



York
RACECOURSE

**YORK RACECOURSE
BUSTARDTHORPE DEVELOPMENT
SUSTAINABILITY SUMMARY**



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INTRODUCTION

The 300 year old York Racecourse is located on the Knavesmire in Yorkshire and is home to some of the finest flat racing in the world. The site has housed permanent infrastructure since 1754, with the original construction of the John Carr Stand, believed to be the oldest grandstand still in use (albeit in a different location) on a sporting venue anywhere in the world. It is the only Grade 2* Listed building on a British Racecourse. The John Carr Stand combined with the Listed Gimcrack and Press Stands built in the late 1800's juxtapose the modern grandstands of the Melrose Stand (built in 1989), Knavesmire Stand (1996) and Ebor Stand (2003) on the site. The northern end of the racecourse complex (2015) and Clocktower Enclosure (2018) have all been designed to further upgrade facilities for racegoers at York.



In 2023, York started its latest enhancements with the development of the Southern End of the racecourse. The public and private spaces incorporate toilet, betting and bar facilities, which though used, were underutilised due to their lack of appeal and quality comparable to the rest of York Racecourse. The development therefore sought to enhance this part of the Racecourse, and in doing so, would ensure that all parts of York's vision were met, including our commitment to environmental sustainability.

YORK'S SUSTAINABILITY STRATEGY

Since 2017, York has embraced environmental sustainability as a core part of our operations and strategic planning. York understands that it has a responsibility to lead the way in demonstrating best practice and ensuring that our operations do not negatively impact the environment. Equally, the Committee and management of York Racecourse recognise that we are stewards of this historic building and brand, and therefore it is incumbent on us to mitigate against the risks posed by environmental changes.

York's strategy is based around four core pillars

**Net Zero by
2040**

**Enhance
biodiversity**

**Conserve
water**

**Embrace
the circular
economy**

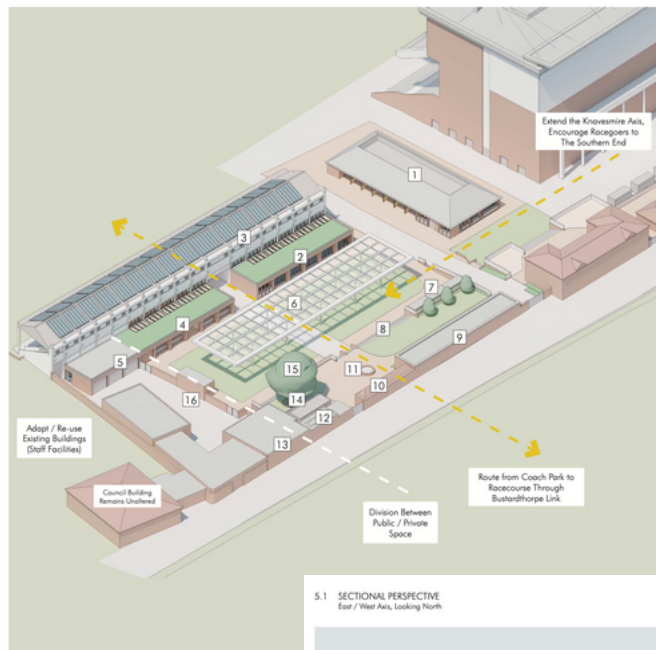
The development of the Southern End was carefully planned and delivered to align with these pillars.

OVERVIEW OF THE BUSATRDTHORPE PLANS

The investment in the Southern End was a response to an identified need to invest in facilities for the Grandstand & Paddock ticket holders. This ticket bracket is in the middle range in terms of cost and does not include hospitality. Beforehand the Grandstand & Paddock facilities in the Knavesmire Stand were some of the best in the country but not consistent with the remainder of the Southern End.

