

# SSD 9835 Sydney Football Stadium Redevelopment Section 4.55 Modification

# **Precinct Village and Car Park (MOD 7)**

# Security and Crime Prevention Through Environmental Design Statement



6 September 2021

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# 1 Introduction

On 6 December 2018, the then Minister for Planning approved a concept development application and concurrent early works package (SSD 9249) to facilitate redevelopment of the Sydney Football Stadium.

The concept approval established the maximum building envelope, design and operational parameters for a new stadium with up to 45,000 seats for patrons and allowing for 55,000 patrons in concert mode. The concurrent Stage 1 works, which were completed on 28 February 2020, facilitated the demolition of the former SFS and associated buildings.

Stage 2 of the Sydney Football Stadium (SFS) Redevelopment (SSD 9835) was approved by the Minister for Planning and Public Spaces on 6 December 2019. Stage 2 provides for:

- construction of the stadium, including:
  - 45,000 seats (additional 10,000 person capacity in the playing field in concert mode) in four tiers including general admission areas, members seating and corporate / premium seating;
  - o roof cover over all permanent seats and a rectangular playing pitch;
  - o a mezzanine level with staff and operational areas;
  - internal pedestrian circulation zones, media facilities and other administration areas on the seating levels;
  - a basement level (at the level of the playing pitch) accommodating pedestrian and vehicular circulation zones, 50 car parking spaces, facilities for teams and officials, media and broadcasting areas, storage and internal loading areas;
  - o food and drink kiosks, corporate and media facilities; and
  - four signage zones.
- construction and establishment of the public domain within the site, including:
  - o hard and soft landscaping works;
  - o publicly accessible event and operational areas;
  - public art; and
  - provision of pedestrian and cycling facilities.
- wayfinding signage and lighting design within the site;
- reinstatement of the existing Moore Park Car Park 1 (MP1) upon completion of construction works with 540 at-grade car parking spaces and vehicular connection to the new stadium basement level;
- operation and use of the new stadium and the public domain areas within the site for a range of sporting and entertainment events; and
- extension and augmentation of utilities and infrastructure.

SSD 9835 has been modified on five previous occasions:

- MOD 1 amended Conditions B14 and B15 to satisfy the regulatory requirements of the Contaminated Land Management Act 1997;
- MOD 2 approved the design, construction and operation of the Stadium Fitness Facilities;
- MOD 3 approved design refinements to the western mezzanine and introduced a new condition to facilitate approval of signage details within the approved signage zones;



- MOD 4 relocated the approved photovoltaic array from the SFS roof to the Level 5 plant room roofs and revised the approved sustainability strategy; and
- MOD 5 updated plan references and dates in the Instrument of Consent.

A sixth modification which seeks approval for the fit out and operation of the SFS' eastern mezzanine for the Sydney Roosters Centre of Excellence (MOD 6) was placed on public exhibition by the Department of Planning, Industry and Environment between 19 August and 1 September 2021.



# 2 Precinct Village and Car Park

## 2.1 Vision

Venues NSW (VNSW) is proposing to introduce a village community space, event plaza and multi level car park to complement the SFS and adjoining Moore Park and Centennial Parklands. The proposed development will facilitate the permanent closure of the EP2 on-grass parking areas within Moore Park opposite the MP1 car park and enable its use for open space purposes consistent with the Moore Park Masterplan.

The vision for the Precinct Village and Car Park is set out below:

The Precinct Village and Car Park provides a platform and canvas for an exceptional community asset and iconic design, that visually and physically connects to the adjacent Moore Park East and Kippax Lake. It provides patrons with quality café and dining experiences in an idyllic parkland setting and well-being play and relaxation nodes which engage with all ages. An event plaza, connected to the Stadium plaza provides a seamless opportunity for greater patron and community engagement through non-event and event day functions (Architectural Design Statement, Cox August 2021).

