



Project 28 Lockwood Avenue, Belrose

Report Access 2019 Report

Reference C21844-Access-Report-r1

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Document Control

Reference/Revision	Date	Description	Access Assessment Report
C21844-Access-Report-r1	27/09/2022	Prepared by	Chris Campbell
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1 Introduction

1.1 Development Location and Description

The building, the subject of this report, is located at 28 Lockwood Avenue, Belrose. The building consists of two levels of basement car parking, three levels of Retail (basement 02, lower ground floor and ground floor), mixed use and four levels of integrated Residential from lobbies on basement 02 to Level 01 (49 units).

1.2 Objectives

The purpose of this Report is to provide an access assessment addressing:

1. all relevant clauses of the National Construction Code 2019 Volume 1 (the “BCA”) relating to the provision of access for people with a disability;
2. Objective 4Q-1 of the Apartment Design Guidelines (ADG);
3. the Livable Housing Design Guidelines (LHDG) – Silver Level;
4. the adaptable housing requirements of Northern Beaches Council Development Control Plan 2011 (the “DCP”); and
5. associated Standards called up by the BCA and DCP including AS 1428.1-2009, AS 1428.4.1-2009, AS 2890.6-2009 and AS 4299-1995.

1.3 Limitations

This Report does not include, nor imply, any audit, assessment, or upgrading of the proposed development regarding:

1. Sections B, C, E (except clause E3.6), F (except clause F2.4), G, H, I and J, and Parts D1 and D2 of the BCA;
2. the Apartment Design Guidelines (ADG), other than Objective 4Q-1; and
3. The capacity or design of any electrical, fire, hydraulic or mechanical services.

This Report does not include, nor imply, any assessment of, or compliance with:

1. any development consent conditions;
2. the Liquor Licencing Act 2007;
3. the Work Health and Safety Act 2011;
4. the Swimming Pools Act 1992; and
5. requirements of Authorities including, but not limited to, WorkCover, RMS, Council, telecommunications supply authority, electricity supply authority, water supply authority, gas supply authority, and the like.

1.4 Disability Discrimination Act

The Disability Discrimination Act 1992 (Cth) (the “DDA”) is Commonwealth legislation (applies nationally). Amongst other things, it provides an avenue for an affected party to make a complaint of discrimination. Compliance with the BCA does not restrict a complaint of discrimination relating to the provision of access to and within a building from being made under the DDA. However, provided the building complies with the BCA and the Disability (Access to Premises – Building) Standards 2010, such a complaint cannot be successful.

1.5 Disability (Access to Premises - Buildings) Standards 2010

The Disability (Access to Premises – Buildings) Standards 2010 (the “Premises Standards”) was created under the DDA and is also Commonwealth legislation (applies nationally). The Premises Standards identifies buildings to which it applies before specifying construction standards that

those buildings are required to comply with. In summary, the Premises Standards are applicable to a new building, a new part of a building, and an affected part of a building, and the construction standards applicable are contained within “Schedule 1 Access Code for Buildings”.

The Premises Standards provides a definition for a new building, a new part of a building, and an affected part of a building. The definition of a new building and a new part of a building is currently considered to be in line with standard dictionary definitions (unless a building or part obtained construction approvals prior to 1 May 2011). However, the term “affected part” is specific to the Premises Standards and is defined by clause 2.1(5) as follows –

- a) the principal pedestrian entrance of an existing building that contains a new part; and*
- b) any part of an existing building, that contains a new part, that is necessary to provide a continuous accessible path of travel from the entrance to the new part.*

The upgrade requirements of the Premises Standards are founded on determining whether a development within an existing building results in the creation of an affected part.

As previously mentioned, the construction standards of the Premises Standards are contained within “Schedule 1 Access Code for Buildings”. It should be noted that this part of the Premises Standards was prepared in consultation with the Australian Building Codes Board (ABCB – publisher of the BCA). As such, the requirements outlined in each document are the same. Therefore, assessment of the proposed development against the relevant requirements of the BCA applicable to access for people with a disability ensures that it also complies with the Premises Standards.

The subject proposed development incorporates construction of a new building; therefore, the entire building must comply with the Premises Standards. An assessment of the building against the relevant requirements of the BCA applicable to access for people with a disability, as outlined in this Report, is equivalent to an assessment against “Schedule 1 Access Code for Buildings” of the Premises Standards. Therefore, confirmation of compliance with the BCA should also be taken as confirmation of compliance with the Premises Standards.

1.6 Reviewed Documentation

The assessment outlined in this Report is based on review of the documentation referenced in Annexure A of this Report.

2 Assessment Summary / Matters for Further Consideration

The documentation referenced in Annexure A of this Report has been assessed against the documents referenced in Section 1.2 of this Report. This assessment has identified the following areas where compliance requires further consideration.

2.1 General building access requirements – BCA clause D3.1

Buildings and parts of buildings must be accessible as required by Table D3.1, unless exempted by D3.4.

Class of Building	Access requirements
Class 2	<p>From a pedestrian entrance required to be accessible to at least 1 floor containing sole-occupancy units and to the entrance doorway of each sole-occupancy unit located on that level.</p> <p>To and within not less than 1 of each type of room or space for use in common by the residents, including a cooking facility, sauna, gymnasium, swimming pool, common laundry, games room, individual shop, eating area, or the like. Where a ramp complying with AS 1428.1 or a passenger lift is installed— (a) to the entrance doorway of each sole-occupancy unit; and (b) to and within rooms or spaces for use in common by the residents, located on the levels served by the lift or ramp.</p>
Class 5	To and within all areas normally used by the occupants.
Class 6	To and within all areas normally used by the occupants.
Class 7a	To and within any level containing accessible carparking spaces

2.2 Accessible SOUs

The Construction Certificate plans are to nominate which units are proposed to be designed in accordance with the Adaptable and Livable housing requirements in accordance with development consent, Council DCP and SEPP65 accessible design requirements. These plans are to include the pre and post adaptable housing plans.

