



Ambius Insights

Insights into large Indoor Plantscaping solutions for designed, healthy buildings that promote wellbeing and align with rising trends.

Working with you to deliver amazing indoors

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The new environment - new trends

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The importance of planning with Indoor plantscaping

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Deep Dive: Green Star Rating, Project Brief, Joinery/Containers, Floor plans, Subirrigation, Procurement

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How this connects to Health & Wellbeing

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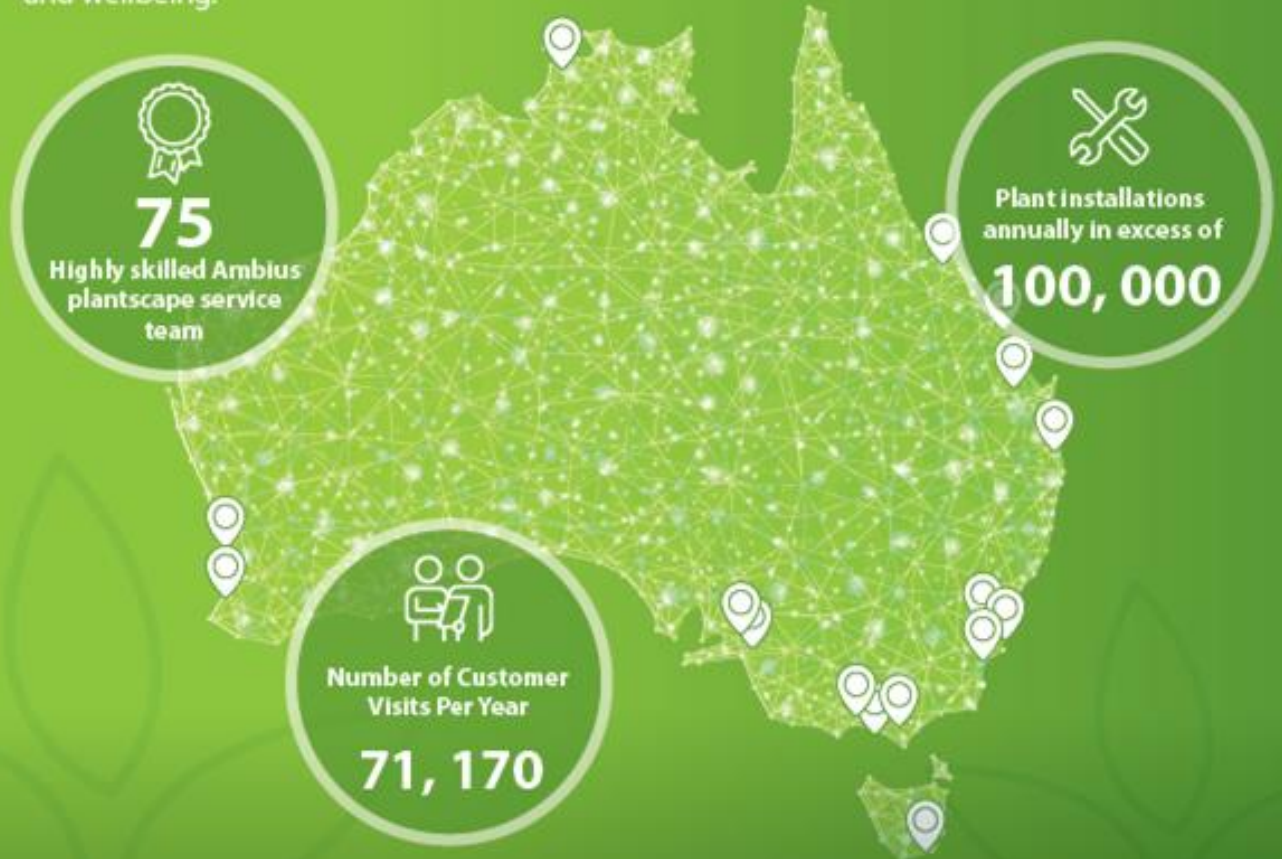
Benefits of Indoor plants

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Key Terms and Phrases

Ambius provides innovative solutions and expertise that transform indoor environments into healthy, sustainable and green spaces. Supporting Australian businesses for over 50 years, we are committed to delivering vibrant indoors that thrive and promote indoor health and wellbeing.

