BLACKETT MAGUIRE+ GOLDSMITH

BCA Assessment Report

Barker Street, Kingswood – Mixed Use Development

Prepared for Aesthete No. 3 Pty Ltd

Revision A

14 October 2010

Project No.: 100296

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REPORT STATUS				
DATE	**REVISION**	**STATUS**	**AUTHOR**	**REVIEWED**
14.10.10	A	Report issued to client to accompany the Part 3A Application	JS	DB

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A. INTRODUCTION

A.1 BACKGROUND & PROPOSAL

Blackett Maguire + Goldsmith Pty Ltd (BM+G) have been commissioned by Aesthete Pty Ltd to review the Part 3A architectural design documentation against the requirements of the BCA and prepare a BCA compliance report for submission with the Part 3A Application to the Department of Planning.

The project is known as Barber Ave, Kingswood.

The project is a single building and consists of a mixed use development of 8 storeys to accommodate:

- Serviced apartments.
- Retail use including a supermarket.
- Commercial tenancies.
- Ancillary car parking.

A.2 AIM

The aim of this compliance report is to:-

3. Undertake an assessment of the architectural design documentation against the Performance Requirements of the BCA

4. Accompany submission of the Part 3A Application to the Dept of Planning to enable the Consent Authority to be satisfied that the building design is capable of complying with the BCA and that subsequent compliance with the fire & life safety, health & amenity and energy efficiency requirements of the BCA, will not give rise to design changes to the building which may necessitate the submission of an application under Section 75W of the Environmental Planning and Assessment Act, 1979.

5. Enable the certifying authority to satisfy its statutory obligations under Clause 145 of the Environmental Planning and Assessment Regulation, 2000.

6. Enable the certifying authority to satisfy its statutory obligations under Clause 18 of the Building Professionals Regulation 2007.

The compliance statement is not intended to identify all issues of compliance or non-compliance with the BCA with such other issues to be appropriately addressed prior to issue of the Construction Certificate.

In our assessment we have used Architectural plans prepared by Turner and Associates as follows:

Plan No.	Revision	Date
EA10	G	21.9.10
EA11	G	21.9.10
EA12	G	21.9.10
EA13	G	21.9.10
EA14	G	21.9.10
EA15	G	21.9.10
EA16	G	21.9.10

EA17	G	21.9.10
EA18	G	21.9.10
EA19	G	21.9.10
EA20	G	21.9.10
EA21	G	21.9.10
EA22	G	21.9.10
EA23	G	21.9.10
EA30	G	21.9.10
EA31	G	21.9.10
EA32	F	21.9.10
EA40	G	21.9.10
EA41	G	21.9.10
EA42	G	21.9.10
EA43	G	21.9.10
EA44	F	21.9.10
EA45	G	21.9.10

A.3 PROJECT TEAM

The following BM+G Team Members have contributed to this Report:

- Jason Storer – Senior Building Surveyor
- David Blackett – Director

A.4 DOCUMENTATION

The following documentation has been reviewed, referenced and/or relied upon in the preparation of this report:

- Building Code of Australia 2010 (BCA)
- Guide to the Building Code of Australia.

A.5 LIMITATIONS & EXCLUSIONS

The limitations and exclusions of this report are as follows:

- The following assessment is based upon a review of the architectural documentation.
- Our comments relate to the relevant BCA Issues associated with Sections B, C, D, E, F, G & J of the Building Code of Australia only.
- No assessment has been undertaken with respect to the Disability Discrimination Act 1992 (DDA). The building owner should be satisfied that their obligations under the DDA have been addressed.

  Please note that whilst the BCA specifies a minimum standard of compliance with AS1428.1 and Part D3 of the BCA for access and facilities for people with disabilities, compliance with such requirements may not necessarily preclude the possibility of a future complaint made under the Disability Discrimination Act 1992 (DDA). The DDA is a complaint based legislation and is presently not identified by the State Building Codes and Regulations. In this regard the building owner should be satisfied that their obligations under the DDA have been addressed.
- The Report does not address matters in relation to the following:
  i. Local Government Act and Regulations.
  ii. Occupational Health and Safety Act and Regulations.
  iii. WorkCover Authority requirements.
  iv. Water, drainage, gas, telecommunications and electricity supply authority requirements.
  v. Disability Discrimination Act 1992.

