

# Royal Randwick Racecourse Redevelopment

## Section 75W

### DESIGN STATEMENT

#### Introduction

Since the full planning approval was granted on February 7th 2010, Detailed Design has been completed and the project costed. As a result of budgetary constraints it has been necessary to make some changes to the original scheme and we are now submitting a 75W application to seek permission for those changes.

The Design Intent and Concept for the scheme remains the same and the main changes are as follows:

- i. A reduction in the overall building length
- ii. A reduction in the extent of the Trackside roof cantilever.
- iii. A reduction in the size of the cantilevered viewing deck overlooking the Parade Ring.
- iv. The shape of the Parade Ring has been revised.
- v. The Staff and Information building has been deleted.
- vi. The separate Amenities building has been deleted and replaced with new facilities around the Parade Ring.
- vii. A reduction in the size and height of the Pavilion building.
- viii. The pedestrian tunnel entrance has been relocated to trackside.
- ix. The Precinct boundaries have been adjusted to include all areas contained within the Landscaping Master plan.

The 75W drawings aim to illustrate these changes with the two comparison drawings being the most helpful as they show both the original DOP drawings alongside the 75W proposed scheme. As you will see the revised scheme is faithful to the design intent of the original scheme but has been tailored to meet the ATC's developing brief.

The significant reduction in the proposed size and mass of the redevelopment proposals will reduce rather than increase the impact of the development on the surrounding area.

#### Design Intent



Royal Randwick Racecourse has been established at its current location since a Governor's decree to sanction a reserve of ground for a new racecourse in January 1833. The first race recorded at Randwick was held in June 1833. Over the next decade, the racecourse developed, with the Australian Jockey Club being formed in 1842.

Over the ensuing century, Royal Randwick Racecourse under the stewardship of the Australian Jockey Club became one of the world's leading facilities for thoroughbred horse racing, developing the nickname of "the headquarters".

The Queen Elizabeth II Stand was opened in July 1969, and the Paddock Stand in February 1992.



The past thirty years has seen significant changes in the landscape of thoroughbred horse racing around the world. With the advent of technology, changes in the work/life balance, and significant developments in tourism and leisure, racing has needed to change its offer and attraction to survive.

The proposed redevelopment of Royal Randwick Racecourse attempts to address these changes, developing new flexible facilities which offer a new generation the opportunity to engage with the exciting industry of thoroughbred racing. The redevelopment will create different types of spaces and offerings on par with the best recreational and leisure facilities within Australia, catering for all age brackets and membership/public patrons.

The redevelopment will provide flexible spaces to allow Royal Randwick to compete in other entertainment/corporate markets, assuring that its facilities maximise their potential usage, and in turn assisting in developing a future for racing at Randwick.

Within this development, careful planning will ensure that the spaces can be adapted over the next century to changing technology, and patterns of use, as well as being able to seamlessly integrate new facilities within future stages of work.

The ATC recognises that such a facility needs to create leading environmental credentials for such facilities, adaptable to future changes in technology and thinking. This will be achieved by the careful selection of materials and systems. The construction system and spatial arrangements will allow for a flexibility of change and modernisation as future systems and uses become known.

This redevelopment will place Royal Randwick's Spectator facilities as the best in Australia, and amongst the best in the world.

Again, Royal Randwick will be truly recognised as "The Headquarters".

## SCOPE OF WORKS

**Refurbishment of the existing QEII Stand**

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- Demolition (including existing roof structure), extensions and refurbishment of the building to incorporate new members and public facilities.
- Provision of flexible spaces which cater for the different tiers of membership and ticketed patrons, as well as providing flexible spaces for exhibitions, special events and conferencing.
- Incorporation of new sensitive links at ground level to the existing Officials Stand, and constructing upper level flexible spaces which have the potential to connect in the future to the Officials Stand in an appropriately sensitive manner.
- Construction of a basement service tunnel network to service the new QEII from the Basement Service Centre located under the Paddock Stand, and with the potential to extend this tunnel network to connect to the future refurbishment of the Officials Stand and further a field as required.
- Provide equality of access to all spaces, including service and back of house areas.
- Create an environmentally sensitive solution which addresses the sporadic nature of the building uses, responding with appropriate passive and active solutions.

