

20 February 2009

Colin Odbert
Architectus Sydney
Level 3 341 George Street
Sydney NSW 2000

Dear Colin

**Subject: Redevelopment of Building for Shops Hotel and Apartments
33 Cross Street Double Bay**

Reference is made to the Preliminary Plans from Architectus Sydney (Project Number 070068, Drawing No. DA00-00, DA02-01, DA02-02, DA02-03, DA02-04, DA02-05, DA02-06, DA02-07, DA02-08, DA02-09, DA02-10, DA02-11 & DA02-12, DA02-03, all dated 19 February 2009). Taking into account the level of detail as shown on the plans, the proposal, as depicted in these plans, the proposal has been assessed against the Building Code of Australia 2008, and the following is noted.

Building Description

Rise-in-storeys	Sixteen (16) Basement Lower & Upper – 6 (Plant / Back of House) & 7a (Carpark) Ground Floor – 6 (Hotel & Retail) Level 1, 2 & 3 – 2 (Apartments) & 3 (Hotel – Residential)	
Classification	Level 4 – 2 (Apartments) & 9b (Assembly Building (POPE) – Bar / Restaurant, Terrace / Pool) Level 5 to 13 – 2 (Apartments) Level 14 – 9b (Assembly Building – Terrace / Pool & Plant)	
Type of Construction	A	
Effective Height	Greater than 25m	
Fire Compartment	Class 6 & 7a	Maximum floor area 5,000m ²
Floor area and volume limitations	Class 9b	Maximum volume – 30,000m ³
	Class 7a*	Maximum floor area – 8,000m ²
		Maximum volume – 48,000m ³
		No maximum floor area or volume

* Where a carpark is provided with a sprinkler system complying with Specification E1.5 and separated from the rest of the building there are no compartment limits



Fire Resistance (BCA Section C)

Taking into account the position of the building relative to property boundaries, together with its overall floor areas/volumes, the provision under Type A Construction standards, for fire rated building elements, compliance with the Deemed -to-Satisfy Provisions of BCA Section C is possible, with Fire Resistance and Stability (Part C1), Compartmentation and Separation (Part C2) and Protection of Openings (Part C3) being readily achieved.

The Fire Resistance Level (FRL) of building elements will be required to comply with Table 3 of Specification C1.1 of the BCA.

At this stage compartment sizes have not been determined. The compartmentation and location of fire walls required under Clause C2.7 of the BCA will be required to be developed to ensure the 5,000m² is not exceeded in the basement levels. This is likely to be achieved by the separation of the plant and back of house areas from the carpark.

Access & Egress (BCA Section D)

Compliance with the Deemed -to-Satisfy Provisions or performance requirements of BCA Section D will be readily achieved and the Fire Engineer has advised their report will address the following issues:

- Number of Exits (Clause D1.2 of the BCA)
- Exit travel distances (Clause D1.4 of the BCA)
- Distance between alternate exits (Clause D1.5 of the BCA)
- Travel via fire isolated exits (Clause D1.7 of the BCA).

The majority of the fire isolated exits discharge into the courtyard area and require travel under the bridge between the Western and Eastern Towers to get to the road (Cross Street). This will be required to be justified by the fire engineer.

Access for People with Disabilities (Part D3) being readily achieved with the proposed layout provided all doors provide 800mm clear opening and sufficient circulation space on the latch side of the door. Details of accessible accommodation will be required at construction certificate stage. The access consultant will provide further guidance in respect to these issues.

Fire Fighting Services & Smoke Hazard Management (BCA Section E)

The following fire fighting services are required to serve this facility under Clauses E1.3, E1.4, E1.5, E1.6 and E1.8 of the BCA:

- Fire hydrants
- Fire hose reels
- Sprinklers
- Portable fire extinguishers
- Fire control centres

A smoke hazard management system is required in the building under Table E2.2a of the BCA. A smoke detection and alarm system will be required in all residential parts of the building. A zone smoke control system is required in Class 6 and 9b parts of the building and the fire isolated stairs will be required to be pressurised. Table E2.2b will also require shutdown of the air conditioning system (other part of the zone smoke control) in the 9b portion. The parameters of these systems will be required to be addressed by the Fire Engineer during further design.

The lift is to be an emergency lift and provided with a stretcher facility under Clause E3.2 of the BCA. Emergency lighting, directional signage, illuminated exit signage and a Sound Systems and Intercom Systems for Emergency Purposes (was Emergency Warning and Intercommunication System) is to be provided throughout as required under Part E4.

Health & Amenity (BCA Section F)



Compliance with such issues as damp/weatherproofing (BCA Part F1), sanitary and other facilities (BCA Part F2), ceiling heights (BCA Part F3) and Light and Ventilation (BCA Part F4) will be required to be achieved.

Specific details of compliance with the ventilation requirements of Part F4 of the BCA will be required to be certified by the Mechanical Engineer. The car park ventilation is to comply with AS1668.2 and Clause 5.5 of AS/NZS1668.1 with metal fan blades (if required) under Table E2.2a of the BCA.

Sound transmission and insulation in the residential portions will be required to be addressed at the Construction Certificate stage and must comply with Part F5 of the BCA.

