

## **PROSPECT AQUATIC INVESTMENTS**

# **WET 'N' WILD SYDNEY**

## **ACCESS REVIEW**

**Morris-Goding Accessibility Consulting**

**DRAFT**

17<sup>th</sup> January 2011

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## 1. EXECUTIVE SUMMARY

The Access Review Report is a key element in the design development of the Wet 'n' Wild water theme park and an appropriate response to the AS1428 series, Building Code of Australia (BCA), and ultimately the Commonwealth Disability Discrimination Act (DDA).

Morris-Goding Accessibility Consulting has prepared the Access Report to provide advice and strategies to maximise reasonable provisions of access for people with disabilities. The development has been reviewed to ensure that ingress and egress, paths of travel, circulation areas, common and staff areas, car parking and toilet amenities comply with relevant statutory guidelines.

In general, there are accessible paths of travel that are continuous throughout the development. Access will be provided to the majority of water theme park rides and attractions and ancillary support buildings. Due to inherent health and safety regulations some 'high thrill' rides may not be fully accessible to people with disabilities. In these cases appropriate adjacent viewing areas will be provided to enable equitable participation and proximity to the experience in line with DDA Access Code.

In line with the report's recommendations, the proposed development has demonstrated an appropriate degree of accessibility. The Part 3A Concept Plan Application drawings indicate that compliance with statutory requirements, pertaining to site access, common area access, accessible car parking and sanitary facilities can be readily achieved.

It is advised that the provisions of the DDA Access to Premises Standards 2010 (DDA Access Code) are due to be inserted into the BCA from 1 May 2011. The provisions of the DDA Access Code will from that date onwards thereby become mandatory for new building work. As it is anticipated that the construction certificate for this project is to be granted on or after 1 May 2011, the immediate adoption of the recommendations in this report that have been made in accordance with the DDA Access Code is advised.

The recommendations in this report are associated with detailed design. These recommendations should be addressed prior to construction certificate.

The main recommendations that have arisen from the access review include:

- (i) Provide 1m wide access-way at exit turnstiles (retail shop) as required by DDA Access Code and AS1428.1:2009.
- (ii) Provide 1 unisex accessible public toilet facility in each of the main food service, beer bar, food & beverage satellites and ticket booth/guest support buildings as required by DDA Access Code Table F2.4 and AS1428.1:2009.
- (iii) Provide 1 unisex accessible staff combined toilet/shower facility in administration building as required by DDA Access Code Table F2.4 and AS1428.1:2009.
- (iv) Provide 1 ambulant cubicle in the male and female toilets in main change rooms and main food service building to satisfy DDA Access Code and AS1428.1:2009.
- (v) Provide 1 accessible car parking space (sealed) in staff car park for visitors/staff with a disability in line with DDA Access Code Table D3.5 and AS2890.6:2009.

## **2. INTRODUCTION**

### **2.1. General**

Prospect Aquatic Investments Pty. Ltd. has engaged Morris-Goding Accessibility Consulting, to provide a design review of the proposed Wet 'n' Wild water theme park located at Reservoir Road, Prospect.

The development aims to provide a world class water theme park, entertainment and recreation destination that will cater for visitors, tourists, business, the general public and the residents of Western Sydney.

The proposed development site has an area of approx. 25.5 hectares and is bound by the M4 Western Motorway, Reservoir Road and Watch House Road. The Part 3A Concept Plan Application (No.MP10\_0190) seeks approval for the design, construction and operation of Stages 1 & 2, and Stage 3 future development.

Stages 1 & 2 include the majority of the development and include: water theme park rides/attractions, ancillary park support buildings/facilities, staff/maintenance area, landscaping, external domain areas, and on-site car-parking.

Stage 3 includes a future expansion area (approx. 2.5 Ha) to be developed to the east of the site, along Watch House Road.

The requirements of the investigation are to:

- Review supplied drawings of the proposed Stage 1 & 2 development ,
- Provide a report that will analyse the provisions of disability design, and
- Recommend solutions that will ensure the design complies with the Disability Discrimination Act (DDA), Building Code of Australia (BCA) and AS 1428 series.

### **2.2. Objectives**

The Report considers user groups which include visitors: both individual and organised groups, tourists, staff, and the general public. The Report attempts to deliver equality, independence and functionality to people with disabilities inclusive of:

- People with sensory impairment (hearing and vision)
- People with mobility impairments (ambulant and wheelchair)
- People with dexterity impairments

The Report seeks to provide compliance with the DDA. In doing so, the Report attempts to eliminate, as far as possible, discrimination against persons on the ground of disability and ensure, as far as practicable, that persons with disabilities have the same rights to equality before the law as the rest of the community.

