating the directional or destination limits, restricting or halting access through certainty of access and movement. Lighting, movement corridors, landscaping, low-line fencing, steps and doorways (as opposed to doors) are obvious examples. The principle encourages 'distinguishing' design between legitimate access and users and/or occupiers of urban space, and those seeking access illegitimately or unlawfully.

Activity Support

This involves the use of creative signage, (external) lighting and other landscaping way-finding design to encourage intended patterns of usage, generating activity certainty or liveliness, particularly in the public domain. The activity support principle reinforces activity purpose and location security.

Target Hardening

Target hardening increases the efforts that 'offenders' must expend in their intent to disrupt legitimacy and put at risk legitimate activity. It is directed at denying or limiting access to potential criminal targets through the use of more intentional and less subtle access control design including deliberate physical barriers such as security fencing, gates, locks and electronic alarms. However, the design goal is to avoid 'fortressing'.

12. CPTED Applied to the Master Plan

The proposed master plan has have been reviewed and the following observations, inferences and recommendations are made in light of (i) the DGRs requirements and informing authorities, and (ii) the contextual and crime risk issues outlined above.

12.1 Overview

The proposed master plan provides a balance of public domain space and built form which, from a crime prevention (community safety) perspective facilitates the application of CPTED principles. Currently the precinct lacks a coordinated safer-by-design and security management focus, due in part to (i) varied and intermittent activity generation during and after hours, (ii) ad hoc inter-precinct connectivity.

The master plan reverses this position. In crime prevention terms, the plan envisages purposeful and high-volume activity generation, incorporation of CPTED architecture and planned inter-precinct engagement.

The benefits will be to replace and re-open a collection of disconnected and often empty corridors leading to, or skirting, the existing precinct; thereby negating the perception that it is unsafe and crime prone.

(Harris is of the view that mixed use and multi-demographic developments sustain safe space and place where CPTED principles are supported by CPTM, providing human and design barriers to those intent on illegitimate spatial infringement.)

The master plan defines territory – what is public, semi public, semi private and private space. Territorial definition and purpose is made clear through activation plotting – residential, retail, public space etc. Territory definition determines and controls access. Building design invites natural surveillance from ground and higher levels.

Design development will indicate how legitimate access will be controlled throughout the (new) neighbourhood. Indicatively, front-of-house access for residential, commercial and retail will be facilitated by the Square, fed by Little Hay and Hay Streets and from the south and south eastern city quarters and from SICEEP's boulevard from the north. Linkages to the Market City, TAFE and the University of Technology Sydney's campus will promote public domain inclusivity, leading to beyond-Haymarket experiences with the whole of SICEEP's public domain.

CPTED focused design development of lighting and landscaping will be critical to diverse and safe activation. Noise attenuation measures in and around the Square would improve 'productive' and safe time-extended social engagement with the Square and with the surrounding laneways and adjoining green space connectors, including the Boulevard.

12.2 The Haymarket's Integration with the Wider SICEEP Footprint

The Haymarket is an extension of crime prevention planning for the entire SICEEP project and ensures that the southern sector connects seamlessly with it. The consortium's 'welcoming and safe place' goals are to (i) ensure the perception and reality of safety is consistently evident through design, (ii) apply consistency of security design maintenance and management throughout all sectors and (iii) encourage safety (security) awareness by owner-occupiers of residential and work spaces to 'own' those spaces in a community safety sense.

The Haymarket is the catalyst for an informal but essential security management/awareness/ownership focus. The master plan provides the CPTED link to SICEEP. The future Haymarket and neighbouring stakeholders will therefore have a design foundation upon which to launch an appropriate safe place management regime.

12.3 The Precinct's Perimeter Approaches

Invitational approaches to the site are an essential welcoming element to public safety. Each of the (directional) approaches offer inviting landscapes with intentionally long and wide sight lines. The Boulevard spinally connects with Dickson's Lane, Hay Street, Little Hay Street, Factory Lane, Quay Street and Macarthur Street. The master plan provides perimeter definition via building, streetscape or, in the case of the Boulevard, open space approach clarity either as an extension of Quay Street or from SICEEP's north.

Landscaped connectors suggest (green) safety on approach to buildings and/or retail forecourts, enhancing access and egress surveillance, for example the lobby drop-off for the south western tower. The master plan provides perimeter/approach clarity and certainty. Lighting and landscape design development will confirm this assessment.

The light-rail and bus stops appropriately define destination certainty.

