



WESTGATE OXFORD: PROJECT REVIEW



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Major city centre retail destination

Originally opened in 1972, the Westgate Centre had been the Oxford's main shopping destination for many years, but in recent times had become very much in need of renovation. The £440 million redevelopment of the site by Westgate Oxford Alliance - a partnership between Land Securities and The Crown Estate - opened in October 2017 and includes nearly 800,000 sq feet of retail, restaurant and leisure space, with new thoroughfares and public spaces integrated into the urban fabric of Oxford city centre. The scheme is a key part of the regeneration of the city, creating high quality buildings designed by world-class architects and providing more than 3,400 new full-time equivalent jobs. Furnitubes designers worked with landscape architects LDA Design to develop a series of planting and seating solutions for the rooftop terraces, designed around a kitchen garden concept and creating a series of unique outdoor spaces for 12 bars and restaurants and offering impressive views of the Oxford skyline and the countryside beyond. Themed areas include the sinuous Crinkle Crinkle, a Vegetable Garden and the more formal Garden Court as well as the Kitchen Garden itself. Planters were manufactured predominantly in steel, some with additional timber cladding and others with integrated seating and lighting.

For Westgate's ground level arcades and spaces Furnitubes again worked with LDA in the development of their punt seating concept, based on the square-ended long flat-bottomed boat used for recreation on the nearby Thames. Broken down into 6-seater modules, each unit comprises a rotationally-moulded plastic base in bold colours reminiscent of those seen on real punts, topped with solid and slatted timber platforms. The end units have been designed to convert into part-seat / part-planter in future. The size of the modules is designed to allow them to be readily moved around the site depending on the availability of space to accommodate other events.



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The Roof Terrace

Extensive planting and seating has been provided throughout the roof terrace, designed to create a variety of green backdrops and boundaries to outdoor dining areas. Each area is unique, individually themed but with a similar materials palette of metallic finished metalwork and iroko hardwood used across all areas.

The overall provision is as follows:

Crinkle Crackle:

One large planter with a wave-form front edge and 8 integral seat / bench units and a separate rectangular unit providing a total of 40 sq. m of planting

Kitchen Garden:

26 individual planters arranged in pairs and larger groups, with 6 integral bench units. Over 50 sq. m of planting in total.

Vegetable Garden:

Single continuous planter 42m long x 2m max deep, with 11 integral seat / bench units

Garden Court:

28 individual planters joined in 8 linear groups, providing over 60 linear m of planting troughs

Perimeter:

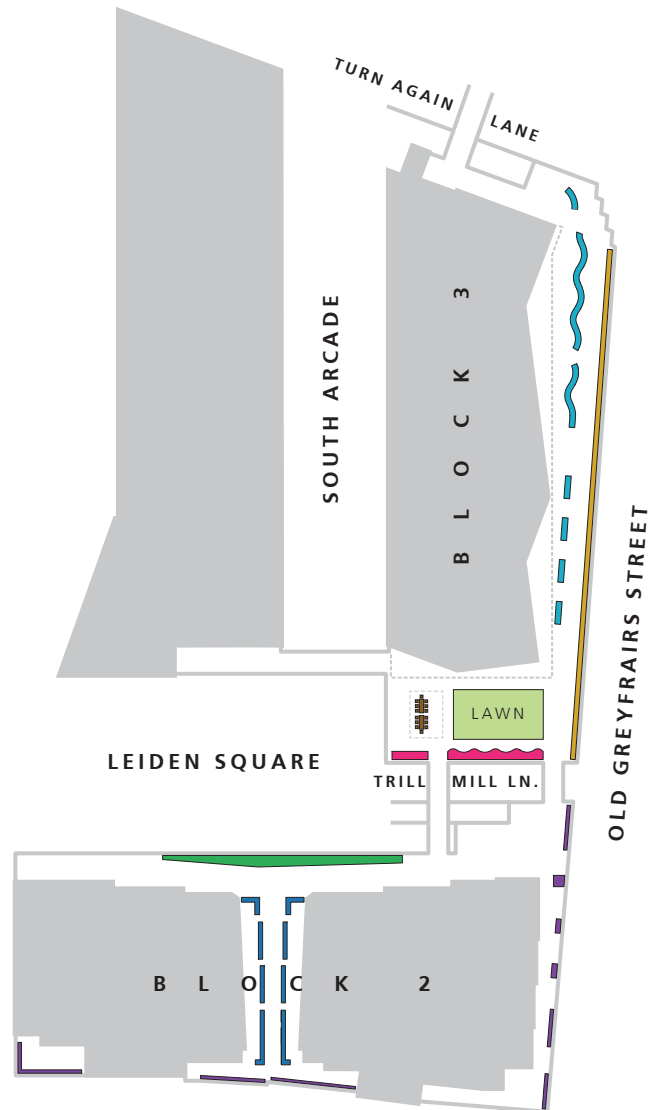
38 individual planters, some stand-alone and others in groups of up to 8 joined modules, providing over 70 linear m of planting troughs