## 2.2 Location

The Precinct Village and Car Park is proposed to be located on the land west of the SFS, currently approved under SSD 9835 as the MP1 Car Park. It will extend to Moore Park and Driver Avenue and will adjoin the existing UTS, Rugby Australia and NRL Central buildings, all of which are to be retained and do not form part of the project site. A Location Plan is provided at Figure 1.



Figure 1: Precinct Village and Car Park Location



### 2.3 Development Description

The Precinct Village and Car Park has been designed to align with the conditions and commitment established within SSD 9835, particularly relating to delivering a LEED Gold rated sustainable precinct, and will include:

- Up to a maximum of 1,500 space multilevel Car Park below ground level with the following access arrangements:
  - o 1 x egress point onto Moore Park Road to be used on event days only;
  - $\circ$   $\,$  1 x two-lane access point from Driver Ave to be used on event and non-event days; and
  - o dedicated area within the car park for operation/servicing vehicles.
- Reconfiguration of the currently approved drop off requirements for the elderly and mobility impaired.
- Free flow level pedestrian access to and from the SFS concourse from Driver Ave and Moore Park Road.
- Electric car charging provision.
- A versatile and community public domain, comprising:
  - provision for 4 x north-south orientated tennis courts on non-event days with the potential to become an event platform on event days;
  - children's playground;
  - 1,500m<sup>2</sup> cafe / retail / restaurants with associated amenities in a single storey pavilion (6 metre) low level;
  - $\circ$   $\;$  customer service office and ticket window; and
  - vertical transport provisions.
- Utilities provision augmentation.

Figure 2 illustrates the proposed Precinct Village and Car Park concept. Refer to the architectural drawings within the Architectural Design Statement (Cox, August 2021), 30% tender drawings (Cox, 2 September 2021) and landscape plans (Aspect, August 2021) for further details.





Figure 2: Precinct Village and Car Park Development

#### 2.4 Proposed Operation

The Precinct Village is proposed to be accessible from 8am to 11pm to align with the approved operating hours for the SFS.

The tennis court operating hours are proposed to be the same as the approved operating hours for the Stadium Fitness Facilities.

The car park will be automated, replicating the existing arrangements at the nearby Entertainment Quarter and will be accessible 24 hours a day, 7 days a week.

The public domain is proposed to be curated as a series of distinct, flexible and purpose specific settings for event day patrons and the general public. These inviting public places will offer rich, engaging and shared experiences. An indication of the activity types, frequencies and durations proposed within the public domain is provided in the Architectural Design Statement (Cox Architecture, August 2021) and Planning Statement (Ethos Urban, August 2021).

#### 2.5 Delivery

The Precinct Village and Car Park is proposed to be delivered in two stages:

- Stage 1, herein referred to as the East Car Park, consists of the area between the Rugby Australia and NRL Central buildings, immediately adjacent to the SFS concourse.
- Stage 2, herein referred to as the West Car Park, consists of the residual area immediately adjacent to the proposed East Car Park, bounded by Driver Ave and Moore Park Road.



The East Car Park is proposed to be delivered ahead of the opening of the SFS in 2022. The West Car Park is proposed to be delivered after the SFS opening, sometime in 2023.



# **3** Proposed Modifications

To facilitate the Precinct Village and Car Park, SSD 9249 and SSD 9835 are required to be modified. The proposed modification to SSD 9249 (concept development application) has been submitted under separate cover. SSD 9835 is proposed to be modified to facilitate construction, fit-out and operation of Precinct Village and Car Park as described above.

