

HOLDMARK PROPERTY GROUP

**6 - 16 ATCHISON STREET
ST LEONARDS**

S75W ACCESS REVIEW

Morris Goding Accessibility Consulting

AMENDED DESIGN

FINAL v2

6 June 2013

REPORT REVISIONS		
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1. EXECUTIVE SUMMARY

The Access Review Report is a key element in design development of the mixed use development at 6 – 16 Atchison Street, St Leonards 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 proposed S75W development has been reviewed to ensure that ingress and egress, paths of travel, circulation areas, toilets, accommodation and car parking 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 S75W drawings indicate that compliance with statutory requirements, pertaining to site access, common area access, accessible parking, accessible sanitary facilities, and residential accommodation can be readily achieved.

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

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

- (i) Ensure all main passenger lift cars have minimum internal dimensions of 1400mm wide x 1700mm long compliant with North Sydney DCP and BCA 2013.
- (ii) Ensure low-rise lift in retail shop 1 (1100mm wide x 1400mm long min. platform) is compliant with BCA Part E3.6.
- (iii) Ensure limited mobility lift in Gymnasium (1100mm wide x 1400mm long min. platform) is compliant with BCA Part E3.6 and has suitable mid landing size.
- (iv) Provide alternative solution report at CC Stage to address BCA performance requirements for door circulation in common-use residential waste chute rooms.
- (v) Ensure all base build accessible toilets (eg. Retail and Gymnasium) have suitable dimensions and are designed in compliance with AS1428.1:2009.
- (vi) Provide an ambulant cubicle within Unisex toilet bank (Lower Ground level), compliant with AS428.1:2009 and the DDA Premises Standards.
- (vii) Provide handrails on both sides of all stairs with required extensions that do not protrude into the transverse paths of travel, compliant with AS1428.1:2009.
- (viii) Provide at least one accessible continuous handrail within fire-isolated stairs compliant with AS1428.1:2009 as required under BCA 2013 part D2.17.
- (ix) For any fixed seating in Conference Room (Class 9b), provide 3 wheelchair seating spaces (ie. 1 single space and 1 group of 2 spaces), compliant with AS1428.1:2009.

2. INTRODUCTION

2.1. General

Holdmark Property Group has engaged Morris-Goding Accessibility Consulting, to provide a design review of the proposed S75W application for the mixed-use development located at 6 – 16 Atchison Street, St Leonards NSW. The Project Approval for a mixed-use residential development concept (MP09_0187) has been assessed by the Department of Planning & Infrastructure under the Environmental Planning and Assessment Act 1979 and was approved on 1 May 2012.

From the information provided, the development has 3 x retail shop tenancies (including 1 café); 38 serviced apartments over 2 levels with gymnasium, conference room, spa, fitness centre, pool and amenities; 200 residential units over 21 residential levels with 6 levels of basement car parking and lower ground level parking provided for approx. total of 168 cars.

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 clients, staff, 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 1428.2:1992 (Enhanced & Additional Requirements)
- AS 4299:1995 (Adaptable Housing Code)
- AS 1735.12:1999 (Lifts, Escalators, & Moving Walks)
- BCA – Building Code of Australia 2013
- DDA Access to Premises Standards 2010
- North Sydney DCP 2002

3. SITE

3.1. Site Entry

The site is bound by Atchison Street (south), Atchison Lane (north) and existing buildings on either side (west and east). The Atchison street frontage falls from east to west. It appears to have an average 1:14 gradient, classified as a ramp under AS1428.1:2009. From the information provided an accessible path of travel is achievable from the site boundary main entry points to the main entrances of the building (retail, serviced apartment, residential lobby) as required by the DDA Premises Standards.

An accessible cross site link is proposed to diagonally link the Atchison Street and Atchison Lane street frontages to take advantage of the minimum level difference (1.2m cross site fall) in this direction. This through link will connect the Atchison Street forecourt and Café (Upper Ground level) to the retail shop 1, Residential/Service Apartment lobby, Serviced Apartment/Public to Amenities lobby (Lower ground level) to the Atchison Lane Retail forecourt and Shop 3 (Lower ground level).

Generally the through link has at least 1800mm clear width which has suitable clearances for wheelchair manoeuvrability in accordance with North Sydney DCP, DDA Premises Standards and AS1428.1:2009. Along the northern side of building the through link pathway is divided by wide columns. The paths of travel on either column side are at least 1000mm clear width in accordance with AS1428.1:2009.

