

16 June 2019

Department of Planning and Environment NSW Government
Att: Minister for Planning and Environment
GPO Box 39 Sydney NSW 2000

BUILDING CODE OF AUSTRALIA CAPABILITY STATEMENT - Rev A

Property/Project: Sydney Opera House Lower Concourse Improvements – Bennelong Point, Sydney

The purpose of this submission is to advise that we have undertaken a preliminary assessment of the architectural drawings: DA1-0001 Rev 02, DA1-0502 Rev 02, DA1-1100 Rev 02, DA1-1101 Rev 02, DA1-1102 Rev 02, DA1-1103 Rev 02, DA1-3100 Rev 02, DA1-3200 Rev 02, DA1-3202 Rev 02, DA1-3205 Rev 02, DA1-3220 Rev 02, DA1-3221 Rev 02, DA1-3225 Rev 02 & DA1-3231 Rev 0 by H&E Architects, against the provisions of the Building Code of Australia 2019 ("BCA") as per the requirements under Clause 145 of the Environmental Planning & Assessment Regulation 2000 ("EP&A Regs"). A site inspection was conducted by this office on the 12 June 2019.

Compliance with the BCA for these specific works will be able to be achieved by a combination of compliance with the deemed-to-satisfy (DTS) provisions and the potentially the Performance Requirements. Further assessment of the detailed design post DA submission will be required with potential Performance Solutions develop to justify:

- Rationalisation of egress discharge point in relation to BCA defined openspace, if required – Fire Engineered Performance Solution.
- The use of a sliding external door which does not failsafe open, as a required exit door – Fire Engineered Performance Solution.

Notwithstanding the above comments we note that specific detailed compliance with the BCA is not a prescribed head of consideration under Section 79C of the Environmental Planning & Assessment Act 1979 and accordingly, we trust that the determination of the development application will not be subject to the assessment of any technical matters under the state's building regulations.

In this regard and pursuant to Clause 54 (4) of the Environmental Planning & Assessment Regulation 2000, we trust that the Consent Authority will not require any additional information in the determination of the development application for technical BCA matters that will be assessed at the Crown Building Works Certificate stage. A BCA Summary Assessment Report has been included below and can be read in conjunction with this Statement.

As such we hereby confirm that matters pertaining to compliance with the BCA will be suitably assessed by the appointed Crown Building Certifier prior to the issue of the Crown Building Works Certificate in accordance with Clause 98 of the Environmental Planning and Assessment Regulations 2000 & Section 6.28 of the Environmental Planning & Assessment Act 1979.

We trust this submission satisfies any concerns of the Consent Authority with compliance of the development with the relevant requirements and provisions of the BCA.

BCA Assessment:

Building Description

The Sydney Opera House Lower Concourse Improvements project involves alterations to the existing Lower Concourse retail and back of house area, with the inclusion of an office in support of the restaurant use. It includes consolidation of a number of existing consents into one.

Existing Building Use/Classification:	Class 6 (Lower Concourse project part only)
Proposed Use/Classification :	Class 6 (proposed office is less than 10% in floor area of the storey, deeming it Class 6 also)
Existing Type of Construction:	Type A (overall Sydney Opera House building)
Proposed Type of Construction:	Type A (overall Sydney Opera House building)
Existing Rise in Storeys:	TBC
Proposed Rise in Storeys:	TBC
Levels Contained:	TBC
Effective Height:	More than 25 m, less than 50 m. (overall Sydney Opera House building)

Part B – Structure

No issues identified at this stage of the documentation. Structural Engineer to confirm structural compliance prior to issuance of the Crown Building Works Certificate.

C1 – Fire Resistance and Stability

The relevant existing Arup Fire Compartmentation plan (Fire Compartments and Fire Door – Level LC 2015 Audit dated 19-09-2016, see Figure 1 below) is noted as “Level not yet reviewed.” This plan will need to be finalised prior to the issuance of the Crown Building Works Certificate. Section 5 of the Arup Compartment Review dated 22 September 2016 suggests that these walls may contain a fire rating of 120/120/120. Whilst we recognise that the compartment review of this area is incomplete, the finalisation process should also look at the existing level of fire rating as the current BCA would require these walls to achieve 180/180/180 rating. Relaxations of existing fire rating levels may already exist in current fire engineering reports. This would also need to be considered at the time of finalising the existing compartmentation plan for this storey.