- Providing Innovative solutions and servicing around the country.
- Ambius team provides highest standard of service with a local approach and consistently high service across all states.



94

A 90 strong Ambius fleet allows us to install and regularly maintain your plants keeping them healthy and thriving.



17

17 Ambius Plantscape Design Consultants and Key Account Managers, working with you to offer advice, expertise and recommendations in the design process, across Ambius products and solutions.



75

75 highly skilled Ambius plantscape service team located throughout Australia to offer a superior and friendly service, ensuring your Ambius solutions are healthy and thriving. Including watering, cleaning and replacing plants where necessary.

INDOOR PLANTS

We provide the perfect plant for the right light level, making sure they continue to thrive in your space.

- High light
- Medium light
- Low light



CONTAINER SOLUTIONS

- Desktop
- Floorstanding
- Hanging
- Bespoke



GREEN WALL SOLUTIONS

- Schiavello VG
- Schiavello Built in
- Mobile Green Wall
- Built in Green Wall
- Live Pictures
- Moss Wall



CLIENT OWNED

Have a bespoke design in mind? We work with you to create a design that suits your needs, while ensuring there are no leaks and your plants thrive. We use best practice method of sub-irrigation.



We believe that indoors are far more than physical spaces, but rather an asset that drives excellent business performance.

As trusted experts in indoor plantscaping, we work with businesses to improve the wellbeing in indoors, which isn't only crucial for the business, but also for staff and clients.

SOCIAL DISTANCING

Ambius containers are the easy way to:

- Control Foot traffic
- Create Cueing guides
- Separate areas



HYGIENIC SOLUTIONS

- Schiavello Vertical Garden
- Alcohol based hand sanitiser



FLEXIBLE/ SMART SOLUTIONS

- Mobile Green Wall
- Mobile Trough



A photograph of a modern office interior. In the foreground, there is a white circular table with several white chairs. To the right, there is a large planter box filled with various green plants. The ceiling is made of white, rectangular, recessed panels with integrated lighting. In the background, there are glass-walled offices and a wooden slatted wall. A large green circular overlay is positioned on the left side of the image, containing the text "The new environment: Trends" in white.

The new environment: Trends

The new environment

- Pandemic has changed the way we work
- Businesses are looking for ways to attract and retain key staff.
 - Amazing indoors
 - Healthy and vibrant spaces
 - Promoting wellbeing
- Competitiveness: *Fight for talent*
 - WFH culture** - encouraging people back into the workplace
 - Competition** - for quality staff - by going above and beyond in offering. Workplace is an important factor in candidate decision making

'Shifting importance from Utilisation to Productivity & Engagement'

'Young professionals are the driving force behind wellness'

'Social media is driving higher expectations'

Professional
5 days per week

Smart Casual
3-5 times per
week

**Barefoot
Mohigan**
Casual, relaxed

POST COVID ENVIRONMENT

How plantscaping is evolving to meet the new trends



1. Health and Wellbeing

- Creation of healthy Indoors is an important consideration for an organisation.
- Providing indoors that not only thrive but also provide healthier indoors that promote wellbeing is crucial.
- *Multiple research studies have proved the incredible benefits indoor plants provide to the indoors.
- The importance of a green office has never been more important or sought after than now.
- Bringing nature indoors has a powerful impact on us through the multiple **health** benefits as well as improved **wellbeing**.



*NASA study 1988

*UTS 2004-2007

2. Flexible Smart Spaces



R&D: Innovation in container design:

- Containers incorporating recessed wheels
- Modular designs that can be adjusted to suit various needs for the space

Meeting room - Town Hall - Training space

- Mobile Green walls
- Vertical Towers
- Modular containers
- Mobile trough solutions
- Clustering of containers

Why?

