

1 - 7 ANDREWS AVENUE, 26 GLEN STREET, BONDI NSW

ADAPTABLE HOUSING ASSESSMENT – AS4299-1995

DATE: **14 OCTOBER 2024** REPORT NO: **2868 – REV E FINAL** PREPARED FOR: **DCN PROPERTY GROUP C/- MHNDUNION** PREPARED BY: KW | **J**² **ACCESS CONSULTING**

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REVISION				
KEVISION	DATE	STATUS	WRITTEN	REVIEWED
REV A	31/07/2023	DRAFT	KW	AM
REV B	7/08/2023	DRAFT	KW	AM
REV C	9/08/2023	FINAL	KW	AM
REV D	17/08/2023	FINAL	KW	AM
REV E – FOR S4.55 SUBMISSION	14/10/2024	DRAFT	KW	AM
REV E – FOR S4.55 SUBMISSION	14/10/2024	FINAL	KW	AM
	REV A REV B REV C REV D REV E – FOR S4.55 SUBMISSION	REV A 31/07/2023 REV B 7/08/2023 REV C 9/08/2023 REV D 17/08/2023 REV E - FOR S4.55 SUBMISSION 14/10/2024	REV A 31/07/2023 DRAFT REV B 7/08/2023 DRAFT REV C 9/08/2023 FINAL REV D 17/08/2023 FINAL REV E – FOR S4.55 SUBMISSION 14/10/2024 DRAFT	REV A 31/07/2023 DRAFT KW REV B 7/08/2023 DRAFT KW REV C 9/08/2023 FINAL KW REV D 17/08/2023 FINAL KW REV E – FOR S4.55 SUBMISSION 14/10/2024 DRAFT KW

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EXECUTIVE SUMMARY

This report relates to an adaptability compliance assessment of the residential apartment building and associated basement carparking development at 1 - 7 ANDREWS AVENUE, 26 GLEN STREET, BONDI NSW. The report contains an assessment of the architectural details by way of a clause-by-clause comparison of Adaptable Housing Standard AS4299-1995.

The following table outlines the main notes identified from the adaptable housing compliance assessment of the works to be constructed.

SUMMARY OF IDENTIFIED NOTES

NO.	ADAPTABLE CLAUSE	DESCRIPTION OF NON-COMPLIANCE	RECOMMENDATION
Note	Development Control Plan	The Waverley Council Development Control Plan (DCP) requires development of 10 or more dwellings to have at least 20% designed in accordance with AS4299-1995, to be capable of adaption for people with a	Note only – two adaptable units are required to be provided.
		disability or elderly residents.	It has been shown that both Unit 3 and 6 will be constructed as adaptable units.
1.	3.7.2	Private Car Accommodation Two accessible carparking spaces with adjacent shared areas have been provided within the basement carpark. A bollard is required to be provided within the shared areas in accordance with AS2890.6-2009.	Details demonstrating compliance with this Clause are required to be incorporated within the Construction Certificate documentation.
		Image: space series Image: space series Image: space series Image: space series <td></td>	



NO.	ADAPTABLE CLAUSE	DESCRIPTION OF NON-COMPLIANCE	RECOMMENDATION
2.	4.3.1	Accessible entry	To be redesigned to
		At least one accessible entry door complying with AS1428.2 shall be	comply.
		provided.	

Door circulation under AS1428.2 has not been achieved at the entry doors to the adaptable units. An external latch width of 560mm (510mm measured) and internal length of 1770mm is required. AS1428.2 requires an additional 50mm to be added to all width dimensions and 100mm to be added to all length dimensions required by AS1428.1.





NO.	ADAPTABLE CLAUSE	DESCRIPTION OF NON-COMPLIANCE	RECOMMENDATION
3.	4.3.3	Interior General – Internal Doors Internal doors are required to achieve a minimum of 820mm throughout. Internal doors in the following areas do not achieve the required minimum width:	To be redesigned to comply.
		 Bedroom 2 ensuite door Bedroom 3 ensuite door Powder room MFR room 	
		Image: state of the state of	
4.	4.5.6	Kitchen Sink - Kitchen sink adjustable to heights from 750mm to 850mm or replaceable Architectural plans do not indicate location of the kitchen sink post- adaptation. It is preferred that the sink is not located within the island benchtop to minimize the cost of later modification to the floor and plumbing work.	To be redesigned to comply.



NO.	ADAPTABLE CLAUSE	DESCRIPTION OF NON-COMPLIANCE	RECOMMENDATION
5.	4.6.1	Main Bedroom	To be redesigned to
		At least one bedroom of area sufficient to accommodate queen size bed and	comply.
		wardrobe and circulation space requirements of AS1428.2.	We note that the
		The master bedrooms in both units allow for a queen size bed and	application of AS4299-
		wardrobe but do not provide sufficient circulation space under AS1428.2	1995 is that objective is for
		for a wheelchair to undertake a 360° turn. This requires a circulation space	at least one bathroom,
		of 2250mm x 2250mm to be provided as shown below.	toilet and bedroom, living

CIRCULATION SPACE OF 2250mm x 2250mm IS REQUIRED FOR 360 DEGREE TURN UNDER CLAUSE 6.3 OF AS1428.2-1992. We note that the application of AS4299-1995 is that objective is for at least one bathroom, toilet and bedroom, living and laundry to be capable of complying with the standard. This is considered the benchmark level of compliance.

Additionally, the wardrobe is located within the circulation space to enable a wheelchair to undertake a 90° turn from/to the bedroom door.

