

## Recreational Water Park Signage Guidelines

### Prospect Recreation Precinct

### Western Sydney Parklands

Draft 25 November 2010



**Wet'n'Wild SYDNEY**



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## 1.0 INTRODUCTION

### 1.1 Western Sydney Parklands Signage Policy

Located within the Western Sydney Parklands (Parklands) will be various forms of signage including commercial outdoor advertising, temporary events signage, Parklands identification signage and promotional signs. As the Parklands cover a very large and diverse area, made up of 16 discrete precincts, there is likely to be a very wide range of signage displayed on land within the Parklands.

These various forms of signage are important elements in the built and natural environment and are integral to the operational and commercial use and success of the Parklands sites and facilities.

The Parklands Signage Policy has been prepared in order to ensure well designed and appropriately positioned signage that will enhance the character, operation and use of the Parklands sites and facilities.

All signage that is visible from external public areas should conform to the Signage Policy.

All signage and associated structures, either on buildings or as stand alone structures require the Western Sydney Parklands Trust's (Trust) consent as land owner.

This is the case regardless of whether or not the resultant signage is "exempt" development and does not require development consent.

One component of the overall Parkland Signage Policy is the Recreational Water Park, "Wet 'n' Wild Sydney" Signage Guidelines. The following Guidelines relate only to "Wet 'n' Wild Sydney.

### 1.2 Recreational Water Park Signage Guidelines

The proposed Recreational Water Park (Water Park) will be a significant commercial operation within the Parklands. The use will be positioned in a very prominent and highly exposed location fronting the M4 motorway at Prospect. It is estimated that the use will occupy a maximum of approximately 25 hectares when fully operational.

As a result of the size, exposure and prominence of the commercial use, and taking into account the practical need for the operator to plan the commercial venture, signage Guidelines specific to the site and the use have been prepared.

The Guidelines set out the Trust's requirements in relation to signage in order to inform the proponent during the preparation of designs and applications for the Water Park. The Trust, as land owner, will rely on the Guidelines in determining whether to provide owner's consent.

The Guidelines will also form the basis for the consent authority's assessment and determination of any applications requiring development consent/project approval – noting that not all forms of signage require consent – refer to section 1.5 below.

### 1.3 Location of Recreational Water Park

The Parklands comprise 5,280 hectares across 16 distinct Parklands Precincts.

The draft Western Sydney Parklands Plan of Management 2020 (October 2010) identifies the “Prospect Recreation” area in the north-east corner of the WSP as Precinct 7. Contained within this precinct is an identified “Tourism Hub” in which the Water Park is proposed.

Figures 1 and 2 below identify the location within the WSP area.



Figure 1: Location of Precinct 7 “Prospect Recreation” at the N-E corner of the WSP area. (Source: Draft Western Sydney Parklands Plan of Management 2020 (October 2010)).





Figure 2: Detail of the Prospect Recreation precinct, including the identified Tourism Hub, being the area in which the Recreational Water Park is proposed. (Source: Draft Western Sydney Parklands Plan of Management 2020 (October 2010)).



Figure 3: Aerial photograph of the recreational water park site, looking S-W, with the M4 frontage in the foreground and Prospect Nature Reserve adjoining to the south. (Source: [www.wetnwildsydney.com.au](http://www.wetnwildsydney.com.au)).

The Water Park site is approximately 25 hectares in total area and is to accommodate a range of activities.

A preliminary concept plan of the use of the site is provided in Figure 4 below.

Figure 4: Concept plan for recreational water park. (Source: [www.wetnwildsydney.com.au](http://www.wetnwildsydney.com.au)).

## 1.4 Signage Definitions

The following types of signage are addressed in these Guidelines:

- Identification signage. This is defined as:

Signage that identifies, advertises and/or promotes the Water Park business and location, including all of the operations and activities of a Water Theme Park and within the Water Theme Park which also include both permanent and temporary signage, events and promotional signage.



Figure 5: An example of permanent identification signage.



Figure 6: Example of temporary events identification signage.





Figure 7: Example of promotional signage.

- Third party advertising signage. This is defined as

Advertising signage for the purpose of promoting products, businesses and services that are unrelated to the Water Park business or location, whether or not these products, businesses or services may be available for purchase or consumption at the Water Park.

The controls contained herein adopt the following approach:

- There must be no third party advertising signs able to be viewed from any position external to the Water Park.
- There is no control over third party advertising within the confines of the Water Park providing that the third party advertising signs are not visible from any position external to the Water Park.



Figure 8: Example of third party advertising signage not permitted to be visible from any areas external to the Water Park.



Figure 9: Example of third party advertising signage that may be contained within the Water Park.

### 1.5 Exempt Development

There are some forms of signage that do not require any form of development consent.

State Environmental Planning Policy (Western Sydney Parklands) 2009 (the SEPP) includes some forms of signage as “exempt” development– development that does not require any form of consent, providing certain pre-conditions are met.

The SEPP is in the process of being amended, with the updated provisions imminent. As a result the draft amended provisions are included below.

**Schedule 2 Exempt development****Signage (associated with the use of road infrastructure)**

No standards are specified for this development.

**Signage (identification, directional, community information or safety signs erected by or on behalf of a public authority but not including roof-top signs or commercial advertising or signs associated with the use of road infrastructure)**

- (1) Surface area must not exceed 100m<sup>2</sup>.
- (2) Obtrusive effects of outdoor lighting must be controlled in accordance with AS 4282–1997, Control of the obtrusive effects of outdoor lighting.

**Signage (real estate signs on land or premises being advertised for lease or sale)**

Surface area must not exceed 4.5m<sup>2</sup>.

**Signage (temporary, advertising an event and associated relevant details including sponsorship of the event)**

- (1) Surface area must not exceed 100m<sup>2</sup>.
- (2) Must not be displayed earlier than 28 days before the event and must be removed within 14 days after the event.
- (3) Obtrusive effects of outdoor lighting must be controlled in accordance with AS 4282–1997, Control of the obtrusive effects of outdoor lighting.

Full details of the exempt development provisions contained in clause 18 of the SEPP, including the relevant pre-conditions that must be met, are included at Appendix A.



Figure 10: Examples of public authority signage that is exempt development.

### 1.6 Making an Application

All signage within the Water Park that is able to be viewed from any position external to the Park, requires the approval of the Trust. Some forms of signage will also require development consent.

The process for obtaining approval for signage is detailed in Figure 11 below.

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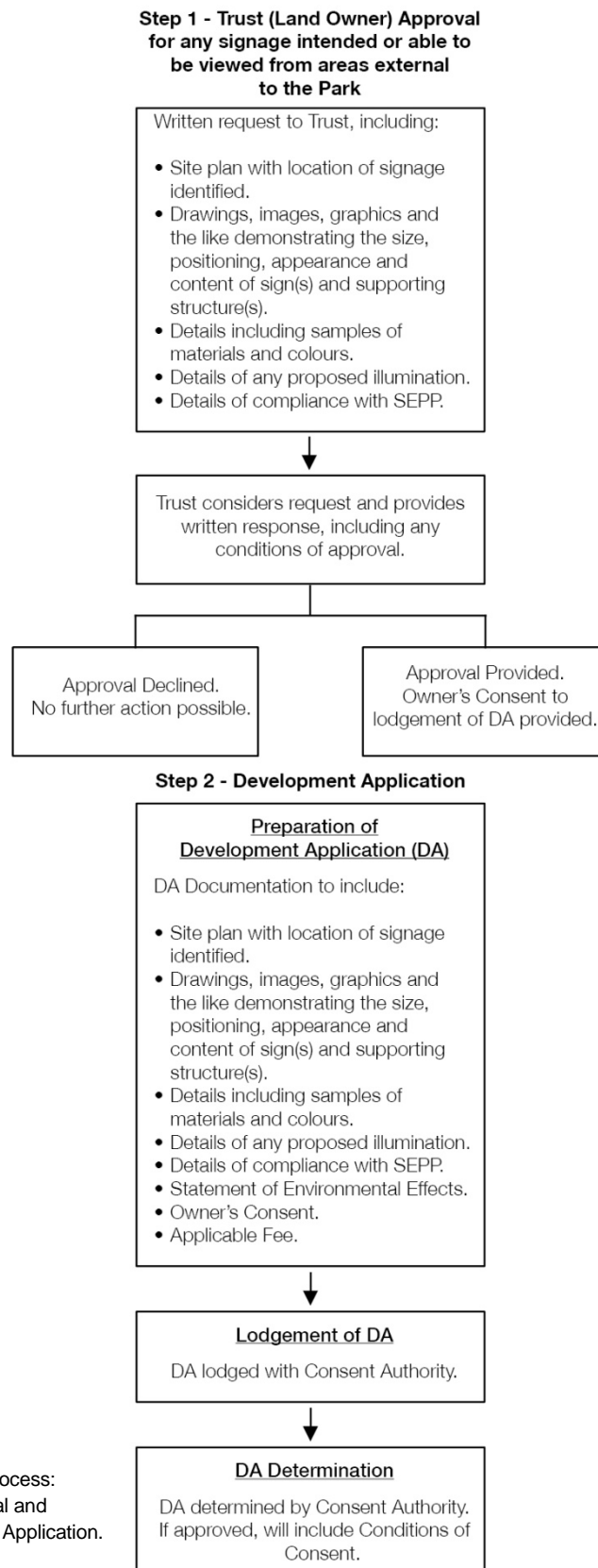