There is an alternative wide stair that connects the Atchison Street Café forecourt to the Atchison Lane forecourt and Shop 3. This is due to the significant height variation (approx. 2.7m height) between areas. The base of stair is suitably recessed from building line to satisfy AS1428.1:2009. Review of external handrail is needed at top of stair to ensure AS1428.1 requirements can be accommodated. This is achievable.

At this stage there is limited detail provided on proposed landscaping which will form an integral part of the forecourt building design around the main building entrances. A new kerb ramp crossing is indicated at northern boundary to Atchison Lane.

Recommendations:

- (i) Ensure accessible through link has gradients no steeper than 1:20 and suitable level landing areas at each change of direction and regular intervals, compliant with AS1428.1:2009.
- (ii) Ensure all external floor surfaces leading to and through the building from site boundaries are traversable by wheelchairs and suitably slip resistant, compliant with AS 1428.1:2009 and HB197/AS4856 (wet pendulum test).
- (iii) Provide handrails on both sides of external stair with required extensions that do not protrude into the transverse paths of travel, compliant with AS1428.1:2009. Review of external handrail is needed at top of stair to ensure suitable set-back in compliance with AS1428.1:2009.
- (iv) Ensure new kerb ramp has a 1:8 gradient and is designed in accordance with AS1428.1:2009.

4. INGRESS & EGRESS

4.1. Retail Shop 1 and 3 Entrance/s

There is a retail shop 1 located on Lower Ground level of development facing Atchison Street. There is a retail shop 3 located on Lower Ground level of development facing Atchison Lane. From the information provided, continuous access from Atchison Street and from Atchison Lane site boundaries via the through site link is achievable.

The main entry to shops 1 and 3 is via dual -hinged entry doors. The doors can achieve 850mm min. clear width and suitable clearances on both sides, compliant with AS1428.1:2009 and the DDA Premises Standards.

Recommendations:

- (i) Ensure the external access to shop 1 and 3 from Atchison Street and Lane site boundary, is compliant with AS1428.1:2009.
- (ii) Ensure entry doors have a minimum 850mm clear width (920mm door leaf) and suitable door circulation compliant with AS1428.1:2009.

4.2. Retail Shop 2 Café Entrance

There is a café retail tenancy located on the Upper Ground level of the development.

From the information provided, continuous access from Atchison Street site boundary and an accessible path of travel from Atchison Lane via the through site link is achievable. There is also external stair access from Atchison Lane.

There are 2 entrances to the Café from the eastern façade. Entry is via dual-hinged entry doors. The doors can achieve 850mm min. clear width and suitable clearances on both sides, compliant with AS1428.1:2009 and the DDA Premises Standards.

Recommendations:

- (i) Ensure the external access to café from Atchison Street and Atchison Lane is compliant with AS1428.1:2009.
- (ii) Ensure entry doors have a minimum 850mm clear width (920mm door leaf) and suitable door circulation compliant with AS1428.1:2009.

4.3. Residential/Serviced Units Entrance

Entry into the Residential/Serviced Unit foyer is at Lower Ground level via the building forecourt from Atchison Street. From the information provided, continuous access via the residential forecourt (Atchison Street), and from Atchison Lane via the through site link is achievable. Entry is via a dual-hinged entry door which can achieve 850mm min. clear width and suitable clearances on both sides, compliant with AS1428.1:2009 and the DDA Premises Standards.

From the entry door, there are suitable areas within the lobby to allow a person using a wheelchair to perform 180° turns and allow two persons using wheelchairs the space to pass one another compliant with the DDA Premises Standards.

There is an accessible path of travel to the commercial and residential lift lobby area which has appropriate clearances suitable for wheelchair manoeuvrability compliant with the DDA Premises Standards.

Recommendation:

- (i) Ensure the external access to the residential/serviced unit main entry from Atchison Street is compliant with AS1428.1:2009.

4.4. Serviced Apartment/Public to Amenities Lobby Entrance

Entry into the Serviced Apartment/Public to Amenities lobby is at Lower Ground level via the building forecourt from Atchison Street. From the information provided, continuous access via the residential forecourt (Atchison Street), and from Atchison Lane via the through site link is achievable.

