



MERITON APARTMENTS PTY LTD

**100 BENNELONG PARKWAY,
OLYMPIC PARK**

ACCESS REVIEW

Morris-Goding Accessibility Consulting

FINAL v2

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1. EXECUTIVE SUMMARY

The Access Review Report is a key element in design development of Axis, Stage 1A, Site 43/44 Sydney Olympic 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 and toilets comply with relevant statutory guidelines.

In general, the development has accessible paths of travel that are continuous throughout. In line with the reports recommendations, the proposed development has demonstrated an appropriate degree of accessibility. The Development Application drawings indicate that compliance with statutory requirements, pertaining to site access, common area access, accessible parking and adaptable units, can be readily achieved.

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) Ensure passenger lift cars have minimum internal dimensions of 1400mm wide x 1600mm long compliant with the DDA Premises Standards and BCA 2012.
- (ii) Provide an appropriate means of accessible entry/exit to the swimming pool (e.g. sling-style pool lift) in accordance with the DDA Premises Standards.
- (iii) Provide 1 additional adaptable unit in accordance with the Sydney Olympic Park Authority DCP.
- (iv) Review car parking to ensure compliance with AS4299 and AS2890.6.
- (v) Provide accessible garbage rooms compliant with AS1428.1 and AS4299.

2. INTRODUCTION

2.1. General

Capital Corporation has engaged Morris-Goding Accessibility Consulting, to provide a design review of the proposed residential development located at 100 Bennelong Road, Olympic Park.

From the information provided, the proposed development has 342 residential units located on 9 residential floors with basement parking below.

The requirements of the investigation are to:

- Review supplied drawings of the proposed development.
- Provide a report that will analyse the provisions of disability design of the development, 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 such as residents and residential visitors. 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.

2.3. Statutory Requirements

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

- AS 1428.1:2009 (General Requirements for Access-New Building Work)
- AS 4299:1995 (Adaptable Housing Code)
- AS 1735.12:1999 (Lifts, Escalators, & Moving Walks)
- BCA – Building Code of Australia 2012
- DDA Access to Premises Standards 2010
- SOPA Access Guidelines 2013

3. INGRESS & EGRESS

3.1. Site

The proposed development is located on 100 Bennelong Parkway, Olympic Park. There are 3 separate buildings – Buildings A and B are located west of a proposed new road which runs parallel to Bennelong Parkway. Building C is bound by Bennelong Parkway and proposed new roads 3, 4 and 17.

3.2. Building A Entrance

Entry into the lobby area is via the pedestrian footpath near proposed new road 4. There is a suitable 1:20 walkway leading to the lobby compliant with AS1428.1 and the DDA Premises Standards. From the top of the 1:20 walkway, there is a level landing with suitable clearances to allow wheelchair manoeuvrability and a continuous accessible path of travel to the entry door.

The automatic entry doorway has suitable clearances to allow for an appropriate 850mm clear width compliant with AS1428.1 and the DDA Premises Standards. From the lobby, there is a suitable accessible path of travel to the passenger lift lobby area.

The lobby has appropriate clearances for wheelchair manoeuvrability in accordance with AS1428.1. There are suitable turning areas in front of the passenger lift lobby suitable in accordance with the DDA Premises Standards.

3.3. Building B Entrance

There are 2x residential entries into Building B – Lobby B1 and Lobby B2.

The lobby entries of B1 and B2 are located via the pedestrian footpaths near new road 3 and new road 4. Entry into the building is via stairs access. The stairs are located 900mm from the site boundary to allow for AS1428.1 and the DDA Premises Standards. The stair is to be set back to allow for appropriate handrail extensions and TGSIs.

The accessible path of travel is via the 1:20 walkways located no greater than 50m from the inaccessible path of travel. The 1:20 walkways provide an appropriate path of travel in accordance with AS1428.1 and the DDA Premises Standards.

From the top of the entry stairs and walkways, a suitable accessible path of travel compliant with AS1428.1 is achievable. The entry has appropriate clearances to allow for suitable door circulation as required under AS1428.1 and the DDA Premises Standards.

The lobby has appropriate turning areas to allow a person in a wheelchair to perform 180° turns and for two wheelchair users to pass one another in the opposite direction. There is a suitable accessible path of travel to the lift lobby area compliant with AS1428.1 and the DDA Premises Standards.

