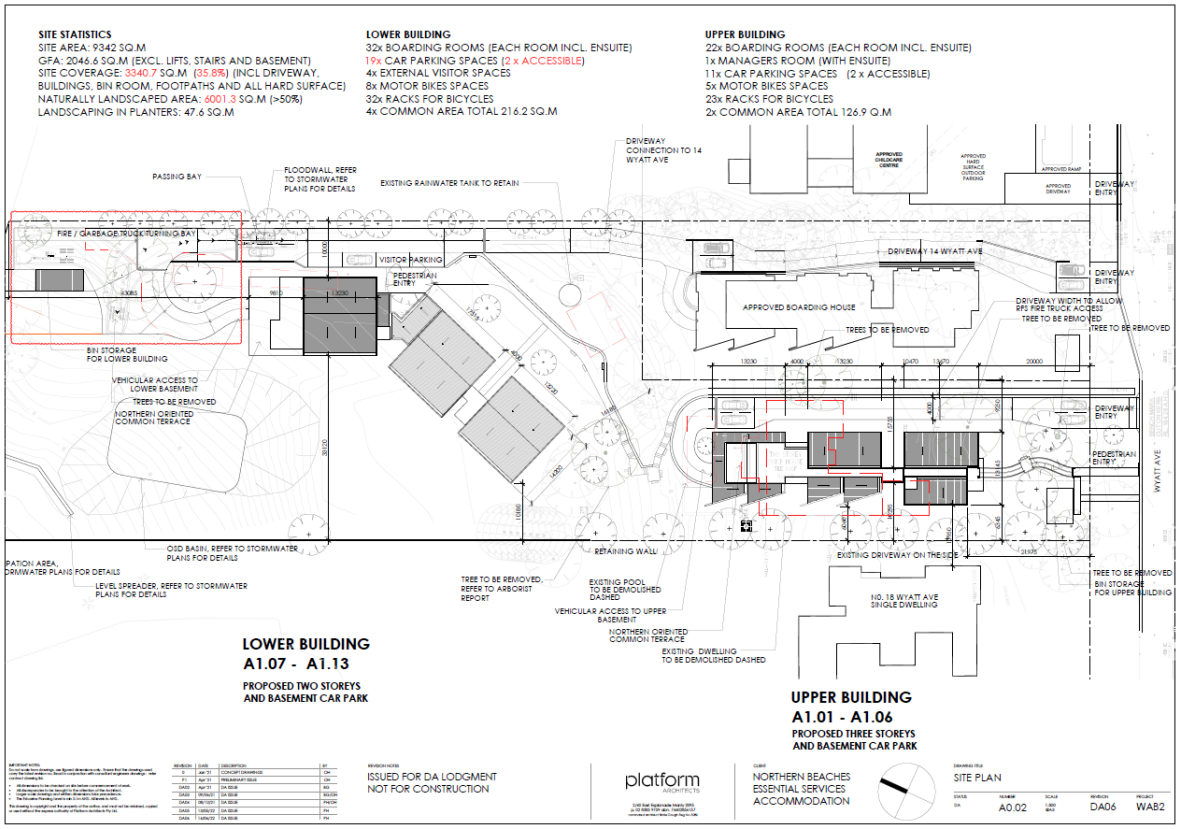
accessibility solutions (NSW) PTY LTD

ACCESSIBILITY PERFORMANCE SOLUTION REPORT

16 WYATT AVENUE, BELROSE



27TH JUNE 2022

INTRODUCTION & SCOPE OF THE PROJECT

This report has been prepared to review the accessibility of a National Construction Code (NCC) 2019 Amendment 1 class 3 boarding house development on a site at 16 Wyatt Avenue, Belrose.

In particular, whether the design complies with the performance requirement DP1 of the National Construction Code (2019 Amdt 1); Access for people with a disability by enabling:

> Access must be provided, to the degree necessary, to enable:
>
> (a) people to:
>
> (i) approach the building from the road boundary and from any *accessible* carparking spaces associated with the building; and
>
> (ii) approach the building from any *accessible* associated building; and
>
> (iii) access work and public spaces, accommodation and facilities for personal hygiene; and
>
> (b) identification of *accessways* at appropriate locations which are easy to find.

