

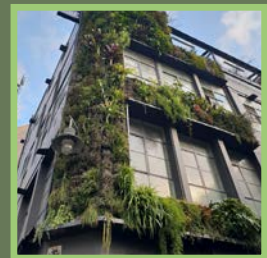
Fytogreen

Greening the Built Environment

www.fytogreen.com.au

ECOLOGICALLY SUSTAINABLE

Vertical Gardens



Who are Fytogreen?

TALENTED EXPERIENCED PEOPLE COMMITTED TO CLIENT SERVICE

The team at Fytogreen assist Australian and international developers, architects and landscape architects seeking to create beautiful, environmentally sustainable gardens integrated into built structures.

Fytogreen is Australia's leading specialist in sustainable vertical gardens, environmental extensive roof gardens, light-weight intensive roof gardens, planter boxes and green facades. Fytogreen are also the largest supplier to the roof garden industry in Australia with our unique roof garden system products.

Our History... A TRACK RECORD OF SUCCESS

Fytogreen Australia Pty Ltd was founded in February 2002, when the company became the established licensee in Australia, following on from 23 years of development by Fytogreen originators in Europe.

Over the past 17 years, Fytogreen has become the industry leader & innovator in horticultural technologies. We are a research focused, design & construct supplier of vertical gardens, roof gardens and green facades & all of Fytogreen's design and project management team has extensive experience in the industry.

Fytogreen have completed more than 220 successful vertical garden projects, encompassing over 6,000m² of living walls within Australia and international locations.

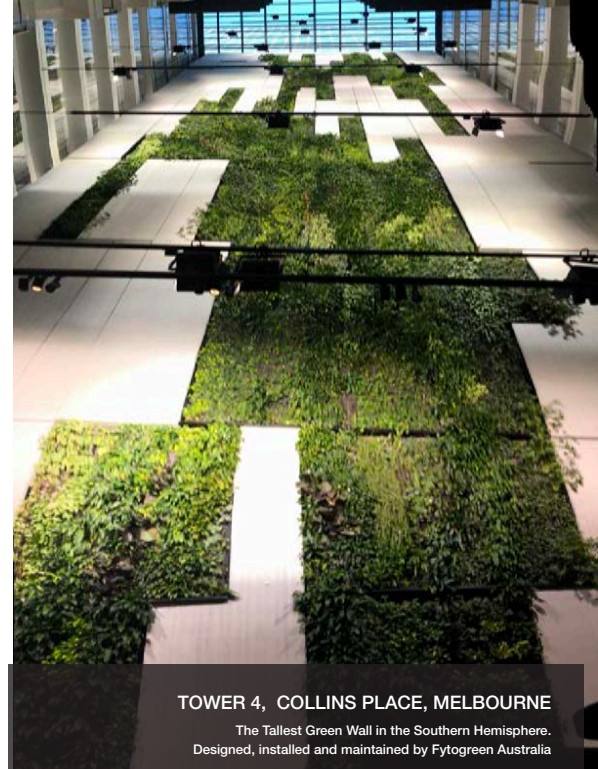
Fytogreen have also supplied proprietary roof garden media components to over 500,000m² of roof gardens and 52,000m² of design and construct extensive roof gardens throughout Australia. Fytogreen has worked with the majority of Tier 1 and Tier 2 construction builders, either directly or indirectly in the capacity of a sub-contractor.

Our established knowledge library created over many years of collaboration with horticultural experts allows Fytogreen a rapid interchange of experience, problem solving, commercial and technical know-how, which has greatly enhanced our effectiveness and ability to service our clients' needs.

Fytogreen is Australia's leading supplier of vertical gardens and green roofs, delivering Australia's tallest indoor green wall at Tower Four, Collins Square in Melbourne's CBD (pictured above), as well as the largest green roof in the Southern Hemisphere at the Victorian Desalination Project. We have also installed & maintained Australia's 2nd and 3rd largest green wall at Bligh Street, Sydney and 720 Bourke Street, Melbourne.