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A.6 TERMINOLOGY

Building Code of Australia - Document published on behalf of the Australian Building Codes Board. The BCA is a uniform set of technical provisions for the design and construction of buildings and other structures throughout Australia and is adopted in NSW under the provisions of the Environmental Planning & Assessment Act & Regulation.

Fire Resistance Level (FRL) - means the grading periods in minutes for the following criteria-

(a) structural adequacy; and
(b) integrity; and
(c) insulation,
and expressed in that order.

Fire Source Feature (FSF) - the far boundary of a road adjoining the allotment; or a side or rear boundary of the allotment; or an external wall of another building on the allotment which is not a Class 10 building.

Open space - means a space on the allotment, or a roof or other part of the building suitably protected from fire, open to the sky and connected directly with a public road.

Performance Requirements of the BCA - A Building Solution will comply with the BCA if it satisfies the Performance Requirements. A Performance requirement states the level of performance that a Building Solution must meet.

Compliance with the Performance Requirements can only be achieved by-

(a) complying with the Deemed-to-Satisfy Provisions; or
(b) formulating an Alternative Solution which-
  (i) complies with the Performance Requirements; or
  (ii) is shown to be at least equivalent to the Deemed-to-Satisfy Provisions; or
(c) a combination of (a) and (b).

Rise in storeys - means the greatest number of *storeys* calculated in accordance with BCA C1.2.

Sole occupancy unit - means a room or other part of a building for occupation by one or joint owner, lessee, tenant, or other occupier to the exclusion of any other owner, lessee, tenant, or other occupier and includes a dwelling.

B. BCA ASSESSMENT/AUDIT

In summary, the key building characteristics have been identified as follows:

BCA Classification:	Class 3 (Serviced Apartments) Class 6 (retail) Class 5 (Commercial/Professional Consulting) Class 7a (Carpark) *Note: We understand that any professional consulting use will not*

	include any day surgery or similar use which would constitute Class 9a health care).
Rise in Storeys:	9
Type of Construction:	Type A
Effective Height:	>25m (30.1m)
Floor Area/Volume:	Max. Fire Compartment Size:8,000m^2 & 48,000m^3 – Class 5 parts Max. Fire Compartment Size:5,000m^2 & 30,000m^3 – Class 6 parts *Note: Class 3 SOUs and Class 7a sprinkler protected carpark are not subject to fire compartmentation size limitations.*
Climate Zone:	Zone 6

B.1 SUMMARY OF ASSESSMENT & COMPLIANCE ISSUES:

Section B – Structural Provisions:

The proposed development will generally satisfy the requirements of Section B of the BCA subject to the following:

1. Structural engineering documentation to comply with the structural provisions of BCA clauses B1.2 & B1.3. Structural engineer to verify at Construction Certificate stage.
2. Structural resistance of materials and forms of construction to comply with BCA clause B1.4.

Section C – Fire Resistance and Compartmentation:

The proposed development will generally satisfy the requirements of Section C of the BCA subject to the following:

1. BCA cl. C2.2 General Floor Area and Volume Limitations

The floor area and volume of the proposed building must not exceed the DTS limitations prescribed above. By virtue of the proposed atrium in Building A it is likely the compartment areas will be exceeded. This issue will be the subject of a fire engineered alternative solution.

2. BCA cl. C2.12 – Separation of Equipment

Any of the following equipment is to be fire rated with a fire resistance level of 120/120/120 and any doorway have an FRL of not less than --/120/30:

- Lift motors and lift control panels, except the wall between the lift shaft and the lift motor room need only have an FRL of 120/--/--.
- Emergency generators or central smoke control plant.
- Boilers where the water is boiled to greater than 100 degrees Celsius.
- Batteries.