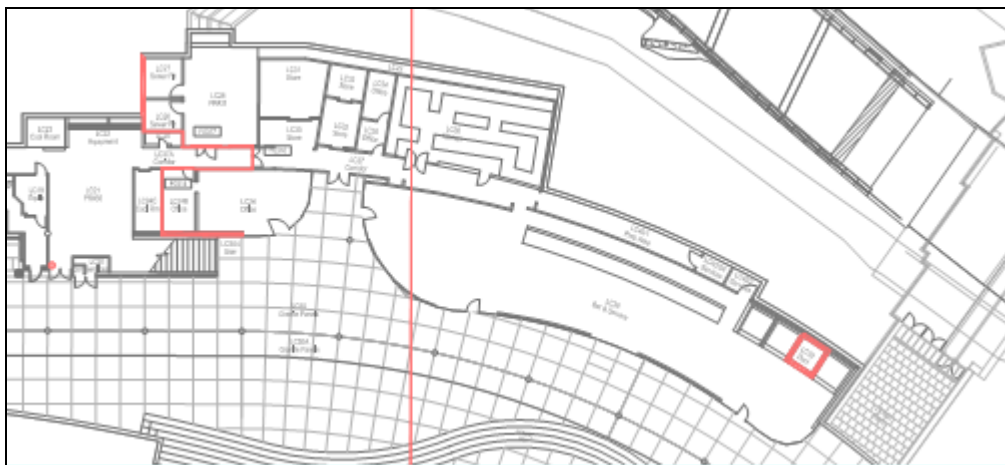


Figure 1 – Part Existing Lower Concourse Fire Rating Plan

No other issues identified. The current proposed design does not consider a change to the existing fire compartmentation walls, floors, etc.

C2 – Compartmentation and Separation

No issues identified at this stage. The current proposed design does not consider a change to the existing fire compartmentation walls, floors, etc.

C3 – Protection of Openings

The fire door separating the current Meat and Cheese from the Back of House is to be removed and replaced. The fire rating of this door can be determined following the updating of the Fire Compartmentation Plan noted in C1 above. The current door does not appear to comply as it contains a large viewing panel/window, this project will rectify this non-compliance.

D1 – Provision for Escape

Whilst travel distances are altered slightly, the proposal has low to negligible impact on the current egress situation. Compliance with the current BCA in this area can be explored at the detailed design stage, with further emphasis placed on determining the actual discharge point, as egress is somewhat into a semi-covered area. If required, relief can be obtained in the form of upgrading the Back of House compartment fire door, located opposite the Meat and Cheese, to a horizontal exit. This existing fire door and jamb would need to be demolished and re-built to swing in the direction of egress – north.

The restaurant/bar requires a combined exit door width of not less than 2.5 m. This is based on the number of persons accommodating being 253. Derived from bar standing area of 30 m² equating to 60 persons plus the number of indoor seats being 193. Compliance can be achieved by a combination of the existing southern exit swing door, the justification of proposed the northern sliding as a required exit (see D2 below), and/or the activation of the horizontal exit door noted in the paragraph immediately above.

D2 – Construction of Exits

In support of providing acceptable travel distances to the exits as noted above in D1, the existing swing doors in the shop front are required. The southern door should remain, and the northern door should be reinstated. This will have an impact on the current design which illustrates new sliding doors/wall to the north. The BCA prohibits the use of external sliding doors as exits unless they fail safe open in fire mode/trip.

Alternatively, the Fire Safety Engineer could review the operation of the proposed northern manual sliding doors and propose a Performance Solution if found to be justifiable. This would allow the current design to remain unchanged.

D3 – Access for People with Disabilities

Refer Group DLA Access Consultants Report.

E1 – Fire Fighting Equipment

No obvious issues identified at this stage, refer Fire Services Engineers Report for further comment.

It's important to note that new works will be required to comply with BCA 2019. This stipulation would not be required to extend to the supporting infrastructure unless compliance with the new item(s) is directly compromised.

E2 – Smoke Hazard Management

No obvious issues identified at this stage, refer Fire Services Engineers Report for further comment.

It's important to note that new works will be required to comply with BCA 2019. This stipulation would not be required to extend to the supporting infrastructure unless compliance with the new item(s) is directly compromised.

E3 - Lift Installations

N/a

E4 – Emergency Lighting, Exit Signs and Warning Systems

The current layout of running man exit signage does not achieve compliance with the BCA and will need to be reviewed at the detailed design stage, once the exit points have been finalised. Re-alignment of existing exit signs over the required exits will be required.

It's important to note that new works will be required to comply with BCA 2019. This stipulation would not be required to extend to the supporting infrastructure unless compliance with the new item(s) is directly compromised.

F1 – Damp and Weatherproofing

The new external walls and new glazing inclusive of the sliding doors, will need to comply with this provision. These external wall/door assemblies will need to be designed in a manner which resists water penetration into the building.

F2 – Sanitary and Other Facilities

No changes to the supporting existing sanitary facilities are proposed. The increase in floor area to the restaurant could be said to not contribute to an overall increase in occupants, as the project essentially involves a proportional increase of indoor area to decrease of outdoor area, of the same use.

F3 – Room Sizes

No changes currently proposed.

F4 – Light and Ventilation

Compliance required. No issues identified at this stage of the design.

