

Shop-Top Housing Development (7 Apartments)

17-19 Anzac Avenue,
Collaroy

BCA & ACCESS REPORT

for

Development Application



For 17 Ave Pty Ltd

By GARTNER**TROVATO** architects

Suite 13, L1, 10 Park Street, Mona Vale, NSW, 2103

April 2020

1 GENERAL

1.1 DESCRIPTION AND LOCATION.

Generally

This specification references the documents of the development application for the project being Architectural Drawings DA-01 to DA-23, project number 1931 by Gartner Trovato Architects dated 31 March 2020. The project consists of the following:

- The construction of a Shop-Top Housing development with 2 shops at ground level and 7 apartments over 2 storeys above ground
- A ground of car parking containing 17 spaces plus storage,
- Located at 17-19 Anzac Avenue, Collaroy

This report provides an assessment of the ability of the current design to provide compliance with the Deemed-to-Satisfy Provisions of the BCA 2019, and outline where compliance is not achieved where areas may require performance solutions by a Fire Safety Engineered Solution.

This report is not a BCA compliance certificate, which will be provided following any successful Consent.

Accessibility requirements are covered partially by the BCA and partially under SEPP 65

1.2 STANDARDS

This report is based on the Deemed to Satisfy Provisions of the National Construction Code Volume 1 BCA Class 2 to Class 9 Buildings.

This report does not specify all compliances required with all Australian Standards and refers to BCA Specification tables where required for the building to provide compliance.

1.3 BCA DESCRIPTION

Building Classification

The building has been classified as follows:

Class	Level	Description
2	Level 1 and Level 2	Residential Sole Occupancy Units
6	Ground Level	Retail Shops
7a	Ground Level	Carpark and storage

The area of the shops is 86m² in the same storey as the carpark. The total floor area of the storey is 602m². As the shop area is greater than 10% floor area, the classification for the shop remains as Class 6

Rise in Storeys

The building has a rise in storeys of three (3)

Effective Height

The building has an effective height of less than 12 metres.

Fire Compartments

The building has two fire compartments as follows:

1. The ground floor including carpark
2. The Level 1 and Level 2 floor areas.

Exits

The building has the following exist points providing exit to a road or open space

1. The door adjacent the vehicular entry door to the Basement
2. The foyer providing access to Stair and lift that provides access to the 7 SOU's

Fire Source Features

The site is trapezoidal in shape with Fire Source Features being the site boundaries as follows:

- North and West – The allotment boundary, nil setback.
- East – single dwelling on adjacent site setback 1.5m
- South - No fire source feature, boundary to Anzac Avenue local road

Essential Services

The building will require Fire Safety Measures to be installed. A Schedule of Essential Services will be provided as part of the Construction Certificate documentation.

The initial assessment of this report reveals that the design is capable of incorporating the general required measures subject to further detailed construction specification of building materials, fixtures and fittings.

Two hydrants are located in Anzac Avenue at distances 18m and 27m to the site boundaries.

2 BCA SCHEDULE OF COMPLIANCE

The building is required to provide specific compliance with the BCA, the following clauses are those relevant to this proposal, and compliance is achieved by the methods described.

BCA Clause	Requirement	Description
C 1.1		Construction Type A
C 1.8	Lightweight Construction	Lightweight construction if used in a fire-rated application is to comply with Specification C1.8
C 1.10	Fire Hazard Properties	Must comply with Specification C1.10
C 2.2	General Floor Areas & Volume Limitations	For Type A, the size of fire compartment must not exceed <ul style="list-style-type: none"> • Class 5 – Maximum Floor area 8,000m² • Class 7a – Maximum Floor area 5,000m², vol. 12,000m³ • Class 2 – not subject to limitation numerically