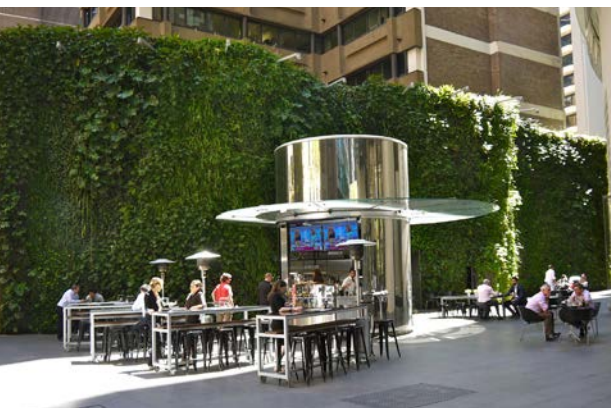
CLICK HERE TO READ THE FYTOGREEN CAPABILITY BROCHURE

All contents of this document are supplied from extensive years of experience designing and constructing gardens on built structures here in Australia. All technical aspects of this documentation are considered intellectual property of Fytogreen. Therefore disclosure of this information requires written permission from Fytogreen.



TOWER 4, COLLINS PLACE, MELBOURNE
The Tallest Green Wall in the Southern Hemisphere.
Designed, installed and maintained by Fytogreen Australia





Greening the Built Environment

Fytogreen's success and technical know-how has developed over many years through a collaboration of its tertiary qualified staff, experts in the horticultural field, senior project managers and our extensive research and development team.

This combination provides our clients, architects, landscape architects and designers with a rapid interchange of experience that over the years has developed into a cost effective, ecologically sustainable solution for greening the built environment.

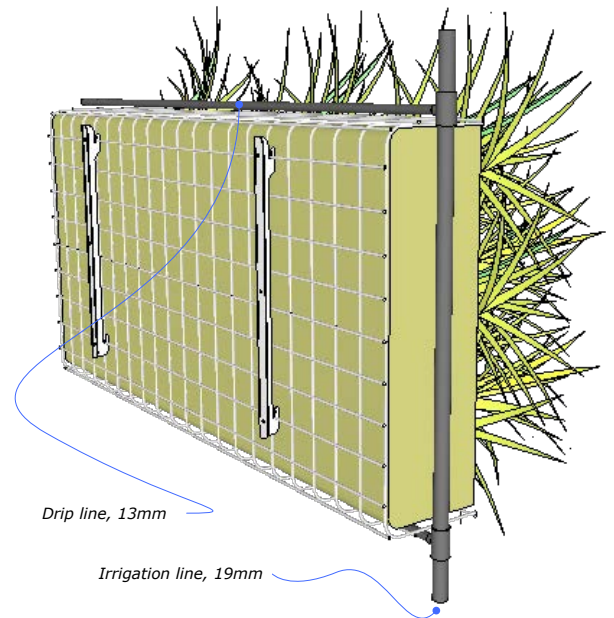


Greening opportunities for replacing traditional façade materials

Both vertical gardens and green facades require a host structure to support the weight of the gardens. In the past, secondary steel frames were necessary for attaching to pre cast or in-situ poured walls.

FytoGreen has resolved this issue by adjusting the attachment of the vertical gardens and green facades, as to enable fixing directly to the host concrete structure without the need for secondary steel. The new green façade pre grown modules have multiple attachment points to easily adapt to most façade types.

The green facades and vertical gardens can be costed as an integration with or replacement for architectural finishes.





Key Differentiators Between Fytogreen and its Competitors

Fytogreen prides itself with a **research focus to horticulture**, which started in 2002 with trials to improve soils for roof gardens and trials to develop growing systems for vertical gardens. This research program continues today with the ongoing development of the ecologically sustainable gardens on built structures. From this research program we have now developed numerous new products and processes to meet relevant challenges.

Ecological sustainability - Our aim with every garden we design, install and maintain is to ensure all the plants used thrive in the growing conditions for their natural life spans.