**Demolition of the existing Paddock Stand and Construction of the new Paddock stand**

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*(to mirror the refurbished QEII stand)*

- Full demolition of the existing structure excluding the part basement structure
- Construction of a new building which architecturally mirrors the refurbished QEII Stand, incorporating new members and public facilities.
- Construction of a new basement facility incorporating:
  - Jockey facilities with underground access to the trackside and the new parade presentation arena ring.
  - Plant facilities to service all new buildings.
  - Staff facilities including reception, change rooms, and bathrooms.
  - Central kitchen facilities.
  - Store facilities.
  - Garbage and recycling facilities.
  - Loading dock (designed to link to future development via a continuation of the basement circulation system).
  - Links to the new service tunnel providing access to the new buildings and potential links to future development.
  - Office facilities.
- Provision of flexible spaces within the building which cater for the different tiers of membership and ticketed race patrons, as well as providing flexible spaces for exhibitions, special events and conferencing.
- Incorporation of flexible spaces at all levels which have the potential to connect to future development to the southwest.
- Provide equality of access to all spaces, including service and back of house areas.
- Create an environmentally sensitive solution which addresses the sporadic nature of the building uses, responding with appropriate passive and active solutions.

#### Construction of a new Link Building between the stands

- Linking seamlessly between all levels of the main stand buildings.
- Architecturally separates the main building forms.
- Provides a central vertical circulation node servicing all levels.
- Incorporates a projecting balcony to the northwest overlooking the new Parade Ring.
- Incorporates new northwest/southeast underground links between the Parade Ring presentation area, basement level of the Paddock Stand and the trackside.
- Create an environmentally sensitive solution which addresses the sporadic nature of the building uses, responding with appropriate passive and active solutions.
- Provide equality of access to all spaces, including service and back of house areas.

#### Construction of a new horse Parade Ring facility within the Spectator Precinct

##### *(Theatre of the Horse)*

- The arena is sunken into the site, with tiers of dining spaces, fixed seating, and standing surrounding the space up to grade.
- Links the existing Day Stalls to the new Parade Ring via a ramped pathway connecting to a tunnel (vomitory) entry point providing an access to the base of the Parade Ring for alternative uses and "bump in/out" for small vehicles only.
- Tunnel links for horses, jockeys, owners and trainers to the new back of house facilities within the Paddock stand and the trackside presentation arena.
- Construction of a single level sponsors/special event pavilion overlooking the parade ring complete with stair and lift access.
- Construction of light weight tensile fabric structures for partially enclosed food, beverage and tote facilities surrounding the parade ring on grade.
- Construction of new broadcast facilities overlooking the parade ring.
- Create an environmentally sensitive solution which addresses the sporadic nature of the building uses, responding with appropriate passive and active solutions.
- Provide equality of access to all spaces, including the upper tier level of seating/viewing platforms.

#### Construction of a new Toilet Block

- Toilet numbers sized to service the new Parade Ring facility
- Naturally ventilated facility
- Central access with views of the horse access to the day stalls, and surrounding landscape.
- Create an environmentally sensitive solution which addresses the sporadic nature of the building uses, responding with appropriate passive and active solutions.
- Provide equality of access to all spaces.

#### Construction of a new Precinct Amenities in the Pavilion Base

- Staff entry point, with direct stair and lift access to the lower ground facilities.
- Ground Floor information Point – counter and office
- Create an environmentally sensitive solution which addresses the sporadic nature of the building uses, responding with appropriate passive and active solutions.
- Provide equality of access to all spaces.

#### Upgrading of landscape works to the spectator precinct

- Works undertaken by Aspect and discussed separately in the Landscape Report.

#### Restoration and extensions to the Old Swab Building

- These works will remain as per the original DOP submission and approval.

## DERIVING A SITE PLANNING STRATEGY

The site and forms of the building are appropriately derived from the existing site constraints of landscape and built form with the overlay of function.