This report includes the following parts;

- Part A - Performance based design brief including the accepted assessment criteria, in this case expert judgment
- Part B - Assessment methodology and proposed analysis
- Part C - Evaluation of the evidence
- Part D - Confirmation statement that the expert judgment and evaluation of the evidence satisfies the accepted assessment criteria

PART A - PERFORMANCE BASED DESIGN BRIEF

Project Scope – A brief description of the proposed development relevant to accessibility include:

- Construction of two buildings for the purpose of boarding house residential accommodation consisting of 54 resident units, 1 managers unit, common resident areas, 34 parking spaces, motorbike and bicycle parking and outdoor pedestrian pathways.
- The site has reasonably steep topography with an approximate 18 metre difference from front to rear boundaries. The two buildings are described as the Upper Building adjoining the front boundary and the Lower Building at the rear of the site.
- Vehicular access to the Upper Building has independent access from Wyatt Avenue while the Lower Building relies upon a driveway connection through a DA approved boarding house development on 14 Wyatt Avenue.
- Pedestrian access to the Upper Building has independent 1:14 access ramp from Wyatt Avenue while the Lower Building also provides indpendent pedestrian pathway from Wyatt Avenue, albeit a stepped pathway owing to the site topography.
- With respect to internal accessibility the development proposes four (4) accessible units, four (4) accessible parking spaces with lifts in both buildings and accessible communal amenities for residents in both buildings. In particular:

  The Upper Level Building proposes; four (4) accessible units, two (2) accessible parking spaces in the basement carpark with lift access to all levels. The plans also illustrate accessible communal amenities for residents on the ground floor and lower ground floor.

  The Lower Level Building proposes; split level arrangement owing to the site topography with two (2) accessible parking spaces in the basement carpark with lift access to the lower portion of the split levels on the ground floor @RL169.67 and first floor @RL172.70 which includes access common amenities. There is also a unisex accessible toilet and shower within the basement that is available for visitors to this building.

  There are no accessible resident units in the lower building the provision of four (4) accessible units in the upper building exceeds the minimum of three (3) accessible units for a development of this size as required by the National Construction Code.

Overall, in my opinion the development satisfies the performance requirement DP1 of the National Construction Code (2019 Amdt 1) albeit the stepped pedestrian pathway to the lower

building varies from the deemed to satisfy requirements of clause D3.2 of the National Construction Code (2019 Amdt 1) as it prevents access for a person using a wheelchair to gain pedestrian access from the site boundary to the lower building.

Therefore, the following assessment is provided to demonstrate compliance with the performance requirement DP1 of the National Construction Code (2019 Amdt 1) and related requirements clauses D3.3, D3.5, E3.6 and F2.4 of the NCC (2019 Amdt 1).

Matters relevant to the design of the proposed development

Owing to the site topography which has an approximate 18 metre height difference from the front to rear boundaries it is clearly not practical nor compliant with clause D3.11 of the NCC (2019 Amdt 1) to propose a 1:14 ramp over a hypothetical distance of 260 metres.

Furthermore, the nature of the site has dictated separation of the two buildings rather than one long building.

As a consequence, the design has aggregated the accessible resident units within the Upper Building which adjoins the street frontage while distributing accessibility features for visitors who use a wheelchair within both buildings. This design approach also benefits residents who use a wheelchair that may reside in the upper building to visit friends in the lower building.

Stakeholders – Architect, owner/developer, access consultant and certifying authority.

Applicable NCC Performance Requirements & DTS Requirements

This assessment considers compliance with the National Construction Code (NCC) 2019 Amdt 1 concerning accessibility.

In particular;

- Suitability of the design and the alternative proposal to locate all of the accessible resident accommodation in the upper building which proposes a wheelchair accessible path of travel from the boundary alotment to the principal building entrance.

This assessment of the external and internal access has had regard to Table D3.1 and clauses D3.2, D3.3, D3.5, D3.6, D3.8, D3.11, E3.6, F2.4 and the performance requirements DP1(a)(i)(ii) and (b) NCC 2019 Amdt 1 from a site boundary to building entrances, wayfinding signage, accessible parking, internal access, lift access, accessible accommodation, accessible common amenities and accessible sanitary facilities.

