

# Firm Footing

The Benefits of Adjustable Pedestals for Paving and Decking

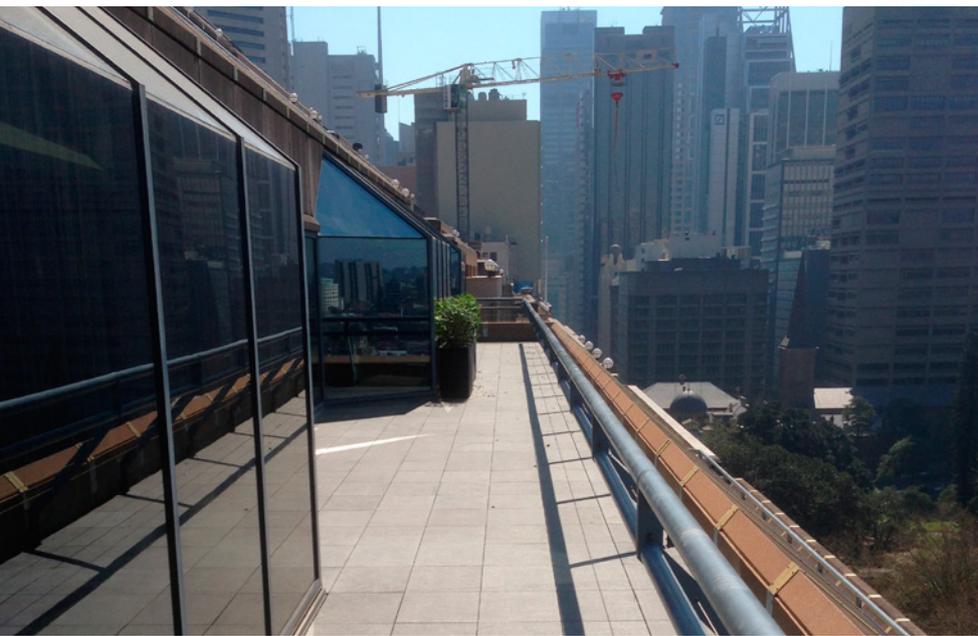


## Introduction

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When it comes to paving and decking, it pays to get things right the first time. Ineffective waterproofing or failure to allow ready access for maintenance and repairs can lead to significant damage, particularly in multi-residential projects such as apartments or hospitals.

Finding the right combination of proper planning, design and components requires thorough consideration and knowledge of available products.



## Utilising space

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With housing and population growth always a hot topic, it follows that there is increasingly high demand for high end multi-residential projects in Australian capital cities.

However, the pressure to increase the amount of housing stock still comes with the expectation that spaces will be well-designed and liveable, whatever

the population density. People investing in apartments want to see desirable outdoor spaces that can be utilised for social activities and recreation.

Likewise, such constructive use of space is just as integral in buildings like hospitals or community centres. Elevated paving or decking is a popular solution to these needs.

## Paving challenges

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A problem that can arise with paving and decking is when the Waterproof Membrane (WPM) becomes compromised. WPM failures on multi-residential buildings can incur significant costs, not to mention how inconvenient, time consuming and frequently occurring they can be once breached.

The ongoing issues caused by unmonitored WPM leaks can lead to major structural problems which, in turn, impacts the overall desirability and liveability of a building. Water leakage through plaza deck

waterproofing can cause big problems because they are often constructed over occupied spaces with critical structural importance<sup>1</sup>.

From the perspective of architects and builders, signing off on a project only to have major ongoing maintenance and repair work is a headache best avoided. Hearing that residents and investors are unsatisfied with a job can be a nightmare to deal with in the wake of a project, potentially harming the sale value of units and damaging the reputation relied upon for future contracts.

## High and dry

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By suspending pavers or decking on pedestals, the likelihood of damage to the WPM is greatly reduced. Adjustable pedestals are a common sense solution for decking and paving projects in that they allow simpler access for repairs and maintenance in the event that damage does occur.

Similarly, adjustable pedestals reduce the load bearing on slabs, thus improving the overall integrity of the structure.

An open-jointed system consisting of precast concrete pavers supported on discrete pedestals provides the most efficient and serviceable wearing surface available. This setup allows water to quickly drain from the surface to the membrane below, eliminating the need for surface drains<sup>2</sup>.

