

Queen Elizabeth Olympic Park

Rethinking the Urban Landscape

Budapest

17th April 2015



The Olympic Park Teams

ODA Client Team

- John Hopkins / Phil Askew

Delivery Partner

- CLM

Lead Landscape Architects

- LDA Design / Hargreaves Associates
- James Corner Field Operations
- Land Use Consultants

Landscape Engineers

- Atkins / Arups

Masterplanning

- Aecom

Specialist Consultants

- Nigel Dunnett / James Hitchmough
- Sarah Price, 2012 Gardens
- Tim O'Hare, Soil Specialist
- Tim Marshall, Management Plan
- James Urban, Tree Planting
- Piet Oudolf



BRIEF





2007 brief & business case objectives

Celebrate the Games

Be a catalyst for economic development

Restore the waterways

Enhance biodiversity

Promote culture and the arts

Build community cohesion

Encourage healthy living

Develop skills and education:

Promote sports activities

Provide connections

Integrate infrastructure

2007 Brief

'One of the most under-developed areas of London will be transformed into a benchmark 21st century sustainable, urban district. The park will reflect the unique, diverse and vibrant population of London, It will be a clean, green, safe, inclusive, multifunctional and beautiful park. It will be loved by its surrounding communities and will provide a rich diversity of experiences for all ages, giving opportunities for celebration, commemoration and enjoyment.'

2007 Brief

'It will be a new kind of Park for the city, breaking the mould of traditional park design. Built around and between the existing infrastructure and developments within the valley. It will become a part of the surrounding city, rather than being set aside and protected from surrounding urban fabric and activities. The Park must respond to its challenging physical location and the considerable social, economic and environmental challenges in an inspirational, balanced and pragmatic way. The Park must be fit for purpose, built to programme and delivered on budget.'

An aerial photograph of a park featuring a dark blue, winding river or canal that meanders through lush green grassy areas. The river is bordered by light-colored paths or roads. The overall scene is a vibrant green landscape with a central water feature.

2007 Brief: Delivering a sustainable park

Great amenity, play and recreation

Health and wellbeing

Psychological benefits

Education

Connectivity;

The drama of the site and its
topography

Culture, arts

Skills and training

Improved micro-climate

Biodiversity

Integrated water management

Energy generation

Resource management

Waste management and
minimisation

Local food production

Regeneration

Community cohesion

An inclusive place

Public benefit

One Planet Living Principles



The ten One Planet Living principles:

Zero carbon



Making buildings more energy efficient and delivering all energy with renewable technologies.

Zero waste



Reducing waste, reusing where possible, and ultimately sending zero waste to landfill.

Sustainable transport



Encouraging low carbon modes of transport to reduce emissions, reducing the need to travel.

Sustainable materials



Using sustainable healthy products, with low embodied energy, sourced locally, made from renewable or waste resources.

Local and sustainable food



Choosing low impact, local, seasonal and organic diets and reducing food waste.

Sustainable water



Using water more efficiently in buildings and in the products we buy; tackling local flooding and water course pollution.

Land use and wildlife



Protecting and restoring biodiversity and natural habitats through appropriate land use and integration into the built environment.

Culture and heritage



Reviving local identity and wisdom; supporting and participating in the arts.

Equity and local economy



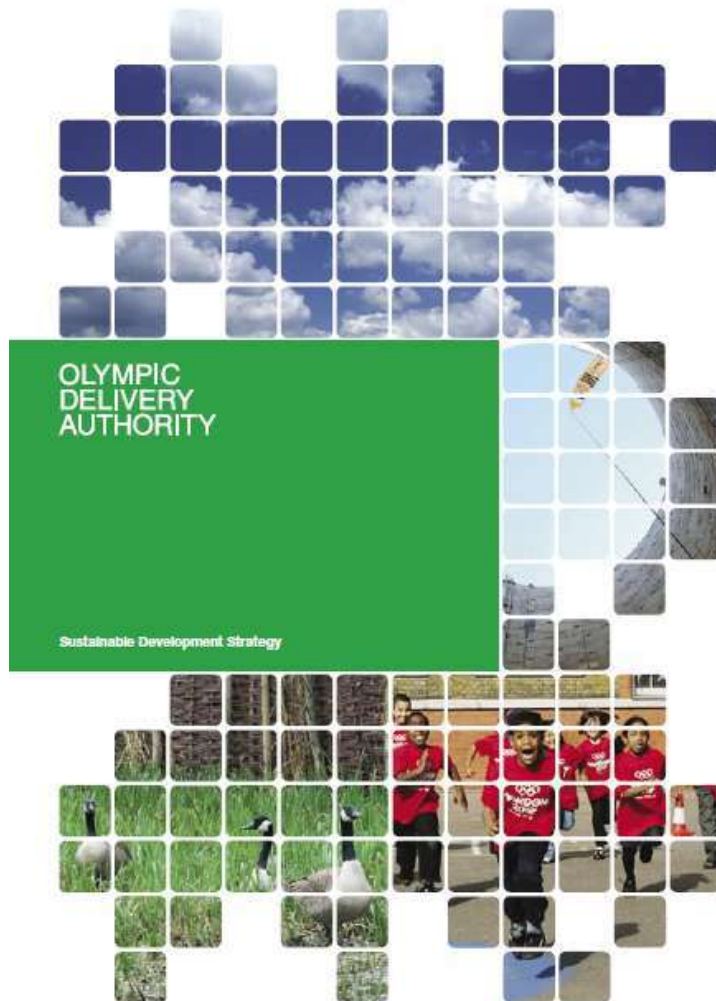
Creating bioregional economies that support fair employment, inclusive communities and international fair trade.

Health and happiness



Encouraging active, sociable, meaningful lives to promote good health and well being.

ODA Sustainable Development Strategy



London 2012 Headline Themes	ODA Sustainability Objective Areas January 2007	ODA Sustainability Principles August 2006	One Planet Living Principles	BREEAM
Climate change	Water	Global, Local and Internal Environments		Water
	Carbon	Energy	Zero Carbon	Energy
Waste	Waste	Waste	Zero Waste	
	Materials	Use of Materials	Local and Sustainable Materials	Material and Waste
Biodiversity	Biodiversity and Ecology	Biodiversity and Ecology	Natural Habitats and Wildlife	Ecology
	Land, Water, Noise and Air	Land, Water, Noise and Air		Land Use
				Pollution
			Sustainable Water	
Inclusion	Inclusion	Inclusion		
		Culture, Heritage and Built Form	Culture and Heritage	
			Equity and Fair Trade	
	Employment and Skills	Education and Employment		
	Transport and Mobility	Transport and Mobility	Sustainable Transport	Transport
	Access			
Healthy Living	Supporting Communities			
	Health and well-being	Health and well-being	Health and Happiness	Health and well-being
		Housing and Amenity		
			Local and Sustainable Food	

ODA Sustainable Development Strategy Targets

Biodiversity and ecology

Objective: To protect and enhance the biodiversity and ecology of the Lower Lea Valley and other venue locations.

The existing ecological character of the Olympic Park site falls loosely into two types: brownfield and waterways.

Existing brownfield habitats in the Lower Lea Valley vary from ephemeral and ruderal vegetation on recently cleared sites to grassland, scrub and woodland in long abandoned areas. Where topsoil is abundant, relatively simple communities, dominated by species like mugwort, nettle or Japanese knotweed, occur. Where substrate fertility is low, for example where the ground is made up of demolition waste, the flora is much more diverse.

The river corridors are of significant value and contain associated important habitats, namely mudflats, reed beds and marginal vegetation, and associated species such as inter-tidal invertebrates, fish and birds. The new freshwater habitats created within the Park can provide new ecological opportunities. The wider significance of having linear wetlands running north-south along the Lea Valley is strategically very important.

As part of the Environmental Impact Assessment process for the Park design, ecological impacts are being identified, along with mitigation and management measures. An outline Biodiversity Action Plan for the Olympic Park is under development with partners. It aims to set out a framework to identify, maintain and enhance the biodiversity of the Olympic Park. The plan will include both Habitat Action Plans and Species Action Plans, which set out the aims, conservation status, issues, and factors affecting the species or habitat, as well as strategies for their management. This action plan will be a component part of the overall programme approach to biodiversity incorporating other sites and outreach and awareness raising initiatives linked to the Games.

It is also an internal tool and guide for site-specific ecological plans as work commences across the site. In this way, the ODA can protect and enhance biodiversity.

Habitat retention

Remediating and recontouring the site means that much of the existing vegetation cannot be retained. However, a number of relatively high value sites, including waterside and woodland areas, which will be retained have been identified as refuges which will be safeguarded through the construction phases and incorporated in the Park design. In order to provide continuity for wildlife during the construction phase and to provide alternative sites for legally protected species, a number of early temporary and permanent habitat creation projects will be undertaken.

New, open space totalling approximately 110 hectares will be provided as part of the Olympic Park and legacy development.



In the long term, the aim is for revived waterways, wetlands and other wild areas that will provide a recreational, as well as ecological bonus, for local people and London as a whole. A fundamental principle is the maintenance of continuous ecological corridors created for the Games and in the immediate legacy, crossing the Park and linking it with adjacent areas and networks, both aquatic and terrestrial, including the Greenway.

The Park has the opportunity to function both ecologically and recreationally. The Park will become a learning landscape, with the ecology providing a major educational resource, for school children to post-doctoral researchers. Re-profiling of the waterways both for and after the Games will extend and widen wetland habitats, included submerged, floating and emergent aquatic vegetation and reed beds, providing a major new inner-city wetland. The wetland elements will merge with and complement terrestrial habitats so that the new river system is an integral part of the Park.

The plant species for the Park are planned to be largely native to England, appropriate to London and preferably of regional or local origin. Seed collections have been carried out on site to this end. Habitats may include existing native mature woodland, scrub, woodland edge habitats (including tall herbs), wetlands (including reed bed and wet woodlands) and various species-rich grasslands. One form of grassland proposed is stony meadows: low nutrient and species rich grassland established on reused demolition waste. Amenity grassland is planned to be in the form of species-rich lawns, so that even the most robust and well-used areas will contribute to the overall ecological value of the Park.

The ODA will also evaluate the opportunities within buildings to provide cost-effective habitats for native species. This could include elements such as swift bricks and other nesting cavities. The impact of bridge shading on waterways and banks will also be ameliorated by reducing the number and width of bridges in legacy.

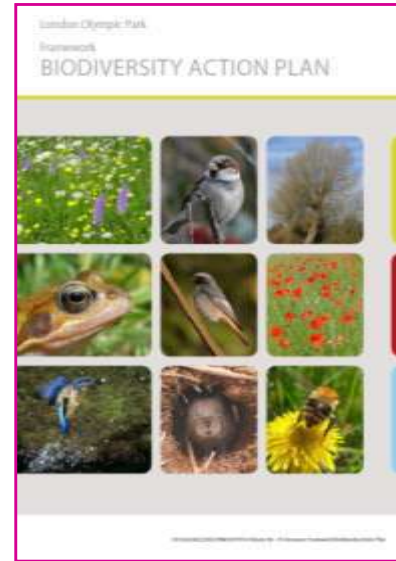
In order to maximise the potential for ecological benefits, there is the opportunity for green or brown roofs to be incorporated where appropriate. The ODA is assessing the feasibility for a brown roof for the International Broadcast Centre and Main Press Centre.