Entry into the building is via a dual-hinged entry door which can achieve 850mm min. clear width and suitable clearances on both sides, compliant with AS1428.1:2009 and the DDA Premises Standards. From the entry doors, there are suitable areas within the lobby to allow a person using a wheelchair to perform 180° turns and allow two persons using wheelchairs the space to pass one another compliant with the DDA Premises Standards.

There is a direct accessible path of travel to the commercial lift lobby area which has appropriate clearances suitable for wheelchair manoeuvrability compliant with the DDA Premises Standards.

Recommendation:

- (i) Ensure the external access to the Serviced Apartment/Public to Amenities main entry from Atchison Street is compliant with AS1428.1:2009.

4.5. Emergency Egress

Within the development there are various emergency stairs leading from the upper and lower basement levels to street level. All fire doors appear to have less than 850mm clear widths.

The accessible points of egress from the development are from the main lobby entry doors from the various retail, serviced apartment and residential areas within the building.

Recommendations:

- (i) Provide at least one accessible continuous handrail within fire-isolated stairs compliant with AS1428.1:2009 as required under BCA 2013 part D2.17.
- (ii) Consideration for all doors to fire stairs to be increased to 850mm min. clear width (generally 920mm door leaf) to allow a person using a wheelchair access into the stair wells in case of emergency (advisory/best practice).
- (iii) Consideration should be given for at least 1 passenger lift within residential and serviced apartment areas to be operational in the event of an emergency (advisory/best practice).

5. RETAIL PATHS OF TRAVEL

5.1. Paths of Travel

It is assumed that retail shop 1, 3 and café area (shop 2) fit-outs will be subject to separate DA approvals. From the information provided there are suitable clearances within retail tenancies to allow a person in a wheelchair to perform 180° turns compliant with AS1428.1:2009. There are also suitable clearances to allow two persons in a wheelchair to pass one another compliant with the DDA Premises Standards.

The internal tenancy doors can achieve 850mm clear widths and suitable circulation areas, compliant with AS1428.1:2009. From within the café and retail shop 1 and 3 continuous access to base build sanitary facilities on Lower Ground level via building forecourt /site through link appears achievable.

There is continuous access from the café tenancy to the back of house service lift (from basement level 1) via a service lift lobby at Upper ground level.

Within retail shop 1 there is an approx. 1m height variation between public and staff back of house area. Continuous access will be provided by a low-rise lift located nearby the stairs in accordance with DDA Premises Standards. There are suitable size landings at top/bottom and between doorways, compliant with AS1428.1:2009.

Recommendations:

- (i) Ensure all tenancy doors have minimum 850mm clear widths and door circulation, compliant with AS1428.1:2009.
- (ii) Ensure an accessible path of travel from all retail tenancies to base build accessible sanitary facility located on Lower ground level, compliant with AS1428.1:2009.
- (iii) Provide handrails on both sides of retail stair with required extensions that do not protrude into the transverse paths of travel, compliant with AS1428.1:2009.
- (iv) Ensure low rise retail lift (1100mm wide x 1400mm long min. platform) is compliant with BCA Part E3.6.

5.2. Accessible Sanitary Facility

There is a base build accessible sanitary facility located on Lower Ground level, provided adjacent to unisex sanitary facilities in accordance with the DDA Premises Standards and BCA part F2 requirement.

The overall dimensions and room layout indicate it can satisfy the circulation requirements of AS1428.1:2009. Relocation of basin to northern wall is needed to maintain the required WC pan clear circulation space (1900mm width x 2300mm length) which is currently impeded. This is achievable.

Entry is via a hinged door that has suitable 850mm min. clear width and suitable door circulation can be provided, compliant with AS1428.1:2009.

Recommendations:

- (i) Relocate basin to northern wall to maintain WC pan circulation space (1900mm width x 2300mm length), compliant with AS1428.1:2009. This is achievable.

5.3. Unisex Sanitary Facilities

There are unisex sanitary facilities located on Lower Ground level, adjacent to the accessible WC. In accordance with the DDA Premises Standards and BCA part F2 requirement, a unisex ambulant cubicle is required to be provided. This is achievable.

There are suitable overall dimensions that can achieve the circulation requirements for an ambulant cubicle within the area under AS1428.1:2009.