12.4 The Public Domain and Haymarket Square

The (collective) domain is created as pocket stay and main stay activity generators; again encouraging spatial definition and surveillance 'ownership'. The master plan promotes numerous, but directional, pedestrian walkways either along defined corridors and/or leading to landscaped space. CPTED surveillance is maximised in public space when (i) the design welcomes exploration, (ii) exploration is

more than just a once only experience and (iii) when there is a sense of wanting to 'belong' to the landscaping – its diversity, its use of lighting, its furniture and its proximity to facilities and buildings which blend with landscaped areas. Design development should reflect the application of this principle.

The design emphasis on varied activity generation promotes a sense of safe territory and discourages disruption of, or damage to, any of the 'owned' domain spaces. Spatial orientation encourages directional transfer to other stay-and-play spaces or to retail and tower entrances.

The square is a natural gathering space. Its terraced connectivity with the Boulevard and the three towers encourages surveillance towards and from those towers while encouraging surveillance across the Boulevard to the western towers, including line of sight towards Dickson's Lane. There will be some shared cycle-pedestrian amenity in and around the square and along the Boulevard in the form of low speed 'cruising'. While cycling can attract riders bent on assault or stealing, the intent and design of the domain will discourage, or at least detect, such activity. Informal events will enhance the overall amenity.

The stay-and-play points along the southern end of the Boulevard's spine should generate the sort of casual passive activity conducive with natural surveillance objectives. The Boulevard's amenity therefore encourages safe social pausing within the square and in adjacent pocket green spaces.

The master plan shows no inactive 'corners' of the site; ensuring public space connectivity within the site's footprint.

12.5 The Building Footprints

The mixed use development lots and the student accommodation encourage inter-connectivity with surrounding or adjacent green space either as directional pathways or as passive pocket social amenity.

Front-of-house reception and back-of-house loading/parking facilities are critical access control and surveillance points. Their positioning should reflect the application of those principles in design development. Treatment of building access, egress, set-backs, under crofts and facades will form part of the staged design development processes.

Ground level retail diversity is a positive crime prevention feature, promoting a continuum of spatial liveliness as an integral part of the at-ground footprints.

12.6 Intra-Spatial and Inter-Spatial Safety

Ideally, the five CPTED principles should collectively create a 'welcoming and safe place' vision. This in part is dependent on the way built form and open space interacts. Drawings indicate a seamless interaction, encouraging an integration of territory, surveillance, access control and activity support, with little evidence of the need for target hardening at this stage.

The master plan indicates functional connectivity with SICEEP via the Boulevard as the spinal link. The (town) square is an 'exploratory' and visitor destination point. There are more functional links, for example the provision of car parking facilities in the north east lot for patrons accessing the Theatre (MFEC). Seamless and consistent application of CPTED principles is envisaged for the project's totality – across all SICEEP sectors.

The master plan also envisages intentional interconnectivity with the CBD and residential neighbourhoods. Initiatives such as the Ultimo Pedestrian Network, and proposals by TAFE, UTS, Chinatown, the Power House and the City of Sydney will only enhance the master plan's acknowledgement of the need to 'share' its welcoming and safe place vision with surrounding stakeholder constituents. The need to intentionally engage with adjoining precincts in holistic CPTED design is critical. Cross stakeholder and cross disciplinary plans, policies and practical initiatives to affect this outcome are already evident in the wider city community safety (crime prevention) brief. In our view, The Haymarket will be the hub for these initiatives.

13. Conclusions

The Haymarket's concept and master plan has been reviewed in line with the DGRs and informing reports or policies, including those of Infrastructure NSW and the City of Sydney. The master plan profiles a precinct of mixed uses promoting high volume, vibrant and diverse activity, consistent with facilitating the project's community safety (crime prevention) objectives. The 24/7 (activity) generation will guarantee an eyes-and-ears presence continuum; essential in promoting a protective and inclusive surveillance culture. Stakeholder ownership of that culture will strengthen the project's long term security management.

The Public Domain and building lot layout assist in defining territorial use and facilitating safe way-finding access to, from and within the precinct. The master plan embraces CPTED principles through attention to intra-precinct connectivity, (permeability) legibility, liveliness; maximising activity generation appropriate to each amenity.

CPTED principles evident in the drawings provide a 'welcoming and safe place' foundation for future out-workings of those principles through design development and detail stages. Each stage should embrace the CPTED ethos, ensuring CPTED principles become detailed design-and-construct reality. CPTED design development should also be aligned with strategies for public transport, road and street corridors servicing the precinct, particularly with regard to the light rail infrastructure.

