



Project Address: Reddall & Bower Street, Manly

Client: M projects Pty Ltd Report Number: 190042

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REPORT REVISION HISTORY

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01	26/04/19	Draft report issued for client review		
		Prepared by	Verified by	
		Lucy Shepherd Manager - Access	DRAFT	
02	05/06/19	Final DA report issued to client		
		Prepared by	Verified by	
		Lucy Shepherd	Adam DeLooze	
		Manager - Access	Executive Director – Building	
			BPB0085 - A1 Unrestricted	
03	19/06/19	Final DA report issued to client (minor	amendments)	
		Prepared by	Verified by	
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		Manager - Access	Executive Director – Building	
			BPB0085 – A1 Unrestricted	

Certification

This report has been authorised by City Plan Services P/L, with input from a number of other expert consultants. To the best of our knowledge the accuracy of the information contained herein is neither false nor misleading. The comments have been based upon information and facts that were correct at the time of writing.

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1. EXECUTIVE SUMMARY

This report assesses the level of accessibility compliance achieved within the subject residential development located at 29-35 Reddall Street and 95 Bower Street, Manly NSW 2095.

The documentation provided for assessment has been reviewed against the relevant clauses of the *Premises Standards 2010*, *Building Code of Australia* and associated Australian Standards pertaining to the accessibility requirements for people with a disability.

The key findings within this report are as follows:

■ BCA clause D3.2(1)(i) - The design team has proposed a performance-based approach to justify an inaccessible (not level) point of entrance at the allotment boundary from Bower Street. An accessible point of entry has been provided from College Street. A performance solution report will be provided at construction certificate stage.

The following report details the nature of the above non-compliances and proposes where design modification or a performance-based approach might be considered.



2. INTRODUCTION

2.1. General

The development, the subject of this report, is for the proposed multi-unit residential development and associated parking, located at 29-35 Reddall Street and 95 Bower Street, Manly NSW 2095.

The property is situated within the local government area of Northern Beaches Council, within the former Manly Council ward.

2.2. Purpose of Report

This report has been prepared, on behalf of M Projects Pty Ltd, to establish compliance to the access requirements of the *Building Code of Australia* (hereafter referred to as the BCA), the *Disability (Access to Premises - Buildings) Standards 2010* (hereafter referred to as the *Premises Standards 2010*), the Adaptable Housing requirements of Australian Standard *AS4299-1995 Adaptable Housing, Livable Housing Design Guidelines* and relevant Acts and Regulations of the development application documentation for the proposed works.

2.3. Report Basis

This report is based on:

- 1. Environmental Planning and Assessment Act 1979.
- 2. Environmental Planning and Assessment Regulation 2000.
- 3. Disability (Access to Premises Buildings) Standards 2010.
- 4. The Building Code of Australia 2019, inclusive of NSW variations (See Note 1).
- 5. Australian Standards, as referenced within the BCA:
 - Australian Standard AS1428.1-2009 (incorporating amendment Nos 1 and 2) Design for access and mobility Part 1: General requirements for access - New building work.
 - Australian Standard AS/NZS 2890.6-2009 Parking Facilities Part 6: Off-street parking for people with disabilities.
 - Australian Standard AS/NZS 1428.4.1:2009 (incorporating amendment Nos 1 and 2) Design for access and mobility Part 4.1: Means to assist the orientation of people with vision impairment – Tactile ground surface indicators.
 - Australian Standard AS1735.12-1999 Lifts, escalators and moving walks Part 12: Facilities for persons with disabilities.
- 6. Australian Standard AS4299-1995 Adaptable Housing.
- 7. Livable Housing Design Guidelines Fourth Edition, Livable Housing Australia.
- 8. Architectural plans prepared by Squillace Architects, as listed in Appendix 1.



Note 1: Building Code of Australia (BCA) 2019 was adopted in NSW on 01 May 2019. The amendment of the BCA in force at the date of lodgement of the Construction Certificate application is the version called up by clause 98 of the Environmental Planning and Assessment Regulation 2000 for the purpose of the building design. Therefore, comments may be subject to changes to comply with updated versions of the Building Code of Australia.

2.4. Exclusions and Limitations

This report has been prepared based on the following limitations and exclusions:

- 1. This report does not verify compliance with the BCA other than the accessibility provisions of Parts D3, F2.4 and E3.6.
- 2. This report does not consider any heritage controls or restrictions.
- 3. This report does not include or imply compliance with the Development Consent other than accessibility items specified.
- 4. This report does not verify compliance with the *Disability Discrimination Act 1992*, other than the requirement to comply with the *Premises Standards 2010*.

2.5. Building Description

The proposed building consists of:

Basement 2 Class 7a - Parking

Basement 1 Class 7a – Parking

Class 2 - Residential Terraces

Lower Ground Class 7a – Parking

Class 2 – Residential Terraces and Units buildings

A and B

Ground Floor Class 2 – Residential Units – Building A, B and C

Level 1 Class 2 – Residential Units Building B and C

Level 2 Class 2 – Residential Units Building C



3. DISABILITY (ACCESS TO PREMISES – BUILDING) STANDARDS 2010

The *Premises Standards 2010* applies to all new buildings and building parts, including existing buildings undergoing upgrade works. The *Premises Standards 2010* aims to provide certainty for the building industry in relation to meeting the DDA requirements for access to buildings. The *Premises Standards 2010* generally aligns with the BCA and provides specific prescriptive requirements for compliance with a range of Australian Standards relating to access and associated matters. If a building is designed and constructed under the current BCA and the *Premises Standards 2010* there is a greater level of assurance that the design complies with the DDA.

The BCA, in conjunction with the DDA applies to all new buildings, new building works to existing buildings and buildings undergoing significant refurbishment or alteration.

4. ADAPTABLE AND LIVABLE UNIT REQUIREMENTS

State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development (SEPP 65) applies the Apartment Design Guide, which requires within section 4Q1 that 20% of apartments achieve a Silver Level Livable Housing rating, in addition to local DCP requirements for adaptable units provided in accordance with AS4299-1995.