### **2.3. Statutory Requirements**

The following standards are to be used to implement the Report:

- Federal Disability Discrimination Act (DDA)
- DDA Access to Premises Standards (DDA Access Code)
- Building Code of Australia (BCA) Part D3
- AS 1428.1:2009 - (General Requirements for Access)
- AS 1428.2:1992 – (Enhanced Requirements for Access)
- AS 1428.4.1:2009 - (Tactile Ground Surface Indicators)
- AS 2890.6:2009 - (Car Parking)
- NSW Government Planning Director General's Requirements (MP10\_0190)
- Blacktown Council DCP (2006)

### **3. INGRESS & EGRESS**

#### **3.1. Entry Plaza/Park Entry Turnstiles**

Pedestrian access to the development is from the entry forecourt and entry plaza. The kerb ramps from the primary car park to the entry forecourt ensure continuous access for people using wheelchairs.

The main public entrance is through a colonnade and 3 wide openings at the ticket booth area. There are appropriate level surface transitions between all areas.

A curved walkway leads down from the plaza to the park entry turnstiles. The walkway appears to provide 1800mm min. clear width with a gradient of 1:26, compliant with AS1428.1:2009. It has approx. 65m length with no level landings provided as rest areas. As it has a gradient steeper than 1:33, this requires review for compliance with AS1428.1:2009.

The park entry incorporates 12 x turnstiles and 2 x stroller accesses at either side. The wider access-ways provide 1000mm min. clear width which will ensure appropriate access for people using wheelchairs, compliant with AS1428.1:2009.

There appears to be appropriate paths of travel from the entry plaza to the park entry turnstiles with circulation areas that will allow people using wheelchairs the ability to pass each other when travelling in opposite directions and turn 180 degrees in line with the draft DDA Premises Standards and AS1428.1:2009.

##### *Recommendations:*

- (i) Ensure kerb ramps to entry forecourt are compliant with AS1428.1:2009.
- (ii) Ensure all walkways with gradients steeper than 1:33 provide level landings (1200mm min. length) at appropriate intervals, compliant with AS1428.1:2009. The 1:26 gradient curved walkway requires level landings every 19.6m.

#### **3.2. Group Entry**

The main entrance to the development for organised groups is via a level walkway, to the south of entry plaza. Entry is via a hinged double doorway which provides approx. 2000mm combined clear width and circulation areas compliant with AS1428.1:2009.

The walkway provides appropriate circulation areas that will allow people using wheelchairs the ability to pass each other when travelling in opposite directions and turn 180 degrees in line with the draft DDA Premises Standards and AS1428.1:2009.

At this stage the drawings do not indicate the RL levels at doorway threshold areas.

##### *Recommendation:*

- (i) Ensure level thresholds at doorway entry with a maximum 1:40 gradient, compliant with AS1428.1:2009.

### **3.3. Park Exit (via Retail Shop)**

Pedestrian egress from the development is via the retail shop. There appears to be level access from the plaza via a garage door opening with suitable clear width.

The park exit incorporates 6 x turnstiles with no alternative wider access to enable appropriate egress from the development for people with disabilities. This is an access barrier and requires review for compliance with DDA Access Code and AS1428.1:2009.

From outside the park exit turnstiles, appropriate egress is provided up the same curved entry pathway, plaza and entry plaza used to enter the development.

*Recommendations:*

- (i) Ensure level entry thresholds to retail shop with a maximum 1:40 gradient, compliant with AS1428.1:2009.
- (ii) Provide at least one wider access-way, at least 1000mm min. clear width adjacent to exit turnstiles to ensure an accessible path of travel for people using wheelchairs, compliant with AS1428.1:2009 and DDA Access Code.

### **3.4. Staff/Maintenance Vehicular Entry (Watch House Road)**

The staff entry to the development is at the east of the site via Watch House Road. This back of house area includes maintenance/storage/service, administration building, staff facilities and staff car parking areas.

Entry is via an internal roadway with wide hinged double doors with suitable clear width. An additional set of double doorways provides access to the public area of the water theme park from back of house area. Due to their size, both sets of entry/egress doors are presumed to be automated to enable pedestrian/vehicular access.

At this stage the drawings do not provide details of the RL levels in this area.

### **3.5. Emergency Egress**

The support facilities, safety and security plan indicates the proposed ambulance access/egress to the water theme park is via the group entrance.

The emergency egress fire route for the water theme park is via the 6.0m wide arterial access-way which extends throughout the key areas of the public and staff areas of the site. This access-way provides an appropriate means of accessible emergency egress, with gradients and pathway widths compliant with AS1428.1:2009.

The staff entry (Watch House Road) provides the main accessible egress point from the east of the site with the main public entries: at entry plaza and group entry providing alternative means of accessible emergency egress from the west of the site.

*Recommendations:*

- (i) Ensure the emergency alarm systems have provision for visual and audio warnings and signals.
- (ii) Consider preparation of an Emergency Management Plan which would include assistance for people with a disability (best practice).



## **4. PATHS OF TRAVEL**

### **4.1. General**

In general, there are accessible and continuous paths of travel throughout the water theme park from the main entry points to the majority of the rides and attractions and ancillary park support buildings and facilities.

From the park entry turnstiles there is direct access to the plaza and adjacent main change room building. The plaza is a pivotal circulation zone and provides an important viewing point over the main attraction: the 'Boomerang Bay' surf wave pool area.