Figure D - Main bedrooms within adaptable units do not provide

adequate circulation space under AS1428.2





NO.	ADAPTABLE CLAUSE	DESCRIPTION OF NON-COMPLIANCE RECOMMENDATION		
6.	4.4.1	Provision for bathroom area to comply with AS1428.1 The handbasins within the adaptable unit ensuites are located within the toilet circulation space and encroach by more than the 100mm permitted under AS1428.1.	To be redesigned to comply.	
		Additionally, the fixtures within the ensuite bathrooms are located in different positions between the pre and post adaptable plans (eg toilet and shower). To meet the objectives of the Adaptable Standard and ensure that the post adaptation design is achieved with minimal additional cost, the location of these fixtures should ideally be position in the post adaptable location at the pre-adaptation stage.		
		4.0 x 2.7m		
		0.23 m 0.23 m 100 D 100		
		Figure F – Handbasin encroaches with toilet circulation space within main bedroom ensuite bathrooms		
7.	4.4.4(g)	Provision for washbasin with clearances to comply with AS1428.1 Drawings indicate that washbasin within the adaptable unit ensuite bathrooms is located within the toilet circulation space by more than the permitted 100mm under AS1428.1 (Refer to item 6 above).	To be redesigned to comply.	



1.0 INTRODUCTION

This report provides an adaptability review against the current Adaptable Housing Standard, AS4299-1995 of the residential development at 1-7 Andrews Avenue, 26 Glen Street, Bondi NSW. The proposed development is for the construction of a four-story residential building atop common basement carparking.

The proposed development comprises of seven apartments across four levels of residential apartments and a shared carpark with a total of 14 carparking spaces on basement level. Twelve of these are for residential and two are for guest use. There are a total of two dedicated accessible carparking spaces provided within the carpark.

The proposed development is situated within the local government area of Waverley Council.

Confirmation of final architectural plans supported by council will enable the preparation of adaptable housing compliance statement reflective of these details.



Figure 1 - Site location, curtesy NSW e-Planning spatial viewer



1.1 BASIS OF REPORT

The key objective of the report is to:

- Make an assessment of the building and proposed works under the current Adaptable Housing Standard AS4299-1995 and list any departures and information applicable that will need to be addressed.
- Provide a report that will analyse the provisions of adaptable housing and recommend solutions in line with Adaptable housing Standards (AS4299-1995).

The following architectural drawings prepared by MHNDUNION were provided for assessment:

Drawing Number	Drawing Title	Revision / Date
DA 2001	Basement Plan	I / WIP
DA 2002	Ground Floor Plan	I / WIP
DA 2003	Level 1 Floor Plan	I / WIP
DA 2004	Level 2 Floor Plan	I / WIP
DA 2005	Level 3 Floor Plan	I / WIP
DA 2006	Roof Plan	I / WIP
DA 3000	North Elevation	I / WIP
DA 3001	South Elevation	I / WIP
DA 3002	East Elevation	I / WIP
DA 3003	West Elevation	I / WIP
DA 3100	Section A	I / WIP
DA 3101	Section B	I / WIP
DA 3102	Section C Contentions	I / WIP
DA 3103	Section D Contentions	I / WIP
DA 3104	Section E Contentions	I / WIP
DA 6000	External Finishes	I / WIP
DA 9002	SEPP 65 Compliance	I / WIP
DA 9300	Adaptable Apartment	I / WIP

A detailed 'Technical Review and Commentary' is provided in Part 2.0 of this report, which includes all appropriate technical assessment results & commentary.

1.2 BUILDING CHARACTERISTICS

The building has been assigned the following characteristics:

Building Classification	Use / Part of building	Floor area of Building (m ²)
2	Residential Apartments – Ground floor to third	Approximately 2,500m ²
	floor	
7a	Basement Carpark	Approximately 825m ²
10b	Swimming Pool	Approximately 15m ²

1.3 LEGISLATIVE OBLIGATIONS

The following legislation has been relied upon in assessing this building against the relevant adaptable housing provision:

- 1. Adaptable housing Standard 4299 1995
- 2. Australian Standard AS1428.1-2009 Design for Access and Mobility Part 1: General requirements for access New building work.

1.4 LIMITATIONS AND EXCLUSIONS

The following items are outside the scope of this report:

• Any parts of the BCA not directly referenced within this report;



- Australian standards not directly referenced in this report;
- The Disability Discrimination Act 1992 (DDA focuses on results and does not offer prescriptive compliance options).
- Work Health and Safety considerations;
- Work cover authority requirements;
- Local planning policies and or specific guidelines;
- This report is not a Part 4A compliance certificate under the Environmental Planning & Assessment Act 1979 or Regulation 2000;
- Assessment of any structural elements or geotechnical matters relating to the building, including any structural or other assessment of the existing fire resistant levels of the building;
- Assessment of any fire service operations (including hydraulic, electrical or other systems);
- Assessment of mechanical plant operations, electrical systems or security systems;
- Other specific requirements of statutory authority;
- Planning for bushfire 2006;
- Building Code Assessment relating to parts and sections outside of that specifically listed within this report.
- Review against BCA Part G7 Livable Housing Assessment; and
- Does not provide concessions, performance solutions or exemptions from the requirements of the BCA, other than any directly identified in the Executive Summary of this report.

1.5 REPORTING TEAM

The information contained herein has been prepared by Karen Watson (Access and BCA Consultant) and Abby Mortimer (Building Surveyor and Access Consultant, SA Accredited Professional – Building Level 1 & AIBS, Building Surveyor – Level 1).



2.0 ADAPTABLE HOUSING ASSESSMENT

The Waverley Council Development Control Plan (DCP) requires development of 10 or more dwellings to have at least 20% designed in accordance with AS4299-1995, to be capable of adaption for people with a disability or elderly residents.

Appendix B of this report includes a checklist which has been extracted from AS4299 for Adaptable Housing which when building, will decide what classification has been achieved.

It is intended that housing units that comply with the range of essential features listed in this appendix be certified as adaptable housing units, as follows:

- Adaptable House Class A All essential and desirable features incorporated;
- Adaptable House Class B All essential, and minimum 50% of desirable features incorporated, including all those notated as 'first priority'; and
- Adaptable House Class C All essential features.