3 Statement of Compliance

This office has completed a detailed access review of the subject proposed development, as indicated on the drawings referenced in Annexure A of this Report, against the relevant requirements of the documents referenced in Section 1.2 of this Report. The details of this review are specified in the Assessment Tables provided in the discussion of the proposed development against the relevant document.

4 National Construction Code 2019 Assessment

For the purposes of the BCA, the building is described as follows:

4.1 Classification

Level	Class	Use	Area (approx.)
B04	Total		4295 m²
	Class 7a	Carpark	4120 m ²
	Class 7b	Storage	175 m ²
B03	Total		4295 m²
	Class 7a	Carpark	3837 m ²
	Class 7b	Storage	331 m ²
	Class 7a	Pump Plant Room	127 m ²
B02	Total		2873 m²
	Class 6	Retail	2032 m ²
	Class 6	Retail Loading Dock	555 m ²
	Class 2	Residential Lobbies	139 m ²
	Class 7b	Bin Rooms	147 m ²
LG	Total		2822 m²
	Class 6	Retail	830 m ²
	Class 2	Residential	1992 m ²
G	Total		2784 m²
	Class 6	Retail	666 m ²
	Class 7b	Residential Bin Holding Room	88 m ²
	Class 2	Residential	2030 m ²
L01	Total		1725 m²
	Class 2	Residential	1725 m ²
TOTAL			18794 m²

4.2 Areas to be accessible

Under the BCA the following areas are required to be accessible:

Level	Description	Area
B04	Basement Car Parking	To and within any level containing accessible carparking
B03	Basement Car Parking	To and within any level containing accessible carparking
	EOT Facilities	As an accessible facility is provide the other facilities are not required to be accessible.
	Hydrant Pump Room	The Hydrant Pump Room is exempt under D3.4.
B02	Retail SOU's	To and within all areas normally used by the occupants.
	Residential Lobbies	From a pedestrian entrance to the lift provided
	Loading Docks	The Loading Dock is exempt under D3.4.
LG	Retail SOU's	To and within all areas normally used by the occupants.
	Residential Corridors	To the entrance doorway of each sole-occupancy unit

	Residential SOU's – not accessible	-
	Accessible SOU's	Within the SOU
G	Retail SOU's	To and within all areas normally used by the occupants.
	Residential Corridors	To the entrance doorway of each sole-occupancy unit
	Residential SOU's – not accessible	-
	Accessible SOU's	Within the SOU
L01	Retail SOU's	To and within all areas normally used by the occupants.
	Residential Corridors	To the entrance doorway of each sole-occupancy unit
	Residential SOU's – not accessible	-
	Accessible SOU's	Within the SOU
	Communal Roof Top	To and within rooms or spaces for use in common by the residents, located on the levels served by the lift or ramp.

4.3 Lift travel distance

See annexure B for lift numbering.

Lift	From	To	FFL from	FFL to	Vert. (m)
1	B04	GF	144.8	158.7	13.9
2	B04	L01	144.8	161.9	17.1
3	B04	GF	144.8	158.7	13.9
4	B04	L01	144.8	161.9	17.1
5	B04	B02	144.8	152.2	7.4
6	B04	L01	144.8	161.9	17.1
7	B04	L01	144.8	161.9	17.1
8	B03	B02	147.9	153.0	5.1
9	B02	GF	153.0	158.7	5.7
Hoist	Waste	LD	153.0	150.7	2.3

All lifts that serve a floor with an effective height of over 12m are required to comply with the stretcher lift requirements of Clause E3.2 of the BCA.

4.4 Assessment


The following assessment table outlines a clause by clause review of the subject proposed development against the relevant Deemed-To-Satisfy (DTS) provisions of the BCA that relate to access for people with a disability. All DTS clauses of the BCA that relate to access for people with a disability applicable to the proposed development are referenced and discussed in the table below. Where a clause is not relevant to the proposed development it is not discussed.

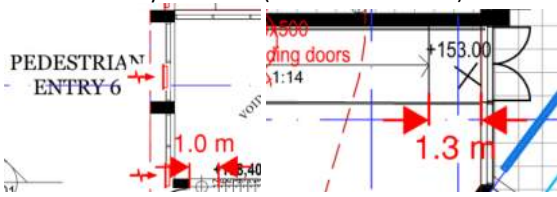
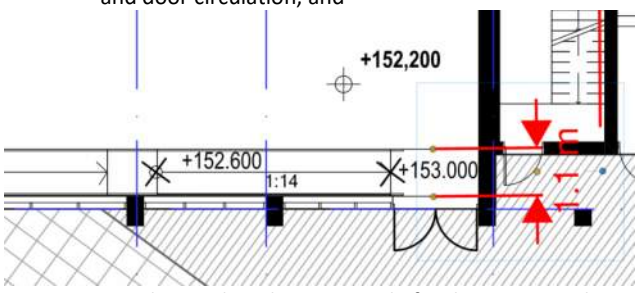
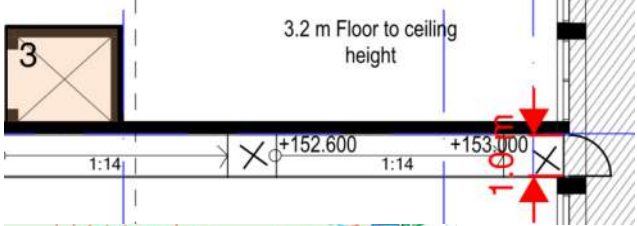
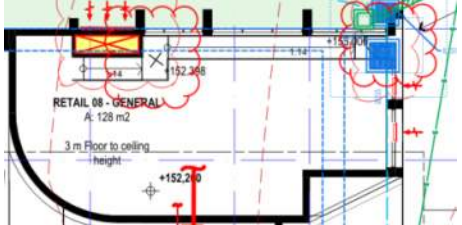
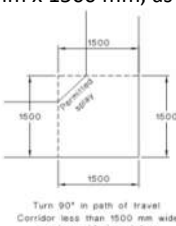
The following abbreviations have been used in the table below:

- PS Performance Solution**
The design does not comply with the clause, however, a Performance Solution is proposed to justify the design in its current format.
- CRA Compliance Readily Achievable**
It is considered that, whilst there is insufficient information currently provided to determine strict compliance with the relevant DTS clause, the proposed design can comply in its current format.
- Complies** The proposed design complies with the relevant DTS clause
- DNC Does Not Comply**
The proposed design does not comply with the relevant DTS clause and requires amendment.
- FI Further Information**
Further information is required to determine whether the proposed design satisfies the requirements of the relevant DTS clause.
- N/A Not Applicable**
The relevant DTS clause is considered not applicable to the subject proposed development but requires further explanation to confirm reason(s).
- Noted** The relevant DTS clause specifies information only, no assessment is required.

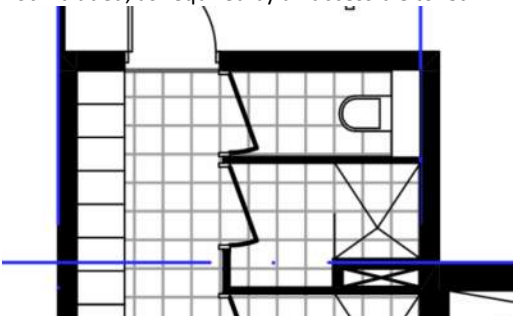
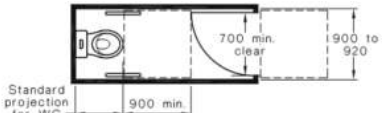
National Construction Code Assessment Table

Clause	Comments	Assessment
Part D2 – Construction of exits		
D2.0 Deemed-to-Satisfy Provisions	Information only.	Noted
D2.1 Application of Part	Information only.	Noted
D2.10 Pedestrian ramps	The floor surface of the ramps must comply with the slip-resistance requirements of this clause.	CRA
D2.14 Landings	Landing geometry and slip-resistance must comply with this clause. In a stairway, each landing must be not less than 750 mm long.	CRA
D2.17 Handrails	The current configuration of the fire-isolated stairway allow for a handrail and still maintain the required minimum 1m travel width. The handrail(s) are required to meet the requirements of the BCA and AS 1428.1.	CRA
Part D3 – Access for people with a disability		
D3.0 Deemed-to-Satisfy Provisions	Information only.	Noted
D3.1 General building access requirements	Access is required to be provided to each Class located within the building in accordance with the following: <u>Class 2</u> From a pedestrian entrance required to be accessible to at least one (1) floor containing sole-occupancy units, and to the entrance doorway of each sole-occupancy unit located on that level.	CRA

Clause	Comments	Assessment
	<p>To and within not less than one (1) of each type of room or space for use in common by the residents, including a cooking facility, sauna, gymnasium, swimming pool, common laundry, games room, individual shop, eating area, or the like.</p> <p>Where a ramp complying with AS 1428.1-2009 or a passenger lift is installed -</p> <ul style="list-style-type: none"> (a) to the entrance doorway of each sole-occupancy unit; and (b) to and within rooms or spaces for use in common by the residents, located on the levels served by the lift or ramp. <p>Ensure all doorways on the continuous accessible path of travel are a minimum of 850 mm clear with circulation spaces as required by AS 1428.1.</p> <p><u>Class 6</u> To and within all areas normally used by the occupants.</p>	
D3.2 Access to buildings	<p>An accessway must be provided to a building required to be accessible -</p> <ul style="list-style-type: none"> (i) from the main points of a pedestrian entry at the allotment boundary; and (ii) from another accessible building connected by a pedestrian link; and (iii) from any required accessible carparking space on the allotment. <p><u>The main point of Pedestrian Entry</u> Details need to be provided to demonstrate how an accessway will be provided from the allotment boundary.</p>  <p>These details can be resolved at the CC Stage.</p>	CRA
D3.3 Parts of buildings to be accessible	<p>Parts of the building must comply with the relevant requirements of this clause.</p> <p><u>Landing</u> AS1428.1 clause 10.8.2 requires: where doorways are at landings, the dimensions of the landings shall be in accordance with the requirements of Clause 13.3 for circulation spaces at doorways.</p> <p><u>Access to Retail tenancies 3 and 5</u> Access to the below ground level storeys of retail tenancies 3 and 5 have been provided via a lift.</p> <p><u>Doorways near Ramps</u></p>	FI

