

Stage 2 State Significant Development Application
SSD 16_8175
Crime Prevention Through Environmental Design Assessment



Western Sydney Stadium

11-13 O'Connell Street, Parramatta

Submitted to Department of Planning and Environment
On Behalf of Venues NSW

March 2017 ■ 16435

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1.0 Introduction

This Crime Prevention Through Environmental Design (CPTED) assessment has been provided to support a State Significant Development Application submitted to the Minister for Planning, pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The CPTED assessment has been prepared to assess the elements of crime, and the fear of crime that may be associated with the construction and use of a new 30,000 seat stadium, at 11-13 O'Connell Street in Parramatta as described in the Environmental Impact Statement, prepared by JBA. The proposed development is herein referred to as the Western Sydney Stadium.

CPTED is a situational crime prevention strategy that focuses on the design, planning and structure of the environment. It aims to reduce opportunities for crime by employing design and place management principles that minimise the likelihood of essential crime ingredients.

This assessment has been prepared by a Certified NSW Police Risk Assessor, and uses qualitative and quantitative measures of the physical and social environment to analyse and suggest treatments to mitigate crime opportunity in accordance with the Australian and New Zealand Risk Management Standard AS/NZS 31000:2009.

In accordance with the NSW Department of Planning and Environment's guidelines (2001) the aim of the CPTED strategy is to influence the design of buildings and places by:

- increasing the perception of risk to criminals by increasing the possibility of detection, challenge and capture;
- increasing the effort required to commit crime by increasing the time, energy or resources which need to be expended;
- reducing the potential rewards of crime by minimising, removing or concealing 'crime benefits'; and
- removing conditions that create confusion about required norms of behaviour.

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

- review of key literature on CPTED by the Department of Attorney General and Justice Crime Prevention;
- collection and analysis of local and NSW State crime statistics from the Bureau of Crime Statistics and Research (BOSCAR); and
- a crime risk assessment, in accordance with the current NSW policy and practice, of the following regulation and assessment principles:
 1. Surveillance
 2. Lighting/technical supervision
 3. Territorial reinforcement
 4. Environmental maintenance
 5. Activity and Space Management
 6. Access control
 7. Design, definition and designation.

A site inspection was conducted on 6 February 2017 between the hours of 11.00am and 2.30pm to assess the current site conditions and situational crime prevention measures and safety impacts.

Sections 5 and 6 of this report reflect the findings and recommendations of the Crime Risk Assessment.

Disclaimer:

CPTED strategies must work in conjunction with other crime prevention strategies and police operations. By using recommendations contained within this document, any person who does so must acknowledge that:

- it is not possible to make areas assessed completely safe for the community and their property;*
- recommendations are based upon information provided to, and observations made at the time the document was prepared; and*
- this document does not guarantee that all risks have been identified, or that the area evaluated will be free from criminal activity if its recommendations are followed.*

2.0 The Site

2.1 Site Location and Context

The Western Sydney Stadium site is located to the north of the Parramatta River, on the north-western edge of the Parramatta CBD. It is situated within the Parramatta Parklands and is generally surrounded by open space recreational areas to the east and south.

The site is bounded by O'Connell Street to the east and the Parramatta Park and River to the West. The Parramatta Leagues Club (subject to a DA to extend the current facilities) adjoins the site to the north and the Old Kings Oval and Parramatta River lie to the south of the site.

The site's locational context is shown in **Figure 1**.



Figure 1 – Site context plan
Source: JBA

2.2 Site Description

The site comprises the existing Parramatta Stadium and associated facilities including approximately 200 at grade car parking spaces, internal ring roads and event related facilities. The site also includes the Parramatta Swimming Centre, located to the east of the stadium and a training field to the south of the stadium. The site is approximately 95,000m² in area and is irregular in shape. An aerial photograph of the site is included at **Figure 2**.



Figure 2 – Aerial photograph of the site
Source: JBA

2.2.1 Existing Development

Existing development on the site comprises the following elements:

- The existing stadium, which comprises a rectangular field and seating for approximately 21,000 people in two purpose built stands and two terraces. Four major light poles are also located at the respective corners of the field.
- Two surface level car parks, located to the north and west of the stadium and providing approximately 250 spaces in total.
- The Parramatta Swimming Centre, which is located between O'Connell Street and the existing stadium.
- A training field, located to the south of the stadium and to the east of the Old Kings Oval.

It is noted that the all the existing development is currently being demolished.

