

CASE STUDY

PRESIDENT AVENUE APARTMENTS



Location: Sutherland, NSW

Architect: Candalepas Associates

Builder: Cuzeno

“That’s the beauty of concrete. Concrete is raw and real. It is as you see it – which is lovely, isn’t it?”

- Angelo Candalepas, Director,
Candalepas Associates

CONCRETE **BUILD**
TM **WITHOUT LIMITS**

The President Avenue project was nearly eight years in the making for architects Candalepas Associates and builder/developers Cuzeno, but the result has indeed been worthwhile.

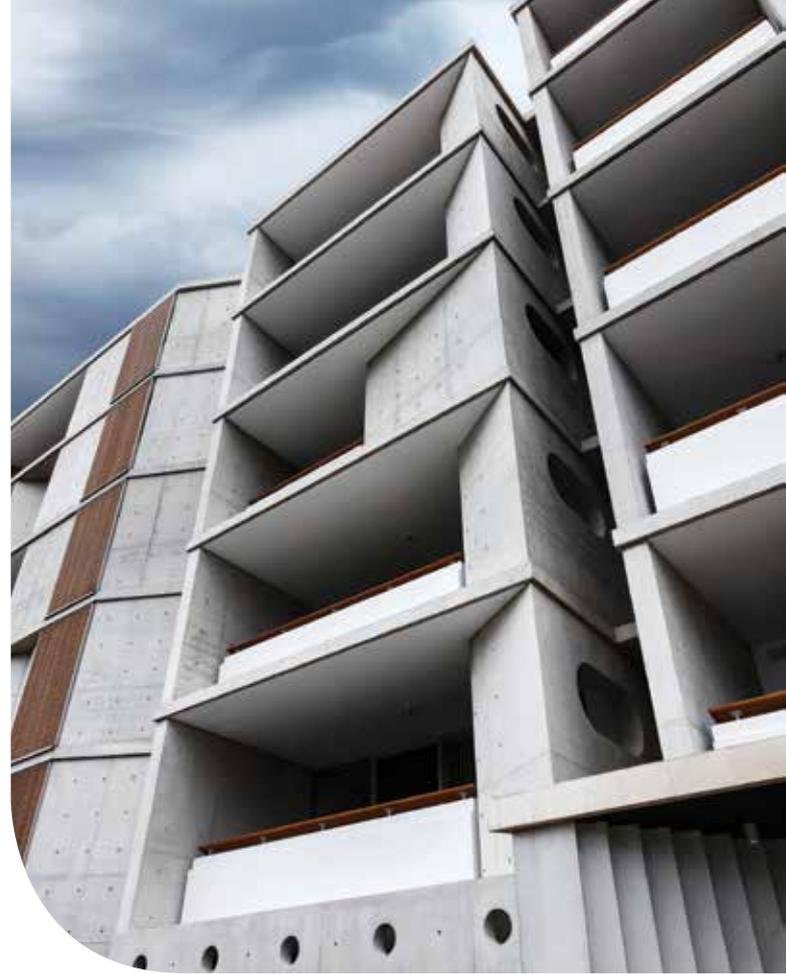
Completed in 2016, it comprises 49 one, two and three-bedroom apartments spread over six levels.

The development in Sutherland in Sydney's south strikes a commanding presence not because of its size or bulk, but because its thoughtful, sculptural form stands out from the mundane.

Originally intended to be more horizontal and bedded down into the landscape, approval was granted for additional levels during the development phase. Rather than replicate the existing design and create something massive and inappropriate to the site, architect Angelo Candalepas argued for just one additional level and a redesign.

The result is what you now see - a building that is articulated deeply into its mass with vertical 'grooves', creating the impression of six separate, vertical concrete-framed blocks standing side-by-side.

The scale and context are just right – neither overbearing or underwhelming.



It exemplifies the notion that concrete is a flowing, agile, living substance that allows designers and constructors to build without limits; to create developments that enhance our urban environments, enable our modern lifestyle, and reduce our environmental impact.

But whole-of-life performance is where concrete truly shines. In choosing construction materials, Candalepas insists that materials must have a long-life - at least 50 years.

CONCRETE, NATURALLY

As a building material, concrete was a natural choice for the President Apartments. Firstly, from a practical standpoint, concrete offers excellent **fire resistance**. It is unmatched in this regard.

Concrete isn't just non-combustible, it emits no toxic fumes when exposed to fire and has a slow rate of heat transfer. Coupled with that, its mass helps **reduce noise transmission** from noisy neighbours, traffic, and other acoustic intrusions.

The whole-of-life performance of concrete was another driver. In fact, when measured against the most common sustainability criteria - **environmental responsibility, social benefit** and **economic viability** - it's hard to beat.

Cover image: Northern frontage view of President Apartments
Photographers: (left) Brett Boardman | All other images: Geoff Howden



LOOKING GREAT, LASTING FOREVER

A major reason behind the choice of concrete is its **design flexibility** – the ability to be formed and shaped to deliver a vast range of structural and aesthetic outcomes.

For a material renowned for its solid mass, it's easy to forget that concrete is essentially fluid in nature and moulded to define its final, hardened shape. These shapes can encompass everything from hard straight edges to rounded forms.

