



lindsay perry
access + architecture

52 walumbi avenue
tingira heights 2290

p+f. 02 4948 7039
m. 044 724 5234

e. lp52@bigpond.net.au

nominated architect:
lindsay perry RAlA
NSW reg. no. 7021

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DISABILITY ACCESS REPORT

Proposed New Clubhouse, Marina Extensions + Carpark Alterations
LAKE MACQUARIE YACHT CLUB
Ada Street
BELMONT NSW

for:
Lake Macquarie Yacht Club

Our ref:
9029



1. Introduction

This Access Report has been prepared in response to Lake Macquarie City Council (LMCC) DCP No. 1, Clause 2.6.12 Non-Discriminatory Access and Use and will form a part of the Development Application submission, to be assessed under Part 3A of the EPA Act by the Department of Planning. It considers the proposed marina extensions, new clubhouse and carpark alterations to the Lake Macquarie Yacht Club located in Ada Street Belmont, with regard to access for persons with a disability.

As a part of the development, an additional 58 marina berths will be provided and the carpark will be extended to the south, providing 151 spaces. The existing clubhouse is to be demolished and a new two storey building constructed in its place. Access for persons with a disability has been considered within the proposal through the provision of accessible carparking, ramps, lift and accessible sanitary facilities.

This Access Report reviews development application drawings prepared by EJE Architecture as follows:

- DA A00 Cover Sheet
- DA A06 Aerial Site Photo
- DA A10 Carpark Alterations
- DA A11 Marina Extension Plan
- DA A12 Clubhouse Ground Floor Plan
- DA A13 Clubhouse Level 1 Floor Plan
- DA A14 Clubhouse North and East Elevations
- DA A15 Clubhouse South and West Elevations
- DA A16 Section AA + BB

Access assessment has been made against Access Legislation including:

- The Disability Discrimination Act 1992 (DDA)
- The Building Code of Australia 2009 (BCA) Section D3 – Access for People with Disabilities
- Australian Standards AS1428.1, AS1428.2, AS1428.4 – Design for Access and Mobility
- Australian Standard AS2890.1 – Parking Facilities – Off street carparking 1993.
- Australian Standard AS1735.12 – Lifts, escalators and moving walks: Facilities for persons with disabilities.

The DDA is a complaint based law. Compliance with the BCA alone will not offer protection from a complaint made under the DDA.

It is estimated that one in five people in Australia have a long-term disability (Australian Bureau of Statistics – 2003). This includes physical disability, intellectual disability, and sensory impairments such as vision and hearing. It does not include those with a short-term (temporary) disability or the continuing aging population.



Lindsay Perry Access + Architecture have adopted a best practice, performance based approach to access. Assessment is based on project specifics and takes into account various factors such as site topography, heritage and existing site conditions.

The accessibility of the proposed development has been considered in regard to the relevant access legislation. A summary of the requirements of relevant legislation follows.

- The **DDA** is Commonwealth Government legislation that requires independent, equitable, dignified access to all parts of the building for all building users regardless of disability. The DDA makes it unlawful to discriminate against a person on the grounds of disability. The DDA is a complaint based law and is administered by the Human Rights and Equal Opportunities Commission.
- The **BCA** requires access for people with disabilities to and within the entrance floor; and any other floor to which vertical access is provided by way of a ramp, step ramp or kerb ramp complying with AS1428.1 or a passenger lift is provided (Class 5,6,7,& 8 buildings).
- **AS1428 – Design for Access and Mobility** requires the inclusion of a continuous accessible path of travel from the street footpaths and carparking areas to the entry and facilities within the building. It also includes requirements for doorways, stairs, toilets, etc.

Part 1 of this standard contains access requirements that are mandatory for the provision of access for persons with a disability and is referred to by the BCA.

Part 2 provides enhanced and best practice requirements. While AS1428.2 is not mandatory, the inclusion of its requirements such as accessible reception counters reduce the risk of a complaint made under the DDA. AS1428.2 is referenced by the Human Rights and Equal Opportunities Commission Advisory Notes for Access to Premises that accompanies the DDA.

Part 3 of this standard addresses requirements for children and adolescents with physical disabilities and applies where these features are specifically required. It has not been addressed in the preparation of this access report.

Requirements for tactile indicators are included in part 4 of this standard.