The plaza is located on a 6.0m wide arterial access-way, which provides a continuous and accessible path of travel for pedestrians from the north of the site around the surf wave pool and to the staff/maintenance area in the east. The drawing RL's indicate it has appropriate walkway and level gradients ranging from 1:33-1:50, compliant with AS1428.1:2009.

The arterial access-way feeds into secondary paths of travel which link the key attraction zones including: 'Boomerang Bay' surf wave pool and associated cabanas/lounge areas (central), group picnic areas and special events lawn (south west), themed children's area (south), lazy/adventure river areas (south-east).

Generally, the secondary paths of travel provide 1800mm min. clear width, which is suitable in allowing two wheelchair users the ability to easily pass one another in accordance with AS1428.1:2009 and the DDA Access Code.

In some areas, such as the group picnic and beach sand lounge there are paths of travel which have a reduced 1000mm min. clear width, compliant with AS1428.1:2009. At this stage the drawings do not detail RL levels of the ground surface adjoining the walkways travel however it is presumed that they extend at same grade.

#### *Recommendations:*

- (i) Ensure all pedestrian paths of travel (including all ramps, stairways etc.), provide a suitably, hard surfaced area with appropriate slip-resistance, traversable by people with disabilities, compliant with AS/NZS 4568.
- (ii) Ensure all walkways have a gradient no steeper than 1:20 with a cross-fall no steeper than 1:40, compliant with AS1428.1-2009.
- (iii) Ensure appropriate landings/rest areas along all walkways with gradients steeper than 1:33, compliant with AS1428.1-2009.
- (iv) Ensure the ground surface abutting all exposed walkways (ie. not bounded by a kerb, kerb/handrail or low height wall) extends 600mm with a firm and level surface, compliant with AS1428.1:2009.

### **4.2. Ramps**

There are various ramps located along the pedestrian paths of travel of the development, in particular within the 'Boomerang Bay' sand lounge areas.

In general, the ramps are curved and appear to have at least 1500mm clear width with gradients between 1:14 and 1:20, compliant with AS1428.1:2009.

As the development is required to be accessible by DDA Access Code Table D3.1, all ramps (except fire-isolated ramps) are required to be compliant with AS1428.1-2009.

*Recommendations:*

- (i) Ensure all ramps are suitably set back from traverse paths of travel to accommodate handrail extensions, compliant with AS1428.1:2009.
- (ii) Ensure all ramps have gradients no steeper than 1:14 with 1200mm min. level landings provided at required intervals, compliant with AS1428.1:2009.
- (iii) Ensure all ramps (ie. gradients between 1:14-1:20) have handrails and kerb rails provided on both sides, compliant with AS1428.1-2009.
- (iv) Provide TGSI's at top and bottom of all ramps, compliant with the BCA part D3.8 and AS1428.4.1:2009

#### **4.3. Stairways**

There are various stairways located along the pedestrian paths of travel of the development, in particular within 'Boomerang Bay' sand lounge areas and near the 'Lazy/Adventure River'.

Within 'Boomerang Bay', alternative accessible paths of travel or equivalent areas are provided that will ensure appropriate access people using wheelchairs. Further information is required to determine the accessibility of the 'Lazy/Adventure River'.

In general, the stairs appear to be appropriately set back and have adequate clear widths, compliant with AS1428.1:2009.

As the development is required to be accessible by DDA Access Code Table D3.1, all stairs (except fire-isolated ramps) are required to be compliant with AS1428.1-2009.

*Recommendations:*

- (i) Ensure all stairways are suitably set back from traverse paths of travel to accommodate handrail extensions, compliant with AS1428.1:2009.
- (ii) Ensure all stairways have appropriate handrails provided on both sides, compliant with AS1428.1-2009.
- (iii) Provide TGSI's at top and bottom of all stairways, compliant with the BCA part D3.8 and AS1428.4.1:2009.

## **5. ANCILLARY PARK SUPPORT BUILDINGS AND FACILITIES**

### **5.1. Ticket Booths & Guest Support**

There are general and group ticket booths and a guest support counter with screened public access from the entry plaza. The clear space on both sides of counter provides appropriate circulation area (at least 1540mm x 2070mm) to enable a person using a wheelchair the ability to complete a 180 degree turn, compliant with AS1428.1:2009.

Staff access is from doorways at rear of booths. The single hinged doorways appear to provide 850mm min. clear width and appropriate circulation space, compliant with AS1428.1:2009.

There is an office at rear of the guest support counter, with direct entry access. The single hinged doorway appears to provide appropriate clear width however there is insufficient external doorway circulation space which requires review for compliance with AS1428.1:2009.

*Recommendation:*

- (i) Ensure the office doorway provides 510mm latch side circulation space on external side, compliant with AS1428.1-2009.

### **5.2. Retail Shop & Photo Booth**

Entry to the retail shop is via an opening (garage door presumed to be permanently open during operational hours) from the plaza with appropriate clear width, compliant with AS1428.1:2009. The shop includes a service counter, 3 x change-rooms, cash- office and storage area.