		The ground level carpark and shops comply
C 2.6	Vertical separation of openings	As the building is Type A construction the provisions of this clause apply. Spandrell panels to provide FRL 60/60/60
C 2.8	Separation of Classifications -same storey	The shops and carpark are to be separated by fire walls of the higher level of the two in the ground storey, Refer Specification C1.1
C 2.9	Separation of Classifications in different storeys	Type A construction – refer to specification C1.1. FRL to the higher level - concrete slab will provide an FRL 120/120/120 - complies
C 3.2	Protection of openings in external walls	The building is Type A construction. Any openings within 3m to any boundary to be protected in accordance with C3.4. There are no openings in the Class 7a part of the building.
C 3.11	Bounding Construction	The doorways between sole occupancy units and public corridors are to be self closing, tight fitting 35mm thick with FRL -/60/30
C 3.13	Openings in Shafts	Openings in shafts to be protected by (a) In a sanitary compartment – a panel/door & frame non-combustible, FRL -/30/30, or (b) Self closing -/60/30 fire door, or (c) Access panel FRL -/60/30, or
D 1.2	Number of Exits required	All parts of the building have access to a sufficient number of required exits.
D 1.3	Fire isolated stairways	Not required
D 1.4	Exit travel distance	All doorways are within 6m of the required exit, or within 20m of the exit at the ground floor. The ground floor carpark is served by a single exit with the furthest point in the basement less than 20m from the exit.
D 1.6	Dimensions of Exits and path of travel	All exits comply
D 1.9	Travel via non Fire-Isolated Exits or ramps	All exits comply
D 1.10	Discharge of Exits	All exits comply
D 2	Construction of Exits	The construction of exits is not detailed in the DA drawings. The plans indicate that compliance is achievable. All details to be provided with Construction Certificate documentation
	Part D3	Access for People with a Disability
D 3.1	General Building Access Requirements	The main entry to the building is a pathway from Anzac Avenue to the foyer serving all 7 apartments. The path of travel from the street is compliant from the boundary to the front door, and front door to the lift serving all 7 apartments on two floors above ground. Compliant 1540x2070mm wheel chair turning bays are provided.

D 3.2	Access to Buildings	As noted above, compliant access is provided to all parts of the building from Anzac Avenue
D 3.3	Parts of the building to be accessible	Access is provided to the door of each Sole Occupancy Unit (apartments). All parts of the building at ground level are accessible. This access is compliant.
D 3.5	Accessible Car Parking	One accessible car space is provided in the carpark at ground level with an accessible path of travel to the lift connecting the carpark to all floors.
E 1.3	Fire Hydrants	The total floor area of the building is greater than 500m ² and therefore will require a fire hydrant system, complying with this clause. The locations for Fire Hose Reels and Fire Hydrants are subject to water pressures available from street hydrants. It is noted that coverage is available from 2 street hydrants within 18 & 27m of the site. Details TBC at Construction Certificate stage.
E 1.4	Fire Hose Reels	Fire hose reel requirements are to be confirmed at Construction Certificate stage when water pressures from the street hydrants are available
E 1.5	Sprinklers	The building is less than 25m effective height accommodates less than 40 vehicles, and does not require sprinklers
E 1.6	Portable Fire Extinguishers	To be provided to comply with clause E1.6 & Table E1.6 and applicable sections of AS 2444-2001. Details to be provided at Construction Certificate stage.
E 2.2	Smoke Hazard Management-general	The building must provide an automatic smoke detection and alarm system complying with Specification E2.2a. Details to be provided at Construction Certificate stage.
Spec. E2.2a	Automatic smoke detection and alarm system	The building is designed to cater for a smoke detection system complying with AS 1670.1. Details to be provided at Construction Certificate stage.
E 3.1	Lift Installations	To comply with Specification E3.1, noting that the size of the lift shaft indicated provides compliance with the minimum standard. Details to be provided at Construction Certificate stage.
E 4.2	Emergency Lighting Requirements	The design allows for an emergency lighting system to be installed in: <ul style="list-style-type: none"> • All levels of the basement car park • Car park exit stairs • Main entry lobby at ground level Details to be provided at Construction Certificate stage.
E 4.5	Exit Signs	The design allows for Exit signs are provided at: <ul style="list-style-type: none"> • Lift lobby on every floor • Basement car park • Main entry lobby at ground level
F 4.1	Natural Light	All habitable rooms are provided with a minimum 10% light area of floor area.
F 4.4	Artificial Lighting	To comply with AS 1680.0

F 4.5	Ventilation of Rooms	If not compliant and requiring natural ventilation, then to comply with AS 1668.2-2012. Details to be provided at Construction Certificate stage.
F 4.6	Natural Ventilation	Natural ventilation is provided to all habitable rooms complying with the BCA
F 4.11	Carparks	If not compliant and requiring natural ventilation, then to comply with AS 1668.2-2012. Details to be provided at Construction Certificate stage.
F 5.4	Sound Rating of Floors	<p>Requirement:</p> <ul style="list-style-type: none"> • $R_w + C_{tr}$ (airborne) not less than 50 • $L_{n,w} + C_i$ (impact) not more than 62 <p>Construction will use the acceptable forms in BCA under Specification 5.2, Table 3</p> <ul style="list-style-type: none"> • 150mm concrete (200min) with furring channels and isolation mounts at 600mm centres, and 65mm polyester insulation 8kg/m³, and 13mm plasterboard. CSR#959
F 5.5	Sound Rating of Walls	<p>Requirement:</p> <ul style="list-style-type: none"> • $R_w + C_{tr}$ (airborne) not less than 50, for all sole occupancy unit separation • R_w (airborne) not less than 50 separating sole occupancy to public corridors, stairs, lifts <p>Construction will use the acceptable forms in BCA under Specification 5.2, Table 2</p> <ul style="list-style-type: none"> • 2 x 13mm fire rated plasterboard (or 1 x 13mm fire rated plasterboard + 1 x 6mm fibre cement) to 64mm stl studs with 75 Glasswool partition batts(11kg/m³)r gap, then same system again. CSR 275. • Stair & Lifts, 200mm off form concrete with battens to 10mm plasterboard
F 5.6	Sound Rating of Services	Located in a ceiling within the cavity passing through another sole occupancy unit, $R_w + C_{tr}$ (airborne) not less than 40
	Section J	Section J applies to the carpark and retails parts of the building only. Details to be provided at Construction Certificate stage.