Figure 11: Approval Process:  
Step 1 – Trust Approval and  
Step 2 – Development Application.

## **2.0 RECREATIONAL WATER PARK SIGNAGE**

### **2.1 Recreational Water Park Signage Strategy**

As the Water Park is a new commercial operation to be planned and constructed on a “green field” site, the opportunity exists to ensure that the location, size, type, form, content and number of signs is integrated with the overall planning for the site.

The site requires a specific Signage Strategy to be prepared by the proponent and which is to form part of the planning approval for the site.

The Signage Strategy is to be prepared in accordance with the provisions contained within these Guidelines. The Strategy must identify signage that will and will not be able to be viewed from positions external to the Water Park.

Development of a Signage Strategy will ensure that the potential visual impact and acceptability of individual signs and the cumulative impacts of the signs is dealt with up front and will provide certainty to the ongoing operation of the Park.

### **2.2 Objectives**

The key objective of the Water Park Signage Guidelines is to avoid unacceptable visual impact and visual clutter associated with signage and associated structures viewed from areas external to the Park.

Further objectives for all signage, when able to be viewed from areas external to the Water Park, are:

- (a) to be compatible with the desired future character of the Prospect Recreation precinct which includes being a major destination for tourism and passive/active recreation;
- (b) to demonstrate design excellence, with use of high quality design and finish;
- (c) to demonstrate consideration of design innovation;
- (d) to be legible to the reader and effective in communicating the relevant message;
- (e) to be inoffensive in content and design;
- (f) to be designed so as to ensure pedestrian, cyclist and driver safety, both within and external to the Park.

The Policy does not seek to limit the form or quantity of third party advertising within the Water Park providing these signs are not able to be viewed from any areas external to the Water Park.

### **2.3 Design Excellence and Innovation**

As mentioned in section 2.1 above, the Water Park is a new commercial operation to be planned and constructed on a very large and highly prominent “green field” site. As a result the opportunity exists to create an exceptional design outcome, resulting in a landmark development within the Parklands and Western Sydney.

Signage may be a major contributor to the external appearance of the Water Park. As a result it is critical that the signage demonstrate design excellence and innovation.

All signage that is to be viewed from areas external to the Park must:

- (a) Demonstrate design excellence, including the use of appropriately qualified and experienced graphic designers, architects or similar design professional.
- (b) Demonstrate innovation in the use of materials, technology, media and concepts in order to ensure excitement and vitality for the users of the facility.
- (c) Be compatible with and enhance the desired future character of the Prospect Recreation Precinct, which is nominated as a major destination for tourism and passive/active recreation in the Draft Western Sydney Parklands Plan of Management 2010.

## **2.4 Signs Requiring Approval**

### **2.4.1 Permanent Identification Signage with an External Focus**

This signage may be in the form of permanent free standing signage structures and other signs

- (a) Only free standing identification signage structures and signage for the purpose of promoting the Water Park business, the business location and directions to the Water Park may be displayed so as to be viewed from a position external to the Water Park (see Figures 11 and 12 below as examples of a free standing identification signs)
- (b) Free standing identification signage structures and signage outlined in (a) above must not include any third party advertising.
- (c) Permanent free standing identification signage structures and signage will be limited in number to 3 in total and may have frontage to the M4 motorway, Watch House Road and Reservoir Road, being (three (3) in total).
- (d) The maximum surface area of a free standing permanent identification sign identified in (c) above is to be xxm<sup>2</sup>. WSPT to provide words.
- (e) Other permanent identification signage structures and signage, in addition to the three (3) free standing structures nominated in (c) above, including signage attached to or located on rides, slides and the like, are not to protrude above the dominant skyline, including any buildings, structures or tree canopies, when viewed from ground level from any position external to the site.
- (f) Permanent identification signage structures and signage, including signage attached to or located on rides, slides and the like, is to be consistent in design, materials and colours and may vary in size and scale to reflect the major and secondary street frontages of the site.

The maximum surface area of permanent identification signage structures and signage, in addition to the three (3) free standing structures nominated in (c) above, including signage attached to or located on rides, slides and the like, is to be 20m<sup>2</sup> per ride.

- (g) Illuminated signs are to comply with the separate provisions contained in section 2.6.1 below.
- (h) Signage in any form is not permitted on the external site (perimeter) fencing.



Figure 12: Example of permanent free standing identification signage.



Figure 13: Example of permanent free standing identification signage.



#### 2.4.2 Permanent Identification Signage within the Water Park

This signage will be erected to be viewed principally from within the Water Park but may also be visible from areas external to the Water Park.

- (a) Identification signage is not to protrude above or beyond the buildings, or structures into which it is integrated and must remain subservient in appearance to the principal building or structure on which it is placed.
- (b) Illuminated signs are to comply with the separate provisions contained in section 2.6.1 below.
- (c) The maximum surface area of a permanent identification signage within the Park is to be 20m<sup>2</sup> per sign.



Figure 14: Example of appropriately placed identification signage within the Water Park.



Figure 15: Further example of appropriately placed identification signage within the Water Park.



Figure 16: Further example of appropriately placed identification signage within the Water Park .



Figure 17: Further example of appropriately placed identification signage within the Water Park.

### 2.4.3 Third Party Advertising Signage

- (a) Third party advertising signage may be erected within the internal confines of the Water Park but must not be able to be viewed from any public point or place external to the Water Park.
- (b) The Water Park Signage Strategy, required under section 2.1 above, is to nominate the integrated approach for the placement of third party advertising signage and in particular is to detail the design measures proposed to ensure that third party advertising signage will not be able to be viewed from any public point or place external to the Water Park.
- (c) Illuminated signs are to comply with the separate provisions contained in section 2.6.1 below.



Figure 18: Example of third party advertising signage with an external focus, which is not permitted within the Water Park.



Figure 19: Example of third party advertising signage that may be contained within the Water Park.

#### 2.4.4 Events and Promotional Signs

Particular events, promotions and special occasions associated with the operation of the Water Park may be subject to additional distinctive advertising within the Water Park.

Events and promotional signage is likely to be erected so as to be viewed from locations external to the Water Park, as well as within the active areas of the Water Park.

These Guidelines are concerned only with signage that is able to be viewed or is visible from any public point or place external to the Water Park.

There is no limit or control over events or promotional signage associated with the operation of the Water Park where such signage is visible only from within the confines of the Water Park.

Events and promotional signage in the form of banners, posters or the like, may be placed on existing free standing identification signage structures and signage if contained to and occupying the whole of the surface area of the host structure.

