

LEA RIVER PARK DESIGN MANUAL

QUEEN ELIZABETH OLYMPIC PARK



LEA RIVER PARK
DESIGN MANUAL

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WELCOME TO THE PARK

The Lea River Park provides an exciting opportunity to invest in Newham's wealth of natural resources in waterways and green spaces, in addition to the industrial and built heritage, to create an outstanding public space accessible to all who live and work in the borough. Our vision for the Lea River Park is for high quality, accessible parkland incorporating open space and waterways with new walking and cycling routes which will add to the decades of investment in transport infrastructure that have gone into the borough, enabling our community to be even better connected.

Running through the spine of the borough's key opportunity area, the park and improved connections will help to attract further investment into the borough whilst providing high quality leisure and recreational space to those who live and work here.

With the scale of regeneration taking place in Newham, it makes us one of the most exciting places to visit in the UK.



Sir Robin Wales
Mayor of Newham

Everybody recognises the Thames as the lifeblood of London. But very little is said about the River Lea and its importance to East London. It's one of the few Thames tributaries to still exist as an above ground river. It's an area filled with green spaces, wildlife, and flows through some of the most interesting parts of Tower Hamlets

The Leaway is an idea I have long championed, since my time as the Deputy Chair of the London Thames Gateway Development Corporation. In my time at City Hall, I have become additionally aware of the spaces 'between' boroughs and quite how important, but often neglected, they can be. Running through historic parts of the borough such as Trinity Buoy Wharf, Three Mills and East India Dock Basin, it will connect a series of existing public open spaces along the river, helping to make this river a destination for leisure and tourism and better tie our communities together.

Tower Hamlets will see lots of new and exciting developments over the coming years and it is crucial that we protect and enhance the green spaces along the River Lea.



John Biggs
Mayor of Tower Hamlets

Three Mills Green, the first park area of the Lea River Park completed in 2012


© Philip Vile

EXECUTIVE SUMMARY

The Leaway / Lea River Park

The Lea River Park connects Queen Elizabeth Olympic Park to the Royal Docks and the River Thames with new continuous public parklands - completing the 26-mile long Lee Valley Regional Park. The strategic initial phase of this vision is the delivery of a linear park named The Leaway which creates a continuous walking and cycling route along the River Lea. The Leaway connects a series of existing but fragmented public open spaces; new parks will be added to this route and additional pedestrian and cycle connections will be delivered over time as land becomes available.

This document introduces the concepts behind the Lea River Park, an initiative that will aid regeneration and address the acute lack of public open space for existing and future residents within the Lower Lea Opportunity Area and Poplar Riverside Housing Zone.

The Leaway is the first phase of the delivery of this park and will provide 1.41ha of new and improved public open space through its initial projects. However, this measure of scale belies the project's strategic importance: in tackling the most challenging physical severances that affect the Leaway, these projects fulfil a key enabling role. By providing the backbone of the emerging park, the Leaway will be instrumental in creating and assembling 235ha of new and improved public open space within the Lower Lea Valley.

Design Manual

This manual is intended as a design guide and has been developed in close collaboration with the project's partners. The document maps out the extent and ambition of the Leaway and establishes a framework of reference for its delivery. A palette of materials, street furniture and finishes have been described that are intended to give level of continuity across the series of diverse spaces that will form the new park. The design manual is not intended as a specification, but rather as a framework that other professionals can operate within during the delivery of the Leaway.

Curating the Valley

A Curatorial Strategy has been commissioned by the LLDC from Create London. This document identifies the key artefacts and narratives that underlie the park. These themes are broad and include maritime endeavor, industrial development, revolutions in public health, social struggle and emancipation, immigration, creative energy, agricultural innovation and environmental change.

The two key outcomes of the strategy are the publication of the 'Odd guides' and a series of proposals for artistic commissions and events to increase public engagement and support for the project. The published Odd Guides are part artwork, part map and part trail guide, and have been developed to create a broader more imaginative reading of the valley's historical narratives.



DESIGN PRINCIPLES

The Lea River Park is an evolutionary project: the park will come together over time, through the action of many agencies and modes of delivery. The *Design Framework* for the park describes a process of creating a park which is therefore open to change and adaptation over time.

At the heart of the Lea River Park project is the Leaway (formerly, the Fatwalk): a linear park in itself, which acts like a skewer - linking together each of the park areas as they become available and creating vital north-south and cross-valley links.

The Leaway can be described as a 'topography of difference', the continuity of which is established by a common discipline and an orientation to the valley's traditional role in provisioning London.

Rather than establishing a connecting structure with a unified aesthetic along its length, the Leaway reflects the diversity of the valley and is made up from a variety of landscape character areas - some which adopt existing riverside routes (i.e. the riverside walk at Electra Wharf), some new, and some historic (i.e. listed settings including Three Mills, Twelvetrees Crescent and East India Dock mouth).

With this responsive strategy the Leaway can:

- accommodate change adapting over time - allowing interim routes, growth, and extension

- be opportunistic - it can seize on things that come to light (archaeology, found site relationships or suddenly available materials for use; such as reclaimed material from the construction of Queen Elizabeth Olympic Park).