Part J – Energy Efficiency

The subject premises are located within Climate Zone 5.

New works are required to comply with the provisions of Section J. There is a transition period under BCA 2019 that allows BCA 2016 Section J to be applied on this project, if the invitation for tenders for the building works are issued before 1 May 2020. However, would recommend endeavouring to achieve BCA 2019 Section J where feasible and the summary advice below is in relation to BCA 2019 accordingly.

Compliance with Section J is required for this development as follows:

- BCA Part J0 – Energy Efficiency – Noted, no action required.
- BCA Part J1 – Building Fabric – The proposed new external walls (inclusive of sliding doors) will need to comply with this part. The ABCB approved “*Total U-Systems wall-glazing construction*” calculator will need to be submitted illustrating compliance prior to the issuance of the Crown Building Works Certificate.
- BCA Part J2 – DELETED, if the moratorium is ignored.
- BCA Part J3 – Building Sealing – Compliance required. Consideration to the prevention of air flow across the closed in position sliding door unit will need to be considered. Further discussion on how sealing to the relocated bronze door will need to be given at the detailed design stage.
A 3 m un-conditioned zone must be maintained between the sliding doors and the aircon supply outlets.
- BCA Part J4 – DELETED.
- BCA Part J5 – Air-conditioning and Ventilation Systems – Certification from the mechanical consultant will be required prior to the issuance of the Crown Building Works Certificate.
- BCA Part J6 – Artificial Lighting and Power – Certification from the electrical consultant will be required prior to the issuance of the Crown Building Works Certificate.
- BCA Part J7 - Hot Water Supply and Swimming Pool and Spa Plant – N/a.
- BCA Part J8 – Access for Maintenance and Facilities for Monitoring – N/a.

GROUPDLA

The proposed design appears to comply with the major requirements of the BCA. Where the level of detail is currently insufficient to determine full compliance, compliance with the deemed-to-satisfy provisions would be readily achievable within the general constraints of the current design.

Should you require further assistance or clarification please do not hesitate to contact the undersigned at your convenience.

Yours sincerely



Shane Berry
Specialist Regulations Consultant (*Accred. Certifier - A1*)
D +61 2 8090 1493 M +61 448 566 606
sberry@groupdla.com.au

24 June 2019

Sydney Opera House
Attn: Peter Doyle
Project Manager, Renewal Statutory Planning
GPO Box 4274
Sydney NSW 2001

Re: ACCESSIBILITY CAPABILITY STATEMENT AT SSDA STAGE – Rev A

Project: Sydney Opera House Lower Concourse Improvements – Bennelong Point, Sydney

The purpose of this submission is to advise that we have undertaken a preliminary disability access design assessment of the proposed development for the above project, as identified in architectural drawings provided H & E Architects, listed below in Table 1. A site inspection was also conducted by this office on the 12 June 2019.

The development has been assessed against the relevant access provisions of the Disability (Access to Premises – Building) Standards 2010, Building Code of Australia (BCA) 2019 and referenced access standard AS1428.1:2009, to the extent necessary for submission of a State Significant Development Application under the requirements of the Environmental Planning and Assessment Act.

The proposed development includes minor alterations to the existing Lower Concourse “Opera Bar” retail tenancy within front of house (FOH) and back of house (BOH) areas including:

- FOH tenancy glazing line amendment using stacking glass panels that are similar to existing provisions, that will affect location of existing entry and exit doors;
- BOH inclusion of new corridor, office, store-room, cool-room in support of the restaurant use;
- Replacement of existing external shade structures; and
- Consolidation of various consents into one single consent.

The BCA assessment of the building classification/use of the development is detailed below:

- Class 6 - Retail for Lower Concourse project part only (with office less than 10% floor area of storey)

Under the DDA Access to Premises Standards, when new building works are being undertaken in an existing building that require a building approval (CC or CDC and/or inclusive Crown projects), the requirements for upgrading access are limited to the area of new work and the “affected part” of the building. The affected part is defined as the continuous accessible path of travel from (and including) the principal pedestrian entrance/s to the building to the new works area, which needs to be compliant with AS1428.1-2009. The affected part of this project is limited to the FOH main tenancy entrance to the Opera Bar and the FOH increased tenancy floor area that will be altered through the new works to the glazing line amendment.

In our opinion, through ongoing development of the proposed new works and the Affected Part that will occur during detail design phase, the proposed design is capable of compliance with the relevant accessibility legislation and reasonable access provisions for people with disability to and within the development can be achieved. Compliance will be able to be readily achieved through a combination of compliance with the Deemed to Satisfy (DtS) access provisions and the Performance Requirements of the BCA.

An Access Summary Assessment Report is included below and can be read in conjunction with this Statement.