3. BCA cl. C2.13 Electricity Supply Systems

Any proposed electrical substations and the main switchrooms that sustain emergency equipment in the building are required to be fire separated from the remainder of the building by construction having a minimum FRL of 120/120/120 and comply with subclauses (c) and (d).

4. Clause C3.2 – Protection of Openings in External Walls

Where openings in the external walls of the building are not located within 3 metres of a rear boundary, it is required to be protected in accordance with C3.4. In this instance, the openings in the west side of the lower ground floor are required to be protected in accordance with C3.4.

5. Clause C3.8 – Openings in Fire Isolated Exits

The doors to the fire isolated exits are required to be self closing -/60/30 fire doors.

6. Clause C3.9 – Service Penetrations in Fire Isolated Exits

Fire isolated exits are not to be penetrated by any services other than electrical wiring for lighting, or security and essential services; ducting for stair pressurisation systems (if adequately fire separated from the remainder of the building) and water supply pipes for fire services.

7. Clause C3.10 – Openings in Fire Isolated Lift Shafts

The doors to the lift shafts are to be protected by doors having an FRL of -/60/- and comply with AS 1735.11.

In addition if the lift call panels exceed 35000mm^2 they are to be backed by construction with a rating of not less than --/60/60.

8. Clause C3.11 – Bounding Construction

The doors to each sole occupancy unit are to be self closing -/60/30 fire doors.

Other doors that open from rooms into public areas are to be self closing -/60/30 fire doors.

9. Clause C3.13 – Openings in Shafts

Any openings to the service shafts are to be protected by -/30/30 panel (if in a sanitary compartment), or a self closing -/60/30 fire door, or a -/60/30 access panel.

If the shaft is a garbage shaft, a door hopper of non-combustible construction is permitted to be installed.

10. Clause C3.15 – Openings for Service Installations

Where service installations penetrate the walls or floors required to have an FRL with respect to integrity and insulation they are to be protected by fire seals having an FRL of the building element concerned. Fire seals are required to comply with Specification C3.15. Where the mechanical ventilation system penetrates floors or walls that require an FRL the installation is to comply with AS/NZS 1668.1.

11. BCA Spec C1.1 – Fire Resisting Construction

As the building is required to comply with the Type A Construction, the FRL requirements of Table 3 of Spec. C1.1 are to be applied to the proposed new building elements.

Note1 : Details demonstrating compliance with the following FRL requirements are to be included on the CC plans, accompanied by certification from the structural engineer that confirms that the equivalent fire rating to those listed below (in accordance with Table 3 of Spec. C1.1):

Building element	Class of building — FRL: (in minutes)		
	Structural adequacy/ *Integrity*/ *Insulation*		
	3 part	5 & 7a	6
EXTERNAL WALL (including any column and other building element incorporated therein) or other external building element, where the distance from any *fire-source feature* to which it is exposed is—			
For *loadbearing* parts—			
less than 1.5 m	90/ 90/ 90	120/120/120	180/180/180
1.5 to less than 3 m	90/ 60/ 60	120/ 90/ 90	180/180/120
3 m or more	90/ 60/ 30	120/ 60/ 30	180/120/ 90
For non- *loadbearing* parts—			
less than 1.5 m	- / 90/ 90	- /120/120	- /180/180
1.5 to less than 3 m	- / 60/ 60	- / 90/ 90	- /180/120
3 m or more	- / - / -	- / - / -	- / - / -
EXTERNAL COLUMN not incorporated in an *external wall*, where the distance from any *fire-source feature* to which it is exposed is—			
less than 3 m	90/ - / -	120/ - / -	180/ - / -
3 m or more	- / - / -	- / - / -	- / - / -
COMMON WALLS and FIRE WALLS—	90/ 90/ 90	120/120/120	180/180/180
INTERNAL WALLS—			
Fire-resisting lift and stair *shafts*—			
Loadbearing	90/ 90/ 90	120/120/120	180/120/120
Non- *loadbearing*	- / 90/ 90	- /120/120	- /120/120
Bounding *public corridors*, public lobbies and the like—			
Loadbearing	90/ 90/ 90	120/ - / -	180/ - / -
Non- *loadbearing*	- / 60/ 60	- / - / -	- / - / -
Between or bounding *sole-occupancy units*—			
Loadbearing	90/ 90/ 90	120/ - / -	180/ - / -