Features are to be provided as outlined in Table 6.1 in Section 8.1 of this report.

As per Clause 3.6.3.1 of the Manly Development Control Plan (2013), adaptable housing in accordance with AS4299-1995 is to be provided to at least 25% of dwellings within residential accommodation containing for more dwellings. Adaptable units are to incorporate all essential features specified for Class C types as outlined in Table 6.1. The development documentation illustrates pre and post adaptation layouts.

There are **23** units proposed in the subject development which, six Class C Adaptable units and five Silver Level Livable housing units are proposed.

5. ADAPTABLE CARPARKING

One accessible / adaptable car space is required for each adaptable unit to satisfy clause 3.7.2 of AS4299-1995, being the only essential carparking feature required for Class C developments. The designated accessible car space should have minimum dimensions of 5.4m x 3.8m, compliance with AS2890.6:2009 is also considered acceptable.

The Silver Livable Rating required by SEPP 65 does not contain any specific carparking requirements. A minimum of six accessible car spaces are required to comply with the requirements of AS4299-1995.

Accessible carparking bays should have a vertical clearance above the car space and the adjacent shared area of a minimum of 2.5m high. The vehicle path from the street to the accessible spaces should have a clear head height of 2.2m. Consideration should be given to services within the carpark as these often reduce the head clearances resulting in further non-compliances.

To achieve compliance with AS/NZS 2890.6:2009 bollards are to be positioned within the shared space as shown in Figures 2.2 and 2.3, space delineation in accordance with Section 3.2 of AS/NZS 2890.6-2009. The construction certificate documentation is to document compliant shared spaces for all accessible spaces and bollards.



6. BUILDING CODE OF AUSTRALIA ASSESSMENT

This assessment considers the accessibility requirements of the BCA, specifically clauses D2.17, E3.6, F2.4 and Part D3.

6.1. BCA Interpretation

The following assessment methodology has been applied to the subject development:

 Terrace houses achieve a Class 2 classification due to the common basement, common areas are designed in accordance with the requirements of the BCA and AS 1428.1-2009.

6.2. Access for People with a Disability

BCA clause	Title	Assessment and Comment	Status
2.17	Handrails in exits	Handrails in exits Handrails are required along at least one side of all fire-isolated required exit stairways or ramps, or on both sides of stairs or ramps with a total width of more than 2m. Handrails within fire-isolated required exit stairs / ramps are required to comply with clause 12 of AS1428.1-2009. clauses 12(e) and 12(j) of AS1428.1-2009 requires that the handrails be consistent throughout the stair and that handrails at landings shall always be continuous. This is generally achieved by providing an offset tread, as shown in figure 28 of AS1428.1-2009, however the offset tread is not a prescriptive requirement and is just one method of achieving consistent handrail heights throughout the stair. Handrails containing vertical sections or sections with an inconsistent height at landings do not achieve compliance with clause 12 of AS 148.1-2009. Refer to Section D3.3 for handrail requirements in parts of buildings required to be accessible.	Capable of complying
D3.1	General building access requirements	In accordance with Table D3.1, access is to be available in the following areas; Class 2 Apartments To and within not less than one (1) type of room or space for use in common by residents or	Capable of Complying



BCA clause	Title	Assessment and Comment	Status
		guests and to the entrance doorway of each apartment in accordance with table D3.1 of the BCA.	
		Ensure circulation spaces at doorways to shared waste area (building A) are provided in accordance with the requirements of BCA Clause D3.1.	
D3.2	Access to buildings	An accessway (continuous accessible path as defined by AS1428.1-2009) must be provided to a building required to be accessible: • from the main points of a pedestrian entry at the allotment boundary; and • from another accessible building connected by a pedestrian link; and • from the required accessible carparking spaces on the allotment. Access is required to be provided to not less than 50% of all pedestrian entrances and a pedestrian entrance which is not accessible must not be located more than 50m from an accessible entry. Doorways with multiple leaves, on any accessway are required to achieve a clear opening width of not less than 850mm at one of the leaves, in accordance with AS 1428.1-2009. Building A Pedestrian access to Building A is provided at level Basement 1. A 1:20 walkway is provided from College Street. A secondary stepped accessway is provided from Bower Street, a performance-based approach is proposed to justify the inaccessible point of entry from the	Capable of complying – Performance Solution
		 allotment boundary. Building B Pedestrian access to building B is provided from College Street at lower ground floor level via a 1:20 walkway. 	



BCA clause	Title	Assessment and Comment	Status
		■ Pedestrian access to building C is provided from Reddall Street at level 1 to two (2) entrances. The northern entrance as accessed via two steps or a 1:14 entrance ramp.	
		Detailed construction documentation is to demonstrate compliance with AS1428.1. Ensure at building C entrances that handrail extensions can be provided at the entrance without protruding into required circulation spaces.	
D3.3	Parts of building	Every ramp and stairway must comply with:	Capable of
	to be accessible	 for a ramp, except a fire-isolated ramp, clause 10 of AS 1428.1 (gradients, rise, length and landings); and 	Complying
		 for a stairway, except a fire-isolated stairway, clause 11 of AS 1428.1 (set-backs, nosings, TGSIs, handrail extensions, handrail design); and 	
		 for a fire-isolated stairway, clause 11.1(f) and (g) of AS 1428.1-2009. 	
		Accessways require passing spaces in accordance with AS1428.1-2009 (1800 x 2000mm) at maximum 20m intervals where no direct line of sight is available.	
		Turning spaces in accordance with AS1428.1-2009 (1540 x 2070mm) are required within 2m of the end of accessways where it is not possible to continue traveling and at maximum 20m intervals along the accessway.	
		Handrails and TGSIs are not fully documented and details are to be included in further design documents	
		Residential levels are generally provided with the required 1540mm x 2070mm turning space at corridor ends.	
		Note: clause 7.4.1(a) of AS1428.1-2009 does not apply and is superseded by BCA clauses D3.3 (g) and(h), whereby the pile height or pile thickness shall not exceed 11 mm and	



