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28 October 2011

Dear Murray

Royal Randwick Racecourse
Spectator Precinct - DGR Report- ISSUE CPTED assessment for DA

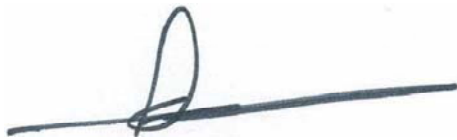
As part of the Spectator Precinct 75w planning process Arup have been asked to review the current architectural documents listed below and advise the impacts upon the recommendations made within the captioned DGR report.

Title	Number	Rev
Existing Roof Plan	DA-05	B
Proposed Roof Plan	DA-06	B
Proposed Site Plan	DA-07	B
Proposed Site Elevations	DA-08	B
Previous DOP Scheme Overlay	DA-09	B
Grandstand Basement 1	DA-10	B
Grandstand Ground	DA-11	B
Grandstand Level 1	DA-12	B
Grandstand Level 2	DA-13	B
Grandstand Level 3	DA-14	B
Grandstand Level 4	DA-15	B
Grandstand Level 5	DA-16	B
Grandstand Level 6	DA-17	B
Grandstand Level Plant	DA-18	B
Grandstand Level Roof	DA-19	B
QEII Section A-A (Existing)	DA-20	B
QEII Section A-A (Demolition)	DA-21	B
QEII Section A-A (Proposed)	DA-22	B
Paddock Sect B-B & Link Sect C-C	DA-23	B
Elevation NW-SE	DA-24	B
Elevation SW-NE	DA-25	B
Parade Ring Ground	DA-30	B
Parade Ring Level 1	DA-31	B

Section A-A & B-B	DA-32	B
Section C-C & D-D & E-E	DA-33	B
View Analysis – V2	DA-52	B
View Analysis – V3	DA-53	B
View Analysis – V4	DA-54	B
View Analysis – V6	DA-56	B
View Analysis – V7	DA-57	B
View Analysis – V8	DA-58	B
Cut & Fill Plan	DA-60	B

The building's form essentially remains the same although it is a little smaller than before; therefore, having reviewed the documents we confirm that the new building configuration does not substantially alter the recommendations made within the original DGR report and no amendments need to be made to it.

Yours sincerely

A handwritten signature in blue ink, consisting of a stylized 'S' followed by a horizontal line.

Steve Dalton
Associate

Australian Jockey Club Limited

**Royal Randwick Racecourse
Development**

Public Domain and Safety,
Environmental Assessment - Public
Safety & Security

ISSUE | September 2010

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This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 220759-00

ARUP

Document Verification

ARUP

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1 Executive Summary

This report has been produced in response to the Director Generals Part 3A Planning requirements MP 10-0097 for the refurbishment of the Spectator Precinct on the Western side of the Royal Randwick Racecourse property.

It addresses the Director Generals Environmental Assessment Requirements in respect of the refurbishment of the spectator precinct at the Royal Randwick Racecourse specifically DGR 7 Public Domain and Safety. This DGR states;

“The EA is to demonstrate how the design of proposed structures and the treatment of public domain and open spaces will:

- *Maximise safety and security within the site and the public domain*
- *Maximise surveillance and activity within the site and the public domain*
- *Compliance with guidelines for Crime Prevention Through Environmental Design (CPTED) outlined in the Royal Randwick Racecourse Development Control Plan*
- *Ensure access for people with disabilities*
- *Minimise potential for vehicle and pedestrian conflicts.”*

In relation to CPTED, the other reference document (Royal Randwick Racecourse Development Control Plan), calls for AJC to:

“Achieve design excellence in new buildings including the principles of ESD, CPTED and universal access”

As neither reference document specifies which aspects of CPTED are to be applied, this report is produced and addresses all areas.

In conclusion this report has reviewed the requirements of CPTED and those of the Royal Randwick Racecourse Development Control Plan, the report recommends the following five CPTED principles be applied to the refurbishment of the Spectator Precinct during the detailed design phase:

- Territoriality
- Territorial Reinforcement
- Surveillance
- Adjacencies
- Maintainability

2 Design Progress

At the current stage of development, the designs for the redevelopment of the spectator precinct are mature but are not yet finalised with respect in-depth detail. Demonstration of how the design will achieve CPTED requirements is therefore limited to the major principles at this stage of the design development. As the design continues to develop it will be possible to demonstrate compliance at a more detailed level.