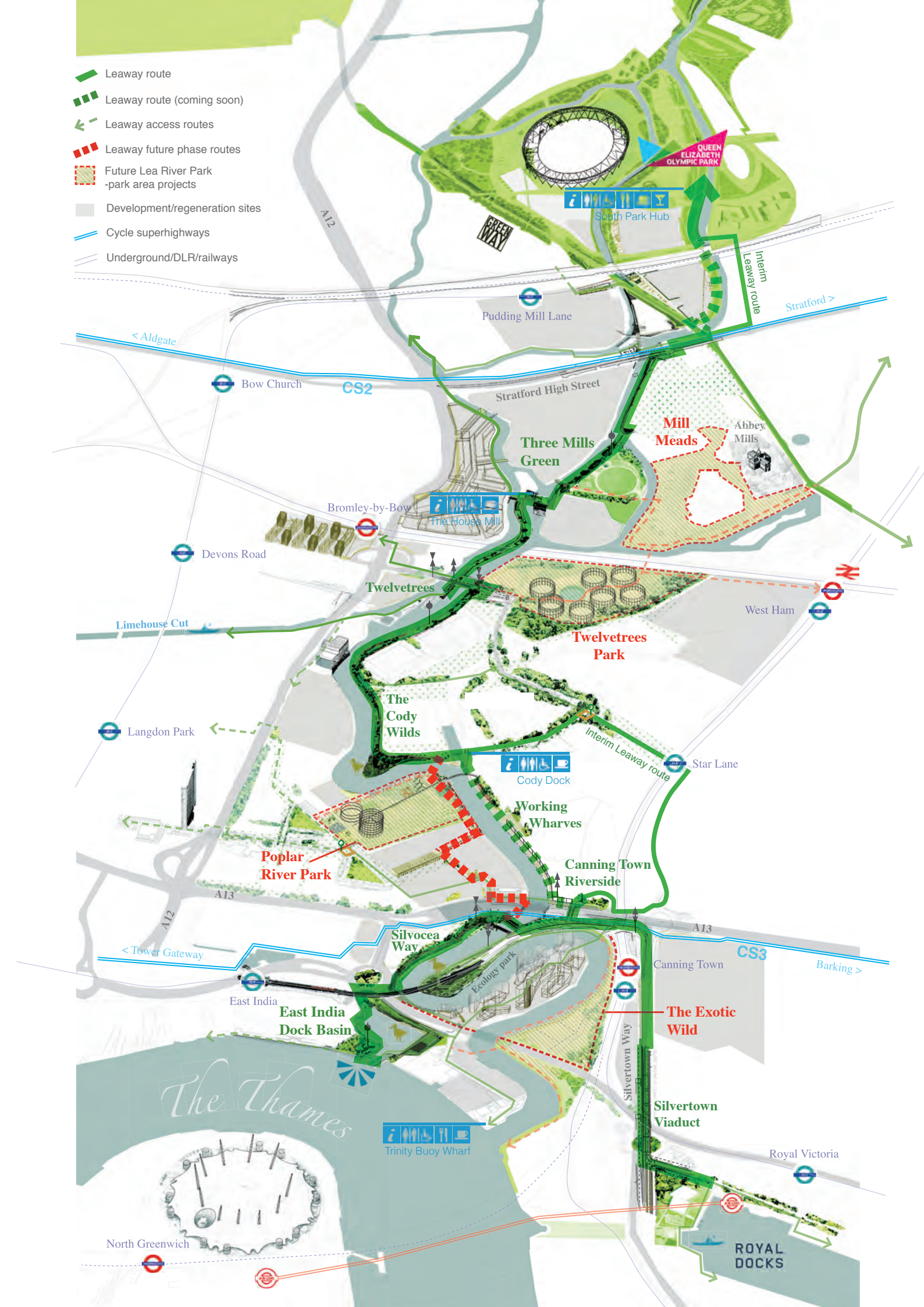
A Kit of Parts

To bring a sense of unity to this diversity we have established a 'kit of parts' which establish continuity, and can respond to the very different conditions throughout the Leaway and Lea River Park. These include:

Mats	A family of paved 'Mats' installed at points where a change of direction is made: where the Leaway is joined by other routes, at points of entry to the park, or when reassurance is needed. The 'Mats' often combine elements below.
Continuity Elements	A selected material palette and a range of park objects - including fencing, benches, wastebins, lighting columns and signage - are to be used along its length.
Structures	A family of structures share design characteristics, address key severances along the route including: the new bridge at Poplar Reach, the A13 Ramp and the Twelvetrees connection.
Planting	The Lea River Park can also tell an interesting story about the importance of flora to London's growth. The park's landscaping proposals should establish a variety of planting palettes which draw on the rich tradition of the valley's flora and heritage.

This Manual offers guidance as to how these elements could be deployed and how partners to the project can make a practical contribution to establishing the Lea River Park.

Right: The proposed park connecting the river valley with the communities and landscapes on either side


Leaway route
Leaway route (coming soon)
Leaway access routes
Leaway future phase routes
Future Lea River Park
-park area projects
Development/regeneration sites
Cycle superhighways
Underground/DLR/railways
A12
QUEEN ELIZABETH OLYMPIC PARK
South Park Hub
GREEN WAY
Interim Leaway route
Pudding Mill Lane
Stratford >
< Aldgate
Bow Church
CS2
Stratford High Street
Three Mills Green
Mill Meads
Abbey Mills
Bromley-by-Bow
The House Mill
Devons Road
Twelvetrees
Limehouse Cut
West Ham
Twelvetrees Park
The Cody Wilds
Langdon Park
Interim Leaway route
Star Lane
Cody Dock
Working Wharves
Poplar River Park
Canning Town Riverside
A13
A12
Silvocea Way
< Tower Gateway
Canning Town
CS3
Barking >
Ecology park
East India
East India Dock Basin
The Exotic Wild
Silvertown Way
The Thames
Silvertown Viaduct
Trinity Buoy Wharf
Royal Victoria
North Greenwich
ROYAL DOCKS

PARK SEVERANCES

The Lower Lea Valley has historically suffered from major physical severances: where accessible stretches of landscape and riverside paths have been delivered they are disconnected, limiting overall connectivity and the scope for the growth of user groups.

The delivery of the Leaway creates for the first time a continuous route between Queen Elizabeth Olympic Park, the Thames and the Royal Docks by opening up the edges of the River Lea to pedestrians and cyclists.

This section identifies the key severances which need to be resolved, where effort and investment are needed to overcome physical separation.

These 'knuckles' are characterised by complex topography, each holding the potential to not only provide connections but to become interesting and engaging places in their own right: locations for art installations, new landscapes and activities to be introduced to the Valley's already rich sense of place.

These 'knuckles' each have the capacity to act as gateways into the Lea River Park and are being developed as engaging spaces which anticipate the development of the future park spaces.



Above: An example of the severances which exist in the valley, especially apparent around existing infrastructure such as at the Poplar Reach cable bridge: a structure designed to allow a pedestrian path beneath it but which has formed an obstruction for 20 years. Work is in progress to open this connection, which will unlock nearly a mile of existing riverside paths.

Right: An example of a section of new riverside path proposed between the A13 and Cody Dock, linking existing, yet, disconnected sections of path.


LEAWAY
north
LEAWAY
south

THE LEAWAY - OVERCOMING SEVERANCE

A process of analysis and discussion with the project team and other stakeholders has resulted in a clear strategy for the early phase of investment in the park. A focused series of projects unlock a connective route down and across the valley, enabling a spine of places to enjoy, while anticipating future adoption of park spaces in later phases of the project.

These tactical points of investment will have much greater effect: opening up existing riverside routes, enabling connections between existing transport infrastructure and access to the River Lea. These interventions aim to humanise and unlock the potential of their contexts, which are too often dominated by the scale of existing infrastructure.



BEFORE - Disconnected local centres



AFTER - Connected by the park


Public open space
Rivers and canals
The Leaway
- Future additions
Connecting routes
- Future additions
Roads
Stratford
Stratford High Street
Interim Leaway route
Stratford High Street
Pudding Mill Lane
Abbey Road
A12
CS2
< Aldgate
Bow Church
THREE MILLS
West Ham
Bromley-by-Bow
BOW LOCKS / TWELVETREES CRESCENT
Star Lane
Interim Leaway route
Barking Road
POPLAR REACH & CODY DOCK
Limehouse Cut
A13
Barking >
CS3
A12
Langdon Park
CANNING TOWN CONNECTIONS
Canning Town
EXOTIC WILD
SILVERTOWN VIADUCT
A13
All Saints
Royal Victoria
< Tower Gateway
East India
EAST INDIA DOCK BASIN
Royal Docks
West Silvertown
North Greenwich
Greenwich Peninsula
0
200m
400m
600m
800m
10 min walk @3mph
4 min cycle @8mph

THE LEAWAY - CONNECTIONS DELIVERED

To date there has been success in delivering a range of strategic connections and public spaces along the Leaway route.

This map identifies these achievements, with interventions focussed on creating entrances for the surrounding communities to the future Lea River Park, opening up the existing greenspaces to the public to create active riversides.

Multiple stakeholders and delivery partners have been involved in this process, and this document the Lea River Park: Design Manual has been developed and tested through the delivery of these first parkspaces and routes.