2.2.2 Access

Access is currently restricted to the stadium and car parking areas by construction fencing, however vehicular access into these parts of the site is provided from O'Connell Street. The Parramatta Swimming Centre is still currently operational and pedestrian access is also provided from O'Connell Street.

Pedestrian access is not restricted to the training field and therefore pedestrians can access it from the car park situated to the south of the site, which is not included within the site boundary.

Photographs of existing development are provided in **Figures 3-8**.

2.2.3 Security

At the site inspection, it was observed that the stadium and car parking areas within the site were predominantly surrounded by security fencing. However this fencing was provided for construction safety purposes rather than operational security purposes. Parramatta Swimming Centre was also surrounded by fencing which provided good access control and ensured that visitors were only able to access the Swimming Centre by the main entrance off O'Connell Street.

CCTV cameras were not evident in the parts of the site that could be accessed and lighting was minimal. Furthermore, no physical guards or patrols were sighted during the site visit.



Figure 3 – Existing Parramatta Stadium
Source: JBA



Figure 4 – Northern car park
Source: JBA



Figure 5 – Parramatta Swimming Centre
Source: JBA



Figure 6 – Training Field
Source: JBA



Figure 7 – Vehicular Access from O'Connell Street
Source: JBA



Figure 8 – Pedestrian/ main entrance into the Parramatta Swimming Centre from O’Connell Street
Source: JBA

2.3 Surrounding Development

To the north of the site is the Parramatta Leagues Club, which is regional dining and entertainment venue. It is separated from the site by an existing large surface level car park. However, it is understood that this car park is to be redeveloped to provide a new multi-level (part 4-7 storey above ground) car park for 1001 cars.

Immediately south of the site is a large surface level car park, a portion of Parramatta Parklands and the Parramatta river beyond.

To the west of the site are the Parramatta River and its associated river banks along with the Old Kings Oval, which is also part of the Parramatta Parklands.

Immediately east of the site is O’Connell Street. On the eastern side of O’Connell Street is the Our Lady of Mercy Collage, the O’Connell Primary School site and St Patrick’s Cathedral.

Photographs of the surrounding development are included at **Figures 9-12**.



Figure 9 – Parramatta Leagues Club
Source: JBA



Figure 10 – Our Lady of Mercy College, viewed from Victoria Road
Source: JBA



Figure 11 – Proposed O'Connell Street Primary School site
Source: JBA



Figure 12 – St Patrick's Cathedral
Source: JBA

2.4 Site Risk Assessment

Overall, the Crime Risk Assessment of the site in its current state is considered to be 'medium'.

The key negative elements of the site are:

- natural surveillance from and into the site is limited due to the enclosed nature of the existing stadium, the distance of the surrounding buildings from the site and the open Parkland setting that surrounds the site;
- existing lighting appeared to be limited in relation to its distribution. It is noted however, that not lighting areas, particularly parks, can act as a safety mechanism in that people generally do not wish to use unlit areas during the night;
- the general appearance of the buildings within the site appear relatively tired and dated;
- it is considered that there would be little activity during the night on non-event days and the existing activity during the day (on non-event days) would be limited to visitors accessing the Parramatta Swimming Centre; and
- there appears to be little technical supervision across the site.

The key positive elements of the site are:

- the existing buildings are constructed with robust materials and have well defined uses;
- whilst the appearance of the buildings appear relatively dated, there is a high level of maintenance with little graffiti, litter or vandalism evident;
- the entrances into the Parramatta Swimming Centre and stadium are clearly defined.

3.0 The Proposed Development

The Environmental Impact Assessment (EIS) to which this CPTED Report is appended is submitted to the NSW Department of Planning and Environment in support of a Stage Significant Development Application (SSDA) for the following:

- Detailed design of the stadium, public domain and car parking spaces;
- Construction and use of the 30,000 seat stadium including:
 - General Admission Facilities including bars, food and drink stalls, amenities and viewing areas;
 - A function centre and kitchen facility;
 - Associated Stadium facilities including player and coaching facilities, media and press conference rooms, security and stadium managers facilities;
 - Waste storage and loading dock;
- Construction and embellishment of the public domain including:
 - Outdoor sporting and recreation facilities;
 - Public plazas and entertainment areas;
 - General landscaping works;
- Provision of up to 500 car parking spaces with vehicle access to the development from O'Connell Street and internal roads for vehicular circulation;
- Provision of signage zones, lighting and other ancillary stadium elements;
- Pedestrian access and footpath upgrades along O'Connell Street; and
- Extension and augmentation of physical infrastructure / utilities as required.

