

CONNECTING PEOPLE AND PLACES

DEVELOPMENT APPLICATION ACCESSIBILITY REPORT

Mixed Use Development including 50 **Project Name** residential apartments

277 The Grande Parade, Ramsgate

Project Address NSW 2217

Reference 30061DA

Revision 01

Date 17/09/2024

Attention Bronxx



REVISION HISTORY

Revision	Date	Version	Prepared By	Reviewed By
01	17/09/2024	Initial Issue	Nikki Jackson	Monique Lucas

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1.0 INTRODUCTION

Purely Access Pty Ltd has been engaged by Bronxx to provide access consultancy services for the proposed mixed use development at 277 The Grande Parade, Ramsgate NSW 2217.

1.1 Purpose of the Report

This report forms part of the Development Application submission documents. The aim of this report is to provide feedback and confirmation that the proposals meet the principles of good accessible design and in turn demonstrate that it meets the key legislative and policy guidelines including:

- Disability (Access to Premises-Buildings) Standards 2010
- National Construction Code Building Code of Australia Volume One 2022 (BCA)
- AS 1428.1 2009 General requirements for access
- AS 1428.4.1 2009 Tactile Ground Surface Indicators
- AS1428.2 1992 Design for access and mobility. Part 2: Enhanced and additional requirements Buildings and facilities
- AS 2890.6 2009 Parking Facilities for people with disabilities
- AS 1735.12 1999 Lifts, escalators and moving walks. Part 12: Facilities for persons with disabilities
- AS 4299 1995 Adaptable Housing
- Livable Housing Design Guidelines

This document does not constitute a report for the purposes of obtaining a Construction Certificate. The compliance comments in this report are for the purpose of the Development Approval lodgement. The level of detail provided for Development Approval is consistent with the design intent for this stage. Further assessment will be required at the Construction Certificate stage.

1.2 Project Details

The proposals are for a mixed use development including 50 apartments. The accommodation includes the following:

- Basement 3 Car parking and plant
- Basement 2 Car parking, supermarket storage and plant
- Basement 1 Car parking, end of trip facilities and plant
- Ground Floor 2 Retail tenancies, supermarket, loading dock, plant and residential foyer
- Level 1 10 residential apartments and residential communal open space.
- Level 2 10 residential apartments
- Level 3 10 residential apartments
- Level 4 10 residential apartments
- Level 5 10 residential apartments
- Roof level PV panels

The building is considered to be Class 2 (residential), Class 6 (retail), 7b (storage) and Class 7a (car parking) under the National Construction Code Building Code of Australia.



2.0 LEGISLATIVE REQUIREMENTS

2.1 Disability Discrimination Act 1992

The Disability Discrimination Act (DDA) is federal legislation which seeks to ensure all new building infrastructure, refurbishments, services and transport projects provide functional and equitable access for people with disabilities. The DDA is a complaints based legislation, which is administered by the Australian Human Rights Commission (AHRC). Section 23 of the DDA relates to access to premises and facilities which the public may enter or use, and states it is unlawful to:

- Refuse access to, or the use of, any premises, or the facilities within them.
- Impose terms or conditions specific to persons with disability and their associates on the access and use of any premises or facilities;
- Exclude access based on the provision of an appropriate means of access;
- Request persons with disability or their associates to leave premises or cease use of facilities.

The DDA has enacted statutory instruments known as Disability Standards to provide a degree of clarity with respect to access to premises and facilities.

2.2 Disability (Access to Premises – Buildings) Standards 2010 & Building Code of Australia

The purpose of these Standards is to provide for equitable and dignified access to new buildings and those areas of existing buildings that undergo renovation or upgrade that require a building approval.

If a building complies with the Disability (Access to Premises-Buildings) Standards (Premises Standards) those responsible for the building cannot be subject to a successful complaint of unlawful discrimination under the Disability Discrimination Act (DDA) in relation to matters covered by the Premises Standards.

Building Certifiers, Building Developers and Building Managers all have obligations under the Standards and must ensure a building complies with the Standards, with each party being responsible for the area they have control over. It is unlawful to fail to comply with the requirements of the Premises Standards.

The Building Code of Australia aligns with the requirements of the Premises Standards and therefore new building work that complies with the BCA will also comply with the Premises Standards. The Premises Standards do not apply to Class 2 buildings unless they are to be used for short term rent as holiday units, serviced apartments or time share facilities.

2.3 State Environmental Planning Policy (Housing) 2021

The State Environmental Planning Policy (Housing) 2021 is applicable to this development as it contains residential apartments. Chapter 4 covers the Design of residential apartment development and applies to the following:

- a) development for the purposes of residential flat buildings,
- b) development for the purposes of shop top housing,
- c) mixed use development with a residential accommodation component that does not include boarding houses or co-living housing, unless a local environmental plan provides that mixed use development including boarding houses or co-living housing is residential apartment development for this chapter.

It applies where:

- a) the development consists of
 - i. the erection of a new building, or
 - ii. the substantial redevelopment or substantial refurbishment of an existing building, or
 - iii. the conversion of an existing building, and
- b) the building is at least 3 storeys, not including underground car parking storeys, and
- c) the building contains at least 4 dwellings.



The apartments are required to be in accordance with the Apartment Design Guide. Refer to section 5 of this report. This requires 20% of the dwellings to meet the Livable Housing Design Guide to a silver level.

2.4 Bayside LEP & DCP

The site is within a mixed Use land zone (MU1) and is subject to the Bayside Local Environmental Plan 2021 and Bayside Development Control Plan 2022. The DCP has the following requirements with respect to accessibility:

2.4.1. Accessible Car Parking

Part 3.5.5 of the DCP sets out the requirements for accessible car parking. For this development the following are applicable:

 Residential apartments - Half of the adaptable dwellings provided are required to have allocated resident car parking spaces.

2.4.2. Adaptable Housing ad Universal Housing

Part 3.6.2 of the DCP requires that a minimum of 20% of the total dwellings in residential flat buildings containing 10 or more dwellings must be adaptable and designed and constructed in accordance with Class C of AAS4299.



