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Job No: IAC-333

16 June 2017

SYDNEY OPERA HOUSE BENNELONG POINT GPO BOX 4274 SYDNEY NSW 2001

Reference: Creative Learning Centre - Access Report

Tender Documentation issue

Attention: Mr Chris Barling

Dear Chris,

We have prepared this Access Report for the proposed Creative Learning Centre at the Sydney Opera House.

This access report has been prepared on the 90% Tender Coordination issue documentation issued by Tonkin Zulaikha Greer Architects.

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







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CREATIVE LEARNING CENTRE SYDNEY OPERA HOUSE



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16 June 2017

Revision [1]

DOCUMENT CONTROL

Project: Sydney Opera House

Creative Learning Centre

Document Type: Access Report – Tender Documentation Issue

Report Number: IAC-333

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Revision History:

Our Reference	Rev	Remarks	Issue Date
IAC-333	-	Access report prepared and issued to client	19 October 2016
IAC-333	Α	Access report prepared and issued to client	11 May 2017
IAC-333	1	Access report prepared and issued to client	16 June 2017

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1. EXECUTIVE SUMMARY

1.1. Overview

This report is for the assessment of the Tender Documentation for the Creative Learning Centre 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 Creative learning Centre provides accessible access to work 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.

The Creative Learning Centre is located on the Ground Floor of the Sydney Opera House. The Creative Learning Centre is located on the northwest corner of the Opera House under the Concert Hall facing Sydney Harbour.

The Creative Learning Centre is accessed from the Western Concourse as well as from the Western Foyers.

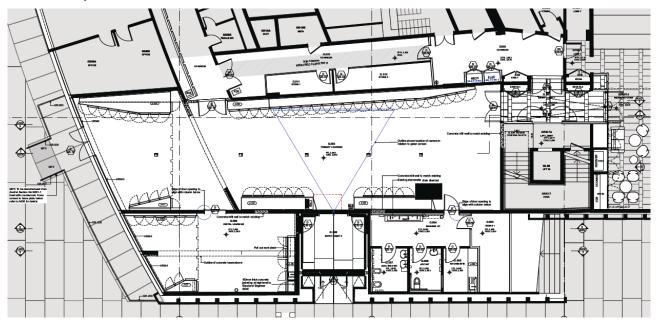


Figure 1 Location plan Creative Learning Centre

The Creative Learning Centre comprises the following spaces:

- Lobby zone
- Primary learning space Open plan
- · Digital learning space
- Storage areas
- WC facilities
- Kitchenette

The following extract from the architectural plans indicates the designated accessible paths of travel within the Creative Learning Centre.





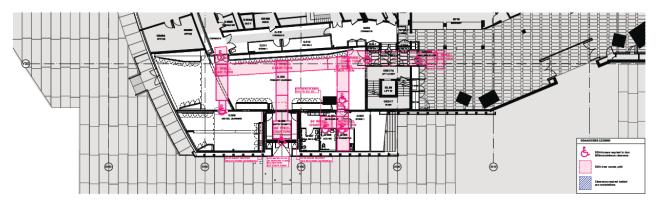


Figure 2 Accessible path of travel

As part of these works the egress pathways have had to be modified. A new egress lobby is created at the base of Stair GRS17 and lift 9.

Braille tactile Exit signage associated with this door will need to be provided in accordance with the provisions of NCC Clause D3.6(a)(ii). The details of how this exit sign is to be integrated into the design will need to be identified as part of the detailed construction documentation.

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 Architects.

1.4. CHIEF GUIDING DOCUMENTS

The access review has been limited to the works associated with the Creative Learning Centre 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.

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.

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 Creative Learning Centre 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 Creative Learning Centre.

1.8. 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 in the documentation prepared by ARUP.

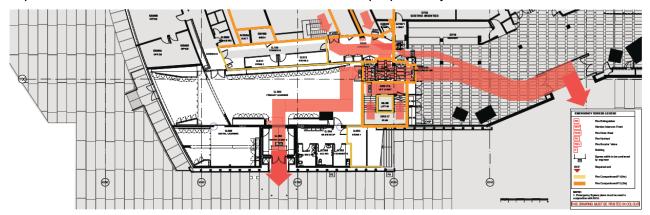


Figure 3 Creative Learning Centre - Egress Plan

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 form 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 Creative Learning Centre

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





2. CREATIVE LEARNING CENTRE

The area of the new Creative Learning Centre is identified by the plan following.