Recommendations:

- (i) Provide at least one ambulant cubicle within the Unisex toilet bank, compliant with AS428.1:2009 and the DDA Premises Standards.
- (ii) Ensure 900mm x 900mm min. clear circulation area on both sides of each door (outside door swing) leading to ambulant cubicle toilets, compliant with AS428.1:2009.

6. SERVICED APARTMENT PATHS OF TRAVEL

6.1. Paths of Travel

From the two entry lobbies on Lower Ground level there is an accessible path of travel to the commercial passenger lifts that provide a continuous path of travel to all serviced apartment development levels (including units and common use facilities) compliant with AS1428.1:2009. There is also a suitable accessible path of travel to the Building Manager's Office, located adjacent to lift lobby, compliant with AS1428.1:2009. Review of room size is needed to ensure suitable latch side door clearance on internal side.

The commercial lift lobby areas on levels 1, 2 and 3 have 1800mm min. width (main lobby) which is enough space for two wheelchair users to pass one another or at least 1540mm min. width (secondary lobby) which is suitable for a person using a wheelchair to perform 180° turns in accordance with AS1428.1:2009 and the DDA Premises Standards.

In general, the corridors on levels (1 – 4) have at least 1540mm clearance within 2m of the corridor ends which ensures sufficient turning space for a person using a wheelchair to perform 180° turns compliant with AS1428.1:2009.

Recommendation:

- (i) Ensure all common-use doors (eg. Building Manager Office) have minimum 850mm clear widths and suitable door circulation, compliant with AS1428.1:2009.

6.2. Lifts

The commercial component of the development is serviced by 2 passenger lifts.

The lift located in Serviced Apartment/Public to Amenities lobby provides a continuous accessible path of travel from the Lower Ground level main entry to upper serviced apartment levels 1, 2, 3 and basement 1 level below, compliant with AS1428.1:2009 and the DDA Premises Standards.

The lift located in Residential/Serviced Apartment lobby provides a continuous accessible path of travel from the Lower Ground level main entry to upper serviced apartment levels 1, 2, 3 and basement 1 level below, compliant with AS1428.1:2009 and the DDA Premises Standards.

The passenger lift cores can achieve lift cars with suitable internal dimensions to comply with the DDA Premises Standards, North Sydney DCP and AS1428.2.

Recommendations:

- (i) Ensure all main passenger lift cars have minimum internal dimensions of 1400mm width x 1700mm length, compliant with North Sydney DCP and AS1428.2.
- (ii) Lift car components (grabrail, control buttons, lighting) to comply with AS1735.12.

6.3. Conference Room

There is an accessible path of travel to Conference room, on level 3 via the commercial passenger lifts from the entry lobbies on Lower Ground and Upper Ground levels. There is also access to this level from residential lifts.

The entry doors to the Conference Room can achieve suitable clear width and circulation areas compliant with AS1428.1:2009. Within the room there are suitable clearances to allow for wheelchair accessible path of travel and to allow two persons in a wheelchair to pass one another compliant with AS1428.1:2009 and the DDA Premises Standards.

The Room indicates seating for approx. 97 seats however it is unclear if fixed seating.

Recommendations:

- (i) Provide entry doors to common-use areas with a minimum 850mm clear width (each door leaf) and suitable door circulation area, compliant with AS1428.1:2009.
- (ii) For any fixed seating in Conference Room (Class 9b), provide 3 wheelchair seating spaces (ie. 1 single space and 1 group of 2 spaces), compliant with AS1428.1:2009.
- (iii) Provide hearing augmentation system where an inbuilt amplification system (except one for emergency warning only) is installed, in accordance with DDA Premises Standards.

6.4. Common-Use Gymnasium and Pool

There is an accessible path of travel to Gymnasium, on level 3 via the commercial passenger lifts from the entry lobbies on Lower Ground and Upper Ground levels. There is also access to this level from the residential lifts.

The entry doors to Gymnasium, can achieve suitable clear width and circulation areas compliant with AS1428.1:2009. Within the room there are suitable clearances for a wheelchair accessible path of travel and to allow two persons in a wheelchair to pass one another compliant with AS1428.1:2009 and the DDA Premises Standards.

There is an internal stair that connects up to the pool deck and swimming pool, that are located on an intermediate level between level 3 and level 4 (Spa Wellness Centre). The drawings indicate that continuous access for wheelchair users to pool deck is achievable via a limited mobility lift, compliant with AS1735.15 which can satisfy the requirements of DDA Premises Standards. The stair set-out and landing sizes can accommodate required handrail extensions on both sides, compliant with AS1428.1:2009. The lift type will be further developed at design development stage to ensure doors will not obstruct required pathway width on stair. This is achievable.