3.0 BCA TECHNICAL ASSESSMENT

The following review is an assessment against National Construction Code Building Code of Australia Volume One 2022 (BCA) and referenced Australian Standards.

3.1 General Building Access Requirements

Part of Building	Accessibility Requirements	Comments / Actions		
In accordance with Clause D4D2of the BCA buildings and parts of buildings must be accessible in accordance with the following:				
Class 2 Residential	 From the pedestrian entrance to the entrance doorway of each sole-occupancy unit (SOU). To and within not less than 1 type of common room used by residents i.e. laundry, gym, swimming pool etc. 	Capable of compliance. There is insufficient detail at this stage of design to ensure that an accessible path of travel is provided to and within each of the residential communal open space areas. No details are provided with respect to bin chutes or waste areas within the residential floor plates.		
Class 6 Retail	To and within all areas normally used by the occupants	Compliance indicated.		
Class 7a Car parking	To and within any level containing accessible car parking spaces	Compliance indicated.		
Class 7b Storage Facility	To and within all areas normally used by the occupants	Compliance indicated.		

3.2 Exemptions & Departures

Clause D4D5 of the BCA allows exemptions from the requirements of providing access for people with disabilities where an area is inappropriate because of the purpose for which it is used or where there the area may pose a health and safety risk. For this development the following areas have been considered as being exempt from access for people with disabilities.

- Plant rooms
- Comms Rooms
- Services Rooms
- Rain Water Storage Tank
- Cleaners
- OSD Tank
- Roof Level

In some cases it may be necessary to provide a Performance Solution to meet the Performance Requirements of the BCA as opposed to following the Deemed to Satisfy Solutions set out in the National Construction Code Building Code of Australia. For this development no performance solutions have currently been identified.



3.3 Accessible Car Parking

BCA Requirement	Comments	Action Required
Accessible Car Parking BCA Clause D4D6		
In accordance with Table D4D6 of the BCA, access	ible carparking is required to	be provided as follows:
Class 2 No requirements	While there are no requirements under the BCA to provide accessible car parking within a Class 2 development; accessible parking spaces will be required for the adaptable units under AS 4299. Refer to section 4 of this report. The residential parking is	Not applicable
	to be provided to Basement Level 3. 5 residential visitors spaces are shown which includes 1 accessible space. A total of 100 residential spaces are shown.	
Class 5, 7, 8, 9c 1 space for every 100 car parking spaces or part thereof. Class 6 1 space for every 50 car parking spaces or part thereof (Up to 1000 car parking spaces).	Parking for the retail tenancies is to be provided on Basement levels 1 & 2. 55 spaces are provided on B2 and 55 on B1.	Compliance Indicated Details of line marking, bollards and space identification will be required to be reviewed at Construction
1 space for each additional 100 car parking spaces (>1000).	A total of 5 accessible car parking spaces are provided on B1.	Certificate Stage.



3.4 External Access to Entrances

BCA Requirement	Comments	Action Required
Access to buildings BCA Clause D4D3		
 An accessway must be provided: From the main points of a pedestrian entry at the allotment boundary From another accessible building connected by a pedestrian link From any required accessible car parking space In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance, and through not less than 50% of all pedestrian entrances including the principal pedestrian entrance; and in a building with a total floor area more than 500 m2, a pedestrian entrance which is not accessible must not be located more than 50m from an accessible pedestrian entrance. 	Level access is provided from the public realm area from The Grande Parade and Ramsgate Road in the residential foyer, supermarket, and retail tenancies 1 and 2 providing access at ground level. Lift access provides access throughout the building from the basement car parking.	Compliance Indicated
Walkways, ramps and landings AS1428.1 2009 Clause 10		
 Walkways Walkways to be a minimum of 1000mm wide and be provided with passing bays (1800mm wide x 2000mm in direction of travel) every 20m where a direct line of sight is not available. Walkway gradient to be 1:20 (max) with landings every 15m. Landings in direction of travel to 1200mm long; landings at 90° directional change 1500mm x 1500mm. Landings at 180° directional change 1540mm length. If gradient of walkway is less than 1:33 no landings are required. TGSI's required to warn of hazard along pedestrian and vehicular routes on grade. Kerb Ramps - gradient no steeper than 1:8, length no greater than 1520mm and maximum rise of 190mm. Threshold ramps - max rise 35mm; max gradient 1:8; maximum length 280mm positioned within 20mm of door leaf. Step ramps - max rise 190mm; 1:10 max gradient; 	Ramps and stair access is shown into the residential lobby and the retail tenancies. Limited information is shown at this stage of the design. No handrails or TGSI's are shown but will be required. Stairs and ramps appear suitably set back from the boundary to ensure compliance can be achieved. A 1:20 walkway provides access to the supermarket.	Capable of compliance Detailed landscape plans and ramp design will require assessment at the Construction Certificate stage.
max length 1900mm, suitable edge detail.		
Ramps		



BCA Requirement	Comments	Action Required
Maximum gradient of a ramp exceeding		
1900mm is 1:14.		
Gradient to be consistent throughout ramp.		
 Ramp required to have unobstructed width of 1000mm. 		
 Ramps to be provided with landings at bottom and top of ramp. 		
 Landings required every 9m where grade 1:14, Landings required every 15m where grade 1:20. 		
 Landings in direction of travel 1200mm long; landings at 90° directional change 1500mm x 1500mm. Landings at 180° directional change 1540mm x 2070mm length. 		
 Ramps to be provided with handrails and kerb rails. 		
TGSI's in accordance with AS1428.4.1 2009 to be provided.		
 Ramps to be set back 900mm at property boundaries or 400mm at internal corridors. Vertical rise not to exceed 3.6m 		



