

**BROMLEY-BY-BOW GASWORKS**  
**PUBLIC CONSULTATION**  
**AUTUMN 2022**

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Bywaters

Bow Locks

West Ham Memorial Gardens

**BROMLEY-BY-BOW GASWORKS**

## Contact

You can keep up to date with how the project is progressing and details of events on our website - [www.bromley-by-bow.com](http://www.bromley-by-bow.com)

Or email us at [info@bromley-by-bow.com](mailto:info@bromley-by-bow.com)

Aerial view of the site outlined in a dashed red line

## Welcome

Bromley-by-Bow Gasworks is a unique place. Untouched for over a decade, the seven Grade II Listed Gasholders played a big part in the East End's rich history of innovation and invention.

This booklet presents our vision and approach to capturing and celebrating this wonderful heritage as a thriving and dynamic new neighbourhood for generations to come.



## St William

Designed for life

The site is owned by St William.

St William is the specialist arm of the Berkeley Group, focused on the regeneration of redundant gasworks sites across London and the South of England.

We operate on a landscape led approach based on the premise of 'First Life, Then Space, Then Buildings' which is something we seek to embody at Bromley by Bow.

## RSHP

Founded in 1977 as the Richard Rogers Partnership, RSHP has evolved over four decades in one of the world's most celebrated architectural practices.

The proposals for Bromley-by-Bow Gasworks are led by Senior Partner Graham Stirk, who describes their work as:

*"Our design solutions are never the same because we analyse every aspect of the site, looking at both the physical and the socio-economic contexts, to create a building that is an original, but entirely fitting, response."*

The artists' impression above is of Marian Place, Bethnal Green, by St William and RSHP.

The House Mill

3 Mills Studios

Three Mills Park

# Site history

Originally marshlands, the Lower Lea Valley was transformed into an industrial powerhouse of London, a place of innovation in energy, transport, munitions, plastics and much more.

Diverting and managing the River Lea brought power to mills and industry, and highways for boats and barges to transport materials and goods all over the country.

Originally the site was home to William Congreve's rocket factory that produced advanced munitions for the Napoleonic Wars and the American Civil War; the latter referenced in the US national anthem the "Star Spangled Banner".

The 170-acre site Bromley-by-Bow Gasworks was built in 1870 by the Imperial Gas Light & Coke Company as its flagship works to rival that of its competitor, the Gas Light & Coke Company, at nearby Beckton.

In 1872, two retort houses and nine gasholders were built to designs by Clark & Kirkham, together with the Twelvetrees Bridge, designed by Peter William Barlow, to allow workers, and the supply of coal, to get to the site more easily.

The gasworks started producing and supplying gas to homes in 1873, bringing accessible heat and light to neighbouring communities for the first time.

The area was heavily bombed in the Blitz, causing damage to gasholders 3 & 5. Gasholder 5 was subsequently completely removed and Gasholder 3's above ground structure was dismantled leaving a perfectly circular pond now.

The country's conversion to North Sea Gas meant that town gas (gas extracted from heating coal in a process known as gasification) was no longer needed, making large parts of existing gaswork sites redundant.

The gasworks at Bromley-by-Bow closed in 1976 allowing the majority of the site to be redeveloped as the Prologis Business Park.

The gasholders continued to be used for the storage of gas into the 2000's and were decommissioned in 2010.

Other remnants of the gasworks include Cody Dock, a building that was once the control office and Memorial Park - an open space containing memorials to workers who were killed serving the WWI and WWII, a statue to the former governor, Sir Corbet Woodhall, and an eternal flame (gas powered of course).

The current extent of the Bromley-by-Bow Gasworks site

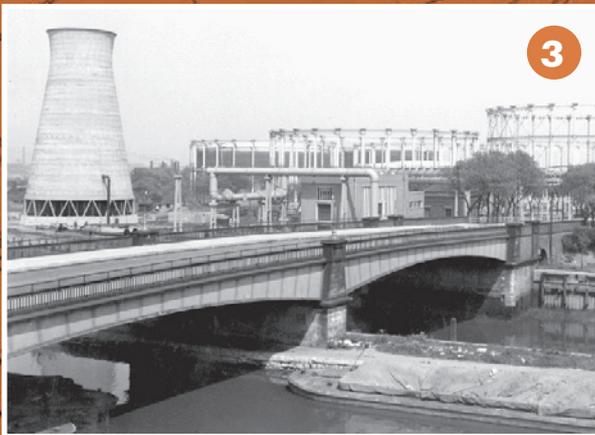
# THE GAS LIGHT & COKE COMPANY.



1



2



3



4



5



6



7

- 1) Loading coal from barges in the dock
- 2) The retort buildings used to make town gas
- 3) Twelvrees Bridge, the gasholders and a cooling tower
- 4) Twelvrees Bridge under construction
- 5) Bow Locks making the junction between the Lea and Bow Creek
- 6) The gasholders viewed across Channelsea River
- 7) Three Mills, former working mills

# Gasholders

A gasholder is a large container in which natural gas or town gas is stored near atmospheric pressure.