Note. A feature is assessed in the appendix as 'essential', 'first priority desirable' or 'desirable' depending on its importance to an occupant with a disability, and on the difference between initial and future costs of adaption.

We note that the application of AS4299-1995 is that objective is for at least one bathroom, toilet and bedroom, living and laundry to be capable of complying with the standard. This is considered the benchmark level of compliance.

The below assessment contains the applicable items to Class C Adaptable Housing Features. The assessment advice set out in the Table within the report contains the following advice recommendations:

Non-compliant – redesign required to achieve compliance

Compliance advice – further information is required to determine compliance Generally compliant

The following adaptable units are shown on the architectural drawings noted within the introduction of this report. The following apartments are noted as being designated as adaptable units:

Proposed Adaptable Units:
03 - Unit 3
06 – Unit 6

The adaptable dwelling plan on DA9300 indicates Adaptable units 3 and 6.

The Layout of the adaptable units are shown below:





PRE-ADAPTATION NOMINATED APARTMENT 03 & 06 Figure 2 – Adaptable apartments 3 and 6



POST-ADAPTATION



ITEM	ROOM /	CLAUSE	ESSENTIAL	COMMENTS
NO.	ITEM	NO.	(CLASS C - 100%)	
			REQUIRED CERTIFIED	

ADAPTABLE HOUSING COMPLIANCE ASSESSMENT – CLASS C

1.	Provisions of drawings showing the housing unit is its pre-adaption and post- adaption stages	2.3	•	•	Pre and post adaptation plans have been provided for adaptable apartments 03 and 06.
2.2 S	ITING				
3.	A continuous accessible path of travel from street frontage and vehicle parking to entry complying with AS1428.1-2009	3.3.2	1	1	Access to the ground floor of the residential apartment building from Andrews Avenue and Glen Lane is via a walkway and stair lift respectively and via passenger lift fror the basement carpark.
2.3 S	ECURITY				

11.	Letterboxes to be on hard standing area connected to accessible pathway.	3.8	¥	¥	Architectural plans show the letterbox area is located along the accessible path of travel prior to the Principal pedestriar entrance of the building. This area appears to be protected from the weather. Compliance with this Clause is considered to be achieved.
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2.5 PRIVATE CAR ACCOMMODATION

14.	Carparking space or garage	3.7.2	✓	Х	Two accessible carparking spaces with adjacent shared areas have been provided within the basement carpark. A bollard is
	min. area 6.0m x				required to be provided within the shared areas in
	2.8m				accordance with AS2890.6-2009.





2.6 ACCESSIBLE ENTRY

20.	Accessible entry	4.3.1	✓	X	At least one accessible entry door complying with AS1428.2 shall be provided. Access is provided to the adaptable units from ground floor and basement carpark via passenger lift.
					Pre and post adaptable plans indicate that entry doors to adaptable units 3 and 6 meet the minimum width required for accessible entry (850mm).
					Door circulation under AS1428.2 has not been achieved at the entry doors to the adaptable units. An external latch width of 560mm (510mm measured) and internal length of 1770mm is required. AS1428.2 requires an additional 50mm to be added to all width dimensions and 100mm to be added to all length dimensions required by AS1428.1.



AC	CE33 CONS	ULIING			
ITEM NO.	ROOM / ITEM	CLAUSE NO.	ESSEN (CLASS C - REQUIRED	- 100%)	COMMENTS
					<text></text>
22.	Accessible entry to be level	4.3.2	✓	Compliance advice	Where the accessible entry door is exposed to the weather, it shall be provided with a landing outside the door with a maximum fall of 1:40. Plans indicate that the main entry to the building on Andrews
					avenue is level.
23.	Threshold to be low-level	4.3.2	✓	Compliance advice	Where the accessible entry door is exposed to the weather, it shall be provided with a landing outside the door with a low threshold to exclude water. The threshold shall allow for the smooth transition of a wheelchair.
					Architectural drawings do not include door threshold details however indicate that both entrances from Andrews Avenue and Glen Lane are protected from the weather. Where installed, thresholds shall be in accordance with AS1428.1- 2009.
					Details demonstrating compliance with this Clause are required to be incorporated within the Construction Certificate documentation.
24.	Landing to enable wheelchair manoeuvrability	4.3.2	✓	✓	Where thresholds are provided on landings at accessible entry doors, landings shall be of sufficient area to enable wheelchair manoeuvrability.



ITEM NO.	ROOM / ITEM	CLAUSE NO.		NTIAL - 100%) CERTIFIED	COMMENTS
					Area for landings at both unit entrances and the main entrances to the building on ground floor are generally compliant.
25.	Accessible entry to have 850mm min. clearance	ve 850mm	√	✓	At least one accessible entry door complying with AS1428.2 is required on each adaptable unit.
					Pre and post adaptation plans indicate entry doors on adaptable units 3 and 6 as well as the main entry doors to the building on ground floor from Andrews Avenue and Glen Lane meet the minimum width required (850mm).
					Refer to item 20 for door circulation comments.
27.	Door lever handles and hardware to AS1428.1-2009	4.3.4	~	Compliance advice	The type of door hardware has not been incorporated within the Drawings. This is capable of achieving compliance – details demonstrating compliance with this Clause is required to be incorporated within the Construction Certificate documentation.

