



# **BCA CAPABILITY REPORT**

**OF**

**PROPOSED ALTERATIONS AND  
ADDITONS TO THE DEEPWATER  
MOTOR BOAT CLUB**

**AT**

**30 WEBSTER STREET  
MILPERRA NSW**

**PREPARED BY  
ENVIRONET CONSULTANCY PTY LTD**

**March 2014**

# **CONTENTS**

## **1.0 INTRODUCTION**

### **1.1 REFERENCE DOCUMENTS**

### **1.2 PURPOSE**

### **1.3 METHODOLOGY**

### **1.4 LIMITATIONS**

### **1.5 TERMINOLOGY**

## **2.0 EXECUTIVE SUMMARY**

## **3.0 CLAUSE BY CLAUSE ASSESSMENT – (PARTS C, D, E & F – BCA)**

## **4.0 CONCLUSION**

## **APPENDIX A**

## **PART 1 INTRODUCTION**

The subject proposal relates to alterations and additions to the Deepwater Motor Boat Club situated at 30 Webster Street Milperra NSW. In this regard it is proposed to extend the building to the east and west for the purposes of incorporating additional function rooms, new amenities, external walkways and enhancement of existing facilities and amenities. The building will comprise 2 storeys and have direct street frontage to Webster Street and water frontage to The Georges River. It is also proposed to convert the former swimming pool and the existing single storey pool outbuilding for use as a restaurant/café with outdoor awning

The general compliance achieved by the proposed development with regard to the relevant provisions of the National Construction – BCA 2013 is the basis of this report.

### **1.1 REFERENCE DOCUMENTS**

The report has been compiled having regard to the following documents:

Architectural drawings prepared by Axil Architects

Drawing No.

A1.01-P2 & A1.01 series drawings dated 22.01.2014

A1.02-P7, A1.03-P5; A1.04-P5; A2.01 –P1, A2.02-P1

National Construction Code – Building Code of Australia – (BCA -2013)

Environmental Planning & Assessment Act- 1979

Environmental Planning & Assessment Regulations - 2000

### **1.2 PURPOSE**

The purpose of this report is to identify the extent to which compliance with the National Construction Code – Building Code of Australia – (BCA -2013), Deemed-To-Satisfy provisions.

### **1.3 METHODOLOGY**

The methodology adopted in compiling the report has included:

- Assessment of available plans of existing building for compliance with the Deemed-To-Satisfy provisions of the Building code Of Australia (BCA-2013).
- Consideration of the potential constraints placed upon alterations to the building fabric.
- Consideration of the extent to which the building is required to be upgraded to comply with the BCA having regard to the existing fire safety provisions contained within the building and the extent to which the occupants of the building will be afforded adequate fire/life safety protection.

#### 1.4 LIMITATIONS:

- BCA compliance assessment is intended to reflect the capacity of the design to satisfy the BCA noting that further details may be required to be submitted at construction certificate stage demonstrating such compliance;
- No assessment with respect to Section J of the BCA had been undertaken,
- This assessment does not apply to the proposed new boat shed which, the construction of, will be the subject of a separate Stage 2 Development Application.

#### 1.5 TERMINOLOGY

BCA - means *The Building Code of Australia (BCA)*-.

Effective height - means the height to the floor of the topmost storey (excluding the topmost storey if it contains only heating, ventilating, lift or other equipment, water tanks or similar service units) from the floor of the lowest storey providing direct egress to a road or open space.

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.

Lightweight construction - means construction which incorporates or comprises—

- (a) sheet or board material, plaster, render, sprayed application, or other material similarly susceptible to damage by impact, pressure or abrasion; or

- (b) concrete and concrete products containing pumice, perlite, vermiculite, or other soft material similarly susceptible to damage by impact, pressure or abrasion; or
- (c) masonry having a thickness less than 70 mm.

*Open space* - means a space on the allotment, or a roof or other part of the building suitably

*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).

*SOU means – means Sole occupancy unit , i.e.* 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.

*Storey* - means a space within a building which is situated between one floor level and the floor level next above, or if there is no floor above, the ceiling or roof above, but not—

- (a) a space that contains only—
  - (i) a lift shaft, stairway or meter room; or
  - (ii) a bathroom, shower room, laundry, water closet, or other sanitary compartment; or
  - (iii) accommodation intended for not more than 3 vehicles; or
  - (iv) a combination of the above; or (b) a mezzanine.