RELEVANT PERFORMANCE REQUIREMENTS

DP1 Access for people with a disability

Access must be provided, to the degree necessary, to enable—

(a) people to—

(i) approach the building from the road boundary and from any *accessible* carparking spaces associated with the building; and

(ii) approach the building from any *accessible* associated building; and

(iii) access work and public spaces, accommodation and facilities for personal hygiene; and

(b) identification of *accessways* at appropriate locations which are easy to find.

Limitation:

DP1 does not apply to a Class 4 part of a building.

RELEVANT DEEMED TO SATISFY REQUIREMENTS

Table D3.1 REQUIREMENTS FOR ACCESS FOR PEOPLE WITH A DISABILITY

Class of building	Access requirements
Class 3	
Common areas	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. 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, TV room, individual shop, dining room, public viewing area, ticket purchasing service, lunch room, lounge room, 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.
Sole-occupancy units	
If the building or group of buildings contain—	To and within—
1 to 10 *sole-occupancy units*	1 *accessible sole-occupancy unit*.
11 to 40 *sole-occupancy units*	2 *accessible sole-occupancy units*.
41 to 60 *sole-occupancy units*	3 *accessible sole-occupancy units*.
61 to 80 *sole-occupancy units*	4 *accessible sole-occupancy units*.
81 to 100 *sole-occupancy units*	5 *accessible sole-occupancy units*.
101 to 200 *sole-occupancy units*	5 *accessible sole-occupancy units* plus 1 additional *accessible sole-occupancy unit* for every 25 units or part thereof in excess of 100.
201 to 500 *sole-occupancy units*	9 *accessible sole-occupancy units* plus 1 additional *accessible sole-occupancy unit* for every 30 units or part thereof in excess of 200.
more than 500 *sole-occupancy units*	19 *accessible sole-occupancy units* plus 1 additional *accessible sole-occupancy unit* for every 50 units or part thereof in excess of 500. Not more than 2 *required accessible sole-occupancy units* may be located adjacent to each other. Where more than 2 *accessible sole-occupancy units* are *required*, they must be representative of the range of rooms available.

Summary Table - Deemed to satisfy requirements of table D3.1, clause D3.2 of the NCC 2019 [amdt 1] pursuant to a class 3 residential premises.

Technical Issue	Variations to DtS clauses of NCC 2019 and relevant Standards	Performance Requirements of NCC 2019
The Lower Building does not provide a lift or ramp access from property boundary to at least one floor of the subject premises.	Table D3.1 and clause D3.2(a)(i) of the NCC (2019 Amdt 1).	Performance Requirements DP1(a)(i)(ii) and (b) of the NCC (2019 Amdt 1).

There are no other performance requirements relevant to this performance solution.

Accepted Assessment Criteria

The stakeholders agree that the accepted assessment criteria are a combination of Expert Judgement and Comparison with the DTS provisions.

Approaches to Method of Analysis

The expert judgment and comparative assessment approaches consist of an overall assessment of the site, design approach, equitable and convenient access to the upper building and whether any disadvantage is caused not providing pedestrian access to the lower building at the rear of the site from the front boundary.

This approach also assists in assess 'to the degree necessary' provisions of the performance requirements of DP1(a)(i)(ii) and (b).

NCC Assessment Methods applied to this performance solution

The stakeholders agree that the accepted assessment criteria are a combination of Expert Judgement and Comparison with the DTS provisions.

Assumption and Limitations

Evidence of suitability relies upon plans prepared by Platform Architects Revision DA06 dated 16th June 2022.

PART B - ASSESSMENT METHOD & ANALYSIS

Clauses A2.1 and A2.2 of the National Construction Code (NCC 2019 Amdt 1) specify that new building works must comply the performance requirements and describes the methods for achieving compliance as follows.