Gasholders 1, 2 and 4 at Bromley-by-Bow were built between 1872 and 1877, and designed by engineers Joseph Kirkham and Thomas Clark.

Gasholders 6, and 7 were completed in 1881, whilst 8 and 9 were completed 1882. All four were the responsibility of Vitruvius Wyatt of the ('Chartered') Gas Light and Coke Co, with whom the Imperial had amalgamated.

The gasholders at Bromley-by-Bow are formed of three principal parts:

- 1) the frame;
- 2) an in-ground tank; and
- 3) a telescopic bell.

The free-floating bell contained the gas and lay within the water-filled tank. The bell rises above the water as the gas volume increased.

The bell is column-guided with an external fixed frame of vertical girders (standards), intersected by horizontal girders.

The gasholders are made from hollow cast-iron columns, except for Gasholder 1 which was extended with a steel third tier in 1925 to increase the volume of gas it could store.

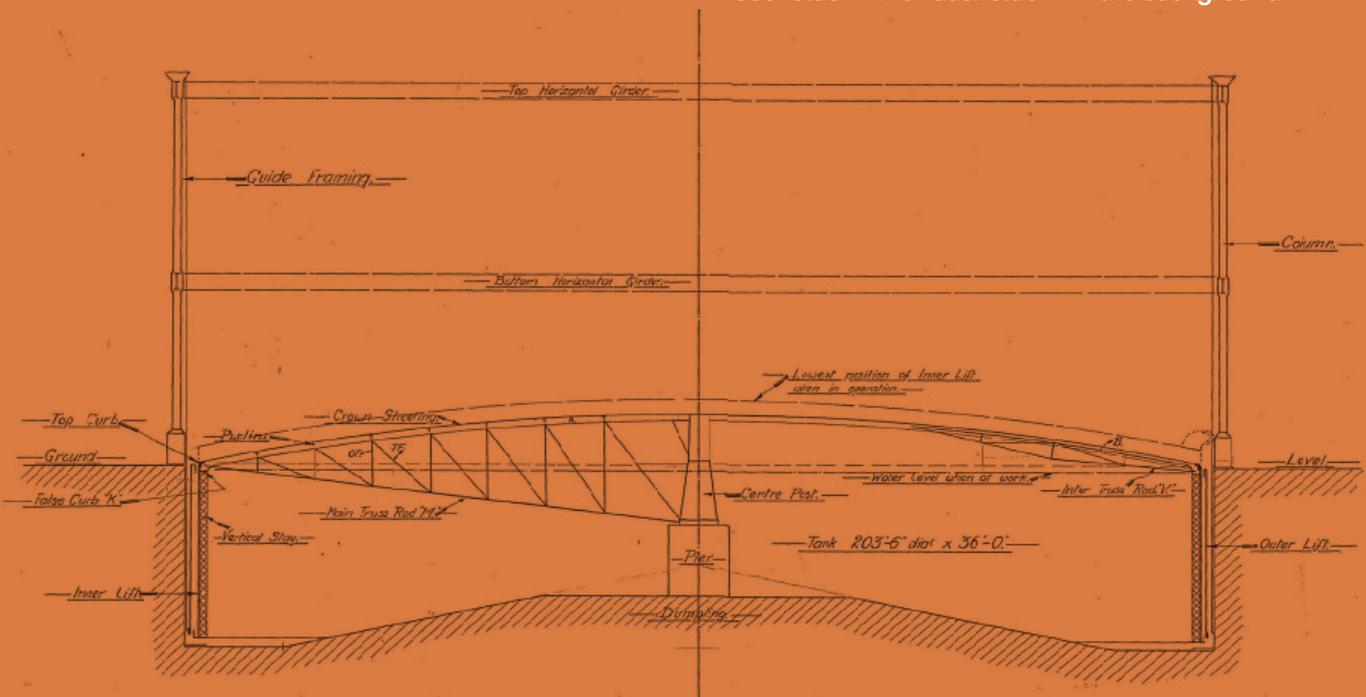
Cross-bracing was added to Gasholder 1 to provide rigidity to allow for this extra height.

The frames of all seven remaining gasholders at Bromley-by-Bow are Grade II Listed.

The listing for Gasholder 4 also includes the tank and bell, although further investigation is needed to understand the condition of these elements.



Gasholder 4 with Gasholder 1 in the background



Sketch section through the base of a gasholder



Gasholder 1 with Gasholder 4 in the background



Gasholder 1 with its third tier and cross bracing



Gasholder 7



The listed bell of Gasholder 4



The 'pond' left following the removal of Gasholder 3 after it was struck by a bomb in WWII



The listed bell of Gasholder 4

# The wider context

Bromley-by-Bow Gasworks is part of the much wider regeneration of the Lower Lea Valley with many new developments already in construction (shaded blue) or with planning permission (shaded yellow).