Fytogreen has a team approach with all its projects. Our key personal are all from a range of different backgrounds (all tertiary qualified), which makes the research

approach goal orientated. All our research programmes are commercially sensitive with the intellectual property protected within Fytogreen. *(All components and processes that are unique to Fytogreen, are considered our intellectual property.)*

A key component to Fytogreen's successful greenwalls is our **unique solid substrate** that is used in all our vertical gardens. Our tested and proven foam combination provides an extremely stable, "honey-comb" lattice that allows Fytogreen to use a wide diversity of plant types, due to the secure root anchoring and improved 'on wall' water holding capacity. It also add a water buffer to adverse climate events.

Assistance with design development - Architects, landscape architects, developers, government and commercial builders approach Fytogreen as a consultant to assist with design development. Often this involves research and product development to reduce delivery costs and exceed client expectation.

Australian Wide office Location - Fytogreen has offices in Sydney, Brisbane and Melbourne, as well as an agent in Perth and New Zealand allowing us to efficiently provide ecological sustainable gardens on buildings all over Australia and New Zealand.



Fytogreen

2018 WINNERS

Greening the Built Environment
VERTICAL GARDENS . GREEN FACADES . ROOF GARDENS

Types of Vertical Gardens

FYTOGREEN NOT ONLY CREATE TYPICAL VERTICAL GARDENS BUT ALSO PRIDES ITSELF ON BEING THE AUSTRALIAN LEADER IN CREATIVE AND INNOVATIVE, BESPOKE SUSTAINABLE SOLUTIONS.

FYTOWALL SYSTEM Suitable for Indoor & Outdoor Applications

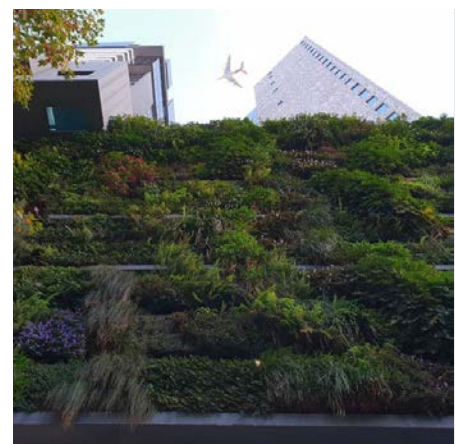
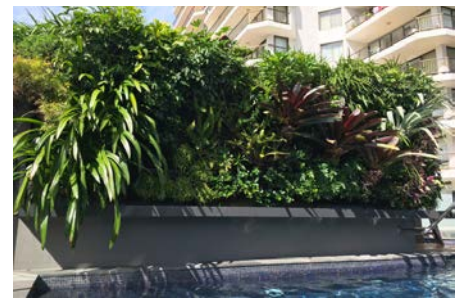
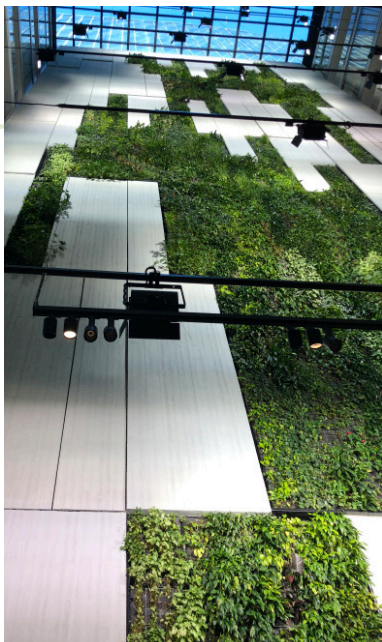
Fytogreen's Fytowall system is ideal for commercial projects and can be installed either outdoors and indoors.

All our Fytowalls are individually designs to become ecological sustainable vertical botanical gardens.

Fytogreen's vertical garden panel system uses our proprietary growing medium to deliver water and nutrients to specially selected plants. The complex process of species selection and placement has been honed by Fytogreen over many years to ensure the installed green walls are both successful and sustainable.

We place a extreme importance on testing sunshine hours through sun/shade modeling, light intensity, wind and the implication of the fractal factor on outdoor design. For indoor green walls, the importance of supplementary lighting and air exchange in the spaces are also paramount.