## 3.1 Purpose of this Report

This Security and Crime Prevention Through Environmental Design Report has been prepared to support the Precinct Village and Car Park modification. This Report specifically addresses the following Secretary's Environmental Assessment Requirements (SEARs) issued in respect of SSD 9825 and as relevant to the Precinct Village and Car Park project:

Secretary's Environmental Assessment Requirements	Report Section
SEAR 2 – Policies	4.4.3
Address the relevant planning provisions, goals and strategic planning objectives in the following:	
Crime Prevention Through Environmental Design (CPTED) Principles;	
SEAR 5 – Built Form and Urban Design	4.4
Address design quality, with specific consideration of the overall site layout, streetscape, public spaces design and layout, proposed level changes and connections across the site, entrances, plazas, concourse and relationship to Driver Avenue, parklands and Moore Park Road, open spaces, façade, rooftop, massing, setbacks, building articulation, materials, colours, landscaping and Crime Prevention Through Environmental Design Principles.	
SEAR 9 – Traffic, Transport and Accessibility (construction and operation)	4.6
Include a traffic and transport accessibility impact assessment, which includes details of the following:	
<ul> <li>strategies and associated infrastructure to segregate hostile vehicles from public transport users (including paths between the stadium and public transport nodes) and areas of people congregation;</li> </ul>	
SEAR 18 – Social Impacts	4.3
Assess the social and economic impacts of the development,	
including impacts the stadium will have on the Sydney CBD and the local region, including tourism, retail, entertainment and night-time economies. In particular, assess how the proposed development will respond to any impacts relating to:	
<ul> <li>anti-social behaviour and security risks that may be related to the operation of the stadium.</li> </ul>	
Plans & Documents	4.4
The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Regulation. Provide these as part of the EIS rather than as separate documents. In addition, the EIS must include the following:	
<ul> <li>CPTED assessment (including a safety and security assessment).</li> </ul>	

#### Table 1: Secretary's Environmental Assessment Requirements relevant to security and CPTED.

This Security and Crime Prevention Through Environmental Design Report is to be read in conjunction with the following reports and documents:

- Planning Statement prepared by Ethos Urban (August, 2021);
- Architectural plans/elevations/sections and Architectural Design Statement, prepared by Cox Architecture (August & September, 2021);
- Design Integrity Assessment Report prepared by Cox Architecture (August, 2021);



- Landscape plans and Landscape Design Report prepared by Aspect (August, 2021);
- Transport Assessment prepared by JMT (August, 2021);
- Noise and Vibration Assessment prepared by Arup (August, 2021);
- Stormwater and Flooding Assessment prepared by Arup (August, 2021);
- Visual Impact Assessment prepared by Ethos Urban (August, 2021);
- Social/Economic Statement prepared by Ethos Urban (August, 2021);
- Heritage Impact Statement prepared by Artefact (August, 2021);
- Sustainability Assessment prepared by LCI (August, 2021);
- Security Statement/CPTED prepared by Intelligent Risks (August, 2021);
- Contamination Assessment prepared by Douglas Partners (August, 2021);
- Aboricultural Assessment prepared by Tree IQ (August, 2021);
- Wind Assessment prepared by Arup (August, 2021);
- Infrastructure Services Strategy prepared by Arup (August, 2021);
- Geotechnical Assessment prepared by Arup (August, 2021);
- Public Domain Lighting Assessment prepared by Arup (August, 2021);
- Accessibility Statement prepared by Before Compliance (August, 2021); and
- BCA Assessment prepared by Blackett Maguire Goldsmith (August 2021).



# 4 Report Outline

The statement is provided in lieu of the complete report issued to Venues NSW on 27 July 2021 due to the sensitivities attached with publicly releasing information regarding the security design and operation of the proposed development. Dissemination of the complete report should be restricted to key stakeholders only.

### 4.1 Security Risk Assessment

A security risk assessment (SRA) was developed for the Precinct Village and Car Park as a supplementary annexure to the current SRA for the Stadium to:

- Identify and analyse risks relevant to the Precinct Village and Car Park site;
- Determine if the project would modify or introduce risks to the operation of the Stadium and its surrounding public domain;
- Identify any Precinct vulnerabilities (e.g. access points, perimeter, integration with SFS/SCG);
- Determine how the site has/will incorporate crime prevention through environmental design (CPTED) principles; and
- Review the current design of the Precinct Village and Car Park to assess level of risk mitigation that is likely to be achieved.