- As we start to return to the workplace - clients are looking for ways to improve/customise their workplaces

'the new way of working'

- Trend - turning to indoor plantscaping solutions

- Saves time and money on multiple trades when redesigning offices
- More appealing 'Bringing nature indoors' (Biophilia)
- Benefits of Indoor plants - IAQ

3. Social Distancing Solutions



Competing with WFH

- Creating amazing indoors for staff and clients
- Healthier indoors that promote health and wellbeing
- Warm and welcoming buildings
- Breakout areas and spaces promoting mindfulness
- Employer of choice





Planning with Indoor Plantscaping

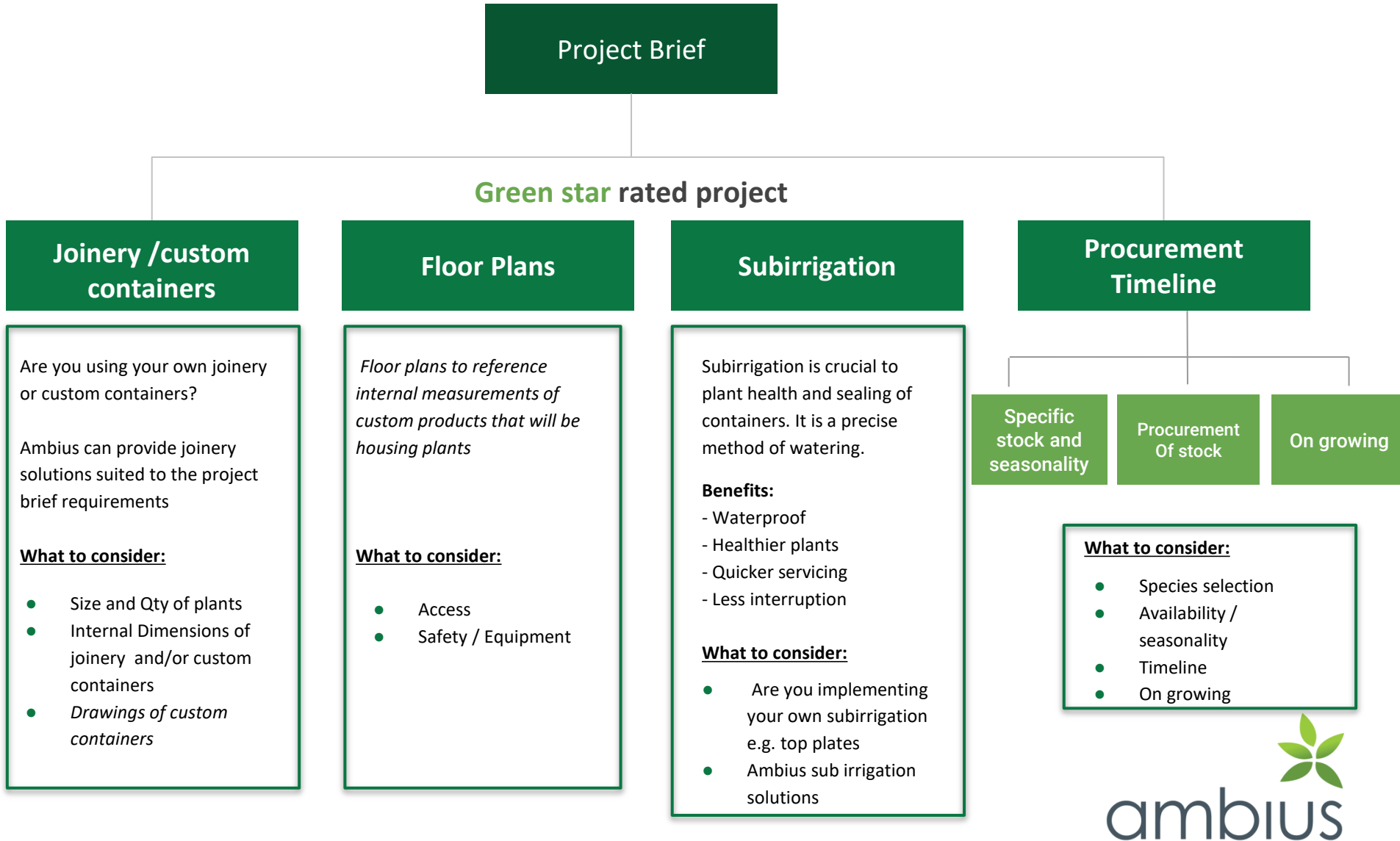
PLANNING WITH INDOOR PLANTSCAPING

A typical Project Plan



PLANNING WITH INDOOR PLANTSCAPING

The importance of incorporating plantscaping at concept stages of the project





Deep Dive Project Brief

Green Star Rated Projects

Green star Interiors V 1.3 **Indoor Plants**-businesses can achieve up to 2 points for plants:

- **Placement** - 500cm² soil surface area for every 10 NLA
- **Maintenance** - 2 year agreement with plantscaping company

Plants need to be maintained to ensure **VOC** removal.