5.0 PROPOSITION:

MASTERPLAN
Overview From South East



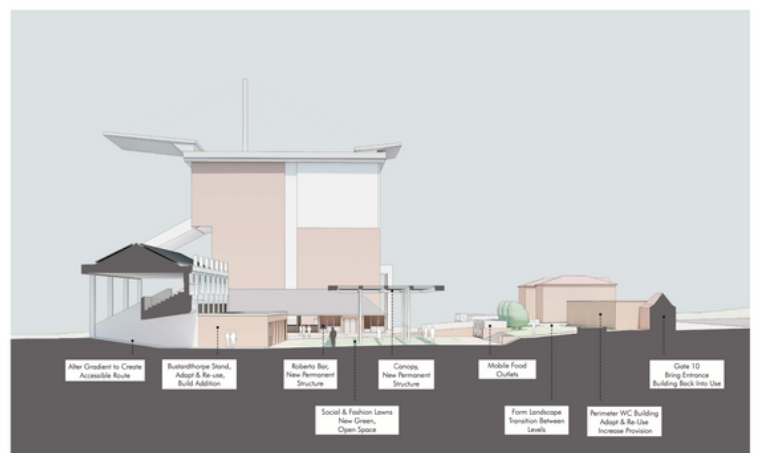
KEY

- 1 New Roberto Bar
- 2 Bustardthorpe Stand Addition 1
- 3 Refurbish Bustardthorpe Stand
- 4 Bustardthorpe Stand Addition 2
- 5 Bustardthorpe Stand Addition 3
- 6 New Canopy Over Social / Fashion Lawns
- 7 Mobile Food Unit Location
- 8 Form Landscape, New Upper Southern Lawn
- 9 Refurbish Existing WC Building 1
- 10 Re-use Existing Entrance Building
- 11 New Art Installation
- 12 Refurbish Existing WC Building 2 (Entry Phase)
- 13 New Staff Induction Entry Point
- 14 Relocate Compactor
- 15 New Lawn Below Existing Tree
- 16 New Brickwork Boundary Wall

DAWSON WILLIAMSON ARCHITECTS

5.1 SECTIONAL PERSPECTIVE

East / West Axis, Looking North



DAWSON WILLIAMSON ARCHITECTS

York Racecourse, Southern End Masterplan

The development includes a new bar, additional stand access, covered social areas and food outlets, refurbished toilet facilities, an art installation and landscaped areas to relax in, as well as enhanced back of house facilities.

ENVIRONMENTAL STRATEGY FOR BUSTARDTHORPE DEVELOPMENT

In order to meet with the standards and expectation of the overarching York Racecourse environmental strategy, the new development was tackled in four steps.

The architectural design

The Architects chosen to design the new stand had an understanding both of York Racecourse's desire to create a sustainable development, and a technical understanding of how to achieve that aim.

The design therefore factored in all four pillars of the sustainability strategy and will showcase some of the best practices in sustainable building design.

Build and contractor management

The contractor selected to build the development was ISO14001 accredited and are on their own trajectory to become carbon neutral by 2031.

They are fully appraised of all of York's requirements and followed a strict and innovative set of environmental guidelines in the delivery of their projects.

Materials

The materials selected for this development were based on both their embedded carbon footprint and their durability, in order to create a building that can stand the test of time.

During the demolition phase, due care was taken to repurposing all waste material, and waste generated was closely monitored and reported on.