The SRA will be reviewed and updated as required to incorporate the detailed planning for the Precinct Village and Car Park and ensure risks have been adequately addressed.

#### 4.2 Project References

The SRA was based on a review of the following documentation:

- Cox Architecture, SFS-SFF Plaza Draft report Issued 11 June 2021;
- Cox Architecture, SFS Plaza Presentation Issued June 2020;
- SSDA Mod 7 Drawing Set Issued 13 August 2021; and
- 30% Tender Drawing Set Issued 2 September 2021.

#### 4.3 Summary

The SRA addressed crime and terrorism-related hazards by identifying threat sources and potential vulnerabilities for the Precinct Village and Car Park. Risk ratings for the Stadium and wider site public domain are unchanged from previous assessments completed.

The assessment found that the inherent risk (without risk controls being applied) is Medium for hazards such as Improvised Explosive Devices (small), attacks with small arms, assault and theft. However, when targeted and well-considered mitigation measures are applied as described in the complete report – to be further developed through design development – residual risks would be reduced to Low. When applying a best practice approach to security risk management, including the 'As Low as Reasonably Practicable (ALARP) principle, that risk level is a level beyond which further mitigation is not considered necessary or cost-effective.

The assessment noted the Precinct Village and Car Park threat profile differs from the stadium site somewhat due to several features:

• The Precinct Village aims to attract an increased level of pedestrian engagement and activity compared to the current design of the public domain surrounding the Stadium.



- The site creates additional access points to the Stadium concourse for event patrons. The three level access points for pedestrians from Driver Avenue onto the Precinct Village level will be situated north and outside of the current line of Hostile Vehicle Mitigation temporarily installed on Driver Avenue for events. This creates a potential exposure for event patrons to hostile vehicle attack.
- MP1 has been an open-air Car Park and the proposed design is for a multi-level basement Car Park. This will create an enclosed space that may be attractive for opportunistic crimes including theft and anti-social behaviour. These can be controlled through proportionate provision of risk controls.

There is limited variance in risk levels between event and non-event modes on account of factors including:

- The site's design will provide activation opportunities and greater pedestrian usage, but not to the point where it can reasonably be considered a crowded place attractive as a terrorism target.
- In event mode, more people will be moving through the site, although there are no indications from our design review this area will be more attractive to targeting than other locations surrounding the Stadium.

The risk assessment was conducted following a methodology consistent with the International Standard, *Risk Management – Guidelines* (ISO 31000:2018) and Australia/New Zealand *Security Risk Management* handbook (HB 167:2006). It also referenced guidance materials produced by the Australian & New Zealand Counter-Terrorism Committee (ANZCTC) for the protection of crowded places, along with reporting and data from the Australian Security Intelligence Organisation (ASIO) and NSW Police.

## 4.4 Crime Prevention Through Environmental Design

Crime occurs when you have an offender, a suitable target, and an environment that facilitates the criminal act. Many crimes are opportunistic, and the planning and design of places, spaces and buildings can assist in reducing crime.

Peoples' behaviour, particularly in terms of the possibility of offending, as well as an individual's perception about their safety, can be influenced by the design of that environment. Good design can reduce opportunities for offending and improve feelings of safety.

The International CPTED Association defines Crime Prevention Through Environmental Design (CPTED) as:

A multi-disciplinary approach to deterring criminal behaviour through environmental design. CPTED strategies rely upon the ability to influence offender decisions that precede criminal acts by affecting the built, social and administrative environment.

The concept of CPTED is to therefore to design physical features for public spaces, buildings, and their surroundings to produce desired behavioural effects in the users of the space while facilitating the observation of and response to criminal behaviours.

CPTED guidelines support Venues NSW intention to create a vibrant, safe and secure Precinct Village and Car Park by:

- Removing conditions that create confusion about required norms of behaviour.
- Reducing potential rewards of crime by minimising, removing or concealing crime benefits.