The design intent simply is to maintain the existing mature trees on site, unwrap and reinvent as much of the existing fabric as possible (which hints to the span of time and historical patterns of use of the site), and then overlay the new function, spatial patterns, and technology.

In essence, adding another layer to the rich historical tapestry of the only developed use this site has known since colonisation.

This approach removes the current steel pavilion linking the Old Tote to the Officials Stand and the QEII stand. This allows the Old Tote to be redeveloped as a future stage as an F+B facility.

The Tea House is removed to allow a new parade ring to be developed in the spectator precinct, creating a contemporary replacement for the outdated use once provided by the Tea House, that being a food, beverage and tote facility to be enjoyed whilst watching the parade of horses prior to each race.

The Official Stand, now visually freed by the removal of the existing pavilions, and the Pavilion, will be developed as a spectator facility as a future stage.

## THE STANDS

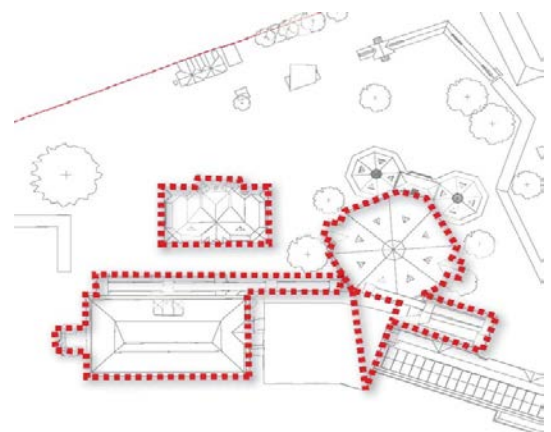
The QEII will be stripped to its bare, primary structure (roof beams to be removed), resurfaced, reshaped and reclad to create a new building visually freestanding within the precinct. This building then provides sensitive connection points to its neighbouring Officials Stand.

The existing Paddock Stand is fully demolished, being replaced by a mirror image of the QEII providing a seamless linking of facilities across the floors by the introduction of a Link Building in the middle. The Paddock Building provides new loading dock and back of house facilities for the entire complex. The loading dock will be accessed by an open cut driveway to the south west of the stand, which will be eventually incorporated into the basement of a future stage of works.

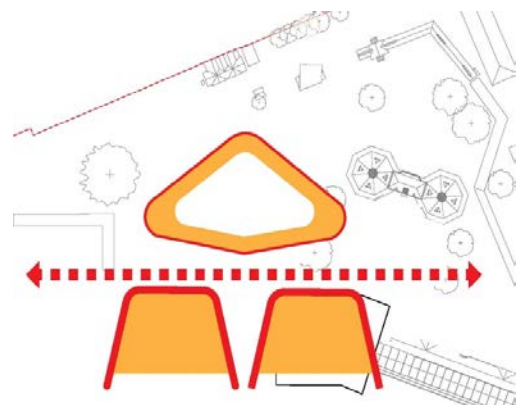
The now linked Paddock and QEII Stands are serviced by three vertical transportation nodes. The end two nodes are represented as drums over clad with a louvre system. Each vertical drum incorporates twin staircases, twin lifts and escalators, servicing all floors. These towers are also able to be isolated from the main floors in emergency mode, providing the majority of the emergency egress from the building. They are located so to link to future stages of development to the south west, and to provide access to the upper levels of the Officials Stand also in a future stage of development.

## VERTICAL SERVICING

The twin service towers are assisted by a central vertical transportation node accessed directly from the spectator precinct, and vertically located behind the northern face of the Link Building. This zone incorporates ambulant access lifting to all levels, secure lifting between member's facilities and the tunnel network servicing the Parade Ring



Demolition Diagram



Building Form Diagram



presentation area and the trackside. Each level provides panoramic views over the Parade Ring, and to the northern city skyline.

The tri-joined Paddock, Link and QEII Stand facility differs from the traditional sporting stand facility, in that it provides double sided viewing opportunities – in this case both over the Parade Ring to the northern spectator precinct and to the southern racecourse. This creates opportunities to develop different types and characters of spaces within the buildings, responding to the viewing opportunities and functions.