Safeguarded habitat refuges, especially Bully Point, will be surrounded by log walls created using timber felled in site clearance. These walls will be reclaimed from other areas of the Park and used instead of the standard chain link fence used in construction zones, where feasible to do so, forming a protective and decorative boundary. Untreated log walls provide habitat features of great benefit to important groups such as reptiles, amphibians, specialist dead wood invertebrates and lower plants. They will also make a significant contribution to amphibian and reptile mitigation requirements.

ODA Biodiversity Action Plan

The BAP was required to cover the construction, Games and Legacy Transformation phases. Planning Condition OD.0.11 attached to the planning permission required that:

“Before 30th September 2008, the Biodiversity Action Plan, which shall be based on the Biodiversity Action Plan Framework submitted with the application, shall be submitted to the Local Planning Authority for approval. This shall clearly identify the areas of recognised wildlife habitat to be provided and the means by which these will be maintained.”



OLYMPIC PARK TRANSFORMATION LANDSCAPE TYPES



BIODIVERSITY ACTION PLAN LANDSCAPE TYPES



Olympic Park Management Plan

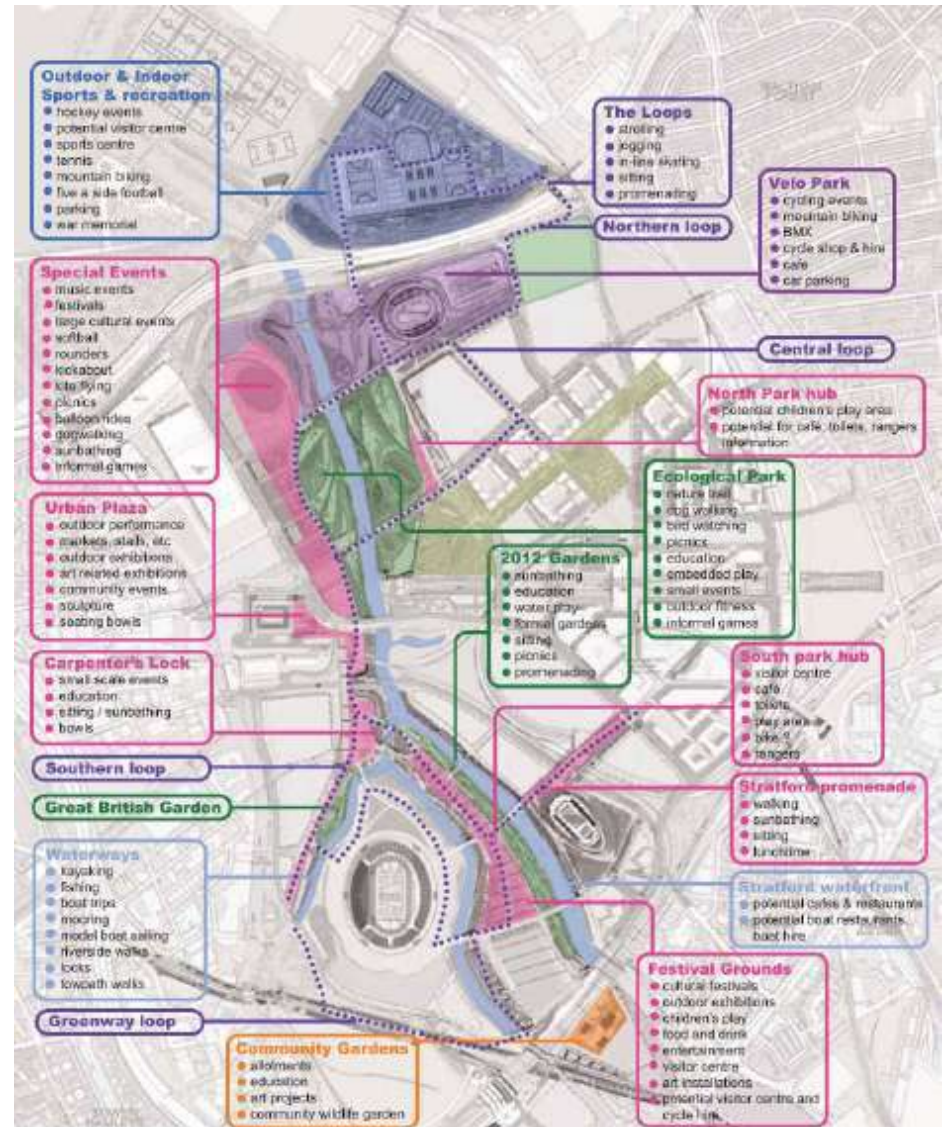
THE OLYMPIC PARK TOWARDS A 10 YEAR LANDSCAPE MANAGEMENT & MAINTENANCE PLAN

Prepared By:
ETM ASSOCIATES, L.L.C.
1202 Raritan Avenue
Highland Park, NJ 08904
USA

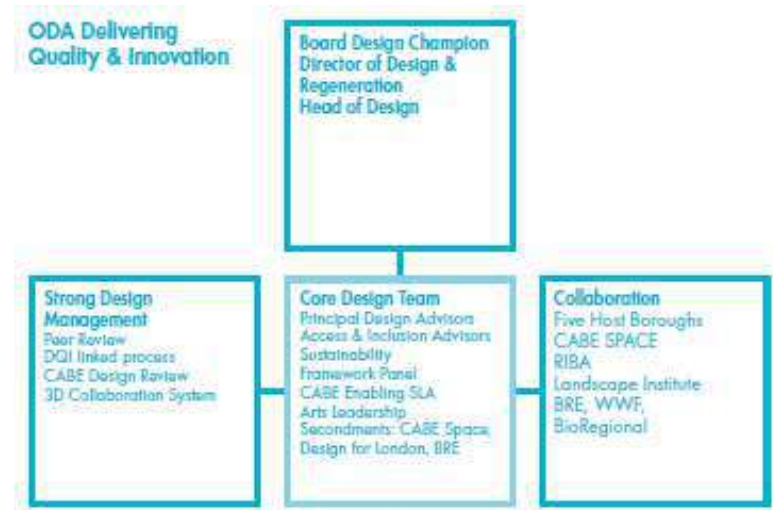
With - LDA Design,
Hargreaves Associates

For:
Olympic Delivery Authority

February, 2010



ODA Design Strategy





Delivering good design

Design time
To help deliver its commitment to design quality the ODA has adopted CABE advice (Creating Excellent Buildings: A Guide for Clients, CABE 2007) in establishing its client design team and design management processes.

Client leadership
The ODA has also established an experienced design team with the specific need of delivering its corporate design commitments, working closely with DODS. The team is represented at every decision making level within the ODA, including the ODA Board through the design champion, Sir Nicholas Serota. The design advisors within the team will support project teams through every stage of project development and implementation and drive design quality and innovation. The ODA is also supported by the Chief Advisor on Architecture and Urbanism Richard Burdett, who works across all projects to drive and ensure design quality.

Design time
The ODA continues to present a unique opportunity for a development of this size and complexity. CABE advise that the start of a project is when most can be done to add value through careful preparation and adequate time for design. Creating Excellent Buildings, CABE 2007. The ODA programme has therefore been made by thought through to balance sufficient design time with planning, procurement and construction timescales. Below is a list of processes that underpin this:

- in all ODA projects, work on design will continue in parallel with the most planning phases and the procurement of contractors;
- the procurement approaches adopted on design projects. Clarity of brief and design intent will be a critical factor in determining when a contractor is procured;
- in design and build cases, the ODA will always aim to ensure its design teams to contractor teams to ensure maximum efficiency and continuity in design progression. Where this is not appropriate and the design team is retained by the ODA or new teams are brought in for detailed design stages, construction will be procured early to ensure they gain a good understanding of the design intent. Where possible the design development will be taken on for a RIBA stage 0/1;
- the ODA design advisors will continue to work with project teams and their contractors through every stage of design, construction and completion to further aid innovation and enhance the final end design experience.

design

- Accountable to the Mayor
- Landowner
- Developer
- Venue operator
- Estate manager
- Planning authority
- Planning and regeneration agency



Legacy Communities Scheme

Five New Neighbourhoods

6,750 new homes:

- family housing
- affordable housing
- lifetime (adaptable) homes
- wheelchair accessible