A2.1 Compliance with the Performance Requirements

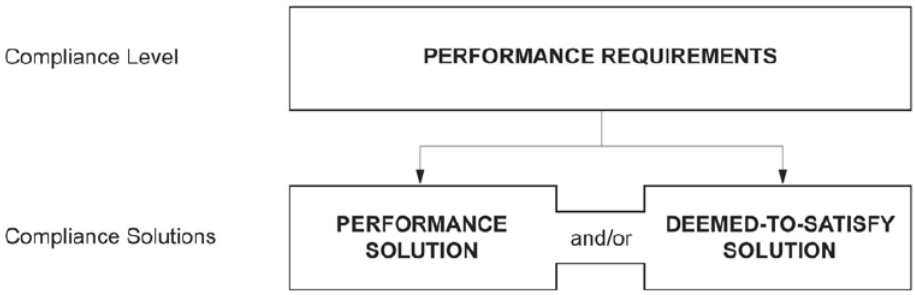
Performance Requirements are satisfied by one of the following, as shown in Figure 1:

(1) A *Performance Solution*.

(2) A *Deemed-to-Satisfy Solution*.

(3) A combination of (1) and (2).

Figure 1: NCC compliance option structure



A2.2 Performance Solution

(1) A *Performance Solution* is achieved by demonstrating—

(a) compliance with all relevant *Performance Requirements*; or

(b) the solution is at least *equivalent* to the *Deemed-to-Satisfy Provisions*.

(2) A *Performance Solution* must be shown to comply with the relevant *Performance Requirements* through one or a combination of the following *Assessment Methods*:

(a) Evidence of suitability in accordance with Part A5 that shows the use of a material, product, *plumbing* and *drainage product*, form of construction or design meets the relevant *Performance Requirements*.

(b) A *Verification Method* including the following:

(i) The *Verification Methods* provided in the NCC.

(ii) Other *Verification Methods*, accepted by the *appropriate authority* that show compliance with the relevant *Performance Requirements*.

(c) *Expert Judgement*.

(d) Comparison with the *Deemed-to-Satisfy Provisions*.

(3) Where a *Performance Requirement* is satisfied entirely by a *Performance Solution*, in order to comply with (1) the following method must be used to determine the *Performance Requirement* or *Performance Requirements* relevant to the *Performance Solution*:

(a) Identify the relevant *Performance Requirements* from the Section or Part to which the *Performance Solution* applies.

(b) Identify *Performance Requirements* from other Sections or Parts that are relevant to any aspects of the *Performance Solution* proposed or that are affected by the application of the *Performance Solution*.

(4) Where a *Performance Requirement* is proposed to be satisfied by a *Performance Solution*, the following steps must be undertaken:

(a) Prepare a *performance-based design brief* in consultation with relevant stakeholders.

(b) Carry out analysis, using one or more of the *Assessment Methods* listed in (2), as proposed by the *performance-based design brief*.

(c) Evaluate results from (b) against the acceptance criteria in the *performance-based design brief*.

(d) Prepare a final report that includes—

(i) all *Performance Requirements* and/or *Deemed-to-Satisfy Provisions* identified through A2.2(3) or A2.4(3) as applicable; and

(ii) identification of all *Assessment Methods* used; and

(iii) details of steps (a) to (c); and

(iv) confirmation that the *Performance Requirement* has been met; and

(v) details of conditions or limitations, if any exist, regarding the *Performance Solution*.

Clauses A2.3, A2.4 and Part A5 of the NCC 2019 (Amdt 1) provide further guidance for the development of performance solutions and deemed to satisfy solutions or a combination of both methods for the design and construction of buildings, products and materials.

In the case of the subject premises the performance solutions and variations of respective deemed to satisfy clauses and respective aspects of Australian Standards are as follows:

Technical Issue	Variations to DtS clauses of NCC 2019 and relevant Standards	Performance Requirements of NCC 2019
The Lower Building does not provide a lift or ramp access from property boundary to at least one floor of the subject premises.	Table D3.1 and clause D3.2(a)(i) of the NCC (2019 Amdt 1).	Performance Requirements DP1(a)(i)(ii) and (b) of the NCC (2019 Amdt 1).

NCC Performance Requirements

DP1 Access for people with a disability

Access must be provided, to the degree necessary, to enable—

(a) people to—

(i) approach the building from the road boundary and from any *accessible* carparking spaces associated with the building; and

(ii) approach the building from any *accessible* associated building; and

(iii) access work and public spaces, accommodation and facilities for personal hygiene; and

(b) identification of *accessways* at appropriate locations which are easy to find.