Recommendation:

- (i) Ensure the 1:20 walkways have appropriate level landings at 15m intervals compliant with AS1428.1 and the DDA Premises Standards.

3.4. Building C Entrance

From the pedestrian footpath near proposed new road 4, there is an accessible path of travel to Lobby C1 and C3.

Entry into lobby C1 is via a 1:20 walkway to the entry door which has suitable level landings and door clearances compliant with AS1428.1 and the DDA Premises Standards. From the entry door, there are stairs which leads to the lift lobby area. The entry stair requires handrails on both sides in accordance with AS1428.1 and the DDA Premises Standards. There is a 940mm height variation between the entry door and the lift lobby area. A low-rise lift has been shown in accordance with AS1428.1 and the DDA Premises Standards.

Lobby C3 is accessed via the corner of new road 4 and new road 17. The entry stair has an appropriate 900mm setback from the site boundary on the base of the stair compliant with AS1428.1 and the DDA Premises Standards. The accessible entry is via the 15m long, 1:20 walkway leading to the entry door compliant with AS1428.1. The entry door has suitable door clearances and circulation compliant with AS1428.1 and the DDA Premises Standards. The entry door has appropriate clearances and circulation in accordance with the DDA Premises Standards.

From the entry door, there is an accessible path of travel to the lift lobby area compliant with AS1428.1 and the DDA Premises Standards. The lobby area has suitable clearances to allow for wheelchair users to perform 180° turns and for two wheelchair users to pass one another. There is also a suitable accessible path of travel to the lift lobbies in C1, C2 and C3.

Recommendation:

- (i) Ensure the lobby C1 lift is compliant with a low-rise passenger lift compliant with the DDA Premises Standards.

3.5. Emergency Egress

The proposed development has 8 emergency stair wells leading from upper residential floors to the street level. A number of the emergency stair wells also provide access from the basement floors to street level.

All fire doors have minimum 850mm clear widths compliant with AS1428.1.

The main foyer entry is regarded as the most appropriate means of accessible egress in the event of an emergency situation.

Recommendations:

- (i) Provide at least one continuous accessible handrail within all fire-isolated stairs, compliant with AS1428.1, clause 12 as required under BCA 2013, part D2.17.
- (ii) Consideration for emergency alarm systems within building to have provision for visual and audio warnings and signals (advisory/best practice).

4. PATHS OF TRAVEL

4.1. Paths of Travel

The residential apartments are serviced by passenger lifts which provide a suitable continuous accessible path of travel to all residential floors in accordance with AS1428.1 and the DDA Premises Standards.

The lift lobby areas have suitable clearances to allow for wheelchair users to perform 180° turns and for two wheelchair users to pass one another in accordance with the DDA Premises Standards.

An accessible path of travel to all residential units is provided from internal corridors in accordance with AS1428.1 and the DDA Premises Standards. Corridors have suitable clearances to allow a person in a wheelchair to perform 180° turns within 2m of the ends of corridors in accordance with AS1428.1 and the DDA Premises Standards. There are suitable clearances to allow a wheelchair 90° turn compliant with AS1428.1.

Recommendation:

- (i) Ensure common area floor surfaces are suitably slip resistant and traversable by a wheelchair or walking frame, compliant with AS1428.1 and HB197/AS4856 (wet pendulum method).

4.2. Lifts

The development is serviced by 7 passenger lifts which provides a continuous accessible path of travel from the upper residential levels to street level, as well as to the basement level below compliant with AS1428.1 and the DDA Premises Standards.

The passenger lift cores have internal dimensions of 2540mm x 2580mm which will allow for compliant passenger lifts cars in accordance with the DDA Premises Standards.

Recommendations:

- (i) Ensure passenger lift cars have minimum internal dimensions of 1400mm wide x 1600mm long compliant with the DDA Premises Standards and BCA 2012.
- (ii) Lift car components (grabrail, control buttons, lighting) to comply with AS1735.12.

4.3. Courtyard

There is a courtyard located on level 1 of Building C. From the passenger lift, there is a suitable accessible path of travel to the dual-hinged entry doors leading to the courtyard compliant with AS1428.1 and the DDA Premises Standards. There are stairs leading to the courtyard via the gym and pool area.