All change rooms provide insufficient circulation space for people using wheelchairs (approx. 1200mm x 1800mm). They have doors with appropriate 850mm clear width however there is no latch side provided at doorways to enable independent access. This requires review for compliance with AS1428.1:2009.

Access to the office and storage area is via a 1200mm wide corridor. There are appropriate width doorways however insufficient corridor width and door circulation space (to corridor and storage) to enable access for a potential staff member using a wheelchair. This requires review for compliance with AS1428.1:2009.

Entry to the photo shop is via 2 hinged double doorways from the plaza and an opening from the retail shop. The active leaf of the doorways, provide appropriate clear width, but the door from the photo booth to storage area has insufficient external door circulation space which requires review for compliance with AS1428.1:2009.

There is sufficient clear width on both sides of the retail shop and photo booth service counters to enable appropriate access for public or staff members using wheelchairs.

*Recommendations:*

- (i) Provide at least 1 accessible change room in retail shop, to ensure equity of access for people with disabilities under DDA Access Code.

- (ii) Ensure the accessible change room has 1540mm x 2070mm min. internal clear dimensions, with 850mm doorway and 510mm min. latch side door circulation space, compliant with AS1428.1:2009.
- (iii) Ensure accessible paths of travel within retail shop with 1000mm min. clear width.
- (iv) Increase corridor in retail shop to 1240mm clear width and ensure 510mm latch side circulation space to doorways to storage area (retail shop and photo booth) and to corridor leading to office, compliant with AS1428.1:2009.

### **5.3. Locker Area & Rentals**

The locker and rentals facilities are located in the main change room building. Stage 1 & 2 propose a combined total of 3905 (5 tier) lockers. Entry to the area is from the plaza or via the male and female change rooms, via appropriate clear width openings.

There appears to be an accessible path of travel (approx. 1500mm clear width) to and within Stage 1 & 2 locker areas, with appropriate passing/circulation areas, compliant with AS1428.1:2009. The 5 tier locker configuration will enable accessible height lockers suitable for people using wheelchairs.

Entry to the rental facility is via a hinged double doorway near first aid facility. The doorway provides appropriate clear width and circulation space, compliant with AS1428.1:2009.

There are 2 service booth openings where the public will be screened from the staff. The clear space on both sides of the counter provides appropriate circulation area (at least 1540mm x 2070mm) to enable a person using a wheelchair the ability to complete a 180 degree turn, compliant with AS1428.1:2009.

### **5.4. Guest Services & First Aid**

The guest services and first aid area is located in the main change room building. Entry is via a hinged double doorway with appropriate clear width and circulation space, compliant with AS1428.1:2009.

There is an accessible path of travel to and within the first aid reception area and appropriate paths of travel to the various treatment rooms and an office, compliant with AS1428.1:2009. The external latch-side doorway circulation space to office is insufficient and requires review for compliance with AS1428.1:2009.

In general, there are appropriate circulation areas (at least 1540mm x 2070mm) to enable a person using a wheelchair the ability to complete a 180 degree turn, compliant with AS1428.1:2009.

*Recommendation:*

- (i) Provide 510mm min. latch side door circulation space to office, compliant with AS1428.1:2009.

### **5.5. Rental Cabanas**

There are rental cabanas provided at both ends of 'Boomerang Bay' and adjacent to the attractions in the children's themed area and surrounding rides.

There are continuous paths of travel provided to these common-use facilities from the arterial access-way. The cabanas appear to be located on an appropriate hard surfaced area suitable for access for people using wheelchairs.

*Recommendation:*

- (i) Ensure appropriate paths of travel to the cabanas at least 1000mm clear width, compliant with AS1428.1:2009.

## **5.6. Group Picnic Areas & Special Events Lawn**

There are group picnic areas and pavilions provided adjacent to the special events lawn at north-west area of the development.

There are continuous paths of travel to these common-use facilities from the group entry doorway and the arterial access-way. The picnic pavilions appear to be located on an appropriate hard surfaced area suitable for access for people using wheelchairs.

There is a perimeter pathway around special events lawn which will enable appropriate viewing and circulation areas for people using wheelchairs during performances.

At this stage the drawings do not indicate RL levels in this area.

*Recommendation:*

- (i) Ensure appropriate paths of travel to the picnic pavilions at least 1000mm clear width, compliant with AS1428.1:2009.

## **5.7. Administration Office Building**

This building is located in the back-of house staff and maintenance area. Entry is via a hinged double doorway with appropriate clear width and circulation space, compliant with AS1428.1:2009.

At this stage the drawings do not provide detail of the external or internal RL levels.

There is an accessible path of travel to and within the reception area, meeting room and coffee/copy area compliant with AS1428.1:2009. There is appropriate circulation area (at least 1540mm x 2070mm) on public side of the reception counter to enable a person using a wheelchair the ability to complete a 180 degree turn, compliant with AS1428.1:2009. The area behind the counter provides 1000mm clear width.