As the pool and spa appear to have a perimeter of less than 40m, access is not required into pool/spa under the DDA Premises Standards.

Recommendations:

- (i) Provide entry doors to common-use areas with a minimum 850mm clear width (each door leaf) and suitable door circulation area, compliant with AS1428.1:2009.
- (ii) Ensure limited mobility lift in Gymnasium (1100mm wide x 1400mm long min. platform) is compliant with BCA Part E3.6 and has suitable mid landing size.
- (iii) Provide handrails on both sides of the stair with required extensions that do not protrude into the transverse paths of travel, compliant with AS1428.1:2009.
- (iv) Consideration to provide accessible means of entry into the pool and spa (eg. sling hoist) in line with intent of the DDA, given the public nature of the pool (advisory).

6.5. Male & Female Change/Sanitary Facilities

There are male and female change areas including sanitary facilities within the gymnasium located on level 3. There do not appear to be any showers included. In accordance with the DDA Premises Standards and BCA part F2 requirement, an ambulant cubicle has been provided within both Male and Female facilities. The ambulant cubicles can achieve the circulation requirements under AS1428.1:2009.

6.6. Accessible Sanitary Facility

There is an accessible change/toilet adjacent to the Male and Female Changes/Toilets in accordance with the DDA Premises Standards and BCA part F2.

The accessible toilet has suitable dimensions for a wash-basin and toilet, compliant with AS1428.1. Entry is via a suitable clear width door however review is required of the overall width of facility to ensure suitable door circulation area on the internal side of entry door.

Recommendation:

- (i) Increase width of Accessible change/toilet to provide suitable door circulation clearance, (ie. 530mm latch side internally) compliant with AS1428.1:2009.

6.7. Serviced Apartment Accommodation

There are 2 levels of serviced apartment accommodation within the development. The passenger lifts provide an appropriate continuous path of travel to all serviced apartments from the main entry lobbies on Lower and Upper ground levels.

In general, most corridors within the serviced apartment development have suitable clearances to allow an accessible path of travel to the entry door of each serviced apartment in accordance with AS1428.1:2009 and DDA Premises Standards.

There are a total of 38 serviced apartments over Levels 01, 02. From the information provided, there are two accessible units which will satisfy the requirements of BCA 2011, Table D3.1 for the total unit provision between 11 to 40 total units. From the information provided these units have been nominated as units 1.18 and 2.37.

6.8. Accessible Apartment Design

The following assessment has been made from GA drawings for Units 1.18 and 2.37 to ensure compliance with AS1428.1:2009.

There is an accessible path of travel to and through the unit entry door, shown with 850mm clear width with suitable latch side clearance on both sides, compliant with AS1428.1:2009. The internal door to accessible bathroom can achieve the required 850mm min. clear width with suitable door circulation area. There is a 1000mm min. clear width path of travel throughout the apartment that links the key areas: living, bed, laundry and kitchenette. This dimension is increased outside the bathroom doorway to satisfy AS1428.1 circulation requirements for wheelchair users.

There is at least 1000mm min. clear width is provided each side of bed, and 1540mm width x 2070mm length circulation space at foot of bed as provision for wheelchair turning space. An accessible bathroom is provided with suitable overall dimensions (at least 1935mm width x 3350mm min. length) to include a shower, toilet, wash basin and circulation spaces compliant with AS1428.1:2009. There is suitable 1550mm min. diameter circulation area in front of kitchen and laundry area to allow for wheelchair manoeuvrability.

Recommendation:

- (i) Provide slip-resistant floor surface with min. wet pendulum test rating of 'X' (under HB197/AS4856) in adaptable unit bathroom, kitchen and laundry. Test results will be required at OC Stage.

7. RESIDENTIAL PATHS OF TRAVEL

7.1. Paths of Travel

From the entry foyer, there is an accessible path of travel to the residential passenger lifts which provide an appropriate continuous path of travel to all residential levels of the development compliant with AS1428.1:2009. The Lift lobby areas on typical residential levels have 1800mm min. width in front of lift doors which is suitable for a person using a wheelchair to perform 180° turns and for two wheelchair users to pass one another in accordance with the DDA Premises Standards.