Limitation:
DP1 does not apply to a Class 4 part of a building.

ASSESSMENT METHODS

To determine whether the proposed design complies with the Performance Requirements of the NCC 2019 an assessment has been undertaken which is consistent the provisions of Part A2.2 of the NCC 2019, in particular **(c) *Expert Judgment*** and ***(d) Comparison with the Deemed-to-Satisfy Provisions*** as outlined below;

A2.2 Performance Solution

(1) A Performance Solution is achieved by demonstrating—

(a) compliance with all relevant Performance Requirements; or

(b) the solution is at least equivalent to the Deemed-to-Satisfy Provisions.

(2) A Performance Solution must be shown to comply with the relevant Performance Requirements through one or a combination of the following Assessment Methods:

(a) Evidence of suitability in accordance with Part A5 that shows the use of a material, product, plumbing and drainage product, form of construction or design meets the relevant Performance Requirements.

(b) A Verification Method including the following:

(i) The Verification Methods provided in the NCC.

(ii) Other Verification Methods, accepted by the appropriate authority that show compliance with the relevant Performance Requirements.

(c) Expert Judgement.

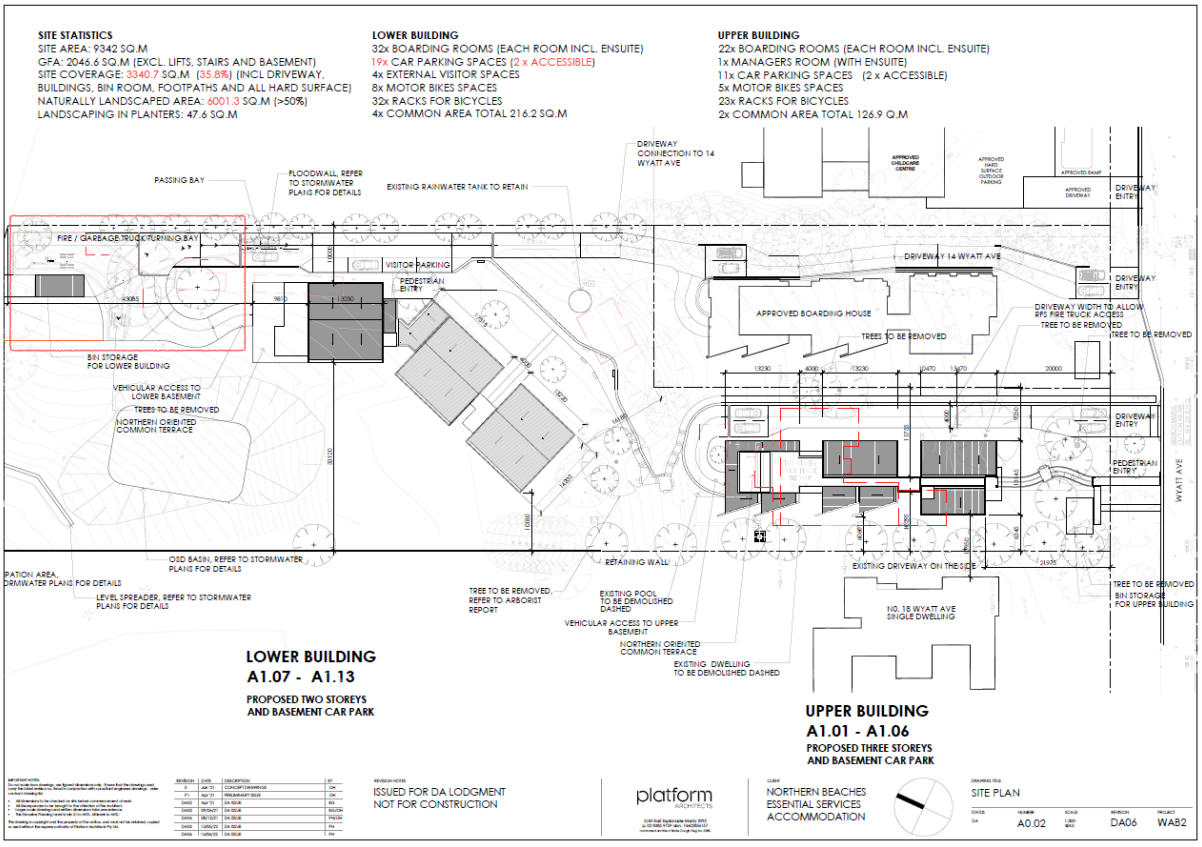
(d) Comparison with the Deemed-to-Satisfy Provisions.

