

Job No: IAC-333

19 October 2016

**SYDNEY OPERA HOUSE
BENNELONG POINT
GPO BOX 4274 SYDNEY NSW 2001**

Reference: Under The Steps – Access Report
Development Application

Attention: Mr Chris Barling

Dear Chris,

We have prepared this Access Report for the proposed Under the Steps at the Sydney Opera House.

The output of our consultancy is a DDA Report for the purpose of DA submission for the Under the Steps located at the Sydney Opera House.

Please feel free to contact the writer should you wish to discuss any aspect of this Access Report.

Yours sincerely,



RICHARD SEIDMAN

M.PropDev, BArch (Hons),
ARB Reg No 4700,
ACAA (Associate No 330)
Livable Housing Registered Assessor 10041





ACCESS REPORT DEVELOPMENT APPLICATION





**UNDER THE STEPS
SYDNEY OPERA HOUSE**



iAccess Consultants

A division of Seidman & Associates Pty Ltd

ABN 37 002 648 615

19 October 2016

Revision [-]



ACCESS REPORT DEVELOPMENT APPLICATION



DOCUMENT CONTROL

Project: Sydney Opera House
Under The Steps
Document Type: Access Report – Development Application
Report Number: IAC-333

The following report register documents the development and issue of this and each subsequent report(s) undertaken by iAccess Consultants.

The technical and intellectual content contained herein remain the property of iAccess Consultants and have been prepared and may only be used for the development / buildings being the subject of this report.

Revision History:

Our Reference	Rev	Remarks	Issue Date
IAC-333	-	Access report prepared and issued to client	19 October 2016

Richard Seidman

ARB Reg No 4700,
M.PropDev, BArch (Hons),
ACAA (Associate No 330)



iAccess Consultants is a division of Seidman & Associates Pty Ltd ABN 37 002 648 615



ACCESS REPORT DEVELOPMENT APPLICATION



Contents

DOCUMENT CONTROL.....	4
1. EXECUTIVE SUMMARY.....	6
1.1. OVERVIEW.....	6
1.2. DECLARATION.....	7
1.3. PROJECTS.....	7
1.4. CHIEF GUIDING DOCUMENTS.....	7
1.5. CURRENT LEGISLATION.....	8
1.6. PREMISES STANDARD.....	8
1.7. ASSUMPTIONS.....	8
1.8. ACCESS REQUIREMENTS YET TO BE CONSIDERED.....	9
1.9. EQUITABLE EGRESS STRATEGY - NCC CLAUSES DP4 & DP6.....	9
1.10. ACCESSIBLE PATH OF TRAVEL – SYDNEY OPERA HOUSE.....	9
2. UNDER THE STEPS.....	10
3. EXCLUSION FROM SCOPE OF WORKS.....	10
4. WAYFINDING AND SIGNAGE.....	10
5. FLOOR FINISHES.....	11
6. LIGHTING.....	11
7. HEARING AUGMENTATION.....	11
8. ACCESS REPORT.....	13



ACCESS REPORT DEVELOPMENT APPLICATION



1. EXECUTIVE SUMMARY

1.1. Overview

This report is for the assessment of the Development Application documentation for the Under the Steps precinct of the Sydney Opera House Renewal Project to assess compliance with the provisions of the Disability Discrimination Act 1992, the Disability (Access to Premises – Buildings) Standard and the National Construction Code together with the relevant Australian Standards.

The implementation of the proposed works associated with the Under the Steps precinct provides accessible access to public spaces as nominated in the NCC Performance Requirement DP1.

The content in the report following demonstrates compliance with the statutory requirements of the Disability (Access to Premises – Buildings) Standard and provides a checklist of compliance for the architects when documenting these works.

The Under the Steps precinct is located on the Ground Floor of the Sydney Opera House. The Under the Steps precinct is located on the southern side of the Opera House under the Grand Staircase.

The Under the Steps precinct is accessed from the Western Concourse as well as from the Botanical Gardens gate.

The Under the Steps precinct is a multipurpose area. The plan proposes the introduction of a long sweeping seat to the southern side of the precinct. Large format screens will be provided.