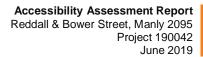
BCA clause	Title	Assessment and Comment	Status
		the carpet backing thickness shall not exceed 4 mm and the carpet pile height or pile thickness dimension, carpet backing thickness dimension and their combined dimension shown in figure 8 of AS1428.1-2009 do not apply and are replaced with 11 mm, 4 mm and 15 mm respectively.	
		Details to be included within the construction certificate documentation.	
D3.4	Exemptions	The following areas are not required to be accessible:	Note
		 An area where access would be inappropriate because of the particular purpose for which the area is used. An area that would pose a health or safety risk for people with a disability. Any path of travel proving access only to an area exempted by (a) or (b). 	
		Within the context of the above the following areas have been excluded under clause D3.4:	
		 Building B Electrical Plant Room (Basement 1); 	
		Building C Electrical Plant Room (Basement 1); and	
D0.5	0	Building C Hot Water Plant Room. Part land all.	Nece
D3.5	Car parking	Residential There are no BCA requirements to provide parking associated with Class 2 buildings.	Note
		One (1) accessible car space associated with each adaptable apartment is required to satisfy clause 3.7.2 of AS4299-1995. The designated accessible car spaces are required to have minimum dimensions of 6.0m x 3.8m to achieve compliance with AS4299-1995. Accessible parking complying with AS/NZS2890.6-2009 satisfies the requirements of this clause.	
		A total of six accessible adaptable spaces are required to comply with the requirements of AS 4299-1995. Refer to Section 6 below.	



BCA clause	Title	Assessment and Comment	Status
D3.6	Signage	Braille and tactile signage complying with Specification D3.6 must identify the following:	Capable of Complying
		 Each accessible and ambulant sanitary facility. 	
		 Spaces where hearing augmentation is provided. 	
		 Each doorway forming part of a required exit must be provided with braille and tactile signage incorporating wording of, "Exit", and "Level", and either, the floor level number or floor level descriptor. 	
		 Where a pedestrian entrance is not accessible, directional signage incorporating the international symbol for access must be provided to direct a person to the nearest accessible entrance. 	
		Where an accessible sanitary facility is not provided at a bank of sanitary facilities directional signage incorporating the international symbol of access to be provided to direct a person to the nearest accessible unisex facility.	
		Signage details have not been specified at this stage. Construction documentation to incorporate a signage schedule and demonstrate compliance.	
D3.7	Hearing augmentation	There are no Class 9b building / parts or uses applicable to the requirements of this clause.	Note
D3.8	Tactile indicators	Tactile ground surface indicators (TGSIs) are required at the following locations: all stairs and ramps excluding fire-isolated required exits):	Capable of Complying
		required exits); Escalators and moving walks; overhead obstructions where a height clearance of less than 2000mm is provided in an open public space and no suitable barrier is provided; and Where a pedestrian area joins a carriageway	
		 Where a pedestrian area joins a carriageway at the same grade. 	



BCA clause	Title	Assessment and Comment	Status
		TGSIs have not been specified at this stage. TGSIs are to be documented to the applicable stairs and ramps and are required to comply with sections 1 and 2 of AS/NZS 1428.4.1-2009.	
		Construction documentation should demonstrate compliance.	
D3.9	Wheelchair seating spaces in Class 9b assembly buildings	The building does not contain a Class 9b part.	Note
D3.10	Swimming Pools	This building does not contain a swimming pool.	Note
D3.11	Ramps	A series of connected ramps must not have a combined vertical rise of more than 3.6m.	Note
		A landing for a step ramp must not overlap a landing for another step ramp or ramp.	
D3.12	Glazing on an accessway	On an accessway, where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening, must be clearly marked in accordance with AS 1428.1-2009.	Capable of Complying
		Full height glazed panels and doors throughout the building will require compliant visual indicators, specified in accordance with the requirements of clause 6.6 of AS1428.1-2009.	
		Construction documentation should demonstrate compliance.	
E3.6	Passenger lifts	Passenger lifts are required to be in accordance with BCA clause E3.6.	Capable of Complying
		Building B	
		Two passenger lifts are proposed serving levels Basement 1 – level 1. Current drawings show the lift car size as approximately 1100mm wide x 1400mm deep, which is suitable in accordance with the requirements of BCA clause E3.6 for a lift travelling an effective height of less than 12m.	





BCA clause	Title	Assessment and Comment	Status
		Building C	
		Two passenger lifts are proposed serving levels Lower Ground – level 2. Current drawings show the lift car size as approximately 1100mm wide x 1400mm deep, which is suitable in accordance with the requirements of BCA clause E3.6 for a lift travelling an effective height of less than 12m	
		Detailed drawings of lift fixtures and fittings will be required for review at design development to ensure compliance with BCA Table E3.6 AS1735.12-1999 has been achieved. A lift design statement certifying compliance is to be provided.	
F2.4	Accessible sanitary facilities	No common accessible sanitary facilities are proposed.	Note



