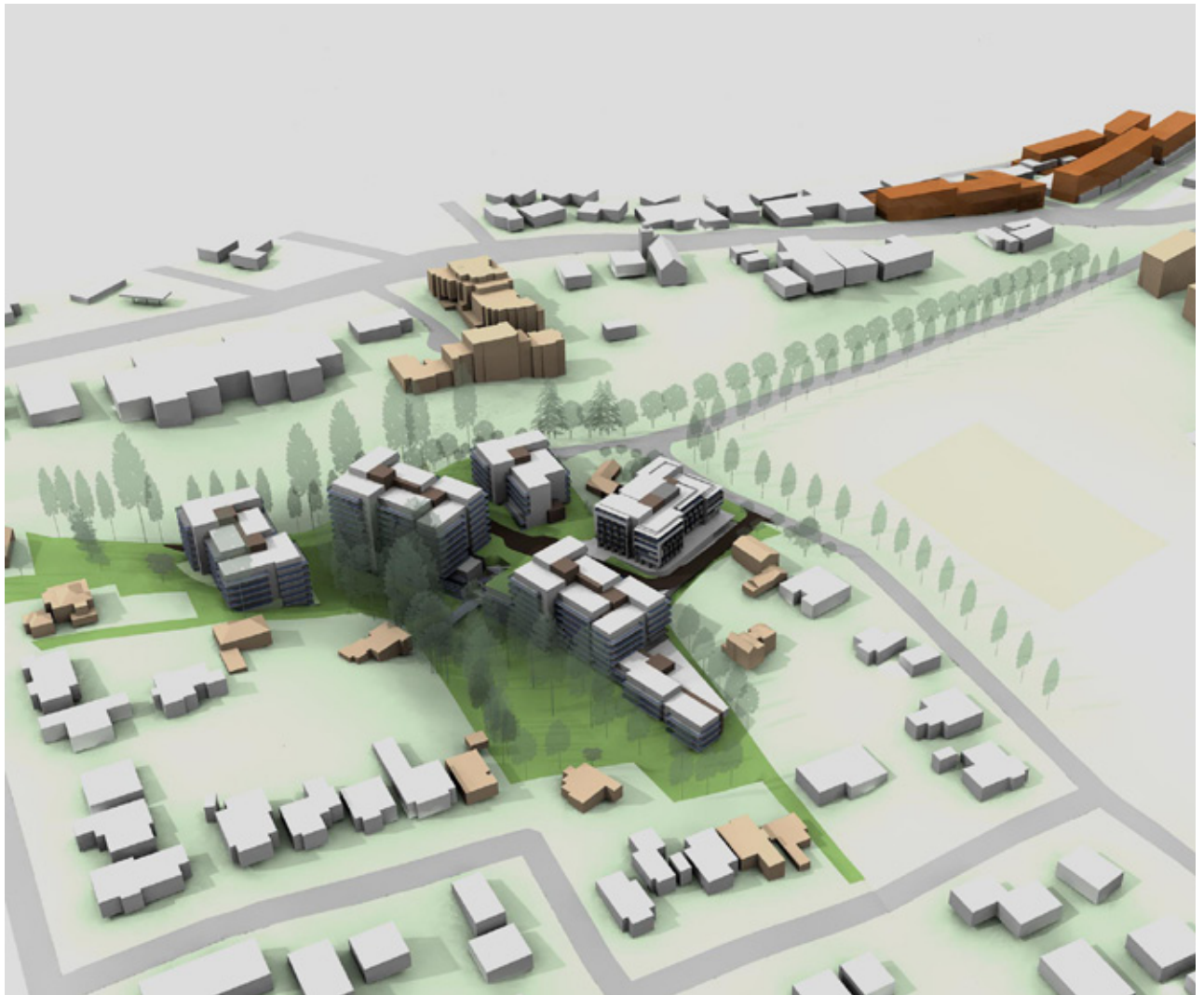


AVON ROAD DEVELOPMENT OPTIONS & ALTERNATIVES ANALYSIS



Introduction

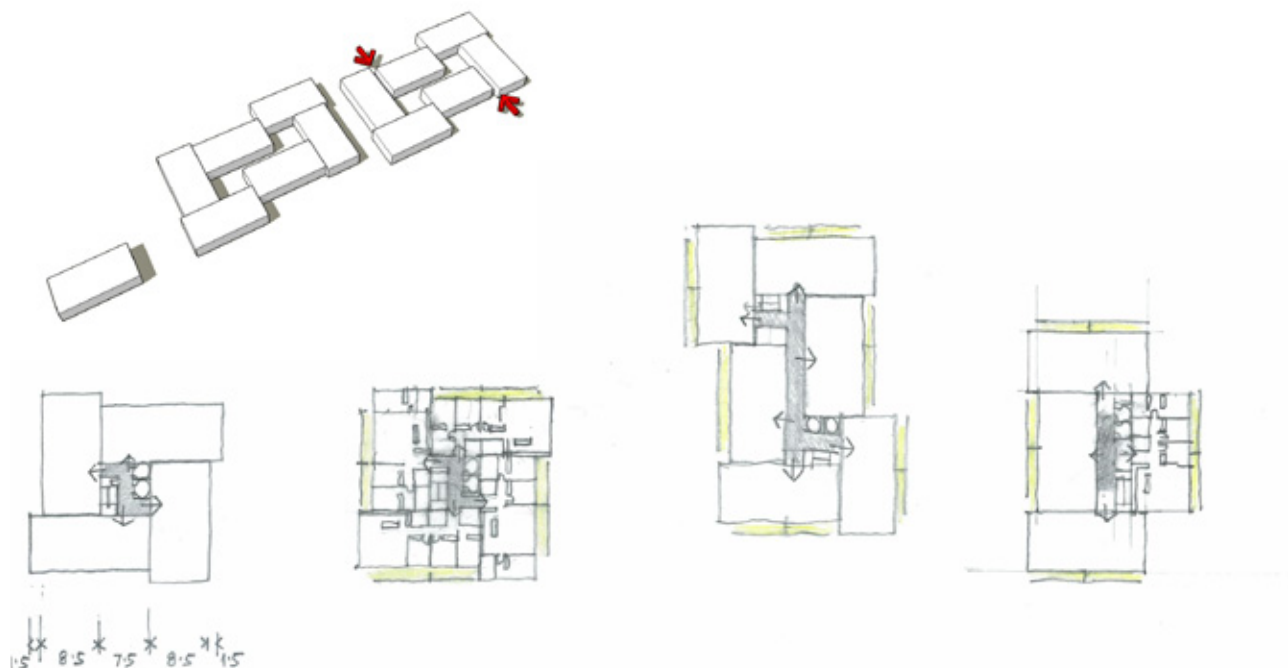
Following briefing discussions with the client, and in order to allow an efficient process of exploring and assessing different options for the site, an apartment module of 150m² was selected (19.5x8.5m). This module facilitated a large variety of different apartment designs to be incorporated into the module without affecting the larger macro-assemblies of building form. The apartment arrangements inside each module included: 3 bedroom (150m²), 2 bedroom (85m²)+1 bedroom (65m²), 2 bedroom(75m²)+2 bedroom(75m²).

Typically the modules are arranged in a cluster of six per floor, with some smaller clusters of four. The cluster arrangement facilitates enhanced sharing of the perimeter and sunlight with excellent opportunities for cross ventilation. The clusters of six allow an appropriate balance of economy of construction and amenity for residences.

Options 1A,2-4 were considered at a range of densities in order to consider appropriate yields for the site. Generally, due to the constraints of the site, including topography, existing trees, and the creek, increased density was manifested by increasing the height of the buildings. On these particular options, heights are marked with an asterisk to denote the maximum heights obtained by the option.

Refer to the "Scale" section below for further information on this matter.

APARTMENT
MODULE
STUDIES



Analysis

Option1

8 Buildings

217 Apartment modules

3-8 floors

The eight building option spread the buildings over the entirety of the site.

Advantages: the larger number of buildings allowed the density to be spread further throughout the site. Heights of buildings were lower.

Disadvantages: Less opportunities for buffer zones to the surrounding residential areas. Car parking became complex due to the large number of disparate areas requiring subterranean structures and extended vehicular access. More landscaping and trees were disturbed in this option. Several buildings were located in close proximity to adjoining residences. Overlooking was poorer compared to other options. More separate building forms are more expensive to construct.