(3) Where a Performance Requirement is satisfied entirely by a Performance Solution, in order to comply with (1) the following method must be used to determine the Performance Requirement or Performance Requirements relevant to the Performance Solution:

(a) Identify the relevant Performance Requirements from the Section or Part to which the Performance Solution applies.

(b) Identify Performance Requirements from other Sections or Parts that are relevant to any aspects of the Performance Solution proposed or that are affected by the application of the Performance Solution.

PART C - EVALUATION OF THE EVIDENCE

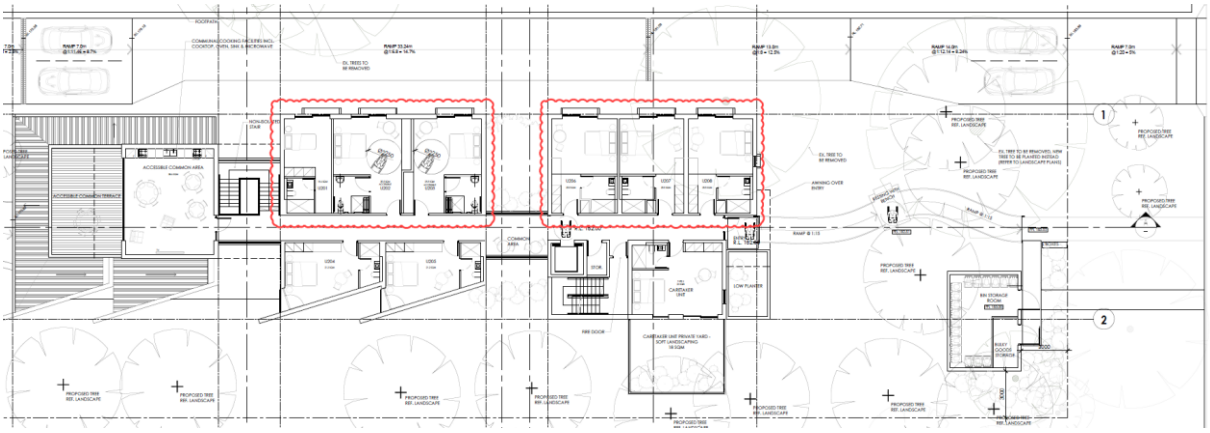


1. **The site and proposed use -** The development proposes a boarding house style residential accommodation on a site at 16 Wyatt Avenue, Belrose.
2. For the purpose of building classification under the National Construction Code (NCC 2019 Amdt 1) the development is deemed a class 3 boarding house.
3. The site is irregular in shape being approximately 190-200 metres in length and 56 metres in width with a south east quadrant previously subdivided and numbered 14 Wyatt Avenue, Belrose, which has DA approval for a boarding house.
4. The site has reasonably steep topography with an approximate 18 metre difference from front to rear boundaries. The two buildings are described as the Upper Building adjoining the front boundary and the Lower Building at the rear of the site.
5. **Proposed Design** – The development proposes the construction of two buildings for the purpose of boarding house residential accommodation consisting of 54 resident units, 1 managers unit, common resident areas, 34 parking spaces, motorbike and bicycle parking and outdoor pedestrian pathways.
6. Vehicular access to the Upper Building has independent access from Wyatt Avenue while the Lower Building relies upon a driveway connection through a DA approved boarding house development on 14 Wyatt Avenue.
7. Pedestrian access to the Upper Building has independent 1:14 access ramp from Wyatt Avenue while the Lower Building also provides indpendent pedestrian pathway from Wyatt Avenue, albeit a stepped pathway owing to the site topography.