*Category 1 fire safety provision* - " means the following provisions of the *Building Code of Australia* , namely, EP1.3, EP1.4, EP1.6, EP2.1, EP2.2 and EP3.2 in Volume One of that Code and P2.3.2 in Volume Two of that Code.

*F.I.S.* – means fire isolated stairway

*N/A* – means Not Applicable

The Act – means the Environmental Planning And Assessment Act 1979.

*The Regulations & EP&A Regulations 2000* – means the Environmental Planning & Assessment Regulations 2000

**PART 2 EXECUTIVE SUMMARY:**

The BCA compliance assessment undertaken with respect to the proposed alterations and additions to the Deepwater motor boat club has identified that it is capable of satisfying the relevant provisions of the National Construction Code - BCA 2013, Deemed-To-Satisfy provisions. Additionally, the proposed new restaurant/café is capable of satisfying the relevant provisions of the National Construction Code - BCA 2013.

**PART 3 - CLAUSE BY CLAUSE ASSESSMENT (Section C, D, E & F- BCA)**

<b>BCA CLAUSE REFERENCE</b>	<b>Capable of satisfying BCA-DTS requirements YES/NO</b>	<b>COMMENTS</b>
<b>PART A3 CLASSIFICATION OF BUILDINGS &amp; STRUCTURES</b>		
<b>A3.2 Classifications</b>	Class 6, 7b & 9b	Class 6 – proposed restaurant/cafe  Class 7b – boat storage  Class 9b – club/function room
<b>NSW A3.2 Classifications</b>		
<b>A3.3 Multiple classification</b>	Refer to A3.2	
<b>A3.4 Parts with more than one classification</b>	N/A	
<b>PART B1 STRUCTURAL PROVISIONS</b>		
<b>B1.0 Deemed-to-satisfy provisions</b>	YES	Design to meet relevant structural design provisions pursuant to Part B of the BCA- Details and certification is to be provided at construction certificate stage.
<b>B1.1 Resistance to actions</b>		
<b>B1.2 Determination of individual actions</b>		
<b>B1.3 *</b>		
<b>B1.4 Determination of structural resistance of materials &amp; forms of construction</b>		
<b>B1.5 Structural software</b>		
<b>PART B2 DESIGN OF BUILDINGS IN CYCLONIC AREAS</b>		
<b>B2.1 Scope</b>		
<b>B2.2 Roof cladding</b>		
<b>PART C1 FIRE RESISTANCE &amp; STABILITY</b>		
<b>C1.0 Deemed-to-satisfy provisions</b>		
<b>C1.1 Type of construction required</b>	Type B  Type C	Club building  Restaurant/cafe
<b>C1.2 Calculation of rise in storeys</b>	2	Club building



BCA CLAUSE REFERENCE	Capable of satisfying BCA-DTS requirements YES/NO	COMMENTS
	1	Restaurant/cafe
C1.3 Buildings of multiple classification	N/A	
C1.4 Mixed types of construction	N/A	
C1.5 Two storey class 2, 3 or 9c buildings	N/A	
C1.6 Class 4 parts of buildings	N/A	
C1.7 Open spectator stands and indoor sports stadiums	N/A	
C1.8 Lightweight construction	N.A	
C1.9 *	N/A	
C1.10 Fire hazard properties	Yes	Details to be provided at CC stage
NSW C1.10 Fire hazard properties	N/A	
C1.11 Performance of external walls in fire	N/A	
C1.12 Non-combustible materials	For notation	
PART C2 COMPARTMENTATION & SEPARATION		
C2.0 Deemed-to-satisfy provisions	For notation	
C2.1 Application of part	For notation	
C2.2 General floor area and volume limitations	YES	
C2.3 Large isolated buildings	N/A	
C2.4 Requirements for open spaces & vehicular access	N/A	
C2.5 Class 9a and 9c buildings	N/A	
NSW C2.5 Class 9a and 9c buildings	N/A	
C2.6 Vertical separation of openings in external walls	N/A	
C2.7 Separation by fire walls	N/A	
C2.8 Separation of classifications in the same storey	Yes	Details to be provided with CC
C2.9 Separation of classifications in different storeys	Yes	Details to be provided with CC