Roof edge trough:

90 linear m long x 750mm wide continuous planting provision

Bar table & stools:

2 no. tables and 14 no. bar stools



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Designing bespoke products

Our designers have the expertise and experience to design across a broad range of products, although seating and planters are arguably those that we design most often for bespoke scheme solutions. These products above all others are major contributors to the character of any scheme, as is the case at Westgate Oxford.

Philosophy

As designers and manufacturers, consideration of buildability is at the forefront of our minds with any bespoke product. By establishing the important features of the design at the outset, these principles are upheld throughout product development. We also believe that attention to detail is critical, together with consideration of future maintenance and component replaceability in order to maximise product lifespan. We discuss cost estimates and programme at an early stage to ensure that it is realistic to deliver a new design on time and within budget.

Capability & expertise

Furnitubes works in all major materials and manufacturing methods, including fabricated and cast metals, timber and concrete. All products are 3D modelled using Autodesk Inventor software, and we can create 3D pdfs to allow clients to view the detail at any stage on the design development prior to the commencement of manufacture. On completion of the design we can also generate IFC files for inclusion in BIM models.

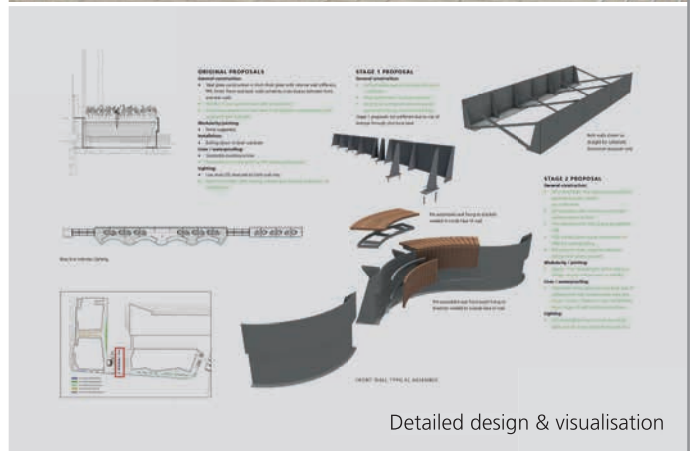
Service

With 5 full time qualified and dedicated designers we believe that we can offer an unparalleled and unique service in street furniture design. New product innovation is at the core of Furnitubes' philosophy and we welcome the opportunity from clients to demonstrate our design and manufacturing expertise.

At Westgate Oxford each area of the Roof Terrace demanded its own set of unique designs, each presenting their own challenges. We are proud to have been involved in the successful implementation of the scheme and pleased that our products have been well received by the client, architect and public alike.



Landscape architect's concept



Detailed design & visualisation



Finished installation

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Crinkle Crackle: in-built planter with integrated seating & lighting

A crinkle crinkle wall - also known as a serpentine, ribbon or wavy wall - is a type of garden wall first constructed in England by Dutch engineers draining marshland in the East Anglian fens in the mid-1600s. The alternate convex and concave curves provide stability without the need for any buttresses, and so giving the wall its characteristic continuous smooth curved surfaces. Crinkle Crackle walls can by definition also be in a straight line zig-zag form, a good example of which can be found locally at Ruskin College in Old Headington, Oxford.