KEY ACHIEVEMENTS

1. Leamouth roundabout crossing
2. Silvocea Way
3. London City Island pubic realm
4. Silvertown Viaduct stairs
5. Canning Town Riverside
6. Reubens bridge
7. A13 underpass
8. A13 ramp
9. Leamouth North bridge and connection to Canning Town station
10. Opening up beneath Poplar Reach cable bridge
11. Cody Dock
12. Greening Cody Wilds river walls
13. Twelvetrees connections
14. Three Mills Green
15. Long Wall path and ramp to the Greenway
16. Short Wall ramp to Stratford High Street
17. Greenway ramp to Pudding Mill Lane


Public open space
Key park area - secured
Key park area - unsecured
Development Site
Local Centre
Key route - delivered
Public highway route
Bridge - secured
Underpass - secured
At grade crossing
East Village
Hackney Wick
Westfield
Stratford
Roman Road
Aberfeldy
Chrisp Street
Canning Town
Canary Wharf
Royal Docks
1
2
3
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17

THE LEAWAY - OPPORTUNITIES

The next phase in the realisation of the Lea River Park relies upon the continued collaboration of the multiple stakeholders and delivery partners.

This map identifies the remaining opportunities which will realise major new green spaces and strategic cross valley routes. Realising new parklands to deal with existing deficiencies in access to open space and connecting the existing and developing communities on either side of the river.

It is intended that this manual is used as a key document in the design and delivery of these remaining public spaces and connections.

KEY OPPORTUNITIES

The Thames Corniche
1. Reuters riverside walk
2. East India Dock Basin
3. Orchard Wharf riverside walk
4. Thames Wharf bridge
5. Thames Path (Royal Docks)
6. Leamouth footbridge
7. Limmo park

Chrisp St to Canning Town
8. Hallsville Road bridge
9. A13 ramp and DLR bridge
10. Reubens bridge
11. A13 Connector
12. A13 underpass
13. Blackwall Estate riverside
14. Worlands, Mayer Parry, Crown Wharf riverside walk

Central Connections
15. Poplar Reach park
16. Poplar Reach bridge
17. Cody Dock bridge
18. Ailsa Street bridge
19. Western towpath
20. Twelvetrees Estate roads opened

Bromley-by-Bow to West Ham
21. Western towpath
22. Twelvetrees Park
23. Pacific Wharf connections
24. Milner Street bridge
25. Crow Road underpass
26. Abbey Creek pathways and bridge
27. Mill Meads connections
28. Greenway ramp to Channelsea Path
29. Strand East bridges and public realm

Gateways to the Queen Elizabeth Olympic Park
30. Marshgate Lane bus bridge
31. Old Ford bus bridge
32. Iceland Road bridge
33. Greenway connections
34. New western Stratford station entrance


Public open space
Key park area - secured
Key park area - unsecured
Development Site
Local Centre
Future Local Centre
Key route - secured
Key route - unsecured
Public highway route
Highway route - unsecured
Bridge - secured
Bridge - unsecured
Underpass - secured
Underpass - unsecured
At grade crossing
East Village
Hackney Wick
Westfield
Stratford
Gateways to the Queen Elizabeth Olympic Park
Roman Road
Pudding Mill Lane
Bromley-by-bow
West Ham
Bromley-by-Bow to West Ham
Central Connections
Chrisp Street to Canning Town
Canning Town
Aberfeldy
Chrisp Street
Canary Wharf
Royal Docks
The Thames Corniche
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TWELVETREES CRESCENT

A ramp connection between the Bow Locks spit and Twelvetrees Bridge links two existing but discontinuous sections of riverside walk. This overcomes a critical severance through the creation of a continuous walking and cycling route - the Leaway - along the Lower Lea Valley.

The proposal, sponsored by the London Legacy Development Corporation, is a scalable response, that provides a highly effective and useful connection (although non-standard) on the severely constrained site in the short term, which becomes enhanced by Phase 2 improvements to provide manifold connections alongside the River Lea in the medium term. The completed route creates a fully accessible network of riverside paths. The project has been developed in consultation with Transport for London and with LB Tower Hamlets and Newham, who form part of the project's steering group.

Both the lower spit area and the upper surface of the bridge allow wonderful south-facing vantage points to enjoy views down the valley, and across both tidal and non-tidal working waterways of the Lea. The project also brings Twelvetrees Bridge back into public use as an important piece of valley heritage. The various components which enable the link, together with supporting landscape work, will create an important gateway into and across the valley.





Proposed Phase 2 Western Towpath
A fully accessible connection from Twelvetrees Crescent to Bromley-by-Bow town centre

Right: Public realm delivered on the east bank of Twelvetrees Crescent Bridge



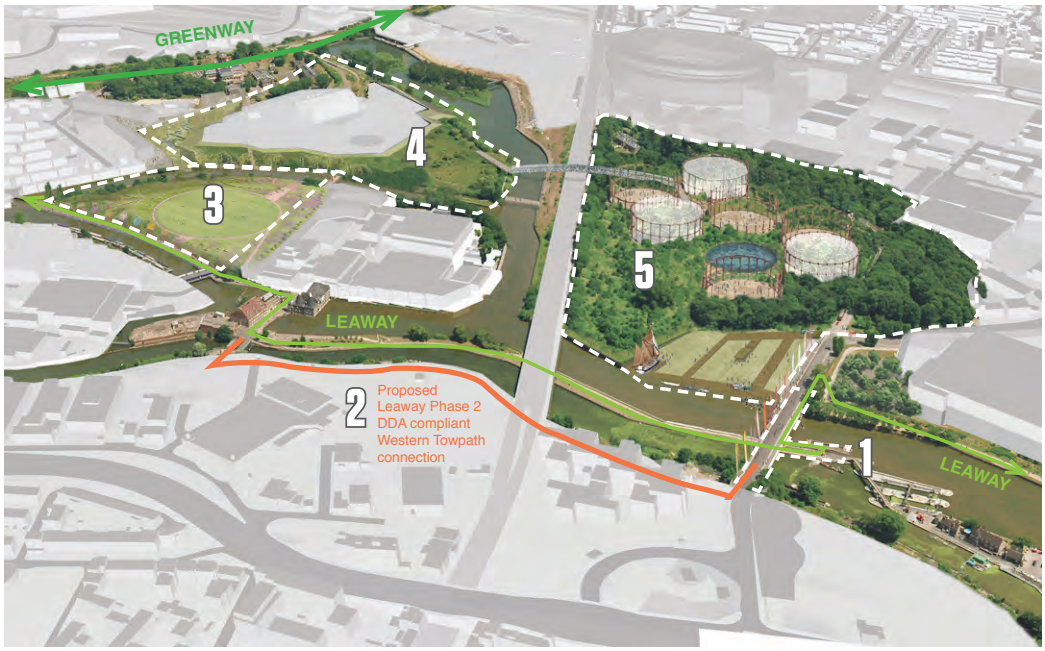
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The new connecting ramp at Twelvetrees with its distinctive wayfinding structure

The long term ambition

1. Twelvetrees Crescent Ramp connection
2. Western Towpath
3. Three Mills Green
4. Mill Meads
5. Twelvetrees Gaswork Park



TWELVETREES CRESCENT (CONTINUED)

The view from Bow Locks Crossing towards the Grade II Listed Twelvetrees Crescent Bridge, highlights the historic disconnection between the towpath along the spit and bridge deck level. The constructed ramp and stair overcome this severance, allowing the Leaway to continue across to the Cody Wilds riverside path on the opposite bank.



This view illustrates the Twelvetreees ramps wayfinding structure and the maritime objects which sit at the top of the new ramp. These help to indicate the position of new the ramp from bridge level, as well as further away at the A12 and to the north of the site over the utilities bridges.



View heading south from Three Mills, the position of the ramp is masked by the collection of bridges to its north. The wayfinding structure rises above these to provide a new landmark to help navigate the Leaway.