New education facilities

- 1 6FE secondary school
- 2 3FE primary school
- 9 nurseries

New health facilities

- 1 primary care centre
- 2 walk-in centres

Community and leisure space

Library/Idea Store

3 Safer Neighbourhood Teams



GAMES to TRANSFORMATION

2007 - 2015



Three masterplans



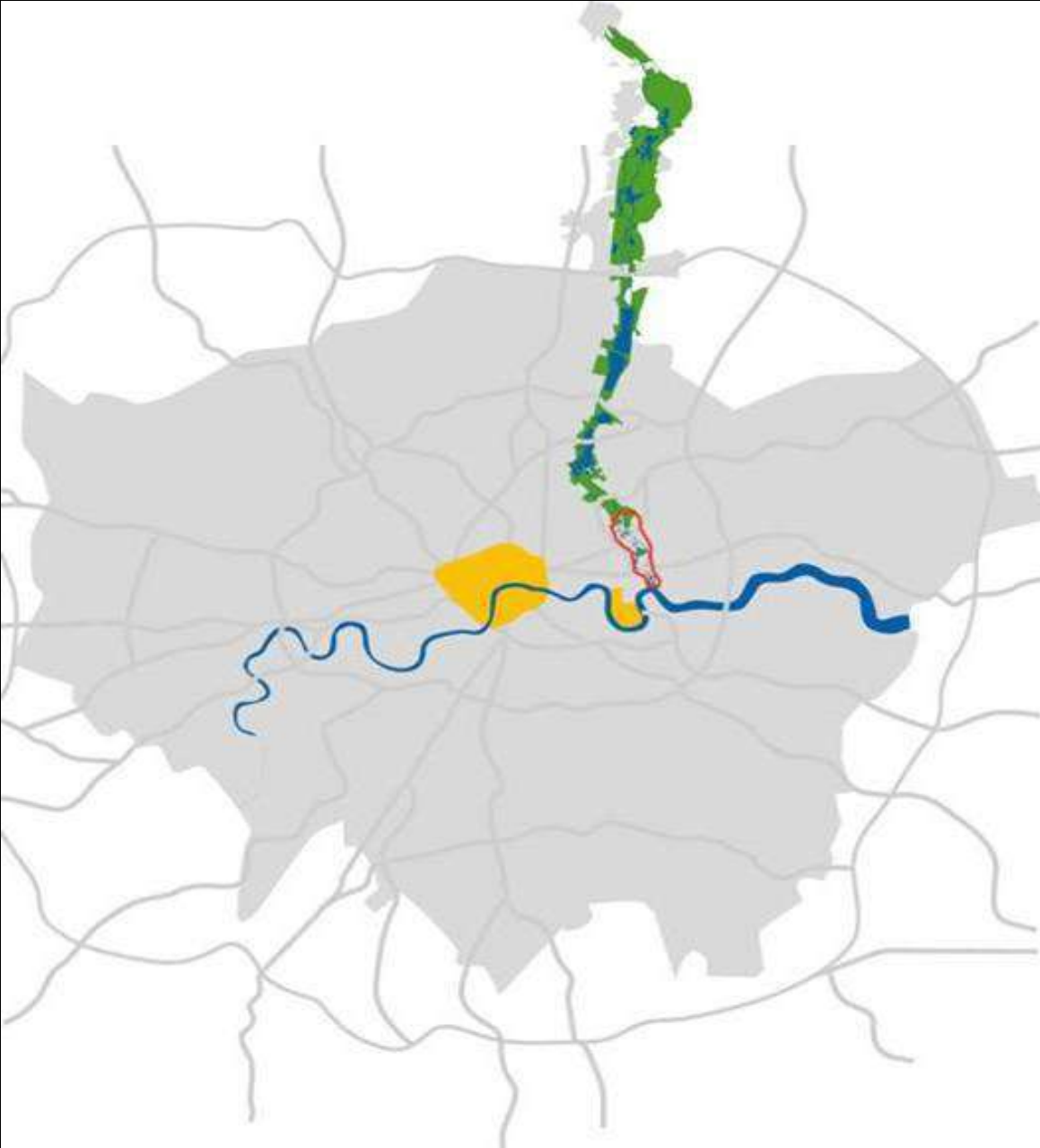
Olympics 2012



Transformation 2014



Legacy 2030



Lee Valley Regional Park/Olympic Park



Socio-economic deprivation

- Many wards are the most deprived in England
- The area has double the average unemployment for England
- Poor health, high crime rates
- Nearly 40 per cent of jobs in the Lower Lea Valley are in the industrial sector twice the proportion for London as a whole
- More than 200 languages spoken

Scale of the 2012 Games

- 17,500 athletes/coaches/officials
- 2,000 judges/referees
- 5,000 Olympic Family (IFs, NOCs, IOCs)
- 20,000 media
- 7,000 official sponsor representatives
- 4,000 athletes & 2,500 officials (Paralympics)
- Over 9 million spectators
- Global TV audience of 5 billion
- 70,000+ Volunteers



ODA's Overarching Principles

- Time
- Cost
- Fit for purpose

ODA Priority Themes

Within the constraints of the overarching themes of time, cost and fitness for purpose, the ODA has identified seven Priority Themes:

- Health and Safety
- Security
- Equalities and Diversity
- Legacy
- Sustainability
- Design & Accessibility
- Employment & Training



















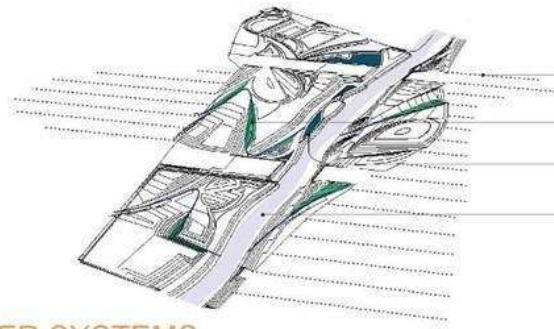




North Park

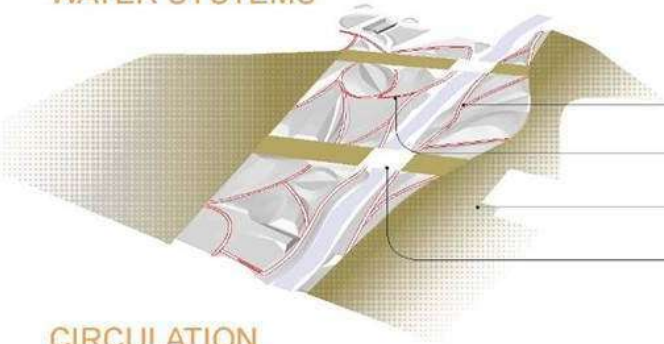
North Park - Variety of Parkland Character





- Drainage
- Bio-Swales
- Wetlands
- River Lea

WATER SYSTEMS



- River Walk
- Park Footpaths and
- Concourse
- Bridges

CIRCULATION

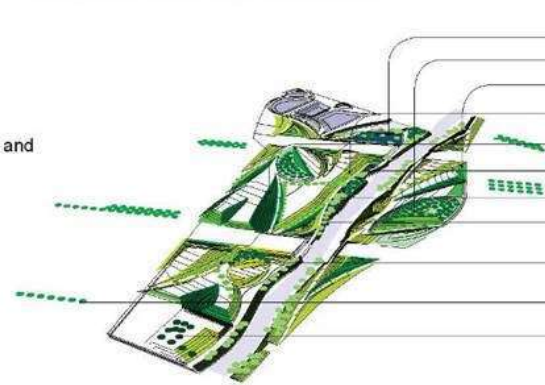


LANDFORMS



- Open Lawn
- Seating Terraces

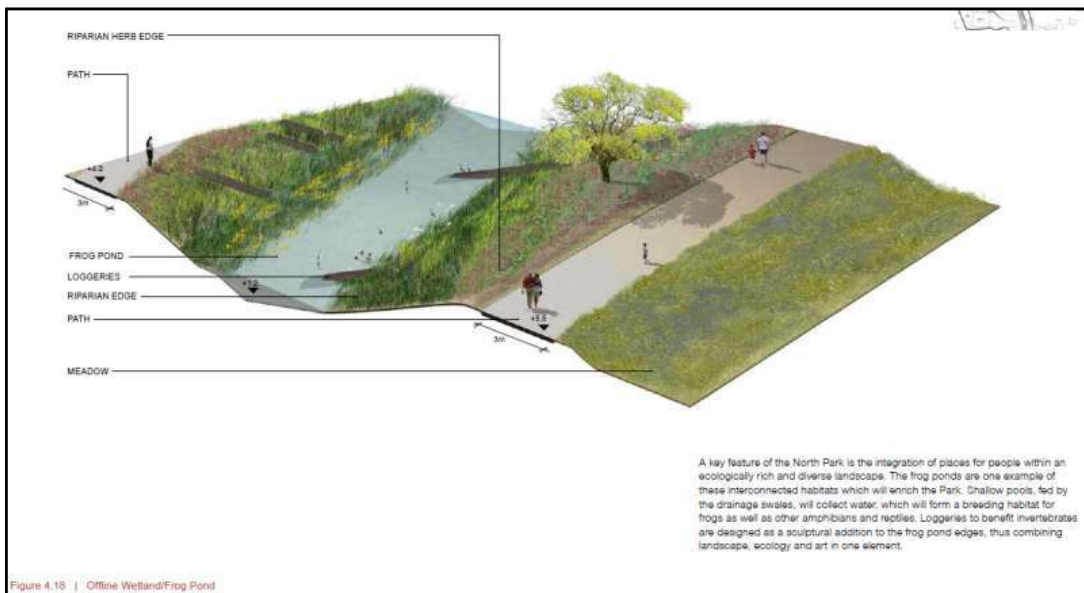
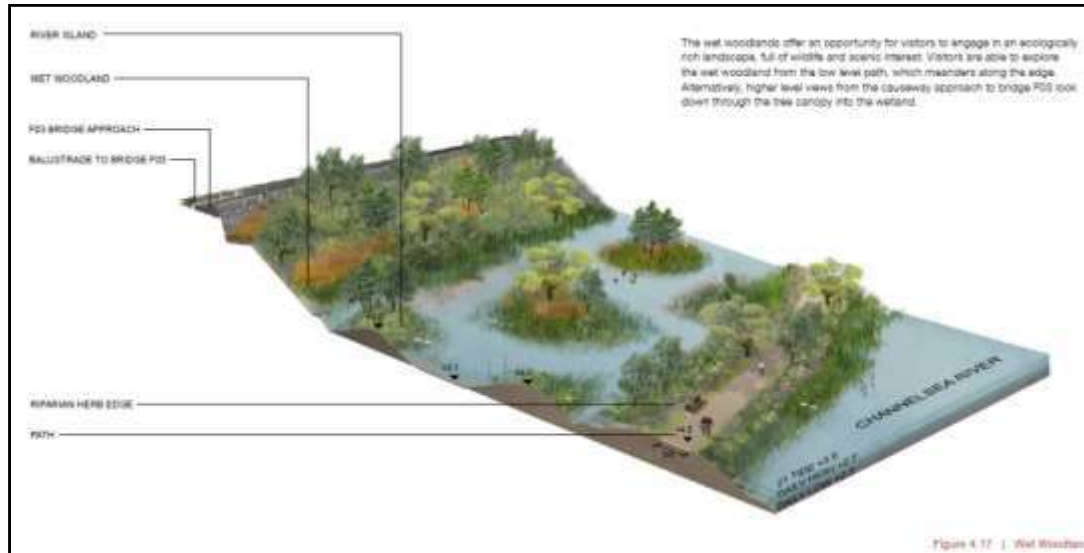
LAWN AND TERRACES



- Wet Woodland With Alder And Willow Carr
- Woodland Hill
- Feature Plantings
- Species Rich Grasslands
- Swale Slope Plantings
- Wetlands
- Water Edge Plantings
- Riparian Trees
- Path Trees
- Tree Connectors
- Existing Trees