3.5 Entry and Doorways

BCA Requirement	Comments	Action Required
Entry and Doorways BCA Clauses D4D3 and D4D4		
Access must be provided via the main principal entrance and: Not less than 50% of all pedestrian entrances including the principal entrance, and In buildings with a floor area >500m², a non-accessible entrance must not be located more than 50m from an accessible entrance.	There is a single entry into the residential lobby with both ramp and stair access to the lifts. Retail 1, Retal 2 and the supermarket each have their own single entry.	Compliance Indicated
Door Design AS 1428.1 2009 Clause 13		
 All doors to have min 850mm clearance width where double doors are provided min 850mm to active leaf. Door circulations in accordance with Clause 13.3. Doors to achieve appropriate luminance contrast. Doors to have compliant hardware and opening forces. All glazed doors must be marked with contrast marking no less than 75mm wide for full width of doors at 910-1000mm height. 	There is limited information at this stage of the design to assess but spatially there is adequate room for each entry to meet the requirements. Doorways indicate appropriate circulation, however a door, door hardware and finishes schedule will be required for review at Construction Certificate Stage. All areas of glazing will require appropriate decals.	Capable of compliance A door and door hardware schedule will be required at the Construction Certificate stage.



3.6 Circulation

3.6.1 Internal Circulation

BCA Requirement	Comments	Action Required
Internal Accessways BCA Clause D4D4AS 1428.1 2009 Clause 6		
A continuous accessible path of travel minimum 1000mm wide is required. Passing places for 2 wheelchairs minimum 1800mm wide and 2000mm long must be provided at maximum 20m intervals. Turning spaces are also required within 2m of the end of accessways where it is not possible to continue on. These are as follows: • 60°- 90° turn 1500mm wide by 1500mm long. • 90°- 180° turn 1540mm wide by 2070mm in direction of travel	The landing at the top of the ramp within Retail Tenancy 1 is required to have a 1500mm by 1500m turn at the mid landing. The Breezeways serving the residential units are 1800mm wide which allows for suitable passing and turning.	Capable of compliance with design amendment.
Surface finishes AS 1428.1 2009 Clause 7.4		
Finishes must be slip resistant. The pile height of any carpet shall not exceed 11mm and the carpet backing thickness shall not exceed 4mm. Recessed matting must not be more than 3mm vertically or 5mm if rounded or bevelled above or below the surrounding surface.	There is insufficient detail at this stage of the design to assess.	Capable of compliance A finishes schedule will be required at the Construction Certificate stage.
Glazing on access ways BCA Clause D4D13 AS 1428.1 2009 Clause 6.6		
Any glazing on an accessway that that is capable of being mistaken for a doorway must be clearly marked with a solid non-transparent contrasting line min 75mm positioned between 900- 1000mm above finished floor level. The line shall provide a minimum of 30% luminance contrast against the floor surface.	There is insufficient detail at this stage of the design to assess.	Capable of compliance A window and finishes schedule will be required at the Construction Certificate stage.



3.6.2 Lifts

BCA Requirement	Comments	Action Required
Lifts BCA Clause E3D2, E3D7, E3D8 & AS1735.12		
 Lift travelling <12m to have a minimum compartment size of 1100mm wide x 1400mm depth. Lift travelling > 12m to have a minimum compartment size of 1400mm wide x 1600mm depth. Door width to be min 900mm clear opening. Handrail in accordance with clause 5.3. Have a passenger protection system. E.g. be fitted with a series of door opening sensory devices which will detect a 75mm diameter rod across the door opening between 50mm and 1550mm above floor level. Have car control buttons complying with clause 7 including: Lift control buttons on each landing sited between 900-1200mm from floor level and a minimum of 500mm away from any internal corner of obstruction. Control buttons within lift car between 700-1250mm above floor level and located where it is able to be tangentially touched by a horizontal disc with a radius of 300mm, where it is located adjacent to a door entrance and 400mm for all other locations. Have appropriate tactile and Braille symbols. Have appropriate lighting levels. Have automatic audible information within the lift car to identify the level each time the car stops. Have audible and visual indication at each landing to indicate the arrival of the lift car. Note: Low rise, low speed constant pressure lifts cannot be used in high traffic public use areas. 	2 residential lifts are provided. These travel more than 12m therefore the minimum size is required to be 1400mm wide by 1600mm long. Note: there may be additional requirements for a stretcher lift which would require a length of 2000mm. 1 passenger lift and 2 goods lifts are provided to serve the retail area. The lifts are provided to each floor level associated with the use and are suitably sized. (Lifts travel less than 12m). Note: at lift landings, control buttons shall be located adjacent to the lift entrances and shall not be closer than 500 mm from any internal corner or fixed obstruction.	A certificate from the lift manufacturer demonstrating compliance with AS 1735 will be required at the Construction Certificate stage.



3.6.3 **Stairs**

BCA Requirement	Comments	Action Required
Stairs BCA Clause D4D4 AS1428.1 2009 Clause 11		
 General Access Stairs Stairs at intersections with property boundaries shall be set back by a minimum of 900mm. Stairs at intersections with internal corridors shall be set back (see fig 26(B)). Stair to have opaque risers. Stair nosing's shall not project beyond the face of the riser Stair nosing's shall have sharp intersections, be rounded up to 5mm radius or be chamfered up to 5mm x 5mm. Nosing's require minimum 30% luminance contrast between 50-75mm wide across the full width of the path of travel. It may be set back a max of 15mm. Where the luminance contrasting strip is not set back then any area of luminance contrast shall not extend more than 10mm down the riser. Handrails shall be: Circular or elliptical, not less than 30mm or greater than 50mm in height or width for not less than 270° around the upper most surface. Be positioned between 865-1000mm. Have the ends turned through 180° or to the ground, or fully to a wall? Have a minimum 50mm clearance between any walls or adjacent surfaces. Fire Isolated Stairs Fire-isolated Stairs Fire-isolated stairs are required a single handrail in accordance with Clause 12 of AS1428.1 2009 and have luminance contrast to nosing's. 	Fire stairs are provided within the residential cores and from the basement levels. The stairs within the residential core do not show offset treads to the mid landings	Capable of compliance with design amendment The stairs to the residential cores will require offset treads to mid landings. Details of the stairs will be required for assessment at Construction Certificate stage.



