Improving quality of life in London
London has evolved through a long and rich history to become a global center of culture, diversity, business and finance, with a vision to become the greatest city on earth. As London grows, it is responding to a number of challenges in order to maintain competitiveness and retain its position as one of the world’s leading cities.
Arcadis has a long and successful history in London with a strong track record of designing and delivering some of London’s most iconic and important projects including Tower Bridge, Crossrail and Queen Elizabeth Olympic Park. By providing design and consultancy solutions across the value chain, we deliver exceptional and sustainable outcomes for the 21st century and beyond.
Our mission: improving quality of life.

27,000 STAFF WORLDWIDE  €3.4 BILLION IN REVENUES
Addressing your full life-cycle needs.

BROAD & INTEGRATED SERVICES
Approximately 2,000 Arcadians contribute to London’s success through the application of design and consultancy expertise on the city’s natural and built assets. Arcadis is responding to the key challenges the city faces:

**CREATING INFRASTRUCTURE FOR THE FUTURE**
Ensuring the successful upgrading of existing infrastructure and the delivery of new infrastructure to meet the needs of a growing population and the demands of the 21st century.

**MEETING LONDON’S HOUSING CHALLENGE**
Responding to housing supply and affordability challenges through establishing a Joint Venture model for successful delivery and upgrading of new and existing housing.

**REGENERATING THE CITY**
Facilitating asset-led transformation through the regeneration of buildings and communities and the remediation of contaminated land.

**MAXIMISING COMPETITIVE ADVANTAGE**
Delivering world-class developments that maximise London’s competitive advantage on the global stage and support the city’s vision to become the greatest city on earth.

**REDEFINING AIRPORT CAPACITY**
Designing airport terminals and planning for future runway expansion to address London’s airport capacity issues.

These, along with other instances of our contributions to London’s housing, transportation, land, air and more, are illustrated on the following pages.
Upgrading London’s sewerage system to create a cleaner and healthier River Thames for the future.

London’s Victorian sewers lack the capacity to meet the demands of the city today. The £4.2 billion Thames Tideway Tunnel will deliver a 25 km interception, storage and transfer tunnel running below the river Thames to prevent millions of tonnes of untreated sewage overflowing into the River each year. Through an international and local team, Arcadis is providing professional services across the programme, including project, commercial and contract management and technical due diligence. This includes procuring and mobilising £1.8 billion of construction contracts and setting and managing robust performance baselines for the duration of the programme.

- Environmental benefits the value of £13 billion
- Biggest infrastructure project undertaken by the UK water industry
- 24 construction sites.

A CLEANER RIVER for all to enjoy
A proposed rail route to transform mobility and support economic development across London and the South East region.

Crossrail 2 will create a new, high frequency, high capacity rail line linking South West and North East London, as well as destinations in Surrey and Hertfordshire. By 2030, the £27 billion scheme will provide additional capacity to relieve congestion on commuter routes and support economic development in and around the capital. The central section under London, which will be designed and engineered by Arcadis, will consist of 13 stations. Providing cost, risk and value management workstreams, Arcadis is delivering the initial and preliminary cost estimates for the entire Crossrail 2 project. Our work has been used as the basis for the Crossrail 2 Business Case submitted to the Department of Transport.

- Increasing central London’s rail capacity by 10%
- Transporting 90,000 passengers an hour
- Accelerating the development of 200,000 new homes
- 72 km of tunnels.
A major upgrade to London’s wastewater infrastructure to meet improved wastewater quality standards and cater for the needs of a growing population.

Through implementing a pioneering biological solution, this flagship infrastructure project will deliver an improved sewage treatment process. The project requires the existing treatment operations to continue during construction and the upgrade works to occur within the existing boundaries of the site. The project will provide two new Combined Heat and Power engines which will use biogas to generate 3.0 MW of green energy. Arcadis is providing project leadership and commercial, planning and risk management, including leading the governance approval process to secure £234 million of funding for Thames Water.

- **Future-proofing sanitation for 989,000 people**
- **Processing 209,000 tonnes of sewage per day and 1.3 million tonnes during heavy rainfall – enough to fill 520 Olympic swimming pools.**
UPGRADING London Underground

Modernisation of signalling and control systems to deliver intelligent automated systems that achieve a more efficient and reliable service.