PLANTINGS

Ecological design for the wetlands

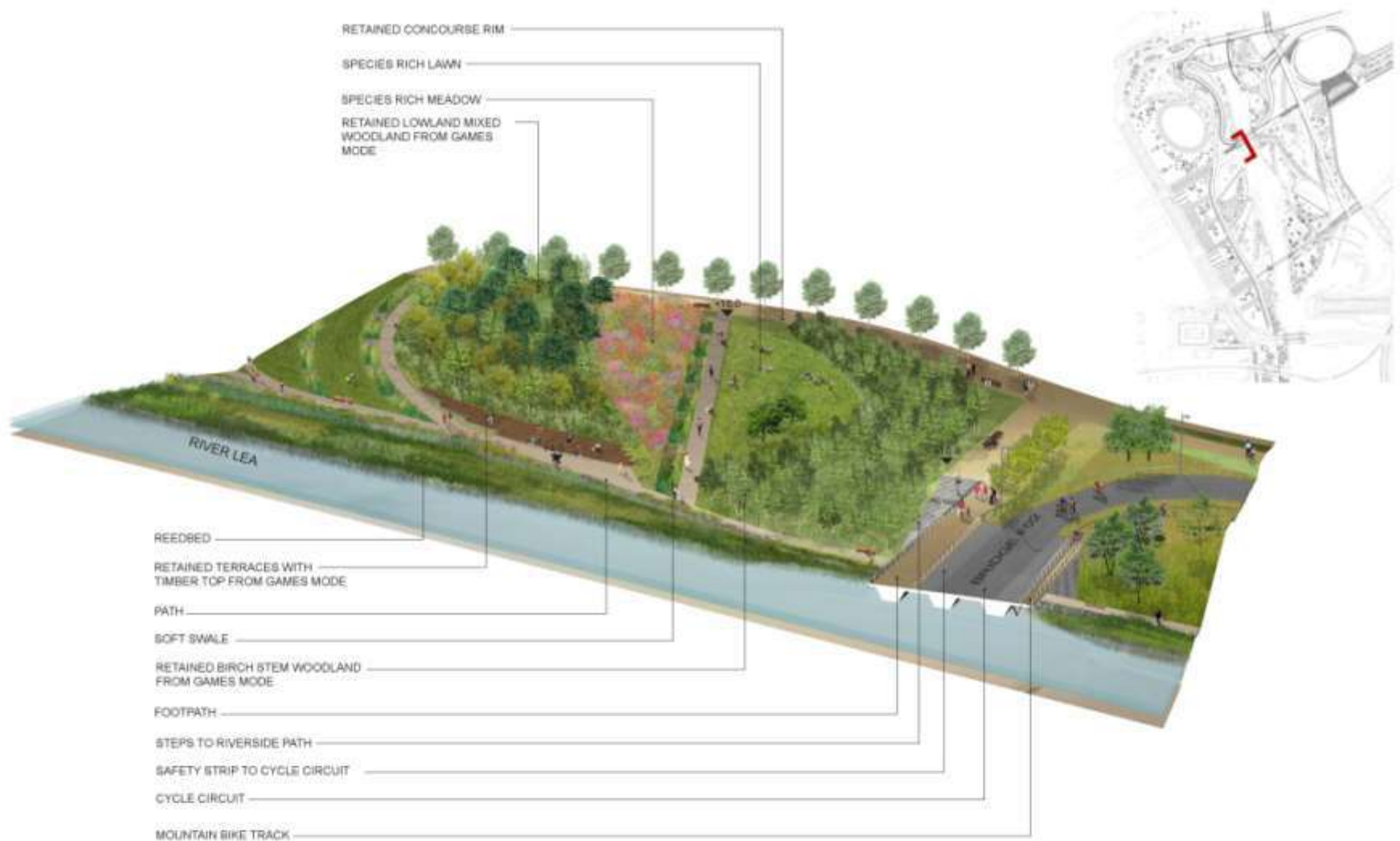










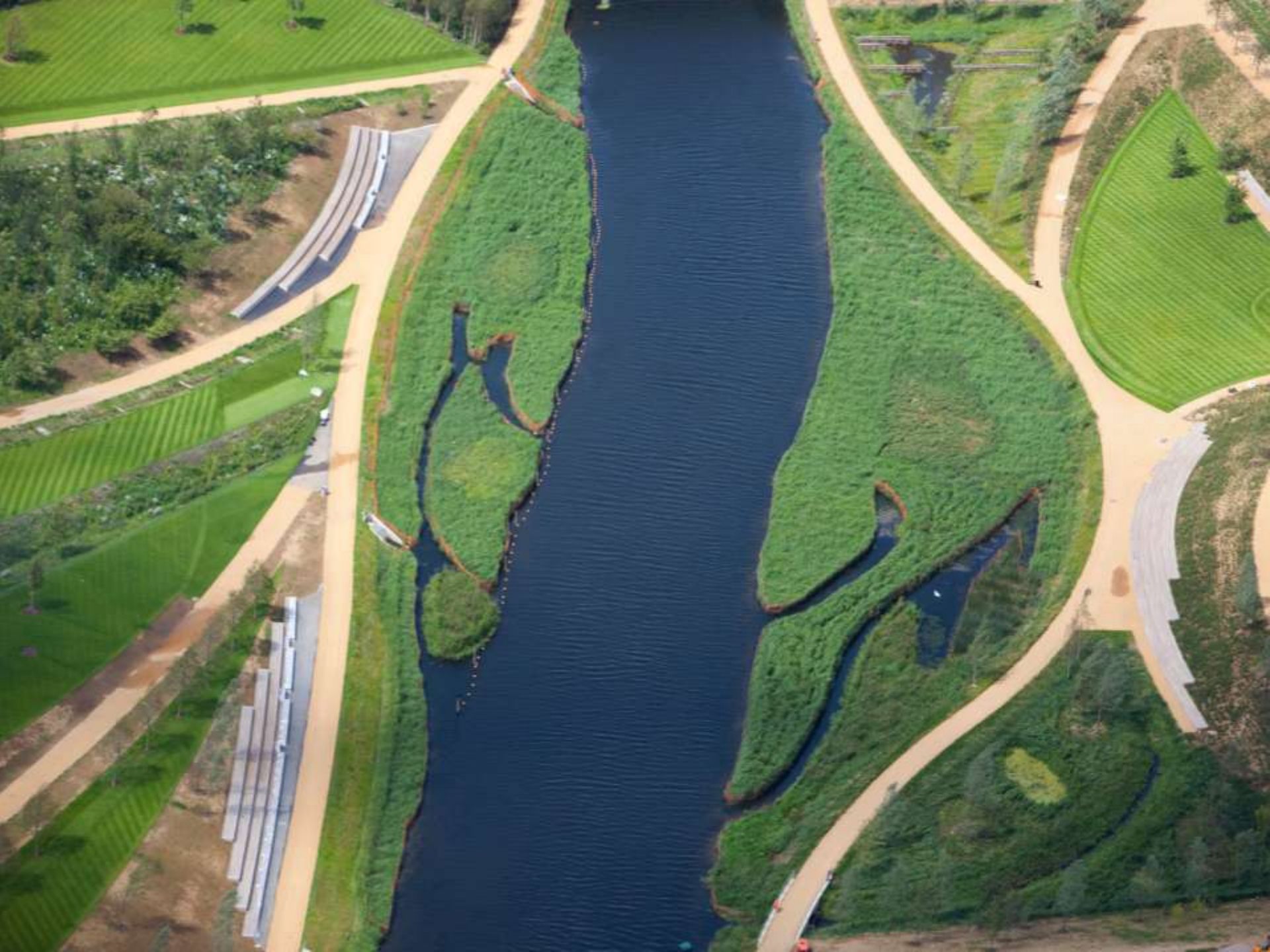


Bridge F02 connects the North-West Park to the Velo park and the Velo arena. The bridge is reconfigured to accommodate the cycle circuit whilst the landform is adjusted accordingly. A sculptural landform is retained from the Games mode featuring Lowland mixed woodland planting and Display meadow. Terraced seating is integrated into the mound to afford comfortable seating area with views across the river.