- **AS2890.1** applies to the carparking areas generally. The current amendment of AS2890.1 released last year – 2004 – does not include parking for persons with a disability. AS2890.6 is pending publication and will include specific requirements for accessible carparking. The release of Part 6 is subject to the proposed Disability Standard for Access to Premises, currently in draft form. Prior to the release of Part 6, AS2890.1 – 1993 is to be observed for accessible carparking facilities.
- **AS1735.12** contains requirements for passenger lifts for persons with a disability



2. Approach + Entry

The approach to the building needs to be considered when assessing access for persons with a disability. The BCA has three requirements for the approach to the building for persons with a disability.

An accessible path of travel is required to the building entrance from the allotment boundary at the main points of entry, from accessible carparking areas and from any adjacent and associated accessible building.

In this instance, the approach to the building has been considered from the carparking areas and from the site entry at Ada Street to the building entrance.

The carparking area is generally level and accessible carpark is located adjacent to the building entrance. Ramped access is provided to the floor level of the building, satisfying BCA requirements.

There are currently no formed pedestrian footpaths along Ada Street. Pedestrian access is via the driveway area. Access to the building entrance from the driveway area at the allotment boundary is generally level, satisfying BCA requirements.

2.1 Accessible Carparking

Three accessible carparking spaces are provided within the carpark and are located adjacent to the building entrance. We consider that this is adequate for this development. An accessible path of travel is provided from the accessible carparking spaces to the building entrance.

Accessible carparking is nominated as 3500mm wide, providing compliance with AS2890.1.

Access requirements for the accessible carparking spaces are as follows and should be addressed in the preparation of the construction certificate documentation.

- a. The minimum allowable width of accessible carparking is 3200mm wide for compliance with AS2890.1.
The nominated width of accessible carparking offers compliance.
- b. The maximum allowable crossfall of accessible carparking area to be 1:40 (for concrete, 1:33 for bitumen surface). This crossfall applies both parallel and perpendicular to the direction of the carpark.
- c. Designated accessible carparking is to be identified using the International Symbol for Access (ISA) – complying vertical and ground signage is required. Signage is to comply with AS1428.1, Clause 14.



2.2 Ramp

A ramp is provided for access from the carparking area to the floor level. The ramp is in three sections with landings provided in accordance with AS1428. Handrails are indicated to both sides of the ramp.

Access requirements for the ramp are as follows and should be addressed in the preparation of the construction certificate documentation.

- a. Ramp to comply with AS1428.1, Clause 5.3.
- b. Maximum allowable gradient of the ramp is 1:14, minimum clear width to be 1000mm and maximum length between landings to be 9m (for 1:14 gradient). Landings to be a minimum 1200mm in length.
General configuration of the ramp appears to be compliant.
- c. Handrails, with extensions, to comply with AS1428.1, Clause 5.3(e) and Clause 6.1. Handrails to have an external diameter between 30-50mm to assist persons with a manual disability such as arthritis. Handrails are required on both sides of the ramp to cater for left and right handed disabilities.
- d. Where ramp is not enclosed, provide kerb rails to both sides of the ramp in accordance with AS1428.1. Kerb rails to be between 75 and 150mm high above the finished surface level.
- e. Provide tactile indicators at the top and bottom of the ramps to comply with BCA Clause D3.8 and AS1428.4. Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour.

Tactile indicators at the top and bottom of the ramps to be 600-800mm deep across the width of the ramp and set back 300mm from the edge of the ramp (refer AS1428.4, Figure A1).

Tactile indicators are not required at mid-landings where the handrails are continuous.

2.3 Stairs

Stairs are provided in various locations external to the building for access to the building entrance and deck / terrace areas. AS1428.1 has access requirements for all public access stairs.

Access requirements for stairs are as follows and should be implemented during preparation of the construction certificate documentation.

- a. Stairs to comply with AS1428.1, Clause 9.1.
- b. Stairs to have closed or opaque risers. Open risers cause confusion for persons with a vision impairment and may trigger conditions such as epilepsy due to light penetrating through the open riser (AS1428.1).