OPTION
8 BUILDINGS



32
49
36
12
36
124
9
217 + 4
2

Option 1A

7 Buildings

223/218/197 Apartment modules

3-12 floors*

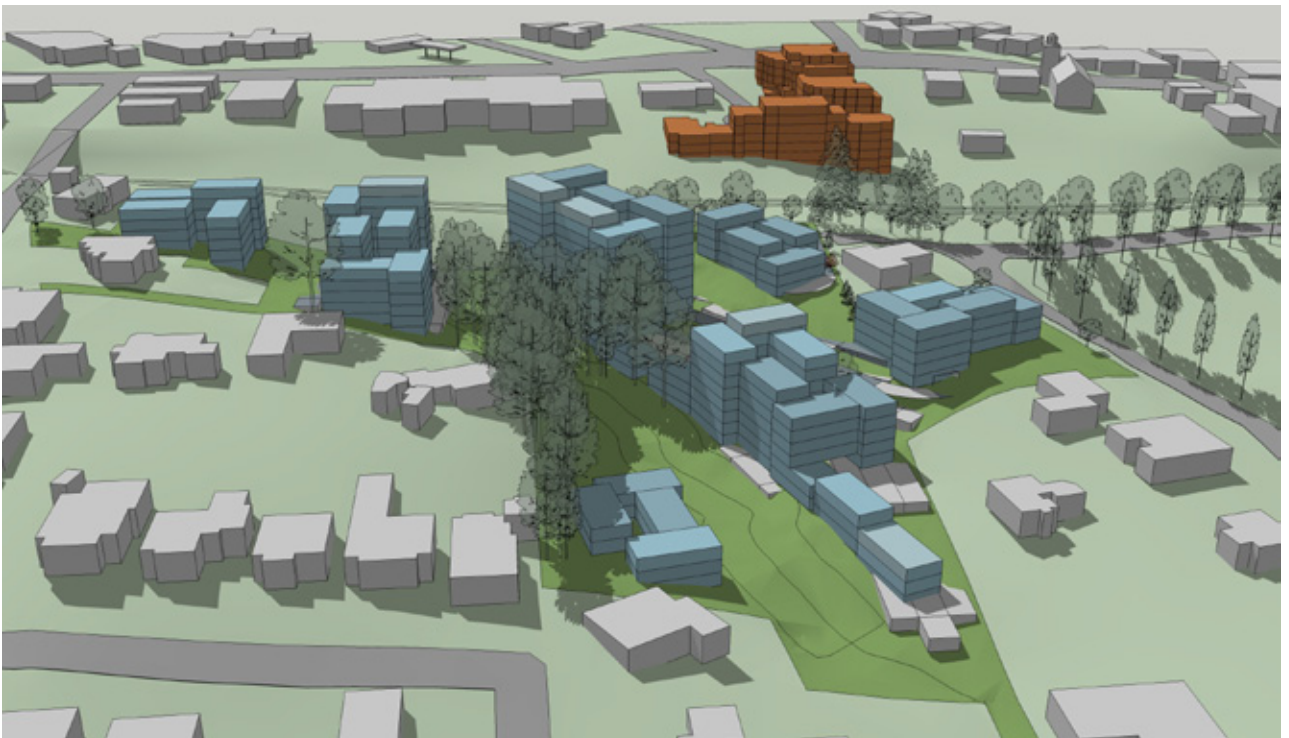
The seven building option spread the buildings over a large part of the site.

Advantages: the larger number of buildings allowed the density to be spread further throughout the site. Heights were lower.

Disadvantages: Less opportunities for buffer zones to the surrounding residential areas. Car parking was more complex due to the large number of disparate areas requiring subterranean structures and vehicular access. More landscaping and trees were disturbed in this option. Some buildings were located in close proximity to adjoining residences. Overlooking was poorer compared to other options. More separate building forms are less economical to construct.



OPTION 1A
7 BUILDINGS



Option 2

6 Buildings

257/224/200 Apartment modules

3-12 floors*

The six building option spread the buildings over a large part of the site but left a landscaped buffer zone to the west side of the creek in the southern part of the site.

Advantages: the larger number of buildings allowed the density to be spread further throughout the site. Heights were lower.

Disadvantages: Less opportunities for buffer zones to the surrounding residential areas. The building near the Beechworth road was located nearby to existing residences. More landscaping and trees were disturbed in this option. More separate building forms are less economical to construct.