Free standing events and promotional signage:

- (a) must only be for the purpose of business identification promoting the operation, facilities and services available within the Water Park.
- (b) may include advertising and promotion of particular events or facilities specific to the operation of the Water Park.
- (c) may include details of third party sponsorship of particular promotions or events but such details are to be subservient to the promotion of the Water Park and its facilities.
- (d) must not be third party advertising signage.
- (e) is limited to a maximum of one sign per street frontage, being the M4 motorway; Watch House Road and Reservoir Road (3 in total).
- (f) is to be temporary in nature and not permanent signage. Erection is limited to a maximum of one (1) month at any one occasion and a maximum of three (3) months out of twelve (12) in any calendar year.

#### 2.5 Requirements for Variable Forms of Signs and Structures

##### 2.5.1 Inflatable Signs

- (a) Inflatable signage that is erected for the purpose of being viewed principally from places external to the Water Park, such as from the M4 motorway and other street frontages, is to meet the following requirements:
  - (i) must only be for the purpose of identification, promoting the operation, facilities and services available within the Water Park.
  - (ii) may include advertising and promotion of particular events or facilities specific to the operation of the Water Park.



- (iii) may include details of third party sponsorship of particular promotions or events but such details are to be subservient to the promotion of the Water Park and its facilities.
  - (iv) must not be third party advertising signage.
  - (v) is limited to a maximum of one sign per street frontage, being the M4 motorway; Watch House Road and Reservoir Road (3 in total).
  - (vi) is to be temporary in nature and not permanent signage. Erection is limited to a maximum of one (1) month at any one occasion and a maximum of three (3) months out of twelve (12) in any calendar year.
- (b) Inflatable third party advertising signage erected for the purpose of being viewed by people occupying space within the active areas of the Water Park must be placed so as not to be visible from any public point or place external to the Water Park.
- (c) Illuminated signs are to comply with the separate provisions contained in section 2.6.1 below.



Figure 20: Examples of temporary inflatable signage.

### 2.5.2 Animated Signs

Animated signs include mechanical moving signs, moving “LED” signs, video/television screens, projected laser advertising and other flashing, intermittently illuminated or sequenced lighting signs.

Animated signs must meet the following requirements:

- (a) Animated signs may only be erected and operate so as to be viewed by people occupying space within the active areas of the Water Park. The signs must not be visible from any public point or place external to the Water Park.
- (b) The Water Park Signage Strategy, required under section 2.1 above, is to nominate the integrated approach for the placement of animated signs which will form part of the approval of the Park development.
- (c) The design and operation of any laser projection shall be in accordance with Australian Standard 2211-1981 as updated and the projected beam of a laser shall be a minimum of 4 metres above the ground level and at least 3 metres from any door, window or other place accessible by a person.
- (d) Illuminated signs are to comply with the separate provisions contained in section 2.5.5 below.

### 2.5.3 Banners, Flags and Other Fabric Signs

Banners, flags and other fabric signs have the potential to make a major contribution to the positive appearance and vitality of the Water Park.

The following requirements must be met:

- (a) Signage must be integrated into the planning, design and placement of permanent park structures and buildings and are to complement the design and appearance of the host structures, including rides, slides and the like.
- (b) Free standing structures such as flag poles and flags are to be included in the Water Park Signage Strategy so as to ensure an integrated approach for their placement within the overall planning of the Water Park.
- (c) Signage in any form is not permitted on the external site (perimeter) fencing.



Figure 21: Examples of integrated banners.



Figure 22: Example of flag poles and flags integrated into the planning of the site.

#### 2.5.4 Construction Hoardings, Temporary Fencing, Café Perimeter Fencing, Crowd Control Barriers and the like

- (a) Signage in any form is not permitted on the external site (perimeter) fencing.
- (b) Signage must be contained to the surface area of the host structure and must not protrude above or beyond the temporary structure on which it is contained.
- (c) In the case of construction hoardings and temporary fencing only signage that is ancillary to the operation, facilities and services available within the Water Park may be displayed. No third party advertising signage is permissible.
- (d) Third party advertising signage is permissible for café perimeter fencing and crowd control barriers.



Figure 23: Example of perimeter fencing advertising not permitted at the Park.

### 2.6 Technical Requirements for all Signs

#### 2.6.1 Illuminated Signs and Sign Illumination

Illuminated signs may be in the form of illuminated box signs, neon lighting or lighting projected on to signage such as spot or down lighting.

Those signs allowed under the Guidelines, may be in the form of illuminated signs if they meet the following requirements:

- (a) The illumination or associated light structure(s) must be subservient to and not detract from the appearance and design of the host building or structure during daylight hours
- (b) Illumination is to be provided by lighting (including cabling) concealed or integral with the sign.
- (c) Illumination provided by spot or down lighting is to be sensitively integrated into the design of the signage structure and sign such that it is consistent in terms of materials and colours.
- (d) The form, intensity of direction of lighting must not obscure or interfere with road traffic signs and signals or with a view of a road hazard or obstruction, oncoming vehicles, or any other vehicle or person which should be visible to drivers or other road users including pedestrians.



- (e) The maximum levels of illumination are included in detail at Appendix B.

### 2.6.2 Pedestrian and Road Safety

While well designed and appropriately located signage erected within the Water Park will contribute to the vitality of the use, signage will also assist with way finding and the safe operation of the park. It is therefore critical that signage structures and signs do not interfere with the safe movement of pedestrians, cyclists and road vehicles around and within the Water Park.

***All signage must comply with the road safety assessment criteria included at Appendix C.***

In general terms all signage must not:

- (a) Obscure or interfere with road traffic signs and signals or with a view of a road hazard or obstruction, oncoming vehicles, or any other vehicle or person which should be visible to drivers or other road users;
- (b) Purport to give instructions to traffic, such as the use of the word “stop”, nor be of a form which could be confused with regulatory traffic signs and information;
- (c) Result in a design or arrangement that any variable messages or intensity of lighting may impair drivers' vision or distract drivers' attention

### 2.6.3 Materials, Construction and Maintenance

- (a) All signage is to be built to a high standard and materials of appropriate quality and durability are to be used in the construction.
- (b) Materials used must be graffiti proof and if attacked able to be readily cleaned and maintained.
- (c) All signage is to be manufactured, supplied and fixed by a specialist contractor employing tradespeople skilled in the required work.
- (d) All fixings are to be concealed.
- (e) All signage and support structures are to be kept in good repair and maintained to a high standard.
- (f) Any damage to signs is to be repaired immediately after it has occurred.
- (g) Upon request from the Trust tenants shall attend to any matter regarding maintenance and cleanness of their signage.

### 2.6.4 Unacceptable Content

Signs with the following content are not permissible:

- (a) Alcohol advertising.
- (b) Tobacco advertising.

- (c) Obscene, offensive, obnoxious, derogatory and defamatory material.
- (d) Socially or politically sensitive messages (including promoting religious beliefs and events; sex products etc.).

















