

13 July 2016

Health Infrastructure  
C/- Johnstaff  
Level 12, 70 Pitt Street  
SYDNEY NSW 2000

Attention: Alan Zhang  
Email: [alan.zhang@johnstaff.com.au](mailto:alan.zhang@johnstaff.com.au)

Dear Alan,

**RE: BLACKTOWN HOSPITAL - STAGE 2 DEVELOPMENT  
BCA COMPLIANCE CAPABILITY STATEMENT FOR SSD APPLICATION**

Blackett Maguire + Goldsmith Pty Ltd have been commissioned by Health Infrastructure to carry out an assessment of the proposed development against the requirements of the National Construction Code Series (Volume 1) - Building Code of Australia (BCA) 2016.

It is understood that the proposed development will be subject to a SSD Application to the Department of Planning and this BCA Capability Statement will form part of the submission for consideration as part of the determination.

Our assessment of the Schematic Design Documentation was based on the following:

- + National Construction Code Series (Volume 1) Building Code of Australia 2016 (BCA)
- + Guide to the Building Code of Australia 2016 (BCA Guide)
- + Environmental Planning and Assessment Act 1979 (EP&A)
- + Environmental Planning and Assessment Regulation 2000 (EP&AR)
- + Schematic Architectural Drawings prepared by Jacobs dated 20 May 2015.

**1. BUILDING DESCRIPTION:**

The stage 2 proposed works consist of the following:

- + Construction of a 9 (nine) storey addition to the existing Blacktown Hospital in the south-western corner of the site and redevelopment of other areas around the northern side of the existing hospital.
- + Internal alterations and additions to the existing hospital building including but not limited to the following areas:
  - + Level 1 Back of House
  - + Level 2 Endoscopy
  - + Level 2 Gastro Day Procedure Unit
  - + Level 2 Administration Unit
  - + Level 3 Medical Imaging
  - + Level 3 Ambulatory Care
  - + Level 4 Inpatient Haemodialysis Unit



## **2. STATEMENT OBJECTIVES:**

The objectives of this statement are to:

- + Confirm that a preliminary review of the DA architectural documentation has been reviewed by an appropriately qualified Building Surveyor and Accredited Certifier; and
- + Confirm that the proposed new building works can readily achieve compliance with the BCA pursuant to clause 145 of the *Environmental Planning & Assessment Regulation 2000*.

## **3. REGULATORY FRAMEWORK:**

Pursuant to Section 109R of the Environmental Planning & Assessment Act 1979 (Development by the Crown) the proposed development is required to be subject to compliance with the relevant requirements of the BCA as in force at the time of the invitation for the contractor tender of the project.

## **4. BUILDING CODE OF AUSTRALIA 2016 COMPLIANCE:**

Arising from our preliminary assessment of the proposed development against the Deemed-to-Satisfy provisions and Performance Requirements of National Construction Code Series – Volume 1 – Building code of Australia 2016, the following key compliance matters are noted.

The principal building characteristics as defined by the BCA are as follows:

+ <b>BCA Classification:</b>	Class 9a (Health-care Building) & Class 5 (professional consultation)
+ <b>Rise in Storeys:</b>	The building has a rise in storeys of nine (9).
+ <b>Effective Height:</b>	> 25m
+ <b>Type of Construction:</b>	Type A Construction
+ <b>Climate Zone:</b>	Energy Efficiency Zone 6
+ <b>Maximum Floor Area:</b>	Max 5,000m <sup>2</sup> compartments for Class 9a Health Care buildings.  <i>Note: 2,000m<sup>2</sup> compartments applies to all Patient Care Areas within the building.</i>
+ <b>Maximum Volume:</b>	Max 30,000m <sup>3</sup> compartments for Class 9a Health Care buildings.

The detailed BCA desktop assessment was carried out against the provisions of the BCA. It is noted that the proposed development must comply with the relevant requirements of BCA and this can be achieved by complying with the following:

- a) Complying with the Deemed-to-satisfy (DTS) Provisions; or
- b) Formulating a Performance Solution which –
  - i) Complies with the performance requirements; or
  - ii) Be at least equivalent to the DTS provisions; or
- c) A combination of the above.

### **A. Fire System Interface**

The new Stage 2 Hospital Building will be designed to ensure compatibility and integration of all fire safety systems (wet and dry fire) with the existing buildings on the site including the recently



construction Clinical Services Building constructed as part of Stage 1. The design will also ensure compatibility with the previous Fire Engineering Assessment that was carried out for Stage 1.

All internal alterations and additions within the existing Hospital Building will be carried out in accordance with the nominated standards of performance and the proposed works will not lessen the level of fire safety building within the existing building. All existing essential fire safety measures will be designed to ensure compatibility and integration of all fire safety systems with both Stage 1 & Stage 2.

