GARDEN TRAYS

Bringing greenery directly into the built environment

Future Village Garden Trays create floating gardens and lawns that sit directly on built surfaces - no excavation or surface penetration required.

Designed for flexibility, the trays can be easily positioned, relocated, and configured to suit a wide range of spaces.

More than just visually appealing, the system helps reduce the urban heat island effect, manage storm water runoff, improve air quality, provide rooftop thermal insulation, and support urban biodiversity.

By turning underused, hard-surfaced areas into vibrant green zones, floating gardens deliver a practical greening solution that fosters community connection and improves urban liveability.

Future Village trays are ideal for councils, architects and developers seeking practical greening infrastructure that adapts to changing needs. From trial installations to long-term placement, the system offers a smart, scalable approach to cooling and humanising the built environment.

Placemaking	Urban greening	Cooling
Green public places	Improved air quality	Mitigate urban heat island effect
Community connection	Stormwater management	Rooftop insulation
Physical and mental well-being	Biodiversity and Habitat Creation	Optimise photovoltaic roof systems

APPLICATIONS

- Green roofs and balconies. Non evasive greening for residential and commercial buildings
- Building podiums and terraces. Enhancing amenity space with flexible, low-maintenance greenery
- Street-level greening. Softening urban landscapes, reducing heat, and improving pedestrian experience
- Temporary installations. Ideal for pop-up parks, events, and seasonal displays
- Retrofitting existing hardscapes. Bring life to carparks, plazas, and forecourts without major construction

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ADDRESSING THE URBAN HEAT ISLAND EFFECT

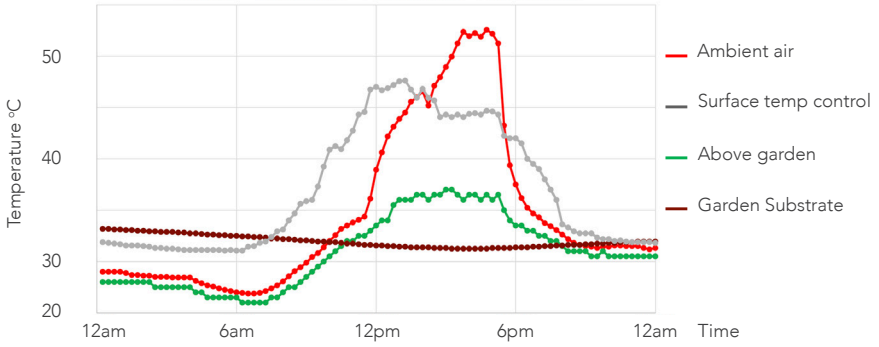
The urban heat island effect is an emerging threat to cities globally, with rising summer heat increasing building energy costs and becoming a significant health burden.

Urban greening is widely recognised as a key strategy to help reduce urban heat islands. However, many urban areas lack the space needed for traditional vegetation or opportunities to deliver targeted cooling.

Future Village addresses this challenge with innovative and sustainable solutions, designing and installing free -standing green infrastructure that brings cooling and greenery to built-up areas - all without the need for excavation.

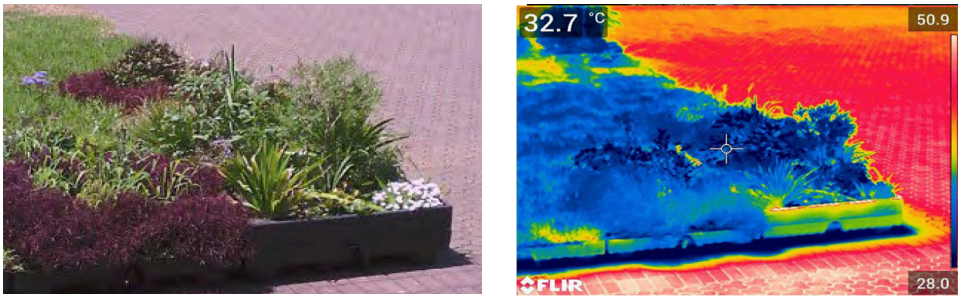
AMBIENT AIR*

On days where ambient air temperature exceeded 35°C at control sites, the ambient air temperature was 12–14°C less at the Floating Garden sites.



INFRARED ANALYSIS*

FLIR camera studies showcased the difference in plant species and mulch cooling properties in trays leading to the development of our cool plant and mulch library.



Infrared photos. Ambient temp 32.7 °C. Vegetation approx 28 °C. Paving maximum 50.9 °C

GREEN ROOF APPLICATIONS

Modular, non-invasive, and suitable for sloped surfaces, the garden tray system is ideal for both new and retrofit green roof installations.

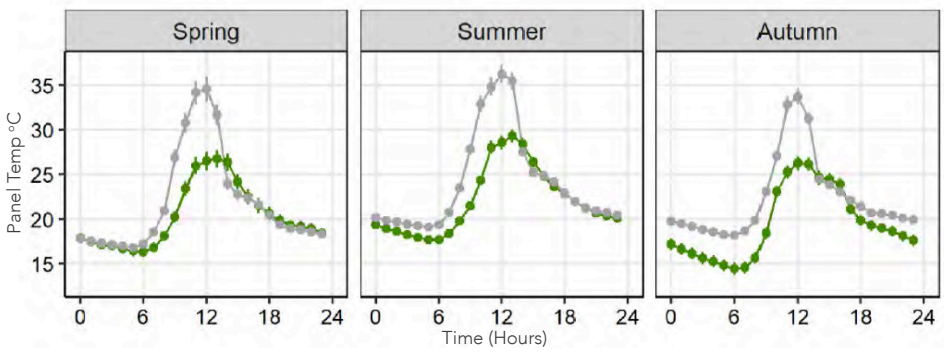
Designed to sit directly on built surfaces with no need for structural alterations or permanent fixtures, the trays offer flexibility for easy reconfiguration or removal - perfect for both long-term and temporary rooftop greening.