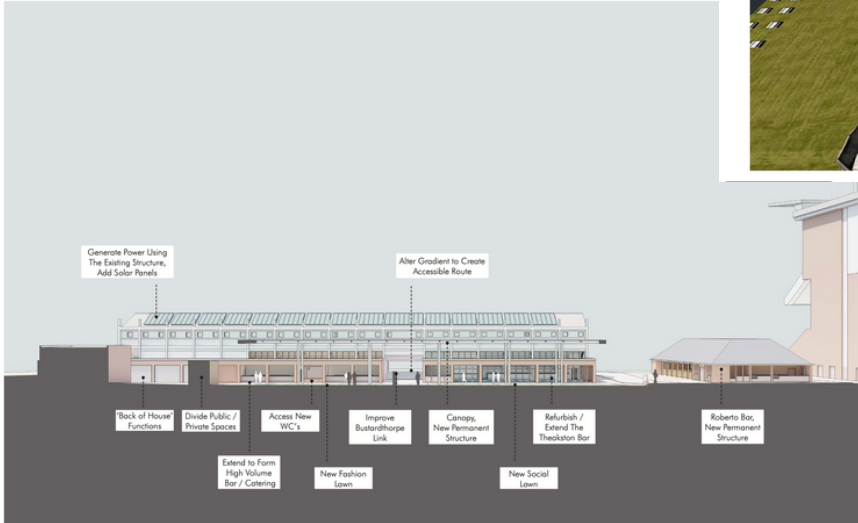
Sustainable operations

Most importantly, the building is able to service the ongoing sustainable operational objectives of York Racecourse, facilitating low emissions, low waste, water conservation and a positive impact on biodiversity.

This included the creation of back of house spaces, specifically designed to enable and facilitate environmental practices.

THE ARCHITECTURAL DESIGN

5.3 SECTIONAL PERSPECTIVE
North / South Axis, Looking West



DAWSON WILLIAMSON ARCHITECTS

York Racecourse, Southern End Masterplan

PROPOSED SYSTEM 102.06kW



The design of the development took into account the need to embrace the four pillars of York Racecourse's environmental strategy, net zero emissions by 2040, enhance biodiversity, conserve water, and embrace the circular economy. Therefore the design of the building has incorporated the following key elements:

Net Zero emissions

The development prioritizes reducing the Carbon Footprint. A 102kWp solar panel array, installed on the Bustardthorpe Roof, will generate a forecast annual field of 78,530kWh, which in a normal year power the demand of the Bustardthorpe Stand its facilities. Any excess power generated on a particularly sunny day will be used across the rest of our estate.

This is complemented by intelligent energy-saving controls. These systems automatically switch off non-essential equipment like bar refrigeration, cellar cooling, and instantaneous water heaters during periods of inactivity between events.

Additionally, low-energy LED lighting illuminates the entire development, further reducing energy consumption.

90% of the project workforce was Yorkshire-based, to minimise our environmental impact through the reduction of contractor transport emissions.

Enhance biodiversity

Special focus was placed on creating planted areas throughout the development. This included several new extensive lawns, a number of herbaceous borders planted with perennial RHS pollinator friendly plants, several newly planted trees and preservation of an existing mature sycamore, plus a green roof encouraging pollinators. All of these aspects were designed to enhance biodiversity, but also contribute to the overall vibrant, relaxing and elegant look and feel for the customer experience.

Our Head Groundsman salvaged 200 tonnes of rootzone topsoil from the racing surface, during the autumn track work excavations to the canter down, which was reused in the new lawns, saving both “muck away” and bringing in topsoil to the new site.

Pollinators, living roof, trees and bees

As part of the development, the 455 sq m flat roof of the new facilities has incorporated a “living roof” of meadow grasses, wild flowers and pollinator friendly plants. The soft landscaping of the of the development includes 102 linear metres of flower troughs which will be planted our gardening team headed by Zac Rafferty, a RHS qualified floriculturist. These flowers are specifically selected as pollinators and will help service our recently installed and thriving beehive nearby. The development will also include two newly planted indigenous hornbeam tress as part of a wider strategy across the estate which has seen a 50% increase in our tree population.

Conserve water

We have installed a 16,000-litre rainwater harvesting tank, which captures this valuable resource from the roofs of the new Churchill Tyres Lawn and Canopy, to be used for watering the green spaces. Washrooms were fitted with waterless urinals, toilets with low flush technology and sinks with sensor taps. The lawns are irrigated with water from the Racecourse's two boreholes, using a sustainable source of water rather than mains.