The Crinkle Crackle planter at Westgate draws on the wavy wall aesthetic, with rolled steel panels forming the front edge, over which seating platforms are cantilevered off the inside face of the concave sections so that visitors can sit comfortably inside the outer line of the planter without blocking the adjacent pathway. The steel wall extends below ground level in order to provide sufficient depth for the root balls of a row of mature pleached trees. Low level recessed LED lighting is built into the front wall structure to give a sinous glow of light along the length of the planter at night.



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Bar table & stools

Two high bar tables, each measuring 2400mm long x over 1000mm wide are located beneath the events canopy, opposite the lawn and adjacent to the Crinkle Crinkle planter. Although designed primarily for special events, the tables and accompanying bar stools have proved to be particularly popular with visitors as a place to use laptops and eat lunch, mainly because they offer greater comfort for these activities than is offered by the lower level seating attached to the planters. These large tables are constructed in a combination of a heavy duty steel framework and a timber-slatted top platform in iroko hardwood. Braked wheeled castors attach to the legs to allow the tables to be moved aside when the canopy area is used for events that require use of the whole area. An unusual feature of the bespoke tables is the addition of 2 deep tray inserts in the top, which are designed to be used either as small planters or as drinks chillers when filled with ice. Each tray has a discrete plug in its base so that it can be easily drained and washed through. The bar stools are proprietary products sourced by Furnitubes, designed to be stackable so they can be moved in multiples and take up only a small footprint when temporarily stored elsewhere.



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Kitchen Garden: freestanding planter modules with integrated seating & lighting

At 1m deep, these planters are some of the largest on the Westgate roof terrace. They are designed and mainly placed to form a substantial boundary treatment between restaurant private dining areas and public walkways. The straight and curved module planters are freestanding, with adjustable feet for levelling and mechanically joined in pairs and larger groups of up to 10 modules. Curved modules are placed in alternate directions in the style of the nearby Crinkle Crinkle planter. Constructed in heavy duty steel plate, the planters are also lined with GRP (glass reinforced plastic) to provide a totally waterproof containment for the topsoil, although drainage outlets are provided in the base of all planters. Low level LED lighting is fitted in recesses to the front edge to define the pathway edge at night. Bench platforms are externally cantilevered off selected curved modules to provide useful short term seating with wonderful views out over the Oxford skyline.



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Vegetable Garden: in-built planter with integrated seating & lighting

At over 42m long, the Vegetable Garden planter is the single largest planter on the roof terrace, forming a substantial buffer between the restaurant spaces and the balustrade overlooking Leiden Square below. The construction comprises a continuous steel walled enclosure - in-built below finished paving levels, freestanding and cross-braced - which is covered on its front face with a combination of second skin steel panels and seating with vertical front panels. The outer steel panels are laser-cut with intricate artwork based on botanical illustrations of a locally grown runner bean - 'The Salford' - named after the Cotswold village of the same name. The panels are rear illuminated so the artwork particularly stands out at night. 10 seating units are randomly placed along the front of the wall, cantilevered internally off the inner steel wall so the front edges align with the outer steel panels to avoid any obstructions to the pedestrian pathways. Planted vegetables include broccoli, cabbage and fennel, interspersed with decorative perennials and box hedging along the front edges.