OPTION 2
6 BUILDINGS



Option 3

4 Buildings

222/214/198 Apartment Modules

4-14 floors*

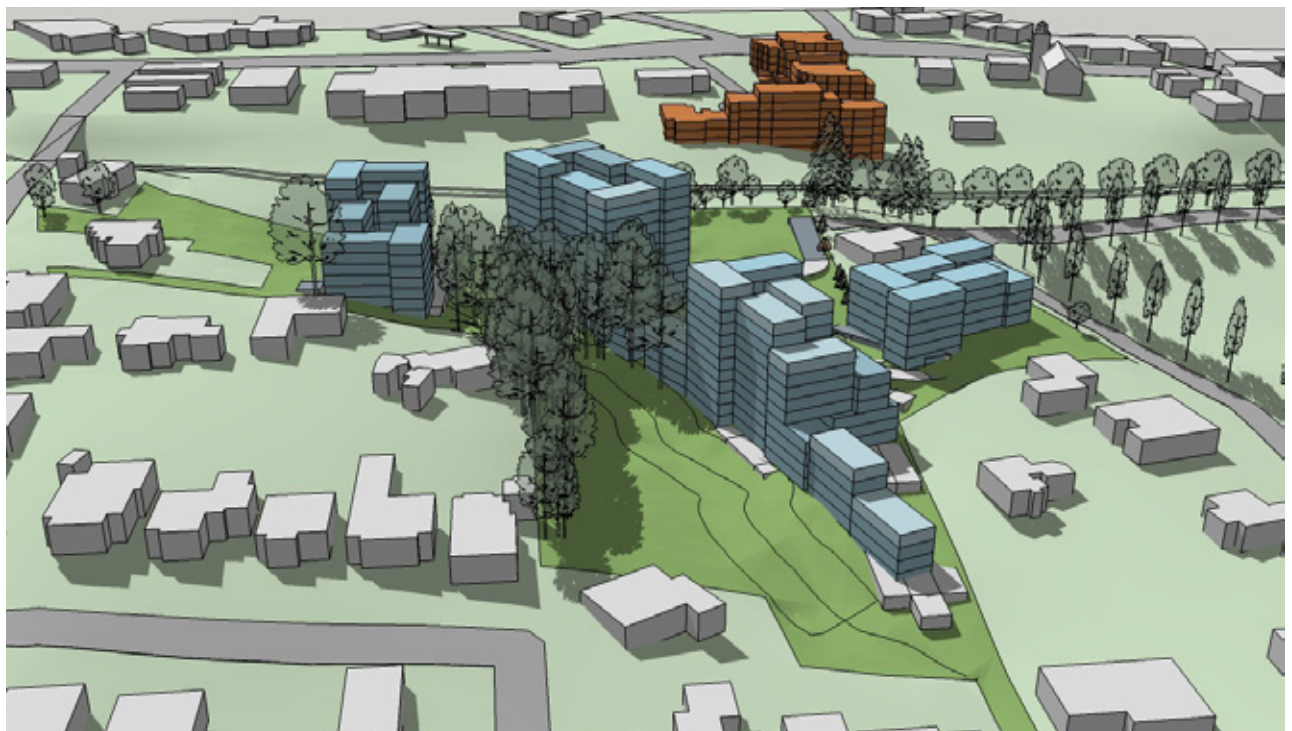
The four building option limited the buildings to designated areas of the site allowing more landscaped buffer zones between the buildings and to adjoining properties.

Advantages: the smaller number of buildings great buffer zones to the adjoining residences, especially in proximity to the higher buildings. This option allowed a greater amount of the landscape and trees to be retained on the site. A curtilage zone was created toward Beechworth Road facilitating a possible incorporation of the flanking properties into the development at a later stage. Less separate buildings are more economical to construct.

Disadvantages: Building heights were generally higher.