This report, therefore, articulates the requirements (principles) and describes how they are demonstrated in the design as it currently stands. It is also assumed that in adopting the best principles of CPTED and demonstrating these, that the following requirements will also be met:

- Maximise safety and security within the site and the public domain
- Maximise surveillance and activity within the site and the public domain.

3 CPTED (Crime Prevention Through Environmental Design)

CPTED is about using the built and landscaped environment to encourage positive behaviours and discourage negative ones. The concept is to design space to attract legitimate users to use the space in the manner for which it has been designed; illegitimate users (criminals and other disruptive elements) are discouraged for using the space for their purposes because the environment is not conducive to them. This discouragement of illegitimate users is intended to exclude them or make them and/or their activities easy to detect to allow prompt recovery should something happen.

To shape behaviours, CPTED is divided into 5 areas which each address different aspects of criminal and other unwanted activities. These are described below.

3.1 Territoriality

3.1.1 Hierarchy of Space

The definition of space is an important aspect of CPTED and operates in 2 ways. Initially there is the functional hierarchy of space which defines how the space is to be used. It is generally expressed as follows:

- **Public:** those areas to which the public have free access and usually applies to those areas on private land but before any form of control is applied. In this case, public areas are those between the access points off the external public thoroughfares and the point at which payment is made or a ticket checked. This can also be referred to as the “unpaid” area.
- **Semi-public:** those areas which the public may access on payment of a fee or presentation of a ticket. In the case of Royal Randwick Racecourse, the semi-public areas are those general “paid” areas to which all patrons have access.
- **Private:** these are the areas where access is limited to those who (in general terms) work there or where the public can go if personally invited. In the context of a race course, private areas can include:
 - Members areas,
 - Parade ring,
 - Kitchens and other back of house areas, *et cetera*.
- **Secure or Restricted:** these are areas that are limited to those personnel necessary for their operation or that of the site as a whole. Such areas could include (but not be limited to):
 - Race operations,
 - Stables,
 - Anti-doping and testing facilities,
 - Security control
 - The course, *et cetera*.

3.1.2 Delineation of Space

The manner in which the functional areas are delineated is the other key element of CPTED. The scale of boundaries is dependent upon the importance of maintaining the segregation and the consequences of a breach. Therefore, a public to semi-public boundary may be delineated by a robust fence or wall whilst a semi-public to private example may only require a rope and piquet line. At its least obtrusive, a boundary could be a change in the colour or texture of a floor as long as both groups are aware of its significance and are broadly compliant.

3.1.3 Demonstration

In order to demonstrate the territoriality aspect of CPTED, the design shows:

3.1.3.1 The hierarchy of space

The hierarchy of space within the design is demonstrated as follows:

- Public areas are those existing spaces between the local public roads and the turnstiles where payment is made to allow entry. Although the “tram Entry” has been relocated it makes no significant difference to the overall delineation of the public areas.
- Semi-Public describes the majority of the site as paying spectators make up the majority of the clientele. In general, spaces that are not private or secure/restricted are semi-public.
- Private areas are mainly delineated by physical structures such as members enclosures, the “High Rollers Pavilion, club rooms and clearly defined back of house areas associated with the operation of the race course.
- Secure/Restricted areas are identified within the design and are delineated by physical measures such as room walls.

3.2 Territorial Reinforcement or Access Control

Having defined the spaces, CPTED then considers how passage between them is to be controlled. The controls can be very apparent (such as the turnstiles controlling movement between public (unpaid) and semi-public (paid) areas), more subtle (such as a steward at the entrance to a roped off area) or unequivocal (like a locked door controlled by an EACS – electronic access control system).

