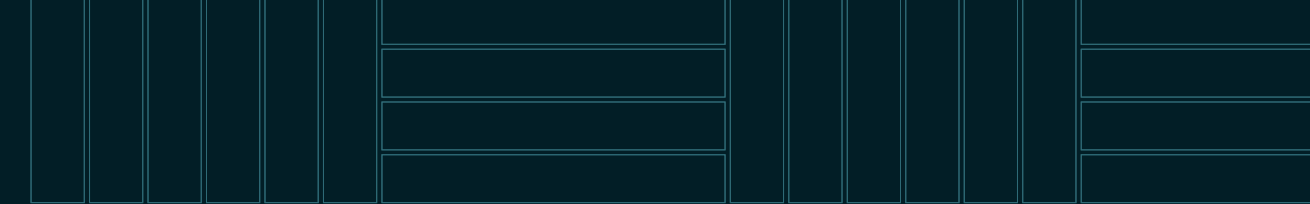
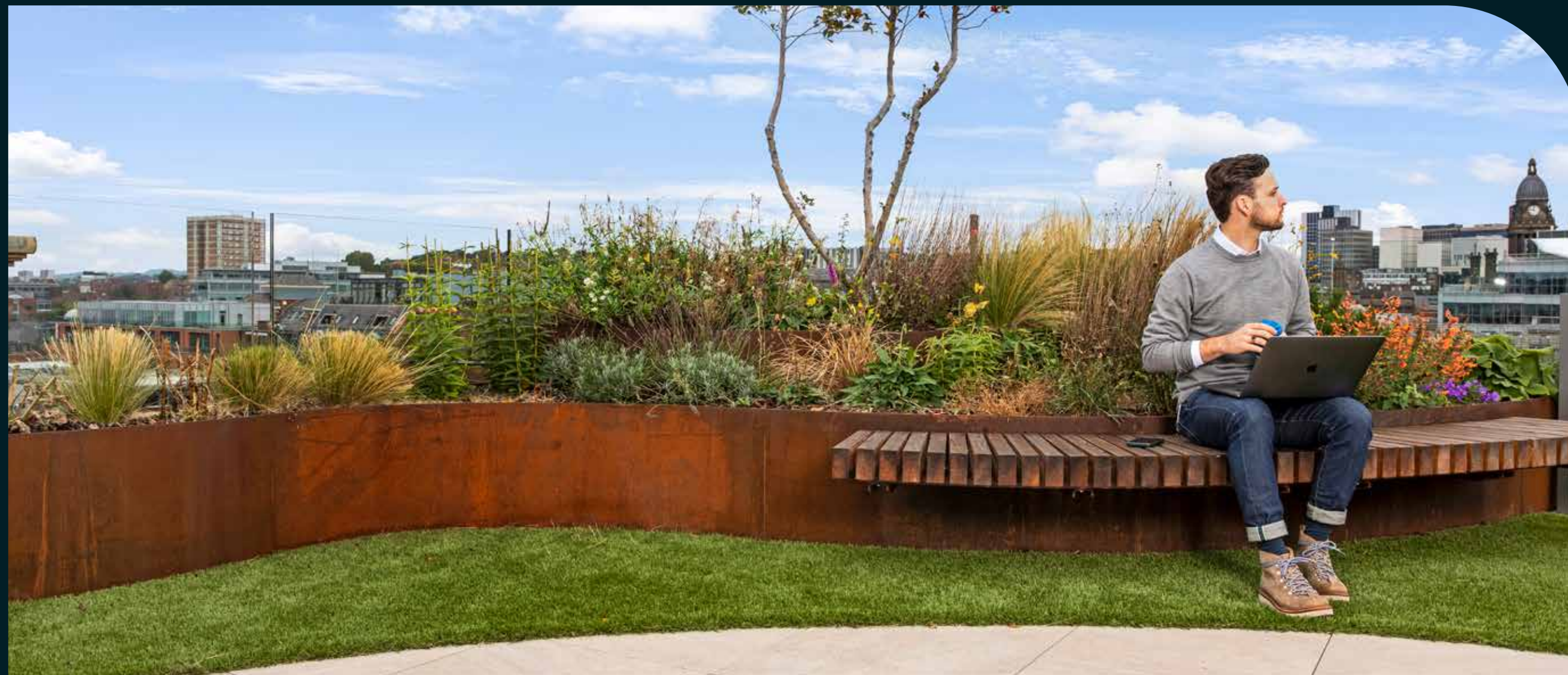




RAAFT[®]



Roof Terrace Guide



We create outstanding terraces through creative, versatile systems.

Behind our intuitive system is an innovative team.

Our technical consultants, project managers, product designers, and construction professionals—supported by an invaluable team—work together to deliver complete, end-to-end service.



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Our Story

Raaft® has been creating exceptional outdoor spaces since 2008. We aim not just to improve existing methods, but to solve new challenges by rethinking problems and exploring innovative solutions. We continue to push forward and remain at the forefront of design and technology.

Sustainably upgrading urban environments has always been a top priority. We continually research, develop, and refine our products to deliver environmentally responsible spaces.



Our Vision

To be the first choice for commercial roof terrace spaces.



Our Mission

We elevate roof terrace spaces through creative, versatile systems.



We enable **design creativity** and **reduce risk** with a complete, **customizable** rooftop terrace system—engineered to **work together** and built to last a **lifetime**.



The Raaft® Terrace system is compliant with ASTM-E108

Fire-safe Terrace System

When does a terrace need to be fire-rated?

The 2017 Grenfell Tower fire highlighted critical fire safety flaws in external materials like cladding, leading to stricter UK regulations. This spurred Raaft to introduce its fire-compliant Preventa® system in Europe and North America. Our strong relationships with US, UK, and European mills and foundries allow us to offer these fire-safe products cost-effectively.