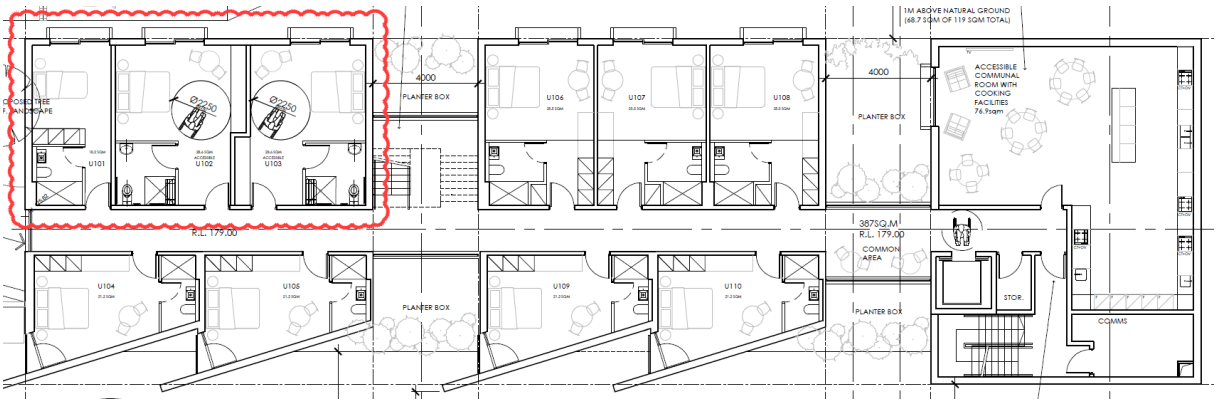
8. With respect to internal accessibility the development proposes four (4) accessible units, four (4) accessible parking spaces with lifts in both buildings and accessible communal amenities for residents in both buildings. In particular:

9. **Upper Building -** The Upper Level Building proposes 1:14 ramped access from the Wyatt Avenue front boundary that arrives at the principal entrance @RL182.00 which has appropriate doorway circulation spaces in accordance with AS1428.1 (2009) to satisfy clause D3.2 of the NCC 2019 Amdt 1.

10. Internally, the plans show a 1600mm minimum width corridor to two (2) accessible units, common dining/lounge room, outdoor terrace and a lift to the lower ground floor and basement carpark which incorporates two (2) accessible parking spaces. The common corridor includes a 1800mm width area for passing while the circulation stair can be detailed with handrails and other features in accordance with AS1428.1 and AS1428.4.1. Overall, the access to and within the common areas on the ground floor of the upper building comply with clauses D3.2, D3.3, D3.5, D3.8 and E3.6 NCC 2019 Amdt 1.



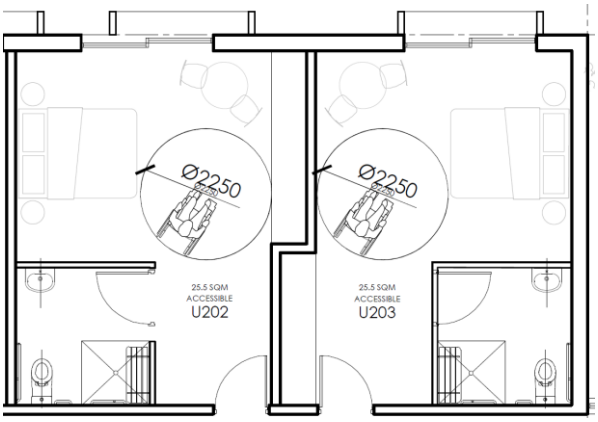
11. The lower ground floor of the upper building provides a similar layout with a 1600mm minimum width corridor from the lift to two (2) accessible units, common dining/lounge room and an outdoor terrace. Overall, the access to and within the common areas on the lower ground floor of the upper building comply with clauses D3.2, D3.3, D3.5, D3.8 and E3.6 NCC 2019 Amdt 1.



12. The lift travels to the first floor to facilitate equitable access to four (4) resident rooms and comply with clauses D3.2, D3.3, D3.5, D3.8 and E3.6 NCC 2019 Amdt 1.

13. With respect to the interior design of the four (4) accessible units the plans show ample doorway circulation spaces to enter the room, circulate around three sides of a queen bed and access a bathroom.