3.6.4 Ramps

BCA Requirement	Comments	Action Required
Ramps (excluding fire-isolated ramps) BCA Clause D4D4 AS1428.1 2009 Clause 10		
 Maximum gradient of a ramp exceeding 1900mm not to exceed 1:14. Gradient to be consistent throughout ramp. Ramp required to have unobstructed width of 1000mm. Ramps to be provided with landings at bottom and top of ramp. Landings required every 9m where grade 1:14, Landings required every 15m where grade 1:20. Landings in direction of travel 1200mm long; landings at 90° directional change 1500mm x 1500mm. Landings at 180° directional change 1540mm x 2070mm length. Landing or circulation space shall be provided at every doorway, gate or similar opening. Ramps to be provided with handrails and kerb rails. TGSI's in accordance with AS1428.4.1 2009 to be provided. Ramps to be set back 900mm at property boundaries or 400mm at internal corridors. Vertical rise not to exceed 3.6m 	Ramps are shown within each retail tenancy and the residential foyer as well as to the external residential communal open space. The ramps do not show handrails or TGSI's at this stage of the design but will be required to be in accordance with Clause 10 of AS1428.1 2009. Details of the ramps will be required for assessment at Construction Certificate stage.	Capable of compliance Details of the ramps will be required for assessment at Construction Certificate stage.



3.7 Sanitary Facilities

BCA Requirement	Comments	Action Required		
Unisex accessible sanitary facilities BCA Clause F4D5 AS1428.1 Clause 15				
Class 2 – Where sanitary facilities are provided to common areas, not less than 1. Unisex sanitary facilities are to be in accordance with Clause 15 of AS1428.1 2009.	A communal sanitary facility is located within the residential communal area at L1. The facility is suitably sized for compliance to be achieved.	Compliance Indicated Detailed room layouts and fixtures & fittings will be required for assessment at Construction Certificate stage.		
Class 5, 6, 7, 9 – (Except for within a ward area Of a Class 9a healthcare building) Where F4D4 requires closet pans: a) 1 on every storey containing sanitary compartments; and b) Where a storey has more than 1 bank of sanitary compartments containing male and female sanitary compartments, at not less than 50% of those banks. Unisex sanitary facilities are to be in accordance with Clause 15 of AS1428.1 2009.	No sanitary facilities are indicated to serve the retail tenancies, however end of trip facilities are shown on B1. At this stage no details have been provided, but there is adequate space within the allocated End of Trip Area to allow for accessible facilities.	Capable of compliance		
Ambulant sanitary facilities AS1428.1 Clause 16				
To be in accordance with Clause 16 of AS1428.1 to male and female cubicles (in common areas)	No detailed sanitary facilities are indicated at this stage of the design. It is anticipated that ambulant facilities will be required within the end of trip facilities at Basement Level 1.	Capable of compliance To be further viewed at Construction Certificate Stage.		
Accessible shower facilities AS 1428.1 2009 Clause 15.5				
Where required by F4D5(b) the minimum number of unisex accessible showers must be provided in accordance with the following:				
Class 2 – Where showers are provided to common areas, not less than 1. Design to be in accordance with Clause 15.5 of AS1428.1 2009.	No communal shower facilities are provided to serve the apartments.	Not applicable		
Class 5, 6, 7, 9 (except the ward area of a Class 9a healthcare building)	No showers are indicated, however end	Capable of compliance		



BCA Requirement	Comments	Action Required
Where F4D4 requires 1 or more showers, not less than 1 for every 10 showers or part thereof. Design to be in accordance with Clause 15.5 of AS1428.1 2009.	·	To be further viewed at Construction Certificate Stage.

3.8 Signage

BCA Requirement	Comments	Action Required
Signage BCA Clause D4D7& Specification 15		
 Signage in accordance with specification 15 of the BCA is required in the following locations: To identify unisex accessible sanitary facilities (except associated with a bedroom in a class 1b or SOU of Class 3 & 9c). To identify ambulant sanitary facilities (except associated with a bedroom in a class 1b or SOU of Class 3 & 9c). Where a bank of toilets is not provided with an accessible unisex sanitary facility, directional signage must be placed at the location of the sanitary facilities that are not accessible, to direct a person to the location of the nearest accessible unisex sanitary facility. Directional signage to be provided to direct a person to the location of the nearest accessible adult change facility within that building must be provided. To identify each door required by BCA Clause E4D5 to be provided with an exit sign, stating 'EXIT' and 'Level" and floor number or level descriptor. Where a pedestrian entrance is not accessible, directional signage must be provided to indicate the location of the accessible entry. To identify areas containing hearing augmentation. 	Braille & tactile signage will be required as follows: To identify unisex accessible sanitary facilities To identify each door required by BCA Clause E4D5 to be provided with an exit sign, stating 'EXIT' and 'Level' and floor number or level descriptor. Where a pedestrian entrance is not accessible, directional signage must be provided to indicate the location of the accessible entry.	Capable of compliance A signage schedule will be required at the Construction Certificate stage.



3.9 Tactile Ground Surface Indicators

BCA Requirement	Comments	Action Required
Location BCA Clause D4D9 AS 1428.4.1 Section 1 & 2		
 Stairways (other than fire isolated stairways) Ramps (other than a fire isolated, step or kerb or swimming pool ramp), An escalator A passenger conveyor or moving walkway. Where an overhead obstruction is less than 2m (except doorways) if no suitable barrier is provided Where an accessway adjacent to a pedestrian entrance meets a vehicular way if there is no kerb or kerb ramp at that point. TGSI's are to be in accordance with AS1428.4.1. TGSI's need not be provided within aged care facilities if handrails incorporating raised dome buttons are provided. 	TGSI's will be required to non-fire isolated stairs, retail travelators and ramps. No TGSI's are currently indicated on the drawings but will be required.	Capable of compliance Detailed of TGSI's will require assessment at the Construction Certificate stage.