Precinct lighting, landscaping and signage are critical to the design development roll-out of CPTED. The Haymarket's lighting master plan should integrate with SICEEP's entire lighting footprint to reflect illuminance continuity, colour rendition consistency, throw, spill or wash patterns. Lighting detail should address way-finding, gathering spaces, building, facades, building approaches, front-of-house and back-of-house entry, and inter-precinct connectivity; for example, to adjoining CBD streets and neighbourhoods.

The master plan envisages appropriate surveillance visibility from all five building lots; at-ground and from upper levels. These opportunities maximise natural and social surveillance, thereby minimising the need for obtrusive and/or unnecessary surveillance technology.

Building design should maximise sight line options at all access points, particularly at entry statements. Internal building design should continue to promote CPTED principles, affirming for example, territorial definitions, access control and surveillance within public and private spaces.

In our view, the overall CPTED design reflected in the master plan will provide impetus for adjacent mixed use precincts to re-examine CPTED options for their respective neighbourhoods, particularly those to the west and south of the development. The report concludes that CPTED and CPTEM safety/security measures should serve to (positively) impact those communities; that is, promote an extension of the Haymarket's low, or no, crime policy.

Harris Crime Prevention Services is of the opinion that master plan documentation prepared for Stage 1 of the Haymarket project is consistent with the Schedule 2 requirements of the Director General, NSW Department of Planning and Infrastructure, in that CPTED principles have been considered and applied.

Specifically Harris notes (i) the drawings indicate the inclusion of CPTED principles in relevant concept, public domain and building design and (ii) the master plan is consistent with community safety policies and/or objectives of the Sydney Harbour Foreshore Authority, the City of Sydney and the NSW Police Force, in promoting safer-by-design strategies throughout the Sydney LGA.

14. Methodology

The methodology indicates the process undertaken taken by the consultants in preparing our report. The consultants have:

- (a) reviewed the drawings in order to understand the commercial, social, architectural and 'destination' goals of the Haymarket Project;
- (b) received input from the Project management representatives;
- (c) explored the crime risk backdrop;
- (d) visited the site during the day and night;
- (e) reviewed (security focussed) government planning authority instruments and/or policies

15. References

- 1 AEG Ogden Initial Development Phase Operational Services Plan.
- 2 City of Sydney, 2008, Safe City Strategy 2007-2012, internal publication.
- 3 Crowe T, *Crime Prevention Through Environmental Design* Third Ed Butterworth-Heinemann, Boston, 2005.
- 4 Director General of Planning and Infrastructure NSW (DGRs) under Schedule 2 of the Act (revised 21st January 2013).
- 5 Aspect Studios with Choi Rophia Figuera, architectural drawing, Ultimo Pedestrian Network (UPN) Stage 2, 11054-SK03A, 12/9/2013.
- 6 Denton Corker Marshall, Melbourne, concept design 7428A 28/2/2013, architectural drawings MCD AR D101 Revision C, Retail Detailed sections D194 01 Haymarket Square, D195 02 Boulevard East, D196 03 Boulevard West, D197 Harbour Street, D194 05 Hay Street, D199 06 Hay Street, D204 07 Student Accommodation, D205 08 Little Hay Street, D206 09 Factory Lane, D207 10 Dickson Street, D 101 Revision F 25/2/13 Ground floor plan D102 Level 01 plan D103 revision D Podium level plan, D104 Revision D Typical towers plan, D105 Roof level plan, SS10 Section A-A, SS 111 Section B-B, SS112 Section C-C, D120 north elevation – office, D121 south elevation – office, D122 east elevation – office D123 west elevation – office, D124 north elevation – office, D125 west elevation –office.
- 7 Hassell, Sydney, architectural drawing 003688 23/2/13.
- 8 Infrastructure NSW SICEEP Project Deed Exhibit 1: Project Brief.
- 9 Infrastructure NSW SICEEP High Level Output Specification.
- 10 NSW Government, 1979, Environmental Planning and Assessment Act and Guidelines, NSW Government publication.
- 11 NSW Bureau of Crime Statistics and Research statistical data on City of Sydney LGA (2010).
- 12 NSW Bureau of Crime Statistics and Research, City of Sydney crime hotspots data 2010.
- 13 The Sydney Harbour Foreshore Authority Act 1998.
- 14 Public Private Partnership Guidelines/Report (author unknown) Security Service Statement.