Need help to calculate meeting Green Star project requirements - reach out to your plantscaping partner. This is a part of Ambius service



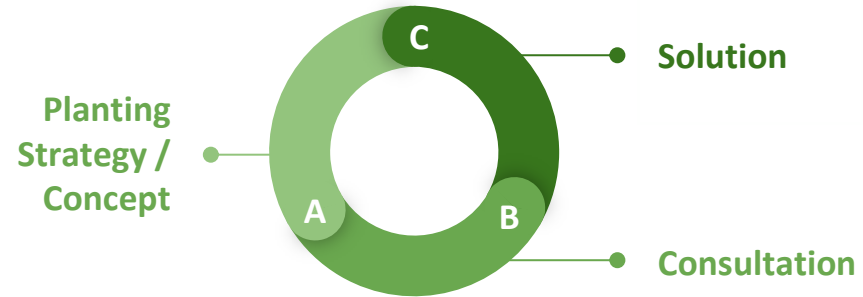
Green Building
Council Australia
Member 2021-2022





Deep Dive Joinery / Custom Containers

Joinery / Custom Containers



1. Concept

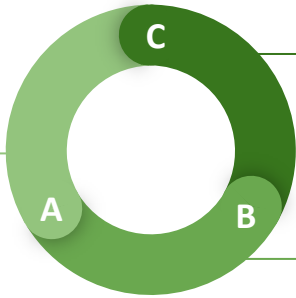


2. Project Completion



3. Today

Planting
Strategy /
Concept



Solution

Consultation

The longevity and plant health achieved by correct install and in the right environment is crucial in allowing the design to continue delivering on the vision for years to come