OPTION 3
4 BUILDINGS



Option 4

3 Buildings

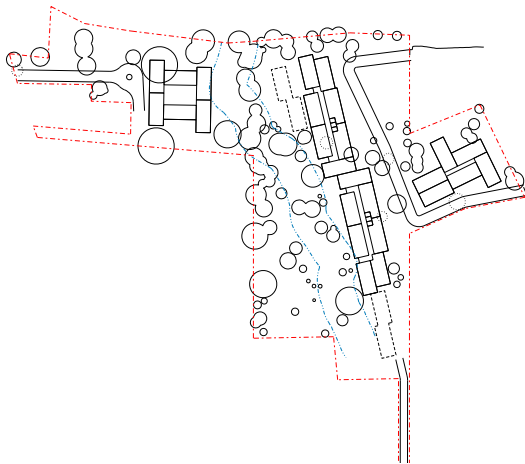
222/218/198 Apartment Modules

4-13 floors*

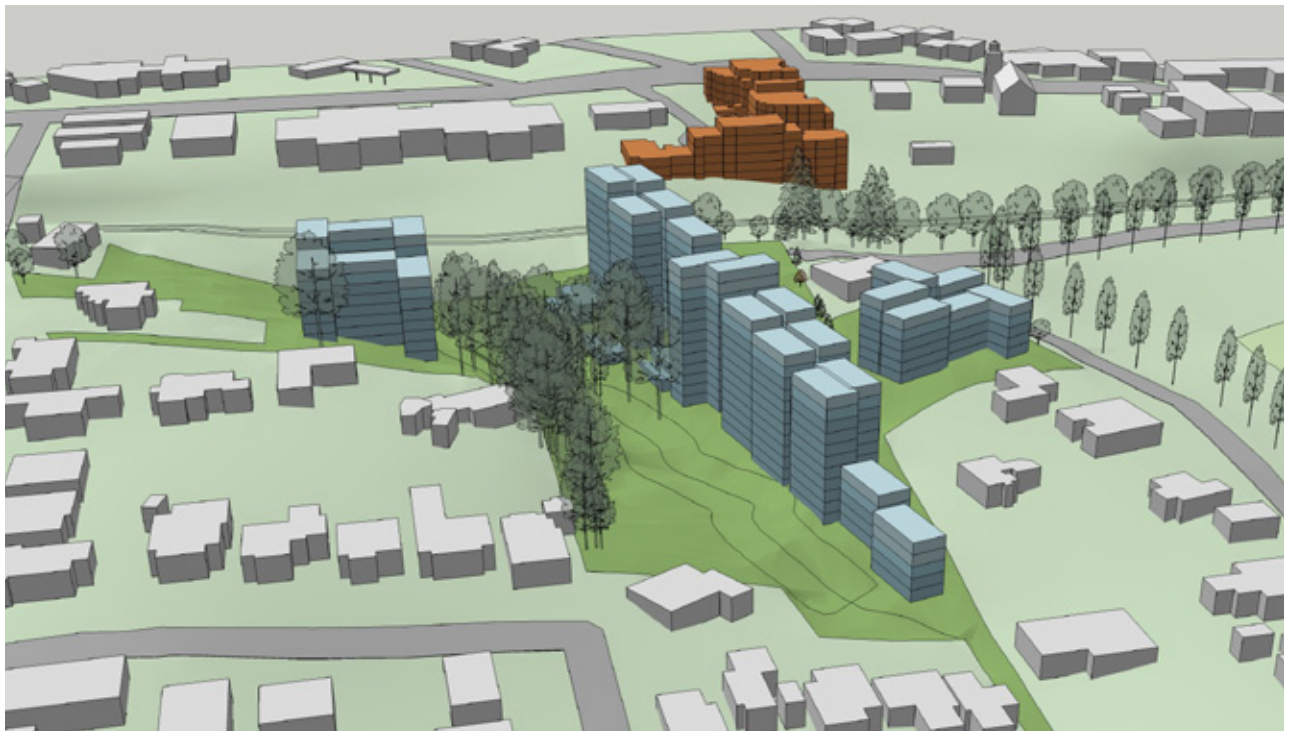
The three building option limited the buildings to designated areas of the site allowing more landscaped buffer zones between the buildings and to adjoining properties.

Advantages: smaller numbers of buildings allowed the largest buffer zones to the adjoining residences. This option involved the least impact on the existing trees and landscape of the site. Addition density was accommodated between the two central buildings allowing some reduction in height. A curtilage zone was created toward Beechworth Road facilitating a possible incorporation of the flanking properties into the development at a later stage. Less separate buildings are more economical to construct.

Disadvantages: Building heights were generally higher. The central building had an imposing form on the site. Less propensity for multiple aspect apartments.