6.2.1. Design for Access and mobility - AS1428.1-2009

1428.1 Clause	Title	Assessment and Comment	Status
6.1	General	The continuous accessible path does not incorporate a step, stairway, turnstile, escalator, moving walk or other impediment.	Capable of Complying
6.2	Height of continuous accessible path of travel	The minimum unobstructed height along the accessible path of travel is to be 2m and 1980mm at doorways. Construction documentation should demonstrate compliance.	Capable of Complying
6.3	Width of continuous accessible path of travel	Unless otherwise specified (such as doors, curved ramps etc.) the minimum unobstructed width along the path of travel is no less than 1000mm. Construction documentation should demonstrate compliance.	Capable of Complying
6.4	Passing space for wheelchairs	Accessways require a circulation space with dimensions not less than 1800mm (W) and 2000mm (L) at 20m intervals where a direct line of sight is not available. Construction documentation should demonstrate compliance.	Capable of Complying
6.5	Circulation space for wheelchair turn	Accessways require turning spaces in accordance with AS1428.1-2009. 60°-90° turns require a minimum circulation space of 1500 x 1500mm with a gradient of not more than 1:40. 30°-60° turns where the width of path of travel is less than 1200mm, require a splay of 500 x 500mm at the internal corner. 90°-180° turns require a minimum circulation space of 1540 x 2070mm. Construction documentation should demonstrate compliance.	Capable of Complying



1428.1 Clause	Title	Assessment and Comment	Status
6.6	Visual indicators on glazing	On frameless or fully glazed doors, side lights or glazing capable of being mistaken for a doorway where there are no transom visual indicators are required. Contrasting line to be not less than 75mm wide with the lower edge located between 900mm and 1000mm above FFL. The contrasting strip must have a minimum luminance contrast of 30%. Construction documentation should demonstrate compliance.	Capable of Complying
7.1	Floor and ground surfaces	The continuous accessible paths of travel and circulation spaces are to have a slip resistance and should be traversable by wheelchair users and people with an ambulant or sensory disability. Construction documentation should demonstrate compliance.	Capable of Complying
7.2	Tolerances for abutment of surfaces	All abutment of surfaces is required to have a smooth transition including any feature pavement used as a pedestrian zone and along the continuous accessible path of travel. Construction documentation should demonstrate compliance.	Capable of Complying
7.3	Changes in level	A change in level along the path of travel should not exceed a vertical tolerance of 3mm, or 5mm if bevelled. Construction documentation should demonstrate compliance	Capable of Complying
7.4	Soft floor coverings	Carpets and mats are required to comply with the requirements of this clause with the exemption of clause 7.4.1(a) which does not apply and is replaced with clause D3.3(g) & (h) of the BCA. This level of detail is not currently documented on the plans.	Capable of Complying



1428.1 Clause	Title	Assessment and Comment	Status
		Construction documentation should demonstrate compliance.	
8	Signage	Signage is required to be installed throughout the proposed development in accordance with this provision and clause D3.6 and Specification D3.6 of the BCA.	Capable of Complying
		Where specified by the BCA signage shall be provided in accordance with the technical requirements of AS1428.1-2009.	
		Signage to sanitary facilities / exit doors / areas with hearing augmentation has not been documented at this stage. Construction documentation should demonstrate compliance.	
9	Tactile ground surface indicators	TGSIs are required to be provided to all stairways and ramps (excluding fire-isolated) and are to comply with sections 1 and 2 of AS/NZS 1428.4.1:2009.	Capable of Complying
		TGSIs should be perpendicular to the direction of travel when approaching the hazard and for the full width of the path of travel.	
		Where handrails are continuous on both sides of the landing and the landing edge is less than 3000mm to the nearest nosing edge, indicators are not required.	
		TGSIs should be set back 300mm ±10mm from the edge of the hazard (except at railway platforms and wharves).	
		Where the distance of the landing to the nosing edge is less than 3000mm, TGSIs are to be over a distance of 300-400mm.	
		Where the distance of the landing to the nosing edge is more than 3000mm, TGSIs are to be over a distance of 600-800mm.	
		Integrated TGSIs are to have luminance contrast of no less than 30% against the surrounding surface, Discrete TGSIs are to have a luminance contrast of 45% to the surrounding surface.	



1428.1 Clause	Title	Assessment and Comment	Status
		TGSIs have not been specified at this stage. Construction documentation should demonstrate compliance.	
10.1	Walkways, ramps and landings	Walkways, ramps and landings are required to be provided in accordance with the requirements of this clause. Construction documentation should demonstrate compliance.	Capable of Complying
10.2	Walkways	One of the following is to be provided at walkways: The ground surface abutting the walkways shall be firm and level, follow the grade of the walkway, be of a different material and extend a minimum of 600mm; or Kerb with a minimum height of 65mm; or Kerb rail and handrail; or A wall with a height of not less than 450mm. Landings are not required where the walkways are shallower than a 1:33 gradient. Construction documentation should demonstrate compliance.	Capable of Complying
10.3	Ramps	Ensure all ramps have a gradient of no more than 1:14 and that handrails, kerb rails and TGSIs are provided in accordance with the requirements of AS1428.1-2009. Ramps at a gradient of 1:14 to have landings at minimum 9m intervals and at 15m intervals at a gradient of 1:20. Ramps with gradients between 1:20 and 1:14 to have landings at intervals obtained by linear interpolation. Construction documentation should demonstrate compliance.	Capable of Complying
10.4	Curved walkways, ramps and landings	Curved ramps and walkways to have a clear width of not less than 1500mm.	Capable of Complying



1428.1 Clause	Title	Assessment and Comment	Status
		Curved ramps, walkways and landings are required to have an inner radius in accordance with this clause (refer to AS1428.1-2009 Figure 20).	
		Construction documentation should demonstrate compliance.	
10.5	Threshold ramps	Threshold ramps are to have a maximum rise of 35mm, a maximum length of 280mm and a maximum gradient of 1:8.	Capable of Complying
		Threshold ramps are required to be located within 20mm of the door leaf which it serves.	
		Construction documentation should demonstrate compliance.	
10.6	Step ramps	No steps ramps are proposed.	Note
10.7	Kerb ramps	No kerb ramps are proposed.	Note
10.8	Landings	Landings require a minimum length of 1200mm or where a change in direction is 90° or more 1500mm.	Capable of Complying
		Construction documentation should demonstrate compliance.	
11.1	Stairways	Stairways are required to comply with the requirements of this clause.	Capable of Complying
		At a property boundary, stairways shall be set back a minimum of 900mm, so that handrails and TGSIs do not protrude into the traverse path of travel.	
		At an intersection within an internal corridor stairway to be setback a minimum of one tread width + 300mm + handrail return to ensure handrails and TGSIs to not protrude into the traverse path of travel.	
		Stairways are required to have opaque risers and nosings with a contrasting strip not less than 50mm nor more than 75mm in depth, set back a maximum of 15mm from the front of the nosing. Where the contrasting strip is not set back from	