2.7 EXTERIOR: GENERAL

<i>Not applicable to Type C – Adaptable Units</i>

2.8 INTERIOR GENERAL

32.	Internal door to have 820mm min. clearance.	4.3.3	✓	Х	Internal doors are required to achieve a minimum of 820mm throughout. The drawings provided measure a minimum of 820mm door clearance typically throughout the bedrooms.
					Internal doors in the following areas do not achieve the required minimum width:
					 Bedroom 2 ensuite door Bedroom 3 ensuite door Powder room MFR room



		ULIING						
ITEM NO.	ROOM / ITEM	CLAUSE NO.	ESSEN (CLASS C REQUIRED	- 100%)	COMMENTS			
					Image: constrained by the sector of the se			
33.	Internal corridors min. width of 1000mm.	4.3.7	√	✓	Corridors are generally compliant.			
34.	Provision for compliance with AS1428.1 for door	4.3.7	✓	✓	Circulation spaces are required at doorways on a continuous accessible path of travel and should allow access in both directions. Required dimensions should be in accordance with Figures 31 and 32 of AS1428.1.			
	approaches	approaches			Required door circulation has been achieved throughout the adaptable units.			
					We note that the application of AS4299-1995 is that objective is for at least one bathroom, toilet and bedroom, living and laundry to be capable of complying with the standard. This is considered the benchmark level of compliance.			
2.9 LIVING ROOM & DINING ROOM								
36.	Provision for circulation space of min 2250mm diameter	4.7.1	✓	√	A minimum of 2250mm is generally provided within both the living rooms. This is considered generally compliant.			
38.	Telephone adjacent to GPO	4.7.4	✓	Compliance advice	Electrical drawings have not been reviewed. Details demonstrating compliance is required to be incorporated within the Construction Certificate documentation.			
					This is capable of achieving compliance.			



ITEM	ROOM /	CLAUSE	ESSE	NTIAL	COMMENTS
NO.	ITEM	NO.	(CLASS C		
			REQUIRED	CERTIFIED	
41.	Potential illumination level min. 300	4.10	✓	Compliance advice	Electrical drawings have not been reviewed. Details demonstrating compliance is required to be incorporated within the Construction Certificate documentation.
	Lux				This is capable of achieving compliance.
2.10 K	ITCHEN				
42.	Minimum width 2.7m (1550mm clear between benches)	4.5.2	✓	√	A minimum of 1550mm is required to be provided between opposing base cabinets. This is generally compliant.
43.	Provision for circulation at doors to comply with AS1428.1	4.5.1	✓	V	The entrance door is accessway to the kitchen as the main entrance to the building. This must achieve the minimum door circulation requirements as per Clause 13 of AS1428.1- 2009.
44.	Provisions or benches	4.5.5	✓	Compliance advice	Benchtops appear to allow for the required dimension requirements.
	planned to include at least one	t			Confirmation that the bench is located at a height from 750mm to 850mm is required.
	worksurface of 800mm length, adjustable in height from 750mm to 850mm or replaceable				Details demonstrating compliance with the clause is required to be incorporated within the Construction Certificate documentation.
45.	Refrigerator adjacent to work surfaces	4.5.5	✓	1	Architectural plans show proposed fridge adjacent to work surfaces.
46.	Kitchen sink adjustable to heights from 750mm to	4.5.6	✓	Х	Architectural plans do not indicate location of the kitchen sink post-adaptation. It is preferred that the sink is not located within the island benchtop to minimize the cost of later modification to the floor and plumbing work.
	850mm or replaceable				Confirmation on the height achieved is required or confirmation that this is replaceable.
					To be redesigned to comply.
47.	Kitchen sink bowl max.	4.5.6	✓	Compliance advice	Architectural plans do not indicate location of kitchen sink post-adaptation.
	150mm deep				Details demonstrating compliance with this clause is required to be incorporated within the Construction Certificate documentation.
48.	Tap set capstan	4.5.6(e)	√	Compliance	The fixtures require confirmation.
	or lever handles or lever mixer			advice	Details demonstrating compliance with this clause is required to be incorporated within the Construction Certificate documentation.



ITEM	ROOM /	CLAUSE	ESSEN	TIAL	COMMENTS
NO.	ITEM	NO.	(CLASS C		
			REQUIRED	CERTIFIED	
49.	Tap set located within 300mm	4.5.6(e)	✓	Compliance advice	Taps or their operating handles shall be within 300mm of the front of the sink to allow for ease of operation.
	of front of sink				Architectural plans do not indicate location of the kitchen sink post adaptation.
					Details demonstrating compliance with this clause is required to be incorporated within the Construction Certificate documentation.
51.	Cook tops to	4.5.7	~	Compliance	The fixtures require confirmation.
	include either front or side control switch raised cross			advice	Details demonstrating compliance with this clause is required to be incorporated within the Construction Certificate documentation.
	bars				This is capable of achieving compliance.
52.	Cook tops to	4.5.7	✓	Compliance	The fixtures require confirmation.
	include isolated switch			advice	Details demonstrating compliance with this clause is required to be incorporated within the Construction Certificate documentation.
					This is capable of achieving compliance.
53.	Work surface min. 800mm length adjacent to cook top at same height	4.5.7	✓	√	Post adaptable plans indicate that a minimum 800mm work surface is located adjacent to the cooktop.
					Details demonstrating compliance with this clause is required to be incorporated within the Construction Certificate documentation. This is capable of achieving compliance.
54.	Oven located	4.5.8	✓	Compliance	Internal fixture layouts not provided for review.
	adjacent to an adjustable height or replaceable			advice	Details demonstrating compliance with this clause is required to be incorporated within the Construction Certificate documentation.
	work surface				This is capable of achieving compliance.
59.	GPOs to comply	4.5.11	✓	Compliance	Electrical layout plans have not been reviewed.
	with AS1428.1. At least one double GPO within 300mm			advice	Details demonstrating compliance with this clause is required to be incorporated within the Construction Certificate documentation.
	of front of work surface				This is capable of achieving compliance.
60.	GPO for	4.5.11	✓	Compliance	Electrical layout plans have not been reviewed.
	refrigerator to be easily reachable when	easily achable when e refrigerator n its erating		advice	Details demonstrating compliance with this clause is required to be incorporated within the Construction Certificate documentation.
	is in its operating position				This is capable of achieving compliance.
61	Slip-resistant floor surface	4.5.4	✓	Compliance advice	Details demonstrating compliance with this clause is required to be incorporated within the Construction Certificate documentation.