The London Underground transports 1.3 billion passengers a year on a 402 km network and is central to the successful functioning of the city. The Four Lines Modernisation project includes replacing and upgrading the signalling and controls from conventional systems to smarter Automatic Train Control systems. This will provide faster, more reliable and more frequent services, addressing many of the policy goals of the Mayor’s Transport Strategy.

An Arcadis cost planning team delivered a due diligence review via the production of a ‘tender comparator’ to provide assurance for the Automatic Train Control Works Package, a cost assurance review on the total estimated final cost and the Signalling Suppliers proposal.

- Smarter operating systems to deliver an improved network and enhanced travel experience
- 20% expected capacity increase.
MEETING LONDON’S Housing Challenge

Joint Ventures
Establishing a Joint Venture model to enable the successful delivery of thousands of new homes that would otherwise not have been delivered through a traditional approach.

The under supply of new homes in London has become a critical issue with 50,000 new homes a year required to meet demand by 2036; fewer than 23,000 homes were built each year between 2009 and 2014. To respond to this challenge, Arcadis developed a Joint Venture model that enables a close working collaborative relationship between two or more parties to achieve mutually compatible goals that would be difficult for each party to accomplish on their own. The flexible model is now recognised within the industry and has become a key element on a large number of housing schemes, particularly regeneration and other more complex housing development opportunities.

- Providing access to a competitive supply chain, a share of development margin, private sector expertise and transparency in an increasingly complex market
- Over 15,000 new homes across London and the South East through Joint Ventures.
BETTER HOMES
Camden Council

Improving public housing provision and regenerating housing estates in one of London’s largest boroughs.

Better Homes is a £250 million programme to upgrade and regenerate public housing in the London borough of Camden by 2020. Residents will benefit from the renewal and repair of kitchens, bathrooms, windows and roofs, as well as the upgrading of heating systems, wiring and lifts. Partnering with Camden Council, Arcadis is providing development management, investment advice, business advisory services, programme and project management and cost and commercial management.

• 11,500 homes are due to benefit through the programme.
REGENERATING THE CITY
Earls Court presents one of the largest regeneration opportunities in Central London and will provide 7,500 new homes alongside new state-of-the-art health, education, cultural and community facilities. Arcadis was engaged to support cost and commercial activity during the masterplanning phase to ensure the realisation of the scheme and its future commercial success. In response to a complex set of development challenges, Arcadis developed an online masterplan cost model to reliably and securely work through the various development options available, testing each scenario to find an optimal fit. The resultant data has provided CapCo’s investment board with the necessary insight required to drive the masterplan development.

- 7,500 new homes, incorporating 1,500 affordable homes
- 10,000 new jobs
- 7.5 acres of green space.
ATHLETE’S VILLAGE
at Queen Elizabeth Olympic Park

Identifying and mitigating risk for the Athlete’s Village to house athletes during the 2012 Olympic and Paralympic Games and then transform the site into long-term housing.

Delivering athlete housing for the 2012 London Olympic and Paralympic Games was complex and constrained by many factors, including time, size and profile. For the Olympic Village, Arcadis provided a risk profile, identifying potential risks and strategies to mitigate them, and recognised early warnings of significant impacts on cost, programme and quality.

After the games, a sustainable and lasting impact was realised through the retrofit of the apartments to become 51% private residential housing and 49% affordable housing. By providing development monitoring, Arcadis ensured risk mitigation and funding compliance, providing much needed housing. The new development was renamed East Village for the Olympics Legacy.

- 10,000 Athletes housed during 2012 London Olympic Games
- 2,800 homes for 6,000-8,000 local residents after the Olympic Games.

MAKING LONDON’S OLYMPIC GAMES A SUSTAINABLE LEGACY
REGENERATION of a Pharmaceutical Manufacturing Site

Land restoration for a former pharmaceutical manufacturing plant in East London for a major mixed-use regeneration programme.

Appointed by a pharmaceutical manufacturing firm, Arcadis managed environmental liabilities and enabled a positive legacy for the local community via regeneration of a 44 hectare pharmaceutical manufacturing plant. In operation since the 1930s, the plant is located in an environmentally sensitive area, situated adjacent to country parks and a mixed residential commercial area.