OPTION 4
3 BUILDINGS

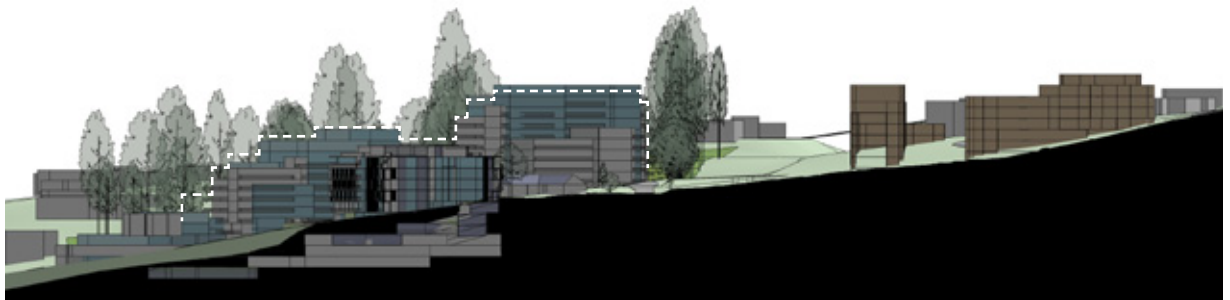


Scale

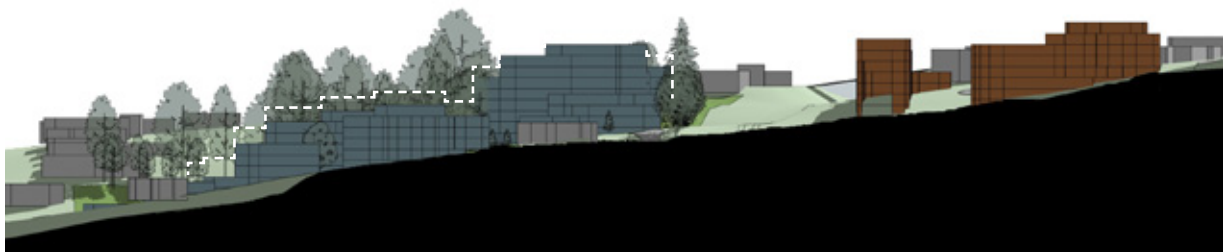
Each of the options was considered at a variety of different densities to investigate the appropriate form for the site. In a number of earlier studies the undulating topography and the extensive vegetation were considered as impediments to the development of the site. In this analysis however, these site features were regarded as assets for the development, facilitating outlooks from the apartments facing the trees along the creek, providing screening to the adjoining properties (especially to the south and southwest), and allowing larger building forms to be integrated into the prevailing topography. These design considerations reduce the prominence of the development and assist in providing appropriate dialogue with the Pymble Town Centre as well as nearby residents.

The sections below demonstrate the different scale options considered, showing how the forms of lower densities fit within the prevailing topography of the site, thereby minimizing overlooking, overshadowing, and protecting the amenity of nearby residents. Sectional analysis also assisted in locating the subterranean carparking so that site excavation was kept to a minimum.

Subsequent to this analysis, design options with approximately 205 apartment modules was considered most appropriate for the site. This is substantially less than previous planning advice (refer to CYP letter cf. Draft Town Centres LEP 2008).



CROSS SECTIONS
SHOWING SCALE
OPTIONS WITH
REFERENCE TO
TOPOGRAPHY



Option 5

5 Building

203 Apartment modules

4-11 floors

After discussion with the client and the Department of Planning, the 4 and 6 building options were considered the most suitable for further investigation given a good balance between building scale and landscape buffer zones. These two options also allowed the possibility of future development on the Beechworth frontage if the two flanking properties were amalgamated into the larger development. A five building option was therefore developed to further investigate this balanced approach.

The five building option located a building on the main Avon Road frontage (stage 1), a smaller building on the secondary Avon Road frontage (stage 2), 2 buildings adjacent to the creek in the centre of the site (stages 3 & 4), and a stage on the western side of the creek toward Beechworth road.

The majority of the car-parking is located under stages 3 & 4 with smaller areas under stage 1 (connected to stages 3 & 4) and stage 5. Large landscape buffers of existing trees screen the larger buildings from buildings to the west and north and the scale of the buildings taper to the south in order to mediate the scale to adjoining residences. The curtilage zone was maintained adjacent to Beechworth Road facilitating a possible incorporation of the flanking properties into the development at a later stage

Advantages: the number of buildings allows the height of the buildings to be typically lower than other options. Taller buildings are located in areas of the site where the existing landscape and topography can mediate the forms from nearby residences. Car parking is relatively concentrated in one area of the site and uses changes in level to prevent unnecessary excavation.

Disadvantages: More buildings are less economical for the developer.



OPTION 5
5 BUILDINGS