3.2.1 Demonstration

The nature of the site and the activities associated with horse racing means that there are a large number of transition areas between the different types of space. Although some of the transitions are fixed, a great many will change during design development. The following table illustrates how territorial reinforcement will be achieved between the major space types:

From	To	Primary Method	Supporting Methods
Public	Semi-public	Turnstiles/pay booths	Operational overlays as required
Semi-public	Private	Doors	Stewards or technical measures as appropriate
Semi-public	Secure/ Restricted	Doors	Operational overlays and technical measures as appropriate
Private	Secure/ Restricted	Doors	Operational overlays and technical measures as appropriate
Semi-public	Temporary Private or Secure areas	Doors, barriers or ropes as appropriate	Stewards or other operational overlays as required

3.3 Surveillance

Surveillance is an important part of CPTED from the perspective of both the desired user group and the unwanted. If legitimate users have a good view of their surroundings, can see where they are and where they are going, they will feel comfortable about using a space. On the contrary, if the space is confusing, they can't see what is going on in their immediate surroundings and cannot see where they are going, they will feel uncomfortable and unwilling to enter an area.

From the perspective of unwanted elements, they have a general desire to be unseen in what they do and be unidentifiable; therefore, in an environment where they are under scrutiny they are less likely to embark on their undesirable activities. Furthermore, even if unwanted activities are practiced they will be more easily detected and corrective operational measures taken.

Surveillance takes 3 forms:

- **Natural:** where people going about their everyday business can clearly see the area of concern and are capable of detecting untoward activity as soon as it occurs.
- **Operational:** where dedicated staff are placed at key points to observe specific activities that are not obvious to the untrained eye.
- **Technical:** where surveillance systems are deployed to monitor the activities in an area. Technical surveillance is mostly used to mean CCTV but can also include any active or passive system that detects a presence where there should be none and alerts a staff member to that effect.

3.3.1 Demonstration

At its current level of development, operational and technical surveillance areas cannot be shown; however, the broad principles of natural surveillance can be demonstrated as follows:

- There are clear visual axes across the site.
- There are no major surveillance black spots requiring detailed mitigation at this stage.
- Where there are rebates and niches they do not represent vulnerabilities given the anticipated threat profile of the site during normal operations.

Internal layouts will have an impact upon natural surveillance but these will not be finalized until later in the design process.

3.4 Adjacencies

The objective of studying the adjacencies within the site is to ensure that incompatible activities are not placed cheek-by-jowl where the presence of one represents a vulnerability to another. Examples of inappropriate adjacencies could include:

- Crowds and cash in transit
- People and vehicles

3.4.1 Demonstration

As the design currently stands there are no apparent inappropriate adjacencies; however, should the DG have specific adjacencies that should be avoided, if these are notified they can be illustrated on a set of layouts to demonstrate their separation.

3.5 Maintainability

The essence of maintainability is to facilitate the prompt repair of damage and prevent “broken window syndrome”. This “syndrome” is where unrepaired damage creates an impression of neglect which, in turn, encourages further damage. A key aspect of maintainability is, therefore, the ability to repair damage promptly. In order to achieve prompt repair, there has to be both a management structure to identify and respond to damage but also a design element such that the basic structure of those things most vulnerable to damage are not so bespoke that replacement part cannot be promptly supplied. Alternatively, where there is an element of bespoke design, sufficient spares should be stocked to ensure a maintenance and repair programme of several years duration.

3.5.1 Demonstration

The demonstration of maintainability could take the form of confirmation by the architect and the design team that the final design does not incorporate materials, fixtures or fittings in areas that are vulnerable to high levels of wear and tear or accidental and deliberate damage.

4 Disabled Access

Although disabled access is itemized in the CPTED portion of the GD's requirements, it is being responded to elsewhere by a DDA specialist.

5 Vehicle Pedestrian Conflicts

The compact nature of the site and the need to deliver goods and horses in addition accommodating large numbers of spectators will lead to some potential conflicts. Currently, time windows and operational procedures are used to achieve segregation at times when pedestrians and vehicles are required to occupy the same spaces.

The developing design is cognisant of, and is addressing, the issues associated with the operational needs of the site and the need to accommodate the crowds that are attracted to the racing.

5.1 Demonstration

In addition to demonstrating the lack of adjacencies under the CPTED compliance, vehicular areas are (and will continue to be) clearly distinguishable from designated pedestrian areas using operational procedures and such features as:

- Ground colours and textures,
- Kerbing,
- Signage,
- The use of temporary barriers,
- Direct intervention by staff members.