North Park - Wooded Hill and Cycle Circuit at Bridge F02 Axonometric Diagram



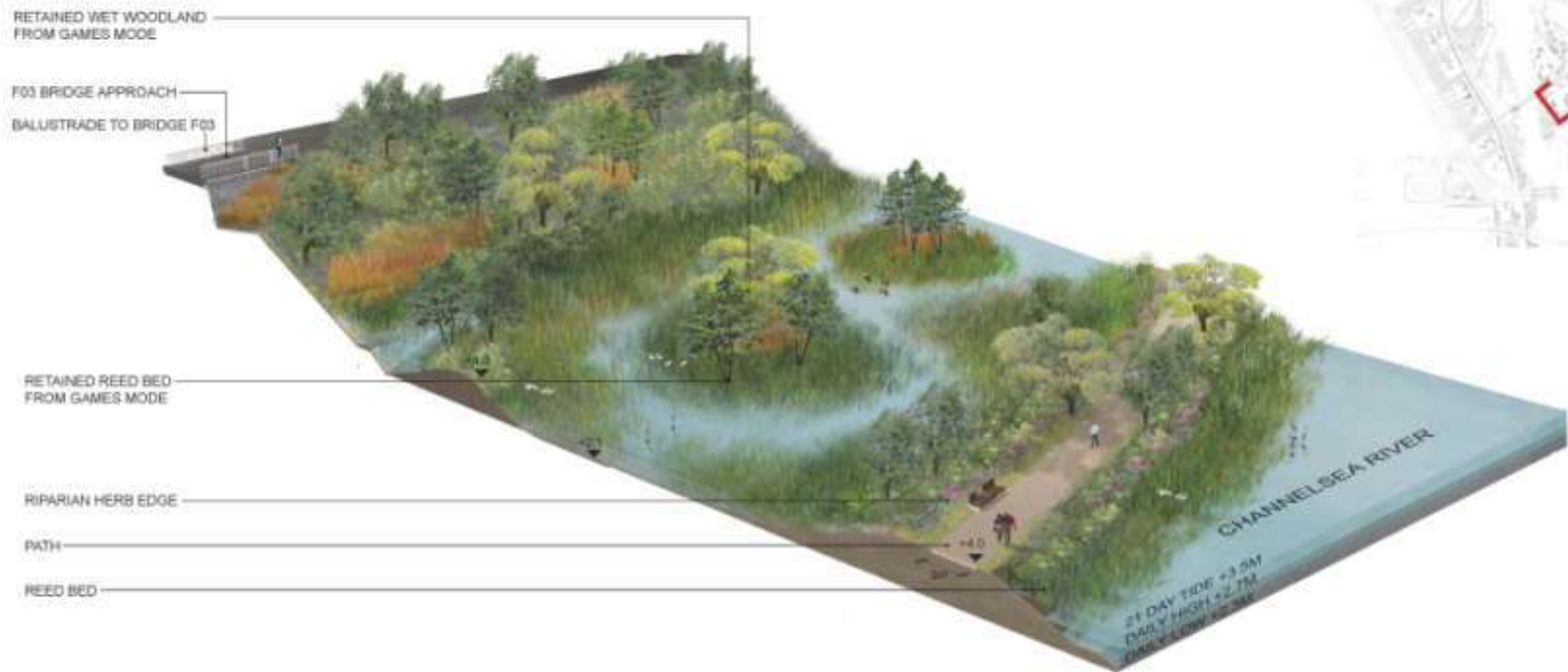












North Park - Wet woodland Axonometric Diagram









Perennial Meadows Trial – May 2010



Perennial Meadows Trial – August 2010



Perennial Meadows Trial – April 2011



Perennial Meadows Trial – May 2011





















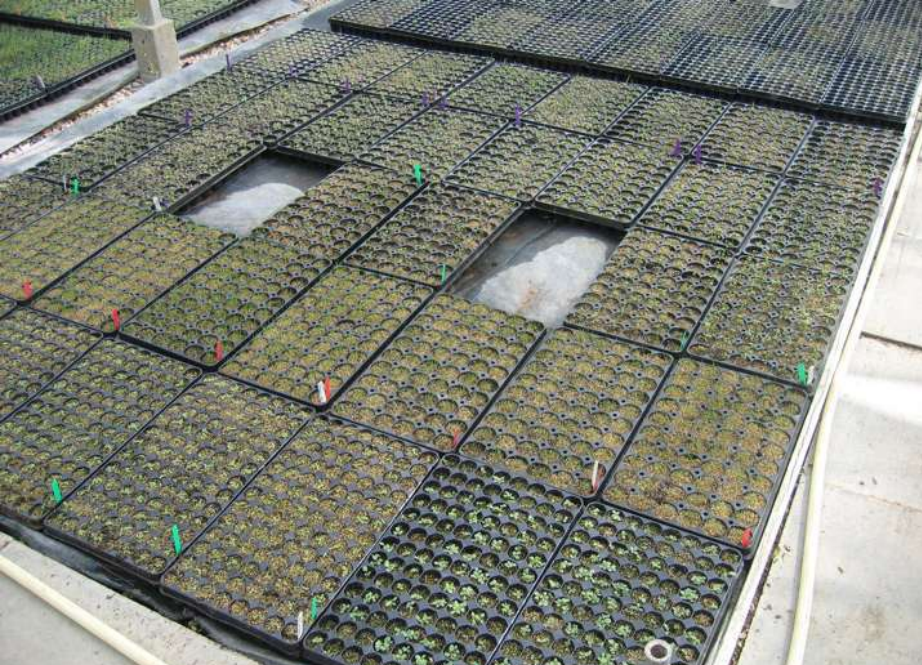
Plant Procurement

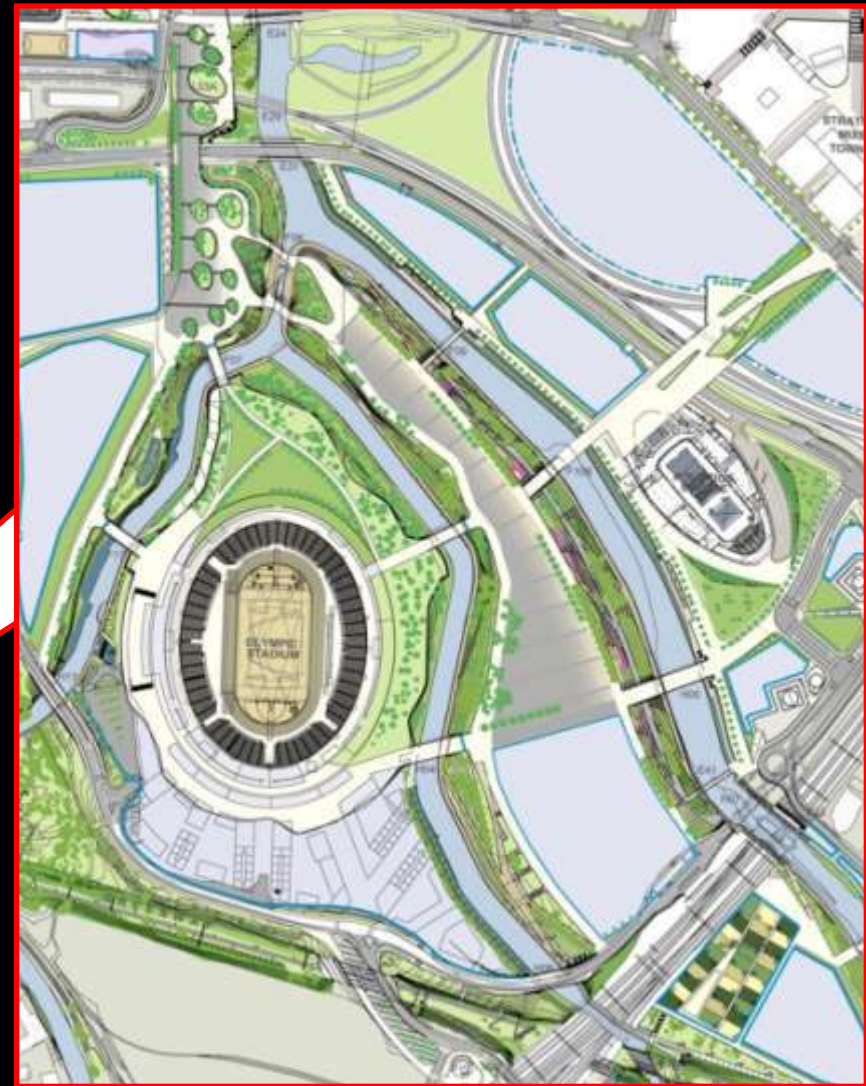






RO
COM
OLYMPICS
2010
RESERVED





South Park



Annual Meadows









Temperate Asia, Japan, Himalayas: C19th C20th



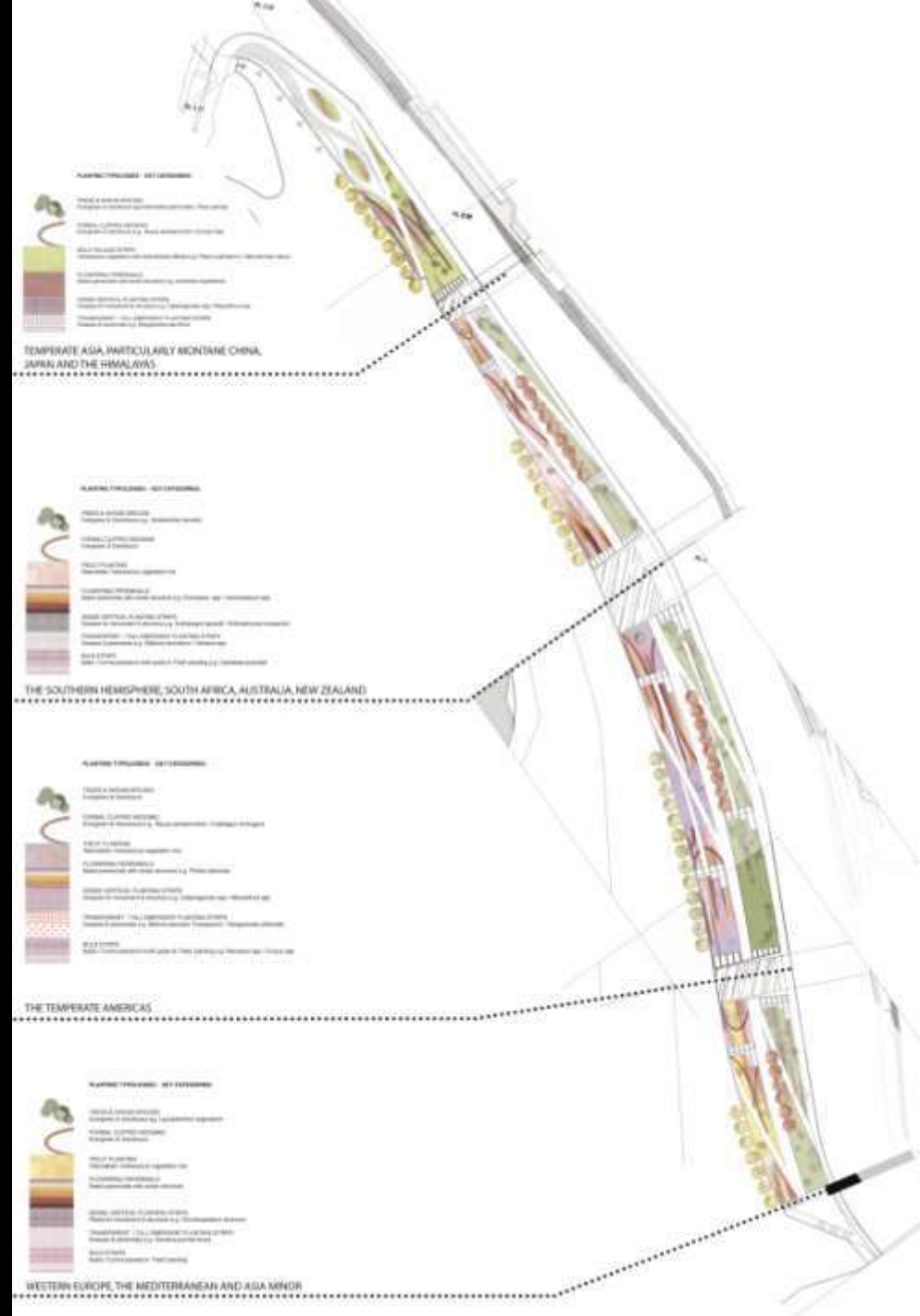
S Africa, Australia, New Zealand: C18th early C19th