US fire regulations vary by state. The ASTM-E108 standard, governing roof build-ups, often mandates non-combustible or less-combustible materials, which can include roof terrace systems. Some regions require 80% non-combustible materials. Always consult your local fire safety officer for specific guidance.

Raaft's system inherently meets the highest ASTM Class-A fire rating because its structural components (steel pedestals, aluminium joists, porcelain tiles) are all non-combustible.

Materials classified as Class A for reaction to fire, as outlined in ASTM-E108, do not require testing and include:

- Natural stone
- Porcelain products (pressed or extruded, glazed or unglazed)
- Aluminum and aluminum alloys
- Iron, steel, stainless steel with an inorganic surface coating (e.g. zinc)
- Powder-coating compounds used on aluminum and steel, which contain no volatile organic compounds (VOCs), and therefore remain within Class A2



Designing Roof Terraces

Design considerations and common challenges.

Wind Uplift

When air passes across a horizontal surface, it creates a pocket of negative air pressure. If this pressure is lower than the air pressure beneath the surface, a lifting force may occur—similar to how aircraft wings function.

Raافت® systems were tested to withstand 870 psi (6,000 kPa) during cyclic loading, showing minimal deflection—just 0.005 inches (0.12 mm)—and no failures, breakage, or dislodgement from the joists or pedestals.

For comparison, a typical rooftop paver system might experience around 178 psi (1.23 kPa) during a 3-second gust from a rare 100 mph (approx. once every 50 years) wind event. In open terrain, that pressure could reach up to 203 psi (1.4 kPa) at 33 feet (10 meters) above ground.

The test results (870 psi) demonstrate uplift resistance more than four times greater than what would be required during a 100 mph wind event (178–203 psi). Even when applying a safety factor of 1.5, which raises the design pressure to 305 psi (2.1 kPa), the system still exceeds this by nearly three times.



How Raافت® are improving wind uplift resistance

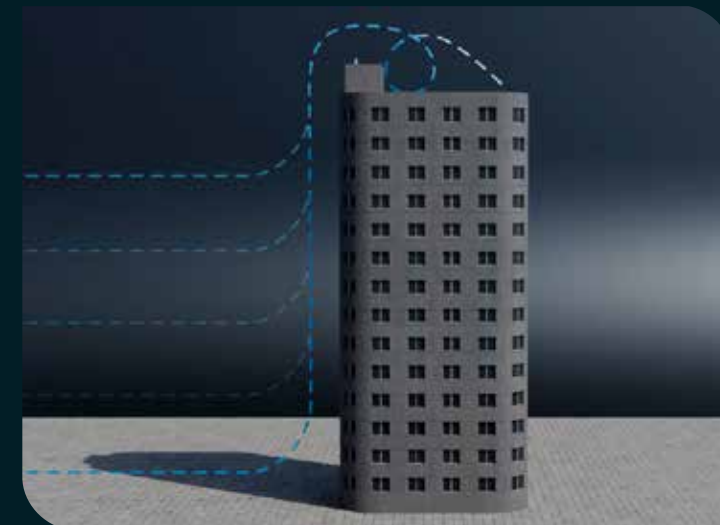
Uplift resistant porcelain tiles

Our porcelain tile products are all characterised by design flair and premium quality porcelain manufacturing. Porcelain is a highly durable anti-slip surface resistant to scratching, staining and frost damage.

Atria® + wind-uplift tiles is an innovation based on our popular Atria® Porcelain Tiles, available in a fine selection of highly authentic wood, stone, concrete, and terrazzo effect finishes and a range of sizes to create uniform or random patterns.

Anti-uplift clips

Atria® tiles feature a groove in the edge of the porcelain. Used in combination with our Raافت® Terrace System, our design-protected stainless steel or Nylon 12 RP anti-uplift clips fit unobtrusively into this groove and will prevent uplift at typical UK wind speeds.



Waterproofing and Drainage

When installing landscaping products on a roof terrace or podium, it is important that the integrity of the structure's waterproofing is not compromised by drill-through fixings and that water from precipitation and irrigation is allowed to drain freely.

The Raaft® system is designed to make terraces appear fully integrated within the building's construction without fixings. All components—from the decking and tiles to the support panels beneath planters and raised planter areas—are designed to allow efficient drainage across the entire terrace. By using our patented Venice clip, water is able to escape effectively, ensuring proper drainage.



Weight Loading

Some landscaping products, particularly large planters with fully saturated soil level, can exert significant downward force. To mitigate localized weight loading, the patented Raaft® system distributes the weight across a framework of load-bearing joists and support pedestals. Using data from your project's structural engineer, we can help you calculate safe weight loading and distribution across your terrace.

Patent # US-10113321-B2



Slope Correction

We offer a slope corrector which addresses the challenges posed by uneven terrain. These devices are strategically placed to correct and stabilize slopes. By redistributing and managing water flow, slope correctors help prevent erosion, soil movement, and drainage issues. Whether applied in landscaping projects, or residential areas, slope correctors play a crucial role in maintaining slope integrity, ensuring long-term stability, and promoting effective water management for a safer, and more sustainable environment.



Service Access

After installing a terrace system, access to the space below will still be required for servicing and maintaining rooftop mechanical and electrical equipment and supply systems, checking and repairing insulation and waterproofing layers and cleaning out drain inlets.

The Raaft® system is designed so all components—even heavy planters—can be easily removed, allowing full access beneath the terrace for maintenance and cleaning.

The Value of Roof Terraces

As housing demand continues to rise across the United States and available land becomes scarcer and more expensive, developers are building upward rather than outward, especially in major cities. This shift brings new challenges, as architects work to design healthy, appealing residential environments where every square meter counts. A common feature of many high-rise buildings is flat roof space. Once overlooked, these rooftops are gaining popularity for their potential as gardens and terraces. What's driving this growth?