Fytogreen supply the latest technology and systems for design and construction as well as offering a maintenance service for all our green walls, ensuring maximum plant life. They look fabulous as a backdrop for any office, create a stunning entrance for apartment complexes and can provide a 'wow' factor in any environment.



FYTOFELT POCKET SYSTEM Suitable for Indoor & Outdoor Applications

IDEAL FOR RESIDENTIAL & COMMERCIAL PROJECTS

Fytogreen's Fytofelt pocket system is fully Australian made and has been fabricated with Fytogreen's years of experience within the industry.

Our quality, vertical garden pockets provide a safe growing medium, that is pH neutral and allows roots to grow directly into the felt, creating a stable growing environment that allows all plants to be watered evenly and not constrained in any way.

The felt pockets are made from a fire compliant felt that is extremely tough and provides perfect growing conditions for a range of plant species.

Additionally, the plants root system is wrapped with felt wraps; allowing you to create an interchangeable design with the possibility of simple plant replacement and re-arranging anywhere within the wall.

Fytogreen's pocket green wall system is perfect for both commercial and residential installations, comes individually designed, pre-grown, installed and maintained by Fytogreen or packaged for DIY installation.

The panels are available in a large range of module sizes



FC-FYTOFELT - Fire Compliant Pocket System Suitable for Indoor & Outdoor Applications

Fytogreen now delivers a fire compliant green wall solution for maximizing safety. We are proud to offer our recently tested vertical garden - FC-Fytofelt compliant to AS1530.3-1999.

What this means to you, the client

- Fytogreen can offer a AS1530.3-1999 fire compliant green wall system for commercial and residential builds.
- This green wall system has a non-combustible aluminum backing board and our new felt is compliant to AS1530.3 testing standards.
- Fytogreen's new FC-Fytofelt green wall system has the capabilities to use less water. The FC-Fytofelt ensures all plants are watered uniformly with improved water absorption properties within the felt by a factor of 2, ensuring improved buffering.
- The plants root system is wrapped with fire compliant wraps; this creates an interchangeable system, allowing the possibility of simple plant re-arranging or replacement anywhere on the wall.
- Available in a large range of module sizes

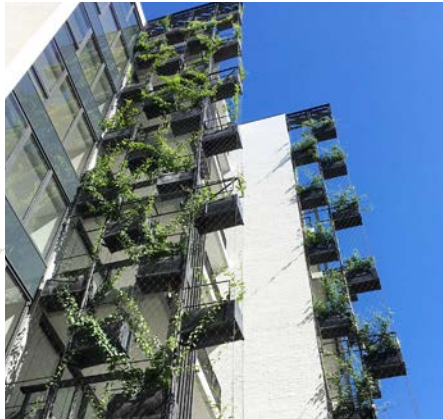


GREEN FACADES Suitable for Indoor & Outdoor Applications

Green façades differ from vertical gardens by using climbing vines & creepers, planted in a lightweight and automated planter systems with climbing trellis.

Fytogreen provides 3 main facade systems...

- GREEN FACADE SYSTEM - Using web or square mesh or cables to train climbing plants and shrubs to cover buildings and walls. This system is extremely cost effective and requires minimal equipment access.
- PRE-GROWN GREEN FACADE UNITS - This unit providing great foliage cover at installation, instead of waiting up to 2-3 years. Our pre grown units are cost effective, significantly less prone to plant failure, independently certified for engineering suitability and have multiple attachment points; making placement safe and easy, reducing installation time.
- PLANTER BOXES - A range of LLDPE planter boxes provide a flexible container for both planter boxes and green facades. The colour range is vast and the ability to cut, and provide the ability to adjust and re-weld the standard planter box sizes to fit any orientation specified.



PRESERVED GREEN WALLS Suitable for Indoor Applications Only

IDEAL FOR PROJECTS
WHERE IRRIGATION MAY BE AN ISSUE

A creative solution for integrating a textured, soft-dimension to interior design. We offer both moss green walls and preserved foliage walls.