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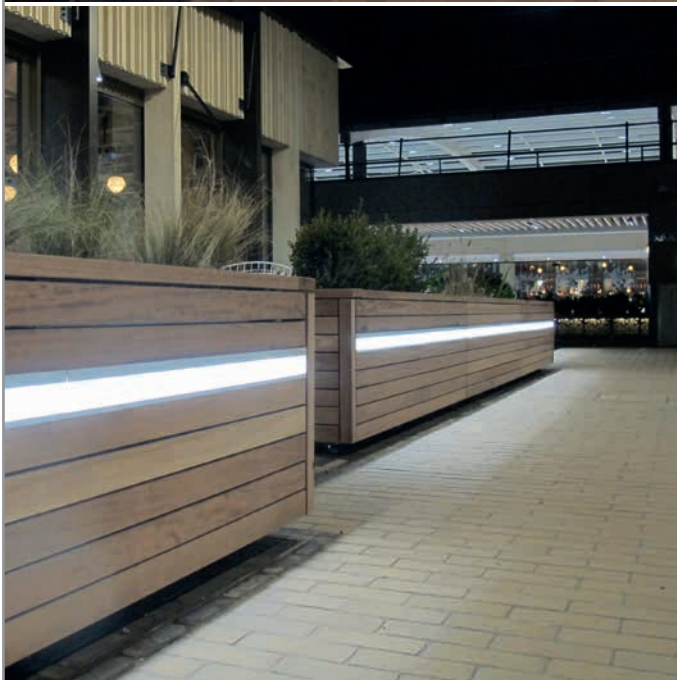
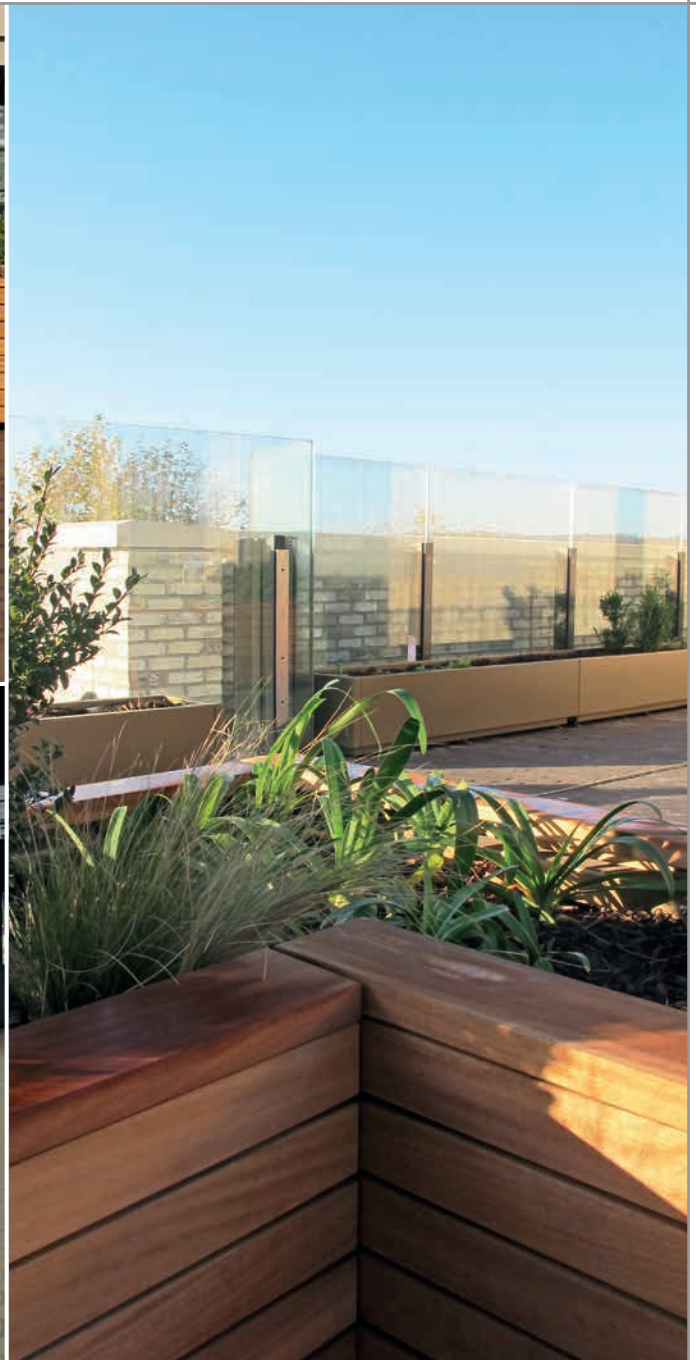
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Garden Court: freestanding planter modules with integrated lighting

Offset parallel to the building facades, these planters create a series of private external dining areas for the restaurants. 28 individual freestanding planters were supplied, joined to form 8 linear groups that provide over 60 linear m of planting troughs in total. The planters comprise an inner steel structure lined with GRP (glass reinforced plastic) to provide a totally waterproof containment for the topsoil, although drainage outlets are provided in the bases. The external timber cladding is in iroko hardwood, assembled onto a sub-frame and discretely fitted to the steel planter core, allowing it to be removed if any timbers need to be replaced in the future. The outside face of the planters also contains a linear LED downlighter, secretly housed in an anodised aluminium extrusion, to improve the visibility of the planters by night. The linearity of the planters and the lighting in particular serves to guide the eye to the edge of the roof terrace and the distant views beyond of the countryside to the west of Oxford.