ADDED VALUE

Based on our experience over the past decade working with developers, we've learned that you can boost a property's value. In 2015, estate agency Marsh & Parsons reported that a roof garden could boost a property's value by up to 12% in New York—and as much as 25% in Midtown Manhattan. That's an impressive return on a space that was once overlooked and underutilized.

RESIDENT ACQUISITION AND RETENTION

In a competitive housing market, developers and landlords must stay ahead to attract and retain residents. Once considered a luxury for the wealthy, roof gardens are now a common feature on the checklist for apartment buyers and renters.

RESIDENT BENEFITS

Access to private or shared outdoor space within the property enhances residents' lifestyle by providing a connection to nature and a retreat from the noise, crowds, and lack of privacy in urban living.

ENVIRONMENT

A rooftop garden can make a meaningful environmental impact in urban areas by providing wildlife habitats, improving air quality, and supporting rainwater harvesting.

SOCIAL BENEFITS

Access to outdoor green spaces is essential for supporting mental and physical well-being in high-density urban areas. However, this benefit is often overlooked when visiting a park requires a long walk and extra planning. Having green space right on the doorstep—or rooftop—makes it easy to enjoy short, restorative breaks throughout the day.

ECONOMIC BENEFITS

This versatile outdoor space boosts a property's visual appeal and functionality. A well-designed rooftop terrace can also improve energy efficiency by adding insulation and reducing heating and cooling costs—enhancing the overall economic value of the property.





The Complete Terrace System

Our flexible terrace system is made up of recyclable components, engineered to work together so you can build the ideal solution for your space. From a sturdy, Class A fire-rated base to the perfect decking and tile combination—finished with beautiful planters full of natural charm—every element is designed to work in harmony.

Our team of experts will guide you through every step of creating the perfect terrace space for your next project.



30-year warranty



Screwless system



Recyclable products



One stop shop



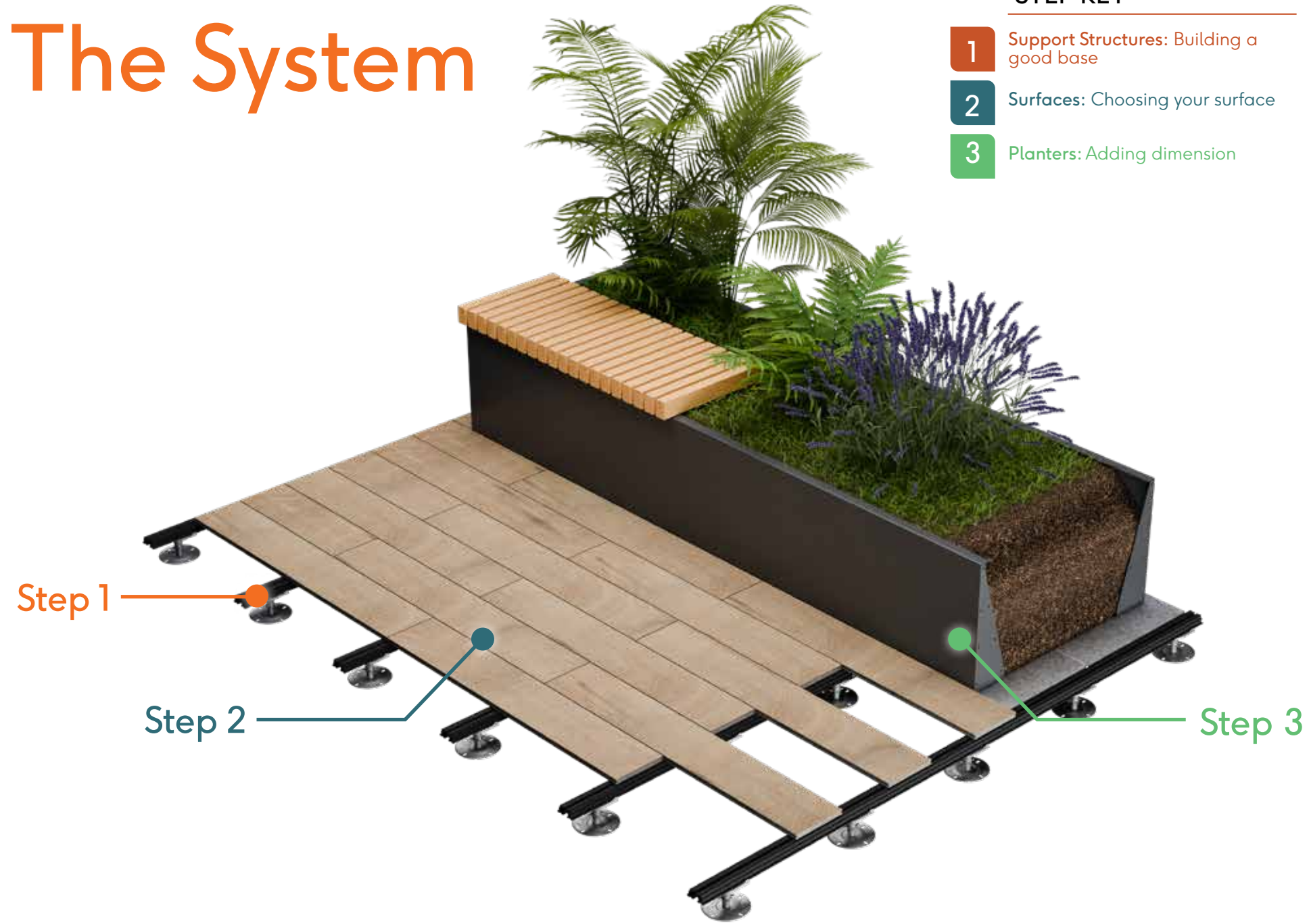
Easy to install



Fire rated



The System



STEP KEY

- 1** Support Structures: Building a good base
- 2** Surfaces: Choosing your surface
- 3** Planters: Adding dimension

Step 1

Step 2

Step 3

Built in a Simple 3 Step Process



Step 1

Building a good base

A high-quality support structure is essential for building a sturdy, safe terrace. Since roofs are rarely flat or level, the patented Raaft® support system offers the ideal solution.