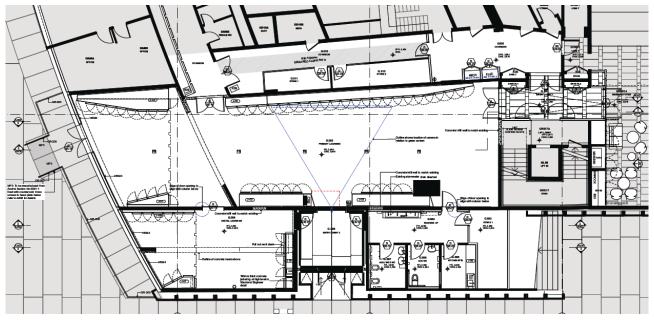


Figure 4 Creative Learning Centre - Plan Drawing No 49 BR TZG07 Sheet A101 REV B

The main access related issues relate to the following:

- Accessible entry from the Western Concourse (Principle Pedestrian Entry)
- Accessible entry from the Western Foyer
- Provision of an accessible WC (Room G5.06)
- Provision of door assist devices to operate the doors where compliant latchside clearances are not able to be achieved. (Doors GR11, GR06 & GR13). Doors to be fitted with large format mushroom buttons to operate doors.
- Door GR12 to be held open when the Creative Learning Centre is in operation
- 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 Western Foyer
- Lift 9
- Stair GRS17

4. ACCESSIBLE PATH OF TRAVEL

The extract from the plans following indicates the accessible paths of travel to and within the Creative Learning Centre.

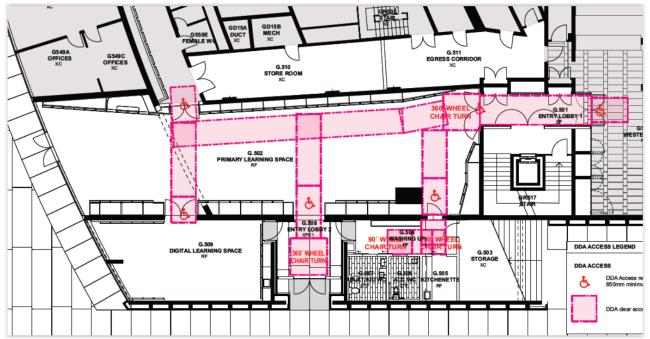


Figure 5 Creative Learning Centre - Path of travel

5. WAYFINDING AND SIGNAGE

An appropriate wayfinding system to navigate to and within the Creative Learning Centre 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).

Braille tactile signage to the bathroom facilities will need to satisfy the requirements of NCC Clause D3.6 and NCC Specification D3.6.

6. FLOOR FINISHES

It is intended that new resilient flooring will be installed to the floors of the Creative Learning areas.





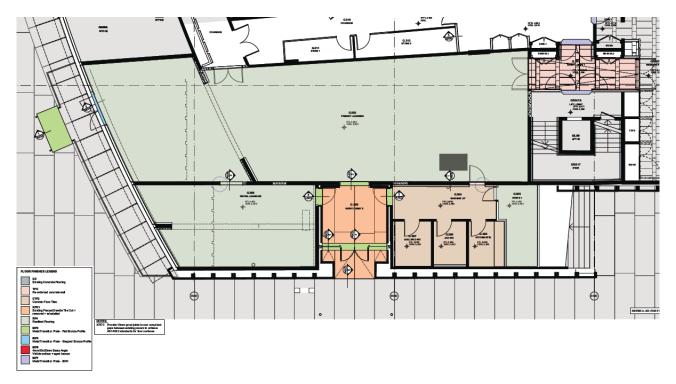


Figure 6 Creative Learning Centre - Floor Finishes Drawing No 49 BR TZG07 Sheet A102 REV C

7. LIGHTING

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

Passageways and walkways 150lx

8. DOORS

The new doors provided as part of these works will need to achieve a minimum clear opening of 850mm.

Where double doors are provided the minimum clear width of the active leaf will need to be 850mm.

The hardware selection has yet to be undertaken. The detailing of the hardware will need to satisfy the provisions of Clause 3.5 of AS428.1:2009.

Where doors, other than fire doors are fitted with a door closer the maximum force required to operate these doors is to be not greater than 20N force.

There are a number of doors where compliant latchside clearances are not able to be achieved. These doors will need to be fitted with door assist devices such as the DORMA PORTEO system. The push buttons to operate the doors will need to be the large format mushroom buttons.

9. DOORS - LUMINACE CONTRAST

The documents provided do not address in detail the luminance contrast requirements for the various doorways located within the Creative Learning Centre. Details of how these requirements are to be address are to be provided as part of the detailed construction documentation.





10. SWITCHES AND ACCESS CONTROL

It is anticipated that any switching and controls of the lighting to the areas will be part of a centralised electrical distribution board operated by SOH personnel.