- Increasing the effort required to commit crime by increasing the energy, time or resources that need to be expended.
- Increasing the perception of risk to criminals by increasing the possibility of detection, capture and challenge.



Figure 3: CPTED Framework (Source: ISO 22341)

#### 4.4.1 Applicability to Site

Opportunistic crime occurs in areas that are easily accessible by offenders and carry little or no risk in committing an offence. CPTED seeks to influence behaviour of both the legitimate users of an area (by increasing their sense of safety) and the opportunistic offender (by increasing the sense of risk). It is particularly influential in publicly accessible areas, such as the Precinct Village.

Crimes typically regarded as opportunistic in nature (assault, stealing, and property damage) are the most prevalent types of crime within the Sydney LGA. As such, CPTED has a definite role to play in creating an environment that does not facilitate these crime types: spaces that are well lit, defined, maintained and activated, that are easily observed and invite behaviour that promotes a sense of safety in legitimate users, whilst deterring would-be offenders.

#### 4.4.2 CPTED Reference Documents

Standards for Strategic Planning	<ul> <li>ISO 22341:2021 - Crime Prevention Through Environmental Design</li> <li>ISO 31000:2018 - Risk Management – Guidelines</li> <li>HB 167:2006 - Security Risk Management</li> </ul>
Government Advice, Guidelines and other good practice	<ul> <li>NSW Police Safer by Design Guide</li> <li>Section 4.15 of the Environmental Planning and Assessment Act (NSW) 1979 No. 203</li> <li>City of Perth (2019) Creating Safer Spaces: Design Guidelines To Reduce Crime and Anti-Social Behaviour</li> </ul>

Table 2: Crime Prevention Through Environmental Design references



#### 4.4.3 Methodology

The CPTED report assesses the current concept design, identifying strengths and weaknesses from a designing out crime perspective, and provides guidance for the Design Team on ways to incorporate or enhance CPTED within the design.

The assessment has followed a methodology consistent with those documents referenced in 4.4.2 above.



#### Figure 4: Process of CPTED Assessment (Source: ISO 22341)

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

- Collection and analysis of the local crime statistics from BOCSAR relevant to SFSR; and
- Desktop review of documents and plans as supplied to IR as part of the Precinct proposal.

This CPTED report has reviewed the design for evidence of incorporation of the following principles:

Surveillance	The location and use of design features and activities that create a perception of increased risk of detection for perpetrators of criminal activity and of increased safety and security for legitimate users. Criminals do not usually want to be seen. Placing physical features, activities and people in ways that maximise the ability to see what is happening discourages crime. Strategies for crime prevention should contribute to vitality, accessibility and diversity. Barriers such as blank walls or building facades without windows can make it difficult to observe activity. A key thing to remember is to place less safe activities in safe areas and very safe activities in slightly less safe areas.
Access Control	The use of design features that deny offenders access to targets, reduce their escape opportunities, and guide legitimate users through the environment. Natural access control involves the use of the environment to clearly mark borders and transitional zones to psychologically deter movement of illegitimate users into protected space. Human measures such as security guards can also be used. Further measures include security hardware, which is often referred to as target hardening.
Territorial reinforcement	The use of physical features designed to express ownership and control of the environment and delineate private and semi-private spaces reducing ambiguity of space ownership. People usually protect territory that they feel is their own and have a certain respect for the territory of others. Identifying intruders is much easier in well-



	defined space. An area that looks protected gives the impression that greater effort is required to commit a crime.
Target Hardening	The physical securing of buildings and places against access from offenders. Generally, the mechanisms and elements of target hardening are very detailed and relate only to the micro scale, affecting building design and detailing. The issues associated with target hardening include the potential for detailed target hardening responses to have an adverse effect on public safety. Measures such as enhanced locks, bars, closed circuit television, window shutters and security fencing all can contribute to reducing opportunities for criminal behaviour. However, the inclusion of such elements can conflict with other community-based activities and can also detract from the amenity of an area resulting in an increase in the perception or fear of crime. Although a valid and valued tactic, target hardening requires careful integration within an overall approach to designing out crime and crime risk assessment. All designing out crime measures should be exhausted before introducing target hardening.