Patent # US-10113321-B2



Step 2

Choosing your surface

Our surface options include Terrafina IPE or Thermall modified decking, Atria® Porcelain Tiles, and Farrino® Porcelain Decking—available in a wide range of styles, colors, textures, and finishes.



Step 3

Adding dimension

A terrace can be effortlessly transformed into a garden by adding planters that create layers of interest and a sense of permanence.

Support Structure



Support Structures



The RaafT® Terrace System is compliant with ASTM-E108

Aluminum joists are installed on top of adjustable pedestals to evenly support the weight of porcelain tiles, decking, floor structure panels, and planter systems. Bracing struts between the joists help distribute the load and maintain consistent spacing.

Below is a typical example of the support structure and flooring layout.



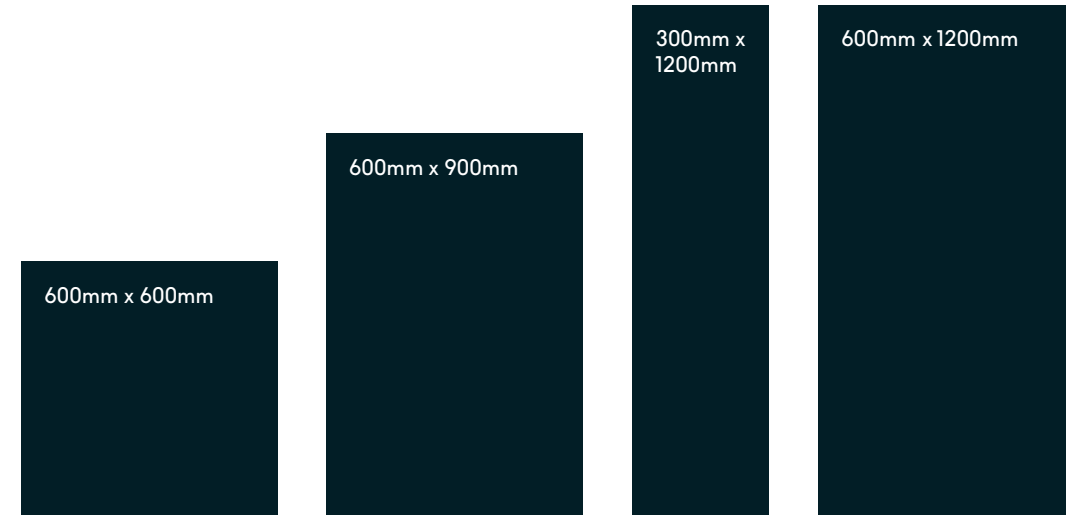
Atria® Porcelain Tiles

Technical Specification



Tile Size Range:

More tile sizes available upon request.



If you are looking for a specific size, please reach out to one of our technical team.

Surfaces



Lucca Pearl
600x600mm, 600x1200mm



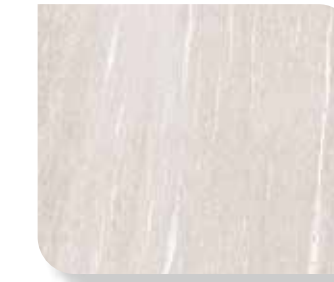
Lucca Beige
600x600mm, 600x1200mm



Lucca Grey
600x600mm, 600x1200mm



Lucca Ivory
600x600mm, 600x1200mm



Modica Fawn
600x600mm



Modica Ferro
600x600mm



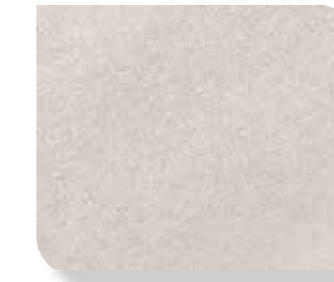
Modica Pewter
600x600mm



Modica Silver
600x600mm



Modena String
600x1200mm



Modena Ivory
600x1200mm



Modena Smoke
600x1200mm



Roma Earth
600x600mm



Roma Lead
600x600mm, 600x900mm,
300x1200mm



Roma Natural
600x600mm, 600x900mm,
300x1200mm



Roma Copper
600x600mm

PLEASE NOTE: Tile collections are subject to change at short notice. Please call us before specifying or looking to purchase products. Visit raaftsystems.com for our current inventory.