BCA CLAUSE REFERENCE	Capable of satisfying BCA-DTS requirements YES/NO	COMMENTS
C2.10 Separation of equipment	Yes	Details to be provided with CC
C2.11 stairs and lift in one shaft	N/A	
C2.12 separation of equipment	Yes	Details to be provided with CC
C2.13 Electricity supply system	Yes	Details to be provided with CC
C2.14 Public corridors in Class 2 and 3 buildings	N/A	
<b>PART C3 PROTECTION OF OPENINGS</b>		
C3.0 Deemed-to-satisfy provisions	For notation	
C3.1 Application of part	For notation	
C3.2 Protection of openings in external walls	N/A	
C3.3 Separation of external walls & associated openings in different fire compartments	N/A	
C3.4 Acceptable methods of protection	N/A	
C3.5 Doorways in fire walls	N/A	
C3.6 Sliding fire doors	N/A	
C3.7 Protection of doorways in horizontal exits	N/A	
C3.8 Openings in fire-isolated exits	N/A	
C3.9 Service penetrations in fire-isolated exits	N/A	
C3.10 Openings in fire-isolated exits	N/A	
C3.11 Bounding construction: Class 2, 3 and 4 buildings	N/A	
NSW C3.11 Bounding construction: Class 2, 3, 4 and 9b buildings	N/A	
C3.12 Openings in floors & ceilings for services	Yes	Details to be provided with CC
C3.13 Openings in shafts	Yes	Details to be provided with CC
C3.14 *		
C3.15 Openings for service installations	Yes	Details to be provided with CC

BCA CLAUSE REFERENCE	Capable of satisfying BCA-DTS requirements YES/NO	COMMENTS
C3.16 Construction joints	Yes	Details to be provided with CC
C3.17 Columns protected with lightweight construction to achieve an FRL	N/A	
SPEC C1.1 FIRE RESISTING CONSTRUCTION – Type B		
4.1 Fire resistance of building elements	Yes	Details to be provided with CC
4.2 Carparks	N/A	
4.3 Class 2 buildings: Concessions	N/A	
SECTION D – ACCESS & EGRESS		
D1.0 Deemed-to-satisfy provisions	For notation	
D1.1 Application of part	For notation	
D1.2 Number of exits required	YES	
NSW D1.2 Number of exits required	N/A	
D1.3 When fire-isolated stairways & ramps are required	N/A	Nil FIS required
D1.4 Exit travel distances	Yes	The first floor egress provisions are considered to satisfy the requirements of D1.4.
D1.5 Distance between alternative exits	No	The exit doors located along the external walls of the function rooms located on level 1 serve as alternative exits and are less than the minimum 9m distance apart.
D1.6 Dimensions of exits & paths of travel to exits	Yes	Details to be provided at CC stage
D1.7 Travel via fire-isolated exits	N/A	
D1.8 External stairways or ramps in lieu of fire-isolated exits	N/A	
D1.9 Travel by non-fire-isolated stairways or ramps	Yes	
D1.10 Discharge from exits	Yes	Details to be provided at CC stage
NSW D1.10 Discharge from exits	N/A	

BCA CLAUSE REFERENCE	Capable of satisfying BCA-DTS requirements YES/NO	COMMENTS
D1.11 Horizontal exits	N/A	
D1.12 Non-required stairways, ramps or escalators	Yes	
D1.13 Number of persons accommodated	For notation	<p>Function rooms- 1126m2 therefore deemed population of 1126 based on 1 p/1m2</p> <p>Motor Boat club area – 360m2 therefore deemed population of 360 based on 1 p/1m2</p> <p>Proposed restaurant out door – 262m2 therefore deemed population of 262 based on 1 p/1m2</p>
D1.14 Measurement of distances	For notation	
D1.15 Method of measurement	For notation	
D1.16 Plant rooms	N/A	
D1.17 Access to lift pits	N/A	
PART D2 CONSTRUCTION OF EXITS		
D2.0 Deemed-to-satisfy provisions	For notation	
D2.1 Application of part	For notation	
NSW D2.1 Application of part		
D2.2 Fire-isolated stairways & ramps	N/A	
D2.3 Non fire-isolated stairways & ramps	Yes	Details to be provided at CC stage
D2.4 Separation of rising & descending stair flights	N/A	
D2.5 Open access ramps & balconies	N/A	
D2.6 Smoke lobbies	N/A	
D2.7 Installations in exits & paths of travel	Yes	Details to be provided at CC stage
D2.8 Enclosure of space under stairs & ramps	Yes	Details to be provided at CC stage
D2.9 Width of required stairways & ramps	Yes	Details to be provided at CC stage