Overall, the area is expected to deliver approximately 21,000 new homes over the next two decades, plus new employment, community and commercial uses.

Sugar House Island - 1,131 homes

Imperial Street - 821 homes

West Ham

TwelveTrees - 3,800 homes

BROMLEY-BY-BOW  
GASWORKS

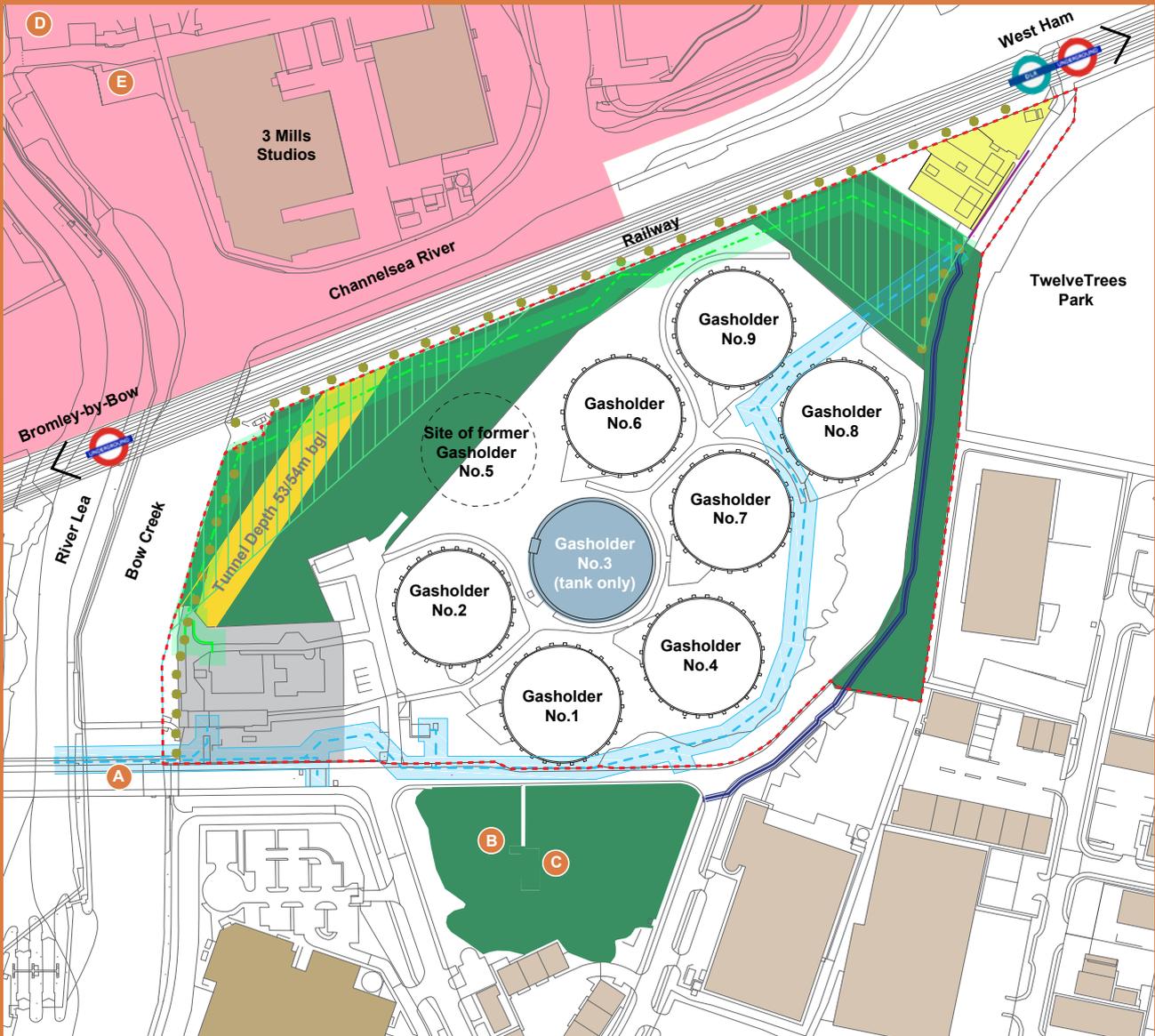
Bromley by  
Bow

Star Lane

Ailsa Wharf - 785 homes

Poplar Riverside - 2,800 homes

Canning  
Town



Sites such as Bromley-by-Bow Gasworks often have significant technical constraints such as underground utilities, etc.

The plan above identifies the key constraints.

### Heritage

- (A) Twelvetimes Crescent Bridge
- (B) Statue of Sir Corbet Woodall
- (C) War memorial
- (D) Tide or House Mill
- (E) Clock Mill
- Three Mills Conservation Area

### Below ground

- Gas mains
- Electrical high voltage cable
- Thames Tideway Tunnel

### Above ground

- Pressure Reduction Station (PRS)
- Wembley cottages (former gasboard properties)

### Landscape

- Existing trees
- 'Pond'
- SINC

# Project vision

Our vision is for a heritage-led regeneration of the site to provide new homes, public open space, and pedestrian and cycle connections to surrounding neighbourhoods.