The doorways to various office areas appear to provide appropriate 850mm clear width however the internal corridor has insufficient clear width (currently 1100mm) to enable appropriate access to the doorways. This requires review for compliance with AS1428.1:2009.

*Recommendations:*

- (i) Provide 510mm min. latch side door circulation space to office, compliant with AS1428.1:2009.

- (ii) Ensure level thresholds at doorway entry with a maximum 1:40 gradient, compliant with AS1428.1:2009.
- (iii) Increase corridor to 1670mm clear width to enable appropriate door circulation space to office doorways, compliant with AS1428.1:2009.
- (iv) Consideration to provide at least 1540mm clear width on staff side of reception counter to enable appropriate circulation area for staff member using a wheelchair, in line with DDA Access Code.

## **5.8. Staff Facilities Building**

This building is adjacent to the administration building and provides associated staff facilities. The buildings appear to be connected by a shared walkway/roadway.

There is direct pathway access to the locker area via an opening of appropriate clear width. There is appropriate circulation area provided in front of the lockers, to enable access for people using wheelchairs, compliant with AS1428.1:2009.

There is external entry access to kitchen, lunch, training and common room facilities from an appropriate width pathway. All doorways appear to provide 850mm min. clear width, compliant with AS1428.1:2009.

At this stage the drawings do not provide detail of the external or internal RL levels.

### *Recommendations:*

- (i) Ensure an accessible path of travel between administration and staff facilities buildings, compliant with AS1428.1:2009.
- (ii) Ensure level thresholds at all doorway entries with a maximum 1:40 gradient, compliant with AS1428.1:2009.

## **6. WATER THEME PARK RIDES AND ATTRACTIONS**

### **6.1. General**

The proposed development aims to provide a broad range of activities to suit a variety of user groups, including people with disabilities. The rides and attractions proposed at the water theme park incorporate three broad categories: for children, families and teenagers.

There are strict ‘duty of care’ regulations for this type of development and potential users in particular for family/teenager ‘high thrill’ water slides must be able to meet certain physical criteria for their own health and safety. The DDA Access Code Part D3.4 exemptions recognises this and clearly states that access is not required to areas that would pose a health or safety risk for people with a disability.

The safety and health regulations will differ between attractions and may relate to age, height, weight, overall health, swimming ability, no. of riders required, physical mobility, strength, stamina, dexterity, use of eyewear etc. As situations vary, it is reasonable the management outline the regulations for each attraction and if required assess guests on an individual basis to determine which rides can be safely undertaken.

Some attractions will not be fully accessible to people with disabilities, however in these instances an accessible path of travel will be provided to suitable adjacent viewing areas to enable equitable participation and proximity to the experience, in line with DDA Access Code.

*Recommendations:*

- (i) Ensure a continuous accessible path of travel to all attractions and rides within the water theme park, compliant with AS1428.1:2009.
- (ii) A detailed management plan/services guide should be prepared by the client to advise guests of the health and safety requirements of all rides and attractions and to minimise risk from potential DDA complaints.

### **6.2. ‘Boomerang Bay’ Surf Wave Pool**

The ‘Boomerang Bay’ surf wave pool is the centre piece attraction of the park and will cater to families, children and teenagers. The site circulation plan indicates 3 main entry points to the area. These are located adjacent to: main food service building, plaza with iconic geyser, and northern rental cabanas.

The entry points are connected via the 6.0m arterial access-way and are evenly spaced around the perimeter. There are 2 accessible paths of travel to the beach for people using wheelchairs which will satisfy the DDA Access Code. One is from the rental cabanas at the south at RL82.00 via a 1:30 gradient pathway, compliant with AS1428.1:2009.

Another is from the plaza with iconic geyser at RL83.00 via a descending ramp. The curved ramp appears to have a gradient of 1:15 and be continuous (approx. 30m length). No level landings are indicated, as required by AS1428.1:2009.

The beach entry near the main food service building at RL 85.00 is via a descending stairway, which is not accessible to people using wheelchairs. An additional secondary entry point with stair/ramp access is also noted near the plaza with iconic geyser. These entry areas have significant 3m height variations from access-way to beach, and would require extensive ramping to enable access for people using wheelchairs.

Within the beach area there appears to be a level pathway which connects the accessible entries around the sand lounge areas to the rental cabanas and pool areas. The pool is surrounded by a 'wet beach' area which is presumed to be hard surfaced. The pool has a zero depth entry, which appears to enable access for people with disabilities as required by DDA Access Code.

*Recommendations:*

- (i) Ensure ramp access (currently 1:15 gradient), has 10m max. ramp lengths and intermediate level landings (1200mm min.), compliant with AS1428.1:2009.
- (ii) Ensure accessible water entry/exit to pool for people with disabilities, compliant with DDA Access Code. For a zero depth entry, this requires a hard-surfaced, slip resistant surface and single handrail from top entry to bottom level area, compliant with AS1428.1:2009.