3.10 Swimming Pools

BCA Requirement	Comments	Action Required
Swimming pool BCA Clause D4D11		
 Pools with a perimeter less than 40m - access into the pool is not required to be provided. Pools with a perimeter less than 70m but greater than 40m - an accessible entry/exit must be provided. Pools with a perimeter greater than 70m - an accessible entry/exit must be provided. 	No swimming pools are provided. There is a water play space on L1 within the communal residents area.	Not applicable



4.0 ADAPTABLE HOUSING ASSESSMENT

The objective of adaptable housing is to be accessible by people who use wheelchairs, in that there must be at least one wheelchair accessible entry and path of travel to the living area and to a toilet that is either accessible or visitable. Providing the essential features from the outset outlined below will accommodate this. Whilst AS4299 allows adaptability it is essential that any modifications consider the extent of adaptation required, this would include installation of required drainage outlets, bathroom reinforcement and avoiding structural alterations.

The objective of adaptable housing is to be accessible by people who use wheelchairs, in that there must be at least one wheelchair accessible entry and path of travel to the living area and to a toilet that is either accessible or visitable. Providing the essential features from the outset outlined below will accommodate this.

Section 2 Objectives and Performance Requirements of AS4299-1995 Adaptable Housing standard requires Adaptable housing units to be designed and constructed to meet the following requirements:

- a) Visitability To be visitable by people who use wheelchairs, in that there must be at least one wheelchair accessible entry and path of travel to the living area and to a toilet that is either accessible or visitable.
- b) Avoidance of level changes To have no steps and to avoid level changes where possible.
- c) Manoeuvrability This shall include the following:
 - i. To provide space sufficient to manoeuvre a wheelchair within a living area, the kitchen and an accessible path of travel linking these areas.
 - ii. To provide space sufficient to manoeuvre a wheelchair within a bedroom, a bathroom and a toilet or to provide a design and details whereby after adaptation there will be sufficient space to manoeuvre a wheelchair within these facilities and an accessible path of travel linking these facilities to the entry, living and kitchen areas.
- d) Ease of adaptation If the design for adaptation requires further demolition of walls, then these walls shall be non load-bearing and free of electrical and plumbing services.
- e) Ease of reach To provide electrical controls, taps, and some shelves and cupboards at levels to suit people who use wheelchairs.
- f) Future laundry facilities To provide laundry facilities that after adaptation will be accessible to people who use wheelchairs. Those laundry facilities may be external to the adaptable housing unit, providing a wheelchair accessible path of travel is available from the adaptable housing unit to the laundry facilities.

Ensuring all rooms inside a unit, including secondary bedrooms, meet the Adaptable standard would facilitate closer alignment with the Disability Discrimination Act 1992.

This appraisal has been carried out against the 'essential required features' of AS 4299 (Adaptable house class C) and with reference to AS 1428.1 and AS 1428.2. In a multi-unit complexes, adaptable dwellings are required to be distributed in the development and be representative of the sizes provided.

For this scheme there are 50 units and therefore 10 are required to be adaptable. The following units have been designed to be adaptable:

• 3 bed – Units 1.02, 1.04, 2.02, 2.04, 3.02, 3.04, 4.02, 4.04, 5.02, 5.04

The appropriate number of units has been provided, however it noted that the development contains 2 and 3 bedroom apartment types but the Livable are all 3 bedroom.

Note: all required dimensions are net and shall not be reduced by projecting skirtings, kerbs, handrails or other fixtures.



Requirement	AS4299 Clause	Essential Required at Outset	Essential Can be Post adapted	Comments	Compliance Status
Drawings					
Provision of drawings showing the housing unit in its pre-adaptation and post adaptation stages.	2.3	√			Provided
Siting					
A level or gently sloping site with up to 1:14 gradient	3.2.2	√			Compliance Indicated
A continuous accessible path of travel from street frontage to the entry in accordance with AS 1428.1.	3.3.2	√			Compliance Indicated
A continuous accessible path of travel from vehicle parking to entry complying with AS 1428.1.	3.3.2	√		Lift access is provided.	Compliance Indicated
Within a residential estate development, common use facilities to be accessible	3.3.3	√		Detailed design of communal area to be reviewed at Construction Certificate stage	Capable of compliance
Letterboxes in Estate Dev	elopments				
Letterboxes to be on hard standing area connected to accessible pathway.	3.8	√		No letterboxes are currently indicated.	Further Information Required
Recommend: Adaptable unit letterboxes are positioned between 900-1200mm above finished floor level.					
Private Car Accommodati	on				
Carparking space in garage min area 6.0m x 3.8m.	3.7.2	√		Accessible parking spaces are provided for each	Compliance Indicated



Requirement	AS4299 Clause	Essential Required at Outset	Essential Can be Post adapted	Comments	Compliance Status
Note: Garage space may be reduced if hard surface level outside space of minimum dimensions 5.4m x 3.8m is provided as a sheltered car park or can be provided in the future.				adaptable apartment. The spaces meet the spatial requirements of AS2890.6.	
Alternatively, the adaptable spaces can be in accordance with AS2890.6. (Minimum 2400mm wide with 2400mm wide shared zone. Space and shared zone to be 5400mm long)	3.7.2	√			
Internal clearance of garage or carport 2.5m min.	3.7.2	BCA Requirem ent for multi-unit developm ents		The floor to ceiling structural height is 3250mm. Consideration to be made at the Construction Certificate stage of services located at ceiling level to ensure required clearances are maintained.	Compliance Indicated
Accessible Entry					
Accessible entry – Door circulation to be in accordance with Clause 13 of AS1428.1 2009.	4.3.1	√			Compliance Indicated
Accessible entry to be level (I.e. max. 1:40 slope)	4.3.2	√			Compliance Indicated
Threshold to be low-level	4.3.2	√		Threshold details to be assessed at the Construction Certificate stage.	Compliance Indicated
Landing to enable wheelchair manoeuvrability	4.3.2	√			Compliance Indicated