**APPENDIX A**  
**Exempt Development Provisions**

***Extract from State Environmental Planning Policy (Western Sydney Parklands) 2009***

***Part 3 Exempt development, 18 Exempt development***

Note. Under section 76 of the Act, exempt development may be carried out without the need for development consent under Part 4 of the Act or for assessment under Part 5 of the Act. The section states that exempt development:

- (a) must be of minimal environmental impact, and
  - (b) cannot be carried out in critical habitat of an endangered species, population or ecological community (identified under the Threatened Species Conservation Act 1995 or the Fisheries Management Act 1994), and
  - (c) cannot be carried out in a wilderness area (identified under the Wilderness Act 1987).
- (1) Development specified in Schedule 2 that meets the requirements for the development contained in that Schedule and that complies with the requirements of this Part is exempt development.
- (2) To be exempt development, the development:
- (a) must meet the relevant deemed-to-satisfy provisions of the Building Code of Australia, or if those provisions do not apply, must be structurally adequate, and
  - (b) must not, if it relates to an existing building, cause the building to contravene the Building Code of Australia, and
  - (c) must not be designated development, and
  - (d) must not be carried out on land that comprises, or on which there is, an item that is listed on the State Heritage Register under the Heritage Act 1977 or that is subject to an interim heritage order under the Heritage Act 1977, and
  - (e) must not be carried out in an environmentally sensitive area for exempt development, and
  - (f) if it relates to land the subject of a notice under section 28 of the Contaminated Land Management Act 1997 that is in force—must comply with the terms of that notice, and
  - (g) must not be carried out on land comprised in any easement or right of way unless agreed to in writing by the person or authority in whose favour the easement exists, and
  - (h) must not be carried out within 3 metres of a public water or sewer main unless it complies with relevant requirements of the Sydney Water Corporation, and
  - (i) must not contravene any conditions of a development consent currently operating on the land, and
  - (j) must not be likely to result in the disturbance of more than one tonne of soil, or to lower the water table, on land on which acid sulphate soils are present.
- (3) Development that relates to an existing building that is classified under the Building Code of Australia as class 1b or class 2–9 is exempt development only if:
- (a) the building has a current fire safety certificate or fire safety statement, or
  - (b) no fire safety measures are currently implemented, required or proposed for the building.
- (4) In this clause:
- environmentally sensitive area for exempt development means any of the following:
- (a) land in the Western Parklands identified in this or any other environmental planning instrument as being of high biodiversity significance,

**APPENDIX A**  
**Exempt Development Provisions**

- (b) and that is an environmental conservation area shown on the Environmental Conservation Areas Map,
- (c) and identified as being critical habitat under the Threatened Species Conservation Act 1995 or Part 7A of the Fisheries Management Act 1994,
- (d) land that comprises, or on which there is, a heritage item identified in Schedule 1.

## APPENDIX B

### Illumination of Signs

An illuminated sign refers to any sign illuminated by an artificial source. Illuminated signs include variable message signs, neon signs, video and/or animated signs and any sign illuminated by fluorescent and/or incandescent bulbs. The requirements for illuminated signs are:

- (a) The maximum night-time luminance of the signs must be one-quarter of the prescribed values shown below.
- (b) For night time use, the sign (whether internally illuminated or lit from its exterior) must not cast a shadow on areas that were previously lit and that have a special lighting requirement, e.g. pedestrian crossings.
- (c) The light sources for illuminated signs must focus solely on the sign and:
- (d) be shielded so that glare does not extend beyond the sign, and
- (e) with the exception of back lit neon signs, have no light source visible to passing motorists with a light output greater than that of a 65W incandescent bulb.
- (f) The level of reflectance of a sign, and its content, is not to exceed the 'Minimum coefficients of Luminous intensity per unit area for Class 2A Material', as set out in Australian Standard AS/NZS 1906.1:2007. Flashing illuminated signage must not pose a risk to motorists in design and location.

Maximum Allowable Daytime Luminance of Illustrated Advertisements (Source: Transport Corridor Outdoor Advertising and Signage Guidelines, Dept of Planning, 2007)

**TABLE 4: MAXIMUM ALLOWABLE DAYTIME LUMINANCE OF ILLUMINATED ADVERTISEMENTS**

<i>Illuminated Area (sq m)</i>	<i>Zone 1</i>	<i>Zone 2 (cd/sq m)</i>	<i>Zone 3 (cd/sq m)</i>	<i>Zone 4 (cd/sq m)</i>	<i>Zone 5</i>
up to 0.5	no limit	2900	2000	1000	no limit
0.5 to 2.0		2300	1600	800	
2.0 to 5.0		2000	1200	600	
5.0 to 10.0		1500	1000	600	
over 10.0		1200	800	400	

**Luminance** means the objective brightness of a surface as measured by a photometer, expressed in candelas per square meter.

**Zone 1** covers areas with generally very high off-street ambient lighting, e.g. display centres similar to Kings Cross, central city locations

**Zone 2** covers areas with generally high off-street ambient lighting eg. some major shopping/commercial centres with a significant number of off-street illuminated advertising devices and lights.

**Zone 3** covers areas with generally medium off-street ambient lighting e.g. small to medium shopping/commercial centres.

**Zone 4** covers areas with generally low levels of off-street ambient lighting e.g. most rural areas, many residential areas.

**Zone 5** covers areas within underground railway stations and areas fully contained within station buildings which are visible only from within the Rail Corridor.



**APPENDIX C**  
**Road Safety Assessment Criteria**

Extract from Transport Corridor Outdoor Advertising and Signage Guidelines, July 2007.

**3.2 ROAD SAFETY ASSESSMENT CRITERIA**

**3.2.1 Sign location and design**

- (a) An advertisement must not obstruct the driver's view of the road particularly of other vehicles, bicycle riders or pedestrians at crossings.
- (b) An advertisement must not obstruct a pedestrian or cyclist's view of the road.
- (c) The placement of a sign should not distract a driver at a critical time. In particular, signs should not obstruct a driver's view:
  - (i) to a road hazard,
  - (ii) to an intersection,
  - (iii) to a traffic control device (such as traffic signals, stop or give way signs or warning signs) or
  - (iv) to an emergency vehicle access point or Type 2 driveways (wider than 6–9 metres) or higher.
- (d) The advertisement must not distract a driver from or reduce the visibility and effectiveness of directional signs, traffic signals, other traffic control devices, regulatory signs or advisory signs or to obscure information about the road alignment.
- (e) The advertisement should not be located in a position that has the potential to give incorrect information on the alignment of the road. In this context, the location and arrangement of sign structures should not give visual clues to the driver suggesting that the road alignment is different to the actual alignment. An accurate photo-montage should be used to assess this issue.
- (f) A sign should not be located:
  - (i) less than the safe sight distance from an intersection, merge point, exit ramp, traffic control signal or sharp curves.
  - (ii) less than the safe stopping sight distance from a marked foot crossing, pedestrian crossing, pedestrian refuge, cycle crossing, cycleway facility or hazard within the road environment.
  - (iii) so that it is visible from the stem of a T-intersection.

## APPENDIX C

### Road Safety Assessment Criteria

**Note:** The minimum sight distance requirements for the design speed of the road must be met for road hazards (stopping sight distance), emergency vehicle access points and driveways (approach sight distance) and intersections (safe intersection sight distance). Refer to the *RTA Road Design Guide* for minimum stopping sight distances, minimum approach and safe intersection sight distances.

**Design speed** means a nominal speed fixed to determine the geometric features of a road. In the context of sight distances, the design speed is taken as the higher of the posted speed limit or the 85th percentile speed.

- (g) The advertisement must not interfere with stopping sight distance for the road's design speed or the effectiveness of a traffic control device. For example:
  - (i) Could the advertisement be construed as giving instructions to traffic such as 'Stop' or imitate a traffic control device?
  - (ii) If the sign is in the vicinity of traffic lights, does the advertisement use flashing lights?
- (h) The advertisement should not distract a driver's attention away from the road environment for an extended length of time. For example:
  - (i) The sign should not be located in such a way that the driver's head is required to turn away from the road and the components of the traffic stream in order to view its display and/or message. All drivers should still be able to see the road when viewing the sign, as well as the main components of the traffic stream in peripheral view.
  - (ii) The sign should be oriented in a manner that does not create headlight reflections in the driver's line of sight. As a guideline, angling a sign five degrees away from right angles to the driver's line of sight can minimise headlight reflections. On a curved road alignment, this should be checked for the distance measured back from the sign that a car would travel in 2.5 seconds at the design speed.
- (i) The advertisement must not create a physical obstruction or hazard. For example:
  - (i) Does the sign obstruct the movement of pedestrians or bicycle riders? (e.g. telephone kiosks and other street furniture along roads and footpath areas).

- (ii) Does the sign protrude below a bridge or other structure so it could be hit by trucks or other tall vehicles? Will the clearance between the road surface and the bottom of the sign meet appropriate road standards for that particular road?

- (iii) Does the sign protrude laterally into the transport corridor so it could be hit by trucks or wide vehicles?