### **6.3. 'River Beach' and 'Extreme River'**

There are 2 accessible entry/exits to the 'River Beach' pools at RL82.25, at east and west of the children's themed area. This attraction is aimed at families and children. The entry points are connected for pedestrians via the 6.0m arterial access-way and provide direct access to 'wet beach' areas.

The 'wet beach areas' and pools beyond, are presumed to have a hard surfaced area. The pools appear to have a zero depth entry, which appears to enable access for people with disabilities as required by DDA Access Code.

Access to the 'Extreme River' appears to only be achieved via the pool from eastern 'River Beach'. Further information is required to determine if an alternative accessible path of travel is achievable to this attraction.

*Recommendation:*

- (i) Ensure accessible water entry/exit to the 'River Beach' pools for people with disabilities, compliant with DDA Access Code. For a zero depth entry, this requires hard-surfaced, slip resistant surface and single handrail from top entry to bottom level area, compliant with AS1428.1:2009.

### **6.4. Themed Children's Area**

A 1:20 curved walkway provides access up to the themed children's area at RL 87.00 from the 6.0m arterial access-way. The walkway has an appropriate gradient but no level landings are provided as rest/circulation areas as required by AS1428.1:2009.

This area includes the 'Tots Island Giant Spray Pad' attraction which is a large open circulation space with direct level access from adjacent pedestrian area, presumably



suitable for people using wheelchairs. There is a walkway up to the 'Tots Island Slides Pool' and connecting stairs to the slide area for ambulant users.

It is presumed that access to the Toddlers Pool is achievable for people with disabilities.

*Recommendation:*

- (i) Ensure accessible water entry/exit to 'Tots Island' pool for people with disabilities, compliant with DDA Access Code. For zero depth entry, this requires a hard-surfaced, slip resistant surface and single handrail from top entry to bottom level area, compliant with AS1428.1:2009.

## **6.5. Family and Teenager High Thrill Rides**

In general, continuous paths of travel are achievable to the entry/exit areas and/or suitable viewing areas of the numerous stage 1 & 2 'high thrill' family and teenager rides within the water park development including:

- Giant Rainfortress Waterplay on Wet Deck
- Family Double Python and family Raft Ride
- Whizzard Mat Racer
- Duelling Master Blaster Tube Ride
- River Grotto/Waterfalls
- Double Aqualoop, Freeloop and Freefall Complex
- Double Flowrider
- Water Walkway with Interactive Sprays
- Innertube Slides with Superbowl/Rattlet/High-speed Drop/Constrictor
- Family Boomerang and Abyss Raft Ride
- Zip Line
- Sky Coaster

The majority of these attractions incorporate tower structures with stairways being the sole vertical access up to the actual rides, which can be up to 20 metres height. As a result, most of these will not be accessible to people using wheelchairs. Subject to health and safety regulations, some of these attractions will be accessible to people with ambulant and sensory disabilities.

*Recommendations:*

- (i) Ensure all stairways provide an appropriate slip-resistance surface to ensure safety for all potential users, compliant with AS/NZS 4568.
- (ii) Ensure all stairways are suitably set back from traverse paths of travel to accommodate handrail extensions, compliant with AS1428.1:2009.
- (iii) Ensure all stairways have handrails provided on both sides, compliant with AS1428.1-2009.

- (iv) Provide TGSI's at top and bottom of all stairways, compliant with the BCA part D3.8 and AS1428.4.1:2009
- (v) Ensure any non-enclosed stairs with clearances of less than 2000mm height have suitable barricades or TGSI's installed to warn of the potential hazard for people with vision impairment.
- (vi) A detailed management plan/services guide should be prepared by the client to advise guests of the health and safety requirements of all rides and attractions and to minimise risk from potential DDA complaints.

## **7. FOOD AND BEVERAGE FACILITIES**

### **7.1. Main Food Service Building**

This building contains a range of food outlet services and associated kitchen and amenities. It appears to have level and direct access to the 'All You Can Eat & Fast Food Dining' area. There appears to be an accessible path of travel to and around the building from the arterial access-way, compliant with AS1428.1:2009.

Entry access for public and staff to reception, buffet restaurant and beer bar is via hinged double doorways which provide appropriate clear width and circulation space, compliant with AS1428.1:2009. There are approx. 1500mm width aisles between the buffet areas and appropriate circulation area (at least 1540mm x 2070mm) at each end to enable a person using a wheelchair the ability to complete a 180 degree turn, compliant with AS1428.1:2009.

There are 16 service booth openings at the fast food counter where the public will be screened from the staff. The circulation space on the public sides provides space for queue lines and adequate area (at least 1540mm x 2070mm) to enable a person using a wheelchair the ability to complete a 180 degree turn, compliant with AS1428.1:2009.

#### *Recommendations:*

- (i) Ensure level entry thresholds at doorways with a maximum 1:40 gradient, compliant with AS1428.1:2009.
- (ii) Ensure building floor finishes have a suitable, hard surface with appropriate slip-resistance, traversable by people with disabilities compliant with AS/NZS 4568.

### **7.2. Additional Food & Beverage Buildings**

There are numerous smaller buildings throughout water theme park which provide food/beverage services including: a beer bar, 3 x food & beverage satellite buildings and various food and beverage carts.