Development Context

Bow School

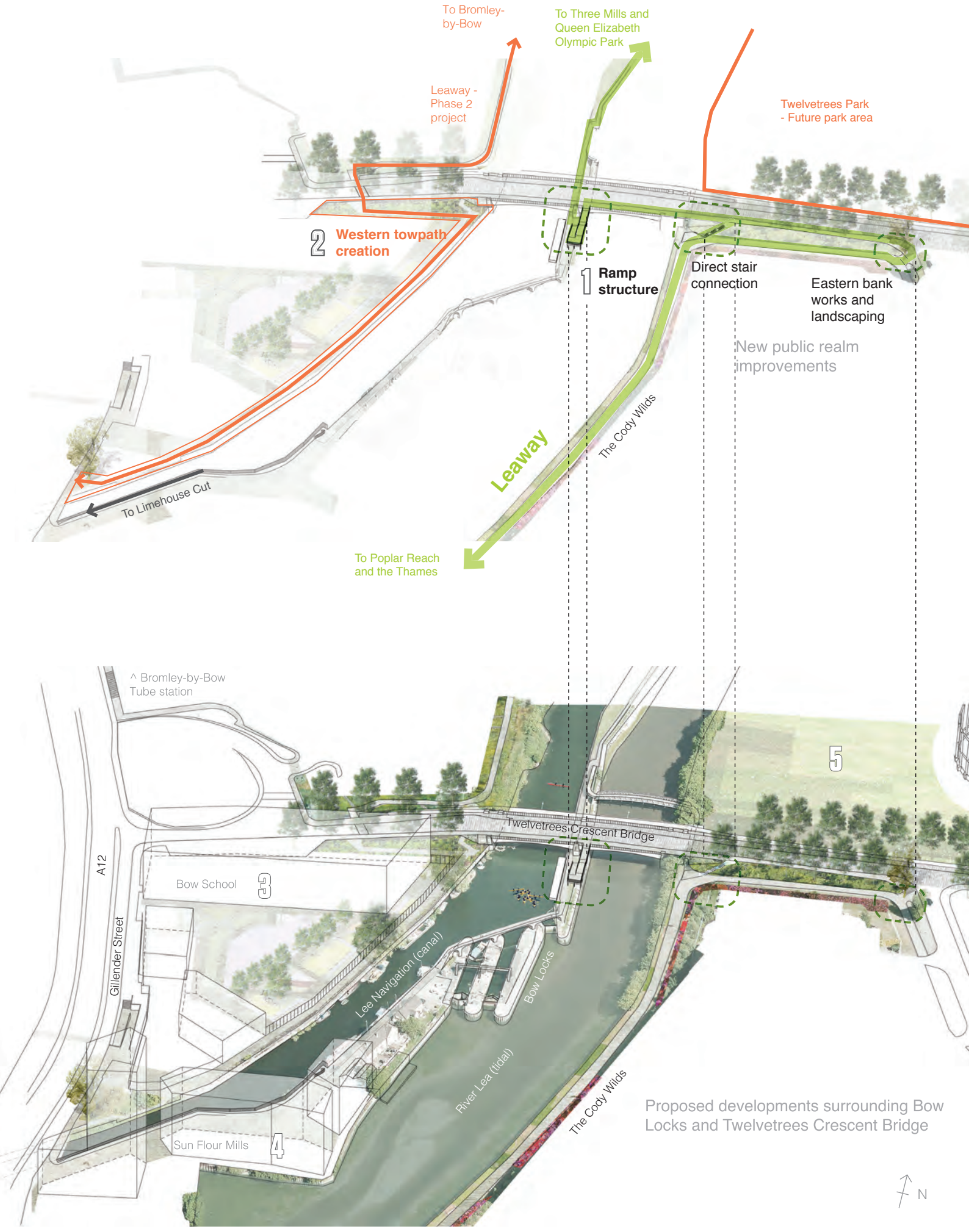


Sun Flour Mills



Gasworks decommissioning and creation of Twelvetrees Park - future phase 3





Proposed developments surrounding Bow Locks and Twelvetrees Crescent Bridge

POPLAR REACH & CODY DOCK

A bridge crossing has been designed for Poplar Reach, which will connect the boroughs of Newham and Tower Hamlets and establish a new public riverside park on the site of the decommissioned Leven Road gasworks.

Cody Dock is becoming a thriving valley attraction, and therefore is an important location on the Leaway route. A wider bridge crossing is required over Cody Dock Lock to allow access to the existing towpath further north once the dock is reopened.

A utilities bridge carrying high voltage cables, until recently, blocked the riverside path at the northern end of Electra Wharf. This bridge was designed to allow a walkway to pass beneath it, so a connection to Cody Dock can be achieved by removing the fence.

The creation of a permissive riverside route along the edges of the working wharves will connect to an extant public walkway at Electra riverside, linking Cody Dock to Canning Town.

Continuing south, a connection to Canning Town will rely upon the creation of a new section of publc riverside across Mayer Parry, Worlands and Crown Wharf, as illustrated at the start of this chapter.



Poplar Reach bridge (above right and below) was granted planning permission in 2010, and all the necessary consents are in place to allow for its construction and future maintenance.



A tranquil spot on the approach to the proposed Poplar Reach Bridge. The existing reed bed is celebrated by the positioning of park furniture and complimented by light touch landscaping improvements.

Right: Poplar Reach Bridge will provide an accessible connection to a new 6ha active park landscape providing much needed open space to the surrounding estates and a moment of expansiveness on the Leaway.

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The long term ambition

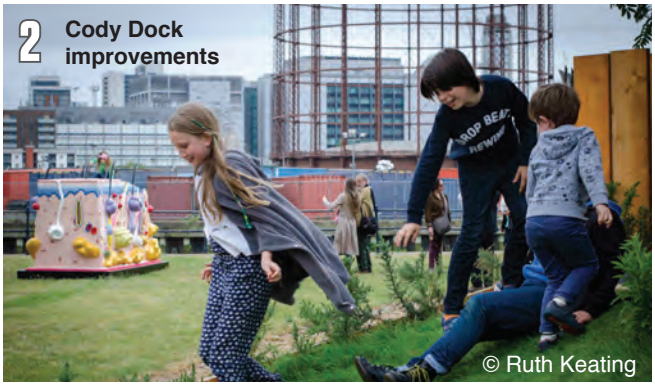
1. Poplar Reach Bridge (Leaway Phase 2)
2. Cody Dock improvements
3. Cable Bridge improvements
4. Cody Wilds
5. Poplar River Park (Leaway Phase 2)

POPLAR REACH & CODY DOCK (CONTINUED)

Development Context



Poplar Reach Bridge will provide a connection from the first phase of the Leaway to a new 6ha active park landscape, providing much needed open space to the surrounding estates in Poplar and a moment of expansiveness on the Leaway