The doors currently have 820mm clear widths, however there are suitable clearances to allow for appropriate 850mm clear width and latch side clearances compliant with AS1428.1 and the DDA Premises Standards.

There are hardstand paths of travel throughout the courtyard which provide access. Review of the landscaped area will be conducted during the design development stage.

Recommendations:

- (i) Ensure all courtyard entry doors have minimum 850mm clear widths (920mm door leaf) compliant with AS1428.1.

- (ii) Ensure the courtyard stair within Building C has handrails and TGSIs compliant with AS1428.1 and the DDA Premises Standards.

4.4. Pool & Gym

There are gym and pool facilities located on the ground floor of Building C. Entry into the area is via hinged entry door with appropriate clear width. Modification is required to ensure suitable latch side clearance compliant with AS1428.1.

There is a ramp leading to the gym and pool areas. The gradient of the ramp is currently unclear. The gym has appropriate clearances to allow for wheelchair users to perform 180 turns and for two wheelchair users to pass one another in the opposite direction compliant with AS1428.1 and the DDA Premises Standards.

The sauna has appropriate 850mm clear widths with suitable latch side clearance compliant with AS1428.1 and the DDA Premises Standards.

From the gym, there is a hinged entry door leading to the pool area. Review of the door is required to ensure appropriate clearances in accordance with AS1428.1.

The pool deck has appropriate wheelchair turning areas to allow a person in a wheelchair to perform 180° turns and for two wheelchair users to pass one another in the opposite direction compliant with AS1428.1 and the DDA Premises Standards.

The pool has a perimeter of 52m which will require a suitable accessible means of entry/exit compliant with the DDA Premises Standards.

Recommendations:

- (i) Ensure all common area doors have minimum 850mm clear widths and suitable latch side clearances compliant with AS1428.1.
- (ii) Ensure the entry door to the pool deck area has a minimum 900mm latch side clearance over 1670mm depth to allow for wheelchair side approach, compliant with AS1428.1.
- (iii) The ramp leading to the gym and pool area requires a maximum 1:14 gradient compliant with AS1428.1.
- (iv) Ensure the door leading to the pool has a minimum 850mm clear width with a minimum 530mm latch side clearance compliant with AS1428.1 and the DDA Premises Standards.
- (v) Provide an appropriate means of accessible entry/exit to the swimming pool (e.g. sling-style pool lift) in accordance with the DDA Premises Standards.

4.5. Sanitary Facilities

There is a WC and shower located on the ground floor of the propose development. Entry into the room is via a hinged entry door with suitable door clearances and circulation compliant with AS1428.1 and the DDA Premises Standards. The internal dimensions have appropriate clearances to allow for suitable wheelchair clearances around the pan, basin and shower in accordance with AS1428.1.

4.6. Manager's Office

There is a manager's office located on the ground floor of Building C. Entry into the area is via a hinged door. The door requires review to ensure compliance with AS1428.1 and the DDA Premises Standards.

The office has appropriate clearances to allow for wheelchair manoeuvrability in accordance with AS1428.1 and the DDA Premises Standards.

Recommendation:

- (i) Entry door requires minimum 510mm latch side clearance whilst maintaining a minimum 850mm clear width in accordance with AS1428.1.

4.7. Childcare Centre

There is a childcare centre located on the ground floor of Building B1. Access is via the B1 lobby, suitable under AS1428.1 and the DDA Premises Standards.

The childcare centre is to be reviewed under a separate DA.

5. ACCOMMODATION

5.1. Residential Units

The passenger lifts provide an appropriate continuous path of travel to all units on all floors from the pedestrian footpath near proposed new road 4. There are a total of 342 residential units within the development.

The development falls under Sydney Olympic Park Authority. According to Council DCP, a minimum of 10% of total units is required to be designed according to AS1428.1 and AS4299. A total of 34 adaptable units have been provided.

The intent of adaptable housing is to provide a range of housing choices within the community promoting equitable access to residential accommodation. Adaptable housing is designed so that it can be adapted to meet the changing needs of residents at minimal personal and economic costs.

At this stage of the development ensure the following recommendations are implemented in the design layout of each adaptable unit at pre-adaptation stage. These recommendations will ensure the correct circulation areas and ease of modification in the future in accordance with AS4299 Class C and AS14228.1 requirements.