There appear to be appropriate paths of travel which connect the buildings to the arterial access-way, compliant with AS1428.1:2009. Staff access to kitchen areas is via a hinged single doorway which appears to provide appropriate 850mm clear width and circulation space, compliant with AS1428.1:2009.

There are continuous service counter openings in each building where the public will be screened from the staff. The circulation space on the public sides provides space for queue lines and adequate area (at least 1540mm x 2070mm) to enable a person using a wheelchair the ability to complete a 180 degree turn, compliant with AS1428.1:2009.

#### *Recommendations:*

- (i) Ensure level entry thresholds at doorways with a maximum 1:40 gradient, compliant with AS1428.1:2009.
- (ii) Ensure building floor finishes have a suitable, hard surface with appropriate slip-resistance, traversable by people with disabilities compliant with AS/NZS 4568.

## **8. SANITARY FACILITIES**

### **8.1. Main Change Rooms - Provision of Combined Accessible Toilet/Showers**

The stage 1 & 2 male and female change rooms (including toilets, showers and change cubicles) are located either side of the common-use locker area. Entry is via suitable width openings and accessible path of travel from locker area or the external pathway.

Within stage 1 locker area there are 3 combined unisex toilet/shower facilities, noted on the drawings as accessible/family showers. 2 of the 3 facilities have approx. dimensions of 2400mm x 2900mm, which is compliant with AS1428.1:2009. The other facility has an irregular shape and is non-compliant.

Entry to the accessible facilities is via inward opening doors which appear to have an appropriate clear width and circulation spaces, compliant with AS1428.1:2009. Providing that at least 1 of the 2 (compliant) facilities is designated as a unisex toilet/shower facility, this will satisfy the DDA Access Code Table F2.4.

There are increased width toilet cubicles in each (stage 1 & 2) toilet bank of male and female change rooms. The cubicles have dimensions of 1500mm width x 1300mm length, which is non-compliant with AS1428.1:2009 as an ambulant cubicle. This requires review for compliance with DDA Access Code Table F2.4 and AS1428.1:2009.

#### *Recommendations:*

- (i) Ensure at least 1 of the 2 (compliant) combined toilet/shower facilities in locker area includes appropriate signage which designates it as a unisex toilet/shower facility, as required by DDA Access Code and AS1428.1:2009.
- (ii) Provide at least 1 toilet cubicle for people with ambulant disabilities in the stage 1 male and female toilets as required by DDA Access Code.
- (iii) The ambulant toilet cubicles must be compliant with AS1428.1:2009 fig 53b.

### **8.2. Additional Public Toilets - Provision of Unisex Accessible and Ambulant Toilets**

There are additional male and female public toilet facilities located throughout the water theme park in the following areas:

- Main Food Service Building (stage 1)
- Beer Bar/Amenities Building (stage 1)
- F & B/Satellite Amenities Building (2 x facilities stage 1; 1 x facility, stage 2)
- Ticket Booths/ Guest Support (stage 1)

There are no equivalent accessible unisex toilets provided adjacent to the male and female toilets in each of the above buildings as required by the DDA Access Code Table F2.4 (a). This requires review for compliance.

Entry to the male and female toilets is via inward opening hinged doorway which appears to have appropriate clear width of 850mm, compliant with AS1428.1:2009. There are increased width toilet cubicles provided in the male and female toilet banks.

These cubicles have approx. dimensions of 1500mm width x 1300mm length, which is non-compliant with AS1428.1:2009 as an ambulant cubicle. This requires review for compliance with DDA Access Code Table F2.4 and AS1428.1:2009.

*Recommendations:*

- (i) Provide a unisex accessible toilet facility adjacent to male and female toilets at the Main Food Service, Beer Bar/Amenities, 3 x Food & Beverage/Satellite Amenities and the Ticket Booths/ Guest Support buildings to ensure equitable access for people with disabilities to satisfy the DDA Access Code Table F2.4
- (ii) Ensure an accessible path of travel to these accessible toilet facilities from the adjacent food/beverage service area, compliant with AS1428.1:2009.
- (iii) The accessible toilet facilities must comply with AS1428.1:2009 fig.43 circulation requirements (ie. 2300mm min. length x 1900mm min. width around the WC pan, the basin may encroach by 100mm max).
- (iv) As more than 2 accessible toilet facilities will be provided within the water theme park, ensure an equivalent number of right and left hand configured facilities as required by DDA Access Code F2.4 (g).
- (v) Provide at least 1 toilet cubicle for people with ambulant disabilities in the male and female toilets located at the Main Food Service Building (stage 1) as required by DDA Access Code.
- (vi) The ambulant toilet cubicle must be compliant with AS1428.1:2009 fig 53b.

### **8.3. Administration & Staff Facilities - Provision of Unisex Accessible Toilet/Shower**

There are male and female toilets provided for staff and visitors in the administration building. There are also male and female toilets and showers provided for staff members in adjacent staff facilities building. There is no equivalent accessible unisex toilet, or combined accessible toilet/shower facility provided as required by the DDA Access Code Table F2.4 (a, b). This requires review for compliance.