## **B. Egress**

Egress travel distance has been assessed and where it cannot comply with the requirements of the DtS Provisions, it will be subject of a Performance Solution to demonstrate compliance with the Performance Requirements of the BCA.

## **C. Access for People with a Disability**

The new Stage 2 Hospital Building will comply with BCA Part D3 and the Access to Premises Standards 2010 in terms of access and facilities for people with disabilities.

This will in essence ensure the design satisfies the requirements of the DDA.

Access for persons with disabilities must be provided, at a minimum, to and within all areas normally used by the occupants. This includes to and within all beds, throughout all patient care areas, staff areas and communal areas.

Access need not be provided to:

- + An area where access would be inappropriate because of the particular purpose for which the area is used.
- + An area that would pose a health or safety risk for people with a disability.
- + Any path of travel providing access only to an area exempted by (a) or (b).

The proposed alterations and additions within the existing hospital will be designed to comply with the Access to Premises Standard 2010.

An Access Consultant has been engaged to review all of the Design Documentation as it progresses to ensure compliance.

## **D. Essential Fire Safety Measures**

The following essential fire safety measures are required for the proposed Stage 2 hospital building:

<b>Essential Fire and Other Safety Measures</b>	<b>Standard of Performance</b>
Access Panels, Doors & Hoppers	BCA Clause C3.13 & AS 1530.4 - 2005
Alarm Signalling Equipment	AS1670.3 - 2004
Automatic Fail Safe Devices	BCA Clause D2.21
Automatic Fire Detection & Alarm System	BCA Spec. E2.2a & AS 1670.1 - 2004.
Automatic Fire Suppression Systems	BCA Spec. E1.5 & AS2118.1 - 1999
Building Occupant Warning System activated by the Sprinkler System / Automatic Fire Detection & Alarm System	BCA Spec E1.5 Clause 8 and/ or Clause 3.22 of AS 1670.1 - 2004



Essential Fire and Other Safety Measures	Standard of Performance
Emergency Lighting	BCA Clause E4.4 & AS 2293.1 - 2005
Emergency Lifts	BCA Clause E3.4 & AS 1735.2 - 2001
Emergency Evacuation Plan	AS 3745 - 2002
Exit Signs	BCA Clauses E4.5, E4.6 & E4.8 and AS 2293.1 - 2005
Fire Dampers	BCA Clause C3.15, AS 1668.1 - 1998 & AS 1682.1 & 2 - 1990
Fire Doors	BCA Clause C2.12, C2.13, C3.5, C3.8 and AS 1905.1 - 2005
Fire Hose Reels	BCA Clause E1.4 & AS 2441 - 2005
Fire Hydrant Systems	Clause E1.3 & AS 2419.1 - 2005
Fire Rated Walls & Floors	BCA Specification C1.1
Fire Seals	BCA Clause C3.15 & AS 1530.4 - 2005 & AS 4072.1 - 2005
Lightweight Construction	BCA Clause C1.8 & AS 1530.3 - 1999
Manual Call Points	BCA Section E
Mechanical Air Handling Systems (automatic shutdown)	BCA Clause E2.2, AS/NZS 1668.1 - 1998 & AS 1668.2 - 1991
Paths of Travel	EP & A Regulation Clause 186
Portable Fire Extinguishers	BCA Clause E1.6 & AS 2444 - 2001
Pressurisation Systems (Fire Isolated Stairways)	BCA Clause E2.2, AS/NZS 1668.1 - 1998 & AS 1668.2 - 1991
Required Exit Doors (power operated)	BCA Clause D2.19(d)
Smoke Dampers	AS/NZS 1668.1 - 1998
Smoke Doors	BCA Spec. C2.5 & C3.4
Smoke Hazard Management System - Zone Smoke Control System	BCA Spec. E2.2a & AS/NZS 1668.1 - 1998 & AS 1668.2 - 1991
Smoke Seals	BCA Spec. C3.4
Smoke Walls	BCA Spec. C2.5



Essential Fire and Other Safety Measures	Standard of Performance
Sound System and Intercom System for Emergency Purposes	BCA Clause E4.9 & AS 1670.4
Wall-Wetting Sprinklers	BCA Clause C3.4 & AS 2118.2 – 1995
Warning & Operational signs	Section 183 of the EP & A Regulations 2000, AS 1905.1 – 2005, BCA Clause D2.23.

**Notes:**

*The measures included and the standards of performances nominated above will vary as a result of the proposed fire engineered performance solution report.*

The following essential fire safety measures are currently installed within the existing hospital building and will be modified / altered as appropriate to the internal alterations and additions.