Clause	Comments	Assessment
	<p>Several ramps in the class 6 SOUs do not comply with AS1428.1. Three retail SOU have ramps in close proximity to doorways</p> <ul style="list-style-type: none"> Retail tenancy 05 has two ramp with a landing onto a doorway that is only 1300 mm (minimum 1450mm)  <ul style="list-style-type: none"> Retail 09 does not provide for a 90 degree turn to the ramp and door circulation, and  <ul style="list-style-type: none"> Retail 05 and 08 do not provide for doorway circulation.   <p>Retail 08 also has two 90 degree turns that do not provide the space required by AS 1428.1:</p> <p>AS1428.1 requires a circulation space for a 90-degree turn to be 1500 mm x 1500 mm, as shown below:</p>  <p>The ramps and doorways to retail 05, 08, and 09, will need to be adjusted to allow for doorway circulation, 90 degree turns and handrail installation (outside of the minimum circulation spaces). These details may be resolved at the construction certificate stage.</p>	
D3.4 Exemptions	The following areas are not required to be accessible:	Noted

Clause	Comments	Assessment
	(a) An area where access would be inappropriate because of the particular purpose for which the area is used. (b) An area that would pose a health or safety risk for people with a disability. (c) Any path of travel providing access only to an area exempted by (a) or (b).	
D3.5 Accessible carparking	Accessible carparking spaces must comply with AS/NZS 2890.6	CRA
D3.6 Signage	Braille and tactile signage must be provided in accordance with this clause and Specification D3.6. Where illuminate exit signage is provided to an exit door, a braille and tactile sign complying with this clause must be provided stating "Exit" and "Level XX" (XX being the relevant floor level number, descriptor, or a combination of both).	CRA
D3.7 Hearing augmentation	A hearing augmentation system must be provided where an inbuilt amplification system, other than one used only for emergency warning, is installed— (i) in a room in a Class 9b building; or (ii) in an auditorium, conference room, meeting room or room for judicatory purposes; or (iii) at any ticket office, teller's booth, reception area or the like, where the public is screened from the service provider. No use has been detailed that would require hearing augmentation	Noted
D3.8 Tactile indicators	Tactile Ground Surface Indicators (TGSIs) must be provided to warn people that they are approaching a stairway, ramp and/or overhead obstruction in accordance with the requirements of this clause and AS 1428.4.1-2009.	CRA
D3.9 Wheelchair seating spaces in Class 9b assembly buildings	The building is not required to have wheelchair seating.	N/A
D3.10 Swimming pools	No Swimming pool has been shown on the plans.	N/A
D3.11 Ramps	On an accessway, a series of connected ramps must not have a combined vertical rise of 3.6m or more. Also, a landing for a step ramp may not overlap a landing for another step ramp or ramp.	Complies
D3.12 Glazing on an accessway	On an accessway, where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening, must be clearly marked in accordance with AS1428.1-2009.	CRA
Specification D3.6 – Braille and Tactile Signs		
1 Scope	This Specification sets out the requirements for the design and installation of braille and tactile signage as required by clause D3.6.	Noted
2 Location of braille and tactile signs	Braille and tactile signage must be located in accordance with this clause.	CRA
3 Braille and tactile sign specification	Braille and tactile signage must have characters in accordance with this clause.	CRA
4 Luminance contrast	The luminance contrast of the signage must comply with this clause.	CRA
5 Lighting	Braille and tactile signage must be illuminated to ensure the luminance contrast requirements are met at all times during which the sign is required to be read.	CRA
6 Braille	The braille characters must comply with this clause.	CRA
Specification D3.10 – Accessible Water Entry/Exit for Swimming Pools		

Clause	Comments	Assessment
1 Scope	This Specification sets out the requirements for types of accessible water entry/exit for swimming pools. No pool is detailed as part of this proposed development – the rest of this specification has been deleted	Noted
SECTION E – SERVICES AND EQUIPMENT		
Part E3 – Lift Installations		
E3.0 Deemed-to-Satisfy Provisions	Information only.	Noted
E3.6 Passenger lifts	Where lifts travel less than 12m vertically, they must have floor dimensions of no less than 1,100mm (wide) x 1,400mm (deep), and where they travel more than 12 m they must have a minimum dimension of 1,400mm (wide) x 1,600mm (deep). The scaled measurement of all lifts meets requirements. The lifts must be provided with features in accordance with Table E3.6b that comply with AS1735.12-1999.	CRA
SECTION F – HEALTH AND AMENITY		
Part F2 – Sanitary and Other Facilities		
F2.0 Deemed-to-Satisfy Provisions	Information only.	Noted
F2.4 Accessible sanitary facilities	<p>The accessible sanitary facility compartment has been measured to scale as having dimensions of 2,300 mm (wide) x 2,600 mm (deep). This compartment is capable of being fitted out in accordance with the requirements of Section 15 of AS 1428.1-2009.</p> <p><u>Ambulant Facilities</u> The end-of-trip facility must provide an ambulant toilet as the first toilet after an accessible toilet. It will need to be details that the toilet provided allows for a 900mm x 900mm space within the cubical that is not intruded, as required by an accessible toilet:</p>  <p>Below is an extract from AS 1428.1 showing the circulation space required.</p>  <p>With minor adjustments (or dimension confirmation) compliance is possible. These details must be added to the plans for CC Stage.</p>	FI
F2.9 Accessible adult change facilities	This building is not required to have an adult change facility unless occupant numbers are over 3500 occupants.	N/A
Specification F2.9 – Accessible adult change facilities – this specification is not required and therefore has been deleted from this report		

5 Apartment Design Guide (Objective 4Q-1) Assessment

State Environmental Planning Policy No 65 – Design Quality of Residential Apartment Development (“SEPP 65”) is New South Wales legislation applicable to the erection, substantial redevelopment, or conversion of buildings that result in the creation of residential flat buildings (cl4(1)(a), SEPP 65). Application of SEPP 65 is limited to residential flat buildings having –

at least 3 or more storeys (not including levels below ground level (existing) or levels that are less than 1.2 metres above ground level (existing) that provide for car parking) (cl4(1)(b), SEPP 65)

that contain “at least 4 or more dwellings” (cl4(1)(c), SEPP 65).