BCA CLAUSE REFERENCE	Capable of satisfying BCA-DTS requirements YES/NO	COMMENTS
D2.10 Pedestrian ramps	N/A	
D2.11 Fire-isolated passageways	N/A	
D2.12 Roof as open space	N/A	
D2.13 Goings & risers	Yes	Details to be provided at CC stage
NSW D2.13 Treads & risers	N/A	
D2.14 Landings	No	The proposed location of the doors within the southern external stair way appears to align with the topmost tread and does not incorporate a landing.
D2.15 Thresholds	No	The doors within the southern external stair appear to align with the topmost tread and results in a threshold closure that the width of the door leaf.
NSW D2.15 Thresholds	N/A	
D2.16 Balustrades or other barriers	Yes	Details to be provided at CC stage
NSW D2.16 Balustrades or other barriers	N/A	
D2.17 Handrails	Yes	Details to be provided at CC stage
D2.18 Fixed platforms, walkways, stairways & ladders	N/A	
D2.19 Doorways & doors	Yes	Details to be provided at CC stage
NSW D2.19 Doorways & doors	N/A	
D2.20 Swinging doors	Yes	Note: exit door swings comply other than with respect to the exit doors from the pre function room located on the ground floor as exits swing inward.
D2.21 Operation of latch	Yes	Details to be provided at CC stage
D2.22 Re-entry from fire-isolated exits	N/A	
D2.23 signs on doors	N/A	No FIS required
PART D3 ACCESS FOR PEOPLE WITH A DISABILITY		
D3.0 Deemed-to-satisfy provisions	For notation	

BCA CLAUSE REFERENCE	Capable of satisfying BCA-DTS requirements YES/NO	COMMENTS
D3.1 General building access requirements	Yes	Details to be provided at CC stage
D3.2 Access to buildings	Yes	Details to be provided at CC stage
D3.3 parts of buildings to be accessible	Yes	Details to be provided at CC stage
D3.4 Exemptions	N/A	
D3.5 Accessible carparking	Yes	Disabled carparking spaces have been provided.
D3.6 Signage	Yes	Details to be provided at CC stage
D3.7 Hearing augmentation	Yes	Details to be provided at CC stage
D3.8 Tactile indicators	Yes	Details to be submitted with CC application
D3.9 Wheelchair seating spaces in class 9b assembly buildings	N/A	
D3.10 Swimming pools	N/A	
D3.11 Ramps	Yes	Details to be provided at CC stage
D3.12 Glazing on an access way	Yes	Details to be provided at CC stage
SECTION E – SERVICES & EQUIPMENT		
PART E1 FIRE FIGHTING EQUIPMENT		
E1.0 Deemed-to-satisfy provisions		
E1.1 *	N/A	
E1.2 *	N/A	
E1.3 Fire hydrants	Yes	Details to be provided at CC stage
E1.4 Fire hose reels	Yes	Details to be provided at CC stage
E1.5 sprinklers	N/A	
E1.6 Portable fire extinguishers	Yes	Details to be provided at CC stage.
E1.7 *		
E1.8 Fire control centres	N/A	

BCA CLAUSE REFERENCE	Capable of satisfying BCA-DTS requirements YES/NO	COMMENTS
E1.9 Fire precautions during construction	For notation	
E1.10 Provision for special hazards	N/A	
<b>PART E2 – SMOKE HAZARD MANAGEMENT</b>		
E2.0 Deemed-to-satisfy provisions	For notation	
E2.1 Application of part	For notation	
E2.2 General requirements	For notation	
E2.3 Provision for special hazards	Yes	Air handling system is required to automatically shut down upon activation of smoke detection and alarm system. Details to be provided at CC stage.
<b>PART E3 – LIFT INSTALLATIONS</b>	N/A	
E3.1 lift installations	Yes	Details to be provided at CC stage.
E3.2 Stretcher facility in lifts	N/A	
E3.3 Warning against use of lifts	Yes	Details to be provided at CC stage.
E3.4 Emergency lifts	N/A	
E3.5 Landings	Yes	Details to be provided at CC stage.
E3.6 Passenger lifts	N/A	
E3.7 Fire services controls	Yes	Details to be provided at CC stage.
E3.8 Ages care building	N/A	
E3.9 Fire services recall operation	Yes	Details to be provided at CC stage.
E3.10 Lift care fire service drive control switch	N/A	
<b>PART E4 – EMERGENCY LIGHTING, EXIT SIGNS &amp; WARNING SYSTEMS</b>		
E4.0 Deemed-to-satisfy provisions	For notation	
E4.1 *		
E4.2 Emergency lighting requirements	Yes	Details to be provided at CC stage.