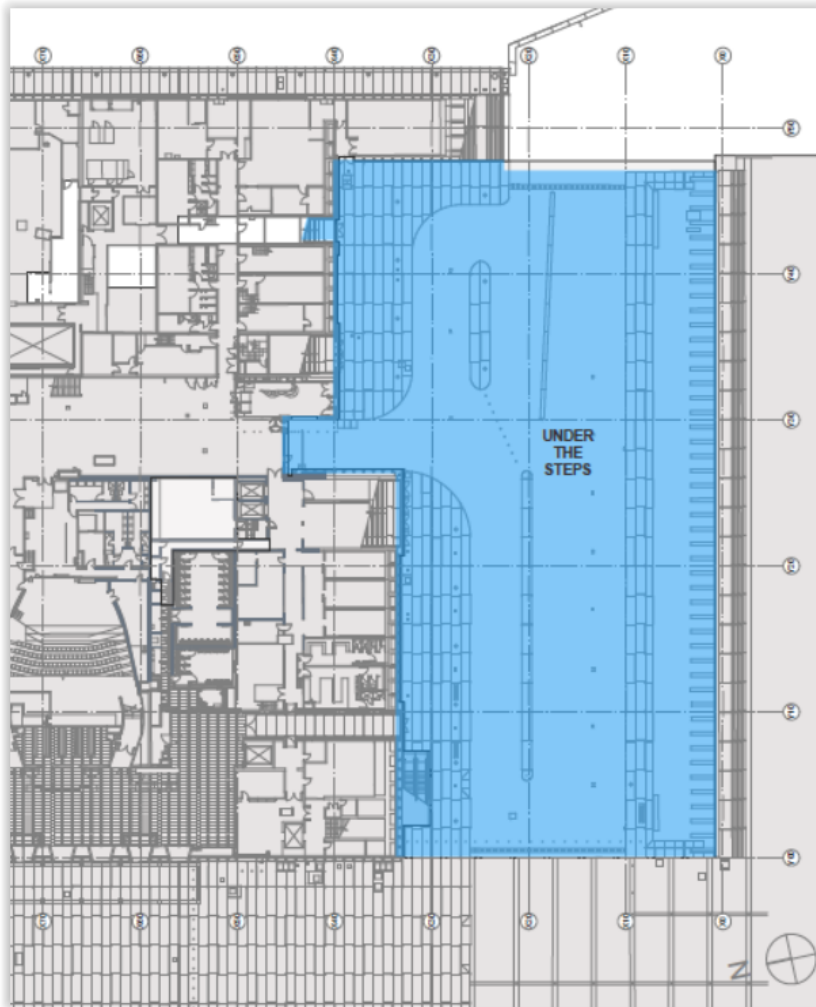


Figure 1 Location plan Under the Steps

1.2. Declaration

If the works are constructed in accordance with this proposal, accessibility compliance will have been achieved.

1.3. PROJECTS

The projects covered by the Front of House redevelopment project as identified in the Accessibility Master Plan (AMP) prepared by Scott Carver.

1.4. CHIEF GUIDING DOCUMENTS

The access review has been limited to the works associated with the Under the Steps precinct as identified on the drawings prepared by Tonkin Zulaikha Greer Architects.

iAccess Consultants has participated in the Lead Consultant project meetings.

The report prepared is based on a review of the documentation provided and the information provided by the client and is intended for their use only.



ACCESS REPORT DEVELOPMENT APPLICATION



1.5. Current Legislation

- The legislation addressing accessibility is documented in the following Act, Code and Standards:
- Disability Discrimination Act 1992
- Disability (Access to Premises - Buildings) Standards 2010
- National Construction Code (NCC 2015)
- AS1428.1:2009 Design for access and mobility - General requirements for access - New building work
- AS1428.2:1992 Design for access and mobility - Enhanced and additional requirements - Buildings and facilities
- AS1428.4.1:2009 Design for access and mobility - Means to assist the orientation of people with vision impairment - Tactile ground surface indicators
- AS1428.5:2010 Design for access and mobility - Communication for people who are deaf or hearing impaired

1.6. Premises Standard

As of 1 May 2011 new buildings and existing buildings being refurbished have to comply with the Disability (Access to Premises – Building) Standards (“Premises Standards”) under the Commonwealth Disability Discrimination Act 1992.