By adding vegetation to rooftops, the system helps reduce heat gain, manage stormwater, and convert underutilised roof space into a functional, visually appealing green amenity.

BIOSOLAR PHOTOVOLTAIC ENERGY OUTPUT*

Panel temperatures within a bio solar rooftop garden vs control solar panels on concrete roof.

There was a 4.5% greater output from panels for all tested seasons, and as much as 107% during peak periods.



*Results from University of Technology, Sydney study 2024.

GARDEN TRAYS

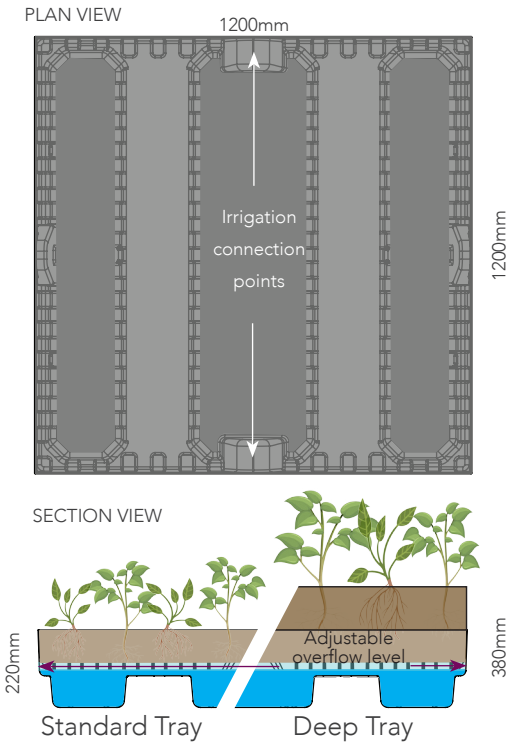
Technical data

DIMENSIONS

	mm
Footprint	1200 x 1200
Tray height	220
Deep tray height	380
Soil depth standard tray	75
Soil depth deep tray	215
Water storage depth	86 - 132

WEIGHT

Tray with soil & dense planting	kg/tray	kg/m²
Dry	155	108
Saturated soil + full reservoir	311	216
Deep tray with soil & dense planting		
Dry	379	263
Saturated soil + full reservoir	589	409



MATERIAL OPTIONS

1. High molecular weight polyethylene (HMWPE) 50% re-purposed off-cut material or,

2. Flame retardant acrylonitrile butadiene styrene (ABS FR) plastic.

FIRE RATING

For trays manufactured from ABS FR

Flammability Rating: UL94HB - V0

THERMAL INSULATION*

Tray type	R Value (Resistance m²K/W)	U Value (Transmittance W/m²K)
Turf tray	4.72	0.21
Garden Tray	5.54	0.18
Deep Garden Tray	5.86	0.17

*Results from University of Technology, Sydney study 2024. Values calculated from combined layers.

MAINTENANCE

Project Specific. Typically monthly visual inspection & six month hard component inspection.

WARRANTY

Hard Components - Project Specific up to 5yrs

Organic material - Project Specific.

OPTIONAL EDGING

Powder coated steel
Colorbond
Soft fall
Coir logs
Other materials available on request

SUB IRRIGATION & WICKING

Internal water refill system.

Plumbed in or free standing elements.

Compatible with standard hose snap lock fittings and other irrigation systems.

Pressure compensated design ensures uniform water distribution across all trays.

Daisy chain trays together for simplified, scalable irrigation setup.

DRAINAGE

Integrated rainwater capture and detention.

High surface drainage rates. Turf is usable after heavy rain.

Variable overflow depth.

TRANSPORT

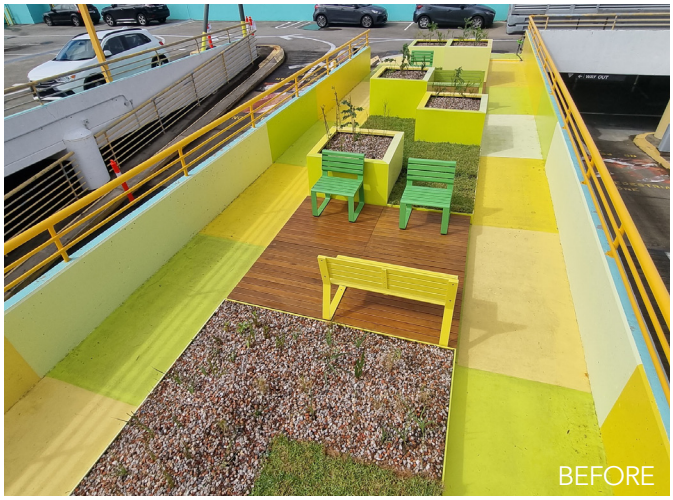
Pallet jack / forklift handling.

Turf trays stackable up to 5 unit during transport.

GARDEN TRAYS

Transport - pallet jack or forklift.

Horsham Victoria Main Street greening. Garden trays integrated with Future Village seating and Planters.



Bondi Junction NSW, Sky Parks trial. Integrated with Future Village modular decking and Planters.

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