The following DA submission drawings have been reviewed as part of the access design assessment:

Description	Drawing No.	Revision	Date
Cover Sheet	DA1-0001	Rev 02	24.05.2019
Site Plan -Existing	DA1-0502	Rev 02	24.05.2019

Plan – Lower Concourse – Existing and Demo	DA1-1100	Rev 02	24.05.2019
Plan – Lower Concourse – Proposed	DA1-1101	Rev 02	24.05.2019
Upper Concourse - Existing	DA1-1102	Rev 02	24.05.2019
Upper Concourse - Proposed	DA1-1103	Rev 02	24.05.2019
Elevation	DA1-3100	Rev 02	24.05.2019
Detail Plan – Opera Bar Glazing Line – Existing and Demo	DA1-3200	Rev 02	24.05.2019
Detail Plan – Opera Bar Glazing Line – Proposed	DA1-3202	Rev 02	24.05.2019
Detail Elevation – Opera Bar Glazing	DA1-3205	Rev 02	24.05.2019
Detail Plan _ Shade Structure	DA1-3220	Rev 02	24.05.2019
Shade Structure – Reflected Ceiling Plan	DA1-3221	Rev 02	24.05.2019
Detail Section – Shade Structure	DA1-3225	Rev 02	24.05.2019
Detail Section – Shade Structure Services	DA1-3231	Rev 01	24.05.2019

Table 1 – Documentation Assessed

DDA / Accessibility Summary Assessment

1.0 Existing Building - Affected Part Provision (DDA Premises Standards Clause D2.1, D3.1, AS1428.1)

Affected Part Requirements

- a) The future building approval for the new works within the Opera Bar retail tenancy FOH areas will trigger the Affected Part provisions of the DDA Access to Premises Standards. This will require the principal pedestrian/main entrance into the tenancy and the increased FOH tenancy area to be compliant with AS1428.1:2009.
- b) The proposed glazing line amendment will increase the linear nature of the facade using a series of stacking glass panels, similar to those currently installed, that will improve general way-finding/orientation along the building line. This will affect the location of the principal pedestrian/main entrance into the tenancy that is currently achieved via open sliding door panels however the entry strategy (that does not rely on the existing hinged doors within the façade) will be maintained.
- c) Due to the operational management requirements of the tenancy, a clear path of travel between internal and external tenancy areas must be maintained for circulation during opening hours at all times of the year ie. at least 2 x sliding doors from the stacking system will be always remain open (managed by staff) and this forms the principal pedestrian main entrance into the tenancy.
- d) The future design detailing of the glass stacking system and main tenancy entry/circulation path (requiring a clear path of travel of not less than 1000mm min. clear width with a level threshold transition) as well as luminance contrasting visual indicators will need to satisfy AS1428.1:2009.

2.0 New Works – Access Requirements and Exemptions (BCA/Access Code D3.1, AS1428.1 and D3.4)

- a) Access for people with disability in accordance with AS1428.1:2009 will be required to and within all new work tenancy areas normally used by the occupants under BCA/DDA Access Code Table D3.1, unless a Part D3.4 Exemption applies.
- b) This will require that the new works FOH tenancy area provides at least 1000mm min. clear width path of travel between fixtures and furniture (when no turning required) and at least 1540mm W x 2070mm L clear area at a corridor end formed between fixtures and furniture (when 180 degree wheelchair turn required).

- c) The new works BOH areas including the new corridor, office, store-room and cool-room for the restaurant use can be supported as a non-accessible area, under a Part D3.4 exemption due to the particular nature and use that may pose a health or safety risk to people with disability. This assessment has been based on the advised nature/tasks required within Opera Bar tenancy, where staff have multi-functional roles ie. the job roles of staff working within the office includes work in BOH activity areas and high-use service corridor zone, which require high levels of physical mobility.

3.0 Emergency Egress (Ref: BCA BCA/Access Code D3.6, AS1428.1)

- a) To meet BCA Part D3.6, any required fire-isolated exit doors, (serving accessible areas) are to include Braille and tactile signage complying with Clause E3.6 and Specification D3.6 to identify each door required by BCA Clause E4.5 to be provided with an exit sign and state "Exit" and "Level" and either:
 - (a) the floor level number; or
 - (b) a floor level descriptor; or
 - (c) a combination of (a) and (b)

4.0 Other

- a) The proposed replacement of the external shade structures is not viewed as affecting any required access provisions for people with disability, therefore there are no access comments have been made on this element at this stage.

Should you require further information or clarification regarding the above matters, please do not hesitate to contact me.

Yours sincerely,



Elisa Moechtar

Manager - Access Consultancy
D +61 2 8004 6348 M +61 438 291 349
emoechtar@groupdla.com.au

GROUP DLA

Level 3, 10 Bridge Street, Sydney, NSW 2000
T +61 2 8355 3160 F +61 2 8355 3169
www.groupdla.com.au