A detailed and comprehensive description of the proposal is contained in the EIS prepared by JBA however the key elements are summarised below.

3.1 Stadium Design

As illustrated on the architectural plans prepared by Populous, the stadium will comprise the following:

- Level 00 – Services level - back of house facilities comprising player facilities, offices, storage, the main kitchen, staff facilities, media facilities, services rooms and, a loading dock and a small parking area.
- Level 01 – Concourse level – the playing field, seating, function areas, event rooms, kitchens, amenities, bar areas, concourse/ circulation area, and services rooms.
- Level 02 – Club level – event rooms/ suites, seating, concourse/ circulation areas, amenities, bar areas and services rooms.
- Level 03 – Suite level – event rooms/ suites, seating, offices, kitchens, concourse/ circulation area, amenities and services rooms.
- Level 04 – Media level – seating, event rooms/ suites, media suites, official's boxes, kitchens, concourse/ circulation area, amenities, and services rooms.
- Roof level.

3.1.1 Landscape and Public Domain

Detailed landscape and public domain plans have been prepared by Aspect and are included as part of the EIS package and further information is provided within the Design Report, prepared by Populous. A summary of the key elements of the landscape and public domain design, including access provision is set out below.

- The Civic Entry Plaza – is the primary arrival point. Located in the north-eastern corner of the site, it is designed as a large open space that provides direct access to the main ticketing gates into the Stadium. Managed vehicular access through the plaza will also be permitted at certain periods in order to access the Northern Car Park and bollards will be provided to ensure that vehicles are kept within 15m of the stadium edge at all times. The Civic Entry Plaza also includes an open grove of trees with public bench seating in the north-eastern corner. Lighting is also proposed within this area to clearly mark it as the primary arrival point and welcome patrons to the space. On non-game days the Civic Entry Plaza is intended to form a new town square for the North Parramatta area that will be used for activities such as markets, food trucks and public art installations.
- O'Connell Place – is the primary public space. It will run along the eastern boundary of the site adjacent to O'Connell Street and provide a combination of spaces intended for both passive and active uses. Uses such as interactive areas, informal performance space, a children's playground, climbing wall, picnic tables and café's will be located within this space. In addition, grand stairs providing pedestrian access into the Stadium concourse level will be provided, along with two additional secondary sets of steps and turfed terraces providing a range of informal amphitheatre-style seating.
- The River Terrace and Western Car Park – provides a transition between the western edge of the stadium and Parramatta Park and the Parramatta River. The Western Car Park is accessed from an internal access road or the Northern Car Park will be access controlled and can be closed off when not in use. Between the Western Car Park and the stadium will be a pedestrianised stadium concourse which will also include a VIP drop off zone. The River Terrace comprises low concrete walls overlooking an event lawn, and offers a casual green space for informal celebrations, such as picnics, barbeques and a green spill out space for the stadium.
- The Northern Car Park – provides approximately 297 spaces and is accessed from either the Western Car Park or the managed access road leading from O'Connell Street. It is proposed to be a functional space that forms the primary off-street car parking areas for events.
- The Boulevard of Legends – is located along the northern boundary of the stadium and provides a tree lined pedestrian and cycle connection from the Civic Entry Plaza to the Western Car Park and Parramatta River. It is a deliberate design strategy to separate the Northern and Western car parking spaces and provide a visual link from the stadium and O'Connell Street to the Parramatta River. The Boulevard of Legends will include an integrated interpretive element that focuses on sporting legends associated with the site and a suite of public amenities such as seating, bicycle parking and lighting to provide a high level of user comfort and provide a safe environment during the night.

4.0 Nature of Recorded Crime

Crime statistics obtained from the NSW Bureau of Crime Statistics and Research (BOCSAR) database represents criminal incidents recorded by NSW Police. A review of the local statistics for 2015¹ found that the most commonly occurring crimes within the City of Parramatta Local Government Area (LGA) were:

- fraud;
- steal from motor vehicle;
- malicious damage to property;
- break and enter dwelling; and
- assault – non-domestic violence related.

As show in **Figures 13** and **14**, the BOCSAR database indicated that the Site is located within or on the periphery of a hotspot for the following crimes:

- motor vehicle theft; and
- domestic assault.

Notwithstanding the above, hotspots indicate areas of high crime density (number of incidents per 50m by 50m) relative to crime concentrations across NSW. They are not adjusted for the number of residents and visitors in the area and thus may not reflect the risk of victimisation.