The main requirement to come from the Premises Standard relates to the upgrading of the affected part, including the principal pedestrian entrance and the paths to the area of new works. The definition of affected part is limited to the area between (and including) the principal pedestrian entrance and the new work. This may include the requirement to upgrade the following existing areas:

- Entrances
- Accessible sanitary facilities.
- Lifts to upper storeys, either upgrade or provide lifts if they are not existing.
- Passing and turning spaces in corridors.

Various concession or relaxations do apply to certain items mentioned above.

A consideration for upgrade via the Premises Standard is applicable to the following existing building situations:

- Where an application for a Construction Certificate (“CC”) or Complying Development Certificate (“CDC”) has been received and the applicant for the works is the building owner or building manager; or
- Where an application for a CC or CDC has been received and the building is leased & occupied by a single tenant; or
- The works as deemed Crown development.

1.7. Assumptions

It has been assumed that accessible access has been provided along a continuous accessible path of travel identified as part of the Accessibility Master Plan to the Under the Steps noted in this access report.

No comment is provided within this access report on the Accessible Path of Travel other than to identify the Path of Travel as relevant to the Under the Steps.



ACCESS REPORT DEVELOPMENT APPLICATION



1.8. Access requirements yet to be considered

The following access requirements have yet to be considered by the project team:

- handrail designs
- handrail locations
- balustrade designs
- tactile ground surface indicators (TGSIs)
- floor finishes
- nosing details to stairs
- lighting levels
- luminance contrast at doorways
- door hardware
- Braille tactile signage
- evacuation policy in conjunction with the fire engineered solution
- Lighting to the stairs of the eastern and western foyers
- Interior design (Detail)

1.9. Equitable Egress Strategy - NCC Clauses DP4 & DP6

The strategies for equitable egress to address compliance with the provisions of NCC Clauses DP4 & DP6 are being developed by ARUP.

For the purposes of our access assessment we have relied upon the Equitable Emergency Egress Report and the conclusions noted prepared by ARUP.

1.10. Accessible Path of Travel – Sydney Opera House

The provision of external accessible paths of travel are achieved as follows:

- Pedestrian accessible paths of travel are provided along the upper and lower concourses from the roundabout at the boundary with Macquarie Street.
- Authorised Vehicle and taxis access is provided from the boundary with Macquarie Street to the designated Principal Pedestrian Entrance,
- The Principal Pedestrian Entrance is located at the area identified as “Under the stairs” from which there are paths of travel to the respective lobbies, theatres, foyers and other facilities of the Sydney Opera House including the Under The Steps

Accessible paths of travel within the Sydney Opera House are identified in the Accessibility Master Plan.



2. UNDER THE STEPS

The area of the new Under the Steps is identified by the plan following.