Recommendation:

- (i) Provide 1 additional adaptable unit in accordance with the Sydney Olympic Park Authority DCP.

5.2. 1 Bed T02 Adaptable Unit

The entry door has an appropriate 850mm clear width with suitable latch side clearances in accordance with AS1428.1 and AS4299. From the entry, there is a suitable accessible path of travel to the kitchen which has an appropriate 1550mm diameter turning area in front of the kitchen bench in accordance with AS4299. There is a suitable space adjacent the refrigerator and cooktop in accordance with AS4299. There is an appropriate 800mm workspace between the cooktop and sink is provided at pre-adaptation in accordance with AS4299.

There is a suitable accessible path of travel to the living area in accordance with AS1428.1. The living area has an appropriate 2250mm diameter turning area suitable for wheelchair manoeuvrability in accordance with AS4299.

There is a suitable accessible path of travel to the laundry which has suitable 1550mm diameter turning areas in front of the laundry appliances in accordance with AS4299.

Entry into the bedroom is via a hinged entry door with appropriate door clearances and circulation in accordance with AS1428.1 and AS4299. There are appropriate 1000mm clearances adjacent to the bed with a suitable turning area at the base of the bed in accordance with AS4299.

There is an accessible bathroom which has appropriate door clearances and circulation in accordance with AS1428.1 and AS4299. The bathroom has internal dimensions of 2330mm x 2680mm which will allow appropriate clearances around the pan, basin and shower in accordance with AS1428.1. The basin is to be relocated at post-adaptation to allow for suitable clearances around the basin in accordance with AS1428.1 and AS4299.

Recommendations:

- (i) Consideration for adaptable unit balconies to be wheelchair accessible. Provide 35mm max. height variation (eg. slab set-down) between areas to allow for use of a removable 1:8 threshold ramp, compliant with AS1428.1:2009 (advisory)
- (ii) If balconies are not accessible as above, height of external balustrade to be increased in height to satisfy BCA requirements at pre-adaption stage as provision for raised external decking/paving for future wheelchair access.
- (iii) Provide slip-resistant floor surface with min. wet pendulum test rating of 'X' (under HB197/AS4856) in adaptable unit bathroom, kitchen and laundry at pre-adaption stage as required in AS4299 clause 4.5.4. Test results will be required at OC Stage.

5.3. 2 Bed T02E Adaptable Unit

The hinged entry door has appropriate door clearances and circulation compliant with AS1428.1.

The kitchen is located adjacent to the entry door. A suitable 1550mm diameter clearance between benches is provided at pre-adaptation in accordance with AS4299. An 800mm clearance between the sink and cooktop is achievable whilst maintaining a small workbench near the fridge.

The laundry area is located at the end of the kitchen benches. A suitable 1550mm diameter clearance is achievable when kitchen bench is in the correct location.

The living area has an appropriate 2250mm minimum diameter after the furniture has been placed, suitable for wheelchair manoeuvrability in accordance with AS4299, clause 4.7.1.

There is a direct accessible path of travel to the accessible bedroom which has appropriate internal dimensions to comply with AS4299.

The accessible ensuite has appropriate internal dimensions to allow compliance with AS4299. There are suitable clearances around the pan, basin and shower to comply at post-adaptation. The bathtub is to be removed to ensure compliant circulation.

Recommendations:

- (i) The bathtub to be removed requires continuous waterproofing and tiling underneath/behind from the outset to allow for ease of adaptation.
- (ii) Consideration for adaptable unit balconies to be wheelchair accessible. Provide 35mm max. height variation (eg. slab set-down) between areas to allow for use of a removable 1:8 threshold ramp, compliant with AS1428.1:2009 (advisory)
- (iii) If balconies are not accessible as above, height of external balustrade to be increased in height to satisfy BCA requirements at pre-adaption stage as provision for raised external decking/paving for future wheelchair access.
- (iv) Provide slip-resistant floor surface with min. wet pendulum test rating of 'X' (under HB197/AS4856) in adaptable unit bathroom, kitchen and laundry at pre-adaption stage as required in AS4299 clause 4.5.4. Test results will be required at OC Stage.

5.4. 2 Bed T03E Adaptable Unit

The entry into the adaptable unit has suitable 850mm clear widths from the outset compliant with AS1428.1 and AS4299. The linen cupboard and media centre is to be

removed at post-adaption to allow for appropriate door circulation in accordance with AS1428.1.