Flooring



Asti Carbon
600x600mm, 600x1200mm



Asti Taupe
600x600mm, 600x1200mm



Asti Talc
600x600mm, 600x1200mm



Asti Mushroom
600x600mm, 600x1200mm



Asti Smoke
600x600mm, 600x1200mm



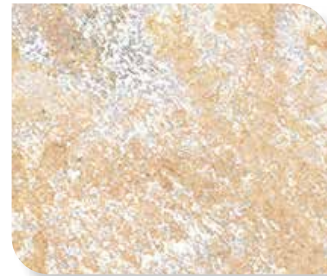
Florence Silver
600x600mm



Florence Millstone
600x600mm



Florence Graphite
600x600mm



Novara Cameo
600x900mm



Novara Ember
600x900mm



Novara Ashen
600x900mm



Novara Slate
600x900mm



Taranto Charcoal
600x1200mm

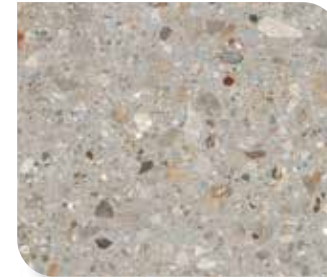


Taranto Hessian
600x1200mm

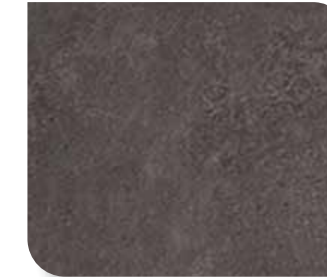


Taranto Steel
600x1200mm

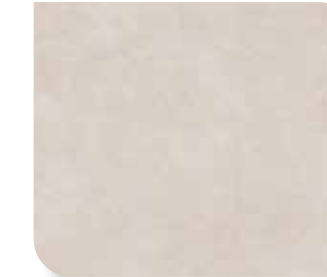
Surfaces



Padua Thunder
600x600mm



Venice Anthracite
600x600mm



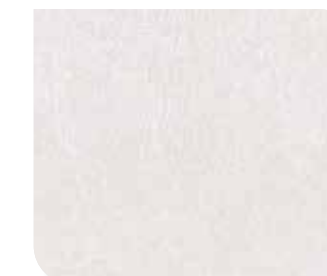
Venice Beige
600x600mm



Venice Grey
600x600mm



Venice Mocha
600x600mm



Pavia Cloud
600x600mm



Pavia Ochre
600x600mm



Pavia Urban
600x600mm



Pavia Shadow
600x600mm



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Farrino® Porcelain Tiles

Technical Specification



Tile Size Range:

1600mm x 300mm

1200mm x 400mm

1200mm x 300mm

1200mm x 200mm

If you are looking for a specific size, please reach out to one of our technical team.

Surfaces



Parma Cocoa
1200x200mm



Parma Flax
1200x200mm



Parma Mogno
1200x200mm



Parma Oak
1200x200mm



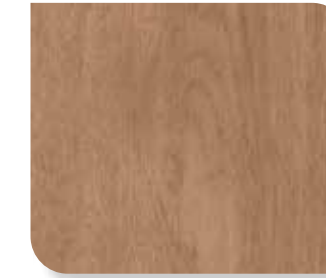
Parma Pearl
1200x200mm



Parma Smoke
1200x200mm



Como Brown
1200x300mm



Como Honey
1200x300mm



Milano Age
1200x300mm



Milano Box
1200x300mm



Monza Beige
1600x300mm, 1200x400mm



Monza Sand
1600x300mm, 1200x400mm



Monza Nut
1600x300mm, 1200x400mm



Monza Grey
1600x300mm, 1200x400mm

PLEASE NOTE: Tile collections are subject to change at short notice. Please call us before specifying or looking to purchase products. Visit raaftsystems.com for our current inventory.

Planters and Integrated Seating

Add layers of interest and
a feeling of permanence.



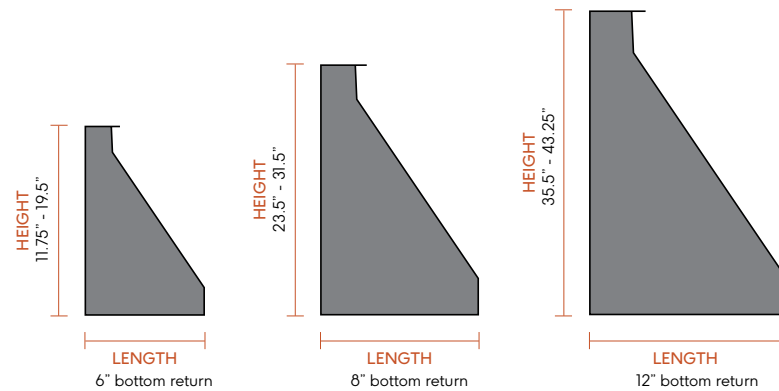
Planterline Straight Planters



Planterline Planters are premium quality steel planter panels available in straight and curved standard sizes suited to a wide range of designs, available in CorTen, PPC Green Steel, Galvanised T-Wash, Magner and Powder-coated to any RAL colour. The panel systems are pre-formed to straight standard sizes required for your project and are easy to handle and install on site. The panels have a unique folded design that ensures a strong retaining structure, but also keeps weight to a minimum making this an ideal choice for roof terrace applications.

Raafft® Timber Benches can easily be incorporated into Planterline Planter systems which add highly desirable relaxation areas. Can be used on the system, or directly on the roof, to increase soil volume.

Planterline Straight and Curved height range



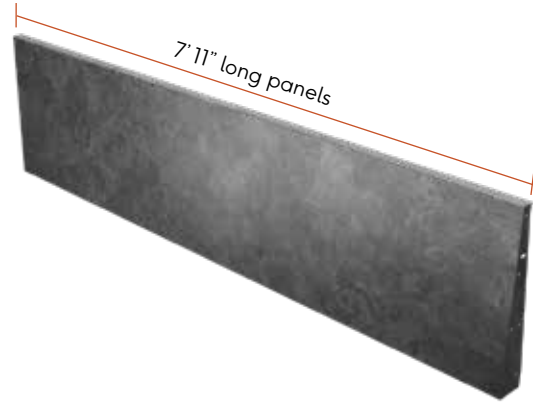
Benefits

- Strong and robust
- Folded top-edge
- Standard design
- Available in Corten steel, PPC Green Steel, Galvanised T-wash, and Powder-coated
- Quick lead times
- Faster install