This system is ideal for shop fit-outs, large or small applications, office entries, exhibitions and private residences.

- Easy to install, reducing installation costs.
- Available in 16 colours, perfect to suit individual designs.
- Flame-retardant and sound absorbing properties.
- Customization available to suit ANY shape or size.
- Lightweight - no structural requirement needed.
- Zero maintenance and no irrigation needed
Being a preserved product, regular maintenance and watering is simply not required.



CUSTOM / BESPOKE SOLUTIONS - 3D Gardening

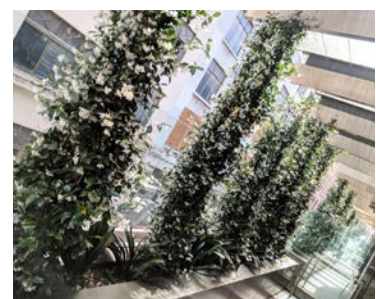
Fytogreen thrives by working collaboratively with our clients, architects, landscape architects and consultant project teams to create sustainable greening solutions. This sometimes requires thinking outside of the box.

We have developed an extensive range of 3 dimensional systems to increase the diversity, quantity and density of biophilic design.

Fytogreen's FytoWalls, FytoColumns, Curved FytoWalls and FytoArbours, allow different types of plants to colonise almost any space or architectural form.

We can successfully vegetate a range of structures, whether cladding curved walls, suspending freely in the air or rising from floors with minimal to no footprint.

These innovations further our ability to extend the impact of plants beyond the wall or a set garden area, and allow us to capitalise on unused space by injecting verdant and diverse life into the built environment.





Fytogreen thrives by working collaboratively with our clients, Architects, Landscape Architects and consultant project teams.

Fytogreens best results are achieved by:

- Developing a thorough understanding of the project vision, site constraints, and local ecology
- Gathering information prior to and during the project period, and ensuring all details are communicated to each team member
- Drawing upon a wealth of in-house and international experience

Fytogreen provides a comprehensive and client focused solution to all projects continuing beyond the traditional scope of the project. The completion of a project does not mean the end of our working relationship.



We are actively engaged in ensuring the long-term sustainability of the gardens, from installation through to our programmed preventative maintenance.

Years of Research and Development leads to Award Winning, Sustainable Garden Designs



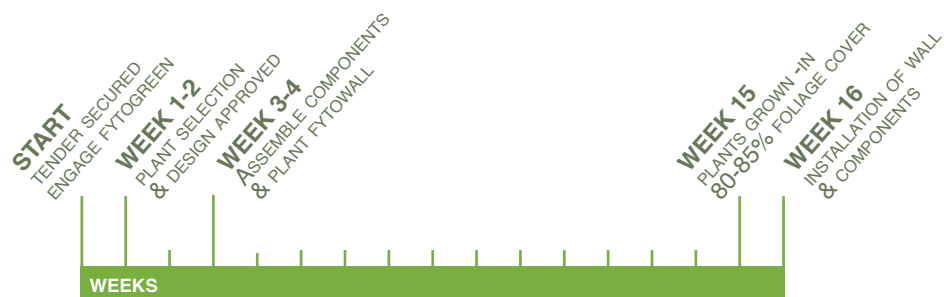
Greening the Built Environment
VERTICAL GARDENS . GREEN FACADES . ROOF GARDENS

Typical Green Wall Time Line

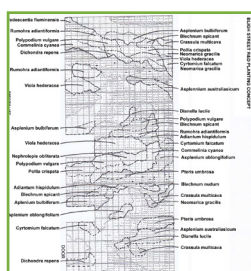
The Fytowall system require time to “grow-in” prior to installation. This time enables foliage cover to achieve up to 80% coverage and root anchoring. Our typical time requirements for a installation are as follows.

Fytowall’s up to 50m2 For larger Fytowall’s these time guides will increase.