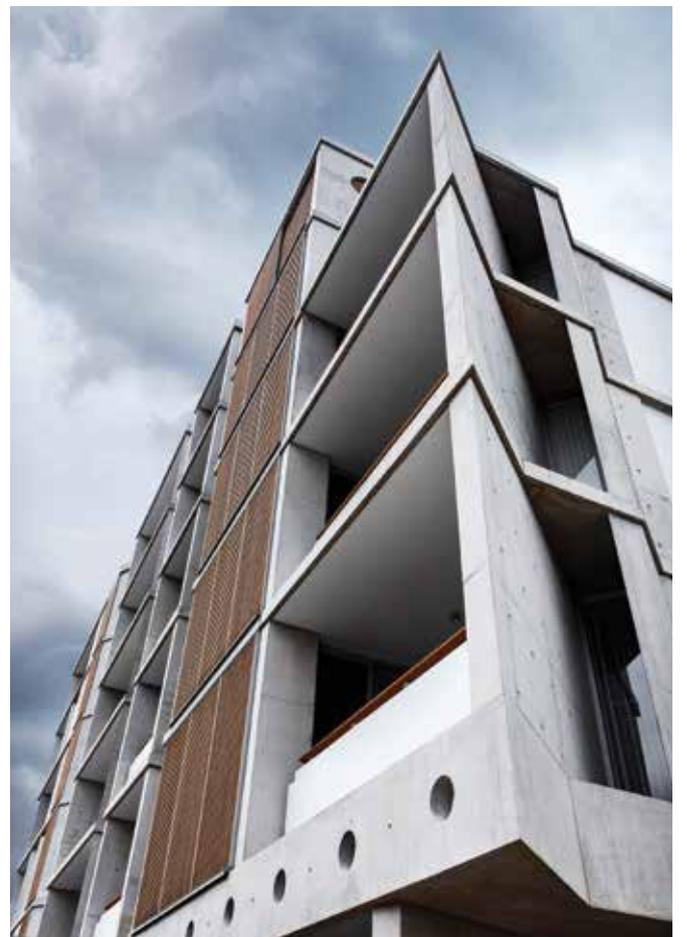
In fact, the high compressive strength of concrete allows it to be used as a self-supporting system in domed or arched construction. The Romans were among the first to exploit these qualities – just look at the Pantheon for example, still in excellent condition after thousands of years.

Nowhere is this more evident than on the northern frontage where the structural concrete floor and wall elements are complemented by off-form, angled concrete blade walls that serve to screen light from the balconies. The mass of the concrete is balanced by sliding timber screens and timber handrails on the balcony balustrades.

At the north-west corner, the angular concrete balcony end-walls are punctuated by oval cut-outs that admit light and air, defined at the corners by sharp (rather than chamfered) edges.

As the sun moves along its northerly track, the play of shadows on the angular concrete walls creates a shifting pattern of light and dark, adding yet another dimension to the northern façade.

“Concrete has great plastic qualities, and the playfulness this affords should be represented in the work.”



The possibilities are almost limitless, from intricate, sculptural patterns to raw natural textures.



In fact, right across the board, the project demonstrates the inherent ‘playfulness’ of concrete – not just its ability to be shaped on site into a myriad of binding forms, but its ability to tell a story.

Close-up, the finish of these balcony walls fully exploits the plasticity of concrete in off-form application, resulting in a ‘flaws and all’ finish that adds further to the character of the concrete elements.

Candalepas describes the off-form construction process as “...a beautiful carpentry trade.”

The tie-rods are important because they hold the timber boards together that make up the formwork, so of course you show them,” he says.

In this case, the story ‘reads’ in the impressions left behind by the joins in the timber formwork, in the capped tie-rod holes that held the formwork together, in the exposed ends of plastic bar chairs, and in the staining left behind by the release agents.



“The many things that make Concrete special should be present in the end result.”

“And, let’s face it, a lot of things come to make it. It’s not just manufactured in bits and pieces, brought in on the back of a truck and added to the building in a completely clinical, controlled way.”



A LIFE WELL LIVED

Over the course of its naturally long life, a concrete building offers another important advantage – **low maintenance**. Very little, if anything, needs to be done (or spent) to maintain a concrete structure. It is inherently strong and durable.

“Apartment buyers are naturally very wary about strata fees and sinking funds. Using low-maintenance materials can represent a major, long-term cost saving for owners,” Candalepas says.

His fundamental design philosophy is driven not by cost but by engagement – engagement with the client, with the immediate environment of the building, and with the world at large.

“We’re interested in life and living things,” he says.

“Other buildings lie to you – they try and tell you they’re going to be there forever. Yet everything looks the same in 10 years’ time, so people don’t have affection for them.

“In the case of this project, every time you go there it will be a different experience. If it’s rained, or if some other environmental factor has affected the surface of the material, it’s changed it.”

“It’s extremely important to me that a building weathers from the very beginning, so by the end of its life it looks like a graceful old person with an understanding of everything that’s gone before it.”

Candalepas says concrete, both in practice and appearance, helps bring a 'sense of quietness' to the President Avenue apartments. Concrete's excellent noise insulating qualities deliver a comfortable and private living space in multi-residential apartments.

QUIET, PEACEFUL, COMFORTABLE

The interiors of the President Avenue apartments are deliberately simple, both in form and finish.

Living spaces are situated to the north and the respective kitchens and dining rooms to the south. This allows ample sunlight access but also allows for cross ventilation right through the living spaces.

Of the simplicity of the layout and finish, Candalepas says people should be able to enjoy making their own interiors.

"It's so insulting to offer people your colours. They should choose their own," he says.

Another benefit of concrete is its **high thermal mass**. An important component of passive solar design, thermal mass refers to the ability of a material to trap and store heat, and to naturally regulate the release of that heat into the building interior (thus saving on heating and cooling costs, reducing energy consumption and contributing further to a greener footprint).

The President Avenue apartments were named one of the top 10 NSW Architectural Statements for 2017 in the Australia By Design series, aired on Channel 10. It also won the Aaron M Bolton Award for Residential Architecture (Multiple Housing) at the 2017 NSW Architecture Awards.

See President Apartments for yourself:

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