Building element	Class of building — FRL: (in minutes)		
	Structural adequacy/ *Integrity*/ *Insulation*		
	3 part	**5 & 7a**	**6**
Non- *loadbearing*	- / 60/ 60	- / - / -	- / - / -
Ventilating, pipe, garbage, and like *shafts* not used for the discharge of hot products of combustion—			
Loadbearing	90/ 90/ 90	120/ 90/ 90	180/120/120
Non- *loadbearing*	- / 90/ 90	- / 90/ 90	- /120/120
OTHER LOADBEARING INTERNAL WALLS, INTERNAL BEAMS, TRUSSES			
and COLUMNS—	90/ - / -	120/ - / -	180/ - / -
FLOORS	90/ 90/ 90	120/120/120	180/180/180
ROOFS	--/--/--	--/--/--	--/--/--

Note:

(a) FRLs for external walls are to be in both directions (i.e. internal and external).

(b) Internal load bearing walls are all to be of masonry or concrete

(c) Walls bounding Class 3 SOUs are to extend to the underside of the floor/roof slabs above.

(d) Any proposed lightweight external walls are to be non combustible, i.e. metal frame construction.

(e) The roof stricture need not be fire rated on the basis of sprinkler system being required.

Section D – Access and Egress:

The proposed development will generally satisfy the requirements of Section D of the BCA subject to the following:

1. BCA clause D1.2 - Number of exits required

A number of areas have access to only a single exit (e.g. building B residential lobby, plant areas on lower ground floor, roof plant area, amenities adjacent the supermarket).

This issue will be subject to fire engineering or otherwise, so as to be compliant at the Construction Certificate stage of the development process.

2. BCA clauses D1.4 Exit travel distances and D1.5 distances between exits

It is more than 40-metres to an exit and more than 60-metres between exits within the carpark and supermarket. Either an addition exit is required or a fire engineered solution will be required to address the non-compliances. It is more than 20-metres to a point of choice within the store area and from the amenities area, building A, lower ground floor.

This issue is will be subject to fire engineering or otherwise, so as to be compliant at the Construction Certificate stage of the development process.

3. BCA clause D1.7 – Travel via fire isolated exits

From building A the eastern fire stair discharges within the confines of the building and will need to be addressed via a performance based solution. In addition the egress path is via the external wall of the building to the west and will require the external wall and any openings (such as louvers to the main switchboard/substation) to be a minimum 60 minute fire rated where within 6-metres and 90 degrees of the path of egress.

The western fire stairs (carpark and commercial) within building A discharge within a location at lower ground floor that does not comply with the BCA as the perimeter is less than two thirds open. This issue will be subject to fire engineering or otherwise, so as to be compliant at the Construction Certificate stage of the development process.

The north fire stair from building B requires occupants to pass within 6-metres of the north and east facades of the building, as such these facades are required to be a minimum 60 minute fire rated, with any openings also fire rated.

Latch hardware to all exit doors will comply with the DTS provisions of Part D2.21 of the BCA. The provision of hardware to the various exit doors in the building will be compatible with security requirements of the facility.

4. Clause D1.10 – Discharge from Exits

Bollards or other barriers are to be provided to exits on the car parking levels where they could be blocked by vehicles.

Where an exit discharges to open space that is at a different level to that of the public roadway, the path of travel must be via a 1:8 ramp or DTS compliant stairs. In this regard the ramp east of building B needs to comply.