1428.1 Clause	Title	Assessment and Comment	Status
		the front of the nosing then the area of contrast must not extend down the riser by more than 10mm. This level of detail is not currently documented on the plans and construction documentation should demonstrate compliance.	
11.2	Stairway handrails	Handrails are required on both sides of the stairway and are to be installed in accordance with the requirements of AS1428.1-2009 (fire-isolated required exit stairways excluded). Construction documentation should demonstrate compliance. Internal Corridor or Walkway with Construction with the partition wall a total of 180° or return fully to end post or wall face of the post of the post or wall face of the post of the	Capable of Complying
12	Handrails	Handrails are required to comply with the requirements of this clause. The top of handrails is required to be 865-1000mm above FFL. Handrails must be circular or elliptical with a cross-section of between 30mm to 50mm and a clearance of a minimum 50mm maintained between the handrails and an adjacent wall surface. Clearance to extend above the top of the handrail by not less than 600mm. Handrails shall have no obstruction and are to be returned in accordance with AS1428.1-2009. Handrail details have not been specified at this stage. Construction documentation should demonstrate compliance.	Capable of Complying



1428.1 Clause	Title	Assessment and Comment	Status
13.1	Doorway luminance contrast	A minimum luminance contrast of 30% must be provided between one of the following: door leaf and door jamb; or door leaf and adjacent wall; or architrave and wall; or door leaf and architrave or door jamb and adjacent wall. The minimum width of the luminance contrast is 50mm. This level of detail is not currently documented on the plans. Construction documentation should demonstrate compliance.	Capable of Complying
13.2	Clear opening of doorways	All doors on the continuous accessible path of travel must have a minimum clear unobstructed width of 850mm to the active leaf. Doorways with multiple leaves, on any accessway are required to achieve a clear opening width of not less than 850mm for one of the leaves in accordance with AS1428.1-2009. Construction documentation should demonstrate compliance.	Capable of Complying
13.3	Circulation spaces at doorways	Circulation spaces are required to be provided on both sides of every door on an accessible path of travel. Where swing doors are automated and have a side approach – circulation space is required on the approach side only.	Capable of Complying
13.4	Distance between successive doorways	A minimum of 1450mm is required between successive doorways in vestibules and air locks. Where the doors encroach into space, the 1450mm is required to be increased by the width of the door. On the path of travel to an ambulant sanitary facility a minimum of 900mm is to be provided between successive doorways.	Capable of Complying



1428.1 Clause	Title	Assessment and Comment	Status
		Construction documentation should demonstrate compliance.	
13.5	Door controls	Door handles are to comply with the requirements of this clause.	Capable of Complying
		Door handles should allow the door to be unlocked and opened with one hand, be located between 900mm and 1100m above FFL, the handle must be such that the hand of a person will not slip from the handle and the clearance between the handle and door face shall not be less than 35mm and more than 45mm.	
		This level of detail is not currently documented on the plans. Construction documentation should demonstrate compliance.	
14	Switches and general-purpose outlets	All switches and controls on an accessible path of travel are required to be located between 900mm and 1100mm from FFL and not less than 500mm from internal corners.	Capable of Complying
		General purpose outlets are required to be located between 600mm and 1100mm from the finished floor level not less than 500mm from internal corners.	
		This level of detail is not currently documented on the plans. Construction documentation should demonstrate compliance.	
15	Sanitary facilities and showers	No common sanitary facilities are proposed.	Note
16	Ambulant sanitary facilities	No common sanitary facilities are proposed.	Note
17	Grab rails	No common sanitary facilities are proposed.	Note
18	Assembly Buildings	No fixed seating is proposed.	Note
A4	Access controlled entry	Where provided, access control or intercom button into a secure carpark should be positioned to allow a driver to use the device.	Capable of Complying



1428.1 Clause	Title	Assessment and Comment	Status
		Any ticket system should cater for someone who may have a weak hand grip.	
		This level of detail is not currently documented on the plans	



7. LIVABLE HOUSING

Council's DCP requires compliance with SEPP 65 and the Apartment Design Guide. Section 4Q1 of the Apartment Design Guide requires 20% of the apartments to achieve a Silver Level Livable Housing rating. This equates to five units within the subject development.

7.1. Table 7.1 - Schedule of features for Livable Housing

This assessment considers the accessibility requirements within the Livable Housing Design Guidelines as applicable and required by SEPP 65:

Clause	Requirement	Assessment and Comment	Status
1. Dwelling	access		
Silver Level	Access is required to and through the entrance doorway of the Sole Occupancy Units (SOU). Accessway are to comply with the BCA.	The proposed design is capable of complying and full details are to be included within the Construction Certificate documentation.	Capable of Complying
2. Dwelling	entrance		
Silver Level	 The SOU entry doors require; An 820mm clear opening width, Level entrance (5mm tolerance), A landing with dimensions of 1200m x 1200mm on the lobby side of SOU entry door, Where the threshold at the entrance exceeds 5mm and is less than 56mm, a threshold ramped in may be provided. 	The pre-adaptable design demonstrates compliance with the requirements of this provision. Full details are to be included within the Construction Certificate documentation.	Capable of Complying
3. Carparkii	ng		
Silver Level	Carparking to achieve minimum dimensions of 3200mm x 5400mm where parking forms part of the dwelling access.	The carparking does not form part of the dwelling access and the requirements of this clause do not apply.	Note
4. Internal o	loors and corridors		
Silver Level	Internal doors within the SOU are required to achieve a clear opening width of 820mm, have a	The pre-adaptable design demonstrates compliance with the requirements of this	Capable of Complying