**Note:** Where advertising structures hang over the road, the minimum vertical clearance should be the same as other structures in that road environment. Generally, the sign should have a vertical clearance equal or greater than the overpass, tunnel portal or pedestrian bridge. However in cases where these structures exceed the minimum vertical clearance specified for the particular type of road, the sign may protrude below the bridge or other structure.

If the minimum vertical clearance for other surrounding structures is not known then a minimum vertical clearance of 5.3 metres is to be used for the sign structure. However on high performance motorways, the minimum clearance may be 5.8m or more.

See also **Section 2.5.5 Bridge signage criteria** for minimum road clearance criteria.

- (j) Where the sign supports are not frangible (breakable), the sign must be placed outside the clear zone as defined in Section 3.7 of the RTA's *Road Design Guide* or behind an RTA-approved crash barrier.

Where a sign is proposed within the clear zone but behind an existing RTA-approved crash barrier, all its structures up to 5.3m in height (relative to the road level) are to comply with lateral clearances as specified by Section 6 of the RTA's *Road Design Guide* with respects to dynamic deflection and working width.

**Note:** *Clear zone* means the total roadside border area, starting at the edge of the travelled way, available for safe use by errant vehicles and the display of traffic control signs. This area may consist of a shoulder, a recoverable slope, a non-recoverable slope and/or a clear run-out area. The minimum clear zone width is dependent upon the speed environment and roadside geometry.

- (k) All signs that are permitted to hang over roads or footpaths should meet wind loading requirements as specified in AS 1170.1 and AS1170.2. All vertical clearances as specified above are regarded as being the height of the sign when under maximum vertical deflection.



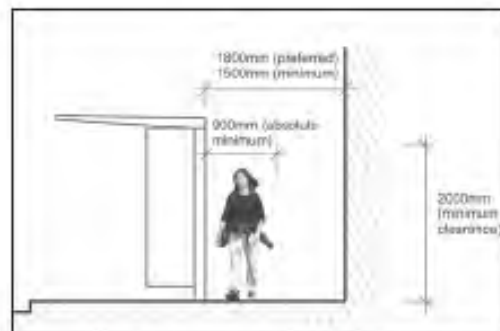
## APPENDIX C

### Road Safety Assessment Criteria

- (i) The location of a sign on footpaths or nature strips must meet the following criteria to ensure adequate clearance for pedestrian and wheel chair access.

A sign must be positioned so that an absolute minimum envelope of 900 millimetres x 2000 millimetres of unobstructed clear path of travel is maintained for the entire length of the advertising structure (see figure below).

Further advice is also available from the RTA in relation to sign posting in certain locations such as hospitals, regional shopping centres and tourist areas.



MINIMUM UNOBSTRUCTED CLEAR PATH OF TRAVEL ON FOOTPATHS AND NATURE STRIPS.



SIGNS WILL BE ASSESSED AGAINST SAFETY CRITERIA TO ENSURE THAT THEY DO NOT OBSCURE OR OTHERWISE ALTER THE EFFECTIVENESS OF ANY ADJACENT TRAFFIC CONTROL DEVICE.

### 3.2.2 Variable messaging signs

Variable messaging signs will only be approved if they meet the following criteria, in addition to other criteria in this Policy:

- The speed limit of the road must not be greater than 70 kilometres per hour
- The time to change the display must not be greater than 1 second
- The display must be completely static from its first appearance to the commencement of a change to another display
- The level of illumination must adjust according to ambient light levels;
- The sign must not contain any scrolling messages (i.e. displayed text or graphics which moves up, down or across the screen so that a line of text or graphics appears at one edge of the screen for each line that moves off the opposite edge).

Further policy advice in relation to variable message signs is available in the RTA document *Guidelines for the location and placement of Variable Message Signs* (Ref TDT 2005/02).

### 3.2.3 Moving signs

Moving signs that face the road reserve and are visible to drivers will only be approved when they meet all of the following criteria, in addition to other criteria in this Policy:

- The speed limit of the road must be no greater than 70 kilometres per hour.
- The display must be completely static from its first appearance to the commencement of a change to another display.
- The driver should not expect to see more than one (1) message in the period of exposure, during normal driving conditions.

### 3.2.4 Video and animated electronic signs

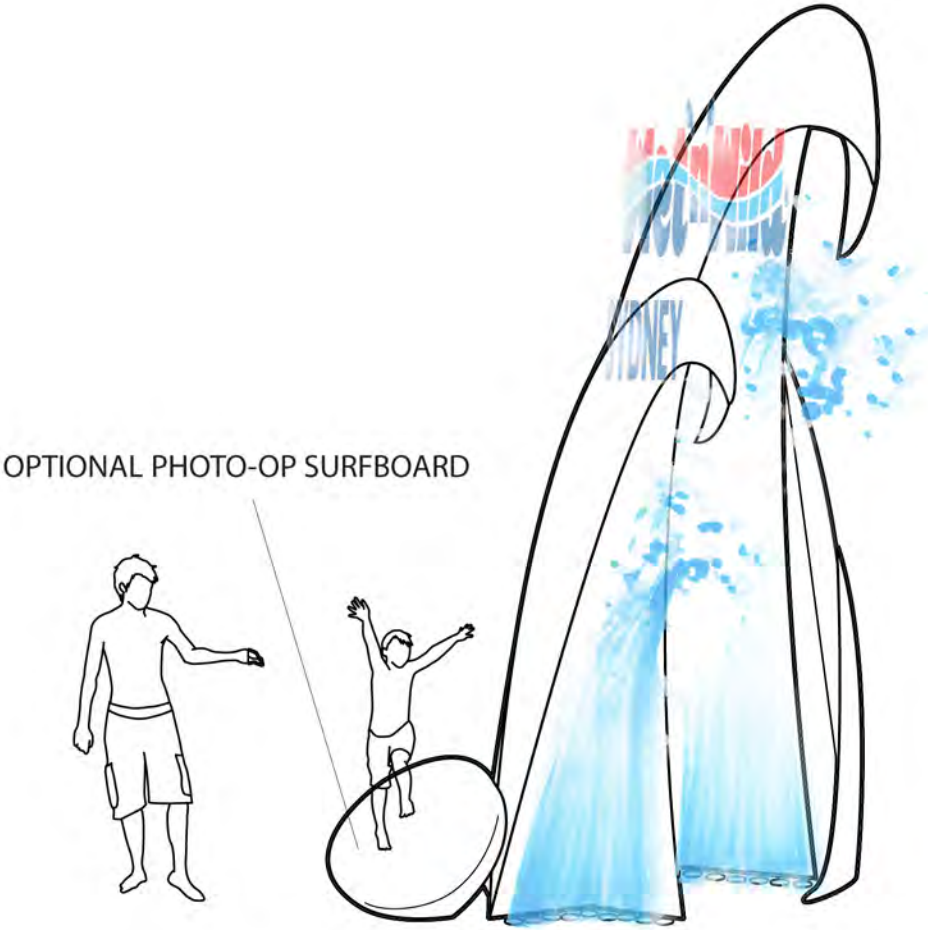
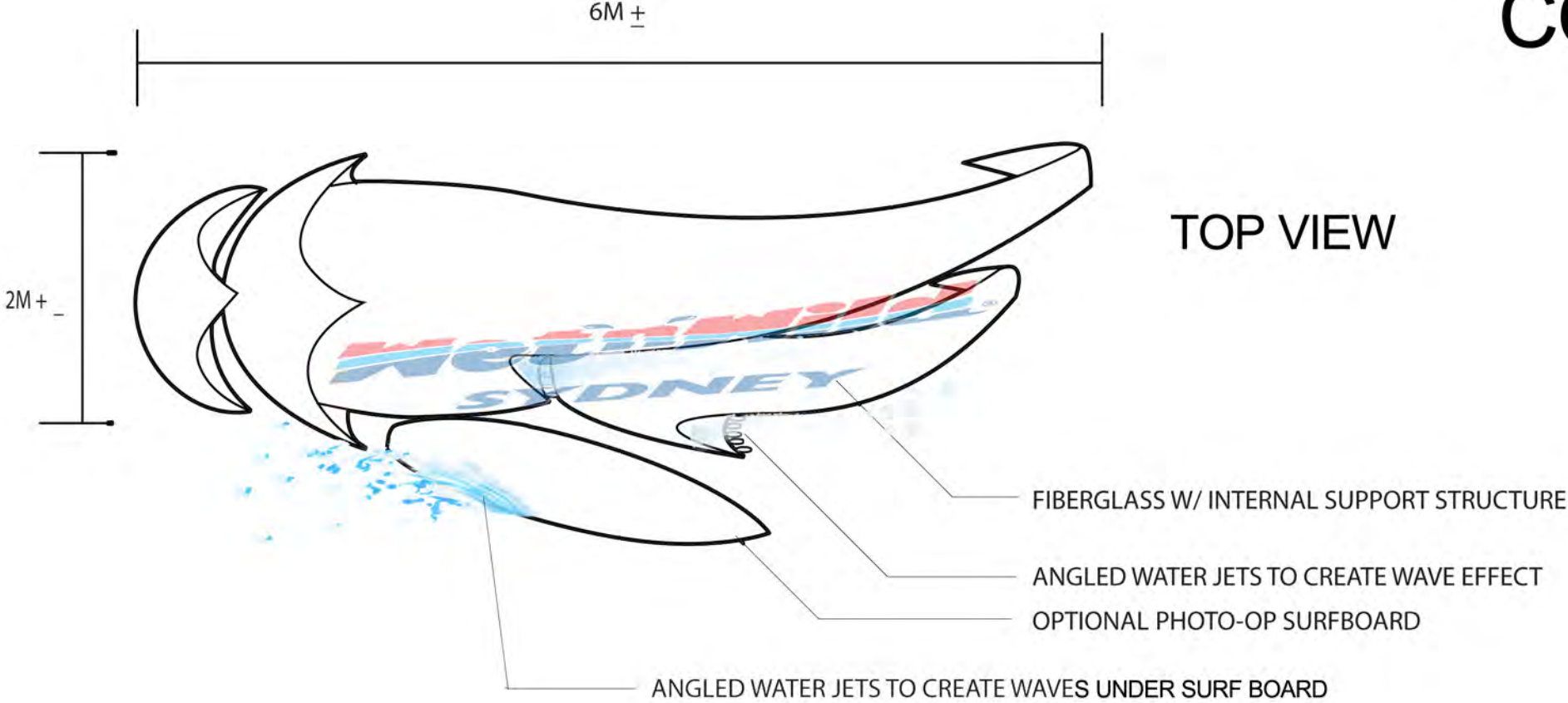
Video and animated signs, including any signs which contain any portion of video and/or animated content, will not be approved if facing the road reserve and visible to drivers.