The thriving community driven Gasworks Dock Partnership at Cody Dock





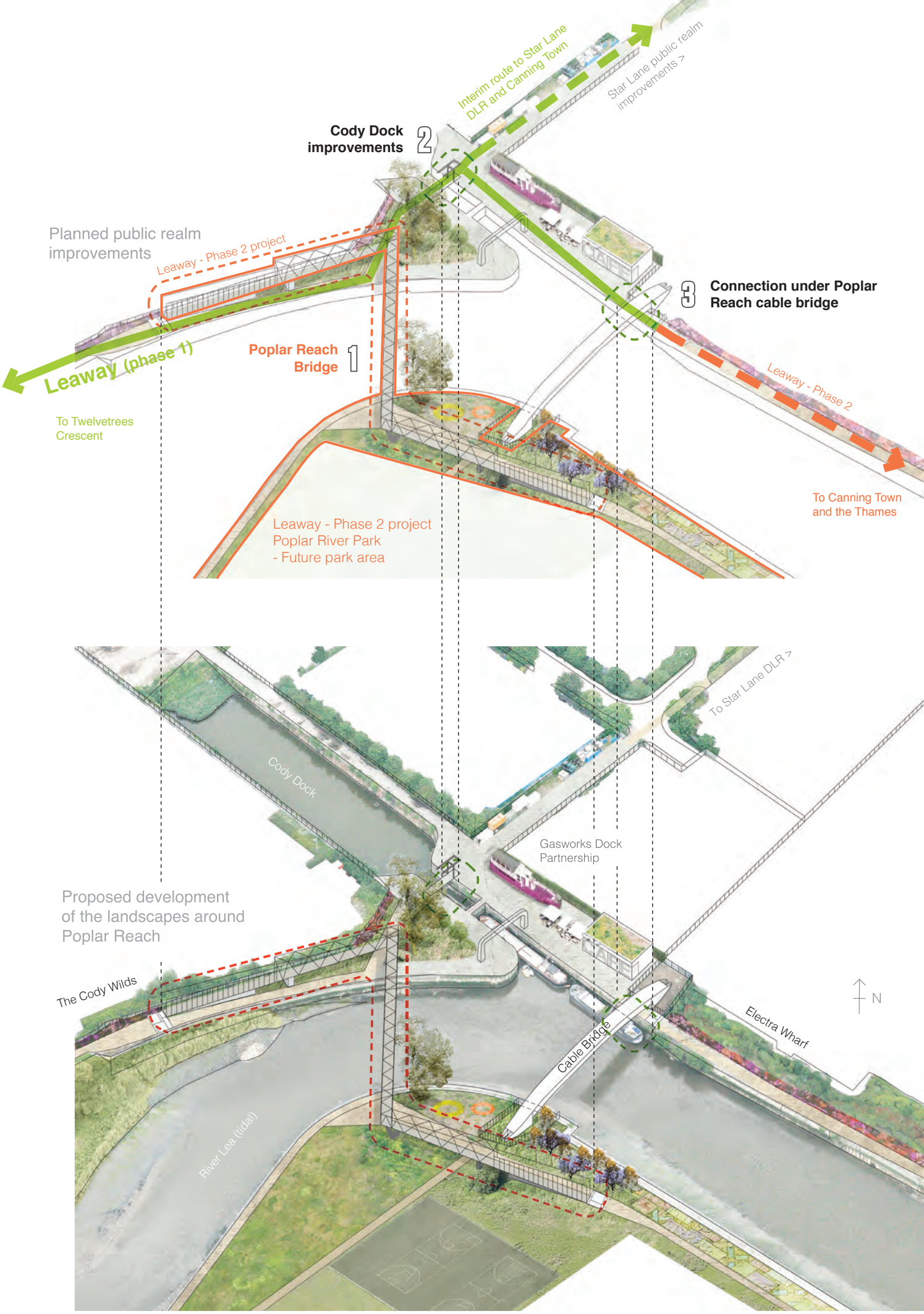
An example of a Bascule bridge crossing similar to that proposed at of Cody Dock - this project will replace the existing dock crossing, and has planning approval, allowing the dock to be used for moorings.



Poplar Reach cable bridge: a structure designed to allow a pedestrian path beneath it but which has formed an obstruction for 20 years.

Work is in progress to open this connection, which will unlock nearly a mile of existing riverside paths.

Fire-proofing has been undertaken and landscaping work finished to provide access from Cody Dock to Electra Wharf, and eventually south to the Leaway at Wharfside Road.


Interim route to Star Lane
DLR and Canning Town
Star Lane public realm
improvements >
Cody Dock
improvements
2
Planned public realm
improvements
Leaway - Phase 2 project
Leaway (phase 1)
Poplar Reach
Bridge
1
3
Connection under Poplar
Reach cable bridge
Leaway - Phase 2
To Twelvetrees
Crescent
To Canning Town
and the Thames
Leaway - Phase 2 project
Poplar River Park
- Future park area
To Star Lane DLR >
Cody Dock
Gasworks Dock
Partnership
Proposed development
of the landscapes around
Poplar Reach
The Cody Wilds
N
Electra Wharf
Cable Bridge
River Lea (tidal)

CANNING TOWN CONNECTIONS

Canning Town is separated from the River Lea by a confluence of transport infrastructure, which forms a physical barrier to movement and divides Canning Town and its population from the River.

The opportunity here lies in adopting an under-used area of land between the DLR and the A13, rediscovering an accessible riverside for Canning Town - reconnecting the community to both the heritage and open spaces of the Valley.

These interventions also form a key manifold of routes on both sides of the river for recreational use and commuting. A series of public realm projects will greatly increase orientation within a connected valley and steer the communities of adjacent developments to the river, while supporting their requirement for improved connections to local centres and transport nodes.

As one of only eight crossings of the Lea Valley south of the M25, there is an opportunity to celebrate the valley at this point, signalling its significance to drivers on the A13 as part of a placemaking strategy.

The existing underpass is being upgraded and made more pleasant as a means of continuing a park landscape beneath the severance of the A13.

There is also the potential to provide a connection between the A13 ramp and the Leamouth North bridge (outline design work has been undertaken to investigate its feasibility). Any interventions in the area should ensure that the necessary levels and space are safeguarded to allow its future delivery.





Before: The A13 underpass has been little used since the closure of the works at Wharfside Road. It is now unlit and under-maintained.



After: The underpass is being renovated to create a more welcoming connection for future park users. Essential maintenance work is required which could be enhanced by improved lighting provision and the resurfacing of the tunnel walls and ceiling. There is the opportunity to commission an artist to curate imagery for the underpass that will help to identify this piece of infrastructure as a key link in the parkscape of the Leaway.

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After: The A13 Ramp is imagined as a key park gateway, this new wedge of public realm tackles the level changes between the road and the entrance to Bow Creek Ecology Park; a cornice to the A13 with signage structures appropriating the historic maritime language of semaphores, cardinal points and tide gauges. The detailed design of such structures should be approached with care so as to ensure that key signage remains legible alongside these curated objects.



Before: The redundant strip of land caught between the fenced tracks of the DLR and the A13's busy slip roads is currently a neglected and unsafe space. The proposal aims to deliver an active, well trafficked connection on this land, that encourages access to Bow Creek Ecology park and extends the Leaway route network south.



Above: Historic etching of the quayside at Trinity Buoy Wharf, part of the delta of amazing spaces that could be accessed from Canning Town, acts as key reference for creating a unique maritime character.

CANNING TOWN CONNECTIONS (CONTINUED)

Canning Town is also the site of major development, as set out in the Canning Town and Custom House Regeneration Project Masterplan. The Lea River Park offers a chance to help orientate these developments to the river, and help stitch together the disused and neglected spaces which border both city-scale infrastructure and industrial sites. Opportunities should be sought for cross public-body projects to deal with fragmented ownerships and assemble land for public realm improvements.



Before (Right): Whafside Road was subject to fly tipping, parking issues and poor public realm. Routes to connections were obscured and felt dangerous.