11. HEARING AUGMENTATION

The design for the Creative Learning Centre will incorporate built in TV screens and monitors.

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.

12. VISUAL INDICATORS ON GLAZING

Visual indicators are required to be applied to glazing where the glazing could be mistaken as a doorway and where the handrail / guardrail is not installed against the glazing.

A design for the application of decals to the glazing will need to be developed to address this requirement.

The glare source of the external areas may possibly increase the need for the application of the decals.

Examples of visual indicators employed around the Opera House include:



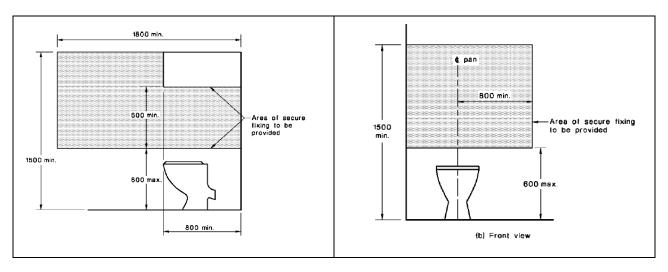


13. ACCESSIBLE WC

The construction detail of the walls to the accessible WC does not indicate the wall strengthening required associated with the provision of grabrails. Wall strengthening associated with the grab rails will need to be provided as follows.







14. PERFROMANCE SOLUTIONS RELIED UPON

It will be necessary to rely on the following Performance Solutions:

- 1. Luminance Contrast at doorways associated with area G.501 Entry Lobby 1
- 2. The door operation associated with G.508 Entry Lobby 2
- 3. The provision of a fold down grab rail to be incorporated in the accessible WC, Room G.506 to satisfy the ambulant provisions of NCC Clause F2.4.
- 4. Treatment of doorways located within Entry Lobby 1 G.501

15. DOCUMENTATION RELIED UPON

This access report has relied upon the following architectural documentation:

49-BR-TZG07-A000 COVER PAGE AND DRAWING LIST_C

49-BR-TZG07-A001 LEGEND SPREADSHEET_C

49-BR-TZG07-A002 SITE LOCATION PLAN_C

49-BR-TZG07-A004 PROJECT COORDINATION AND EMERGENCY EGRESS DRAWINGS C

49-BR-TZG07-A005 DDA ACCESS PATHS PLAN_C

49-BR-TZG07-A101 GROUND FLOOR PLAN C

49-BR-TZG07-A102 GROUND FLOOR FINISHES PLAN_C

49-BR-TZG07-A103 GROUND FLOOR FURNITURE + JOINERY SETOUT PLAN C

49-BR-TZG07-A110 WALL TYPES SETOUT PLAN AND LEGEND C

49-BR-TZG07-A406 WALL DETAILS 1_A

49-BR-TZG07-A407 FLOOR DETAILS 1_A

49-BR-TZG07-A408 EXTERNAL DETAILS 1_A

49-BR-TZG07-A410 HRM4 DETAILS A

49-BR-TZG07-A500 DOOR SCHEDULE 1 C

49-BR-TZG07-A501 DOOR SCHEDULE 2_C

49-BR-TZG07-A502 DOOR DETAILS 1_C

49-BR-TZG07-A503 DOOR DETAILS 2_A

49-BR-TZG07-A504 DOOR DETAILS 3_A

49-BR-TZG07-A505 DOOR DETAILS 4_A

49-BR-TZG07-A506 DOOR DETAILS 5_A

49-BR-TZG07-A507 DOOR DETAILS 6_A

49-BR-TZG07-A508 DOOR DETAILS 7_A

49-BR-TZG07-A600 WET AREAS - DETAIL PLAN AND RCP_C

49-BR-TZG07-A601 WET AREAS - ELEVATIONS_C

49-BR-TZG07-A602 WET AREAS - DETAILS_B

49-BR-TZG07-A650 ENTRY LOBBY 1 PLANS AND ELEVATIONS C

49-BR-TZG07-A651 ENTRY LOBBY 1 ENTRY ELEVATION C

49-BR-TZG07-A652 ENTRY LOBBY 2_C





16. ACCESS REPORT

PART / CLAUSE	DISABILITY (ACCESS TO PREMISES) STANDARD 2010 CRITERIA TO BE SATISFIED	COMPLIANCE / ACTION / COMMENT
A4.1	Classifications	Note
	Class 9b — an assembly building,	
DP1	Performance requirement	Satisfied
	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	Not Applicable
	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	Satisfied
	Exits must be provided from a building to allow occupants to evacuate safely, with their number, location and dimensions being appropriate to: 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 exit is from above or below ground level.	
DP6	Performance requirement So that occupants can safely evacuate the building, accessways to exits must have dimensions appropriate to: a) the number, mobility and other characteristics of occupants; and b) the function or use of the building.	Satisfied