- c. Provide handrails, with extensions, to both sides of the stair (AS1428.1, Clause 9.2 and Clause 6.1). Handrails to have an external diameter between 30-50mm to assist persons with a manual disability such as arthritis. Handrails are required on both sides of the stair to cater for left and right handed disabilities. A central handrail is also an acceptable solution where adequate width is available.
- d. Stair nosings to have minimum 30% luminance contrast strip 50-75mm wide to the top of the stair tread to assist persons with a vision impairment (AS1428.1, Clause 9.1).
- e. Provide tactile indicators at the top and bottom of the stair to comply with BCA Clause D3.8 and AS1428.4.

Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour.

Tactile indicators at the top and bottom of the stair to be 600-800mm deep across the width of the stair set back 300mm from the edge of the stair (refer AS1428.4, Figure A1).

2.4 Access to Marina Extension

Access to the marina extension is from the carparking area. An accessway is provided on the southern side of the building and provides an accessible path of travel to the whole marina. We note that this is the main access point to the marina providing equitable access for all users.

2.5 Access to Boats / Vessels

A davit style crane is proposed to facilitate access for persons with a disability to boats / vessels. This will be provided on the northern side of the Clubhouse building and will be freely available at all times.

This provides equitable access for persons with a disability.

2.6 Entrance

The main entrance to the building is from the carpark area on the eastern side of the building. A double swinging door is provided.

Access requirements for each of the entrance doors are as follows and should be implemented in the preparation of the construction certificate documentation:

- a. Entrance to comply with AS1428.1, Clause 7.1 as part of the accessible path of travel.
- b. Entry doors to have a minimum clear opening width of 800mm to comply AS1428.1, Clause 7.2 as part of the accessible path of travel. A standard 820mm door leaf will not always provide the required clear opening width due to door jambs and the thickness for the door leaf. The use of an 870mm door leaf is recommended as a minimum. For double doors, one leaf must be in



compliance with this requirement to allow single leaf operation (AS1428.2, Clause 11.5.3).

- c. Entry doors are required to have circulation areas as shown in AS1428.1, Figure 12 to allow independent access for persons using a wheelchair.
- d. Doors to have hardware within the accessible height range of 900-1100mm above the finished floor level (AS1428.1, Clause 11.1). The use of lever handles is encouraged to assist persons with a manual disability such as arthritis.
- e. Door thresholds to be level to provide seamless entry as part of the accessible path of travel. Maximum allowable construction tolerance is 5mm.

2.7 Signage

AS1428 contains information for signage to assist persons with a disability. Signage acts as a way finding device and so should be easily read by all users of the development.

Access requirements for signage are as follows and should be considered in the design of the signage. It is intended that signage be easily comprehended by all users of the building.

- a. Signage should comply meet the intent of AS1428.1, Clause 14.
- b. The size, type and layout of lettering on signs should be easily comprehensible. The use of pictograms is encouraged wherever possible.
- c. All lettering / pictograms to have a minimum 30% luminance contrast to the background colour to assist persons with a vision impairment.
- d. Signage should be located where directional decisions are made to enable the appropriate decisions to be made prior to the change of direction.
- e. Signage to be located within the height range of 1200-1600mm. Where a sign may be obscured, for example in a crowd situation, it should be placed at a height of minimum 2000mm.



3. General Interior

The interior of the building provides facilities for members and visitors. Facilities include bars, restaurant, auditorium, poker machine lounge, function rooms and administrative areas. The building is over two levels. A lift is provided for access between levels and an accessible sanitary facility is provided on each floor.

3.1 Service Counters

Service counters such as reception and bars are provided within the building. Access requirements for counters are contained in AS1428.2. AS1428.2 provides enhanced requirements for accessibility but is not mandatory. Compliance with this clause will offer protection from a complaint made under the DDA but is not required by the BCA.

Ultimately, the decision to provide an accessible area at service counters lies with the building owner / operator. The inclusion of an accessible area would minimise the risk of a complaint made under the DDA but is not required by the BCA.

If provided, access requirements are as follows:

- a. Accessible counters to comply with AS1428.2, Clause 24.1. Height of the counter to be 850mm (± 20) above the finished floor level and have foot and knee clearance under the counter of 820mm (± 20) high – refer to Figure 25. The minimum width of the accessible counter and clearance below is 900mm.

3.2 Hearing Augmentation at Service Counters

For buildings that are required to be accessible, the BCA requires hearing augmentation systems at service counters where the user is screened from the service provider.