After: London Borough of Newham have worked in close collaboration with Transport for London to rationalise the position of fences to produce clear sight lines. Actions such as installing CCTV and closing the road to traffic will create a new safe pedestrian and cyclist dominated access point to the park.

Development Context

A13 Connector - Western bank
Planning approval 2011 Phase 2 Project

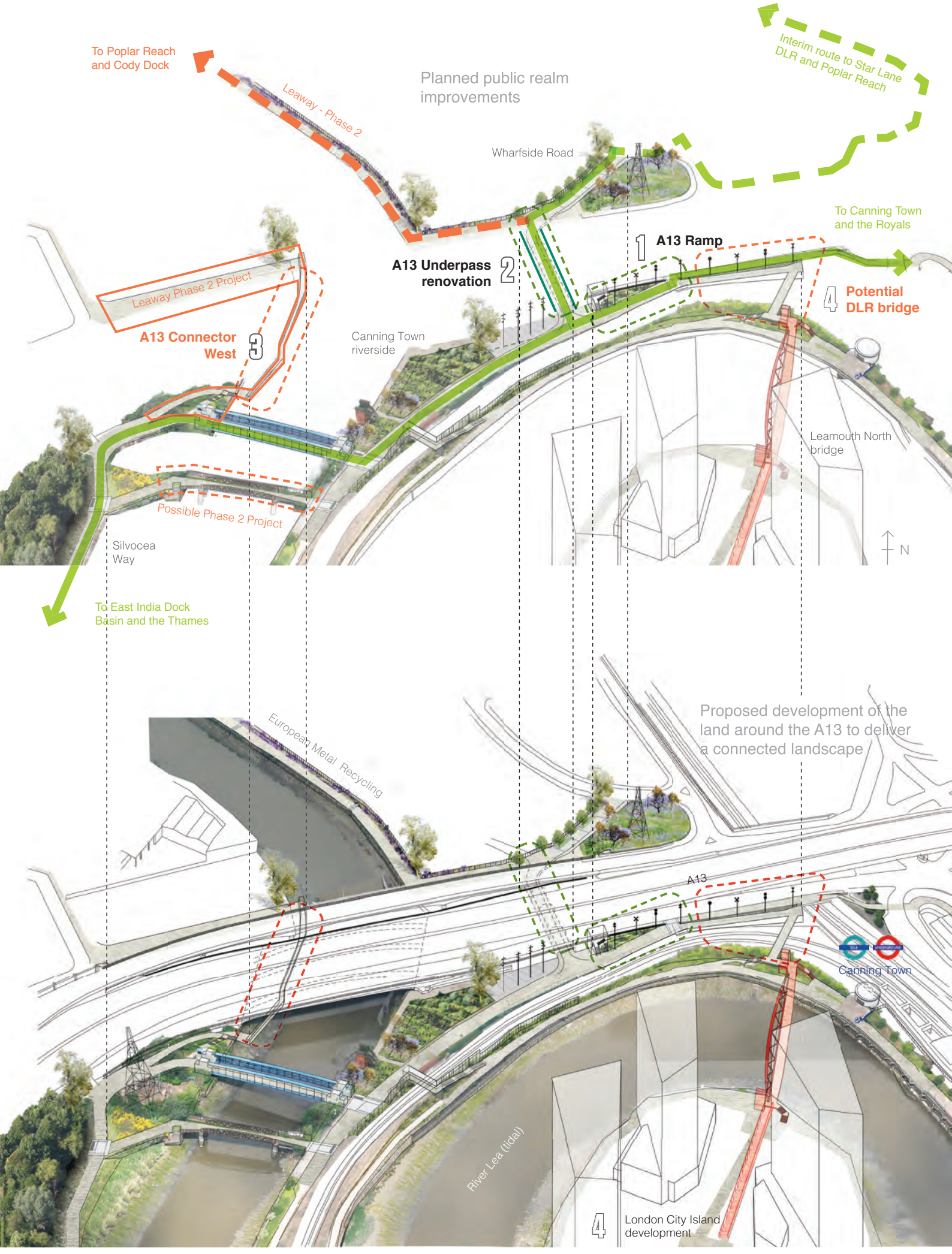


London City Island
Phase 1 Completed



Hallsville Quarter - Canning Town




To Poplar Reach
and Cody Dock
Leaway - Phase 2
Planned public realm
improvements
Interim route to Star Lane
DLR and Poplar Reach
Wharfside Road
To Canning Town
and the Royals
1 A13 Ramp
A13 Underpass
renovation 2
4 Potential
DLR bridge
Leaway Phase 2 Project
A13 Connector
West 3
Canning Town
riverside
Leamouth North
bridge
Possible Phase 2 Project
Silvocea
Way
N
To East India Dock
Basin and the Thames
Proposed development of the
land around the A13 to deliver
a connected landscape
European Metal Recycling
A13
Canning Town
River Lea (tidal)
4 London City Island
development

EXOTIC WILD

Leamouth boasts spectacular views of both the River Lea and its entrance to the River Thames with the potential to maximise access to the river's edge. Features such as Bow Creek Ecology Park and the expansive reed beds of Bow Creek strengthen the natural riverine character of the area. Valley attractions like East India Dock Basin and Trinity Buoy Wharf tell the narrative history of trade and maritime activities in the valley. The Leaway seeks to catch and steer surrounding developments to implement a fully accessible riverside that unifies the changes coming forward in the area.

Previously fragmented and difficult for pedestrians and cyclists to navigate, additional river crossings connect stretches of riverside, park destinations and transport connections to create a network of legible routes.



Canning Town Riverside

Before: Dense vegetation and anti-social behaviour previously restricted access and use of the area.



1 Canning Town Riverside

After: Once cleared, the large riverside space has been populated with boulders and benches. A brick plinth can become a stage or event space for the community, and the steep existing topography can be negotiated by a gentle path to the river's edge. Long grasses and riverine species have been planted, whilst the canopies of the existing white willows are lifted creating good visibility from Wharfside Road.

2 Silvocea Way

Silvocea Way, a major stretch of Tower Hamlet's Leaside riverine edge has benefited from improvements to allow park users to make the most of this riverside space, including extensive replanting with exotic colonisers that reference the history of trade in the area.