Our proposals will create a long-term viable future for the seven Grade II Listed gasholders, whilst working within the sites challenging technical constraints.

New landscaping will create accessible open space for everyone to enjoy, rich in biodiversity and inspired by the areas natural history as marshlands.

## Our guiding principles:

- 1) Retain all seven gasholders
- 2) Sensitively construct new buildings within six of the retained gasholders
- 3) Work with Historic England and the London Borough of Newham to find a viable future for Gasholder 4
- 4) Retain the memory of the gasholder destroyed in WWII as a landscape feature
- 5) Design and deliver a new riverside public open space inspired by the sites pre industrial history
- 6) Upgrade the existing PRS to have less visual impact, opening up views of the gasholders from Twelvvetrees Bridge

River Lea

## Key to drawing:

- 1 New homes within refurbished gasholders
- 2 Gasholder 3 landscape feature
- 3 Gasholder 4
- 4 New homes
- 5 Open space
- 6 Riverside frontage
- 7 PRS
- 8 Pedestrian & cycle connection to TwelveTrees Park

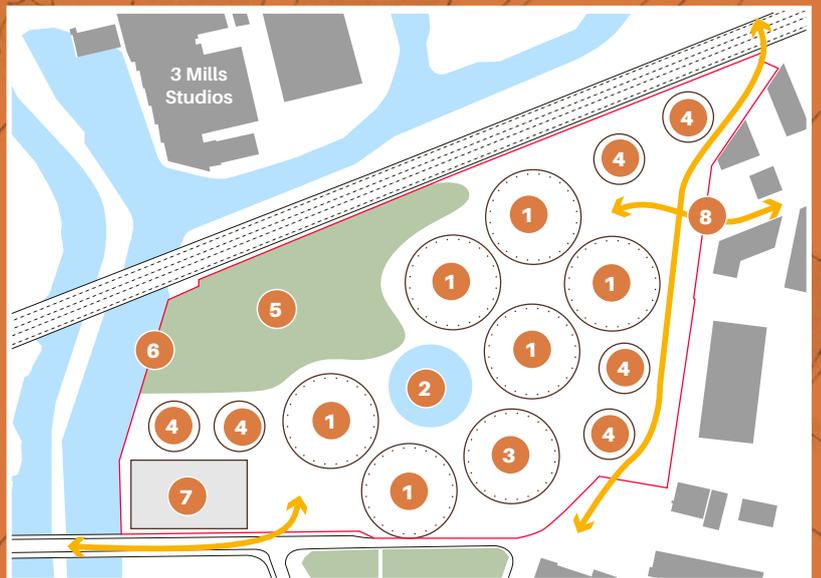
West Ham Memorial Gardens

### The regeneration will deliver:

- Circa 2,000 new private and affordable homes
- A sustainable development
- A new riverside park and a richly planted landscape between the gasholders and new buildings
- New buildings within six of the listed gasholder structures
- The retention of Gasholder 4
- The retention of the circular footprint of Gasholder 3 that was destroyed in WWII as a wetland/water feature
- Pedestrian and cycle connections into the neighbouring TwelveTrees Park development and onto West Ham Station
- Minimal on site car parking
- Extensive cycle parking for residents, workers and visitors



Sketch site plan



# Working with the gasholders

The ambition is to retain all seven gasholders at Bromley-by-Bow.

New buildings will be constructed within six of the frames, set back from the edges so the frames can still be appreciated and enjoyed. This is an established way of securing the long-term future of these beautiful structures - see images to the right.