Planterline Panels

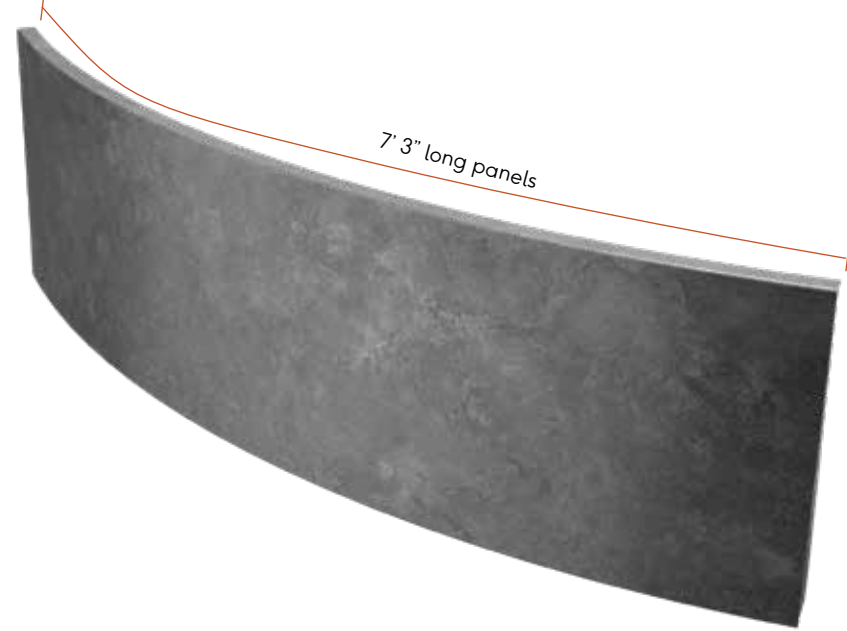
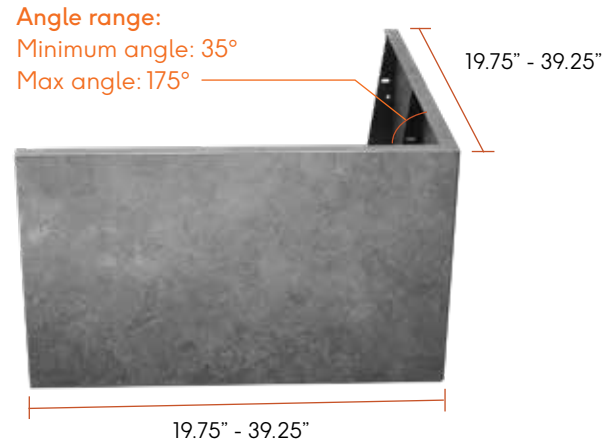
Straight



Curved



Corner



Design - Create - Inspire



Planterline Prism Planters

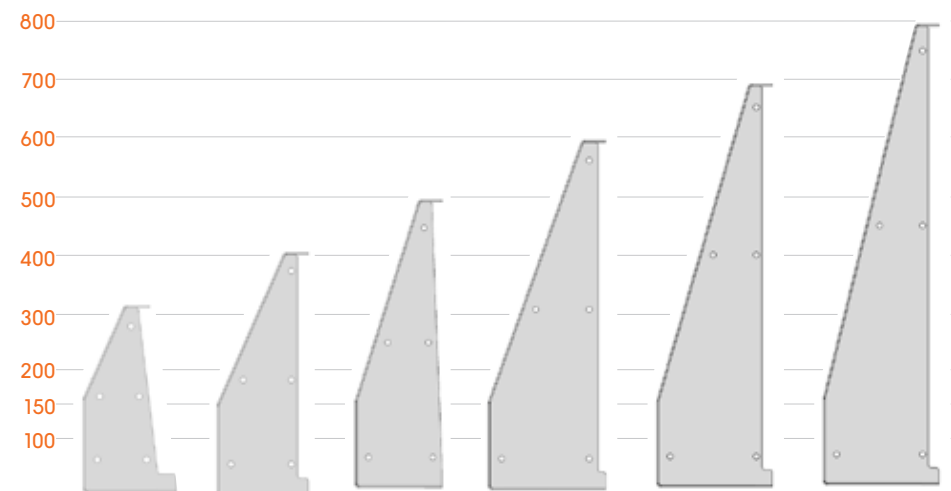


Planterline Prisms are premium quality steel planter panels available in a wide range of designs, available in CorTen, PPC Green Steel, Galvanised T-Wash, and Powder-coated to any RAL colour. The panel systems are pre-formed to standard sizes required for your project and are easy to handle and install on site. The panels have a unique folded design that ensures a strong retaining structure, but also keeps weight to a minimum making this an ideal choice for roof terrace applications.

Benefits

- Strong and robust
- Folded top-edge
- Standard design
- Available in Corten steel, PPC Green Steel, Galvanised T-wash, and Powder-coated

Planterline Prism height range

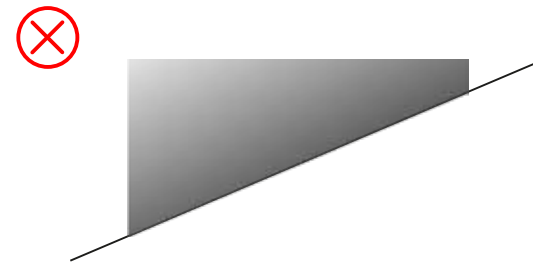


Old Street, London.

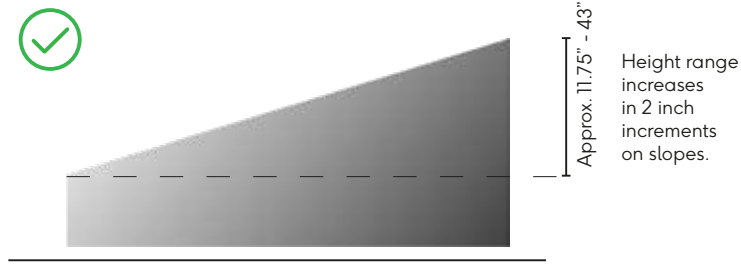
Planterline on Slopes

There are certain limitations with steel planter panels. Get in touch with our team to find out more.

Sloped bottom edge

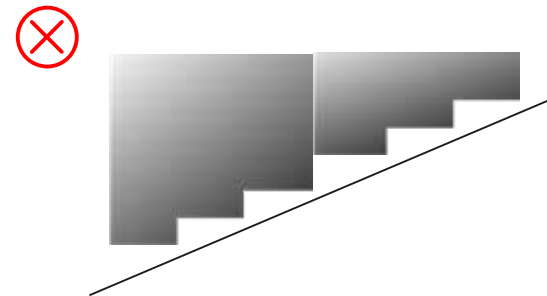


We're unable to do planterline panels with a sloped bottom edge.