Joinery / Custom Containers



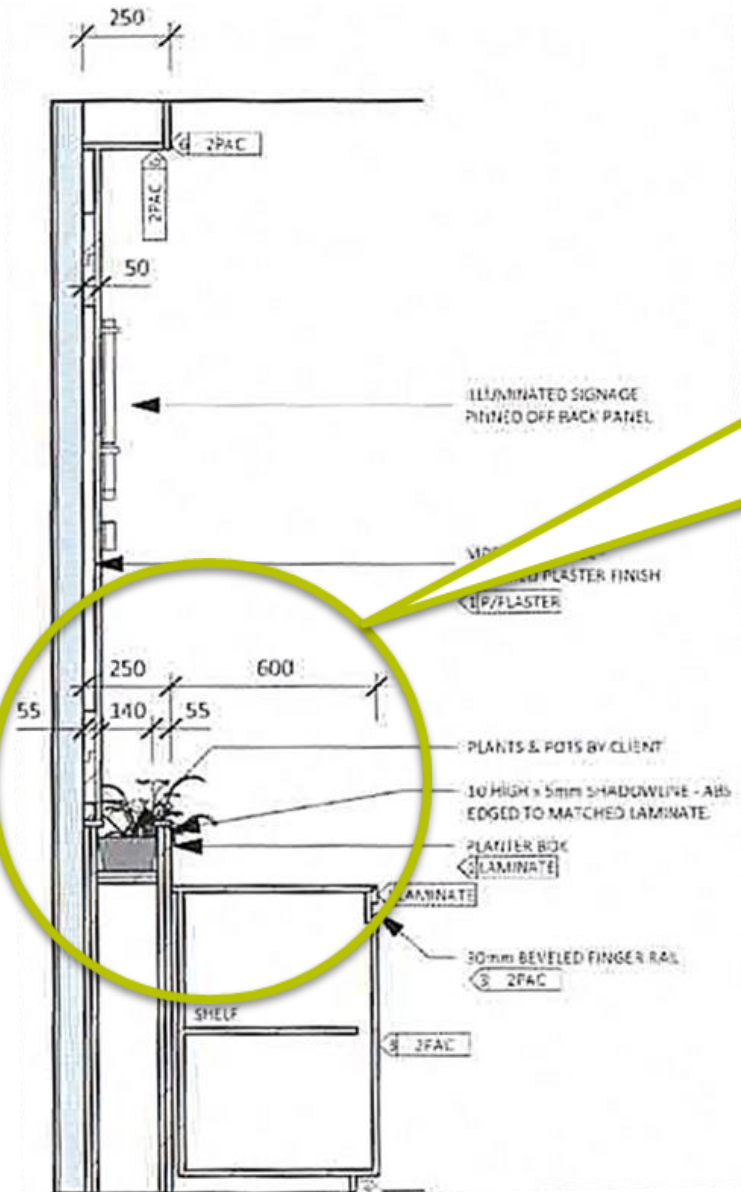

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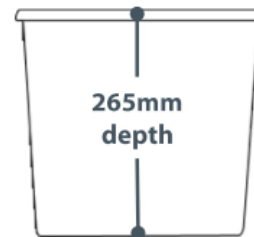
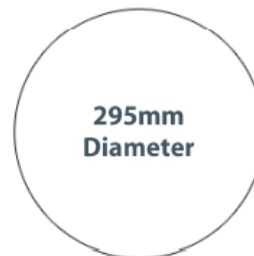
Deep Dive Floorplans

Custom Joinery

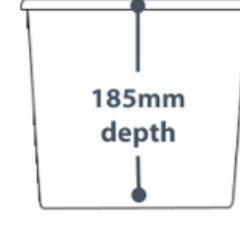
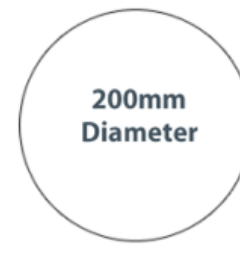
Custom joinery - what to consider:



- Architect specified 250mm plants
- 140mm available width
- No depth provided
- *What to keep in mind*



250mm
Cone Liner



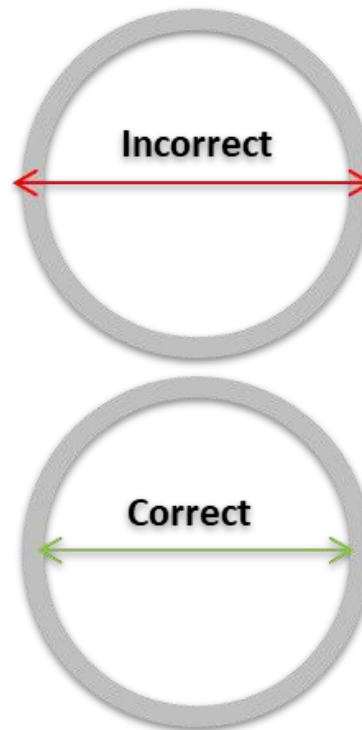
200mm
EZYMaintain

Custom Containers

What to consider:

An example of when the process can go wrong:

- Desired plant sizes will not fit
- Smaller plants may have to be used
- Green star accreditation at risk
- Potential extra costs
- PC date at risk