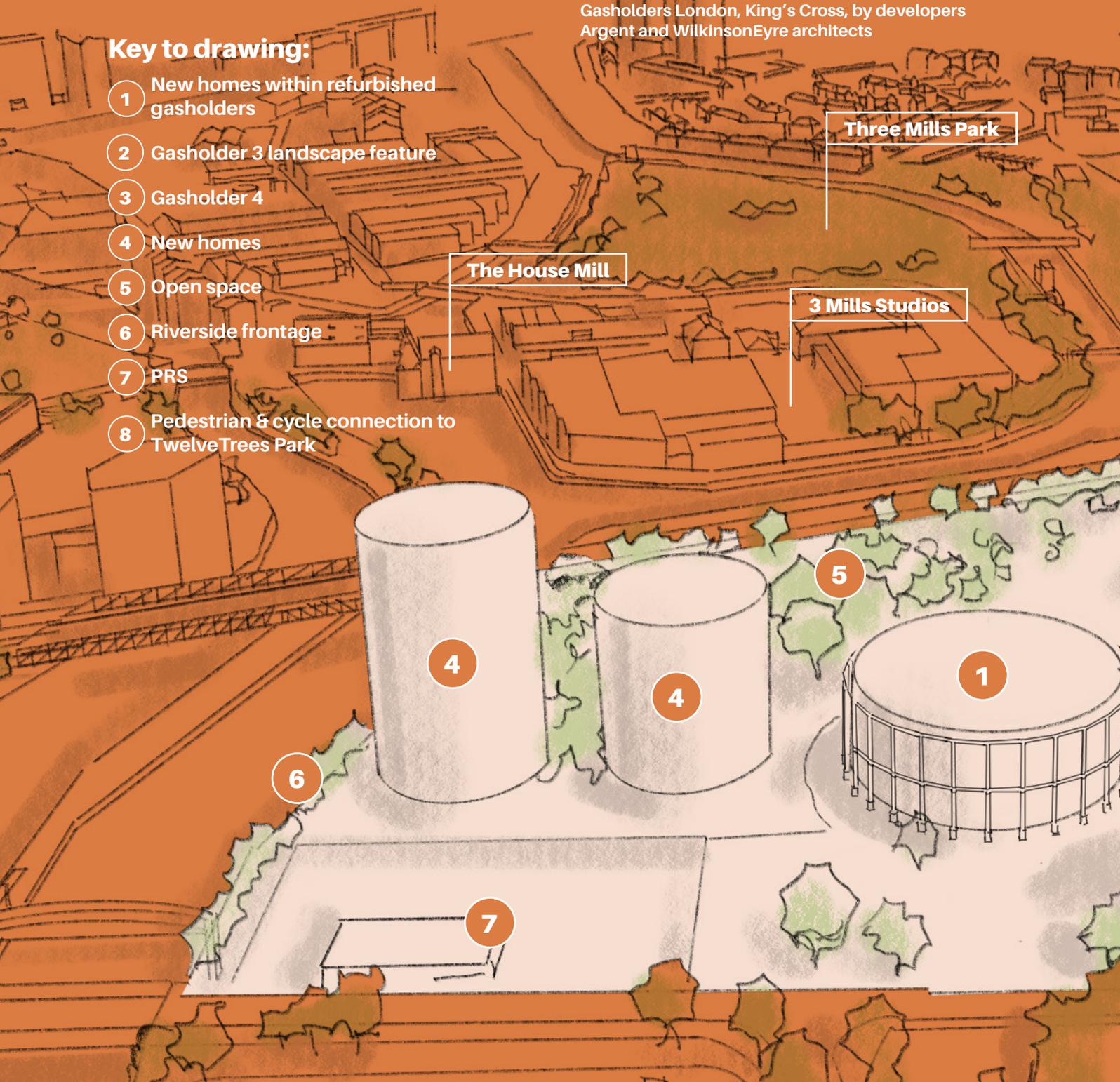
The above and below ground listing of the remaining gasholder, number 4, means a different approach will be considered.



Gasholders London, King's Cross, by developers Argent and WilkinsonEyre architects

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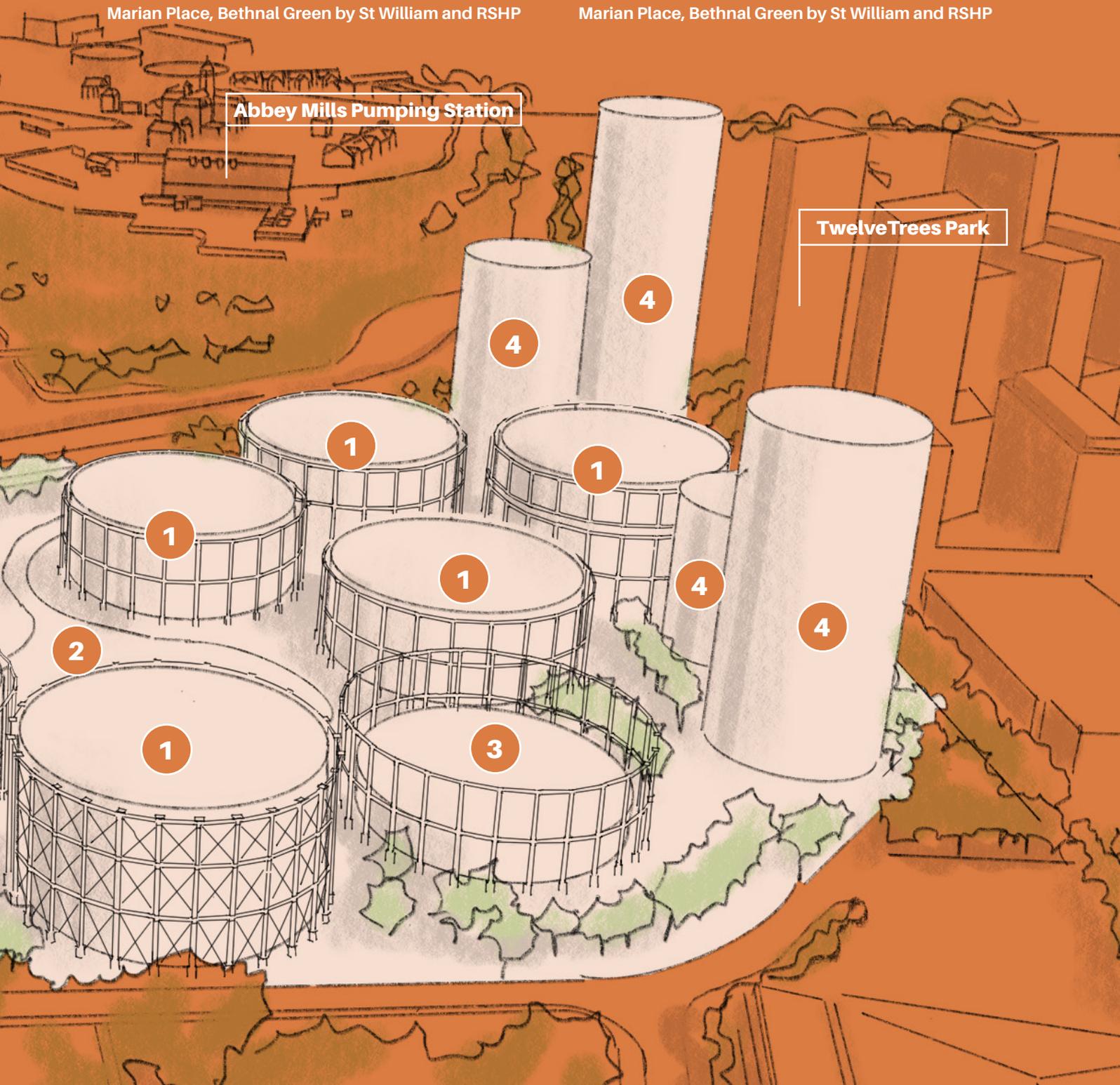