5. Clause D1.17 – Access to lift pits

Access to lift pits must be as follows: –

- where the pit depth is not more than 3m, be through the lowest landing doors; or
- where the pit depth is more than 3m, be provided through an access doorway comply with the following: –
  - (i) in lieu of D1.6, the doorway must be level with the pit floor and not be less than 600mm wide by 1980mm high clear opening, which may be reduced to 1500mm where no part of the lift car or platform encroaches on the pit doorway entrance when the car is on a fully compressed buffer.
  - (ii) Access to the doorway via a stairway complying with AS 1657.
  - (iii) In lieu of D2.21, doors fitted to the doorway must be –
    - (A) of the horizontal sliding or outward opening hinged type and self- closing and self-locking from the outside; and

      marked on the landing side with letters not less than 35mm high "DANGER LIFTWELL – ENTRY OF UNAUTHORISED PERSONS PROHIBITED – KEEP CLEAR AT ALL TIMES'.

6. Clause D2.2 – Fire Isolated Stairway

The fire isolated stairs are to be constructed of non-combustible materials and so that if there is local failure it will not cause structural damage, or impair the fire resistance of the shaft.

7. Clause D2.7: Installations in exits and Paths of Trave

Electrical distribution boards that are proposed to be located in a path of travel to an exit are required to be enclosed in non-combustible construction and smoke sealed. Note: EDB's are not permitted to be located in a fire isolated stairways.

8. Clause D2.10 – Pedestrian ramps

Any pedestrian ramps must have a non-slip finish.

9. Clause D2.13 – Treads and Risers

The stairs must comply with the tread, riser and going dimensions of this clause and the nosing of the stairs must be provided with a non-slip tread with no gaps between risers exceeding 125mm.

The following will apply in relation to the construction of all stairways:

- Stairway must have not more than 18 and not less than 2 risers in each flight.
- Goings and risers within the stair flights must be constant throughout.
- Goings and risers are to be in accordance with BCA Table D2.13 i.e :

	Riser (R)	Going (G)	Quantity (2R+G)
Maximum	190	355	700
Minimum	115	250	550

10. Clause D2.15 – Thresholds

No thresholds to be provided other than to open space where the step may be a maximum of 190-mm.

11. Clause D2.16 - Balustrades or other barriers

All balustrades generally must be compliant in terms of a minimum of 1m in height above any fall more than 1m with no gaps greater than 125-mm.

In addition where the fall exceeds 4-metres the balconies must not have any climbable elements between 150-mm and 760-mm above the floor. This includes feature lighting installed within the inside face of concrete upturns.

For fire stairs, where the fall exceeds 1m, the balustrading must be a minimum of 865-mm above the nosing of the tread with a rail no more than 150-mm above the nosing of the tread and no gaps greater than 460-mm. At the landing of stairs where the landing exceeds 500-mm in length the balustrade must be increased to 1m in height, with a rail no more than 150-mm above the landing and no gaps greater than 460-mm.

For non-fire isolated stairs where the fall exceeds 1-metre the balustrade must be provided a minimum of 865-mm in height with no gaps greater than 125-mm and where any landing exceeds 500-mm that the height of balustrading will be a minimum of 1-metre.

For a driveway ramp or stairs within a carpark which is a required path of travel where the fall exceeds 1m, balustrading must be a minimum of 1-metre with no gaps greater than 125-mm.

Where the window sill height is less than 865-mm and the fall exceeds 1-metre the window must be fixed so as to open no more than 125-mm or that a rail/s will be installed to restrict

the gap to 125-mm where less than 865-mm above the floor. Please note if a window is required to be fixed that this could cause a non-compliance with clause F4.5 in respect to the provision of natural ventilation.

12. Clause D2.19 – Doorways and Doors

The auto-sliding doors to be used as egress doors must be able to be opened with a force not more than 110N if power fails and also fail open on power failure and activation of a smoke detector within the fire compartment.

13. Clause D2.21 – Operation of Latch

A door in a required exit or in a path of travel to an exit must be readily openable from the side facing a person seeking egress, by a single hand downward action or pushing action on a device located between 900mm and 1100mm above finished floor level. All door hardware is required to comply with this clause, other than internal doors to the apartments.