Statutory Fire Safety Measure	Design / Installation Standard
Automatic Fail Safe Devices	BCA Clause D2.21
Automatic Fire Detection & Alarm System	BCA Spec. E2.2a AS 1670.1 - 1995 AS 1670.1 - 2004.
Building Occupant Warning System activated by the Automatic Fire Detection & Alarm System	AS 1670.1 – 1995 AS 1670.1 - 2004
Emergency Lighting	BCA Clause E4.4 AS 2293.1 - 1995 AS 2293.1 - 2005
EWIS	BCA Clause E4.9 AS 2220.1 - 1989 AS 1670.4 – 2004 & AS 4428.4 - 2004
Emergency Evacuation Plan	AS 3745 – 2002 Fire Engineering Assessment Report No. 221551-00 (Rev 001) dated 23 August 2013 prepared by Arup Fire
Exit Signs	BCA Clauses E4.5, E4.6 & E4.8 AS 2293.1 - 1995 AS 2293.1 - 2005
Fire Dampers	BCA Clause C3.15



Statutory Fire Safety Measure	Design / Installation Standard
	AS 1668.1 – 1991 AS/NZS 1668.1 - 1998 AS 1682.1 & 2 - 1990
Fire Doors	BCA Clause C3.4 AS 1905.1 – 1997
Fire Hose Reels	BCA Clause E1.3 AS 2419.1 - 1994
Fire Hydrants	BCA Clause E1.4 AS 2441 - 1988
Lightweight Construction	BCA Clause C1.8
Mechanical Air Handling Systems	BCA Clause E2.2, AS 1668.1 - 1991 AS/NZS 1668.1 - 1998 AS 1668.2 – 1991
Paths of Travel	EP & A Regulation Clause 186 Fire Engineering Assessment Report No. 221551-00 (Rev 001) dated 23 August 2013 prepared by Arup Fire
Portable Fire Extinguishers	BCA Clause E1.6 AS 2444 – 2001 Fire Engineering Assessment Report No. 221551-00 (Rev 001) dated 23 August 2013 prepared by Arup Fire
Smoke Dampers	AS/NZS 1668.1 – 1991 AS/NZS 1668.1 - 1998
Smoke Doors	BCA Spec. C3.4 & C2.5 Fire Engineering Assessment Report No. 221551-00 (Rev 001) dated 23 August 2013 prepared by Arup Fire
Smoke Walls	BCA Clause C2.5



Statutory Fire Safety Measure	Design / Installation Standard
Smoke Hazard Management System (Zone Smoke Control System)	BCA Clause E2.2, AS 1668.1 - 1991 AS/NZS 1668.1 - 1998 AS 1668.2 - 1991
Wall-Wetting Sprinklers	BCA Clause C3.4 AS 2118.2 - 1995 Fire Engineering Assessment Report No. 221551-00 (Rev 001) dated 23 August 2013 prepared by Arup Fire
Warning & Operational signs	Section 183 of the EP & A Regulations 2000, AS 1905.1 - 2005, BCA Clause C3.6, D2.23, E3.3 & H101.8
Fire Engineering Assessment Report No. 221551-00 (Rev 001) dated 23 August 2013 prepared by Arup Fire <ul style="list-style-type: none"> <li>+ Oversized Fire Compartment (ICU)</li> <li>+ Unprotected Glazing between different Fire Compartments</li> <li>+ Non Fire Isolated Stairway serving Patient Care Area</li> <li>+ Unprotected Openings exposed to External Stairway</li> <li>+ Sliding Doors in lieu of Swing Doors</li> <li>+ Door Swing against the direction of Egress and Omission of Fire Hose Reel Coverage</li> </ul>	Fire Engineering Assessment Report No. 221551-00 (Rev 001) dated 23 August 2013 prepared by Arup Fire

## 5. CONCLUSION:

This report contains an assessment of the referenced Schematic Design Architectural Documentation for the proposed Blacktown Hospital stage 2 building works, against the requirements of the Building Code of Australia 2016 (BCA) and Access to Premises Standards.

Arising from our assessment we are satisfied that the project design is capable of satisfying the requirements of the BCA2016 and Access Standards subject to the above. As the nominated Crown Certifier for the project, Blackett Maguire + Goldsmith will review all stages of documentation to ensure compliance with the requirements of the Building Code of Australia.



We trust that the above has been of assistance. If you have questions regarding any of the above or would like to discuss any matter in further detail, please do not hesitate to contact the undersigned on 9211 7777 or [adam@bmplusg.com.au](mailto:adam@bmplusg.com.au).

Regards,

Adam Durnford  
**Senior Building Surveyor**  
**A1 Accredited Certifier (BPB1821)**  
**Blackett Maguire + Goldsmith**