Furthermore, given the site and the surrounding Parklands area has little in terms of resident population, the site and its surrounding area is not located within a hotspot when the surrounding, more densely populated area is located within a hotspot.

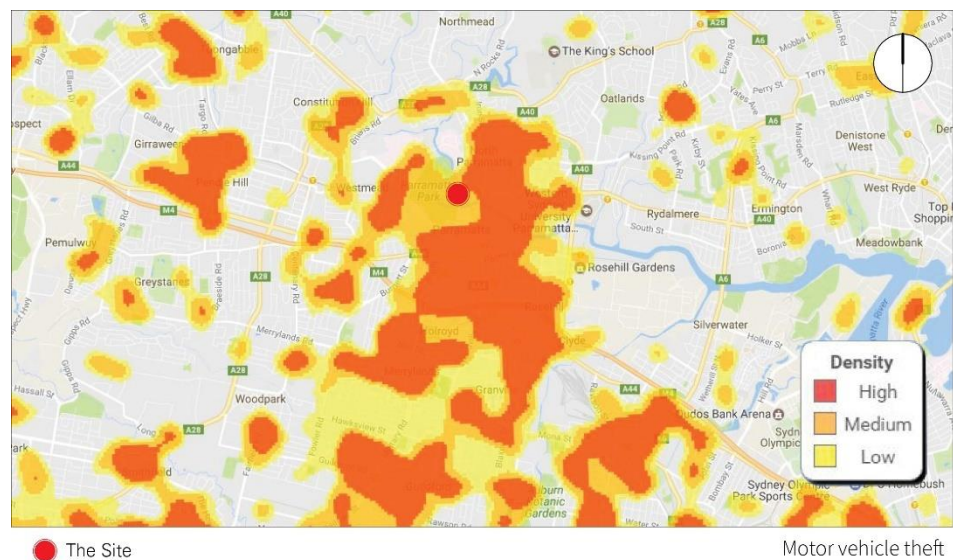


Figure 13 – Motor vehicle theft hotspot map
Source: JBA

¹ The most recent crime data available for the City of Parramatta LGA is 2015.

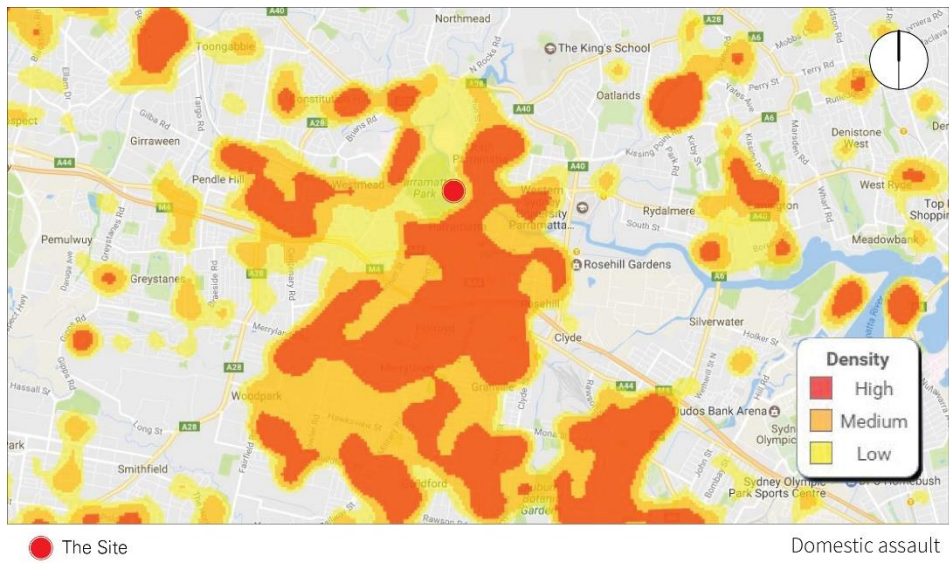


Figure 14 – Domestic assault hotspot map
 Source: BOCSAR

5.0 Matters for Consideration

With the data from the BOCSAR database in mind and the observations taken from the site inspection, a review of the proposed design for the project has been undertaken to provide advice and recommendations to create a safe and secure mixed use environment.

5.1 Natural Surveillance

Given the nature, orientation and separation distances of the surrounding development, there are limited surveillance opportunities afforded from the Parramatta Leagues Club or the developments located on the eastern side of O'Connell Street over the site. However, the future multi-level car park, proposed on the adjacent Parramatta Leagues Club site will provide increased surveillance opportunities from the new car park over the Northern Car Park and Civic Plaza area.