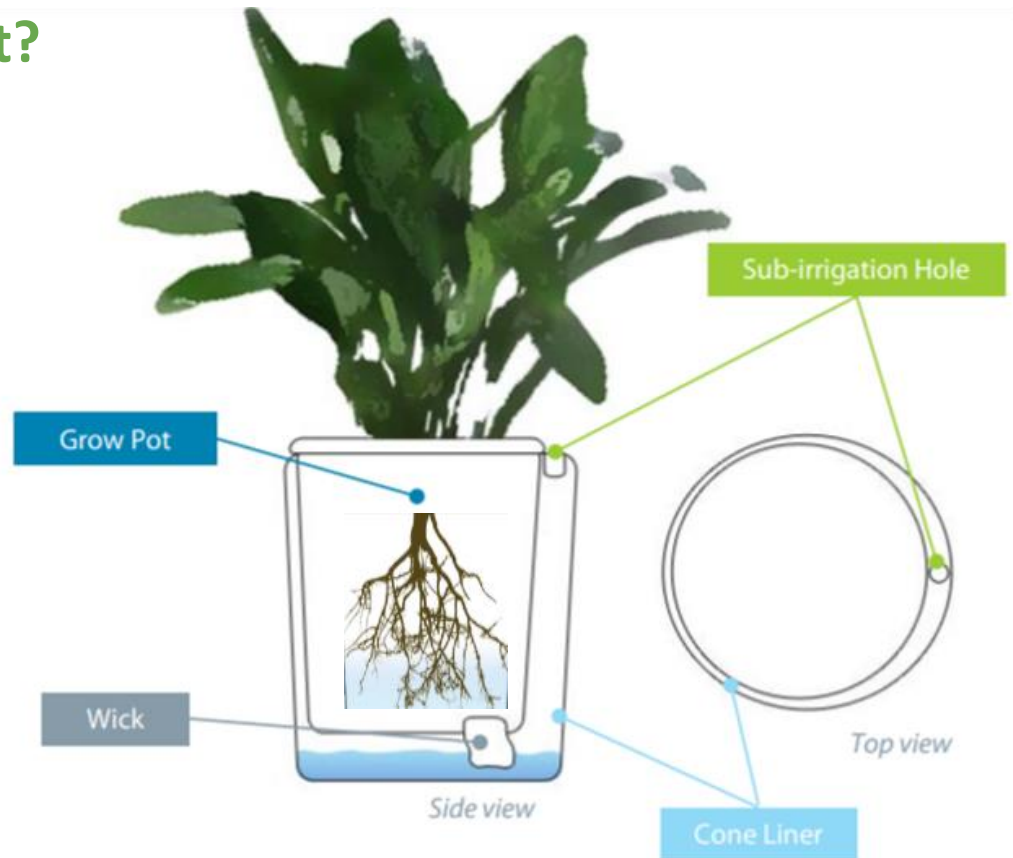


Deep Dive Subirrigation

Best practice Subirrigation

Why is Sub-irrigation important?

- Precise **Sustainable** Method of Watering
 - Cost effective - less interruption with replacements
 - Enables the plants to effectively remove VOC's thus improving Indoor Air Quality (IAQ)
 - Our cone liner is a mini sub-irrigation system for individual plants
 - Great solution for large garden beds, or in containers that are not water tight
- ★ Important - Cone Liners are larger than standard plant grow pots - reach out to Ambius for dimensions



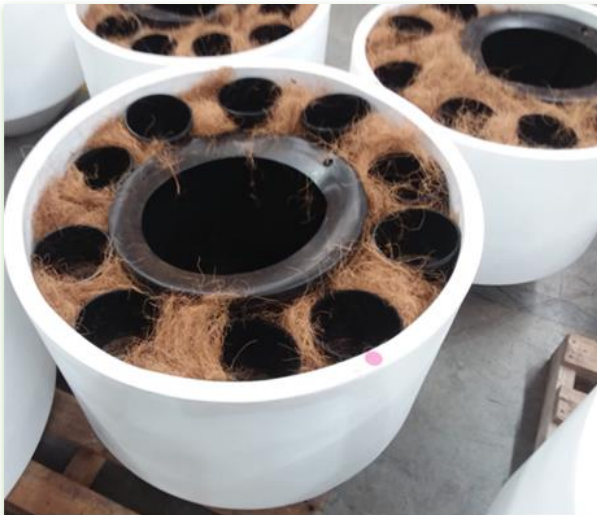
Subirrigation - Sealing Examples



Before



After



PLANNING WITH INDOOR PLANTSCAPING

The importance of light

- Plants need light to convert water and carbon dioxide into carbohydrates - that make up the structure of the plant.
- This process is called **Photosynthesis** - meaning *assembly by light*
- The amount of light required varies between plant species
- 3 Plant light levels
Low: 250 - 400 LUX
Medium: 400 - 1500 LUX
High: 1500 - 2000 LUX



It is important to select the right light level plant for every space.

Did you know?

Photosynthesis can only take place in the presence of chlorophyll

Variations in leaf colour occur when there is a shortage of chlorophyll


ambius

A photograph of a modern office interior. The ceiling is white with a grid of recessed lighting. In the foreground, there are white plastic chairs and a table. In the background, there are large windows and a planter box filled with green plants. A green overlay with a white border is on the left side of the image, containing the text "Deep Dive Procurement Timeline".