Embrace the circular economy

Waste was created in different ways through the design and construction of this development, therefore the architect sought to support the circular economy through careful planning of each aspect. The new buildings were designed to use modular construction techniques with prefabricated components where possible, to reduce construction waste and improve the overall efficiency of the build. Waste from demolished buildings was repurposed either elsewhere on the site, or offered to local companies for reuse.

To remove single use plastics from this part of the racecourse, washing facilities were integrated into the back of house bar areas, in order that the catering company can use high quality reusable serveware, thereby eliminating waste entirely.

Back of house spaces were designed to enable sorting of waste into separate streams, in order that the waste contractor can maximise the volume of waste that goes to recycling, rather than all waste going to energy recovery.

BUILD AND CONTRACTOR MANAGEMENT

This is very much a Yorkshire development with 90% of the materials and manpower being sourced from the wider county ensuring both support for our local economy and reducing the impact of transport and commuting. The contractor for the development of the Southern End was Lindum York. As part of their contractual obligations, Lindum were committed to the development of designs to reduce carbon emissions and create a more sustainable building for York Racecourse.

Lindum York's environmental credentials

Lindum has a strong organisational commitment to reducing carbon and providing environmental benefits and sustainability is part of our ethos. We have an accredited ISO14001 Environmental Management System which is supported by an Environmental Policy and Manual. We have partnered with 'The Planet Mark' to help us measure our carbon output and deliver year on year improvements as we work towards reaching our goal of becoming carbon neutral before 2031.

On our sites we are implementing the use of 'eco' cabins which are high performance insulated accommodation units, to reduce heating and cooling demand and provide a more comfortable environment for our site team, as well as using solar powered wifi camera systems to reduce our site electricity consumption and reduce the amount of cabling which needs to be installed on site for the camera network. We also have a growing fleet of hybrid and electric vehicles for our staff, to help to reduce carbon emissions and other harmful greenhouse gases.

Sustainable resource use

Minimising the use of natural resources is a key pillar of sustainable construction. Where possible we will seek to use recycled materials or materials which contain a high recycled content and will actively work with the design team to try and incorporate these into schemes. Our team identify local builders merchants and suppliers to minimise travel distance for materials and operatives. We aim to target 75% of labour to be within a 30 mile radius of the site.

Waste management

We have a robust waste management system on every project and our construction activity waste is managed centrally by our waste division. We currently divert 97% of our waste from landfill. Our waste streams, where space permits, are segregated on site to avoid mixing and cross contamination ensuring they are easily recycled. Our site induction procedure covers our Environmental Strategy and encourages site staff to consider material usage and waste generation throughout the project. We specify materials based on 'The Green Guide' which assesses and ranks how sustainable they are and can review and put forward alternative products which are more environmentally friendly. We have a sustainable materials policy, which ensures that we source from responsible suppliers and materials such as timber are certified to recognised schemes such as FSC, and where possible source materials which are certified under BES 6001 as well as having EN 15804 Environmental Product Declarations.



MATERIALS

In order to minimise waste and the volume of virgin resources required in the development, due care was taken to retain as much of the original structures as possible. Much of the waste aggregate was crushed and used as new base materials.

We preserved and reused the coping stones and feature corner pieces from the demolished tote building on the southern wall.

Whilst it was necessary to use materials like concrete and steel in order to ensure the structural integrity required for a long life span, care has been taken to ensure that the structures do not involve extraneous design and therefore wasteful use of resources.

Our choice of York Handmade Bricks, manufactured just 12 miles from the racecourse, shows our dedication to minimise the environmental impact. The 100,000 bricks that were produced for the scheme have also been manufactured using sustainable practices. Additionally, the timber used in the project was directly sourced from Yorkshire yards and adheres to sustainable forestry practices.



Bustardthorpe Stand (Existing Structure)

The existing fabric was retained as part of the programme of refurbishment.