BCA CLAUSE REFERENCE	Capable of satisfying BCA-DTS requirements YES/NO	COMMENTS
E4.3 Measurement of distance	For notation	
E4.4 Design & operation of emergency lighting	Yes	Details to be provided at CC stage.
E4.5 Exit signs	Yes	Details to be provided at CC stage.
E4.6 Direction signs	Yes	Details to be provided at CC stage.
NSW E4.6 Direction signs	N/A	
E4.7 Class 2 & 3 buildings and Class 4 parts - Exemptions	N/A	
E4.8 Design & operation of exit signs	Yes	Details to be provided at CC stage.
E4.9 Sound systems & intercom systems for emergency purposes	Yes	Details to be provided at CC stage.
SECTION F – HEALTH & AMENITY		
PART F1 – DAMP & WEATHERPROOFING		
F1.0 Deemed-to-satisfy provisions	For notation	
F1.1 Stormwater drainage	Yes	Details to be provided at CC stage.
F1.5 Roof coverings	Yes	Details to be provided at CC stage.
F1.6 Sarking	Yes	Details to be provided at CC stage.
F1.7 Waterproofing of wet areas in buildings	Yes	Details to be provided at CC stage.
F1.8 *		
F1.9 Damp-proofing	Yes	Details to be provided at CC stage.
F1.10 Damp-proofing of floors on the ground	N/A	
F1.11 Provision of floor wastes	Yes	Details to be provided at CC stage.
F1.12 Sub-floor ventilation	N/A	
F1.13 Glazed assemblies	Yes	Details to be provided at CC stage.
PART F2 – SANITARY & OTHER FACILITIES		
F2.0 Deemed-to-satisfy provisions	For notation	



BCA CLAUSE REFERENCE	Capable of satisfying BCA-DTS requirements YES/NO	COMMENTS
F2.1 Facilities in residential buildings	N/A	
F2.2 Calculation of number of occupants & facilities	For notation	
F2.3 Facilities in Class 3 to 9 buildings	Yes	Details to be provided at CC stage.
F2.4 Accessible sanitary facilities	Yes	Details to be provided at CC stage. Both banks of facilities within the Club building (1 <sup>st</sup> floor) will require male and female ambulant toilet (WC x 1) to be provided. The restaurant/café will also require male and female ambulant toilets (WC x 1 each ) to be provided
F2.5 Construction of sanitary compartments	Yes	Details to be provided at CC stage.
F2.6 Interpretation – urinals & washbasins	For notation	
F2.7 Microbial (legionella) control	N/A	
NSW F2.7 Microbial (legionella) control	N/A	
F2.8 Waste management	N/A	
<b>PART F3 – ROOM HEIGHTS</b>		
F3.0 Deemed-to-satisfy provisions	For notation	
F3.1 Height of rooms & other spaces	Yes	Details to be provided at CC stage.
<b>PART F4 – LIGHT &amp; VENTILATION</b>		
F4.0 Deemed-to-satisfy provisions	For notation	
F4.1 Provision of natural light	Yes	
F4.2 Methods & extent of natural lighting	N/A	
F4.3 Natural light borrowed from adjoining room	N/A	
F4.4 Artificial lighting	Yes	Details to be provided at CC stage.
F4.5 Ventilation of rooms	Yes	Details to be provided at CC stage.
NSW F4.5 Ventilation of rooms	Yes	Details to be provided at CC stage.
F4.6 Natural ventilation	For notation	

BCA CLAUSE REFERENCE	Capable of satisfying BCA-DTS requirements YES/NO	COMMENTS
F4.7 Ventilation borrowed from adjoining room	N/A	
F4.8 Restriction on position of water closets & urinals	Yes	Details to be provided at CC stage.
F4.9 Airlocks	Yes	Details to be provided at CC stage.
F4.10 *	-	
F4.11 Carparks	N/A	
F4.12 Kitchen local exhaust ventilation	N/A	

#### 4.0 CONCLUSION:

Following the assessment undertaken of the proposed development it is the opinion of the author that the proposed design is capable of satisfying the relevant Deemed -To-Satisfy provisions of the National Construction Code - BCA 2013 as identified within Part 3 of this report and the executive summary.

It is further concluded that compliance may be achieved through appropriate details being provided within the CC documentation within the context of the proposed DA design.

Peter Rossello

A handwritten signature in dark ink, appearing to read 'Peter Rossello', with a large, stylized initial 'P'.

A1 Accredited Building Surveyor  
Accredited Building Certifier – Grade 1