Deep Dive Procurement Timeline

Ambius Plant Timeline



Quality Plant selection range:

Ambius plants are propagated, sourced and on-grown at our 6.5 hectares Ambius Accredited Nursery

Ensures consistent high quality plants, acclimatised for indoor use, enabling them to continue to thrive in indoor spaces

Important factors to consider:

- Species selection
- Availability / seasonality
- Timeline
- On growing

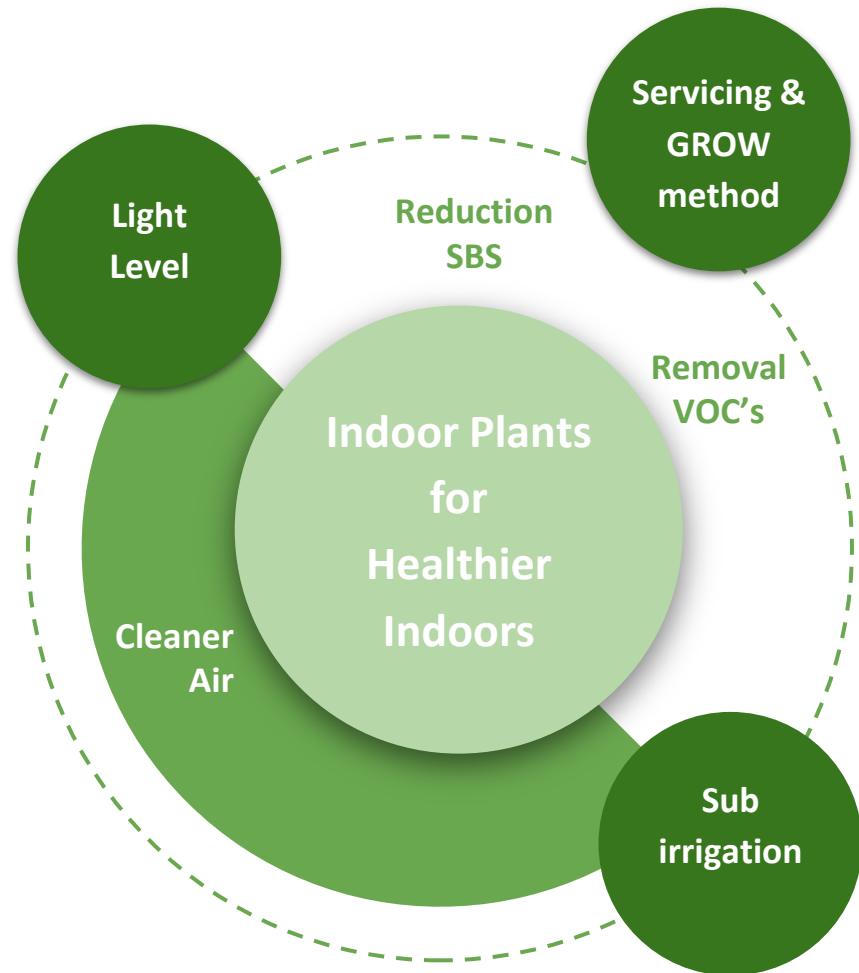
*Depending on projects size and specifications procurement of plants can take 3-6 months and up to 12 months.

After PC: Importance of ongoing Maintenance

Impacts on effectiveness of Indoor Plant Health benefits

What is the formula to keep the plants healthy for the life of the contract?

**“optimum plant health”
=
“Improved quality of Indoor Air”**



A modern office interior featuring a large, curved white table and white chairs. The space is filled with various indoor plants, including a large green plant in the foreground and a long planter box with multiple plants in the background. The ceiling has a grid of white panels with recessed lighting. A large green circle is overlaid on the left side of the image, containing the text "Benefits of Indoor Plants".