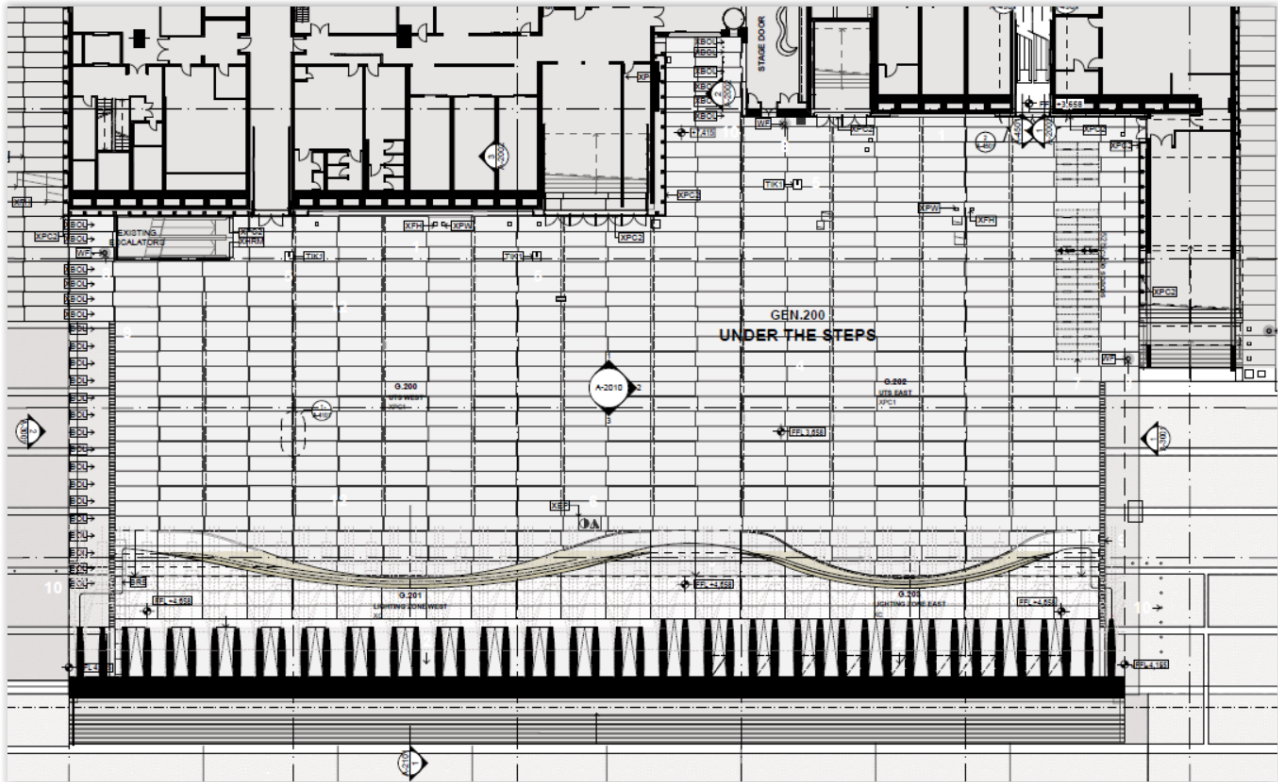


Figure 2 Under The Steps - Plan

The main access related issues relate to the following:

- The detailing of the paving materials
- Wayfinding and signage
- Lighting levels

3. EXCLUSION FROM SCOPE OF WORKS

The scope of these works is defined by the Figure 5 above. The following areas are specifically excluded from the scope and consideration of this report:

- The Western Concourse
- The grand stair case above
- The stairs located on the eastern side of the precinct

4. WAYFINDING AND SIGNAGE

An appropriate wayfinding system to navigate to and within the Under The Steps will need to be developed. The resultant solution may include audio as well as braille tactile information.

Wayfinding details have yet to be developed.

Braille Tactile Signage will need to be provided to identify the WC facilities.

Compliant braille tactile exit signage will need to be provided as required by NCC clause D3.6(a)(ii).