Pedestals allow for straightforward installation, requiring less equipment, as well as simplifying temporary removal of elements for adjustment or fixing. But crucially, they help to preserve the WPM condition when landscaping on areas such as roofs, podiums and balconies.

Pavers with pedestals are preferred to pavers on a setting bed as the setting beds tend to restrict drainage above the waterproofing membrane or potentially cause efflorescence, staining and damage to the paver support<sup>3</sup>.

Bear in mind, if an open-joint paving system is used, where pavers are set flat on pedestals, enabling surface drainage water to flow through the joints, the placement of supporting pedestals must be extremely precise<sup>4</sup>. As should joint size and spacing. This will ensure the best outcome.



## Elmich adjustable paving and decking pedestals

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Elmich pedestals enable safe, practical solutions for desirable building landscapes. Their range of products – including VersiJack™, Spirapave™ and Versipave™ – mean contractors require far fewer tools during installation.

This means there is no need for hardware such as screwdrivers, screws and nails that pose a risk to the WPM. Once installed, if WPM access is necessary it is easy to lift pavers, fix the problem and replace the pavers without major upheaval. This means repair time is vastly reduced and residents are not inconvenienced.

None of the materials are mechanically fixed to the membrane. The capacity for precise adjustments allows for a simple, flawless finish. Meanwhile, the WPM is not submerged, glued, pierced or subjected to any other interference that can lead to problems down the line.

Elmich's Adjustable Paving and Decking Pedestals can be used in conjunction with:

- Roof terraces
- Plaza decks
- Balconies
- Swimming pool surrounds
- Verandahs and courtyards
- Pedestrian walkways

Elmich consult with building and landscape designers and project managers working closely with all key decision-makers to ensure the best results. They offer a 10 year warranty on all products, carrying all stock to ensure fast order turnarounds within two days wherever possible.

## REFERENCES

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- <sup>2</sup> Building Deck Waterproofing – Issue 1084, p21 – [http://books.google.com.au/books?id=5YyWVSU5QyUC&pg=PA5&lpq=PA5&dq=principles+of+design+and+installation+of+building+deck+waterproofing&source=bl&ots=XM3-uU7NJF&sig=\\_J9XCYh5DAvEBj3VKo72SsXwW78&hl=en&sa=X&ei=eQFuVOLIOYXUOoDjgTg&ved=0CDoQ6AEwAg#v=onepage&q=principles%20of%20design%20and%20installation%20of%20building%20deck%20waterproofing&f=false](http://books.google.com.au/books?id=5YyWVSU5QyUC&pg=PA5&lpq=PA5&dq=principles+of+design+and+installation+of+building+deck+waterproofing&source=bl&ots=XM3-uU7NJF&sig=_J9XCYh5DAvEBj3VKo72SsXwW78&hl=en&sa=X&ei=eQFuVOLIOYXUOoDjgTg&ved=0CDoQ6AEwAg#v=onepage&q=principles%20of%20design%20and%20installation%20of%20building%20deck%20waterproofing&f=false)
- <sup>3</sup> Moisture Control in Buildings, p388 – [http://books.google.com.au/books?id=\\_pc6X3yvYslC&pg=PA388&dq=deck+pedestals&hl=en&sa=X&ei=XNZtVliIK4TYOMP9gZgP&ved=0CEsQ6AEwBQ#v=onepage&q=deck%20pedestals&f=false](http://books.google.com.au/books?id=_pc6X3yvYslC&pg=PA388&dq=deck+pedestals&hl=en&sa=X&ei=XNZtVliIK4TYOMP9gZgP&ved=0CEsQ6AEwBQ#v=onepage&q=deck%20pedestals&f=false)
- <sup>4</sup> Green Roof Systems: A Guide to the Planning, Design, and Construction of Landscapes over Structure, p257  
[http://books.google.com.au/books?id=\\_V\\_tXyuyZm0C&pg=PA257&dq=deck+pedestals&hl=en&sa=X&ei=XNZtVliIK4TYOMP9gZgP&ved=0CFAQ6AEwBg#v=onepage&q=deck%20pedestals&f=false](http://books.google.com.au/books?id=_V_tXyuyZm0C&pg=PA257&dq=deck+pedestals&hl=en&sa=X&ei=XNZtVliIK4TYOMP9gZgP&ved=0CFAQ6AEwBg#v=onepage&q=deck%20pedestals&f=false)