Benefits of Indoor Plants

Benefits of indoor plants

Urban Air Pollution - the quiet epidemic

- Air pollution is not *lower* inside buildings
CO / VOC's / Particulate matter / Ozone

* The outcome of this:

- The world's largest environmental health risk
(OECD/IEA 2019)
- >\$24 billion pa in health costs
(Access Economics 2008)
- 28,000 years of life lost / 5,000 deaths pa in
Australia (AIHW 2016)
- Poor health, lost productivity, low workplace
performance

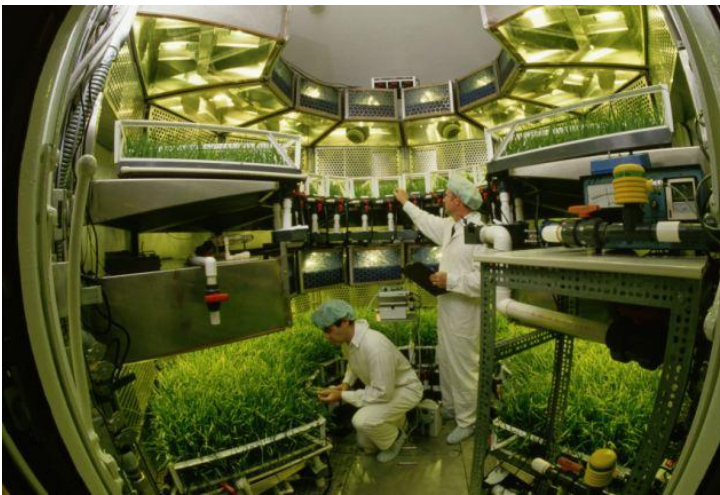
*UTS statistics presented at GBCA webinar 2021



Benefits of indoor plants

The journey to understanding indoor plant benefits

- NASA studies (Wolverton *et al.* 1983–1997) showed that plants improved air quality in sealed spacecraft simulators
- Multiple clinical studies all over the globe
- UTS study continued the research on the effects of indoor plants in study settings, offices and more to understand rates of removal
- Ambius and UTS study underway in 2022 - focusing on rates of specific VOC removal



Benefits of indoor plants

The effect of Indoor plants on the IAQ

Sources of indoor pollution:

- Most indoor items and processes emit harmful toxins called Volatile Organic Compounds.
- VOC's are gasses emitted into the indoor air from products and processes that do not use VOC free components.

How Indoor plants help remove toxins:

- Through process of photosynthesis, indoor plants naturally absorb toxins and pollutants, break them down and release oxygen back into the indoor air.



Research shows that Indoor plants bring in a wealth of benefits. They are powerful in removing indoor toxins and pollutants, promoting indoor health and wellbeing.

Indoor plants benefits

- **80%** of us live in urban areas, where most of us spend **90%** of our day indoors.
- Levels of indoor contaminants can be 2-5 times higher than outdoors

“UTS study recorded average scores of reductions in stress and negative mood feelings of over 40%”

Remove up to
80%
of VOC's

Improve
productivity,
focus and
performance

Reduce
coughing, dry
eyes, nose and
throat

Remove up to
20% of
Carbon Dioxide &
Monoxide



Key Terms & Phrases

- **Biophilia:** A term meaning: Humanity's innate need to connect to nature
- **VOC's:** Volatile Organic Compounds are gasses emitted into the indoor air from products and processes that do not use VOC free components
- **IAQ:** Indoor Air Quality
- **LUX:** is the amount of illumination (light) provided when one lumen is evenly distributed over an area of one square metre.
- **Custom Plantscaping Joinery:** is bespoke built wooden components that house plants in various settings/locations indoors.
- **Photosynthesis:** Photosynthesis is a process used by plants and other organisms to convert light energy into chemical energy that, through cellular respiration, can later be released to fuel the organism's activities.
- **Subirrigation:** a precise, sustainable water delivery method where the plants draws up water from the reservoir via a wick.
- **Wick:** material inserted into the bottom of the growpot that allows plants to take up water from reservoir in the base of the container through capillary action.
*Ambius uses medical grade wicking
- **Cone Liner:** subirrigation system allowing plants to take up water as it needs it with the added benefit of sealing the decorative custom container/joinery that houses it.

In Conclusion

IAQ

Sustainability

Biophilic
Indoors

Healthier Indoor environments are important for the staff and clients, assisting businesses to become *Employer of Choice*. Especially now as the competition intensifies with the new trend - WFH.

Importance of working with credible partner in plantscaping, for a successful journey from concept to project completion and beyond.

Thank You!



<https://www.ambiusindoorplants.com.au/>