• Remediated site sold to five separate buyers for regeneration, creating over 500 jobs
• Land sales enabled the donation of five acres of sports fields to the local community
• Double award winning project for “Best Urban Regeneration Project” and “Best Use of a Combination of Remediation Techniques” at the Brownfield Briefing Awards, 2015.

ENHANCING natural capital value
Ford Dagenham

Preparing for site divestment and redevelopment through the successful delivery of environmental assurance and liability management.

Ford closed their former stamping plant in 2013 and needed to ensure environmental risks associated with the site were managed during the two year decommissioning process. Arcadis undertook a detailed programme of environmental assessments, including both built and natural assets, and subsequently developed and implemented an in situ soil and groundwater remediation strategy during decommissioning works and monitored equipment and waste removal from the site.

- Successful environmental management of over 19,000 tonnes of equipment and waste.
OLYMPICOPOLIS

A world-leading cultural and educational legacy for East London in the wake of the 2012 Olympic and Paralympic games.

Olympicopolis is an ambitious vision to create a world-class education and cultural district on Queen Elizabeth Olympic Park. As part of the scheme, University College London (UCL), will have a new East Campus on Queen Elizabeth Olympic Park. Through providing cost, project and risk management, Arcadis is helping to deliver this key part of the Olympicopolis vision. It will be the largest, single expansion of UCL since its founding in 1826.

• **12,000 students and staff** at UCL East
• **3,000 additional jobs** across Olympicopolis, including UCL East
• **1.5 million additional visitors and £1.8 billion of economic value** to the surrounding area.
A new world-class campus for Imperial College London with an ambition to become Europe’s leading innovation centre.

White City Campus will be at the centre of a new research hub for London. The co-location of research, business and healthcare will be a first in the capital; reinforcing its position as a catalyst for scientific development and economic growth. As part of the larger White City regeneration, the mixed-use campus will be central to transforming this area. Arcadis provided cost consultancy and economic modelling to test development options. Our sustainability framework informed the creation of the masterplan.
Gatwick Airport is pushing ahead with plans for a second runway to increase capacity, deliver economic growth to the UK and ensure that the UK continues to be one of the best connected countries in the world. The plans for a new runway by 2025 are complemented by a new terminal located between the runways. Arcadis compiled a strategic aviation team to provide Gatwick with specialist advice relating to the design of the airfield and terminal, highlighting key areas of risk and any missing data crucial to ensuring a robust CAPEX plan.

• Increase capacity at Gatwick from 40 million to 90 million passengers a year by 2050
• Deliver £90 billion of economic benefits to the UK.
HEATHROW

Terminal 5

A world-class terminal and a new international gateway to London and the UK.

Heathrow Terminal 5, a $4.3 billion project, opened in 2008. Its main building is the largest free-standing structure in the UK and the terminal incorporates 60 aircraft stands as well as more than 100 shops and restaurants. Arcadis was central to the successful delivery of Terminal 5 providing an extensive range of services and holding key roles within the Programme Office, including Head of Cost Management, Head of Project Controls Management and Head of Performance Measurement. By setting up and implementing the comprehensive time and cost project controls, Arcadis enabled an on time and on budget delivery.

- **Increasing capacity at Europe’s busiest airport** by 35 million passengers a year
- **Voted the “World’s Best Airport Terminal”** at the Skytrax World Airport Awards, 2014.
Improving passenger experience at Gatwick Airport through a new rail interchange.

Gatwick’s rail station handles 15 million passengers each year, including 1.46 million commuters. The current station layout and concourse space results in a busy concourse, and long queues at the ticket machines. Arcadis has been providing project management activities to design and deliver an improved passenger interchange between the airport and the station. Our work aims to improve passenger experience and deliver sufficient capacity with consideration for future growth.

- **20% increase** in passenger capacity
- **10% potential savings identified** in design stage.
Arcadis is the leading global Design & Consultancy firm for natural and built assets. Applying our deep market sector insights and collective design, consultancy, engineering, project and management services we work in partnership with our clients to deliver exceptional and sustainable outcomes throughout the lifecycle of their natural and built assets. We are 27,000 people active in over 70 countries that generate €3.4 billion in revenues. We support UN-Habitat with knowledge and expertise to improve the quality of life in rapidly growing cities around the world. Arcadis. Improving quality of life.