The subject proposed development has three (3) or more storeys and contains four (4) or more dwellings so SEPP 65 is applicable.

Clause 28(2)(c) of SEPP 65 requires consent authorities to consider the Apartment Design Guide (ADG) when assessing development applications. Generally, the ADG refers to matters outside the scope of an access assessment, however, Objective 4Q-1 (the “Objective”) requires that –

Universal design features are included in apartment design to promote flexible housing for all community members.

This is related to the provision of access, therefore, an assessment against the requirements of this Objective are provided in this Report.

The “Design guidance” provided with the Objective states the following –

Developments achieve a benchmark of 20% of the total apartments incorporating the Livable Housing Guideline's silver level universal design features.

The Glossary of the ADG then identifies the Livable Housing Design Guidelines (LHDG) as being “published by Livable Housing Australia and available on its' website”. The version of the LHDG available on the Livable Housing Australia website at the time this Report was prepared is the Fourth edition, dated 2017. The following assessment table outlines a review of the units within the subject proposed development designated as “livable” against the Silver Level requirements outlined in the Fourth Edition of the LHDG.

No units were nominated on the plans as being “livable”. Under the requirements of condition 34 of the Development Consent 11 units are to be nominated and comply with the livable housing requirements. The livable housing are to be nominated on the Construction Certificate plans to enable us to confirm compliance.

The following abbreviations have been used in the table below:

CRA Compliance Readily Achievable

It is considered that, whilst there is insufficient information currently provided to determine strict compliance with the relevant clause, the proposed design can comply in its current format.

Complies The proposed design complies with the relevant clause

DNC Does Not Comply

The proposed design does not comply with the relevant clause and requires amendment.

FI Further Information

Further information is required to determine whether the proposed design satisfies the requirements of the relevant clause.

N/A Not Applicable

The relevant clause is considered not applicable to the subject proposed development.

Livable Housing Design Guidelines Assessment Table

Part	Comments	Assessment
LIVEABLE HOUSING		
Silver Level		
1 Dwelling Access	Access to the livable units is via a pathway complying with BCA Part D3 and AS 1428.1-2009. It should be noted that the LHDG specifies that its requirements "should only be applied to the parts of the building classes not covered by the Disability Standards and BCA (BCA Vol 1 and 2)" – see "Note" on p.15.	N/A
2 Dwelling entrance	<p>The entrance to the livable units must have a level (step-free) transition and threshold (maximum vertical tolerance of 5mm between abutting surfaces is allowable provided the lip is rounded or bevelled). Where the threshold at the entrance exceeds 5mm and is less than 56mm, a ramped threshold may be provided in accordance with Figure 1(b).</p> <p>The entrance to the livable units must be sheltered from the weather.</p> <p>The entrance is connected to the accessible path as required by the BCA and AS 1428.1-2009. It should be noted that the LHDG specifies that its requirements "should only be applied to the parts of the building classes not covered by the Disability Standards and BCA (BCA Vol 1 and 2)" – see "Note" on p.15.</p>	CRA
3 Internal doors and corridors	<p><u>Internal Doors</u> All doorways are shown as 850 mm clear on ECNSW Plans.</p> <p><u>Internal Corridors</u> The internal corridors/passageways to the doorways must have a minimum clear width of 1,000mm.</p>	CRA

Part	Comments	Assessment
LIVEABLE HOUSING		
4 Toilet	The toilet must: (i) be located on the ground or entry level of the dwelling; (ii) have a minimum clear width of 900mm between the walls or obstructions in the room it is located; (iii) have a minimum 1,200mm clear circulation space forward of the toilet pan, exclusive of the swing of the door; and (iv) be located in the corner of the room if it is located in a combined toilet/bathroom.	
5 Shower	One (1) bathroom is to feature a slip-resistant, hobless shower recess located in the corner of the room. Shower screens are permitted provided they can be easily removed at a later date.	CRA
6 Reinforcement of bathroom and toilet walls.	Except for walls constructed of solid masonry or concrete, the walls around the shower, bath (if provided) and toilet must be reinforced to provide a fixing surface for the safe installation of grabrails in accordance with the requirements of this clause.	CRA
7 Internal stairways	This matter is regulated by the BCA for this building. It should be noted that the LHDG specifies that its requirements "should only be applied to the parts of the building classes not covered by the Disability Standards and BCA (BCA Vol 1 and 2)" – see "Note" on p.15.	CRA

6 Northern Beaches Council Development Control Plan 2011 Assessment - adaptable housing

The Northern Beaches Council Development Control Plan 2011 (the “DCP”) specifies the requirements applicable to the subject proposed development regarding the provision of adaptable units. The DCP specifies the following -

Where a development comprises at least five (5) dwellings, 10% (rounded up to next whole number) of dwellings shall be capable of being adapted (Class C) under AS4299

Note

Evidence of compliance with the Adaptable Housing Class C requirements of AS 4299 shall be submitted when lodging a DA and certified by an experienced and qualified housing professional (e.g. Architect or Accredited Building Certifier)

For the purposes of this Report, the following units are identified as being designated as “adaptable”, which equates to 12.24% ($6 / 49 \times 100 = 12.24\%$) of the units within the proposed subject development:

	Unit	Storey
1.	LG03	Lower ground
2.	LG.17	Lower ground
3.	G.03	Ground
4.	G.14	Ground
5.	1.03	Level 1
6.	1.04	Level 1

The DCP specifies “adaptable house class C” as the “Classification Level” applicable to the adaptable unit(s). This requires the design of the adaptable unit(s) to incorporate “all essential features”.