**APPENDIX C**  
**Road Safety Assessment Criteria**

DRAFT

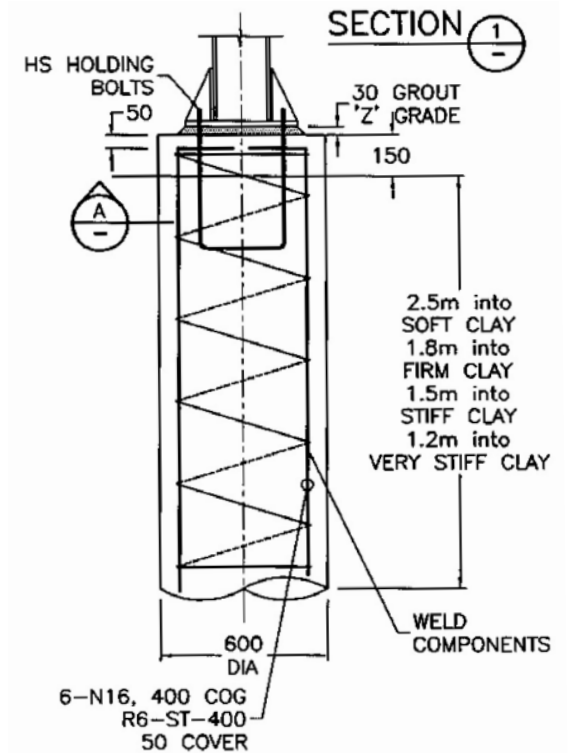
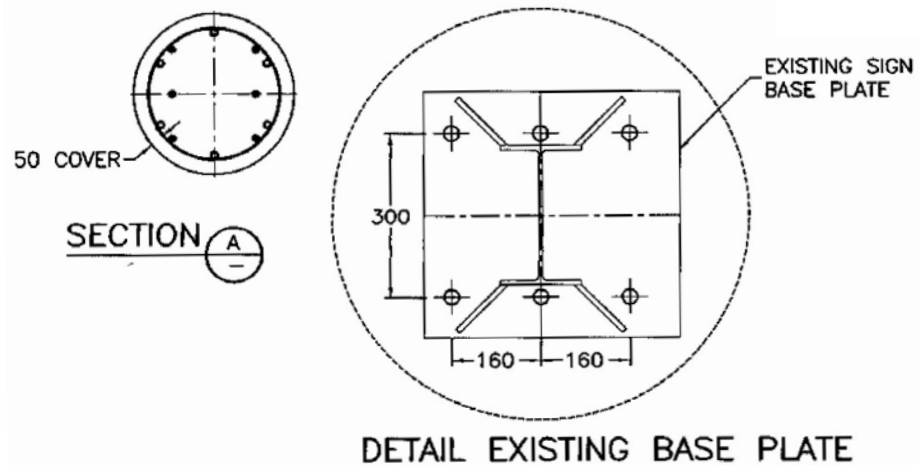
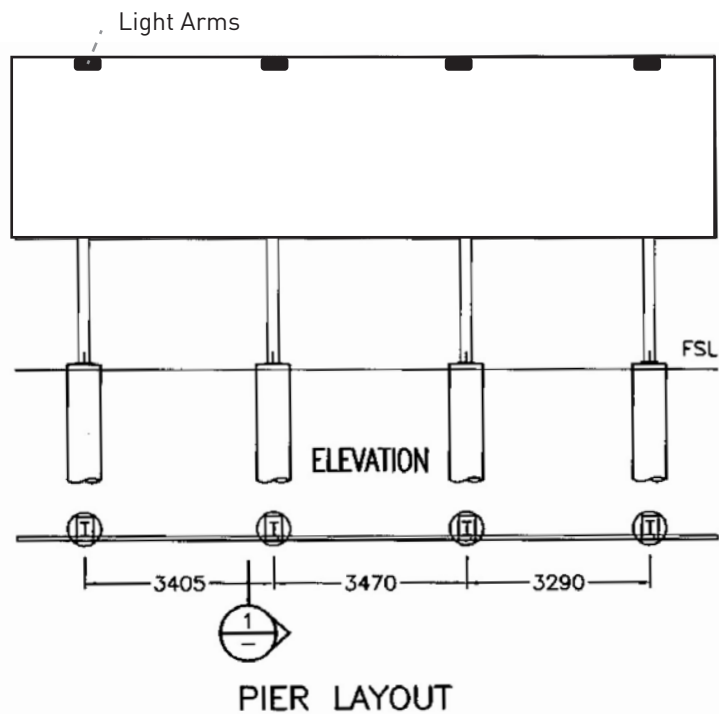
# CONCEPT 1 OPTION A