14. Currently, the bathrooms indicate an area oif 2250mm X 2400mm and with a minor adjustment to 2400mm X 2400mm and alternate layout will fully comply with AS1428.1 to satisfy clause F2.4 of the NCC 2019 Amdt 1.



15. In summary, the four (4) accessible units exceed the minimum of three (3) specified by table D3.1 of the NCC 2019 Amdt 1 and will comply with the performance requirements DP1, DP2, DP8, EP3.4 and FP2.1 of the NCC 2019 Amdt 1 relating to *accessibility*.

16. **Lower Building Access** – As previously noted the Lower Building sited to the rear of the site is substantially lower by approximately 10 metres and due to the separation of the two buildings it is impractical to connect the two by complying ramps or lift. Therefore the primary accessibility features of equitable and convenient access from a front boundary to the principal building entry, accessible accommodation, accessible parking and accessible common amenities are provided in the upper building.

17. Notwithstanding the above the lower building does provide vistation by people who use a wheelchair by way of accessible parking with lift access to the lower portions of the split levels on the ground floor @RL169.67 and first floor @RL172.70 which includes access common amenities. There is also a unisex accessible toilet and shower within the basement that is available for visitors to this building.

18. To satisfy the wayfinding requirements of clause D3.6 of the NCC 2019 Amdt 1 signage will be required at the site entry path to the lower building of alternate access by vehicle to the lower building for people who use a wheelchair.

PART D - CONCLUSION

19. By comparison of the two buildings in my opinion there is no disadvantage for people who use a wheelchair by providing superior access to and within the upper building given the site conditions, and therefore satisfies to the degree necessary, the performance requirements DP1(a)(i)(ii) and (b) of the NCC 2019 Amdt 1.

Mark Relf,
Access Consultant (ACAA)

accessibility solutions (NSW) PTY LTD

CONSULTANCY PROFILE & STATEMENT OF EXPERTISE

Accessibility Solutions consultancy offers a range to services to provide advice for clients to develop new and modify existing buildings, facilities and services to be accessible to people with disabilities to comply with legislation and regulations relevant to people with disabilities.

Relevant legislation and regulations that underpins advice includes the Disability Discrimination Act (DDA) Building Code of Australia, Australian Standards 1428, DDA Premises Standards, DDA Transport Standard, State Environment Planning Policy Housing for Seniors or People With a Disability (SEPP HS) / Seniors Living Policy, SEPP 65 – Apartment Design Guide and various local government DCP's.

The scope of services provided by Accessibility Solutions includes:

- Plan Appraisals and design advice
- Access Reports for development applications and construction certificates
- Expert Reports for Court evidence
- Access Auditing of existing buildings, facilities, transport conveyances and infrastructure
- Policy and document reviews and development of Disability Action Plans
- Staff training in access auditing

The services consider issues concerning people with all types of disability including; physical; vision; hearing, intellectual and other cognitive impairments that may affect access for people with a disability consistent with the Disability Discrimination Act.

As principal consultant Mark Relf has considerable experience and expertise in a wide range of access related projects and is an accredited member of the Association of Consultants in Access Australia for the purposes of providing advice concerning access to the built environment and services for people with disabilities.

His expertise has been gained over 20 years working in management and advocacy roles within the disability sector and since 1994 providing advice to clients on access issues. Mark also participates on various key committees concerning access for people with disabilities. His qualifications and affiliations are:

- Accredited Member of the Association of Consultants in Access Australia.
- Member, Standards Australia committees responsible for the AS1428 suite and AS4299 – Adaptable Housing, AS1735 lifts and AS2890 - Parking.
- Member 2000-2014 and >2020, NSW Heritage Office's – Fire, Access and Services and Technical Advisory Panel.

ACA
AUSTRALIA

CERTIFICATE OF MEMBERSHIP

THIS IS TO CERTIFY THAT
Mark P Relf
WAS ADMITTED AS AN
Accredited Member
OF THE ASSOCIATION OF CONSULTANTS IN ACCESS, AUSTRALIA INC.
ON THE *Tenth* DAY OF *October, 2000*

PRESIDENT

SECRETARY

MEMBERSHIP NO. 74