It should be noted that AS 4299-1995 is now more than 20 years old and the AS 1428 series of Standards has been subject to significant updates since it was published. These updates have resulted in the requirements of AS 1428.2 essentially being incorporated into what is currently referred to as AS 1428.1-2009. As such, where AS 4299-1995 references AS1428.2, this is taken as a reference to AS 1428.1-2009.

The following assessment table outlines a review of the units designated as adaptable within the proposed subject development against the “adaptable house class C” requirements of AS 4299-1995.

As stated before, the plans we have been provided for assessment do not show the Pre-Adaptable and Post adaptable. The Plans Approved by the Land and Environmental Court of NSW (ECNSW Plans), 8 November 2021, previously shown, will be used for this assessment.

The following abbreviations have been used in the table below:

CRA Compliance Readily Achievable

It is considered that, whilst there is insufficient information currently provided to determine strict compliance with the relevant clause, the proposed design can comply in its current format.

Complies The proposed design complies with the relevant clause

DNC Does Not Comply

The proposed design does not comply with the relevant clause and requires amendment.

FI Further Information

Further information is required to determine whether the proposed design satisfies the requirements of the relevant clause.

N/A Not Applicable

The relevant clause is considered not applicable to the subject proposed development.

AS 4299-1995 (adaptable house class C) Assessment Table

Room/Item		Clause	Comments	Assessment
Drawings				
1.	Provision of drawings showing the housing unit in its pre-adaptation and post-adaptation stages	2.3	Required at the construction stage.	CRA
Siting				
2.	A continuous accessible path of travel from street frontage and vehicle parking to entry complying with AS1428.1	3.3.2	No Street parking will be provided. An accessway from the primary principal entrance from the street frontage will be provided. Access will be provided from the basement carpark to the residential units.	CRA
Letterboxes in Estate Developments				
3.	Letterboxes to be on hard standing area connected to accessible pathway.	3.8	Letterboxes for the residential units are to be provided in the ground floor level entry lobby.	CRA
Private Car Accommodation				
4.	Carparking space or garage min area 6.0 m x 3.8 m	3.7.2	Accessible car spaces to be provided within basement car park. Compliance with AS2890.6 is satisfactory. Please ensure a 2.5m internal vertical clearance is supplied from the basement entry way to each accessible space.	CRA
Accessible Entry				
5.	Accessible entry	4.3.1	The entry door to an adaptable unit is to have a minimum clear opening of 850mm and comply with door circulation spaces under AS1428.1-2009. Details to be shown on the post adaption plan.	CRA
6.	Accessible entry to be level (i.e. max. 1:40 slope)	4.3.2	Units are accessed from an enclosed corridor.	Complies

Room/Item		Clause	Comments	Assessment
7.	Threshold to be low-level	4.3.2	Public corridors assumed to be flat.	CRA
8.	Landing to enable wheelchair manoeuvrability	4.3.2	The unit entry doors are internal to the building.	CRA
9.	Accessible entry door to have 850mm min clearance	4.3.1	The entry door to the adaptable units are to have a minimum clear opening of 850mm and comply with door circulation spaces under AS1428.1-2009. Details to be shown on the post adaption plan.	CRA
10.	Door lever handles and hardware to AS 1428.1	4.3.4	Door handles are to comply with AS1428.1-2009 at the construction stage.	CRA
Interior: General –				
11.	Internal doors to have 820 mm min clearance	4.3.3	Internal doors are required to have a minimum clear opening of 820mm. Details to be shown on the post adaption plan.	CRA
12.	Internal corridors min. width of 1000 mm	4.3.7	Internal corridors within the unit are to have a minimum width of 1000mm. Details to be shown on the post adaption plan.	CRA
13.	Provision for compliance with AS 1428.1 for door approaches	4.3.6	Circulation spaces at doorways within the unit are to comply with AS1428.1-2009. Details to be shown on the post adaption plan. The second bedroom and its ensuite do not have doorway circulation complying with AS 1428.1	CRA Plans capable of complying
14.	Provision for circulation space of min. 2250 mm diameter	4.7.1	A circulation space of min. 2250 mm diameter is to be made available in the living areas after the furniture has been placed. Details to be shown on the post adaption plan.	CRA
15.	Telephone adjacent to GPO	4.7.4	Telephone outlet adjacent to GPO in living/dining area to be indicated on post adaption plan.	CRA
16.	Potential illumination level min. 300Lux	4.10	Lighting to comply at construction stage.	CRA
Kitchen				
17.	Minimum width 2.7 m (1550mm clear between benches)	4.5.2	1550mm clearance is required in front of sink and appliances. Details to be shown on the post adaption plan.	CRA
18.	Provision for circulation at doors to comply with AS 1428.1	4.5.4	The kitchen doors proposed.	CRA