14. Clause D2.22 – Re-entry from fire-isolated exits.

The fire doors to fire stairs that serve the above ground fire stairs must not be locked or be compliant with sub-clause (b) of this clause.

15. Clause D2.23 – Signs on Doors

The doors to the fire isolated exits are to have signage located on the outside of the fire isolated exit stating "Fire Safety Door, Do Not Obstruct, Do Not Keep Open". In addition, the discharge doors from the fire stairs are to have signage located on either side of the door stating "Fire Safety Door – Do Not Obstruct".

16. BCA Part D3 Access for people with disabilities

Access is required from the allotment boundary and from the car parking areas to the principal entry of the building in accordance with AS1428.1.

In addition the Class 3 SOUs will necessitate a minimum prescribed number of apartments to be accessible in accordance with AS1428.1.

Note that on 1 May 2011 the new AS1428.1-2009 & AS2890.6-2009 will be in place and are likely to be relevant to this development. These Standards include relatively more stringent design requirements for people with disabilities. We recommend that your initial Part 3A design documentation factor in preliminary input from an access consultant in this regard.

Section E – Essential Fire Safety Measures

The proposal will generally satisfy the DTS provisions of Section E of the BCA subject to implementation of the following:

1. BCA clause E1.3

The barrier provided to fire separate the hydrant booster is to be extended to ensure that the is a 2-metre fire rating to either side and 3-metres above the hydrant outlets, as required by AS 2419.1.

2. BCA clause E1.5

The sprinkler valve room is more than one flight of stairs below the level of egress. As such it does not comply with specification E1.5 in respect to having direct egress. This issue will be subject to fire engineering or otherwise, so as to be compliant at the Construction Certificate stage of the development process.

3. BCA clause E1.8

The fire control room location is not located in a deemed-to-satisfy position due to the change in level of more than 300-mm between the room and the egress location. Either it will be required to be relocated to comply or a fire engineered solution sought to justify its location. We note that this would also need to go to the fire brigade for approval.

4. Clause E3.2 – Stretcher Lift

Given the building has an affective height of greater than 12 metres, Stretcher Lifts are required to serve each storey. As such the lift is required to have a clear space of not less than 600mm wide x 2000mm long x 1400mm high.

5. Clause E3.4 – Emergency Lifts

All occupants are to have access to emergency lift or lifts in accordance with the requirements of sub-clauses (b), (c) and (e) of this clause.

6. Clause E3.7 – Fire Service Control

The lifts serving storeys above an affective height of 12 metres are to be provided with fire service controls.

The following details the fire safety measures that will be required within the proposed building:

Statutory Fire Safety Measure	Design/Installation Standard
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 (throughout)	BCA Spec. E1.5 & AS 2118.1-1999
Building Occupant Warning System activated by the Sprinkler System	BCA Spec E1.5 Clause 8 and/ or Clause 3.22 of AS 1670.1 – 2004
Emergency Lifts	BCA Clause E3.4 & AS 1735.2 - 2001
Emergency Lighting	BCA Clause E4.4 & AS 2293.1 - 2005
Sound System and Intercom System for Emergency Purposes	BCA Clause E4.9 & AS 1670.4 – 2004 & AS 4428.4 - 2004
Emergency Evacuation Plan	AS 3745 - 2002
Exit Signs	BCA Clauses E4.5, E4.6 & E4.8 and AS 2293.1 - 2005
Fire Control Centre	BCA Spec E1.8
Fire Blankets	AS 3504 - 1995 & AS 2444 – 2001

Statutory Fire Safety Measure	Design/Installation Standard
Fire Dampers	BCA Clause C3.15, AS 1668.1 - 1998 & AS 1682.1 & 2 - 1990
Fire Doors	BCA Clause C2.12, C2.13, C3.2, C3.4, C3.5, C3.6 & C3.7, C3.8, C3.11 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 Seals	BCA Clause C3.15, AS 1530.4 & AS4072.1 - 2005
Lightweight Construction	BCA Clause C1.8 & AS 1530.3 – 1999
Mechanical Air Handling Systems (automatic shutdown in class 7a part)	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
Pressurising Systems (each fire isolated stairway serving any storey >25m and each fire isolated stairway serving the basement levels)	BCA Clause E2.2 & AS/NZS 1668.1 - 1998
Required Exit Doors (power operated)	BCA Clause D2.19(b)
Smoke Hazard Management Systems (zone smoke control to class 5 & 6 parts)	BCA Part E2 & AS/NZS 1668.1 - 1998
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 C3.6, D2.23, E3.3