ITEM	ROOM /	CLAUSE	ESSENTIAL	COMMENTS
NO.	ITEM	NO.	(CLASS C – 100%)	
			REQUIRED CERTIFIED	

2.11 MAIN BEDROOM

62.	At least one bedroom of area sufficient to accommodate queen size bed and wardrobe and circulation space requirements of AS1428.2	4.6.1	~	x	The master bedrooms in both units allow for a queen size bed and wardrobe but do not provide sufficient circulation space under AS1428.2 for a wheelchair to undertake a 360° turn. This requires a circulation space of 2250mm x 2250mm to be provided as shown below. CIRCULATION SPACE OF 2250mm x 2250mm IS REQUIRED FOR 360 DEGREE TURN UNDER CLAUSE 6.3 OF AS1428.2-1992.
					Figure 6 - Main bedrooms within adaptable units do not provide adequate circulation space under AS1428.2 Additionally, the wardrobe is located within the circulation space under AS1428.2
					Image: Sector



ITEM NO.	ROOM / ITEM	CLAUSE NO.	ESSENTIAL (CLASS C – 100%) REQUIRED CERTIFIED	COMMENTS
				To be redesigned to comply.
				We note that the application of AS4299-1995 is that objective is for at least one bathroom, toilet and bedroom, living and laundry to be capable of complying with the standard. This is considered the benchmark level of compliance.

3.12 OTHER BEDROOM

Not applicable to Type C – Adaptable Units

2.13 BATHROOM

75.	Provision for bathroom area to comply with AS1428.1	4.4.1 ✓	X	The handbasins within the adaptable unit ensuites are located within the toilet circulation space and encroach by more than the 100mm permitted under AS1428.1. Additionally, the fixtures within the ensuite bathrooms are located in different positions between the pre and post adaptable plans (eg toilet and shower). To meet the objectives of the Adaptable Standard and ensure that the post adaptation design is achieved with minimal additional cost, the location of these fixtures should ideally be position in the post adaptable location at the pre-adaptation stage.
				4.0 x 2.7m HAND BASIN BASIN ENCROACHES INTO TOILET CIRCULATION SPACE BY MORE THAN 100mm PERMITTED
				Figure 8 – Handbasin encroaches with toilet circulation space within main bedroom ensuite bathrooms To be redesigned to comply.
		442		
76.	Slip-resistant floor surfaces	4.4.2	Compliance advice	Fixtures and finishes schedules have not been reviewed.
				This is capable of achieving compliance.
				Details demonstrating compliance with this clause is required to be incorporated within the Construction Certificate documentation.



ITEM	ROOM /	CLAUSE	ESSEN	ITIAL	COMMENTS
NO.	ITEM	NO.	(CLASS C REQUIRED		
77.	Shower recess – no hob. Minimum size 1160 x 1100 to comply with AS1428.1 (Refer to Figures 4.6 and 4.7)	4.4.4(f)	√ V		Shower compartments shall be a minimum size of 1160 x 1100mm. Showers within ensuite bathrooms in both adaptable units meet minimum size requirements.
78.	Shower area waterproofed to AS3740 with floor to fall to waste	4.4.4(f)	✓	Compliance advice	Details not documented on the architectural drawings. However, this is required by Part F1 of the BCA. Details demonstrating compliance with this clause is required to be incorporated within the Construction Certificate documentation.
79.	Recessed soap holder	4.4.4(f)	~	Compliance advice	Fixtures and finishes schedules have not been reviewed. This is capable of achieving compliance. Details demonstrating compliance with this clause is required to be incorporated within the Construction Certificate documentation.
80.	Shower taps positioned for easy to reach to access side o shower sliding track	4.4.4(f)	✓	Compliance advice	Fixtures and finishes schedules have not been reviewed. This is capable of achieving compliance. Details demonstrating compliance with this clause is required to be incorporated within the Construction Certificate documentation.
82.	Provision for adjustable, detached hand held shower rose mounted on a slider grabrail or fixed hook (plumbing and wall – strengthening provisions)	4.4.4(h)	•	Compliance advice	Fixtures and finishes schedules have not been reviewed. This is capable of achieving compliance. Details demonstrating compliance with this clause is required to be incorporated within the Construction Certificate documentation.
83.	Provision for grabrail in shower (Refer to Figure 4.7) to comply with AS1428.1	4.4.4(h)	✓	Compliance advice	Provision for future grabrails is not detailed on the plans. Confirmation is required to be incorporated within the Construction Certificate documentation. This is capable of achieving compliance.
86.	Tap sets to be capstan or lever handles with single outlet	4.4.4(c)	✓	Compliance advice	Fixtures and fittings have not been detailed on the plans. Confirmation is required to be incorporated within the Construction Certificate documentation. This is capable of achieving compliance.
88.	Provision for washbasin with clearances to	4.4.4(g)	✓	Х	Drawings indicate that washbasin within the adaptable unit ensuite bathrooms is located within the toilet circulation