#### EDGE SPACES

The mirrored stands of the QEII and the Paddock are wrapped in a timber sheath, which unwraps itself as it opens to its south east orientation facing the racecourse.

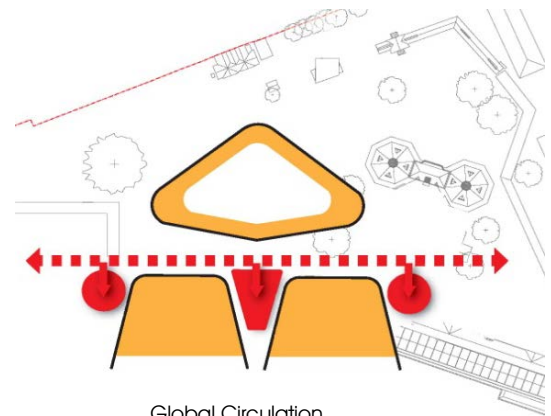
The spaces to the north face of the tri-joined stand facility consist of open terrace spaces set behind the timber skin. These balcony spaces create a shaded thermal buffer to the internal spaces, but also allow patrons using these spaces to engage with the ambience of the spectator precinct within a more controlled environment. These spaces offer the opportunities for different configurations, i.e. external cafe/restaurant seating and external bars.

The central component of the north facade contained within the "link" provides the glazed lobby to the main function spaces with the stands, but also provides public access to the projecting balcony element on Level 1 overlooking the Parade Ring. This element helps to provide critical sun-shading to the north facade, as well as protection to the escalators below.

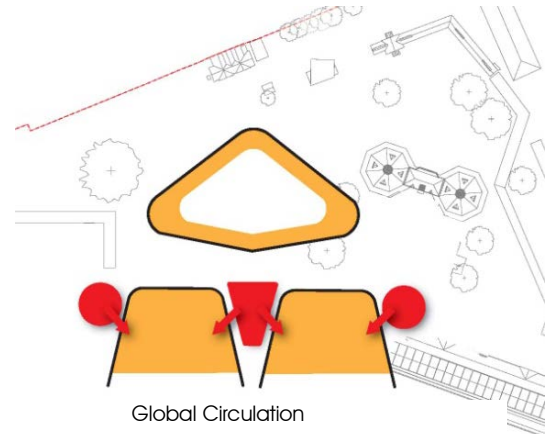
The Racecourse side of the facility varies on a floor to floor basis, providing a mixture of enclosed dining, enclosed seating, unenclosed balconies and unenclosed seating configurations. Some levels provide flexible floor systems to allow configurations to change, assisting in spaces adapting for more traditional function room layouts in a non race day mode.

The glass enclosed spaces provide patrons with different levels and qualities of space depending on their selection of membership/entry. All spaces have been designed to be flexible to change, flexible for alternate function type uses and variable in scale via the use of operable walls (part of the fit out works) to maintain an ambience for smaller functions and groupings.

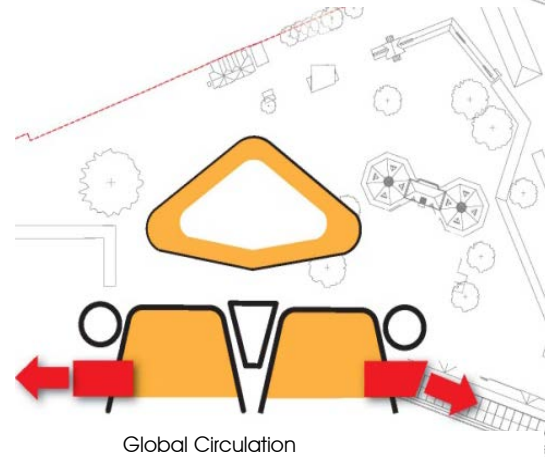
All glazed spaces offer the opportunity to access external seating areas and/or capture some of the sounds and ambience of the ground plane activity. Whilst designed to maximise the view corridors and opportunities, these spaces have also been carefully designed to maintain a high level of thermal performance through the use of both active and passive systems.