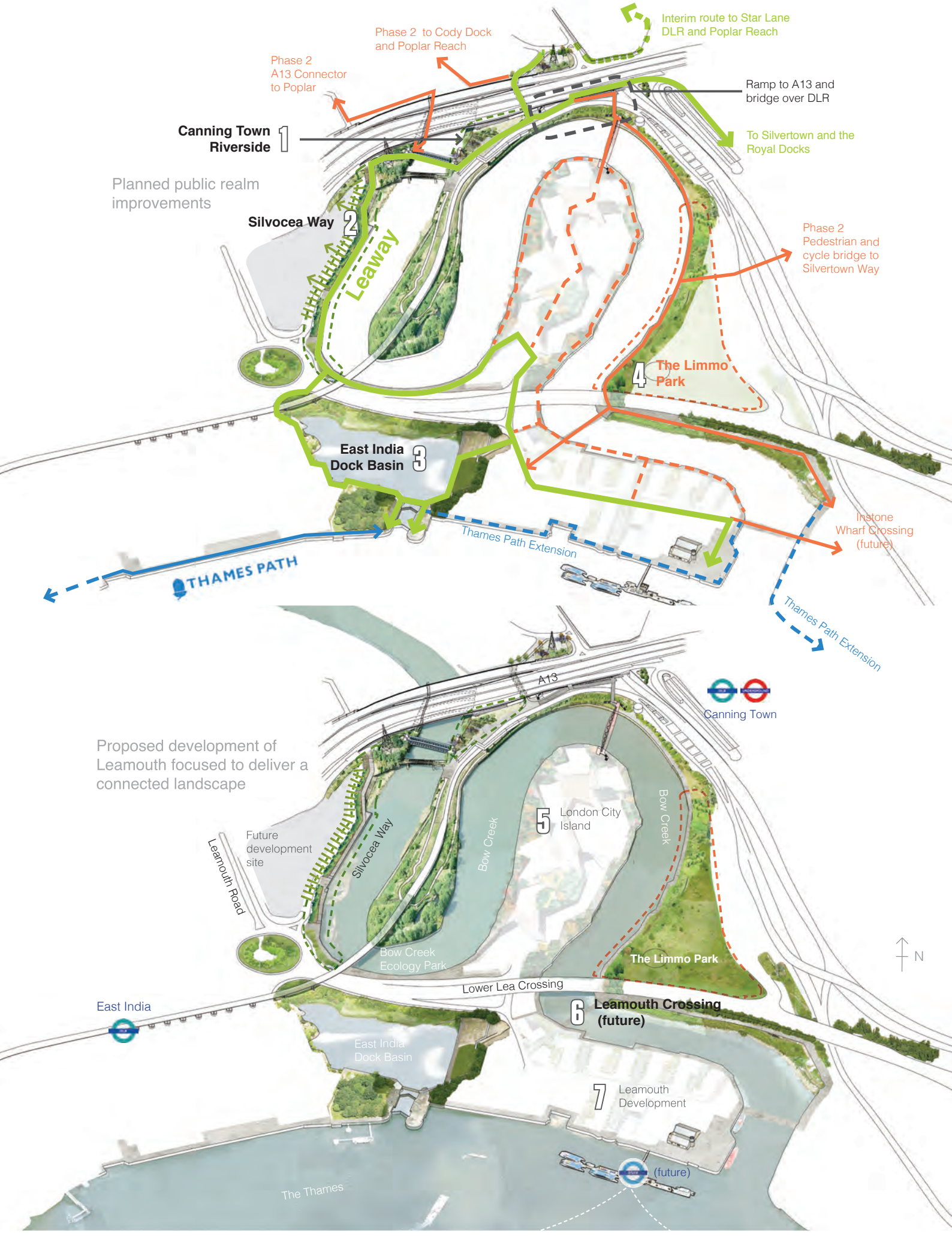


Before: Highways environment dominated the riverside walk.



After: Removal of hoardings and landscaped berms create a more sheltered envirnoment against the river.

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Interim route to Star Lane DLR and Poplar Reach
Phase 2 to Cody Dock and Poplar Reach
Phase 2 A13 Connector to Poplar
Ramp to A13 and bridge over DLR
Canning Town Riverside 1
To Silvertown and the Royal Docks
Planned public realm improvements
Silvocea Way 2
Leaway
Phase 2 Pedestrian and cycle bridge to Silvertown Way
The Limmo Park 4
East India Dock Basin 3
Instone Wharf Crossing (future)
Thames Path Extension
THAMES PATH
Thames Path Extension
A13
Canning Town
Proposed development of Leamouth focused to deliver a connected landscape
Future development site
Leamouth Road
Silvocea Way
Bow Creek
5 London City Island
Bow Creek
Bow Creek Ecology Park
The Limmo Park
N
Lower Lea Crossing
East India
6 Leamouth Crossing (future)
East India Dock Basin
7 Leamouth Development
(future)
The Thames

EXOTIC WILD (CONTINUED)

Both East India Dock Basin and Trinity Buoy Wharf should be protected for their respective narratives of ecology and heritage. Scoping studies have been carried out to extend the Thames Path, connecting the Leaway to a wider network of Thames edge walking routes. A possible future link across the Lea to Instone Wharf would connect these park attractions with the Royal Docks.

The Limmo, currently occupied by Crossrail, is identified in LB Newham's 2027 local plan as an pen space forming appropriate connections and terminus to Lea River Park. Opportunity exists here to create a large scale riverside green space for Canning Town. Proposals for this site should work to 're-naturalise' its river edge creating an ecologically focused park space, akin to Bow Creek Ecology park.



Historic view of Trinity Buoy Wharf

Site characteristics



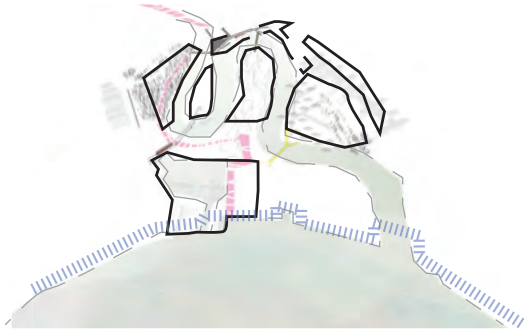
An incredible stretch of waterways and their meeting points



...defines a clearing within the city...



...that is criss-crossed by infrastructure.



The location for a collection of bizarre landscapes - the exotic wild.

Development context

London City Island - under construction
Phase 1 anticipated mid 2016



Leamouth Crossing



Leamouth South
Planning submitted December 2014





East India Dock Basin

Above: Ambition for the creation of a visitor and educational centre, balancing the needs of visitors and that of the established wildlife preserve in the basin. The location of the placement of this facility will require further detailed design development with project partners.



Potential exists for such a centre to include a dedicated bird-watching hide (left) with views over East India Dock's wetland bird reserve.

The Limmo

The Limmo is an important area of open space for the Lea River Park and offers the chance to create a sizeable new park within the Leamouth. It is also one of the few locations where softening of the river edge is pracitcal.



SILVERTOWN VIADUCT

“Canning Town Pier”

Silvertown Viaduct is a fantastic and under-used section of the Leaway route. Constructed in 1934 the bypass was Britain’s first flyover; originally built to serve the Royal Docks in their heyday, traffic levels on the viaduct have since reduced significantly. This now presents an opportunity to greatly increase its role as a strong pedestrian connection between the growth areas of the Docks and Canning Town, exploiting its pier-like qualities and the fantastic views that it offers of the Lea Valley and the Thames at Blackwall Reach.

The decrease in traffic volume has seen its wide carriageway become a fast urban road. With the surrounding sites on Caxton Street, Peto Street and Tidal Basin Road, being identified as sites for tall buildings within the regenerated Canning Town South area, the character of this streetscape is going to be key to a successful regeneration. The opportunity has been recognised to calm the traffic by narrowing the carriageways, providing segregated cycle paths, and more generous pavements, leading to an enhanced North Woolwich Road and proposed new local centres in the Royal Docks.



Historic photograph of the viaduct (1939)
Having been designed to accommodate the large volume of heavy traffic that serviced the Royal Docks, the viaduct has a generosity and structural significance that could be exploited.



The viaduct has a ‘pier-like’ character that could be furthered by drawing from successful, albeit coastal, examples like Coney Island pier, New York. Its varying benches and sheltered places to sit and take in the surroundings, are a useful precedent for the character and nature of the proposed improvements to the viaduct’s upper level.



After: Re-imagining the viaduct as a ‘pier’ - a curious boulevard; with a widened pavement, improved cycle provisions, belvederes and a collection of dock-related artefacts, narrating the surrounding landscape.