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After dark on the roof terrace

With 12 bars and restaurants that are open throughout the day and late into the night, it is important that the roof terrace is as welcoming and comfortable after dark as it is during the daylight hours. To supplement the lighting fitted to the building, most of the bespoke planters supplied to Westgate included integral lighting, designed to enhance the general ambience of the area and also as supplementary low level lighting to help define pathways across the terrace. All lighting is warm white low energy LED with IP67-rated control gear, as required for this exterior use, discretely housed within the planter fabrications.

The Crinkle Crankle and Kitchen Garden planters both have low level recessed lighting that provides a localised wash of colour across the pavement immediately beneath. The timber-clad Garden Court planters include lighting on the vertical faces to the central path between the two lines of planters, with the LEDs strips inside an aluminium channel that diffuses the light to give a gentle wash of illumination over the paving. The most spectacular lighting effect on the roof terrace is without doubt on the large Vegetable Garden planter, where LED downlighters are housed between the internal retaining wall and the perforated outer panels to reveal the decorative laser-cut artwork.



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Perimeter Planters: freestanding modules

As their names suggests, these low level planters are placed around the edge of the roof terrace alongside the glass balustrade. 38 individual freestanding planters have been supplied, some placed as stand-alone items and others joined to form longer groups of up to 8 modules, providing over 70 linear m of planting troughs in total. The design is the simplest of all the planters supplied - simple folded steel panels internally bolted together and GRP-lined. Planting softens the immediate built environment but the relatively low level of the planters means that views out from the roof terrace, to Oxford's impressive skyline beyond, are maintained.



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Roof Edge Planters: in-built troughs

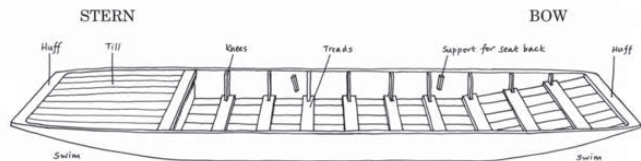
Along the Old Greyfriars Street boundary to Westgate a continuous low level planter has been built into the paving between the building edge coping and the glass balustrade. A 90m long continuous trough was supplied in small 2m long lightweight GRP (glass reinforced plastic) for ease of handling and installation in this precarious position. The GRP troughs have stainless steel top edges that are the only sections of the planter visible above paving level. Plants used here include tough decorative grasses and hardy shrub species such as lavender, all chosen for their ability to withstand potentially windy conditions on this elevated and exposed aspect of the building.



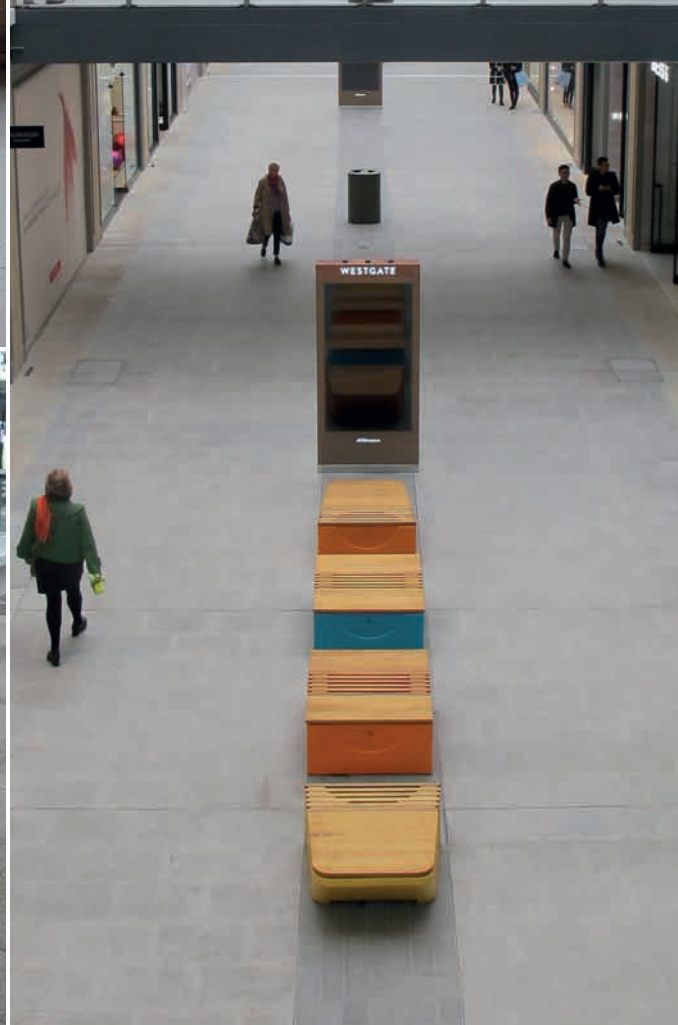
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Punt Seating & Planters