- 1.) Plant selection and array design with client approval.
NB: Lux maps of all indoor host walls are required prior to plant selection.
(See our light requirement document for details.) 1-2 week
- 2.) Assemble components, procure plants and plant out.
NB: The size of the wall will determine the time to procure and plant. Typically Fytowalls up to 100m2 can be planted in 2-4 weeks. 2 weeks
- 3.) Growing plants for 80-85% foliage cover.
NB: 80-85% foliage cover is our minimum coverage. This time also enables adequate root anchoring. 12 weeks
- 4.) Installation of growing modules, drip irrigation lines and control cabinet with alarm system.
NB: “Work by Others”, required to be installed and operational prior to Fytowall installation.
(See our pre install check list) 1 week or less



A faster turnaround time is possible, although there will be less foliage coverage when the garden is installed.





BEYOND INSTALLATION

Maintaining your Vertical Garden

Fytogreen provide a specialist 'elevated' horticultural maintenance department to maintain vegetation, monitor irrigation and fertigation ensuring perfect nutrient balancing and water quality.

The maintenance of our unique installations require specialist plant-based knowledge and experience.

This is specific Fytogreen technology and is incomparable to general garden or indoor plant maintenance.

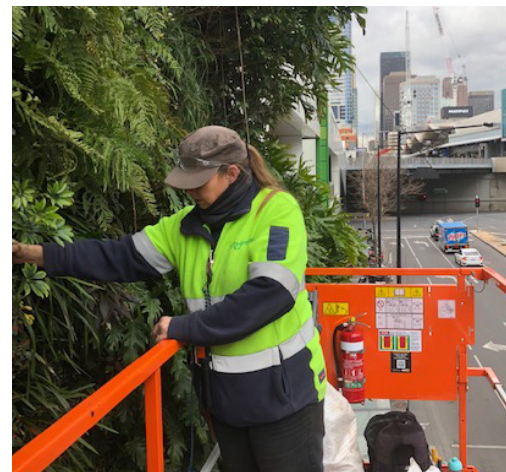
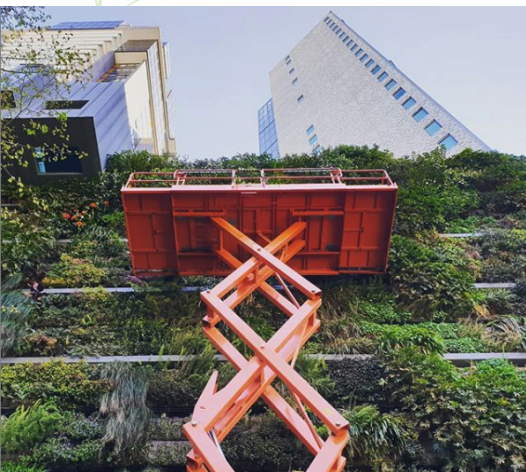
Maintaining Fytogreen gardens requires close consultation between the botanist and maintenance technicians. This ensures the diversity is preserved, whilst continuing to improve sustainability and plant specific integration, allowing for improved design and reduced maintenance input.

The Fytogreen maintenance division is a group of passionate technicians, who regularly communicate to advance the divisions' internal skill base. The team utilize techniques and materials to maintain Fytogreen's extensive range of projects.

Fytogreen's designers ensure consideration is given to key components of site related variables; such as light, wind and temperature to determine their plant species selections. Non-terrestrial (non typical garden species) are frequently chosen to offer highly adapted traits to maximize success on the vertical plane. Eg. The use of epiphytes and lithophytes species.

Our unique gardens should ONLY be maintained by a specialist, trained in elevated horticulture care. They remotely monitor irrigation, conduct standard on-site water quality checks, nutrient balancing, salt accumulation and pH management.

Our specialized garden systems are not merely plants bolted to walls, they are water and air purifiers, In many cases, providing valuable urban ecological, thermal and acoustic insulation benefits. They are highly specific ecosystems. They address a significantly diverse range of functionalities in support of architecture, built within our populated stressed urban climates.



FOR MORE INFORMATION CONTACT:

Fytogreen Australia Pty Ltd

3 Webbs Lane, Somerville, Victoria, 3912

Ph: 1300 182 341

Email: info@fytogreen.com.au



www.fytogreen.com.au