PRELIMINARY  
NOT FOR CONSTRUCTION



REV	ISSUED FOR CLIENT REVIEW			NOV 26, 2010		PE
DESIGNED BY	BM	DATE	NOV 25/2010	PROJ. ENG. CHECK	DATE	
DRAWN BY		DATE		DRAFTING CHECK	DATE	
SCALE	1:2000			ARCHIVE	FILE No.	
NOTE:- METRIC DIMENSIONS ALL ELEVATIONS AND CO-ORDINATES ARE IN METRES ALL OTHER DIMENSIONS ARE IN MILLIMETRES						
<h1>WHITE WATER</h1> <p>WhiteWater West Industries Ltd 6700 McMillan Way, Richmond, B.C. Canada V6W 1J7 Tel (604) 273-1068 Fax (604) 273-4518</p>						
<h2>SINAGE OPTIONS</h2> <p>WET 'n' WILD WATERPARK SYDNEY, AUSTRALIA</p>						
PROJECT No.		DRAWING No.			REVISION	
16156		SD-			-	





**Sign Type:** Free-standing Billboard  
**Size:** 12.66m wide x 3.3 m high  
**Material:** Manufactured Steel Structure

**Wizardry**  
 IMAGING & SIGNS

13 Yulong Close, Moorebank 2170  
 P. 9821 7600 F. 9821 7666

Prospect Aquatic  
Investments Pty Ltd

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**Sydney Water Theme  
Park**

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Site Access  
Arrangements and  
Directional Signposting

DRAFT 1

ARUP

Prospect Aquatic  
Investments Pty Ltd

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## **Sydney Water Theme Park**

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Site Access  
Arrangements and  
Directional Signposting

September 2009

Arup  
Arup Pty Ltd ABN 18 000 966 165



**Arup**  
Level 10 201 Kent Street, Sydney NSW 2000  
Tel +61 2 9320 9320 Fax +61 2 9320 9321  
[www.arup.com](http://www.arup.com)

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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 206043

Job title	Sydney Water Theme Park	Job number
		206043
Document title	Site Access Arrangements and Directional Signposting	File reference

Document ref

Revision	Date	Filename	0008Signage Report.doc		
Draft 1	30/09/09	Description	First draft		
			Prepared by	Checked by	Approved by
		Name	John Hanlon	John Hanlon	Andrew Hulse
		Signature			
		Filename			
		Description			
			Prepared by	Checked by	Approved by
		Name			
		Signature			
		Filename			
		Description			
			Prepared by	Checked by	Approved by
		Name			
		Signature			
		Filename			
		Description			
			Prepared by	Checked by	Approved by
		Name			
		Signature			

Issue Document Verification with Document





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Table 3	Major Tourist Attractions – Guidelines for Signing

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# 1 SITE ACCESS ARRANGEMENTS

The following is a preliminary discussion on possible site access arrangements for the proposed Sydney Water Theme Park. It is based on the assumption that access will be from Reservoir Road.

## 1.1 Intersection Location

An inspection of the site and surrounding area reveals three broad options for vehicular access from Reservoir Road:

- Intersection to the western end of the site on a straight section of Reservoir Road
- Use of Watch House Road, at the eastern end of the site, including an upgrade of the Reservoir Road / Watch House Road intersection
- A combination of these two options.

## 1.2 Internal Access Arrangements

The design of the Reservoir Road site access is dependent on the internal layout of the theme park. For example, the following features must be integrated into the overall design - main car park, staff car park, overflow car park, service vehicle access, drop off/pick up zone, coach parking, potential future developments etc. The presence of multiple site access points as part of the masterplan would influence the design of each individual intersection.

## 1.3 Layout Options

For the purposes of this preliminary assessment a single generic access arrangement has been designed. It assumes that all public traffic would use this access.

On the basis of likely usage in terms of number and type of vehicles, two main generic control arrangement options are available:

### 1.3.1 Priority-controlled junction

A priority-controlled (give way) junction would be the simplest form of intersection control. A right turn bay should be provided for vehicles approaching from Reservoir Road East and a left turn deceleration lane for vehicles approaching from Reservoir Road West. The exit from the site should have two lanes, for at least a short distance, to separate left and right turning traffic, so that right turning traffic does not block left turning traffic. The left turn lanes could be enhanced by conversion to slip lanes with islands.

### 1.3.2 Roundabout

A roundabout is an effective form of traffic control when flows are low to medium. A single lane roundabout with two lanes on the site exit would be adequate, although a left turn slip lane exiting the site could be considered. A roundabout would provide a good means of managing the two critical movements – the right turn into the site and right turn out of the site. A roundabout would cost more than a priority junction and involve greater land area, but would have the advantage of providing a more noticeable access point.

### 1.3.3 Preferred Option

The two layout options were compared and the priority-controlled junction was found to be the preferred option in terms of serving the needs of the development.

## 1.4 Capacity Analysis

Traffic generation forecasts, for a range of patronage scenarios, were previously undertaken by Arup and have been documented elsewhere.

Traffic associated with the site will be subject to a relatively high peaking factor, i.e. a relatively high proportion of daily traffic will enter the site during the mid-morning and a relatively high proportion of daily traffic will exit the site in the late afternoon.

Background traffic volumes on Reservoir Road are relatively low but are likely to gradually increase in the future as development of Greystanes Estate occurs.

The forecast peak site traffic flows, based on previous work, are presented in Table 1.

**Table 1 Forecast Peak Traffic Flows**

Turning Movement	Traffic Volume (vph)	Scenario / Time Period
Reservoir Road – left in	153	AM Weekday (9-10 am)
Reservoir Road – right in	141	AM Weekday (9-10 am)
Site Access – left out	179	PM Weekday (4-5 pm)
Site Access – right out	193	PM Weekday (4-5 pm)

vph – vehicles per hour

The values above assume a split of 52% via Reservoir Road West and 48% via Reservoir Road East as previously documented.

It is noted that site traffic volumes on weekends may be slightly higher than on weekdays (refer to previous report). However, the weekday peaks are generally more critical for intersection operation because of higher Reservoir Road non-site traffic volumes.

For the purposes of undertaking a conservative intersection analysis, the Reservoir Road flows and site traffic forecasts have been increased by 20%.

The capacity analysis suggests that the priority junction layout would operate at a good level of service. There would be minimal impact on non-site traffic along Reservoir Road. Vehicles entering the site would not be subject to significant delays. Assuming the peak exit flows can be reasonably spread-out, i.e. so that a wave of people do not leave the site almost simultaneously, the intersection delay to vehicles leaving the site is modelled to be less than one or two minutes. However, this conclusion is highly dependent on the 'peaking' factor of vehicles leaving the site and the theme park's management would introduce a range of measures to minimise any peaking.

## 1.5 Indicative Layout

An indicative layout for a priority-controlled junction is shown in Figure 1. For the purposes of this assessment the intersection has been shown to the western end of the site on a straight section of Reservoir Road.

Figure 1 Indicative Intersection Layout





## 2 DIRECTIONAL SIGNPOSTING

### 2.1 Introduction

There are a range of different types of road signs used to perform a variety of functions. Signs used in Australia are governed by *Australian Standard 1742 – Manual of Uniform Traffic Control Devices* and supplemented by additional state regulations.

Signs are classified by function as shown in Table 2 (source: *AS 1742.1 – Manual of Uniform Traffic Control Devices, Part 1: General introduction and index of signs*).

**Table 2 Sign Classification and Function**

Class	Function
Regulatory signs (Type R)	To regulate the movement of traffic by indicating when or where a legal requirement applies, failure to comply with which constitutes an offence.
Warning signs (Type W)	To warn road users of unexpected or hazardous conditions on or adjacent to the road.
Guide signs (Type G)	To inform and advise road users of directions, distances, destinations, routes, non-regulatory traffic instructions, the location of services for road users, and points of interest.
Freeway guide signs (Type GE)	To inform and advise road users on freeways of directions, distances, destinations, routes, non-regulatory traffic instructions, the location of services for travellers and other points of interest.
Temporary signs (Type T)	To control, warn and guide road users safely through, around or past work sites on roads and footpaths and to warn and advise of other temporary hazardous conditions which could endanger road users.
Hazard markers (Type D)	To delineate a marked change in the direction of travel or to emphasize the presence of an obstruction.

Source: *AS 1742.1 – Table 1.1*

Signs are an essential part of the road traffic system and their message should be consistent. Design and placement should be coordinated with the road geometric design. Traffic signs need to be presented in a standardized form and location which will assert their authority as providers of essential and unbiased directions and information.