A punt is a flat-bottomed boat with a square-cut bow, designed for use on small rivers and propelled by pushing against the river bed with a pole. Punts were originally built as cargo platforms for angling, but in modern times their use is almost exclusively confined to passenger pleasure outings and they have become synonymous with the university cities of both Oxford and Cambridge. The aesthetic of the punt was the starting point for landscape architects LDA Design as a concept for seating and planting provision to the lower level floors at Westgate. A combination of a timber platform and a plastic base in vibrant colours (as seen on Oxford punts) was another pre-requisite for the intensive design development needed to achieve a viable product in a very short lead-in period. The final solutions comprise 2 basic modules - a hollow-form mid unit seat and a solid-based end unit designed to be used as a seat-only, or as a combined seat and planter. The bases are manufactured in rotationally-moulded LLDPE (linear low density polyethylene) and the platforms in finely crafted iroko hardwood, connected together with traditional brass fixings that further reinforce the visual language of real punts.



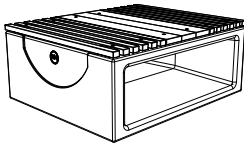
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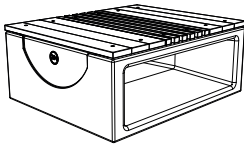
Punt module types

A wide variety of seating forms was required, but with the high cost of set-up tooling for rotational moulding, the designs were rationalised to minimise the number of tools needed. Variety was still achieved though by building in multi-functionality where possible to the designs and also by utilising a number of different forms to the steel framework that supports the timber seating platforms. Shown below are all the variations achieved with this approach. The 2 bespoke mid and end unit modules were supplemented by the use of standard circular production items with add-on timber platforms that visually served as mooring points for the punts.

MID UNIT BENCHES (NO BACKRESTS)

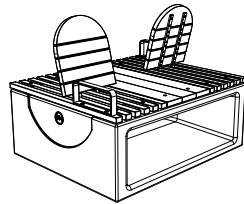


- 2 slatted + 1 solid platforms

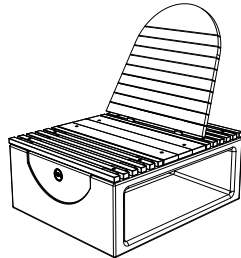


- 1 slatted + 2 solid platforms

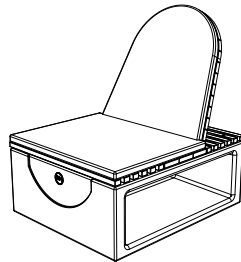
MID UNIT SEATS (WITH BACKRESTS)



- 2 slatted + 1 solid platforms,
2 single backrests + armrests



- 2 slatted + 1 solid platforms,
lounge backrest

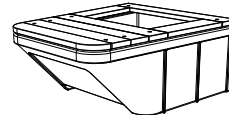


- 2 slatted + 1 solid platforms,
lounge backrest upholstered

END UNIT BENCH & BENCH / PLANTER

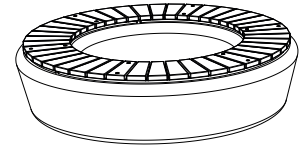


- 1 slatted + 2 solid platforms



- 1 solid platform + edge trims,
open cavity for planting

'LOOP' BENCH MOORING RING



- Radial slatted platform

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Punt layout configurations & colour combinations