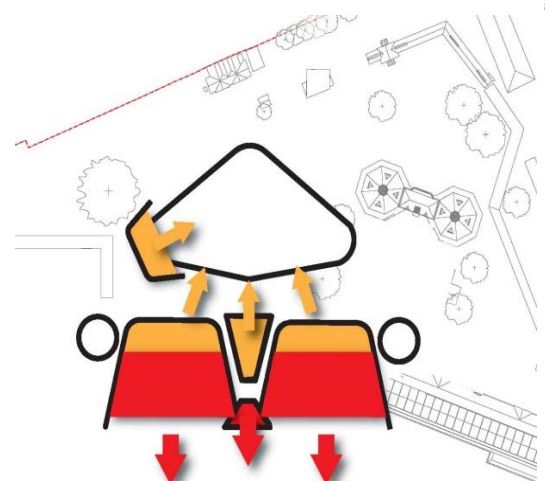
Global Circulation



Global Circulation



Global Circulation



Spatial Arrangement & Views

## THEATRE OF THE HORSE

The Theatre of the Horse is defined as the process of horses leaving the day stalls prior to a race. They then appear in the arena or Parade Ring. In this area, they are paraded around the track, allowing racing patrons to view the horses in detail. Their jockeys then arrive in this space from their facilities located under the new Paddock Stand. They receive their instructions from the trainers and owners, before mounting the horses. They then disappear through a vomitory running perpendicular to the Link Building, again appearing above ground in front of the stands, with direct access onto the racecourse proper.

The Parade Ring is constructed as a sunken arena edged with a section of fixed seating, and standing zones. The grade separation both vertically and horizontally has been defined to maximise the population that will be able to clearly see the bottom of the Parade ring, and therefore the full movement of the horse. The shape and scale of this facility is based on detailed analysis of similar facilities around the world. Whilst being of a significant scale, the space will feel intimate in character, placing patrons as close to the activity as possible. The larger vertical steps are edged with landscaping, continuing the surrounding picturesque landscape into this space.

Provision for wheel chairs is provided at the upper/grade level. Provision is provided for wheel chair and ambulant access to the base of the parade ring through elevators located to one side of the Link Building.

Around the parade ring, light weight tensile fabric structures are used to create roof enclosures to the food, beverage and tote facilities. These oversized translucent roof structures also provide shade to the surrounding seating areas.

Overlooking the Parade Ring from the west is a single level structure raised up off the ground. Its flexible design will allow it to be used as a corporate entertainment venue, broadcast studio, owners and trainers pavilion, or a member's facility. The ground floor of this building is fully open, providing further weather and sun protection to patrons of the "Theatre of the Horse". The upper level is accessed via a stair or lift pod. Accessible bathroom facilities are provided on the function level. A small servery point could be provided at a later date with direct lift access from the lower ground facilities. The front facade on the first level above ground is designed as an operable glass facade, maximising the opportunities for the users of the space to be involved in the ambience and spectacle of the "Theatre of the Horse".

The sides and rear of this pavilion are treated in the same materials and detailing as used in the new QEII and Paddock Stands. The roof is clad with profiled metal sheeting.

Further smaller structures are built into the Parade Ring, providing broadcast studio spaces, camera points, and storage facilities.

The Parade Ring is also designed such that a future light weight roof structure could be designed to span the arena, creating a semi enclosed tented structure, suitable for other uses outside of its primary design intent.

Access is also available to the base level of the arena via the horse access tunnels.

## **ANCILLARY STRUCTURES**

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A selection of smaller building will be constructed around the site. These will include new Toilet amenity blocks and canopies for future smaller food, beverage and tote kiosks.

The Information facility is located in one of the Pavilion support structures together with the Staff Entry control point. All uses have access via a lift and stair to the basement level, providing access to BOH facilities, cross site service access tunnel and loading docks.

The new Toilet amenity blocks located to the north of the existing day stalls has been designed to service the patrons using the Parade Ring only. This naturally ventilated structure has a view over a landscaped garden, and the horse access pathway from the day stalls.