Requirement	AS4299 Clause	Essential Required at Outset	Essential Can be Post adapted	Comments	Compliance Status
Accessible entry door to have 850mm min. clearance	4.3.1	√		The door is currently shown with an 865mm opening. A door schedule will be required at the Construction Certificate stage for assessment.	Capable of compliance
Door level handles and hardware to AS 1428.1	4.3.4	✓		A door hardware schedule will be required at the Construction Certificate stage for assessment.	Capable of compliance
Interior: General					
All internal doors to have 820mm min. clearance. Note 1: Secondary bathrooms would not need to comply with this requirement. Recommendation: Internal doors should have a minimum clear opening width of 850mm to meet the latest accessibility standards.	4.3.3			All internal doors to have 820mm minimum clear opening width. Doors are currently shown with an 865mm opening; however doors are not shown on the pre and post adapted layouts to 2 of the bedrooms. A door schedule will be required at the Construction Certificate stage for assessment.	Capable of compliance
Internal corridors min. width of 1000mm.	4.3.7	√		Note: Consideration is to be made to wall finishes and the like at construction stage to ensure clear dimensions are maintained.	Compliance Indicated



Requirement	AS4299 Clause	Essential Required at Outset	Essential Can be Post adapted	Comments	Compliance Status
Provision for compliance with AS 1428.1 for door approaches. Note 1: Secondary bathrooms would not need to comply with this requirement.	4.3.7			Two of the bedrooms are not shown with compliant latch side clearances in the post adaptable layout (although no doors are shown). These could be fitted with power opening devices. Details will require further consideration at the Construction Certificate Stage.	Capable of compliance Design amendment required at Construction Certificate stage.
Living Room & Dining Roo	om				
Provision for circulation space of min. 2250mm diameter. Note: This should be clear of furniture.	4.7.1		√		Compliance Indicated
Telephone adjacent to GPO	4.7.4	√		To be reviewed at the Construction Certificate stage.	Capable of compliance
Potential illumination level min. 300 lux	4.10	√		To be reviewed at the Construction Certificate stage.	Capable of compliance
Kitchen					
Minimum width 2.7m (1550 mm clear between benches)	4.5.2		√		Compliance Indicated
Provision for circulation at doors to comply with AS 1428.1	4.5.1		✓		Not applicable
Provision for benches planned to include at least one worksurface of 800 mm length, adjustable in	4.5.5	✓			Compliance Indicated



Requirement	AS4299 Clause	Essential Required at Outset	Essential Can be Post adapted	Comments	Compliance Status
height from 750mm to 850mm or replaceable. Refer to figure 4.8					
Refrigerator adjacent to work surface	4.5.5	√			Compliance Indicated
Kitchen sink adjustable to heights from 750mm to 850mm or replaceable	4.5.6	√		Detailed kitchen design to be reviewed at	Capable of compliance
Kitchen sink bowl max. 150mm deep	4.5.6		√	Construction Certificate stage.	
Tap set capstan or level handles or level mixer	4.5.6(e)	√			
Tap set located within 300mm of front sink	4.5.6(e)		√		
Cooktops to include either front or side controls with raised cross bars	4.5.7	√			
Cooktops to include isolating switch	4.5.7	√			
Worksurface min. 800mm length adjacent to cooktop at same height	4.5.7	✓			
Oven located adjacent to an adjustable height or replaceable work surface	4.5.8	√			
GPOs to comply with AS 1428.1. At least one double GPO within 300mm of front worksurface.	4.5.11		√		
GPO for refrigerator to be easily reachable when the refrigerator is in its operating position	4.5.11		√		



Requirement	AS4299 Clause	Essential Required at Outset	Essential Can be Post adapted	Comments	Compliance Status
Slip-resistant floor surface	4.5.4	√			Capable of compliance
Main Bedroom					
At least one bedroom of area sufficient to accommodate queen size bed (1530mm wide by 2030mm long) and wardrobe and circulation space requirements of AS 1428.2. 1000mm to 2 edges and 1540mm to one edge of the bed.	4.6.1	√			Compliance Indicated
Bathroom					
Provision for bathroom area to comply with AS 1428.1.	4.4.1		√	To be detailed at Construction Certificate stage. Spatial dimensions of bathrooms indicate compliance with this requirement can be achieved.	Compliance Indicated
Slip-resistant floor surface	4.4.2	✓			Capable of compliance
Shower recess-no hob. Minimum size 1160 x 1100mm to comply with AS 1428.1. (Refer Figures 4.6 and 4.7)	4.4.4(f)		√		Compliance Indicated
Shower area waterproofed to AS 3740 with floor to fall to waste	4.4.4(f)	✓			Capable of compliance
Recessed soap holder	4.4.4(f)		√		Capable of compliance



Requirement	AS4299 Clause	Essential Required at Outset	Essential Can be Post adapted	Comments	Compliance Status
Shower taps positioned for easy reach to access side of shower sliding track	4.4.4(f)		√		Capable of compliance
Provision for adjustable, detachable handheld shower rose mounted on a slider grabrail or fixed hook (plumbing and wall – strengthening provision)	4.4.4(h)	√			Capable of compliance
Reinforcement of walls. Provision for grabrail in shower (refer to figure 4.7 AS4299) to comply with AS 1428.1.	4.4.4(h)	Reinforce ment required please document on drawing.			Capable of compliance
Taps set to be capstan or level handles with single outlet	4.4.4(c)		√		Capable of compliance
Provision for washbasin with clearances to comply with AS 1428.1	4.4.4(g)	√			Compliance Indicated
Double GPO beside mirror	4.4.4(d)		✓		Capable of compliance
Toilet					
Provision of either 'visitable toilet' or accessible toilet No door swing or basin to home page of basin to home scach on this space of the provision of the p	4.4.3	√			Compliance Indicated