ITEM	ROOM /	CLAUSE	E ESSENTIAL (CLASS C – 100%)		COMMENTS
NO.	ITEM	NO.		CERTIFIED	
	comply with AS1428.1				space by more than the permitted 100mm under AS1428.1 (Refer to item 75).
					To be redesigned to comply.
90.	Double GPO beside mirror	4.4.4(D)	✓	Compliance advice	Electrical layout plans have not been reviewed – to be confirmed and confirmation is required to be incorporated within the Construction Certificate documentation.
2.14 TC	DILET				
92.	Provision of either 'visitable toilet' or accessible toilet	4.4.3	✓	√	An accessible sanitary compartment is provided within the adaptable units. This is provided by way of the ensuite bathroom within the apartment.
93.	Provision to comply with AS1428.1	4.4.1	✓	Compliance advice	The architectural drawings indicate that the ensuite off main bedrooms are the dedicated accessible facility. The circulation spaces detailed on this drawing are generally in accordance with this Clause.
					Final fixing heights of grabrails, fixtures and fittings is to be incorporated within the Construction Certificate documentation.
94.	Location of WC pan at correct distance from fixed walls	4.4.3	✓	1	Water closets in both adaptable units are at the correct location from fixed walls.
95.	Provision for grab rail zone (Refer Figure 4.6)	4.4.4(h)	✓	√	Reinforcement details for later installation of grabrails is not provided in drawings. However grabrails have been shown along the wall adjacent to and behind the accessible toilet and meet the required set-back from wall.
					Details demonstrating compliance is required to be incorporated within the Construction Certificate documentation.
					Elevations/section drawings confirming the mounting height are required to be incorporated within the Construction Certificate documentation.
96.	Slip resistant	4.4.2	√	Compliance	Details not shown on the architectural drawings.
	floor surface (vitreous tiles or similar)			advice	Confirmation is required – details demonstrating compliance with this clause is required to be incorporated within the Construction Certificate.
2.15 LA	UNDRY				
98.	Circulation at	4.8	✓	√	Not applicable – no doorways are detailed to laundry.
	doors to comply with AS1428.1				Where proposed, compliance with this clause is required to be incorporated within the Construction Certificate documentation.



ITEM NO.	ROOM / ITEM	CLAUSE NO.	(CLASS C	NTIAL - 100%) CERTIFIED	COMMENTS
99.	Provision for adequate circulation space in front or	4.8	✓	✓	A minimum of 1550mm is required in front or beside an appliance within the laundry. There is currently 1550mm in front of the laundry appliances.
	beside appliances (min. 1550 mm depth)				Compliance with this clause is achieved.
100.	Provision for automatic	4.8(e)	e) 🗸 🗸		The architectural plans show proposed location for washing machine and/or dryer.
	washing machine				Details demonstrating compliance is required to be incorporated within the Construction Certificate documentation.
102.	Where clothes line is provided	4.8(a)	√	Compliance advice	Clothesline not proposed within the adaptable units.
	an accessible path of travel to this				Provide details of the location.
105.	Double GPO	4.8(g)	✓	Compliance advice	Electrical layouts have not been reviewed/provided. Confirmation is required to be incorporated within the Construction Certificate documentation.
					This is capable of achieving compliance.
108.	Slip-resistant floor surface	4.9.1	✓	Compliance advice	Material specifications are required to be reviewed to confirm compliance.
					Details demonstrating compliance is required to be incorporated within the Construction Certificate documentation.
					This is capable of achieving compliance.

2.16 STORAGE

Not applicable to Type C – Adaptable Units

2.17 DOOR LOCKS

110.	Door hardware operable with one hand, located 900- 1100mm above floor	4.3.4	•	Compliance advice	Details are not shown on the architectural drawings. This is to be incorporated within the Construction Certificate documentation. This is capable of achieving compliance.
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2.18 FLOOR COVERINGS

Not applicable to Type C – Adaptable Units



ITEM	ROOM /	CLAUSE	ESSENTIAL
NO.	ITEM	NO.	(CLASS C - 100%)
			REQUIRED CERTIFIED

COMMENTS

2.19 ANCILLARY ELEMENTS

Not applicable to Type C - Adaptable Units

2.20 GARBAGE

Not applicable to Type C - Adaptable Units

3.0 CONCLUSION

The primary purpose of this report is to identify non-compliance matters in comparison to the Adaptable housing Standards AS4299-1995 and Design for access sand mobility Standards 1428.1 -2009. This report has not identified non-compliances however has provided notes relevant to the Standards.

And

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4.0 APPENDIX A - SCHEDULE OF FEATURES FOR ADAPTABLE HOUSING

SCHEDULE OF FEATURES FOR ADAPTABLE HOUSING

(Normative)

This schedule is a list of essential features to be incorporated into a housing unit for it to be termed an 'Adaptable House'. A higher level of 'Adaptable House' classification may be achieved by incorporating some or all of the desirable elements. It is intended that this schedule be also used as a checklist to record the features incorporated.

CLASSIFICATION LEVELS

Adaptable house class A All essential and all desirable features incorporated.

Adaptable house class B All essential and 50% desirable features incorporated, including all those notated 'first priority'. Adaptable house class C All essential features incorporated.

Item	Room/Item	Clause No.	Esse	ntial	First p desir		Desirable	
No.	Koom/Item	Clause No.	Required feature	Certified by	Proposed feature	Certified by	Proposed feature	Certified by
	DRAWINGS							
1	Provision of drawings showing the housing unit in its pre-adaptation and post-adaptation stages	2.3	,					
	SITING							
2	A level or gently sloping site with up to 1:14 gradient	3.2.2			1			
3	A continuous accessible path of travel from street frontage and vehicle parking to entry complying with AS 1428.1	3.3.2						
4	Additional paths and walkways to be continuous, slip-resistant and hard- surfaced with gradients complying with AS 1428.1	3.3.2					*	
5	Within a residential estate development, common use facilities to be accessible	3.3.3						
6	Within a residential estate development, street names with house numbers at each intersection	3.3.3						
7	Within a residential estate development, internal roadways to be separate from pedestrian walkways	3.3.3			1			
	SECURITY							
8	Pathway lighting shall be positioned at low height to avoid glare and to provide min. 50 lux at ground level	3.6.1			1			
9	Clear line of sight from a well-lit vehicle drop-off point to safe pedestrian entry point	3.6.2			1			