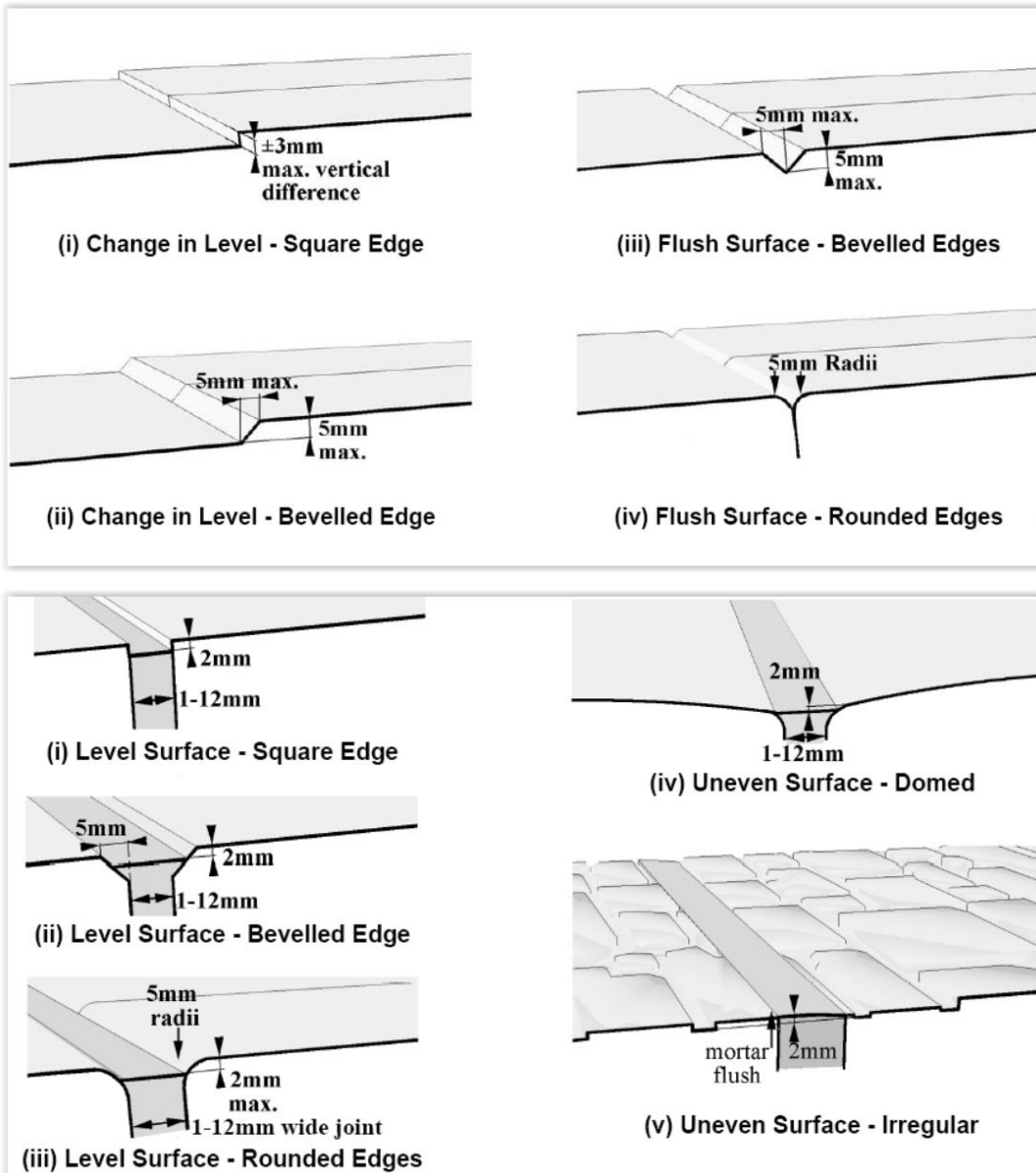
ACCESS REPORT DEVELOPMENT APPLICATION



Braille tactile signage will need to satisfy the requirements of NCC Clause D3.6

5. FLOOR FINISHES

It is intended that new large format pavers be applied to the area. The junctions of the pavers will need to satisfy the following conditions.



6. LIGHTING

The following minimum lighting levels will need to be achieved to satisfy the requirements of AS1428.2:1992:

- Passageways and walkways 150lx

7. HEARING AUGMENTATION

The design for the Under the Steps precinct will incorporate built in TV screens and monitors.



ACCESS REPORT DEVELOPMENT APPLICATION



As part of these works a hearing augmentation system satisfying to the provisions of NCC Clause D3.7 – Hearing Augmentation will need to be provided.

Details of the proposed hearing augmentation system will need to be provided as part of the construction documentation.

ACCESS REPORT – CREATIVE LEARNING CENTRE

8. ACCESS REPORT

PART / CLAUSE	DISABILITY (ACCESS TO PREMISES) STANDARD 2010 CRITERIA TO BE SATISFIED	COMPLIANCE / ACTION / COMMENT
A4.1	Classifications Class 9b — an assembly building,	Note
DP1	Performance requirement Access must be provided, to the degree necessary, to enable: a) people to:	Satisfied
	i. approach the building from the road boundary and from any <i>accessible</i> carparking spaces associated with the building; and	Not Applicable
	ii. approach the building from any accessible associated building; and	Satisfied
	iii. access work and public spaces, accommodation and facilities for personal hygiene; and	Satisfied
	b) Identification of accessways at appropriate locations which are easy to find.	Satisfied
DP4	Performance requirement <i>Exits</i> must be provided from a building to allow occupants to evacuate safely, with their number, location and dimensions being appropriate to: <ul style="list-style-type: none"> a) the travel distance; and b) the number, mobility and other characteristics of occupants; and c) the function or use of the building; and d) the height of the building; and e) Whether the <i>exit</i> is from above or below ground level. 	Satisfied