Smaller relocatable kiosk structures will be designed to be located around the spectator precinct. These flexible structures will use the same palette of light weight tensile fabric roofs. Their uses will be flexible, primarily providing alternative food, beverage and tote facilities as well as being capable of being used for general merchandising, information centres etc.

## **MATERIAL SELECTION AND DETAILING - DEFINING A DESIGN APPROACH**

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The design palette and approach for the project architecture has been carefully developed using the following objectives:

- This design solution is yet but another overlay to the rich history of the site. Pay respect and visually separate the new from the old, by using subtle changes of palette colour and detailing.
- Unwrapped - resist the un-necessary wrapping of elements which add significant cost, create issues of maintenance, and usually have a higher embodied energy level within them.
- Choose materials which can develop their own patina and character over time, and require minimal maintenance.
- Create a warm palette of materials which respond to the subconscious characteristics of horses and horse racing.
- Smaller scale detailing of elements, expressing the junctions and how things come together.
- A warm palette of materials used as a porous skin over a cooler base, creating visual depth and again reducing the visual bulk and mass – i.e. timber over concrete, translucent membranes over structural forms.
- Blend the feeling of permanence through heavier brick and masonry elements with light weight tent or membrane structures. This creates a subconscious feeling of decadence through temporary structures, mimicking the traditional and exuberant marquee structures used by fashion houses and corporations at race functions through the ages.
- Maximise transparency of structures, both acoustically and visually, to continually link the interior spaces to the external ambience.
- Use formalised and colourful landscape elements throughout the buildings, particularly to vertical edges – particularly hedging and seasonal displays of colour.
- Express the functional requirements of egress, circulation and services by illuminating escalators, glazing lifts, expressing service risers. This again adds a layer of visual detailing and scale in controlled way.
- Detail and select materials to minimise thresholds at entry points of buildings – again seamlessly allowing external spaces to flow internally. Use “doormat” type elements to signify entry points, spanning the entry point internally and externally.

## **THE PALETTE**

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The primary structure is in concrete and steel. The external skin of the Paddock and QEII stands are wrapped in a timber skin to their sides and northern elevation. A performance glass facade is located to the inside edge of the balconies behind this skin.

The racecourse elevation is primarily large frameless glass walls integrating openings as required.



The external projecting roof elements are treated as translucent fabric membrane structures wrapping around the projecting structural fingers.

The vertical circulation towers are covered in a louvred system which provides a visual foil to the interiors as well as creating an efficient sun-shading and weather screen.

Escalators are clad in coloured glass panels, which are internally illuminated expressing their function. This approach creates a secondary level of detail and expression of how the building works.

This palette of expressed structure, vertical timber walls, expressed transportation and translucent roof structures is also used on the ancillary buildings.

#### **ENVIRONMENTAL SUSTAINABLE DESIGN**

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Environmental systems and strategies have not simply been overlaid over the proposed design solution, but have been an integral part of the design process from the beginning. As such, the solutions and systems are seamlessly and in most cases invisibly stitched into the final proposal.

The ventilation strategy as outlined by ARUP recognises that the pattern of use of the buildings differs dramatically from traditional commercial buildings. As such, the buildings have been designed to operate in a passive naturally ventilated mode where possible, changing over to an active mechanical system as the external building of the skin is closed, and external conditions warrant such.

Similarly the skin of the building has been designed to maximise the viewing opportunities both to the racecourse and the spectator precinct, but also to shade the thermal skin of the building to minimise the heat load. Operable systems have been minimised, with a preference to utilise staff or individuals to operate systems - allowing them to control the thermal and light conditions of their space.

Where possible the thermal mass of the structure has been exposed, and the wrapping of structural or base systems has been minimised. This directly reduces the base building embodied energy levels by the use of less materials. Similarly, the use of materials with a higher embodied energy such as aluminium cladding, have been minimised.

Low VOC materials will be used throughout the project. Significant recycling facilities are provided within the basement.

Refer to the Arup ESD report for further details.