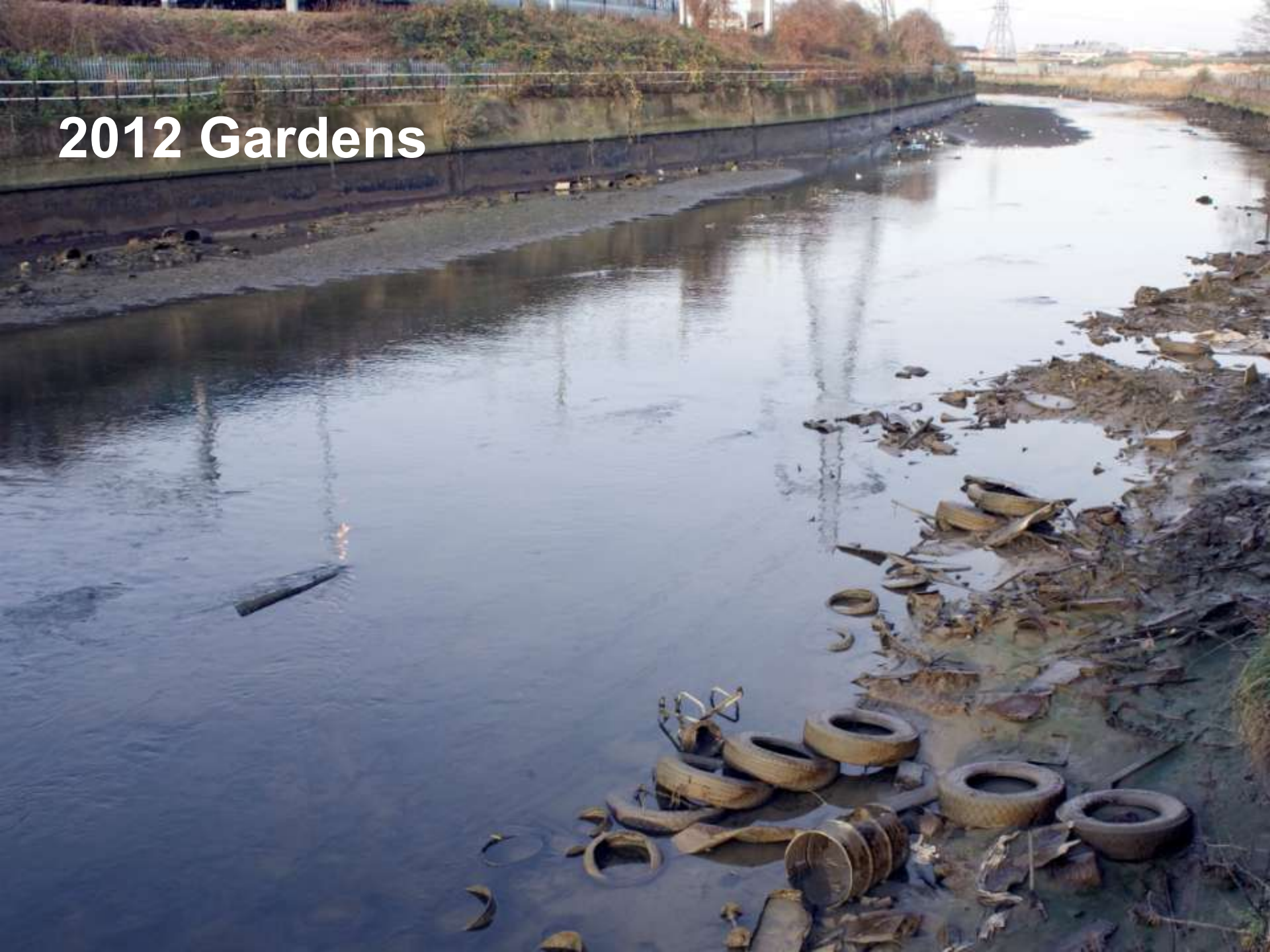
Temperate Americas: C17th C18th



Western Europe, Mediterranean: post 1400 AD

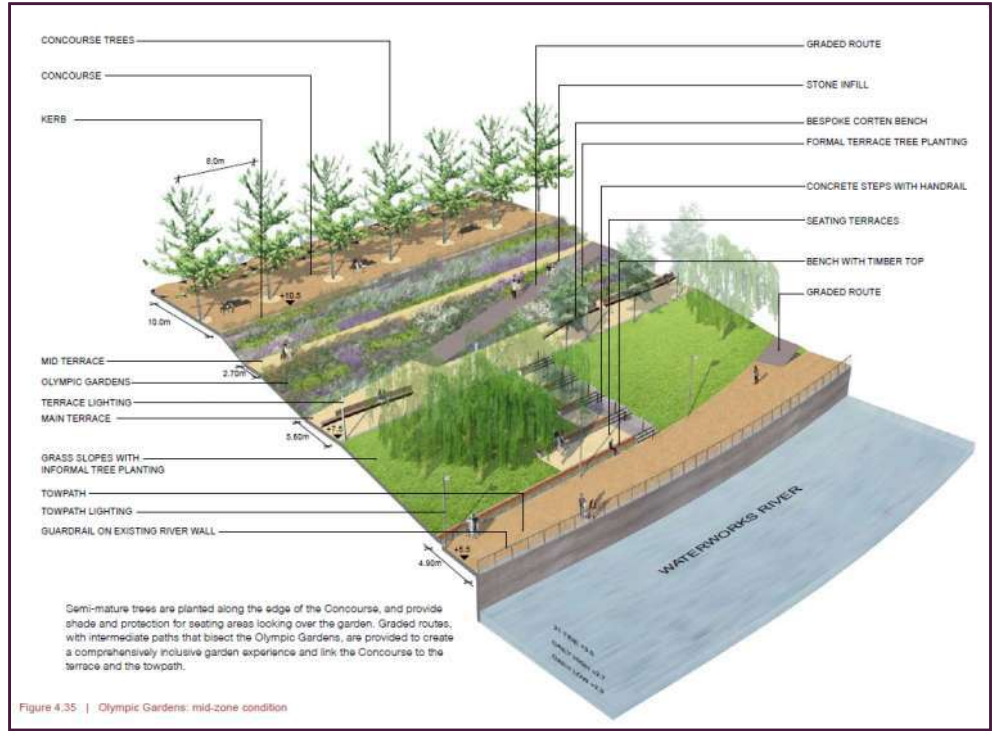


2012 Gardens



2012 Gardens







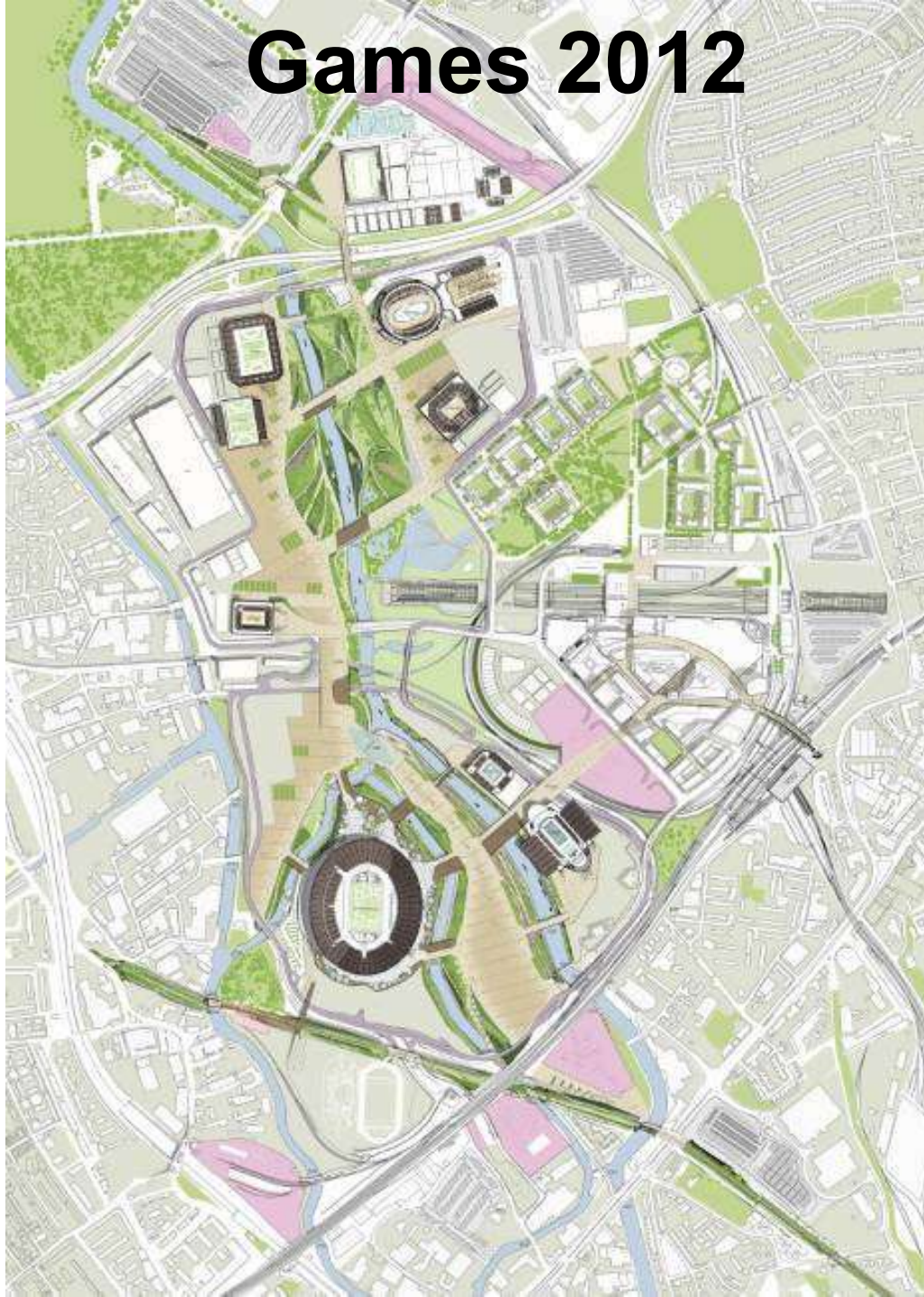




LONDON 2012 GAMES



Games 2012





















Transformation 2014

**LEGACY
DEVELOPMENT
CORPORATION**

New Velopark





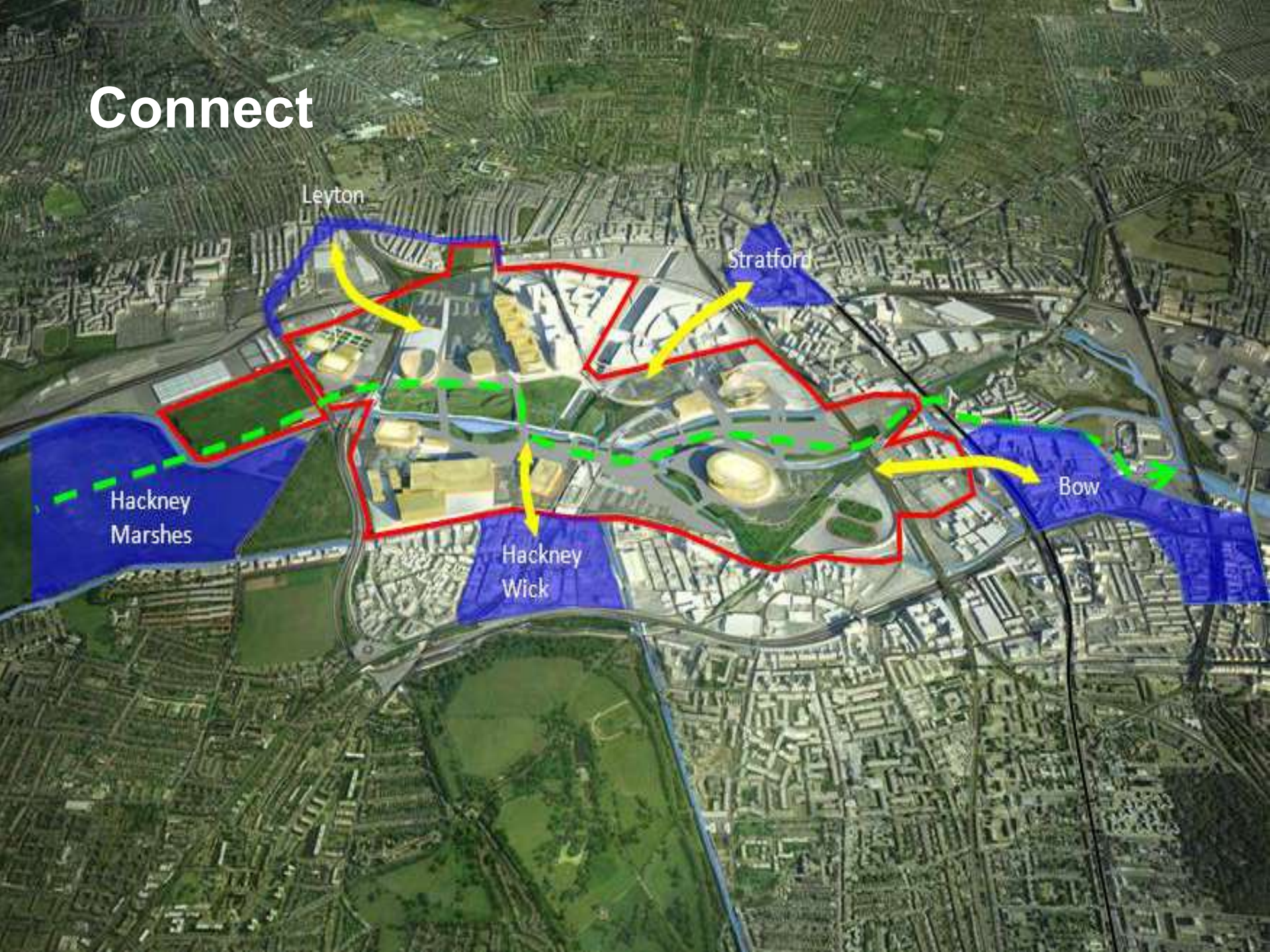
- Strong Parkland with relationship to the river
- Larger accessible amenity space next to the river
 - Interim use events lawn