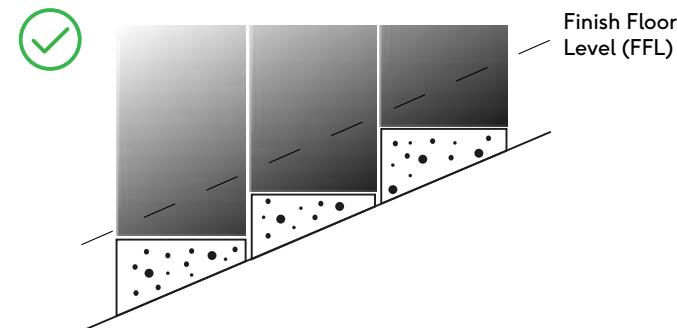


We can create planter panels with a sloped top edge. The shortest and highest height need to be in increments of 2 inches.

Stepped concrete foundation



We're unable to do planterline panels with stepped bottom edge.



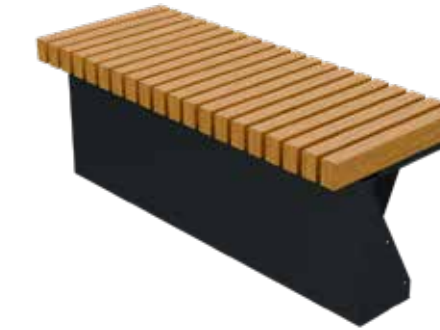
We can create level planters on a slope by stepping the concrete foundation and then changing the height of each planter panel to suit.

Ambit integrated seating

Our benches have been created to compliment the Planterline Planter Systems. Designs include Top Mounted and Cantilever versions completed with hardwood of either Ipe or Thermally Modified Ash to achieve a fantastic end result in any environment, requiring minimal if no maintenance at all.



Cantilever



Top Mounted



Lift Up Bench

Wood	Country of Origin	Hard or soft wood	Maintenance	Treatment	Product quality
Ipe (Brazilian walnut)	Central & South America	Hardwood	Will need oiling every two years	No treatment is advised to reduce maintenance	Premium
Thermally Modified Ash	North America	Hardwood	Will need oiling every two years	Does not require treatment after the modification process	Premium

Accessories

Enhance your project with our integrated accessories



Lighting

Add lights to your planter for a standout look at night. This not only boosts visibility in the dark but also gives your planter a captivating and unique appearance, making it a striking element in any setting.

Cabinet door

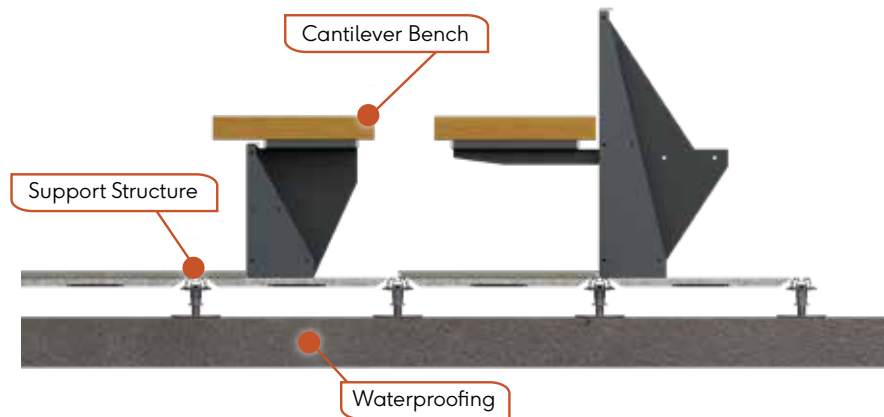
Integrate a cabinet door into your planter design for easy access to diverse weatherproof storage, including power sockets and lighting boxes. The design opportunities for the cabinet doors are extensive, offering both functionality and aesthetic appeal.



Landmark Pinnacle, Canary Wharf



Steel Planter Systems
Benches on Support Structure





Inspiration

See how our terrace systems enhance outdoor spaces.





66 Hudson Yards

Rising above Manhattan's West Side, the roof terraces at The Spiral blend architecture and nature in a bold, modern way. Designed by Bjarke Ingels Group and built with Raaft's precision-engineered systems, each level features landscaped outdoor spaces that spiral upward, creating a continuous ribbon of greenery. These terraces extend the workplace outdoors, offering skyline views, fresh air, and flexible spaces for collaboration or quiet retreat.

Supported by the Raaft® modular structure beneath every surface, The Spiral's terraces represent innovation, sustainability, and the future of urban design.

Location

Manhattan, New York

Architect

Bjarke Ingels Group (BIG) and Adamson Associates

Main Contractor

Turner Construction

Client

Tishman Speyer

Landscape Architect

Siteworks

Product Installer

Wolkow Braker





Netflix on Vine

In the heart of Hollywood, the Netflix on Vine campus features expansive rooftop terraces that redefine the outdoor workspace. Elevated above the city, these landscaped spaces—built with the Raaft® support system and natural granite pavers—offer panoramic views of Los Angeles and the Hollywood Hills.

Designed for both function and comfort, the terraces include shaded areas, integrated planters filled with greenery, and flexible zones for meetings, relaxation, or creative recharge. It's a vibrant, biodiverse environment that brings nature into the workplace.