Furthermore, the site also benefits from some casual surveillance opportunities from motorists and pedestrians along O'Connell Street.

The 'NSW Safer by Design Guidelines' advise that buildings should address the street to help facilitate natural connections between people located within the development and those outside it. Whilst the key design strategy for the stadium is to enhance the spectator experience, which in-turn focuses on a predominant inward outlook, the exterior facades of the stadium maximise 'natural' surveillance opportunities by incorporating glazed portions to enable visitors within the building to look toward the surrounding landscape and public domain areas as well as the street.

The proposed public domain design will also provide alluring and animated additions to the O'Connell Street streetscape and provide additional surveillance opportunities (such as the O'Connell Place grand stairs and terraced areas) within the development itself. The proposed new high quality and access controlled car-parking areas, will help reduce the likelihood of vehicle theft and the tactical placement of a range of staffed and/or public amenities within the public domain areas will naturally increase the level of surveillance afforded over those areas and in turn will act as a deterrent to opportunistic crime.

The proposed development is classified as an activity generator in that the uses proposed will encourage and intensify the number of visitors to the site. The improvements to the quality of the stadium and surrounding public spaces will also ensure that the frequency and diversity of users to the site will be significantly improved. As such, the increased activity within and around the stadium will result in a greater level of natural surveillance.

Notwithstanding this, way finding in large environments can be confusing. Knowing where and how to enter exit and find assistance within large public areas can impact upon the perception of safety. The celebration of the stadium entrances through the proposed signage zones and the public domain design will enable visitors to clearly understand the urban environment. However, given the majority of signs proposed within the signage zones are a mix of business identification and building identification signs, way-finding signs should also be incorporated into the detailed design.

Furthermore, whilst the proposed landscaping upgrade will significantly enhance the site and the public domain areas, if the detail of the landscaping treatment it is not thought-through properly or the landscaping once planted is not maintained appropriately, it can offer concealment opportunities and reduce the opportunity for surveillance. The proposed landscape design concept is considered to be carefully designed with CPTED principles in mind and once executed will ensure surveillance opportunities are maximised and key sightlines are preserved.

5.2 Lighting and Technical Supervision

Effective lighting can reduce fear, increase community activity, improve visibility and increase the likelihood of offenders being detected. It is recommended that lighting be provided in and around the entire development, particularly at the building entrances and throughout the surrounding public domain areas.

Lighting within the public domain areas will facilitate surveillance opportunities from and within the development and in turn will reduce the opportunity of predatory crimes, malicious damage and other offences.

There is currently little evidence of CCTV coverage on the site. The redevelopment of the site offers an opportunity to provide or upgrade existing CCTV cameras and increase the coverage of the cameras. CCTV cameras are recommended at all key entries and within the stadium building as well as the key public domain areas. Appropriate lighting as proposed within the external lighting strategy will also assist in the ability to permit facial recognition on the CCTV footage.

All lighting proposed within the development should meet the minimum Australian and New Zealand Standards and objectives for crime and fear as outlined in Australian Lighting Standard AS/NZ 1158 for public streets, car parks and pedestrian areas. Furthermore, a consistent maintenance and cleaning regime should be put in place to ensure all lighting and CCTV cameras remain in good working condition.

5.3 Territorial Reinforcement

The strategic location of employees and building supervisors increases risk to offenders and crime effort. It is commonly thought that supervision provided by employees is more effective as a crime deterrent than surveillance provided by passers-by.

There is expected to be between 5 and 100 staff on the premises at any one time on non-event days and up to 900 staff during concert events. Therefore it is considered highly likely that there will be opportunities for staff to be located within the stadium building and the public domain areas that will act as natural guardians.

The proposed development will also increase the number of people and level of activity on the site, which in turn will increase the number of community guardians and naturally increases the risk to the offender. Territorial reinforcement of the site will therefore naturally be promoted by the upgrade and new development that is proposed.

Venues NSW could consider the use of formal security patrols during both event and non-event days. The combination of formal patrols and passive surveillance from users of the site is a strong crime deterrent.

Furthermore, people generally recognise areas that are well cared for and areas that display strong ownership cues are less likely to be improperly used than those that do not possess these cues. The proposed landscape and public domain design suggests that a co-ordinated and cared for aesthetic will be provided on the site.