Table 3: Definitions and descriptions of CPTED principles

It should be noted that CPTED strategies must be applied in conjunction with other crime prevention strategies, precinct security controls and wider police operations (as appropriate).

#### 4.4.4 Crime Risk Assessment

Drawing on the analysis of crime statistics completed in the SRA, the overall crime risk for the Precinct Village and Car Park is considered 'low'. This assessment is based on:

- low levels of crime and anti-social behaviour predicted with day-to-day use of the Precinct;
- the absence of large, licensed premises with late-night operating hours;
- high levels of public access and complimentary uses of facilities;
- An expected diligent approach to cleaning, maintenance and security of the public domain to ensure the quality and liveability;
- natural surveillance provided by surrounding uses and availability of open spaces;
- technical surveillance (CCTV) and 24/7 monitoring from the Precinct's Venue Operations Centre (VOC); and
- A license plate recognition system to regulate control to the car park and proactive identify vehicles (and owners) of interest.

The café and restaurant within the Precinct Village will operate to 11:00PM. It is expected these venues will receive patronage from the Stadium after the conclusion of events, although the nature and configuration of the spaces does not lend itself to occurrences of anti-social behaviour.

#### 4.4.5 Design Assessment

A review of the current design of the Precinct Village & Car Park was completed (architectural drawing set issued 13 August) to determine the high-level adherence within the design to CPTED principles and the ability to practically apply CPTED principles in subsequent design development of Stage 1 and Stage 2. The design review focused on:

- Village Community Space. Tennis Courts & Event Plaza;
- Car Park; and
- Interface with the Stadium Concourse

Detailed commentary on potential vulnerabilities for each area is contained in the complete report issued to Venues NSW on 27 July 2021.



#### 4.4.6 CPTED Recommendations

The intent arising from the CPTED assessment process is to identify good practice already in the design and provide recommendations for mutually supportive measures that can be incorporated into the design of the development and its immediate surrounds.

The Precinct Village plan is at 30% design and is already demonstrating positive incorporation of CPTED guidelines. As the design continues to develop, and further detail is incorporated, the following recommendations will embed CPTED deeper in the design:

- Surveillance
  - The landscaping of open spaces should enable natural surveillance and clear lines of sight by minimising obstructive plantings between 0.5m AGL to circa 2.0M.
  - The soft landscaping should use low-density plants or planting at spacing to ensure that as landscaping matures it does not give rise to concealment opportunities and does not restrict sightlines. Specified landscape maintenance procedures should be established.
  - Pedestrian entrances and exits, including to Car Park and buildings, should be placed in locations where they are clearly visible from landscaped areas where possible and opportunities for lingering should be incorporated into landscaping to promote surveillance.
  - Pedestrian routes and the landscape should be lit after dark (to comply with Australian Standard AS/NZS 1158 for pedestrian areas). The use of adequate lighting will reduce the incidence of night-time loitering and the opportunity for concealment of offenders.
  - Seating should be in highly visible and well-lit areas. Lighting should enable surveillance both of and from these seating areas. However, as previously stated, lighting these areas well should not inadvertently create glare or contrast issues in neighbouring areas.
  - CCTV and lighting plans for the public domain shall be coordinated to ensure they are mutually supportive. These plans shall also be incorporated into the overall landscape plan.
  - Barriers around the upper levels of publicly accessible and semi-publicly accessible spaced should be visually permeable. This will create clear sight lines from and to the public domain or lower levels within buildings.
  - Technical surveillance is supported by security guard patrols (in communication with the VOC) to actively monitor the public space.
- Natural Access Control
  - Pedestrian zones in areas close to vehicle movement should be clearly defined to increase the sense of pedestrian safety.
  - Changes in surface finishes can be utilised to define changes in land use or changes in ownership, or to denote changes between pedestrian zones and shared use zones
- Territorial reinforcement
  - Wayfinding and signage should clearly indicate pedestrian routes and destinations and remain current with the development of the Precinct. This instils confidence in legitimate users and deters loitering.
  - Users must be able to understand which routes they use and be able to quickly orient themselves with locate amenities. Good signage and wayfinding strategies reduce vulnerabilities by assisting people to use the safest routes and reduce ambiguity around legitimate access and use.