The corridors on typical residential levels (5 – 23) have suitable clearances of at least 1540mm width to allow a person using a wheelchair to perform 180° turns compliant with AS1428.1:2009. Where the corridors intersect there are appropriate clearances (1800mm x 2000mm) to allow two wheelchair users to pass one another compliant with the DDA Premises Standards.

The residential corridors can achieve suitable clearances for an accessible path of travel to the entry door of each residential unit in accordance with AS1428.1:2009 and DDA Premises Standards.

7.2. Lifts

The residential component of the development is serviced by 2 passenger lifts. These provide a continuous accessible path of travel from the Lower Ground entry level to upper residential levels and all basement levels below, compliant with AS1428.1:2009 and the DDA Premises Standards.

The passenger lift cores have overall dimensions to achieve lift cars with suitable internal dimensions to comply with DDA Premises Standards, North Sydney DCP and AS1428.2.

Recommendations:

- (i) Ensure all main passenger lift cars have minimum internal dimensions of 1400mm width x 1700mm length, compliant with North Sydney DCP and AS1428.2.
- (ii) Lift car components (grabrail, control buttons, lighting) to comply with AS1735.12.

7.3. Spa and Wellness Centre

There is an accessible path of travel to Spa and Wellness Centre, on level 4 via residential passenger lifts from entry lobbies on Lower Ground level.

The main entry door to Centre has suitable clear width and door circulation areas compliant with AS1428.1:2009. Within the room there are suitable clearances to allow for wheelchair accessible path of travel and to allow two persons in a wheelchair to pass one another compliant with AS1428.1:2009 and the DDA Premises Standards.

There is an alternate entry near an adjacent stair connecting to the pool deck and swimming pool from an intermediate level between level 4 and level 3 (Gymnasium). The proposed limited mobility lift to pool deck will also service the Spa and Wellness Centre and provide continuous access between these areas in accordance with DDA Premises Standards. (Refer to Section 6.4).

Recommendations:

- (i) Provide entry doors to common-use areas with a minimum 850mm clear width (each door leaf) and suitable door circulation area, compliant with AS1428.1:2009.
- (ii) Provide handrails on both sides of the stair with required extensions that do not protrude into the transverse paths of travel, compliant with AS1428.1:2009.

7.4. Common-Use Areas

There is an accessible path of travel leading to a common-use waste chute room, located near lift core on each residential level. Entry is via a single-hinged door which has 850mm clear width, compliant with AS1428.1:2009. There is a 1000mm clear path of travel within room, however the limited room size results in internal door circulation less than AS1428.1:2009 requirements. This may require an alternative solution to satisfy the performance requirements of the BCA. This would be based on location of waste chute and bins directly in front of door (without a door closer mechanism being installed) to assist wheelchair access into the room in a forward/reverse motion.

At this stage there is no detail provided on location of mailboxes. It is presumed they will be in Lower ground level residential foyer in close proximity to the main entry doors.

Recommendations:

- (i) Ensure all common-use entry doors have 850mm clear width (generally 920 door leaf) and suitable door circulation, compliant with AS1428.1:2009.
- (ii) Provide alternative solution report at CC Stage to address BCA performance requirements for the limited door circulation in the common-use waste chute room on each residential level.
- (iii) Ensure residential mailboxes are located on level hardstand area with 1540mm x 2070mm min. clear circulation in front of mailboxes suitable for a wheelchair user to perform 180° turns in accordance with AS1428.1:2009 and AS4299.

7.5. Residential Unit Accommodation

The passenger lifts provide an appropriate continuous path of travel to all residential units on upper levels 3 – 23 from the Lower Ground residential entry foyer. There are a total of 200 residential units within the development with a range of 1 bed and 2 bed unit types.

The residential corridors can achieve suitable clearances for an accessible path of travel to the entry door of each residential unit in accordance with AS1428.1:2009 and DDA Premises Standards.

From the information provided the proposed adaptable units are types 15.7 and 15.8. These units are located over levels 5 – 23. The proposal achieves the required 20 adaptable units to satisfy the 10% adaptability requirement of total units, designed in accordance with AS4299 under North Sydney Council DCP and the previously approved Project Approval Consent Conditions for the project.