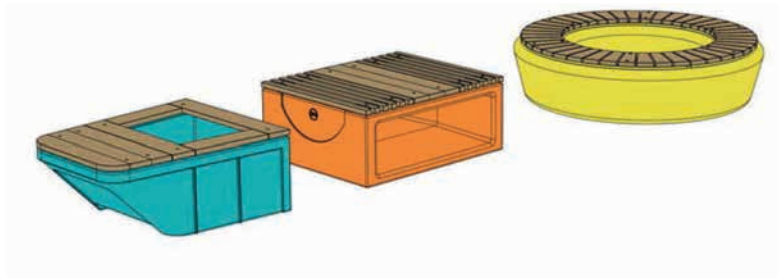
From the 2 basic modules, the several variations of form of each, and with the 3 different colour options used for Westgate, the overall number of combination options are enormous. Shown below are some of the typical configurations to be used, from simple linear arrangements as short punts, to grouped configurations complete with mooring units. The intention at Westgate is to provide a flexible seating system that can be readily re-configured as the demands on the spaces in which they are placed changes over time. The initial response to these innovative seating and planting solutions has been very positive from the client and public alike.

COLOURS USED FOR WESTGATE PUNT SEATING: ● PANTONE 7467 ● RAL 2003 ● RAL 1018 ● Fabric upholstery

SHORT PUNT & MOORING RING

Left to right:

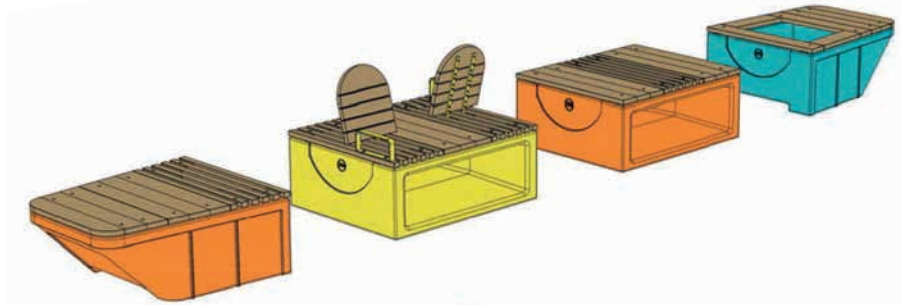
- End unit planter / bench
- Mid unit bench
- Mooring ring bench



LONG PUNT

Left to right:

- End unit bench
- Mid unit bench + single backrests
- Mid unit bench
- End unit planter / bench



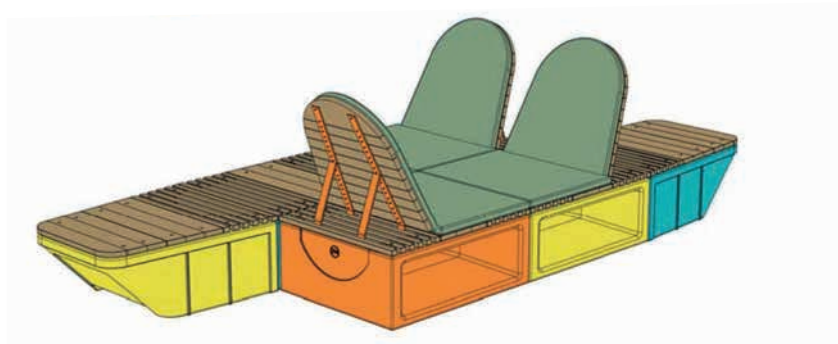
GROUPED PUNTS WITH LOUNGERS

Left to right (rear):

- End unit bench
- Mid unit bench
- Mid unit lounger

Left to right (front):

- Mid unit lounger
- Mid unit lounger
- End unit bench



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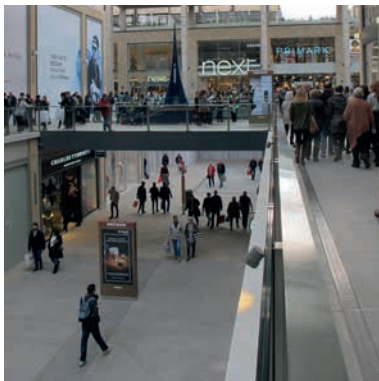
Tower planters and freestanding seating

In the year after opening, surveys showed that the Lower Mall at Westgate was achieving lower footfall than the Upper Mall. Landscape architects Gillespies were set the challenge of designing new features and spatial arrangements that would visually connect the two levels, to attract more visitors to the Lower Mall and lengthen their dwell time there. Gillespies' design proposals comprised a series of informal clusters of seating and planters, with the planters containing high towers for climbing plants that would project through to the level of the Upper Ground Mall above and make visitors more aware of the stores below.