- The incorporation of public artwork into the public domain (or public access areas) can support a sense of community ownership and policing of the built environment and deter offenders.
- Horizontal flat surfaces should be avoided to the extent possible in publicly accessible areas to reduce opportunities to leave items including rubbish, bags or malicious devices. Sloping surfaces visible to users, including on vending machines and bollards are preferred.
- Target hardening
  - Lighting, CCTV and other urban design elements should use vandal-resistant materials and hardware and enable ease of maintenance and repair to maintain quality and appearance.
  - Video surveillance for building exteriors can be strategically placed to remove blind spots or enhance surveillance in less activated areas or at access points to building or within pedestrian laneways.
  - Landscape design of buildings need to consider if hostile vehicle mitigation is required to protect pedestrian activity in open spaces. Wherever possible, landscaping elements are preferred as they have the ability to contribute to the design aesthetic while also performing a safety and security function.
  - CPTED measures for the public domain should be supported by effective electronic access control, intruder detection and other physical security measures of interfacing buildings.

### 4.5 Security Strategy

A set of recommended security controls for the Precinct Village and Car Park has been provided to Venues NSW. The strategy comprises both design and operational controls deployed in a layered and mutually supportive approach to deter, detect, delay and respond to the relevant security risks for non-event and event modes – it is envisaged the security operation for the Stadium during events will extend to include the Precinct Village. Application of controls will enable the site to conform with 'defence in depth' principles.

The Strategy proposes to leverage Venues NSW existing security and emergency management framework for current precinct and stadium security management. This framework provides the basis for a risk-appropriate and effective security overlay and ensures application of best practice risk management and treatment principles across all areas of security. It will necessarily undergo review and refinement as the design of the Precinct Village & Car Park progresses to reflect changes to safety and security operations.

## 4.6 Hostile Vehicle Mitigation

The complete report has considered risks to the Precinct Village & Car Park from hostile vehicles, giving consideration to current guidelines on best practice implementation of vehicle security measures:

- Australia's Strategy for Protecting Crowded Places from Terrorism (ANZCTC, 2017);
- Hostile Vehicle Guidelines for Crowded Places (ANZCTC, 2017); and
- Protective Security Security Managers Guide: Vehicle-as-a-weapon protective security measures (ASIO T4, November 2018)

The report identified areas of potential exposure for pedestrians, including the level access from the northwest corner at Driver Avenue. This area will be subject to further detailed design to ensure the appropriate level of risk mitigation is achieved. It is envisaged it will incorporate security elements that address the risk requirements while also being cohesive with the landscape design and aesthetic for



the Precinct Village. Those elements include a mix of security barriers (e.g. bollards), engineered solutions (street furniture and architectural elements) and landscaping (mature trees).

HVM measures for the Moore Park Road vehicle exit and the Driver Avenue primary vehicle entry have been developed as part of the SFS redevelopment and will be carried over to this project.

Measures for the rejection of unauthorised vehicles at the vehicle check point on Level 0 of the Car Park have been considered and include the physical controls such as retractable bollards to prevent further entry into the Stadium basement, a roller shutter at the Stadium curtilage, CCTV, operational oversight and the proposed use of the northern exit point as the designated rejection lane.