Item	Room/Item	()	Esse	ntial	First p desir		Desirable	
No.	Room/Item	Clause No.	Required feature	Certified by	Proposed feature	Certified by	Proposed feature	Certified by
	LETTERBOXES IN ESTATE DEVELOPMENTS							
10	Within residential estate developments, letterboxes centrally located adjacent to street entry. Lockable	3.8						
11	Letterboxes to be on hard standing area connected to accessible pathway	3.8	1					
12	Letterbox area roofed and in a well lit location	3.8			1			
13	Parcel rack included with letterboxes	3.8			1			
	PRIVATE CAR ACCOMMODATION							
14	Carparking space or garage min. area 6.0 m \times 3.8 m	3.7.2	1					
15	Roof to car parking space	3.7.1			1			
16	Internal clearance of garage or carport 2.5 m min.	3.7.2					1	
17	Provision for power-operated roller door to garage	3.7.2					1	
18	Covered access to dwelling unit	3.7.3			1			
19	Illumination level min. 50 lux	4.10			1			
	ACCESSIBLE ENTRY							
20	Accessible entry	4.3.1	1					
21	Entry protected by porch or similar	4.3.1					1	
22	Accessible entry to be level (i.e. max. 1:40 slope)	4.3.2	1					
23	Threshold to be low-level	4.3.2	1					
24	Landing to enable wheelchair manoeuvrability	4.3.2	1					
25	Accessible entry door to have 850 mm min. clearance	4.3.1	~					
26	Weatherproofed entry door	4.3.3					1	
27	Door lever handles and hardware to AS 1428.1	4.3.4	1					
28	Provision for combined door/security door	4.3.5			1			
29	Potential min. illumination level 300 lux	4.10			1			
	EXTERIOR: GENERAL							
30	All external doors to be keyed alike	4.3.4					1	
31	Provision for security screen to exterior opening or sliding windows and doors	4.7.6			~			
	INTERIOR: GENERAL							
32	Internal doors to have 820 mm min. clearance	4.3.3	1					
33	Internal corridors min. width of 1000 mm	4.3.7	1					
34	Provision for compliance with AS 1428.1 for door approaches	4.3.7	1					
35	Window sills at max. 730 mm above floor level to living and 600 mm above floor level to bedroom areas	4.7.2. and 4.6.2					,	



Item	Deem //tem	Clause No.	Esse	ntial	First p desir		Desi	rable
No.	Room/Item	Clause No.	Required feature	Certified by	Proposed feature	Certified by	Proposed feature	Certified by
	LIVING ROOM & DINING ROOM							
36	Provision for circulation space of min. 2250 mm diameter	4.7.1	1					
37	Minimum 4 double GPOs	4.7.3			1			
38	Telephone adjacent to GPO	4.7.4	1					
39	Telephone outlet location between kitchen and living space, adjacent to GPO	4.7.4					1	
40	Two TV antenna outlets adjacent to GPO (positioned so viewing from dining and kitchen is achievable)	4.7.5			1			
41	Potential illumination level min. 300 lux	4.10	1					
	KITCHEN							
42	Minimum width 2.7 m (1550 mm clear between benches)	4.5.2	1					
43	Provision for circulation at doors to comply with AS 1428.1	4.5.1	1					
44	Provision for benches planned to include at least one worksurface of 800 mm length, adjustable in height from 750 mm to 850 mm or replaceable. Refer to Figure 4.8	4.5.5	1					
45	Refrigerator adjacent to work surface	4.5.5	1					
46	Kitchen sink adjustable to heights from 750 mm to 850 mm or replaceable	4.5.6						
47	Kitchen sink bowl max. 150 mm deep	4.5.6	1					
48	Tap set capstan or lever handles or lever mixer	4.5.6(e)	1					
49	Tap set located within 300 mm of front of sink	4.5.6(e)	1					
50	Installation of thermostatic mixing valve	4.5.6(f)			1			
51	Cooktops to include either front or side controls with raised cross bars	4.5.7	1					
52	Cooktops to include isolating switch	4.5.7	1					
53	Worksurface min. 800 mm length adjacent to cooktop at same height	4.5.7	1					
54	Oven located adjacent to an adjustable height or replaceable work surface	4.5.8	1					
55	Provision for microwave oven at height of 750 mm-1200 mm above floor	4.5.9					1	
56	Central light with second light over sink. Potential illumination level min. 300 lux with 550 lux over work surfaces	4.10			1			
57	Adjustable shelving: depth 600 mm max. up to 800 mm above floor; depth 450 mm max. from 800 to 1500 mm above floor; depth 300 mm max. above 1500 mm	4.5.10					1	