Guide signs (Type G) inform and advise road users about the route they are following and give directions and distances to destinations on the route or along other roads which intersect the route. They also supply information to identify points of geographical or historical interest and give directions to motorists' services and tourist facilities and attractions<sup>1</sup>.

### 2.2 Objective

A preliminary guide sign plan has been developed to direct motorists from the surrounding main road network to the proposed Sydney Water Theme Park. The site is located on Reservoir Road, which is not part of the main road network, and will need good, clear signage to direct motorists from roads such as the Western Motorway (M4), M7 and Great Western Highway. Motorways in particular, with limited access points, require clear signage to major destinations.

<sup>1</sup> AS 1742.1 – Section 4.2



The guidelines for signing different types of tourist attraction are listed in Table 3.3 of *AS 1742.6 Manual of Uniform Traffic Control Devices, Part 6: Tourist and service signs*, as reproduced below.

**Table 3 Major Tourist Attractions – Guidelines for Signing**

Attraction	Qualification requirements
Major tourist establishment or theme park	To be classified by the state or territory tourist authority as a significant tourist attraction, and including aggregations of like establishments.
National and state parks	Tourist facilities to be available.
Major water storages and aquatic resort areas	Recreational facilities to be provided for tourists, and a significant number of visiting vehicles to be attracted on a typical weekend day or holiday in the appropriate season.
Alpine resorts	As for aquatic resort areas. See Note 1.
Historic towns	Town to be identified and listed by the appropriate authority. See Note 2.

Source: *AS 1742.6 – Table 3.3*

It is assumed that under the provisions of *AS 1742.6*, the Sydney Water Theme Park would be classified as a “major tourist attraction” by the relevant NSW authorities. *AS 1742.6* states that, “signing to major tourist attractions may be on a more generous scale than that provided for elsewhere in this Section.”

## 2.3 Guide Sign Plan

On the basis of the information presented above, an indicative guide sign plan for the Sydney Water Theme Park has been developed as presented in Figure 3 and Figure 4.

The sign plan is based on existing guide signs in the vicinity of the site, and on existing signs serving Wet N Wild Gold Coast, particularly along the Pacific Motorway. The sign plan overlays a possible Sydney Water Theme Park logo on photos of existing signs at key locations such as:

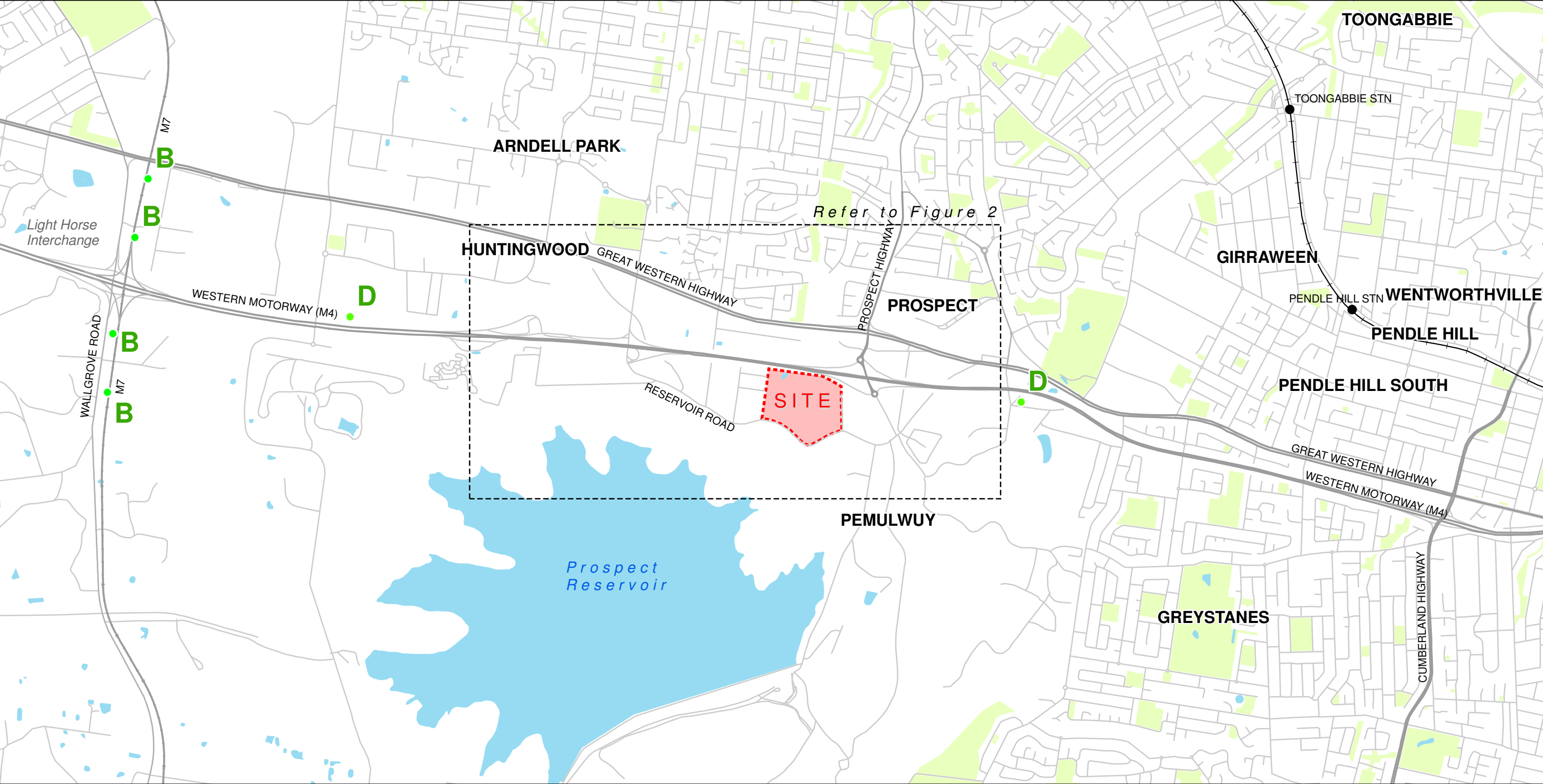
- advance warning of motorway exits (type D)
- motorway exits (type B)
- motorway interchanges (type A)
- other critical intersections (type C)

Indicative sign types, based on actual existing signs, are shown in Figure 2.

Figure 2 Indicative Sign Types



Figure 3



Indicative Signage Types

● TYPE A

● TYPE B

● TYPE C

● TYPE D

● Gold Coast Example

Level 10/201 Kent Street  
PO Box 76 Millers Point  
Sydney, 2000  
Tel +61 (0) 9220 9320  
Fax +61 (0) 9220 9321  
www.arup.com

Scale at A3  
1:30,000

Coordinate System  
GDA94 MGA Zone 56

Client  
Prospect Aquatic Investments Pty Ltd

Job Title  
Sydney Water Park

Drawing Title  
Guide Sign Strategy - Preliminary

P1	23-09-09	DD	CL	JH
Issue	Date	By	Chkd	Appd

Job No  
206043

Figure No  
001

Metres  
0 200 400 800



Figure 4



Indicative Signage Types

● TYPE A

● TYPE B

● TYPE C

● TYPE D

● Gold Coast Example

Level 10 201 Kent Street  
PO Box 76 Millers Point  
Sydney, 2000  
Tel +61 (2) 9320 9320  
Fax +61 (2) 9320 9321  
www.arup.com

Scale at A3  
**1:10,000**

Coordinate System  
**GDA94 MGA Zone 56**

Client  
**Prospect Aquatic Investments Pty Ltd**

Job Title  
**Sydney Water Park**

Drawing Title  
**Guide Sign Strategy - Preliminary**

P1	23-09-09	DD	CL	JH
Issue	Date	By	Chkd	Appd

Job No  
**206043**

Figure No  
**002**

Metres  
0 50 100 200

N