*Recommendations:*

- (i) Provide a unisex accessible combined toilet/shower facility adjacent to male and female toilets in administration building to satisfy the DDA Access Code Table F2.4. NB. In light of proximity of the 2 related buildings it is deemed acceptable that the required accessible WC and accessible shower are a combined facility.
- (ii) Ensure direct access to unisex accessible combined toilet/shower facility from administration building to ensure equitable access for visitors, compliant with DDA Access Code and AS1428.1:2009.
- (iii) The accessible toilet/shower facilities must comply with AS1428.1:2009 fig.50 circulation requirements (ie. overall internal dimensions of 2700mm min. length x 2400mm min. width).

## **9. CAR PARKING FACILITIES**

### **9.1. Public Car Parking Areas**

There are 2 on site public car parks within the stage 1 development which include the primary (sealed) and the secondary (grassed) overflow public car park. Access to both is via the new visitor access road from Reservoir Road.

The combined total car parking capacity is approx. 1857 car spaces, comprised of:

- Primary Car Park - 742 car spaces
- Secondary Overflow Car Park - 1073 car spaces
- Accessible Car Spaces - 42 spaces

The proposed number of accessible car spaces represents 2% of the total car parking spaces provided which satisfies the DDA Access Code Table D3.5 for this type of development.

The accessible car spaces are located in the primary car park, in close proximity to the main entrance, connected via an accessible path of travel, compliant with AS1428.1:2009. The accessible car spaces have approx. dimensions of 2400mm width x 5400mm length with an appropriate 2400mm width shared area, compliant with AS2890.6:2009.

The primary car park also makes provision for 12 coach and 6 minibus parking spaces, to cater for organised groups. A central drop off area, adjacent to entry forecourt has kerb length to accommodate 3 coaches and 15 cars/taxis.

*Recommendations:*

- (i) Ensure accessible car spaces and shared zone circulation/unloading areas have a firm plane surface with gradient no greater than 1:40 (1:33 if bitumen seal) and slip resistant surface, compliant with AS2890.6:2009.
- (ii) Ensure an accessible path of travel, compliant with AS1428.1:2009 from the proposed drop- zones and coach parking to the entry forecourt.

### **9.2. Support/Staff Car Parking Area**

The staff/maintenance car park (unsealed) is located in the back of house area with access from Watch House Road. It provides an approx. total of 36 car parking spaces for staff and potential visitors to the administration building.

The unsealed surface would not be suitable for the provision of accessible parking and at this stage an accessible car space for staff /visitors has not been shown. This requires review for compliance with DDA Access Code Table D3.5.

*Recommendations:*

- (i) Provide at least 1 accessible car parking space, for potential visitors/staff with a disability to satisfy 1% accessible car parking requirement for this type of development in line with DDA Access Code Table D3.5.

- (ii) Ensure accessible car space has an appropriate sealed surface with 2400mm width x 5400mm length with an appropriate 2400mm width shared area, compliant with AS2890.6:2009.
- (iii) Ensure accessible car space and shared zone circulation/unloading area has a firm plane slip resistant surface with gradient no greater than 1:40 (1:33 if bitumen seal), compliant with AS2890.6:2009.
- (iv) Locate the accessible car space in close proximity to main entry of administration building, connected by an accessible path of travel, compliant with AS1428.1:2009.

## **10. MISCELLANEOUS**

### **10.1. External Domain Areas and Activities**

The development proposes a range of additional outdoor sport activities, music zones including live performance spaces, exhibitions, 'dive in' movies, picnic areas and general recreation space within the external areas of the water theme park.

*Recommendations;*

- (i) Consideration to incorporate accessible street furniture including; rest seating, water bubblers, ATM's, public telephones etc. that are accessible to people with disabilities in compliance with AS1428.2 design guidelines (best practice).

### **10.2. Hearing Augmentation**

*Recommendations:*

- (i) In line with the DDA Access Code where inbuilt amplification systems are installed within the development (other than one used only for emergency warning) hearing augmentation systems to assist people who are deaf or hearing impaired must be installed in:
  - All ticket, rental, food and beverage service booths/counters etc. where the public is screened from the service provider.
  - All meeting rooms in this type of development.
- (ii) Consideration to providing hearing augmentation systems (for induction loops) to at least 80% of floor area of the above areas, compliant with DDA Access to Premises Standards.
- (iii) In the event of an emergency, any scoreboard or video screen capable of displaying public announcements is also to be used to supplement the public address system.

### **10.3. Signage**

*Recommendations:*

- (i) Consideration for the overall signage strategy for the proposed development to include general design considerations to assist people with disabilities (best practice).
- (ii) Provide suitable directional and identification signage for required accessible features including accessible entrances, accessible toilets/showers, ambulant toilet cubicles, hearing augmentation systems, accessible car-parking spaces.
- (iii) Provide appropriate signage in accordance with BCA Part D3.6.