Clause	Requirement	Assessment and Comment	Status
	level transitions (5mm tolerance) and internal corridors are to achieve a clear width of 1000mm.	provision. Full details are to be included within the Construction Certificate documentation.	
5. Toilets			
Silver Level	A toilet is required to be provided on the SOU entry and is to include the following: A clear width of 900mm between the walls of the bathroom if located in a separate room, A 900 x 1200mm circulation space in front of the pan (exclusive of door swing), The pan located in the corner of the room to enable the installation of grabrails.	The pre-adaptable design demonstrates compliance with the requirements of this provision. Full details are to be included within the Construction Certificate documentation.	Capable of Complying
6. Shower	<u> </u>		
Silver Level	One bathroom should feature a slip resistant, hobless shower located in the corner of the room to enable the installation of grabrails at a future date. Shower screens are permitted provided they can be easily removed at a later date.	The proposed design is capable of complying and full details are to be included within the Construction Certificate documentation.	Capable of Complying
7. Reinforce	ement of bathroom and toilet walls	3	
Silver Level	The walls around the shower, bath and toilet should be reinforced to provide a fixing surface for the safe installation of grabrails in accordance with the requirements of this provision.	The proposed design is capable of complying and full details are to be included within the Construction Certificate documentation.	Capable of Complying
8. Internal s	etairways		
Silver Level	Stairways in dwellings must have a continuous handrail on one side of the stairway where there is a rise of more than 1m.		Note



Clause	Requirement	Assessment and Comment	Status		
9. Kitchen s	9. Kitchen space				
Silver Level	No requirements	Note	Note		
10. Laundry	space				
Silver Level	No requirements	Note	Note		
11. Ground (or entry level) bedroom space				
Silver Level	No requirements	Note	Note		
12. Switches	and power points				
Silver Level	No requirements	Note	Note		
13.Door and	tap hardware				
Silver Level	No requirements	Note	Note		
14. Family / I	iving room space				
Silver Level	No requirements	Note	Note		
15.Window s	sills				
Silver Level	No requirements	Note	Note		
16. Flooring	16.Flooring				
Silver Level	No requirements	Note	Note		



8. ADAPTABLE HOUSING

A total of six adaptable units have been provided, as outlined below:

Building B:

- Unit G02 and
- Unit 103

Building C:

- Unit G02;
- Unit G03;
- Unit 102; and
- Unit 103.

The current level of documentation includes pre and post adaptation plans and demonstrates compliance with the basic circulation requirements of AS4299-1995. Full construction details demonstrating compliance with all requirements are to be documented at the construction certificate stage

8.1. Table 6.1 - Schedule of features for Adaptable Housing

Clause	Requirement	Assessment and Comment	Status
Objectives	and Performance Requirements		
2.1, 2.2(a)	Initial design to be Visitable by people who use wheelchairs, unit/s required to have: At least one wheelchair accessible entry Wheelchair accessible path of travel to the living area and toilet. Toilet to be either accessible or visitable.	The design meets the intent of the Adaptable housing standard, allowing for visitability from the outset.	Capable of Complying
2.2(b)	Adaptable housing to have no steps and avoid level changes	There are no level changes proposed.	Capable of Complying
2.2(d)	If design for adaptation requires further demolition of walls, then these walls shall be non-loadbearing and free of electrical and plumbing services.	The following walls are proposed to be moved at post adaptation to achieve circulation requirements in accordance with AS 4299-1995: Bedroom / bathroom wall; Pre-adaptation bathroom wall;	Capable of Complying



Clause	Requirement	Assessment and Comment	Status		
		 Laundry door to provide compliant circulation. 			
Drawings -	- Potential for Adaptation				
2.3	As built drawings to be provided demonstrating both pre and post adaptation layouts.	Pre and post-adaptation plans have been provided.	Capable of Complying		
Sitting Sta	ndards				
3	A continuous accessible path of travel in accordance with AS1428.1 is required from the street frontage and vehicle parking to the entrance doorways of adaptable units.	The following areas require further design development to ensure compliance: Details should be included within the design documentation.	Capable of Complying		
Private Ca	r Accommodation				
3.7	One (1) car parking space per adaptable unit shall be provided. Private car parking shall be large enough to enable a person with a wheelchair to get in and out of both the car and parking space. Dimensions in accordance with AS 4299-1995 (3800 x 5400mm) or AS/NZS 2890.6:2009 (2400 x 5400mm with adjacent 2400 x 5400mm shared zone) are acceptable to accommodate users with a disability.	Six (6) accessible car spaces are provided in accordance with the requirements of AS/NZS2980.6-2009. Two (2) of which are provided within basement 1 on Building B and four (4) are provided at lower ground floor level within Building C.	Capable of Complying		
Letterboxe	Letterboxes in Estate Developments				
3.8	Letterboxes are to be located on a hard stand and connected to the accessible pathway.	Letterboxes to Building A are provided at the main entrance from College Street.	Capable of Complying		
		Letterboxes to Building C are located on Reddall Street.			