Room/Item		Clause	Comments	Assessment
19.	Provision for benches planned to include at least one work surface of 800 mm length, adjustable in height from 750 mm to 850 mm or replaceable. Refer to Figure 4.8	4.5.5	Work surface of 800mm to be indicated on post adaption plan.	CRA
20.	Refrigerator adjacent to work surface	4.5.5	Refrigerator to be adjacent to the work surface and to be indicated on post adaption plan.	CRA
21.	Kitchen sink adjustable to heights from 750 mm to 850 mm or replaceable	4.5.6	The design is to allow for the removal of the cabinets under the sink and adjacent work surface. To be indicated on a post adaption plan.	CRA
22.	Kitchen sink bowl max. 150mm deep	4.5.6	Kitchen sink bowl to be max. 150mm deep, this item is noted as something that can be altered post adaption.	CRA
23.	Tap set capstan or lever handles or lever mixer	4.5.6(e)	Taps may be updated post adaption, with no works required at this stage.	CRA
24.	Tap set located within 300 mm of front of sink	4.5.6(e)	Taps may be updated post adaption, with no works required at this stage.	CRA
25.	Cook tops to include either front or side controls with raised cross bars	4.5.7	Cook top controls may be updated post adaption, with no works required at this stage.	CRA
26.	Cook tops to include isolating switch	4.5.7	Cook tops to be provisioned with isolating switches or gas stop valves that can be easily and safely operated with the cook top is in use. Cook top may be updated post adaption, with no works proposed at this stage.	CRA
27.	Work surface min. 800 mm length adjacent to cook top at same height	4.5.7	Work surface adjacent to, and at the same height as the, cook top of 800mm to be indicated on post adaption plan.	CRA
28.	Oven located adjacent to an adjustable height or replaceable work surface	4.5.8	The oven is to be adjacent to an 800mm wide work surface and to be indicated on post adaption plan.	CRA
29.	GPOs to comply with AS 1428.1. At least one double GPO within 300mm of front of work surface	4.5.11	GPOs to comply with AS 1428.1. At least one double GPO within 300mm of front of work surface. To be indicated on post adaption plan.	CRA
30.	GPO for refrigerator to be easily reachable when the refrigerator is in its operating position	4.5.11	GPO for refrigerator to be easily reachable when the refrigerator is in its operating position. To be indicated on post adaption plan.	CRA
31.	Slip-resistant floor surface	4.5.4	Floors to be slip resistant to comply with AS3661.1. To be indicated on post adaption plan.	CRA

Room/Item		Clause	Comments	Assessment
	Main Bedroom			
32.	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	Turning space minimum 1540 x 2070mm required. To be indicated on post adaption plan.	CRA
	Bathroom			
33.	Provision for bathroom area to comply with AS 1428.1	4.4.1	The bathroom area is to comply with clause 15 of AS1428.1-2009. To be indicated on a pre-adaption plan and shown as an accessible bathroom on a post adaption plan. AS 4299 requires that all sanitary facilities are adaptable at minimum cost. The ensuite does not meet this requirement as the space in front of the toilet is not adequate and the toilet is not adjacent to a wall	CRA
34.	Slip-resistant floor surface	4.4.2	Floors to be slip resistant to comply with AS3661.1. To be indicated on a post adaption plan.	CRA
35.	Shower recess- no hob. Minimum size 1160 x 1100 to comply with AS 1428.1. (Refer Figures 4.6 and 4.7)	4.4.4(f)	Shower to be hob-less. The post adaption plans to show AS1428.1 compliant sizes and fitout.	CRA
36.	Shower area waterproofed to AS 3740 with floor to fall to waste	4.4.4(f)	Entire bathroom to comply with AS3740.	CRA
37.	Recessed soap holder	4.4.4(f)	Soap holder to be recessed.	CRA
38.	Shower taps positioned for easy reach to access side of shower sliding track	4.4.4(f)	Shower head and taps to be located at a height and clearance compliant to AS1428.1. To be indicated on a post adaption plan.	CRA
39.	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)	Provisioning to be provided. To be indicated on a post adaption plan.	CRA
40.	Provision for grabrail in shower (Refer to Figure 4.7) to comply with AS 1428.1	4.4.4(h)	Provisioning to be provided. To be indicated on a post adaption plan.	CRA
41.	Tap sets to be capstan or lever handles with single outlet	4.4.4(c)	Taps may be updated post adaption, with no works required at this stage.	CRA
42.	Provision for washbasin with clearances to comply with AS 1428.1	4.4.4(g)	The washbasin and associated clear spaces must comply with AS 1428.1.	CRA