BCA Specification Type A Construction

Building Element	Class 2 FRL	Class 5 +7a FRL	Construction specification
External Walls			
Loadbearing			
▪ Less than 1.5m	90/90/90	120/120/120	All Class 2 walls to comply
▪ 1.5 – 3m	90/60/60	120/90/90	Class 7a walls 190mm concrete re-inforced
▪ 3m or more	90/60/30	120/60/30	blockwork
External Walls			
Non - Loadbearing			
▪ Less than 1.5m	-/90/90	-/120/120	All Class 2 walls to comply
▪ 1.5 – 3m	-/60/60	-/90/90	Class 7a walls 190mm concrete re-inforced
▪ 3m or more	-/-/-	-/-/-	blockwork

Common Walls	90/90/90	120/120/120	CSR#275, to comply with BCA Specification 5.2, Table 2
Internal walls to sole-occupancy units, hall, corridor	90/90/90	120/120/120	CSR#275, to comply with BCA Specification 5.2, Table 2
Columns	90/-/-	120/-/-	190mm concrete re-inforced blockwork 300mm min thick concrete
Floors	90/90/90	120/120/120	200mm min thick concrete
Roof	90/60/30	N/A	

3 BCA SPECIFICATION & DETAIL

This report provides a summary of the requirements in the BCA relevant to the proposal, and an assessment that the proposal is capable or complies with those relevant clauses.

The report does not detail the specifications required to meet the construction at DA stage. A full and detailed BCA report will be required to accompany any documentation at Construction Certificate stage.

4 ACCESSIBILITY – SEPP 65 + ADG

SEPP 65 applies to the proposal. Clause 28 of SEPP 65 refers to the Apartment Design Guide (ADG) which among other matters provides guidance and controls for compliance with accessibility.

The ADG section 4Q – Universal Design provides Design Guidance that 20% of apartments incorporate the Livable Housing Guidelines for silver level universal design features.

The following table provides an assessment to the Silver Level living requirements.

The proposal for 7 apartments will require 2 apartments to be of Silver Level Living standard. The apartments nominated are 2.01 and 2.02.

	Silver Level Living Features	Compliance
1	Provide a safe and continuous accessible pathway from front boundary or car space to a step-free entrance	YES
2	Provide a 1,200 x 1,200 mm level (step-free) landing area at the entrance door	YES
3	Provide a car space with minimum dimensions of 5,400 x 3,200 mm wide	YES
4	Provide internal doors with a minimum clear opening of 820 mm	YES
5	In a bathroom provide 1,200 mm x 900 mm clear circulation space forward of the toilet pan, exclusive of the swing of the door	YES @ CC level
6	One bathroom should provide a slip resistant, hob-less (step-free) shower recess	YES
7	The bathroom walls are to be reinforced with suitable noggings or 12 mm thick sheet to allow for fixing of grab rails at a later stage	YES @ CC level
8	Internal stairways must feature a continuous handrail on one side of the stairway, with a minimum clear width of 1 metre	YES @ CC level

In summary, the units either comply or are capable of complying with Silver Level Living to satisfy the SEPP 65 requirements.

5 CERTIFICATION

The report does not detail the specifications required to meet any strict compliance. It is assumed that a full and detailed report is required to accompany any documentation at Construction Certificate stage, pending the consent of the Development Application.

This report has been prepared by Sean Gartner of Gartner Trovato Architects, as an experienced and registered architect, and is endorsed as follows:

*I, Sean Gartner am a **qualified architect** being a registered Architect by the Board of Architects in NSW (Registration No. 6072) and do hereby verify the that I have reviewed the design proposal in terms of the ability of the design to provide compliance with the current Building Code of Australia 2019, and the capability of the design proposal in terms of its ability to provide silver level living units in accordance with SEPP 65*



Signed