7.6. Adaptable Unit Design

The following assessment has been made from the pre and post adaption preliminary drawing provided to ensure compliance with AS4299 Class C requirements. Due to the almost identical layouts (mirror reverse) of the adaptable units, the assessment for both types has been combined.

The unit entry door has suitable 850mm min. clear width compliant with AS4299 and AS1428.1:2009. It can easily achieve suitable latch side clearance on both sides of entry door through removal of joinery unit in accordance with AS4299. The kitchen can achieve 1550mm min. circulation area in front of bench and appliances as required by AS4299. At least 800mm min. width workspace is provided between sink and cooktop, while maintaining a small set-down area near fridge in accordance with AS4299.

The laundry can achieve 1550mm clearance in front of laundry tub/appliance by removing/reducing the joinery unit behind entry door at post-adaption in accordance with AS4299. There is suitable 1000mm width path of travel to living/dining area which can achieve appropriate 2250mm diameter turning area compliant with AS4299. The pre-adaption size of bathroom and balcony doors achieves 850mm min. clear width in line with AS1428.1:2009 and AS4299 requirements.

The adaptable bedroom can achieve appropriate dimensions for the required circulation areas around bed and in front of wardrobe, compliant with AS4299 through partial wall removal/reduction and conversion to a studio space.

The overall pre-adaption dimensions of the bathroom can achieve compliance with circulation requirements of AS1428.1 at post-adaption with re-location of sanitary fittings. From the information provided there will be extra capped off plumbing provision for WC, shower and basin to allow for re- location in compliance with AS1428.1. In addition continuous water-proofing/tiling is noted to be provided behind joinery unit for ease of removal.

Recommendation:

- (i) 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.

8. CAR PARKING PROVISIONS

8.1. Basement Car parking

There is serviced apartment, residential and retail car parking provided over six basement levels of the development with approx. total of 168 car bays across the site in accordance with the previously approved Project Approval Consent Conditions for this development.

The serviced apartment parking bays, retail and some residential parking bays will be provided on Basement level B1 with residential parking areas on Basement levels B2, B3, B4, B5 and B6. There are 4 accessible car parking bays located on level B1 in accordance with the previously approved Project Approval Consent Conditions for this development. The accessible car bays are shown with 2.4m clear width x 5.4m length adjacent to a shared zone of same dimensions, compliant with AS2890.6:2009.

From the information provided, 1 of the accessible car bays is for the serviced apartment development. Based on percentage of required accessible SOU's to total number of SOU's (2/38) multiplied by total number of serviced apartment car bays (13) this satisfies the BCA Table D3.5 requirements for this development. The other 3 accessible car bays are provided for the residential development which is in accordance with the previously approved Project Approval and Consent Conditions for this development.

Generally, the accessible car bays are located in reasonable proximity to the residential passenger lifts. Review of location of accessible bays 8 and 9 is recommended for more direct proximity to commercial lifts and serviced unit lift lobby, provided the required 2.5m min. height clearance can be achieved. There is suitable circulation area outside the basement 1 lift doors for people using wheelchairs, to manoeuvre and wait safely away from vehicles under AS1428.1:2009.

At this stage, the B1 retail parking bays are not nominated on plan however, in line with traffic report there will be 4 retail bays provided within the approved 168 bays. Whilst at least 1 accessible retail bay is needed to satisfy the 2% BCA requirement, in accordance with part D3.5 (d) this bay does not have to be designated as there are less than 5 spaces.

Recommendations:

- (i) Ensure a height clearance of 2.5 metres above all accessible car spaces and shared bays, located on level B1, compliant with AS2890.6.
- (ii) The approach to each accessible car space on level B1 to not have vertical clearance of less than 2.2m, compliant with AS2890.6.
- (iii) Relocate the serviced apartment accessible car bay in closer proximity to commercial lift and serviced unit lift lobby, provided the required 2.5m min. height clearance can be achieved in this area.
- (iv) Ensure accessible bay shared zone is allocated as common building property with bollard installed from the outset (AS2890.6) to ensure use as circulation zone for people with disabilities.
- (v) Ensure allocation of B1 retail car bays provides at least 2 retail bays located adjacent to one another with a height clearance of 2.5 min. height to allow for use as an accessible bay if required. Alternatively at least 1 retail bay to be located adjacent to a clear circulation area (min. dimensions of 2.4m W x 5.4m L) with 2.5m min. height.