Clause	Requirement	Assessment and Comment	Status
		Full construction details are to be included within the construction documentation.	
Accessible I	Entry		
4.3.1	Accessible entry – At least one (1) accessible entry to be provided in accordance with AS 1428.1-2009.	Doorways are required to achieve a clear opening width of 850mm and compliant doorway circulation in accordance with clause 13.3 of AS1428.1-2009. Detail should be included within pre-adaptation construction documentation.	Capable of Complying
4.3.2	Accessible entry to be level and have a gradient of not more than 1:40.	Details should be included within pre-adaptation construction documentation.	Capable of Complying
23	Threshold to be low-level.	Where thresholds are required for weatherproofing, they are to be designed in accordance with the following criteria (typical design solutions specified within Appendix C of AS 4299-1995).	Capable of Complying
		Congitudinal grate to drain (b) Aluminium-framed door Details should be included within	
		pre-adaptation construction documentation	
4.3.2	Landing area at entrance doorway to have sufficient circulation to allow for wheelchair manoeuvrability.	A landing to permit a 1550mm diameter circulation space should be included within pre-adaptation construction documentation.	Capable of Complying



Clause	Requirement	Assessment and Comment	Status
4.3.24	Door hardware and handles are to comply with AS 1428.1-2009.	Lever type handles that allow the door to be unlocked and opened with one hand are required to be installed at a height not less than 900mm nor more than 1100mm. Details should be included within pre and post adaptation construction documentation	Capable of Complying
Interior Gen	eral		
4.3.3	All specified internal doors to have a minimum clear opening width of 850mm and circulation space in accordance with AS 1428.1-2009. Specified doors include the following: Bedroom 1 (adaptable bedroom) Kitchen Toilet / bathroom 1 (adaptable bathroom) Laundry	Specified doors are in accordance with the requirements of AS 1428.1-2009 and AS 4299-1995. Door dimensions should be included within the design documentation.	Capable of Complying
	All doors (other than those specified above) to have a minimum clear opening width of 820mm. This will likely include second bedrooms and bathrooms, where provided.	All remaining doors have a clear opening width of 820mm as required by AS 4299-1995.	Capable of Complying
4.3.7	Internal corridors to have clear width of 1000mm.	Corridor dimensions should be included within the design documentation. Ensure a minimum of 1000mm is provided after all wall	Capable of Complying



Clause	Requirement	Assessment and Comment	Status
		finished have been applied (including skirting, where provided).	
	After adaptation circulation at doors to be capable of being modified to comply with AS1428.1.	Post-adaptation plans are to demonstrate compliant doorway circulation spaces in accordance with AS 1428.1-2009.	Capable of Complying
Living Roon	n and Dining Room		
4.7.1	A circulation space of 2250mm in diameter is to be provided to enable a 360° wheelchair turn after furniture is placed.	Details should be included within pre-adaptation construction documentation.	Capable of Complying
4.7.4	A telephone outlet is to be provided within the living area and is to be located adjacent to a GPO.	Details should be included within pre-adaptation construction documentation.	Capable of Complying
4.10	Potential for lighting achieving a minimum 300 lux is to be provided in accordance with AS1680.1	Details should be included within the pre-adaptation construction documentation.	Capable of Complying
Kitchen			
4.5.1	Potential configuration of kitchen after adaptation to be demonstrated prior to certification.	Pre and post adaptation drawings demonstrated that compliance with AS 42990-1995 can be achieved at post-adaptation.	Capable of Complying
4.5.2	A minimum floor space of 1500 x 820mm is requires at the sink and at all appliances. A minimum of 1550mm is to be maintained between opposing base cabinets.	Where it is proposed that base cabinets be relocated to achieve circulation space in accordance with AS 4299-1995, capped services (where required) and continuous tiling / flooring is to be provided at pre-adaptation to allow joinery to be reconfigured at minimal cost and inconvenience. Details should be included within the post-adaptation construction documentation.	Capable of Complying



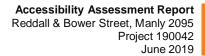
Clause	Requirement	Assessment and Comment	Status
4.5.5	Provision for benches shall include at least one section with a minimum length of 800mm, adjustable in height from 750mm to 850mm or replaceable.	The required clear floor space of 1500 x 820mm should allow a forward approach to the work station. and no more than 500mm of the clear floor space shall extend beneath the work surface. Line of base typical soon min. Details should be included within post-adaptation construction documentation.	Capable of Complying
4.5.5	The refrigerator is to be positioned adjacent to the work surface.	Details should be included within pre-adaptation construction documentation.	Capable of Complying
4.5.6	Work surface with minimum length of 800mm to be provided adjacent to cooktop, at same height as cooktop.	Details should be included within pre-adaptation construction documentation.	Capable of Complying
	The kitchen sink is to the adjustable in height from 750mm to 850mm or replaceable as a unit.	Details should be included within post-adaptation construction documentation.	Capable of Complying
	Taps shall be capstan, or lever handle or lever mixer in accordance with AS1428.1	Details should be included within post-adaptation construction documentation.	Capable of Complying



Clause	Requirement	Assessment and Comment	Status
	Tap set, or operating component, to be located within 300mm of the front of the sink.	Details should be included within post-adaptation construction documentation.	Capable of Complying
	Cooktops to include either front or side controls with raised cross bar.	Details should be included within post-adaptation construction documentation.	Capable of Complying
4.5.8	Ovens shall be located adjacent to an adjustable or replaceable work surface. Where the oven door specified is hinged, the clear work surface shall be on the opposite side to the hinge.	Details should be included within post-adaptation construction documentation. Oven Work surface Depth 600 The post-scale of the state of the sta	Capable of Complying
4.5.11	A double general power outlet (GPO) located within 300 mm from the front of a work surface.	Details should be included within the pre and post-adaptation construction documentation.	Capable of Complying
	A GPO for a refrigerator must be located in such a position that can be easily accessible after the refrigerator is installed.	Details should be included within the pre and post-adaptation construction documentation.	Capable of Complying
4.5.4	Floor surfaces are to be slip- resistant and comply with AS/NZS 3661.1.	Achieving a surface condition of P4 or R11 (wet) when tested in accordance with AS4586-2013 satisfies this requirement. Details should be included within the construction documentation.	Capable of Complying
Bedroom	1	1	
4.6.1	At least one bedroom within each dwelling must be capable of accommodating a queen-size bed (1530 x 2030mm) and a and	A minimum of 1000mm is required on both sides of the bed and 1540 x 2070mm at the foot of the bed to	Capable of Complying