There is a suitable accessible path of travel to the kitchen. The L-shaped kitchen has appropriate 1550mm diameter clearance in front of the bench suitable for wheelchair accessibility. There are appropriate clearances adjacent to the refrigerator, cooktop and sink to allow for suitable wheelchair accessibility in accordance with AS4299.

The living area has suitable clearances to ensure appropriate wheelchair turning in accordance with AS1428.1 and AS4299.

The laundry is located within the corridor with appropriate 1550mm diameter clearances in front of the laundry appliances in accordance with AS4299.

Access to the accessible bedroom is via a hinged entry door with appropriate door clearances in accordance with AS1428.1. There is a suitable clearance around the queen sized bed compliant with AS4299.

There is an accessible ensuite attached to the accessible bedroom. The bathroom has suitable internal dimensions to allow for appropriate clearances around the pan, basin and shower in accordance with AS1428.1. Modification is required to ensure compliance with AS4299.

Recommendations:

- (i) The bathtub to be removed requires continuous waterproofing and tiling underneath/behind from the outset to allow for ease of adaptation.
- (ii) Consideration for adaptable unit balconies to be wheelchair accessible. Provide 35mm max. height variation (eg. slab set-down) between areas to allow for use of a removable 1:8 threshold ramp, compliant with AS1428.1:2009 (advisory)
- (iii) If balconies are not accessible as above, height of external balustrade to be increased in height to satisfy BCA requirements at pre-adaption stage as provision for raised external decking/paving for future wheelchair access.
- (iv) Provide slip-resistant floor surface with min. wet pendulum test rating of 'X' (under HB197/AS4856) in adaptable unit bathroom, kitchen and

6. COMMON USE FACILITIES

6.1. Car Parking

There are a total of 45 accessible car bays provided within the basement parking levels of the development. The accessible car bays are designed with 2.4m clear widths adjacent a 2 m shared zone. The AS2890.6 configuration is suitable under AS4299 and provides a functional alternative.

From the accessible car bays, there is an accessible path of travel to the lift lobby area compliant with AS1428.1. Lobby doors are generally sliding, however modification is required to ensure suitable door clearances and circulation.

The lift lobby areas have suitable clearances to allow a person in a wheelchair to perform 180° turns and for wheelchair passing compliant with AS1428.1 and the DDA Premises Standards.

Recommendations:

- (i) Relocate car bays to ensure the following numbers are located adjacent to the passenger lift lobbies to ensure a continuous accessible path of travel to the adaptable units above:

Lobby	No. Provided	No. Required
A1	4	8
B1	18	12
C1	3	7
C2	11	8

- (ii) Ensure the shared zone within the residential parking area is allocated as common building property under strata in order to maintain use as clear circulation area and is not allocated to units compliant with AS2890.6.
- (iii) Ensure all car park lobby doors have minimum 850mm clear widths with appropriate 530mm latch side clearance compliant with AS1428.1.
- (iv) The approach to each adaptable car parking bay should not have vertical clearance of less than 2.2m and height clearance of 2.5m at adaptable unit car bays compliant with AS4299.

6.2. Garbage Areas

There are garbage rooms with chutes located adjacent to all lift lobbies of the proposed development. Access to residential garbage areas is via a hinged entry door with appropriate clear widths compliant with AS1428.1 and AS4299. Review is required to ensure suitable latch side clearances compliant with AS1428.1.

In general, garbage rooms have suitable internal dimensions, however the location of the chute and garbage bins require review to ensure an appropriate 1550mm diameter clearances in front of bins and chute for wheelchair manoeuvrability.

Recommendations:

- (i) Ensure all entry doors to garbage rooms have appropriate minimum 530mm internal latch side clearances whilst maintaining a minimum 850mm clear width compliant with AS1428.1 and AS4299.
- (ii) Provide a minimum 1550mm diameter turning area in front of garbage bins and chutes suitable for a person in a wheelchair.

6.3. Mailbox Areas

This detail is currently unclear.

Recommendation:

- (i) Ensure a level area (maximum 1:40 gradient) over 1550mm diameter turning area in front of mailboxes suitable for a wheelchair user to perform 180° turns in accordance with AS4299.