Furnitubes designed, engineered, manufactured and installed 35 planters (17 of which contained aluminium truss towers) and 8 seating units. The planters were supplied in corten steel - fully welded to be watertight - and chemically weathered to achieve a visually rich-toned and varied patina, and sealed so the oxidized finish would not cause any staining issues. Aluminium trusses up to 6m high were bolted into the base of the planters for climbing plants to grow up. The seating is from Furnitubes' new Elements XL range, designed to be sufficiently stable to not require fixing down, with 4 units including bespoke backrests. All products are heavy enough to not be easily moved by the public, but can be readily moved by pallet truck if the spaces in the Lower Mall need to be rearranged in future.



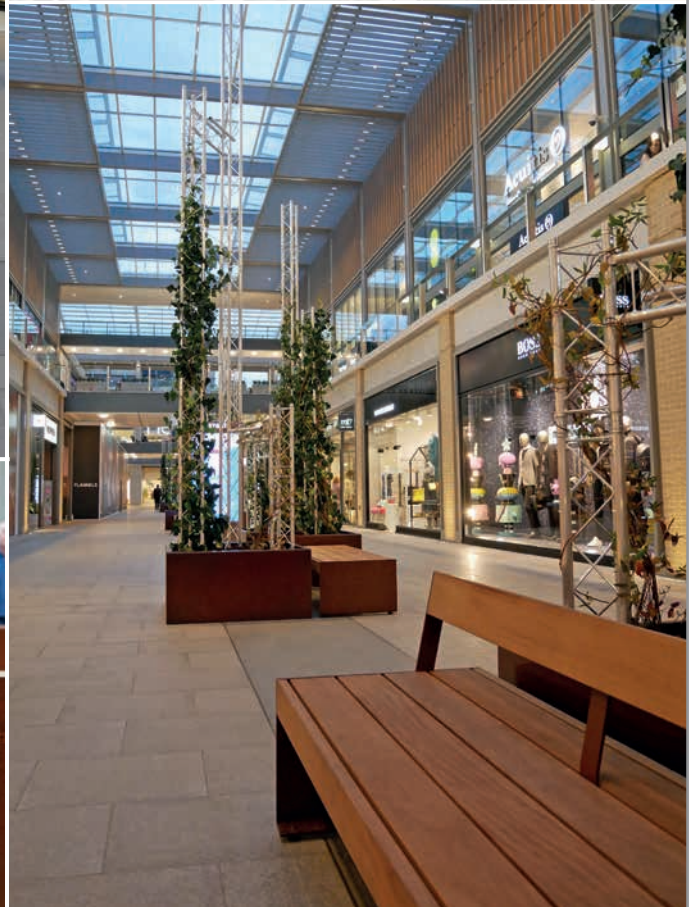
Upper and Lower Mall: pre-installation



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Further products supplied to Westgate

The majority of Furnitubes' planters and seating were installed on the Roof Terrace and in the lower level shopping arcades but we also supplied products for the ground level surrounds to the site. A 30m long steel trough planter was designed for fixing to the top of the retaining wall to the ramp down to the underground car park. Although simple in form, the design was complex in detail, comprising narrow bearers fitted to the wall top which supported the heavy duty steel box planters that overhang the wall on both sides. The overhangs are designed to discretely accommodate lighting on the ramp side and drainage to the planters on the pavement side.

Furnitubes also supplied over 350 of our standard College cycle stands to Westgate, which have been installed in large groups at a number of locations around the periphery of the site to provide ample cycle parking facilities in the cycle-friendly city of Oxford. The stands were supplied in grade 304 stainless steel in a brushed finish for a long term low maintenance solution.



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