Clause	Requirement	Assessment and Comment	Status
	the circulation space requirements of AS1428.2-1992 clear of wardrobe fixtures.	allow a wheelchair user to perform a 180° turn. Details should be included within the pre and post-adaptation construction documentation. Circulation space in accordance with Clause 6.2	
4.6.3	A minimum of two (2) double- socket GPOs shall be provided on the wall of the bedroom where the bedhead is likely to be located.	Details should be included within the pre-adaptation construction documentation.	Capable of Complying
Sanitary Fac	cilities		
4.4.1	All sanitary facilities and components shall be adaptable, at minimum cost to comply with AS 1428.1.	Circulation spaces at doorways, around WC pan, washbasin and shower must be able to comply with AS 1428.1 without major plumbing changes. Pre and post adaptation bathroom layouts have been provided showing the removal or partition walls. Ensure all walls proposed to be demolished to achieve post adaptation layout a free from all services, including electrical and plumbing.	Capable of Complying





Clause	Requirement	Assessment and Comment	Status
		Capped services in post adaptation locations are to be provided from the outset.	
4.4.2	Floor surfaces are to be slip-resistant and comply with AS/NZS 3661.1.	Achieving a surface condition of P4 or R11 (wet) when tested in accordance with AS4586-2013 satisfies this requirement. Details should be included within the construction documentation.	Capable of Complying
4.4.4	A hob-less shower with minimum dimensions of 1160mm x 1100mm shall be provided and capable of achieving compliance with AS1428.1.	Details to be included within post- adaptation construction documentation.	Capable of Complying
	The shower area is to be water proofed in accordance with AS3740.	Any waterproofing used in the shower to be such that it can be extended to suit the larger hobless configuration. Details to be included within preadaptation construction documentation.	Capable of Complying
4.4.4	If grabrails or a shower seat are not initially required, provision for grabrails shall be made in moderated configurations as required by AS 1428.1.	Where framed walls are used, strengthened areas shall be provided to support loads imposed by grabrails in accordance with Figure 4.6 of AS 4299-1995.	Capable of Complying



Clause	Requirement	Assessment and Comment	Status
		Support grabral with portable shower head finstalled Optional axtension Optional Optional	
4.4.4	Tap sets shall be capstan, or lever handle with a single outlet.	Specification detail to be provided within construction documentation.	Capable of Complying
	At post-adaptation a washbasin shall be provided in accordance with AS 1428.1.	Details are to be included within the post-adaption construction documentation.	Capable of Complying
	A double GPO is to be provided adjacent to the mirror.	Details to be included within the construction documentation.	Capable of Complying
4.10	Potential illumination of 300 lux and 600 lux task lighting is to be achieved.	Details should be included within the construction documentation.	Capable of Complying
Toilet			
4.4.3	Either a visitable or accessible toilet is to be provided from the outset.	Visitable toilet to have a minimum circulation space forward of the pan of 900 x 1250mm exclusive of any door swing.	Capable of Complying



Clause	Requirement	Assessment and Comment	Status
		No door swing or basin to encroach on this space	
4.4.4	If grabrails are not initially required, provision for grabrails shall be made in moderated configurations as required by AS 1428.1.	Where framed walls are used, strengthened areas shall be provided to support loads imposed by grabrails in accordance with Figure 4.5 of AS 4299-1995. **BOO min.** **BOO min.** **BOO min.** **Iso min.** **Is	Capable of Complying
4.4.2	Floor surfaces are to be slip- resistant and comply with AS/NZS 3661.1.	Achieving a surface condition of P4 or R11 (wet) when tested in accordance with AS4586-2013 satisfies this requirement. Details should be included within the construction documentation.	Capable of Complying



Clause	Requirement	Assessment and Comment	Status
Laundry			
4.8	Provision for adequate circulation space (1550mm in depth) in front of or beside appliances shall be provided.	Details should be included within post-adaptation construction documentation.	Capable of Complying
	Provision shall be made of an automatic washing machine	Details should be included within the post-adaptation construction documentation.	Capable of Complying
	Where a clothes line is provided, and accessible path of travel is to be provided.	Details should be included within the construction documentation.	Capable of Complying
	A double GPO is to be provided.	Details should be included within the construction documentation.	Capable of Complying
	Floor surfaces are to be slip- resistant and comply with AS/NZS 3661.1.	Achieving a surface condition of P4 or R11 (wet) when tested in accordance with AS4586-2013 satisfies this requirement. Details should be included within the construction documentation.	Capable of Complying

9. CONCLUSION

The design as proposed is capable of complying with the BCA, Class C accessibility requirements within AS4299-1995 and the Silver level requirements of the Livable Housing Design Guidelines which will satisfy SEPP 65 and Council's DCP for adaptable housing.

This report indicates the design intent to demonstrate compliance through design modifications or performance-based solution. Whilst the design is to be developed, it is our view that the changes will not impact the overall design.



APPENDIX 1

Assessed plans prepared by Squillace Architects:

Plan Title	Drawing No	Revision	Date
Site Plan	DA-011	А	14.06.19
Basement 2 Floor Plan	DA-097	А	14.06.19
Basement 2 Floor Plan	DA-098	А	14.06.19
Lower Ground Floor Plan	DA-099	А	14.06.19
Ground Level Floor Plan	DA-100	А	14.06.19
Level 1 Floor Plan	DA-101	А	14.06.19
Level 2 Floor Plan	DA-102	А	14.06.19
Roof Level Floor Plan	DA-103	А	14.06.19
Elevations – Sheet 1	DA-201	А	14.06.19
Elevations – Sheet 2	DA-202	А	14.06.19
Elevations – Sheet 3	DA-203	А	14.06.19
Elevations – Sheet 4	DA-204	А	14.06.19
Elevations – Sheet 5	DA-205	А	14.06.19
Elevations – Sheet 6	DA-206	А	14.06.19
Elevations – Sheet 7	DA-207	А	14.06.19
Elevations – Sheet 8	DA-208	А	14.06.19
Adaptable Unit Layout	DA-541	P2	09.05.19