Notes:

1. *The measures included and the standards of performances nominated above may vary as a result of any proposed fire engineered alternative solutions.*

Section F– Health and Amenity

The proposal will generally satisfy the requirements of Section F of the BCA subject to the following:

1. BCA Part F2 Sanitary and other Facilities: Sanitary facilities are required for the building Class 5 & 6 parts in accordance with table F2.3 of the BCA. A maintenance WC is required at or near ground floor level for the Class 3 part. In addition to the above, the proposed accessible toilet facilities for persons with a disability are to be detailed in accordance with AS 1428.1. Note the comments above in relation to the new AS1428.1-2009 which is scheduled to be applicable from 1 May 2011.

2. Ventilation of all parts of the building will be in accordance with BCA with respect to natural and or mechanical ventilation to comply with AS1668.1 & 2.
3. Stormwater drainage for the new building works will comply with AS 3500 & Council requirements where applicable.
4. Artificial lighting is required throughout the building and is to comply with AS/NZS 1680.1.

5. In accordance with F2.5 the construction of sanitary compartments must have doors and partitions 1.8 metres above floor level and doors to fully enclosed sanitary compartments must be removable from the outside where they swing inwards.

6. Separation between the Class 3 apartments is to be provided to comply with Part F5 of the BCA with respect to sound transmission.

Section G – Ancillary Provisions

1. **Clause G1.01 – Provision for cleaning windows**

   Windows are to be able to cleaned safely either from the inside or as per the methods detailed in the Occupation Health and Safety Act and Regulations.

Part G3 – Atrium Provisions

The proposal will generally satisfy the DTS provisions of Section G of the BCA subject to implementation of the following:

1. The central atrium in Building A (between levels 1-8) is to comply with Part G3 of the BCA.

   The design of the atrium will necessitate fire engineering to accommodate the following:

   - reduced / omission of fire rated walls to the atrium well; and
   - size of the atrium well; and
   - interconnection of fire compartments (consecutive storeys) via the atrium well.

Section J – Energy Efficiency Requirements:

The proposal will generally satisfy the DTS provisions of Section J of the BCA subject to implementation of the following:

1. Note that BASIX is *not* applicable to Class 3 buildings.
2. Energy efficiency design measures will be implemented into the building design to satisfy the following requirements, as applicable for Climate Zone 6 under the BCA:

   - building fabric (insulation)
   - external glazing
   - building sealing to doors, exhaust vents and windows
   - efficiency of the running of air conditioning systems and mechanical ventilation systems with respect to insulation of ductwork, timer switches, etc
   - performance of glazing
   - artificial lighting & power controls (interior and exterior lighting)
   - hot water systems
   - access and maintenance of energy efficiency systems

C. CONCLUSION

In view of the above assessment it is considered that the proposed building design is capable of complying with the requirements of the BCA2010.

Detailed achievement of compliance, including preparation of any required fire engineered alternative solutions, can be appropriately addressed prior to the issue of the Construction Certification in accordance with the relevant provisions of the Environmental Planning & Assessment Act 1979.

We trust that the above submission is of assistance to the Dept of Planning and we are satisfied that any design modifications required to the building in order to satisfy the fire and life safety and health and amenity requirements of the BCA2010 will not necessitate the need for submission of an application under Section 75W of the Environmental Planning & Assessment Act 1979.

Should you wish to discuss please do not hesitate to contact the undersigned on 02 9211 7777.

Yours sincerely,

Jason Storer
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Blackett Maguire + Goldsmith