Item	Room/Item	Clause No.	Esse	ntial	First p desir	riority able	Desi	rable
No.	Room/Item	Clause No.	Required feature	Certified by	Proposed feature	Certified by	Proposed feature	Certified by
58	Locate handles towards the top of below bench cupboards and towards the bottom of overhead cupboards. Provide 'D' pull handles	4.5.10						
59	GPOs to comply with AS 1428.1. At least one double GPO within 300 mm of front of worksurface	4.5.11	1					
60	GPO for refrigerator to be easily reachable when the refrigerator is in its operating position	4.5.11	1					
61	Slip-resistant floor surface	4.5.4	1					
	MAIN BEDROOM							
62	At least one bedroom of area sufficient to accommodate queen size bed and wardrobe and circulation space requirements of AS 1428.2	4.6.1						
63	Two double GPOs on wall where bedhead is likely to be	4.6.3			1			
64	Minimum of one GPO on opposite wall	4.6.3					1	
65	Telephone outlet next to bed on the side closest to door (with GPO adjacent to telephone outlet)	4.6.5			1			
66	TV antenna point and double GPO on opposite wall to bedhead	4.6.6			1			
67	2-way light switches, one located above bed. 1000 mm high above floor	4.6.4			1			
68	Potential illumination level 300 lux	4.10			1			
69	Sliding doors on wardrobe with full length mirror	4.6.7					1	
	OTHER BEDROOMS							
70	Two double GPOs on one wall. Minimum of one GPO on opposite wall	4.6.3			1			
71	Two-way light switch	4.6.4			1			
72	Telephone outlet next to double GPO	4.6.5			1			
73	TV antenna point adjacent to one GPO	4.6.6			1			
74	Potential illumination level 300 lux	4.10			1			
	BATHROOM							
75	Provision for bathroom area to comply with AS 1428.1	4.4.1	1					
76	Slip-resistant floor surface	4.4.2	1					
77	Shower recess- no hob. Minimum size 1160 × 1100 to comply with AS 1428.1. (Refer Figures 4.6 and 4.7)	4.4.4(f)						
78	Shower area waterproofed to AS 3740 with floor to fall to waste	4.4.4(f)	1					
79	Recessed soap holder	4.4.4(f)	1					
80	Shower taps positioned for easy reach to access side of shower sliding track	4.4.4(f)	1					
81	Shower waste min. 80 mm diameter	4.4.4(f)					1	



Item	D		Esse	ntial	First p desir		Desirable	
No.	Room/Item	Clause No.	Required feature	Certified by	Proposed feature	Certified by	Proposed feature	Certified by
82	Provision for adjustable, detachable hand held shower rose mounted on a slider grabrail or fixed hook (plumbing and wall-strengthening provision)	4.4.4(h)						
83	Provision for grabrail in shower (Refer to Figure 4.7) to comply with AS 1428.1	4.4.4(h)						
84	Provision for additional grabrail	4.4.4(h)			1			
85	Provision for folding seat in shower to comply with AS 1428.1	4.4.4(h)					1	
86	Tap sets to be capstan or lever handles with single outlet	4.4.4(c)	1					
87	Installation of thermostatic mixing valve	4.4.4(b)			1			
88	Provision for washbasin with clearances to comply with AS 1428.1	4.4.4(g)	1					
89	Wall cabinet with light over or similar	4.4.4(d)			1			
90	Double GPO beside mirror	4.4.4(d)	1					
91	Potential illumination level 300 lux generally with 600 lux task lighting	4.10			1			
	TOILET							
92	Provision of either 'visitable toilet' or accessible toilet	4.4.3	1					
93	Provision to comply with AS 1428.1	4.4.1	1					
94	Location of WC pan at correct distance from fixed walls	4.4.3	1					
95	Provision for grab rail zone. (Refer Figure 4.6)	4.4.4(h)	1					
96	Slip resistant floor surface. (Vitreous tiles or similar)	4.4.2	1					
97	Recessed toilet roll holder	4.4.3					1	
	LAUNDRY							
98	Circulation at doors to comply with AS 1428.1	4.8	1					
99	Provision for adequate circulation space in front of or beside appliances (min. 1550 mm depth)	4.8	1					
100	Provision for automatic washing machine	4.8(e)	1					
101	Provision for drier	4.8(f)			1			
102	Where clothes line is provided, an accessible path of travel to this	4.8(a)	1					
103	Installation of thermostatic mixing valve	4.8(d)			1			
104	Taps positioned at side of tub	4.8(c)					1	
105	Double GPO	4.8(g)	1					
106	Provision of shelf for soaps and similar, 1200 mm max. height	4.8(h)					1	
107	Potential illumination level 300 lux generally with 550 lux task lighting	4.10			1			
108	Slip-resistant floor surface	4.9.1	1					



Item No.	Room/Item	Clause No.	Essential		First priority desirable		Desirable	
			Required feature	Certified by	Proposed feature	Certified by	Proposed feature	Certified by
	STORAGE							
109	Linen cupboard min. 600 mm wide with adjustable shelving	4.11.5			1			
	DOOR LOCKS							
110	Door hardware operable with one hand, located 900-1100 mm above floor	4.3.4	1					
	FLOOR COVERINGS							
111	Slip resistant surfaces — balconies and external paved areas. (Vitreous tile or similar)	4.9.1			1			
	ANCILLARY ITEMS							
112	Switches located 900-1100 mm above floor in line with door handles	4.11.1			1			
113	GPOs located not less than 600 mm above floor	4.11.1			1			
114	Electrical distribution board located inside housing unit	4.11.2						
115	Window controls located in an accessible position	4.11.4						
	GARBAGE							
116	Provision for bin in an accessible location	4.11.6			1			
117	Provision for external wheelchair storage	4.11.6					1	
118	Provision for external battery charging facility	4.11.6					1	
119	Guide dog accommodation	4.11.6					1	

IMPLEMENTATION The Table indicates essential/desirable categories and the level required of the feature noted. All essential items are pre-checked in the 'essential' features column. The independent certifier must initial the second column to confirm the item has been incorporated into the building.

The developer/builder shall indicate which 'first priority desirable' and 'desirable' features are intended to be incorporated in the 'adaptable house' by checking the relevant boxes. The independent certifier must initial the second column to confirm the item has been incorporated into the building.

Upon addition of the number of 'first priority desirable' and 'desirable' features provided, and conversion to a percentage of the total possible desirable features, the classification level can be ascertained.

The certifier should sign the checklist as to the class of adaptable housing achieved.

No. of desirable features incorporated

Add number of first priority desirable features

Total



64 possible desirable features

NOTE: Minimum 50% must be achieved for class B certification; 100% must be achieved for class A certification.



Adaptable house class C achieved	Certifier
Adaptable house class B achieved	Certifier
Adaptable house class A achieved	Certifier

ADAPTABLE HOUSE CLASSIFICATION