Marian Place, Bethnal Green by St William and RSHP



Marian Place, Bethnal Green by St William and RSHP



# Landscape and biodiversity

Our approach to the site is to take inspiration from the area's history as marshland, integrating native species of plants and trees into a rich, bio-diverse landscape for everyone to enjoy.

A key community benefit is the creation of a new public open space with riverside frontage.

The perfectly circular space left when Gasholder 3 was demolished after being damaged by a bomb in WWII will form a new wetland/pond/lake.

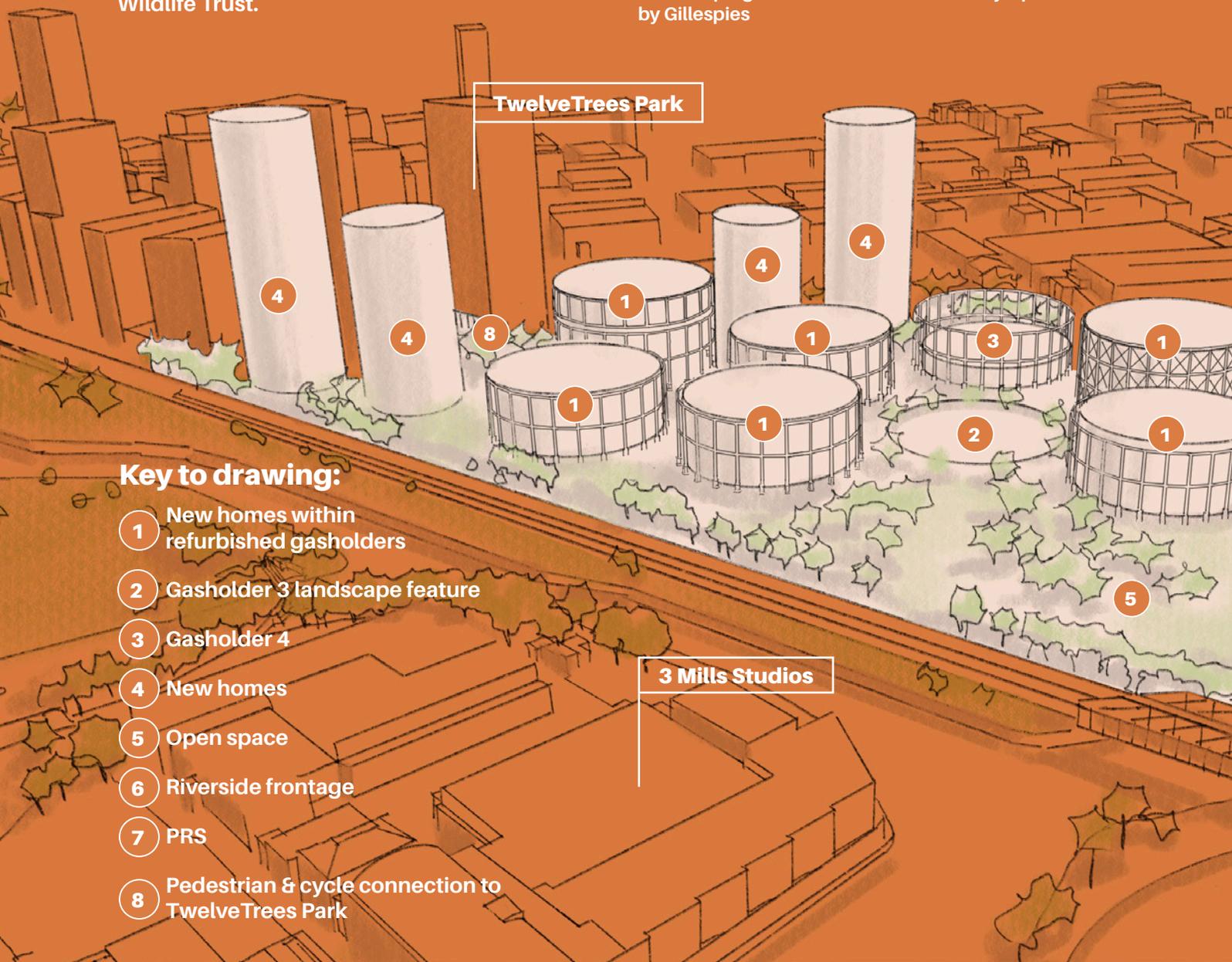
The spaces between buildings and gasholders will be designed as safe pedestrian spaces, meandering through the site.