- a. Hearing augmentation systems at service counters, if provided, to comply with AS1428.1, Clause 16. Additional requirements are included in AS1428.2.
- b. The hearing augmentation system is to be identified using the International Symbol for Deafness – refer to AS1428.1, Clause 14.3 – and displayed at the entry to the auditorium.



3.3 Hearing Augmentation System

For Class 9b buildings, the BCA requires that where an amplification system is installed within an auditorium, a hearing augmentation system must be provided to at least 15% of the floor area. The installation of a hearing augmentation system will minimise the risk of a complaint made under the DDA.

If this is applicable to the auditorium at the ground floor level, the following access requirements will need to be addressed in the preparation of the construction certificate documentation.

- a. Provide a hearing augmentation system within the grandstand to assist persons with a hearing impairment. Hearing augmentation system to comply with AS1428.1, Clause 16. Additional requirements are included in AS1428.2.
- b. The hearing augmentation system is to be identified using the International Symbol for Deafness – refer to AS1428.1, Clause 14.3 – and displayed at the entry to the auditorium.

3.4 Wheelchair Seating

We assume that seating within the auditorium at the ground floor level is not fixed as a seating layout is not provided on the floor plan. This maximises the availability and flexibility of wheelchair seating. BCA requirements for wheelchair seating apply to fixed seating.

The provision of moveable seating within the auditorium accommodates the requirement for wheelchair seating.

3.5 Doorways Generally

Doorways within the accessible path of travel are required to have clear opening widths and circulation areas in compliance with AS1428.1 to enable independent access throughout the building for persons with a disability.

Access requirements for doorways within the accessible path of travel are as follows and should be implemented during preparation of the construction certificate documentation.

- a. Doorways to have a minimum clear opening width of 800mm to comply AS1428.1, Clause 7.2 as part of the accessible path of travel.

The use of a standard 820mm door leaf does not usually provide adequate clear width and recommend the use of an 870mm door leaf as a minimum. For double doors, one leaf must be in compliance with this requirement to allow single leaf operation (AS1428.2, Clause 11.5.3).

For double doors, one leaf must be in compliance with this requirement to allow single leaf operation (AS1428.2, Clause 11.5.3).

For bifold doors, we recommend that the end leaf provide adequate width for when the door is operating in the closed position.



- b. Doors are required to have circulation areas as shown in AS1428.1, Figure 12 to allow independent access for persons using a wheelchair.
Doorways within the accessible path of travel are generally provided with adequate circulation areas.
- c. Doors to have hardware within the accessible height range of 900-1100mm above the finished floor level (AS1428.1, Clause 11.1). The use of lever handles is encouraged to assist persons with a manual disability such as arthritis.
- d. For doorways to external areas, a level threshold is required. Maximum allowable construction tolerance is 5mm.

3.6 Access to Terraces and Existing Deck

Direct access is provided to the new terrace areas on the northern and western sides of the building from the auditorium and restaurant areas. An existing deck is at a lower level with stairs connecting it to the new terrace area. To gain access to the lower deck area, persons unable to use the stairs will be required to use the southern walkway.

This is considered reasonable given the large terrace area provided with direct access from the ground floor level of the building and the overall area of the existing deck.

3.7 Lift

A lift provides access between levels of the building. Access requirements for the lift are as follows and should be implemented during selection of the lift and preparation of the construction documentation:

- a. Lift is to comply with AS1735.12 and be fully automatic as required by the BCA, Clause E3.6.
- b. Minimum internal dimensions of the lift car to be 1100mm wide x 1400mm deep – AS1735.12, Section 2
- c. Clear opening of the lift door to be minimum 800mm as a part of the accessible path of travel.
- d. All lift control buttons are to be in the accessible height range of 900-1100mm affl and have a minimum 30% luminance contrast to the background colour. This includes buttons within the lift car and at each public lift lobby. All buttons are to be provided with information in Braille and tactile formats.
- e. Auditory / voice cues are to be provided within the lift car to assist persons with a vision impairment. This is critical in multistorey buildings for orientational purposes.



3.8 Stairs

Stairs are provided for access between the ground and first floor levels. AS1428.1 has access requirements for all public access stairs.

Access requirements for stairs are as follows and should be implemented during preparation of the construction certificate documentation.