ACCESS REPORT – CREATIVE LEARNING CENTRE

PART / CLAUSE	DISABILITY (ACCESS TO PREMISES) STANDARD 2010 CRITERIA TO BE SATISFIED	COMPLIANCE / ACTION / COMMENT
DP6	<p>Performance requirement</p> <p>So that occupants can safely evacuate the building, <i>accessways</i> to <i>exits</i> must have dimensions appropriate to:</p> <ul style="list-style-type: none"> a) the number, mobility and other characteristics of occupants; and b) the function or use of the building. 	Satisfied
DP8	<p>Performance requirement</p> <p>Carparking spaces for use by people with a disability must be:</p> <ul style="list-style-type: none"> a) provided, to the degree necessary, to give equitable access for carparking; and b) designated and easy to find. 	Not Applicable
DP9	<p>Performance requirement</p> <p>An inbuilt communication system for entry, information, entertainment, or for the provision of a service, must be suitable for occupants who are deaf or hearing impaired.</p>	Satisfied
D3.1	General Building Access Requirements Class 9b	
Table D3.1	<p>Assembly Building</p> <p>To and within all areas normally used by the occupants</p>	Satisfied
D3.2	Access to Buildings	
	(1) An <i>accessway</i> must be provided:	Satisfied
	(a) to a building <i>required</i> to be <i>accessible</i> ;	
	(b) from the main points of a pedestrian entry at the allotment boundary; and	Satisfied
	I. from another <i>accessible</i> building connected by a pedestrian link; and	Not Applicable
	II. from any required accessible carparking space on the allotment.	Not Applicable

ACCESS REPORT – CREATIVE LEARNING CENTRE

PART / CLAUSE	DISABILITY (ACCESS TO PREMISES) STANDARD 2010 CRITERIA TO BE SATISFIED	COMPLIANCE / ACTION / COMMENT
	<p>(2) In a building <i>required</i> to be <i>accessible</i>, an <i>accessway</i> must be provided through the principal pedestrian entrance, and:</p> <ul style="list-style-type: none"> a. through not less than 50% of all pedestrian entrances including the principal pedestrian entrance; and b. in a building with a total <i>floor area</i> more than 500sqm, a pedestrian entrance which is not <i>accessible</i> must not be located more than 50 m from an <i>accessible</i> pedestrian entrance; <p>Except for pedestrian entrances serving only areas exempted by clause D3.4.</p>	Satisfied
D3.3	Parts of buildings to be accessible	
	<p>In a building <i>required</i> to be <i>accessible</i>:</p> <p>a) every ramp and stairway, except for ramps and stairways in areas exempted by clause D3.4, must comply with:</p>	
	<ul style="list-style-type: none"> i. for a ramp, except a fire-isolated ramp, clause 10 of AS 1428.1; and 	Not Applicable
	<ul style="list-style-type: none"> ii. for a stairway, except a fire-isolated stairway, clause 11 of AS 1428.1; 	Not Applicable
	<ul style="list-style-type: none"> iii. for a fire-isolated stairway, clause 11.1(f) and (g) of AS 1428.1; 	Not Applicable
	<p>b) every passenger lift must comply with clause E3.6;</p>	Not Applicable
	<p>c) <i>accessways</i> must have:</p> <ul style="list-style-type: none"> i. passing spaces complying with AS 1428.1 at maximum 20 m intervals on those parts of an <i>accessway</i> where a direct line of sight is not available; and ii. turning spaces complying with AS 1428.1: <ul style="list-style-type: none"> A. within 2m of the end of <i>accessways</i> where it is not possible to continue travelling along the <i>accessway</i>; and B. at maximum 20 m intervals along the <i>accessway</i>; 	Not Applicable