As noted in section 5.1, the on-going maintenance of the site and surrounding public domain areas, including lighting, CCTV cameras, the building exterior and urban environment will be a key crime prevention mechanism.

In addition, the NSW Safer by Design Guidelines note that people are commonly attracted to vibrant public areas and places that are well used are made safer by the natural community supervision that occurs. In this respect, the utilisation of the site and revitalisation of the public domain will naturally reinforce the feeling that this part of O'Connell Street and the Parramatta Parklands are safe places.

5.4 Environmental Maintenance

The site is currently well maintained. However the proposed development will significantly improve its dated appearance. Despite, no litter, graffiti or vandalism encountered during the site visit.

The proposed development will significantly improve the appearance of the site and provide a greater clarity of ownership, area image and high quality environment. The image of the area can greatly impact on feelings of safety and danger, as well as influencing local confidence and individual decision to either withdraw or engage in life. Whilst the image of the area is relatively positive, the provision of a new high quality stadium building and vibrant public domain areas within this part of Parramatta will contribute to the built form of area, minimising spatial gaps and encouraging a sense of ownership.

The maintenance of the new stadium and public domain areas is important to balance the safety and aesthetics of the precinct as a whole. Well maintained spaces encourage regular use, which in turn creates natural supervision of public areas. The use of high quality material for construction should be used to lessen the likelihood of damage and help to reduce maintenance costs.

5.5 Activity and Space Management

The introduction of new forms of activity and number of people on site will increase activity of the area during both the day and night on event days and also non-event days. This in turn is likely to increase surveillance and effective guardianship of the public areas. A significant increase in activity levels will increase surveillance and natural community policing, providing clarity of land use and increasing the risk to offenders.

5.6 Access Control

Access control strategies restrict, channel and encourage the movement of people and vehicles into and around designated areas. Physical barriers, such as the bollards proposed alongside the vehicular access road through the Civic Plaza, increase the effort required to commit crime. The detailed design documentation for the stadium and public domain will provide further information in regard to the form and type of physical access controls.

In addition, the EIS includes an Event Management Plan and Emergency Management Plan that sets out the operational procedures in relation to access and security on event and non-event days.

The implementation of these operational procedures will ensure that access is suitably controlled.

5.7 Design, Definition and Designation

The design of the development reflects its purpose and it would be difficult for potential offenders to make excuses for their presence and potential actions. Opportunistic criminals will often exploit areas with unclear spatial definition, borders and boundaries. The proposed development is clear in defining spaces and in the designation of the building as a recreational facility (major) use, therefore it is considered consistent with this principle.

6.0 Crime Risk Rating and Recommendations

The revised Crime Risk Rating considers the site environment and development as proposed in the architectural plans prepared by Populous and landscape plans prepared by Aspect.

An assessment of the proposal using the Crime Prevention through Environmental Design (CPTED) principles has found that provided the measures recommended below are implemented the opportunities for crime can be minimised to reasonable levels and the rating would be within the “low” category. Therefore, this will provide a safe environment for future visitors and staff.

Accordingly recommendations to ensure that the rating for the site is within the ‘low’ category are as follows:

- Provide way finding signage to reinforce visitors and employees/ patrons perception of safety and legibility within the Western Sydney Stadium Precinct. In particular, signage within the car parking areas should provide a clear means of identifying the lifts and pathways from the parking areas to the stadium building.
- Consult a qualified lighting engineer to ensure the correct lighting is provided to meet minimum Australian and New Zealand Lighting Standards and enable sufficient surveillance of the site including all publicly accessible areas.
- Provide secure electronic access (card/ key controlled entries/ lifts and intercom systems) or secure access control strategies to prevent unauthorised access into the stadium building.
- Provide a boom gate or similar, if considered necessary, to restrict and control access into the Level 00 car park area and loading dock area.
- Consider the provision of CCTV coverage around the entire site including public domain areas and car parking areas. The CCTV coverage should be provided in conjunction with bright lighting to ensure clear CCTV footage can be captured.
- Ensure the detailed landscaping design for the public domain areas do not give rise to concealment opportunities and does not restrict sightlines from the development overlooking public open spaces.
- Ensure mechanisms are in place for on-going maintenance of landscaping and the buildings, including:
 - rapid removal policy for vandalism repair and the removal of graffiti;
 - maintenance of all surrounding public spaces; and
 - provision of rubbish bins.
- Use high quality materials for construction to lessen the likelihood of damage and help reduce maintenance costs.