- a. Stairs to comply with AS1428.1, Clause 9.1.
- b. Stairs to have closed or opaque risers. Open risers cause confusion for persons with a vision impairment and may trigger conditions such as epilepsy due to light penetrating through the open riser (AS1428.1).
- c. Provide handrails, with extensions, to both sides of the stair (AS1428.1, Clause 9.2 and Clause 6.1). Handrails to have an external diameter between 30-50mm to assist persons with a manual disability such as arthritis. Handrails are required on both sides of the stair to cater for left and right handed disabilities. A central handrail is also an acceptable solution where adequate width is available.
- d. Stair nosings to have minimum 30% luminance contrast strip 50-75mm wide to the top of the stair tread to assist persons with a vision impairment (AS1428.1, Clause 9.1).
- e. Provide tactile indicators at the top and bottom of the stair to comply with BCA Clause D3.8 and AS1428.4.

Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour.

Tactile indicators at the top and bottom of the stair to be 600-800mm deep across the width of the stair set back 300mm from the edge of the stair (refer AS1428.4, Figure A1).

3.9 Controls

New controls such as light switches, GPOs, alarm keypads, card swipes, intercoms, etc are to be located within the accessible height range of 900-1100mm above the floor level to comply with AS1428.1, Clause 11.2.

3.10 Floor Finishes

All floor finishes are to be flush to provide an accessible path of travel throughout the different areas of the building. Maximum allowable construction tolerance is 5mm as part of the accessible path of travel.



4. Accessible Sanitary Facilities

An accessible sanitary facility is provided at each level of the building. They are located adjacent to male and female conventional facilities offering equitable access for persons with a disability. The facility at the ground floor level includes a shower.

Access requirements are as follows and should be addressed in the preparation of the construction certificate documentation.

- a. Accessible toilet to be a unisex facility for compliance with the BCA.
- b. Unisex accessible toilet to comply with AS1428.1, Clause 10 including set-out of fittings and fixtures, circulation areas and doorways.

Crucial dimensions for the toilet are 450mm from centreline of pan to side wall, 800mm from front of pan to rear wall and a seat height of 470mm.

For the basin, a minimum dimension of 400mm is required from the centreline of the basin to the side wall and height of basin to be between 770 and 800mm.

Grabrails to be provided at the side and rear of the toilet in compliance with AS1428.1 at a height of 800mm.

Shower is to comply with AS 1428.1, Clause 10.5 and include accessible features such as grabrails, adjustable height shower rose and fixtures within an accessible height range. The minimum dimension of an accessible shower to be 1160 x 1000mm. A folding seat, at a height of 470mm is to be provided. All taps to be located within the height range of 900-1100mm above the finished floor level.

- c. Accessible toilet to be identified using the International Symbol for Access. Pictograms / lettering to have a minimum 30% luminance contrast to the background colour. Signage is to comply with AS1428.1, Clause 14 and include information in tactile and Braille formats (as required by the BCA).
- d. Doorway to have a minimum clear opening width of 800mm to comply AS1428.1, Clause 7.2 as part of the accessible path of travel. Adequate circulation area at the latch side of the doorway is required to allow independent access to the facility – for details refer to AS1428.1, Figure 12.
- e. Door hardware to be located within the accessible height range of 900-1100mm above the finished floor level. The use of lever handles is encouraged to assist persons with a manual disability such as arthritis.
- f. Controls such as light switches within the accessible toilet facilities to be in the accessible height range of 900-1100mm above the finished floor level to comply with AS1428.1, Clause 11.2.



5. Summary

The proposed marina extensions, new clubhouse and carpark alterations to the Lake Macquarie Yacht Club located in Ada Street Belmont, have been considered with regard to Lake Macquarie Council DCP No. 1, Section 2.6.12 Non-Discriminatory Access and Use.

The building provides a high level of accessibility for persons with a disability and is considered to meet the requirements of this document.

Lindsay Perry is a qualified Access Advisor, being an accredited member of The Association of Consultants in Access, Australia – membership number 136. Lindsay Perry carries public liability and professional indemnity insurance.

This report offers recommendations for inclusion in the construction documentation and should be considered in the preparation of these drawings. Best practice options, as noted in the report, are not mandatory but will minimise the risk of a complaint made under the DDA.

LINDSAY PERRY
Architect AIA Reg. No. 7021
Accredited Access Consultant No. 136