

East Wick & Sweetwater: The London2012 Sustainable, Liveable Legacy



Project Details

Following on from KLH Sustainability's extensive work on the London 2012 Olympic Park and the legacy transformation of venues such as the Aquatics Centre and the Olympic Stadium, KLH continues to support the Olympic legacy. In partnership with the London Legacy Development Corporation (LLDC), a joint venture consisting of Balfour Beatty and Places for People is leading the development of East Wick & Sweetwater (EWS), two brand new sustainable neighbourhoods with 1,500 homes and community facilities and amenities created within the Queen Elizabeth Olympic Park. KLH acts as the sustainability manager for the ambitious, seven phase project.

The first phase is currently in planning and will commence on site at the end of 2016. This phase consists of nearly 300 homes, the majority of which are family, affordable and private rental. It also includes 3,462 sqm of flexible commercial spaces for established and start-up businesses, including shops, offices, a nursery, places to eat and drink and associated public realm.

KLH Sustainability has been engaged to ensure the development meets the LLDC's challenging sustainability objectives and to advise on how the project can achieve "zero carbon" homes status, deliver a 15% reduction in embodied carbon, provide resilience to climate change, integrate biodiverse landscapes and more. KLH Sustainability has worked closely with the project team to incorporate energy, water and material efficiency into design, allowing the environmental legacy of the London2012 to extend beyond the Olympic and Paralympic Games.

Process

Strategic management

KLH has developed robust strategy documents on water, energy, materials, climate adaptation and sustainable construction measures to incorporate sustainability into the wider development strategy.

Technical guidance

Bespoke technical guidance documents have been created on embodied carbon reduction & material management, fabric energy efficiency, biodiverse roofs and other topics to engage and inspire architects and ensure sustainability targets are incorporated into all aspects of design.

Ongoing monitoring

KLH Sustainability has developed bespoke tools to estimate and monitor the environmental performance of the development. The tools enable the environmental impact of design decision to be clearly evaluated.

KLH conduct weekly meetings with the project team to ensure the sustainability requirements are well understood and communicated throughout the supply chain.

Close coordination with the contractor Environment Manager and regular site visits ensure sustainability gains from design are followed through during construction.

Outcomes

Low carbon buildings

All residential units will meet the full Fabric Energy Efficiency Standard, incorporate solar PVs and connect to the low carbon district heating network, resulting in 60% reduction in CO2 emissions against Part L 2013. The residual 40% of operational carbon will be offset through carbon payments to a scheme, which invests in existing homes and businesses in the local boroughs.

Embodied carbon savings

EWS is targeting a 15-20% reduction in embodied carbon of construction. This will largely be achieved through:

- Challenging the efficiency of design solutions, foundation and frame in particular,
- Identifying conventional building products with and increased recycled content
- Introducing low carbon alternative materials such as cold foamed bitumen paving
- Use of low carbon concrete mix designs,
- Using pre-manufactured panels and other low waste products.

CfSH Level 4+ & BREEAM Excellent

Low flow water fixtures, design for daylighting, responsibly sourced materials, ecological enhancements throughout, incorporation of smart utility meters and more are included to ensure minimum environmental performance certification is achieved for each unit.

Client

East Wick & Sweetwater Joint Venture (Balfour Beatty Investments + Places for People)

Architects

Sheppard Robson, Studio Egret West, A Studio, Alison Brookes Architects, Piercy and Co, Shedkm and Fabrik

Engineers

AECOM and Buro Happold

Contractor

Balfour Beatty

Year

2015-2023



East Wick & Sweetwater from above



Public space through Phase 1 brings together the industrial Hackney Wick with the natural QEOP



The Belvedere are just one set of diverse and multi-faceted buildings and architectural styles across EWS.