Play space will be integrated throughout the new landscaping.

The landscaping will be designed by Gillespies in collaboration with the London Wildlife Trust.

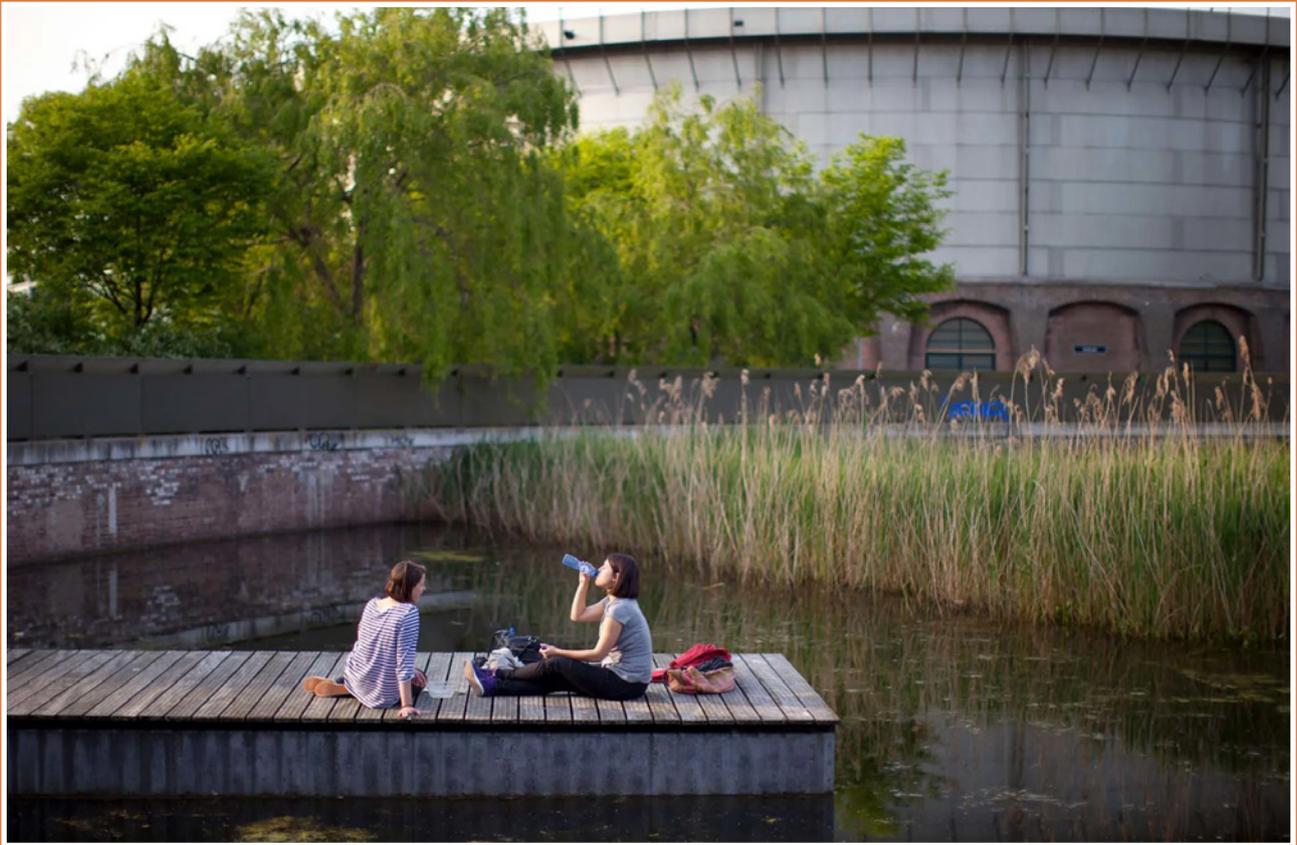


Landscaping at the Queen Elizabeth II Olympic Park by Gillespies

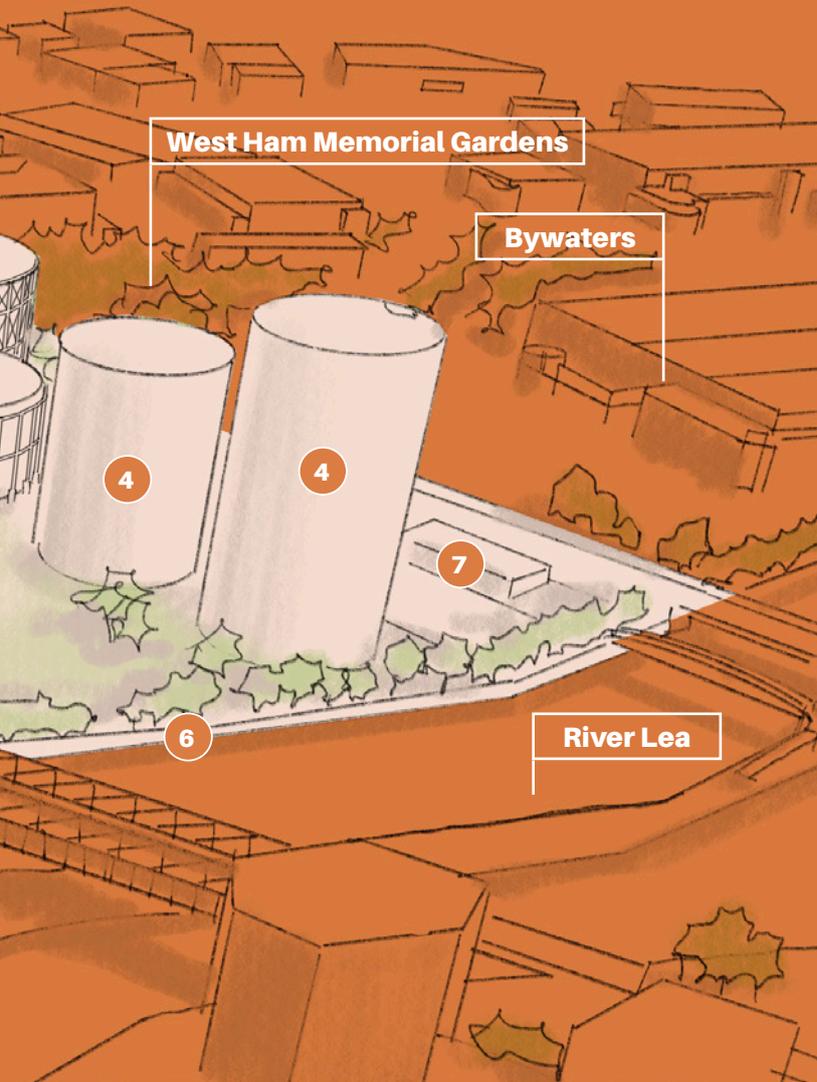


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Precedent of industrial heritage and landscaping



West Ham Memorial Gardens

Bywaters

River Lea

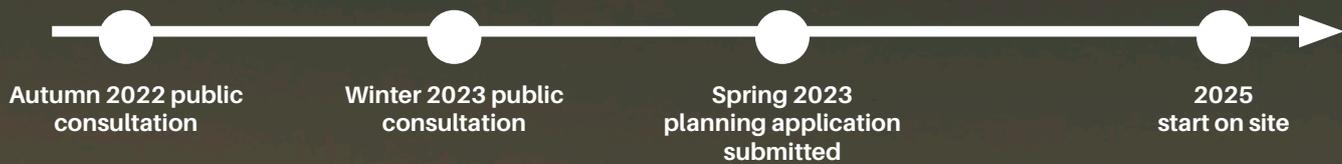


Landscape precedent



Landscape precedent showing new landforms

# How to get involved & next steps



St William are committed to engaging with the local community on the proposed changes to Bromley-by-Bow Gasworks and want to hear your feedback on their proposals.

You can send us your thoughts and ideas using the feedback form on our website (details and QR code below) or by contacting us by emailing us at [info@bromley-by-bow.com](mailto:info@bromley-by-bow.com)

You can also sign-up to our email list to be kept up to date with project progress and notified of future events.

Following our Autumn 2022 consultation, we will be reviewing all feedback and working on the next stages of design development.

We aim to host further events in early 2023 to update everyone on progress as we work towards submitting a planning application for the site in Spring 2023.

We hope to commence site works in early 2025.

We anticipate it will take around 20 years to complete the project due to the challenges and sensitivities discussed in this booklet.

Visit [www.bromley-by-bow.com](http://www.bromley-by-bow.com)