Location

Los Angeles, California

Client

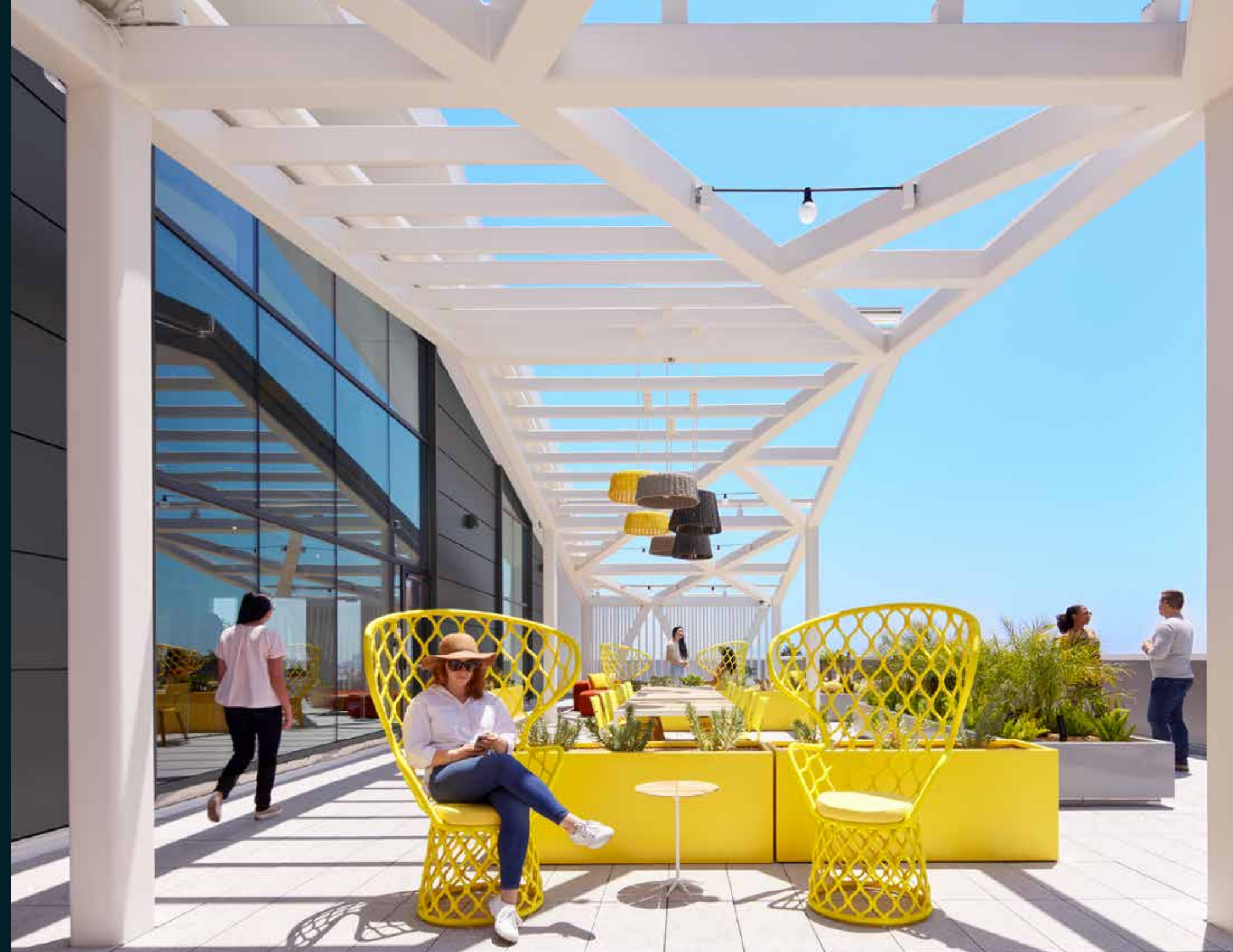
Killroy Realty

Architect

House & Robertson Architects

Main Contractor

Hathaway Dinwiddie Construction Company





Vans Rooftop

At the Vans Global HQ in Los Angeles, the rooftop terrace serves as a vibrant extension of the brand's creative spirit. Elevated above the city, this dynamic outdoor space features the Raaft® modular terrace system, Ipe decking, integrated planters, and flexible zones for collaboration, relaxation, and events.

With sweeping views and a laid-back California vibe, the terrace reflects Vans' culture of innovation and individuality—all supported by Raaft's precision-engineered structure beneath every step.

Location

Los Angeles, California

Architect

LPA, Inc. and Rapt Studio

Main Contractor

Hathaway Dinwiddie Construction Company

Client

Mark A. Smith & Associates





Boston University

Boston University collaborated with Raaft to meet a strict project deadline while adhering to stringent performance specifications, including non-combustible fire-rated materials and compliance with IBC 1504 wind uplift requirements.

To address these challenges, Raaft supplied premium Porcelain tiles supported by the fully integrated Raaft Preventa Support System—engineered specifically to meet such demanding standards. The project also required careful coordination around existing davit points, as well as the clear visual identification of drainage outlets to ensure tiles could be easily lifted for ongoing maintenance and access.

Location

Boston, Massachusetts

Architect

Main Contractor

Client

Landscape Architect

Product Installer





Training and Design Consultations

We prioritize your professional development just as much as the successful specification and installation of our products.

- **Fire Safety & Compliance:** Gain a clear understanding of post-Grenfell fire safety regulations and confidently specify compliant materials for your projects.
- **Innovative Terrace Solutions:** Discover Raaft's Class A fire-rated modular terrace system—easy to install, fully compliant, and design-focused.
- **Project Support & Inspiration:** Learn from real-world case studies, explore urban design benefits, and solve common roof terrace challenges with ease.



Embark on this educational journey with us to elevate your professional expertise and contribute to the creation of extraordinary outdoor spaces.



Made in USA



To book a Lunch and Learn Presentation, scan the QR code, send an email, or give us a call.

☎ (929) 999-1217

✉ hello@raaftsystems.com





raaftsystems.com

hello@raaftsystems.com

(929) 999-1217

550 Albion Avenue
Schaumburg, IL 60193

Respect the environment, please recycle.

