

NEW EXPERIMENTAL ARCHITECTURAL TYPOLOGIES

A single courtyard house typology is transformed in a number of ways, to celebrate and enhance the connection with the landscape, the community and the diversity of people living in Canberra.

The idea of Dematerialisation is adopted at every stage of the process to plan, design and detail housing for improved environmental and affordability outcomes .

Canberra, Australia's Capital , " A City in the Bush".

Designed by Walter Burley and Marion Mahoney Griffin at the turn of the 20th century. Conceived as a city that represents a "Democratic National Identity " with the ideals of Prairie Modernism , blending the layout within the landscape. The natural forms providing an urban geometry.

As the city of Canberra grew , the early subdivisions for housing reflected the typical Australian post-war , Garden Suburbs. Inspired by the theories of Ebenezer Howard after the Industrial Revolution.

Homes were modest in size , gardens were generous and there was a mix of housing types within the one block to create a sense of community outside of the typical Urban Setting.

With the growing population came dependance on the car and streets were lost to garages, ever increasing houses , sitting like boxes on the plot of land, engulfing the backyard.

Planning evolved into zoning further reducing diversity, connectivity and community.

The early suburb of Reid, located in central Canberra is an example of a planned medium to low density area from the 1920's, based on the garden city model, with a range of housing types including apartment blocks.

The new suburb of Gungahlin is an example of a Greenfield development with low to medium density housing, predominantly large ,single storey houses, low density and large footprints .

This proposal recognises the need for change . To address urban sustainability defined by the following concepts:

1.Compact layout and efficient land use by increasing population density without increasing height - Innovative development NOT over development. This concept proposes approximately 3 times the dwellings per / hectare in comparison with Gungahlin. The footprints are smaller, the private open space and opportunity for deep soil planting is more generous.

2. Adopting a modern take on a classical idea, the courtyard layout is used over two levels to create a house that responds to climate by enabling efficient energy and water use through optimising orientation and solar gain . Thermal Comfort and ventilation is improved, while opportunities for creating private open space are enhanced.

3. Housing choice and socio-demographic mix is addressed by providing a range of housing types that could suit any number of occupants, with affordability of housing being adopted by the apartment typology which retains the feeling of a house with a mix of private open spaces as well as a larger shared open space. Single level dwellings within this type also provide liveability and adaptability solutions.

4. Creating a sense of community through movement and amenity is embraced and celebrated by the character of the housing types as they transform along the block. Moving the garages to the rear laneway allows for interaction at the streetfront , with the paired housing and apartments providing a higher intensity of living while still allowing views through to the rear gardens and connectivity to the surrounds by maintaining a low scale form.

5. By challenging the existing controls within the RZ1 - Suburban Zone , which covers 80% of land in Canberra, this concept can still provide low rise housing but with a higher population density and a smaller plot ratio. The controls for this zone do not allow for a mix of housing types and dual occupancy is restricted to allotments larger than 800m2. The allotments , dwelling size and approximate cost estimate proposed with this concept are as follows:

**Type 1** Two Storey Free Standing Single Dwelling  
Lot : 360m2 GFA : 224m2  
House and Land Cost Estimate: \$888,800 (incl. GST)

**Type 2** Two Storey Paired Single Dwelling  
Lot : 315m2 GFA: 220m2  
House and Land Cost Estimate: \$830,500 (incl. GST)

**Type 3** Two Storey Multi-Unit Apartment  
Lot : 580m2 GFA : 94m2/ 2 Bedroom Dwelling  
Strata Apartment Cost ( Affordable Housing ) : \$ 366,300 (incl. GST)



Reid \_ 1920's Planning 24 Dwellings / hectare



Gungahlin\_ Greenfield , 2000's Planning - 11 dwellings / hectare