Requirement	AS4299 Clause	Essential Required at Outset	Essential Can be Post adapted	Comments	Compliance Status
Provision to comply with AS 1428.1	4.4.1		√	To be detailed at the Construction Certificate stage.	Compliance Indicated
Location of WC pan at correct distance from fixed walls	4.4.3		√		Compliance Indicated
Reinforcement of walls. Provision for grab rail zone (Refer Figure 4.6 AS4299)	4.4.4(h)	Reinforce ment to be installed			Capable of compliance
Slip resistant floor surface. (Vitreous tiles or similar)	4.4.2	✓			Capable of compliance
Laundry					
Circulation at doors to comply with AS 1428.1	4.8		√		Not applicable
Provision for adequate circulation space in front of or beside appliances (min. 1550mm depth)	4.8		√		Compliance Indicated
Provision for automatic washing machine	4.8(e)	✓			Compliance Indicated
Where clothesline is provided, an accessible path of travel to this	4.8(a)	√			Not applicable
Double GPO	4.8(g)		√		Capable of compliance
Slip-resistant floor surface	4.9.1	√			Capable of compliance
Door Hardware					
Door hardware operable with one hand, located 900-1100 mm above floor.	4.3.4		√	A door hardware schedule will be required at the Construction	Capable of compliance



Requirement	AS4299 Clause	Essential Required at Outset	Essential Can be Post adapted	Comments	Compliance Status
Recommend lever handles.				Certificate stage for assessment.	
Floor Coverings					
Slip resistant surfaces – balconies and external paved areas. (Vitreous tile or similar)	4.9.1	√		A finishes schedule will be required for assessment at the Construction Certificate stage.	Capable of compliance
Garbage	Garbage				
Provision for bin in an accessible location	4.11.6	BCA Requirem ent		Bin Chutes are not currently detailed, but an accessible path of travel is provided to the residents waste located on B3	Capable of compliance
Threshold to Balcony & P	Threshold to Balcony & Private Outdoor Spaces				
Step free access is required to doorways leading to private outdoor spaces associated with adaptable units. Any threshold ramps must be in accordance with Clause 10.5 of AS1428.1 2009.	N/A		√	Threshold details to be assessed at the Construction Certificate stage.	Capable of compliance



5.0 SEPP HOUSING - LIVABLE HOUSING ASSESSMENT

State Environmental Planning Policy No 65 Design Quality of Residential Apartment Development Part 4Q Universal Design of the Apartment Design Guide requires a minimum of 20% of the apartments are to incorporate the Livable Housing Guidelines silver level design features from the preadapted state. For this development, there are a total of 50 residential apartments, a total of 10 units will be required to be designed to Livable Housing Silver Level Standards.

The following apartments have been designed to meet these requirements.

• 3 bed – Units 1.02, 1.04, 2.02, 2.04, 3.02, 3.04, 4.02, 4.04, 5.02, 5.04.

The appropriate number of units has been provided, however it noted that the development contains 2 and 3 bedroom apartment types but the adaptable are all 3 bedroom.

5.1. Element 1 - Dwelling Access

Performance Statement

There is a safe, continuous, step-free pathway from the street entrance and / or parking area to a dwelling entrance that is level.

	Silver Level Requirement	Comments	
1	Provide a safe and continuous pathway from the front boundary of the property to an entry door to the dwelling.	A continuous path of travel is available from the allotment boundary available to each respective dwelling.	
2	The path of travel referred to in (a) should have a minimum clear width of 1000mm and have: a) No steps; b) An even, firm, slip resistant surface; c) A crossfall of not more than 1:40; d) A maximum pathway slope of 1:14 Where ramps are required, they should have landings provided at no greater than 9m for a 1:14 ramp and no greater than 15m for ramps steeper than 1:20. Landings should be no less than 1200mm in length.	The current design indicates that compliance with this requirement is achieved. Landscape plans will be required for assessment at the Construction Certificate stage.	
3	The path of travel as referred to in (a) may be provided via an associated car parking space for the dwelling. Where a car parking space is relied upon as the safe and continuous pathway to the dwelling entrance, the space should incorporate: a) Minimum dimensions of at least 3200mm (Width) X 5400mm (Length); b) An even, firm, slip resistant surface; c) A level surface (1:40maximum gradient, 1:33 maximum gradient for bitumen).	A path of travel is available from the allotment boundary and therefore it is not considered that parking spaces in accordance with this requirement are required, however lift access is available from the residential car parking area.	
4	A step ramp may be incorporated at an entrance doorway where there is a change in height of 190mm or less. The step ramp should provide: a) A maximum gradient of 1:10 b) A minimum clear width of 1000mm (please note: width should reflect pathway width)	Not applicable.	



	Silver Level Requirement	Comments
	c) A maximum length of 1900mm	
5	Where a ramp is part of the pathway, level landings no less than 1200mm in length, exclusive of the swing of the door or gate than opens onto them, must be provided at the head and foot of the ramp.	Compliance indicated.
Note	The width of the landing will be determined by the adjoining pathway. If the landing directly adjoins the doorway, please refer to Element 2 for the dimensional requirements.	

5.2 Element 2 – Dwelling Entrance

Performance Statement

There is at least one level (step free) entrance into the dwelling to enable home occupants to easily enter and exit the dwelling.

	Silver Level Requirement	Comments
1	The dwelling should provide an entrance door with: a) A minimum clear opening width of 820mm (see Figure 2 (a)); b) A level (step-free) transition and threshold (maximum vertical tolerance of 5mm between abutting surfaces is allowable provided the lip is rounded of bevelled); and c) Reasonable shelter from weather.	Compliance indicated. Door schedule and threshold details will be required for assessment at the Construction Certificate stage.
2	A level landing area of at least 1200mm x 1200mm should be provided at the level (step-free) entrance door. A level landing area at the entrance door should be provided on the arrival side of the door (i.e. the external side of the door) to allow a person to safely stand and then open the door.	Compliance indicated.
3	Where the threshold at the entrance exceeds 5mm and is less than 56mm, a ramped threshold may be provided (see Figure 1 (b)).	Threshold details to be assessed at the Construction Certificate stage.
4	The level (step-free) entrance should be connected to the safe and continuous pathway as specified in Element 1.	Compliance indicated.
Note	The entrance must incorporate waterproofing and termite management requirements as specified in the NCC.	