Ancillary Provisions (BCA Section G)

Compliance with such issues of window cleaning (NSW Clause G1.101) and coolrooms (Clause G1.2) will be readily achieved.

The swimming pool filtration system will be required to comply with NSW Clause G1.1 of the BCA as detailed in AS1926.3.

Special Use Buildings (BCA Section H)

The auditorium in the building is to be used as a Place of Public Entrainment (POPE) and will be required to comply with this part of the BCA. The non POPE part should be separated from the rest of the building with a wall with an FRL of not less than 60/60/60 (as required under Clause H101.2). The line of separation has not been detailed at this time.

No stage has been nominated but it appears to be a non-conventional stage less than 50m². The seating layout has not been detailed will be required to comply with either Clause H101.11 or 12.

The electrical system will be required to be altered to ensure the main isolation switch is readily accessible to the NSW Fire Brigade (Clause H101.19.1) and a separate sub-mains is required (Clause H101.19.3). These matters will be required to be confirmed by an Electrical Consultant.

Energy Efficiency (BCA Section J)

Compliance with such issues of Building Fabric, External Glazing, Building Sealing, Air Movement, Air-conditioning and Ventilation Systems, Artificial Lighting and Power, Hot Water Supply and Access for Maintenance will be required to meet the requirements of this section of the BCA. This will require the design to be developed to meet these requirements with the assistance of appropriate consultants.

In summary, the documentation has been assessed against the applicable provisions of the Building Code of Australia 2008, and it is considered that such documentation depicts a Class 2, 3, 6, 7a and 9b building that can readily comply with that Code.

Should you require any further information or explanation please do not hesitate to contact me.

Yours faithfully,

Robert Briant
Associate
Accredited Certifier BPB 0048



Schedule of Essential Services

The following essential services are required to be provided in the building. All services will require an inspection by a competent person for installation compliance to the relevant Australian Standard and the BCA and be certified accordingly. This will be required to be carried out on a yearly basis and in accordance with AS1851.

Fire Safety Measure	Standard	BCA Clause(s)	Proposed Fire Safety Measures
Access panels, doors & hoppers to fire resisting shafts	AS 1530.4 - 2005	C3.13	<input checked="" type="checkbox"/>
Automatic fail safe devices	-	C3.8, D2.21, Spec C3.4	<input checked="" type="checkbox"/>
Automatic fire detection & alarm systems	AS 1670.1 – 2004 AS 4428.1 – 1998	Spec E2.2a	<input checked="" type="checkbox"/>
Automatic fire suppression systems	AS 2118.1 – 1999	Spec E1.5	<input checked="" type="checkbox"/>
Emergency lighting	AS/NZS 2293.1 - 1998	E4.2, E4.4	<input checked="" type="checkbox"/>
Emergency lifts	AS 1735.2 – 1993	E3.4	<input checked="" type="checkbox"/>
Sound systems and intercom systems for emergency purposes	AS 1670.4 – 2004 AS 4428.4 – 2004	E4.9, Spec G3.8	<input checked="" type="checkbox"/>
Exit signs	AS/NZS 2293.1 - 1998	E4.5, E4.6, E4.7 and E4.8	<input checked="" type="checkbox"/>
Fire control centres and rooms	-	E1.8, Spec E1.8	<input checked="" type="checkbox"/>
Fire dampers	AS 1668.1	Spec E2.2a	<input checked="" type="checkbox"/>
Fire doors	AS/NZS 1905.1 – 1997	Spec C3.4	<input checked="" type="checkbox"/>
Fire hydrant systems	AS 2419.1 – 1994	E1.3	<input checked="" type="checkbox"/>
Fire seals protecting openings in fire resisting components	AS 4072.1 – 1992 AS 1530.4 – 1997 AS 1038.15 – 1995	Spec C3.15	<input checked="" type="checkbox"/>
Fire hose reel systems	AS 2441 – 1988	E1.4	<input checked="" type="checkbox"/>
Mechanical air handling systems (zone smoke control, shutdown and stair pressurisation)	AS 1668.1 – 1998 AS 1668.2 – 1991	E2.2	<input checked="" type="checkbox"/>
Perimeter vehicle access for emergency vehicles	-	C2.4	<input checked="" type="checkbox"/>
Portable fire extinguishers & fire blankets	AS 2444 – 1995	E1.6	<input checked="" type="checkbox"/>
Smoke dampers	AS 1668.1 & 2	-	<input checked="" type="checkbox"/>
Smoke doors	-	Spec C3.4	<input checked="" type="checkbox"/>
Standby power systems	-	Spec G3.8	<input checked="" type="checkbox"/>
Wall wetting sprinklers & drencher systems	AS 2118.1 – 1999	C3.2, C3.4, D1.7, Spec G3.8	<input checked="" type="checkbox"/>
Warning and operational signs	-	C3.6, E3.3, D2.23 & Spec E1.8	<input checked="" type="checkbox"/>
Other Measures: Alternate Solution			<input checked="" type="checkbox"/>
Paths of Travel		Section D BCA	<input checked="" type="checkbox"/>

* The fire engineer has indicated that the alternate solution will contain specific details in relation to these services