Connect



Stitches







Brownfield







Complete



Timber Lodge & Tumbling Bay



Hazel copse and events lawn











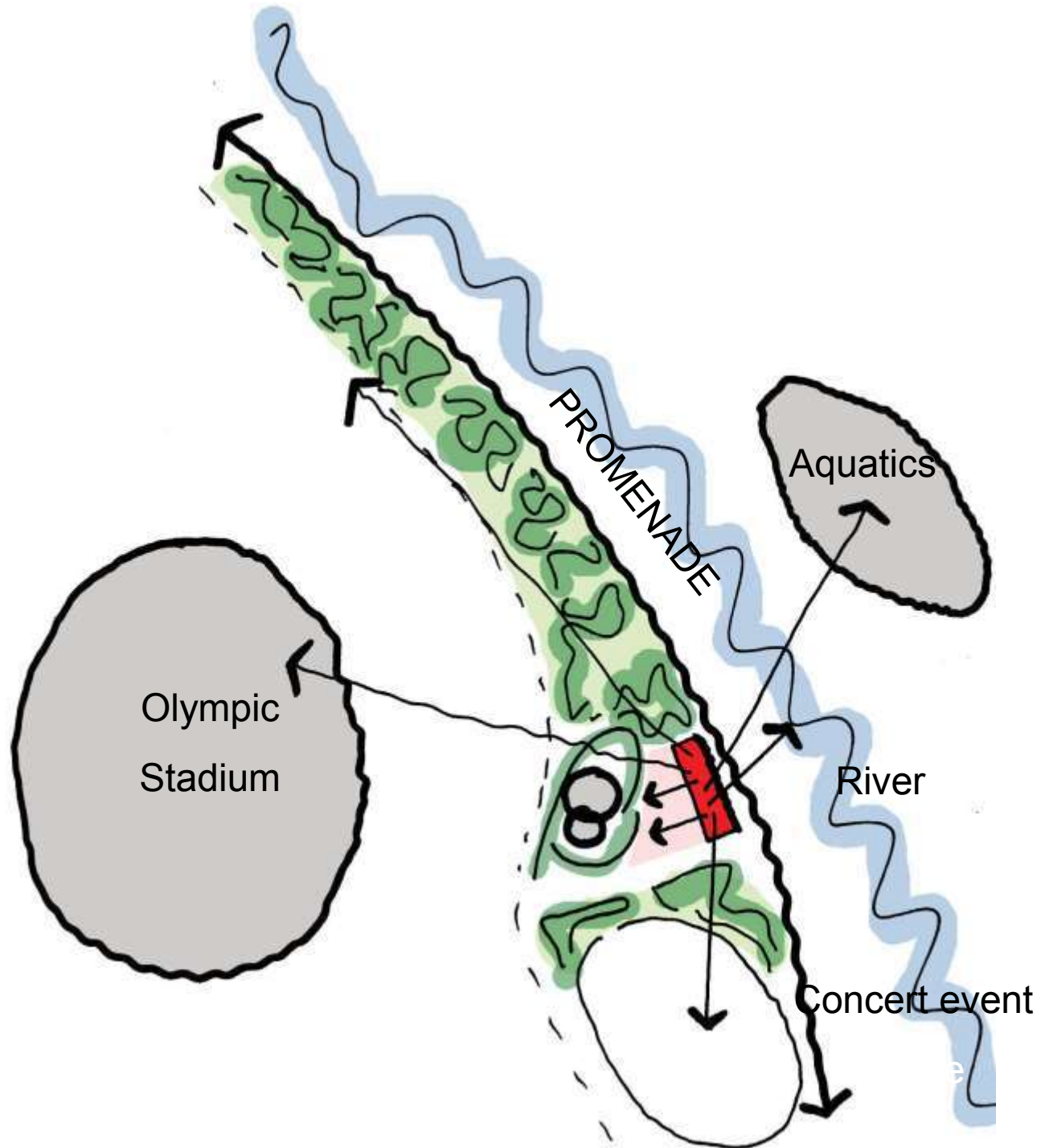






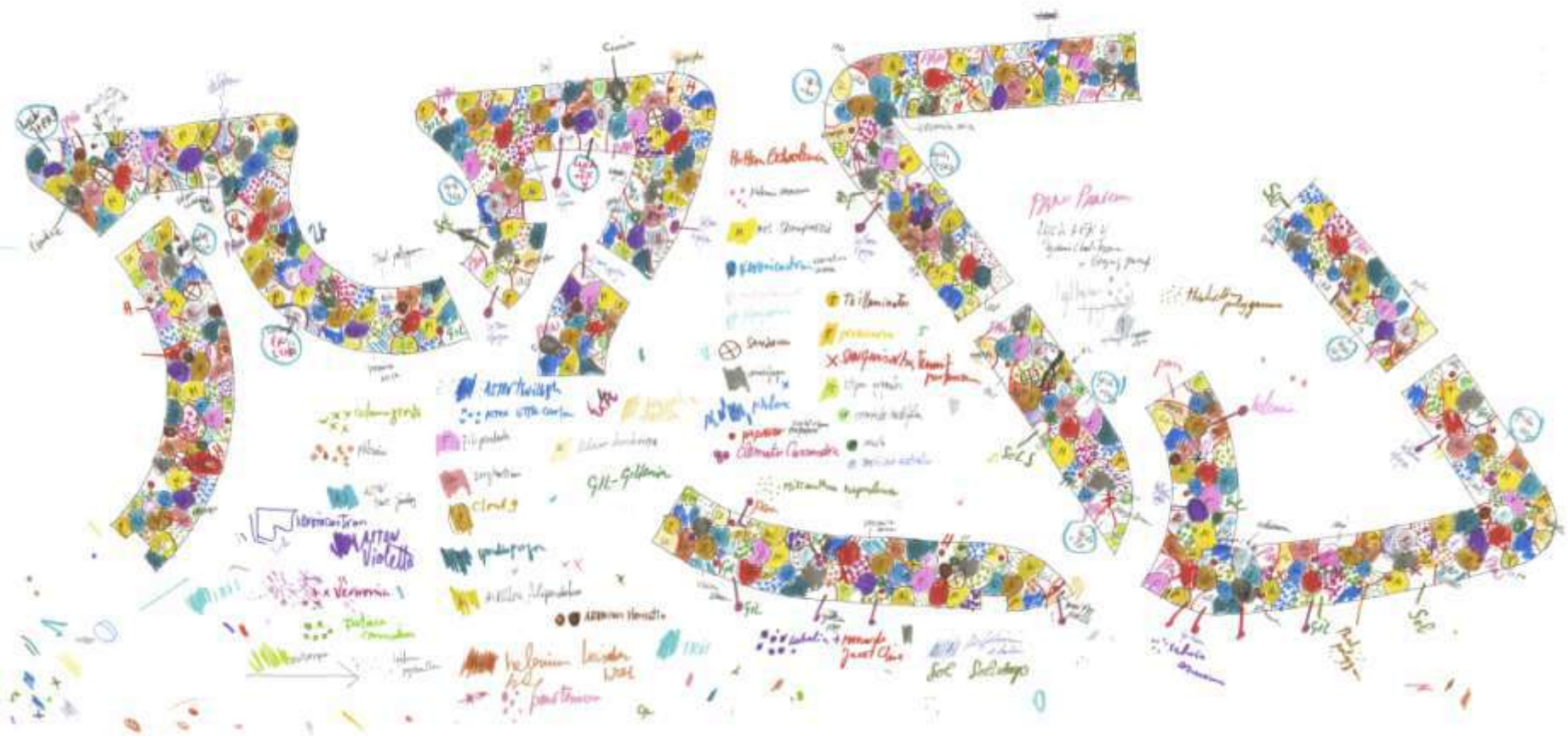
South Park Plaza



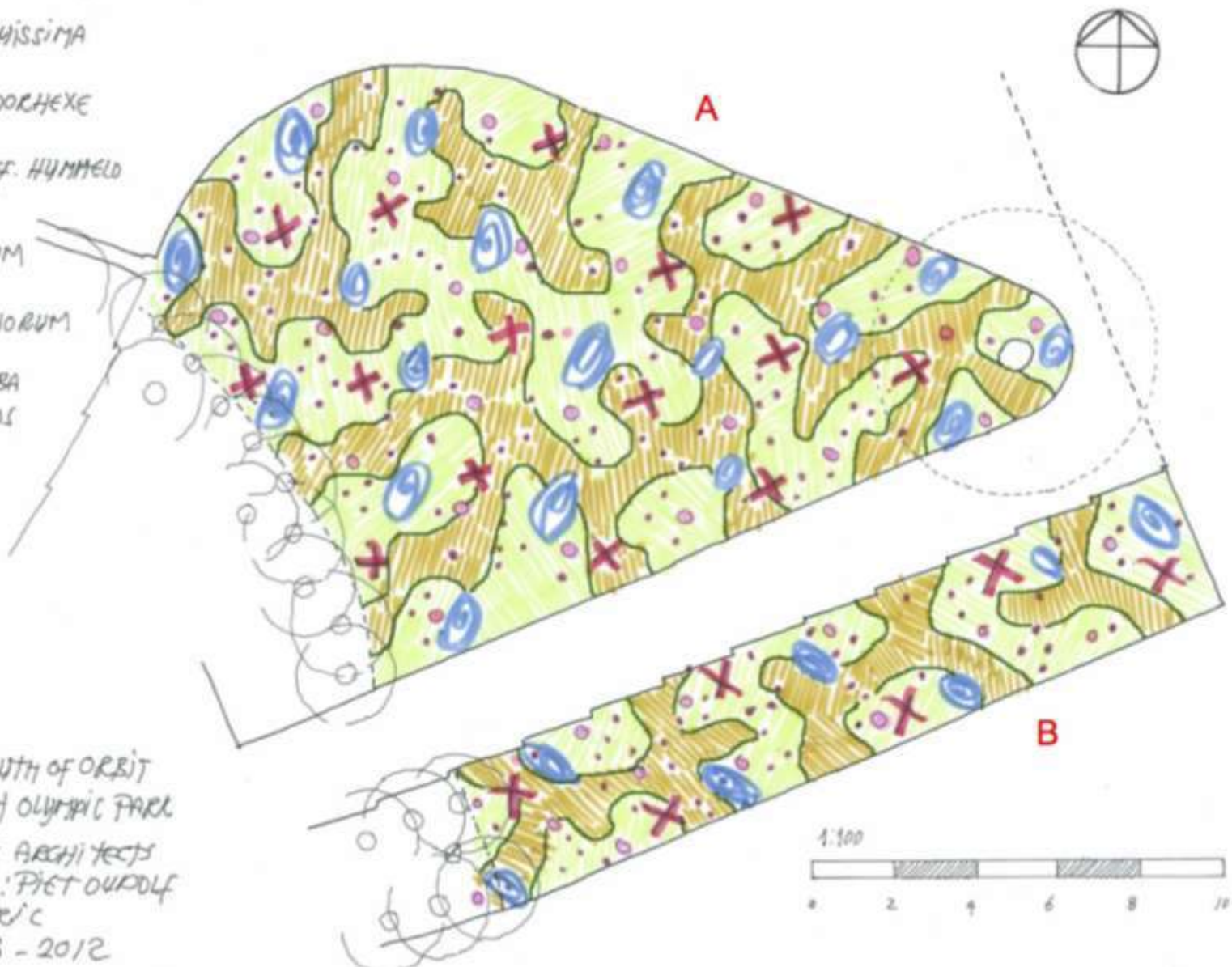








-  *NASSELLA TENUISSIMA*
-  *MOUNIA MOORHEX*
-  *STACHYS* OFF. HUMMEL
-  *GERANIUM*
WIASOVIANUM
-  *DIANTHUS*
GERTHUSIANORUM
-  *SANGUISORBA*
RED BUTTONS



GRASSMEADOW SOUTH OF ORBIT
 QUEEN ELIZABETH OLYMPIC PARK
 JOFO: LANDSCAPE ARCHITECTS
 PLANTING DESIGN: PIET OUDOLF
 SCALE 1:100 METRIC
 DATE JULY 18 - 2012





































Legacy 2030



Sitewide Illustrative Masterplan (Rev.6.1)
based on LCS-DWG-ILL-MAS-XXX-GLB-002
DRAFT - awaiting client approval
March 2012
scale 1:2500 @ A0

The Legacy Vision



OLYMPICOPOLIS

ual: university
of the arts
london

SADL
ERSW
ELLS

V&A

UCL

THE FUTURE RESIDENTIAL

2014



EAST VILLAGE

2,818 homes with six
additional towers entering
planning

THE FUTURE RESIDENTIAL

2018

CHOBHAM MANOR

828 new homes
First phase delivered in 2015

EAST VILLAGE

2,818 homes with six
additional towers entering
planning

GLASSHOUSE GARDENS

Luxury apartments
Occupation from 2016,
complete by 2017



THE FUTURE RESIDENTIAL

2025

CHOBHAM MANOR

828 new homes
First phase delivered in 2015

EAST VILLAGE

2,818 homes with six
additional towers entering
planning

EAST WICK & SWEETWATER

1,500 homes
Completed by 2023 in
phases

PUDDING MILL

Masterplanning
1,700 homes as part of
mixed development

GLASSHOUSE GARDENS

Luxury apartments
Occupation from 2016,
complete by 2017

STRATFORD WATERFRONT

Two towers; 504 units and
280 units
Completed by 2022



THE FUTURE EDUCATION

2014

LOUGHBOROUGH UNIVERSITY

Secured tenant at Here East;
courses from 2015 onwards

CHOBHAM ACADEMY

Opened in Sept 2013
1,800 students

STRATFORD ONE

Unite student housing
Opened in Sept 2014
More than 1,000 rooms



THE FUTURE EDUCATION

2018

LOUGHBOROUGH UNIVERSITY

Secured tenant at Here East;
courses from 2015 onwards

EAST WICK PRIMARY SCHOOL

£10m project
Due to open in 2015

LEGATUM PRIMARY SCHOOL

£8m project
Due to open in 2016

LEGATUM SECONDARY SCHOOL

£25m project
Due to open in 2016

CHOBHAM ACADEMY

Opened in Sept 2013
1,800 students

STRATFORD ONE

Unite student housing
Opened in Sept 2014
More than 1,000 rooms



THE FUTURE EDUCATION

2020

LOUGHBOROUGH UNIVERSITY

Secured tenant at Here East;