5.3 Element 3 – Internal Doors & Corridors

Performance Statement

Internal doors and corridors facilitate comfortable and unimpeded movement between spaces.

	Silver Level Requirement	Comments
1	Doorways to rooms on the entry level used for living, dining, bedroom, bathroom, kitchen, laundry and sanitary compartment purposes should provide: a) A minimum clear opening width of 820mm (see Figure 2(a)); and b) A level transition and threshold (maximum vertical tolerance of 5mm between abutting surfaces is allowable provided the lip is rounded or bevelled).	Compliance indicated. Door schedule and threshold details will be required for assessment at the Construction Certificate stage.
2	Internal corridors/passageways to the doorways referred to in (a) should provide a minimum clear width of 1000mm. * Corridor widths should be measured as described in Clause 6.3 of AS 1428.1 – 2009.	Compliance indicated.

5.4 Element 4 – Toilet

Performance Statement

The ground (or entry) level has a toilet to support easy access for home occupants and visitors.

	Silver Level Requirement	Comments
1	Dwellings should have a toilet on the ground (or entry) level that provides: a) A minimum clear width of 900mm between the walls of the bathroom if located in a separate room; and b) A minimum 1200mm clear circulation space forward of the toilet pan exclusive of the swing of the door in accordance with Figure 3(a). c) The toilet pan should be located in the corner of the room (if the toilet is a combined toilet/bathroom) to enable installation of grabrails at a future date. Reinforcement guidelines for walls in bathrooms and toilets are found in element 6.	Compliance indicated.



5.5 Element 5 – Shower

Performance Statement

The bathroom and shower is designed for easy and independent access for all home occupants.

	Silver Level Requirement	Comments
1	One bathroom should feature a slip resistant, hobless shower recess. Shower screens are permitted provided they can be easily removed at a later date.	Compliance indicated. Construction Certificate stage to be assessed at the Construction Certificate stage.
2	The shower recess should be located in the corner of the room to enable the installation of grabrails at a future date.	Compliance indicated. Construction Certificate stage to be assessed at the Construction Certificate stage.
Note	For hobless specification please see AS3740-3.6.	

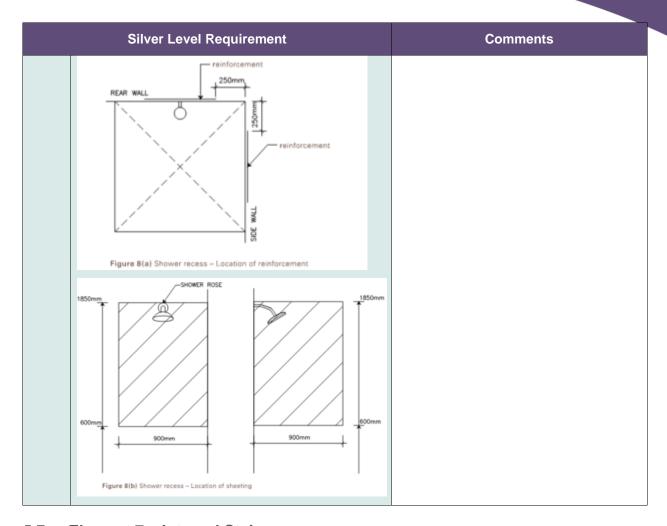
5.6 Element 6 – Reinforcement of Bathroom and Toilet Walls

Performance Statement

The bathroom and toilet walls are built to enable grabrails to be safely and economically installed.

		Silver Level Requirement	Comments
1	1 Reinforcement to be located as follows:		Provision for reinforcement of walls to be
		SHOWER ROSE reinforcement	shown on plan at the Construction Certificate stage.
		PEAR WALL SIDE WALL	





5.7 Element 7 – Internal Stairways

Performance Statement

Where installed, stairways are designed to reduce the likelihood of injury and also enable future adaptation.

	Silver Level Requirement	Comments
1	Stairways in dwellings must feature: A continuous handrail on one side of the stairway where there is a rise of more than 1m.	Not applicable.
Note	This is a requirement for all new homes under the NCC Homes built prior to 2014 may benefit from this element.	



6.0 CONCLUSION

In the professional opinion of Purely Access Pty Ltd the proposals are capable of meeting the requirements of the SEPP Housing, Bayside DCP and the Performance Requirements set out in the National Construction Code Building Code of Australia Volume One 2022 (BCA) and referenced Australian Standards with respect to access for people with a disability. Further design information focusing on the detailed elements will be developed as the scheme progresses through to the construction phase to ensure compliance is achieved.

If you have any further queries in relation to the report please contact the undersigned.

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7.0 DRAWINGS REVIEWED

The following drawings/ documents have been considered in the formulation of this report:

Drawing No.	Revision	Title
1000	03	Cover Sheet
1201	01	Site Plan Existing
1202	01	Site Plan Analysis
2000	03	GF Ground Floor Plan
2001	03	L1 Level 1 Floor Plan
2002	03	L2 Level 2 Floor Plan
2003	03	L3 Level 3 Floor Plan
2004	03	L4 Level 4 Floor Plan
2005	03	L5 Level 5 Floor Plan
2006	03	Roof Plan
2015	03	B1 Basement 1 Floor Plan
2016	03	B2 Basement 2 Floor Plan
2017	03	B3 Basement 3 Floor Plan
2100	01	Demolition Plan
2800	02	GFA Plans
3000	03	Elevations Sheet 1: North & East
3001	03	Elevations Sheet 1: South & West
4000	03	Sections Sheet 1
4001	01	Sections Sheet 2
5700	02	Adaptable Apartment Plans
9100	01	Sun Eye Views
9101	02	ADG Compliance – Solar Access
9102	02	ADG Compliance – Cross Ventilation
9103	01	Shadow Diagrams



Drawing No.	Revision	Title
91-4	01	Shadow Diagrams – DCP Envelope Comparison