ACCESS REPORT – CREATIVE LEARNING CENTRE

PART / CLAUSE	DISABILITY (ACCESS TO PREMISES) STANDARD 2010 CRITERIA TO BE SATISFIED	COMPLIANCE / ACTION / COMMENT										
	d) an intersection of <i>accessways</i> satisfies the spatial requirements for a passing and turning space;	Satisfied										
	e) a passing space may serve as a turning space;	Satisfied										
	f) a ramp complying with AS 1428.1 or a passenger lift need not be provided to serve a <i>storey</i> or level other than the entrance <i>storey</i> in a Class 5, 6, 7b or 8 building- (i) containing not more than 3 <i>storeys</i> ; and (ii) with a <i>floor area</i> for each <i>storey</i> , excluding the entrance <i>storey</i> , of not more than 200sqm.	Not Applicable										
D3.5	Carparking	Not Applicable										
D3.6	Signage	<p>The signage documentation has yet to be prepared.</p> <p>The detail of the Braille Tactile signage to be installed will need to be documented as part of the detailed documentation associated with the Construction Documentation phase / stage.</p> <p>The signage detailing will need to comply with the provisions of Clause D3.6 and Specification D3.6 of the BCA as well as Clauses 16.3 and 17 of AS1428.2 which addresses the size of the pictogram as well as the height of lettering.</p> <p>16.3 Size of international symbols for access and deafness access The size of the international symbols for access and deafness access shall be not less than that given in Table 1.</p> <table border="1" data-bbox="1485 1114 1854 1345"> <caption data-bbox="1485 1114 1854 1185">TABLE 1 SIZE OF INTERNATIONAL SYMBOLS FOR ACCESS AND DEAFNESS FOR VARYING VIEWING DISTANCES</caption> <thead> <tr> <th data-bbox="1485 1201 1675 1257">Required viewing distance m</th> <th data-bbox="1686 1201 1854 1257">Minimum size of symbol mm</th> </tr> </thead> <tbody> <tr> <td data-bbox="1485 1265 1675 1289">≤7</td> <td data-bbox="1686 1265 1854 1289">≥ (60 x 60)</td> </tr> <tr> <td data-bbox="1485 1289 1675 1313">>7 ≤18</td> <td data-bbox="1686 1289 1854 1313">≥ (110 x 110)</td> </tr> <tr> <td data-bbox="1485 1313 1675 1337">>18</td> <td data-bbox="1686 1313 1854 1337">≥ (200 x 200)</td> </tr> <tr> <td data-bbox="1485 1337 1675 1345"></td> <td data-bbox="1686 1337 1854 1345">≥ (450 x 450)</td> </tr> </tbody> </table>	Required viewing distance m	Minimum size of symbol mm	≤7	≥ (60 x 60)	>7 ≤18	≥ (110 x 110)	>18	≥ (200 x 200)		≥ (450 x 450)
Required viewing distance m	Minimum size of symbol mm											
≤7	≥ (60 x 60)											
>7 ≤18	≥ (110 x 110)											
>18	≥ (200 x 200)											
	≥ (450 x 450)											

ACCESS REPORT – CREATIVE LEARNING CENTRE

PART / CLAUSE	DISABILITY (ACCESS TO PREMISES) STANDARD 2010 CRITERIA TO BE SATISFIED	COMPLIANCE / ACTION / COMMENT
D3.6	Signage	Braille tactile signage indicating the International symbol of deafness will need to be provided where hearing augmentation systems are provided.
D3.7	Hearing Augmentation	The plans indicate a TV screen to be built into the design of the Under the Steps. A hearing augmentation system will need to be installed within the Under the Steps.
D3.8	Tactile Indicators	Not Applicable
D3.12	Glazing on an accessway On an <i>accessway</i> , 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 Clause 6.6 of AS 1428.1.	Not Applicable
Part D4	Braille & Tactile Signs	The detail of the Braille Tactile signage to be installed will need to be documented as part of the detailed documentation associated with the Construction Documentation phase / stage. The signage detailing will need to comply with the provisions of Clause D3.6 and Specification D3.6 of the BCA as well as Clauses 16.3 and 17 of AS1428.2 which addresses the size of the pictogram as well as the height of lettering.
Part E3	Lift Installation	Not Applicable
Part F2	Sanitary and other facilities	Not Applicable