courses from 2015 onwards

EAST WICK PRIMARY SCHOOL

£10m project
Due to open in 2015

UNIVERSITY OF THE ARTS LONDON

Partnership as part of
Cultural Quarter project

LEGATUM PRIMARY SCHOOL

£8m project
Due to open in 2016

LEGATUM SECONDARY SCHOOL

£25m project
Due to open in 2016

CHOBHAM ACADEMY

Opened in Sept 2013
1,800 students

STRATFORD ONE

Unite student housing
Opened in Sept 2014
More than 1,000 rooms

UNIVERSITY QUARTER



THE FUTURE COMMERCIAL & HOSPITALITY

2014

HERE EAST

7,500 jobs

BT Sport already a tenant

Fully operational by 2018

EAST VILLAGE

31 retail units totalling
6,700sqm

WESTFIELD STRATFORD CITY

177,000sqm retail space
102,000sqm office space
617 hotel rooms



THE FUTURE COMMERCIAL & HOSPITALITY

2025

HERE EAST

7,500 jobs

BT Sport already a tenant

Fully operational by 2018

EAST VILLAGE

31 retail units totalling
6,700sqm

WESTFIELD STRATFORD CITY

177,000sqm retail space
102,000sqm office space
617 hotel rooms

PUDDING MILL

Masterplanning 36,000sqm
GEA B1 floorspace

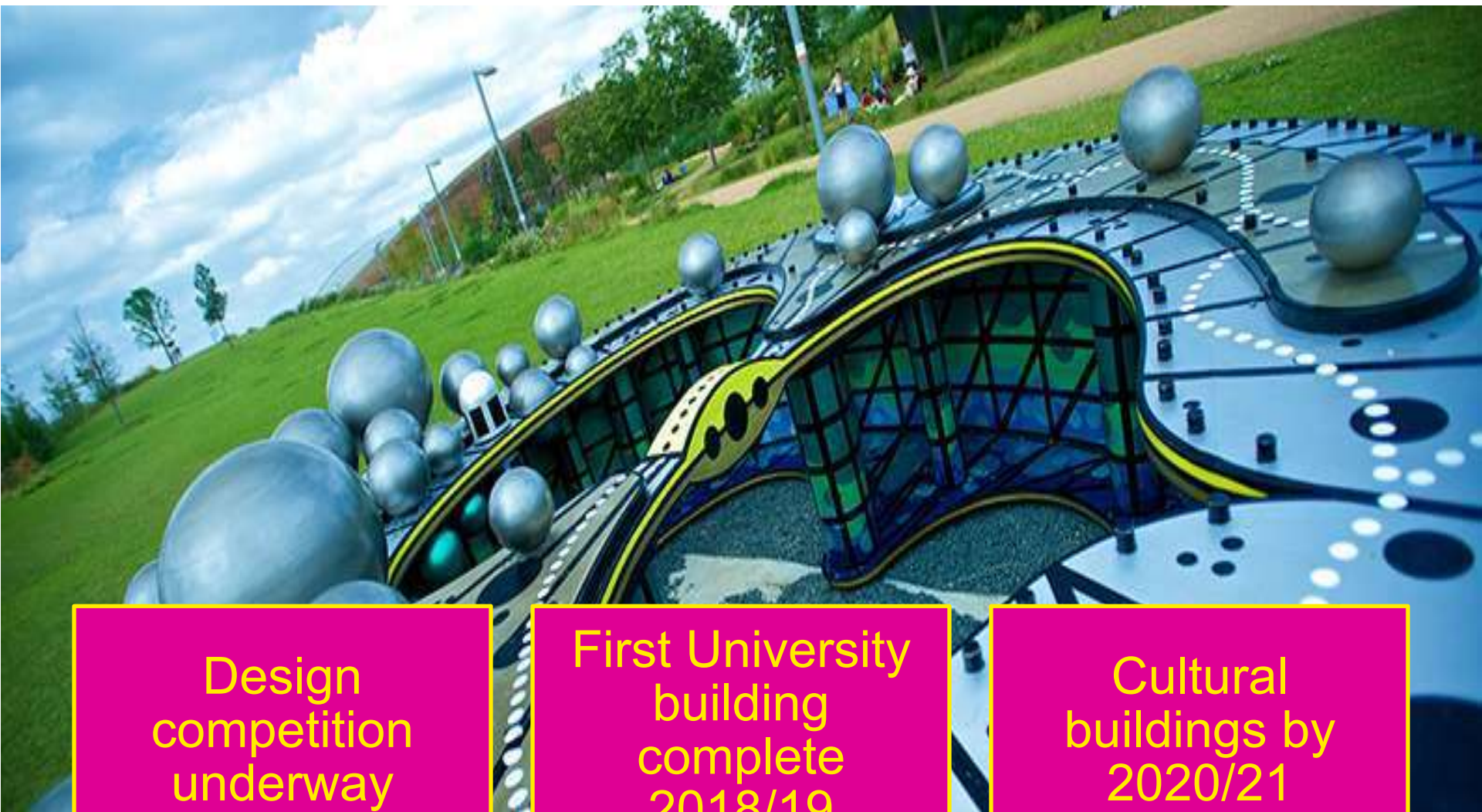
THE INTERNATIONAL QUARTER

370k sqm commercial space
25,000 jobs
TfL / FCA tenancies signed



CULTURAL AND EDUCATION QUARTER


TIMELINES



Design
competition
underway

First University
building
complete
2018/19

Cultural
buildings by
2020/21

A nighttime photograph of the Olympic Park landscape architecture. In the foreground, a wide, paved walkway leads into the distance, flanked by low-lying shrubs on the left and a grassy area with a fence on the right. A series of modern, cylindrical light poles line the path. In the background, a tall, slender tower with a glowing blue Olympic rings logo at its peak stands out against the dark sky. Other park lights and structures are visible in the distance.

“The Olympic Park is a landmark project demonstrating the leadership of Landscape architecture at all levels. The park has global significance in terms of the emerging environmental renaissance and shows where this leadership makes a significant and tangible difference”

Peter Neal



Thank you

References

Olympic Delivery Authority Documents

<http://www.london2012.com/making-it-happen/>

Olympic Delivery Authority Learning Legacy Documents

<http://www.london2012.com/learninglegacy/>

London Legacy Development Corporation

queenelizabetholympicpark.co.uk/

East London Green Grid

<http://legacy.london.gov.uk/mayor/auu/docs/elgg-primer.pdf>