PART / CLAUSE	DISABILITY (ACCESS TO PREMISES) STANDARD 2010 CRITERIA TO BE SATISFIED	COMPLIANCE / ACTION / COMMENT
DP8	Performance requirement Carparking spaces for use by people with a disability must be: a) provided, to the degree necessary, to give equitable access for carparking; and b) designated and easy to find.	Not Applicable
DP9	Performance requirement 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.	Satisfied
D3.1	General Building Access Requirements Class 9b	
Table D3.1	Assembly Building To and within all areas normally used by the occupants	Satisfied
D3.2	Access to Buildings	
	(1) An accessway must be provided: (a) to a building required to be accessible;	Satisfied
	(b) from the main points of a pedestrian entry at the allotment boundary; and	Satisfied
	I. from another accessible building connected by a pedestrian link; and	Not Applicable
	II. from any required accessible carparking space on the allotment.	Not Applicable





PART / CLAUSE	DISABILITY (ACCESS TO PREMISES) STANDARD 2010 CRITERIA TO BE SATISFIED	COMPLIANCE / ACTION / COMMENT
	(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:	Satisfied
	a. through not less than 50% of all pedestrian entrances including the principal pedestrian entrance; and	
	 in a building with a total floor area more than 500sqm, a pedestrian entrance which is not accessible must not be located more than 50 m from an accessible pedestrian entrance; 	
	Except for pedestrian entrances serving only areas exempted by clause D3.4.	
D3.3	Parts of buildings to be accessible	
	In a building required to be accessible:	
	a) every ramp and stairway, except for ramps and stairways in areas exempted by clause D3.4, must comply with:	
	 for a ramp, except a fire-isolated ramp, clause 10 of AS 1428.1; and 	Not Applicable
	ii. for a stairway, except a fire-isolated stairway, clause 11 of AS 1428.1;	Not Applicable
	iii. for a fire-isolated stairway, clause 11.1(f) and (g) of AS 1428.1;	Not Applicable
	b) every passenger lift must comply with clause E3.6;	Not Applicable
	c) accessways must have:	Not Applicable
	 passing spaces complying with AS 1428.1 at maximum 20 m intervals on those parts of an accessway where a direct line of sight is not available; and 	
	ii. turning spaces complying with AS 1428.1:	
	A. within 2m of the end of accessways where it is not possible to continue travelling along the accessway; and	
	B. at maximum 20 m intervals along the accessway;	





PART / CLAUSE	DISABILITY (ACCESS TO PREMISES) STANDARD 2010 CRITERIA TO BE SATISFIED	COMPLIANCE / ACTION / COMMENT
	d) an intersection of accessways 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- containing not more than 3 <i>storeys</i>; and 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	The signage documentation has yet to be prepared. 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. 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. SIZE OF INTERNATIONAL SYMBOLS FOR ACCESS AND DEAFNESS FOR VARYING VIEWING DISTANCES Required viewing distance Minimum size of symbol mm S7 2 (60 x 60) 2 (110 x 110) 2 (200 x 200) 2 (450 x 450)





PART / CLAUSE	DISABILITY (ACCESS TO PREMISES) STANDARD 2010 CRITERIA TO BE SATISFIED	COMPLIANCE / ACTION / COMMENT
D3.6	Signage	Specific attention is directed to the requirements of Clause D3.6(a)(ii) of the BCA. (ii) identify each door required by E4.5 to be provided with an exit sign and state— (A) "Exit"; and (B) "Level" followed by the floor level number; and The image below is an example of the type of Braille Tactile signage to be installed.
		Compliant Braille tactile signage will need to be provided for the WC facilities.
		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 Creative learning centre. A hearing augmentation system will need to be installed within the Creative Learning Centre.
D3.8	Tactile Indicators	Not Applicable





PART / CLAUSE	DISABILITY (ACCESS TO PREMISES) STANDARD 2010 CRITERIA TO BE SATISFIED	COMPLIANCE / ACTION / COMMENT
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 Clause 6.6 of AS 1428.1.	The windows facing the harbour may require the installation of visual indicators to the glazing. The detailing of the indicators will need to satisfy the requirements of Clause 6.6 of AS1428.1:2009.
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	The plans propose a new accessible WC as part of this program of works. The detailing of the accessible WC satisfies the provisions of Clause 15 of AS1428.1:2009.