Room/Item		Clause	Comments	Assessment
43.	Double GPO beside mirror	4.4.4(d)	Double GPO to be provided beside mirror. To be indicated on a post adaption plan.	CRA
	Toilet – “Visitable”			
44.	Provision of either ‘visitable toilet’ or accessible toilet	4.4.3	Once adapted the housing unit will be provided with an accessible toilet. To be indicated on a post adaption plan.	CRA
45.	Provision to comply with AS1428.1	4.4.1	The bathroom area is to comply with clause 15 of AS1428.1-2009. To be indicated on a pre-adaption plan and shown as an accessible bathroom on a post adaption plan. AS 4299 requires that all sanitary facilities are adaptable at minimum cost to potentially comply with AS 1428.1. The ensuite does not have the room size and the plumbing is not in a location that would be easily adapted.	FI Plans capable of complying
46.	Location of WC pan at correct distance from fixed walls	4.4.3	Pan to be located correct distances from the walls in accordance with AS1428.1-2009 at pre adaption stage. The ensuite toilet is not adjacent to a wall.	FI Plans capable of complying
47.	Provision for grab rail zone. (Refer Figure 4.6)	4.4.4(h)	Provisioning to be provided. To be indicated on a post adaption plan.	FI Plans capable of complying
48.	Slip resistant floor surface. (Vitreous tiles or similar)	4.4.2	Floors to be slip resistant to comply with AS3661.1. To be indicated on a post adaption plan.	CRA
49.	Circulation at doors to comply with AS 1428.1	4.8	Doorways at laundries to have appropriate circulation spaces in accordance with AS 1428.1. To be shown on post adaptation plan.	CRA
50.	Provision for adequate circulation space in front of or beside appliances (min. 1550 mm depth)	4.8	A minimum 1,550mm circulation space must be provided in front of the laundry appliances.	CRA
51.	Provision for automatic washing machine	4.8(e)	Space for an automatic washing machine is to be provided. To be indicated on a post adaption plan.	CRA
52.	Where a clothesline is provided, an accessible path of travel to this	4.8(a)	No clothesline proposed.	N/A
53.	Double GPO	4.8(g)	Double GPO to be provided in the laundry. To be indicated on a post adaption plan.	CRA

Room/Item	Clause	Comments	Assessment
54.	4.9.1	Floors to be slip resistant to comply with AS3661.1. To be indicated on a post adaption plan.	CRA
Door Locks			
55.	4.3.4	Door hardware operable with one hand, located 900–1100mm above floor. To be indicated on post adaption plan.	CRA

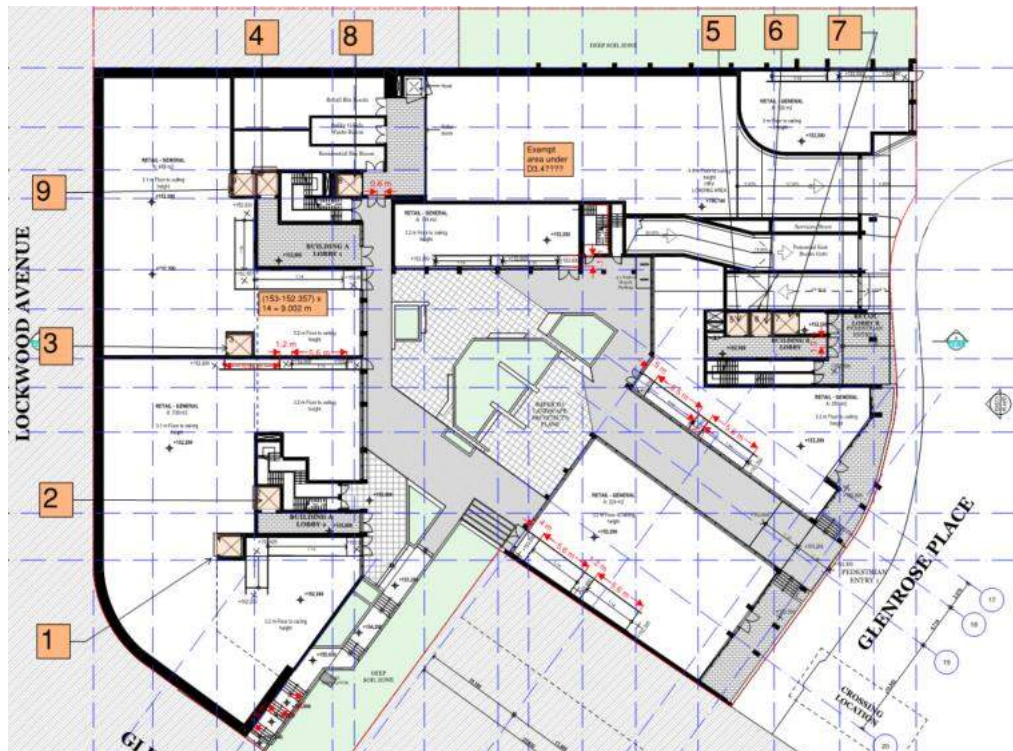
Annexure A - Reviewed Documentation

This Report is based on a review of the documentation listed below.

Architectural Details prepared by Urbana Corp		
Drawing Number	Revision	Title
CC-101	15.03.22	Basement 04 Plan
CC-102	15.03.22	Basement 03 Plan
CC-103	15.03.22	Basement 02 Plan
CC-104	15.03.22	Lower Ground Floor Plan
CC-105	15.03.22	Ground Floor Plan
CC-106	15.03.22	Level 01 Plan

Annexure B – Lift Numbering

For this Report the lifts have been numbered as below:



Lift	From	To	FFL from	FFL to	Vert. (m)	Requirement E3.6	Plans Scale to
1	B04	GF	144.8	158.7	13.9	1600x1400	2300x2100

2	B04	L01	144.8	161.9	17.1	1600x1400	2300x2300
3	B04	GF	144.8	158.7	13.9	1600x1400	2300x2100
4	B04	L01	144.8	161.9	17.1	1600x1400	2300x2100
5	B04	B02	144.8	152.2	7.4	1400x1100	2200x2100
6	B04	L01	144.8	161.9	17.1	1600x1400	2300x2100
7	B04	L01	144.8	161.9	17.1	1600x1400	2300x2100
8	B03	B02	147.9	153.0	5.1	1400x1100	2300x2100
9	B02	GF	153.0	158.7	5.7	1400x1100	2300x2100
Hoist	Waste	LD	153.0	150.7	2.3	1400x1100	1700x1600