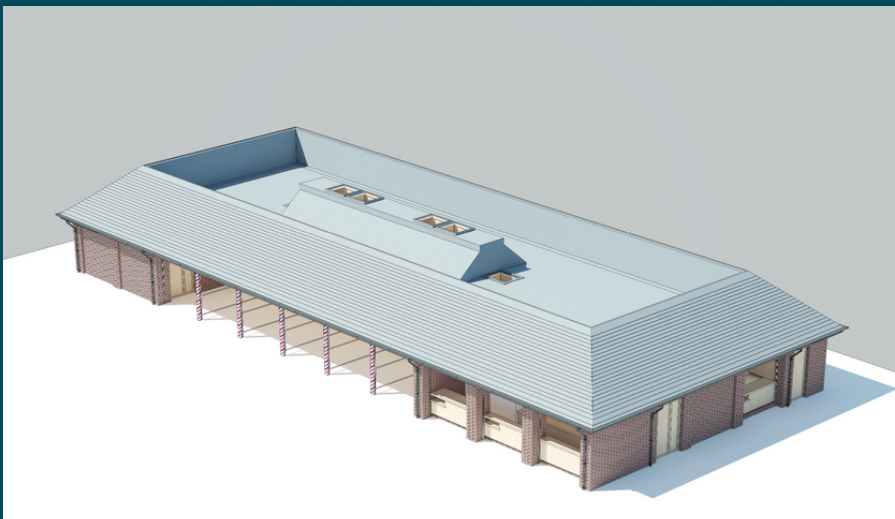
The steppings were repaired to prevent water ingress and the existing single glazed high level windows were replaced with double glazed aluminium framed units.

Bustardthorpe Stand (Additions)

The additions have a primary structure formed using a structural steel frame. Externally, facing brickwork was used to form the external finish with openings being infilled with aluminium framed double glazed window / bi-fold door units. The brickwork was exposed internally and external masonry walls were insulated using partial fill PIR cavity insulation. The floor to the additions was formed using a concrete slab with PIR insulation below. The roof is a 'green roof' built up with insulation below and an exposed timber roof structure (responsibly sourced Douglas Fir).

Roberto Bar Pavilion

The bar has a primary structure formed using a structural steel frame. Externally, facing brickwork was used to form the external finish with openings being infilled to form counters made from responsibly sourced Douglas Fir timber. The brickwork is exposed internally and external masonry walls are insulated using partial fill PIR cavity insulation. The floor was formed using a concrete slab with PIR insulation below. The roof is a pitched roof finished in natural slate with a 'flat' roof area behind finished with a single ply membrane.



Future- Proofed for Sustainability

Finally, the development is built with the future in mind.

The below-ground services boast flexibility and "future-proofing" allowing for adaptation as needs evolve, minimizing disruption in the years to come.

Additionally, by being engineered to be supported from existing site utility supplies, the development avoids the environmental impact of constructing entirely new utility infrastructure.



SUSTAINABLE OPERATIONS

York acknowledges that our customers are environmentally conscious and it is important that we deliver sustainable practices when developing the estate. The new development enables the operations team to deliver a more sustainable raceday through a number of enhancements.

- 1 Creating the additional green spaces brings health benefits, improving the environment for all.
- 2 The ability to introduce new technologies in public spaces ensures both environmental efficiencies and an improved customer experience.
- 3 The additional bike racks encourage sustainable transport for staff and customers.
- 4 Smart waste reduction strategies have been introduced with a focus on circular economy principles and repurposing all waste materials.
- 5 We will be watering the new southern lawns and flowers using water sourced from the racecourse boreholes. By utilising the boreholes for irrigation, we aim to enhance the overall sustainability of the project while ensuring the longevity of the new green spaces.

“The racecourse dates back to 1731, and as we continue developing the built environment, it is imperative that we do so with a strong commitment to sustainability, ensuring a legacy that benefits future generations”.

Gavin Pattison
Facilities Manager and development project
lead for York Racecourse





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