Before: The existing road, engineered for dock traffic that has now ceased, has the potential to be generously re-purposed.

CONTINUES ON NEXT SPREAD >



After (Right):The spaces beneath could be re-purposed - infill walls removed and generous public halls and community workshops retrofitted - a spine of amenities which can be added to, as surrounding developments are delivered.



Before (Above): The existing stairways connecting it down to a finer grain of streets have been neglected and are unwelcoming.



SILVERTOWN VIADUCT (CONTINUED)





Rijnhavenbrug, Rotterdam - a piece of infrastructure that has been 'humanised' and treated as a part of the city.

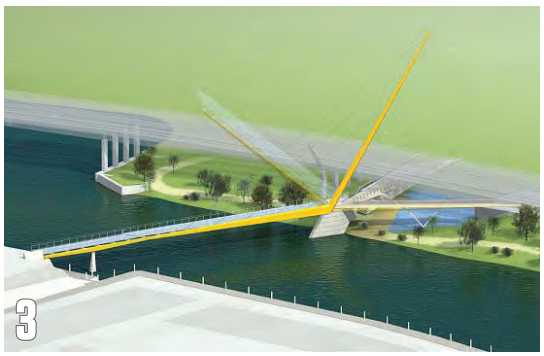
The viaduct was built to handle the traffic of the docks, raised high on its legs to oversail the railways and lock movements.

Silvertown Viaduct could be better integrated into the city by finding a 'street-like' quality, that will share out the generosity of the structure more successfully, to accommodate pedestrians, cyclists and vehicles.



World Class Streets - New York City
Ghel Architects

Development Context



Leamouth footbridge



Caxton Works, mixed use development by Cathedral developers - under construction



Tidal Basin Road towers, residential and hotel - under construction



Silvertown Reach Development



Proposed development of the area surrounding the Silvertown Viaduct

CONTINUITY ELEMENTS

The Leaway route requires a range of components to be considered from benches and surfaces to wayfinding and enclosure.

A palette and strategy for implementing these components along the route is set out here, proposing coherence rather than literal continuity. The specific examples given within this chapter are for guidance only and are intended to illustrate the desired character of each element.

The material palette and range of street furniture outlined within the Design Manual has been developed in conversation with project partners, to ensure long term validity for delivery and maintenance. The Design Manual should be used in conjunction with the appropriate Borough's *Streetscape Design Guidance.*

The finishes and components within this chapter have been selected with their lifetime maintenance in mind. They are principally self finishing, easy to clean and obvious / simple to repair if damaged. This criteria should be maintained throughout subsequent detailed design work, developing interventions along with the maintenance partners to ensure the park's longevity.

Right: Precast concrete benches and large format timber 'add-ons' at Three Mills Green, the first park area of the Lea River Park, completed in 2012



PALETTE OF MATERIALS

As the route of the Leaway has been created through a range of existing riverside landscapes, streetscapes and new phased routes across several boroughs, a palette of materials is proposed. These materials should principally aim to be self finished, requiring low maintenance, be neutral in colour (to allow visual contrast with soft landscaping) and explore the industrial and maritime history of the valley. These concerns tend to a general exclusion of plastic/PVC and stainless steel in favour of more raw materials.

ENCLOSURES

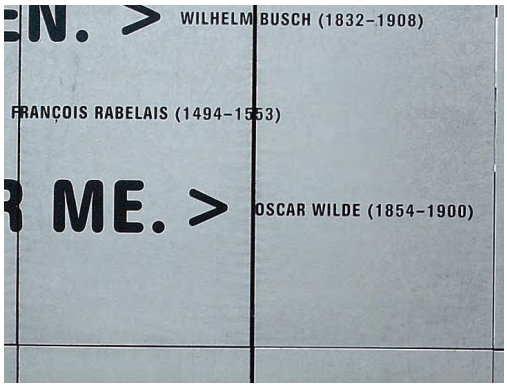


EXPANDED METAL MESH
Enclosure to structures

FINISHES



FAIRFACED CONCRETE
Concrete channel benches - vertical surfaces



GALVANISED STEEL PLATE GUARDING
With contrasting painted wayfinding

MODULAR SURFACES



PRECAST CONCRETE CATTLE-SLATS
Made flush with landscape off of main routes



PRE-CAST CONCRETE PLANK PAVING
Paving mats, in mid greys, non-slip

CONTINUOUS SURFACES

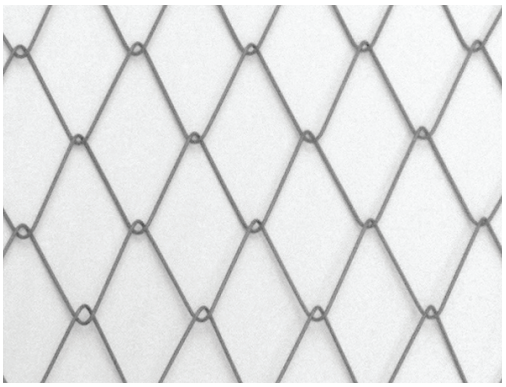


GRASS OR MEADOW PLANTING
With reinforcement mesh as appropriate



SPRAY TAR AND CHIP / RESIN BOUND CHIPPINGS

ENCLOSURES



“ENCLOSURE” ELEMENT
High tensile steel mesh



SECURE FENCES
Steel weld mesh

FINISHES



M.I.O PAINT
Dark Grey

other paint finishes should provide a close match - RAL 7021 (Black Grey)



TIMBER IN LARGE BAULKS
Including green oak or sweet chestnut

MODULAR SURFACES



GRANITE SETTS/COBBLES
Reclaimed or new, laid flush for accessibility



GRANITE PAVING SLABS
In mid greys

CONTINUOUS SURFACES



IN SITU CONCRETE
Brushed Concrete



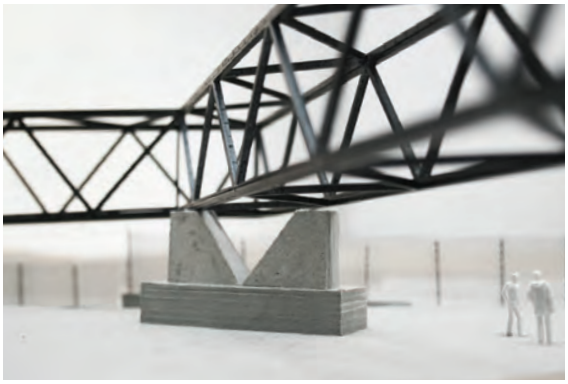
HOT ROLLED ASPHALT WITH COATED CHIPPINGS OR RIVER GRAVELS

PARK STRUCTURES

The Leaway structures have been developed to employ a material language that delivers both refinement and robustness. Crisp surfaces of metal architectural mesh and exposed aggregate concrete describe a clean volume, providing robustness while aspiring to a sense of fineness befitting the rich context of the River Lea.

The structures are conceived as part of a family of new park structures that make reference to the industrial and utilitarian aesthetic of the existing bridges, pylons and river-works that populate the Lea Valley, characterised by clean, simply rendered forms and framed structures

The proposals employ a concise palette of hardwearing and cost effective finishes. A micaceous iron oxide paint protection system is proposed for structural steelwork members, while galvanised steel is proposed for the balustrade guarding and framing of mesh panels. This material combination provides an effective contrast between the strong figure of the steel superstructres and the finer balustrading. Self finished in-situ or pre-cast concrete is used for the structural bridge piers, retaining structures and ramp structures.



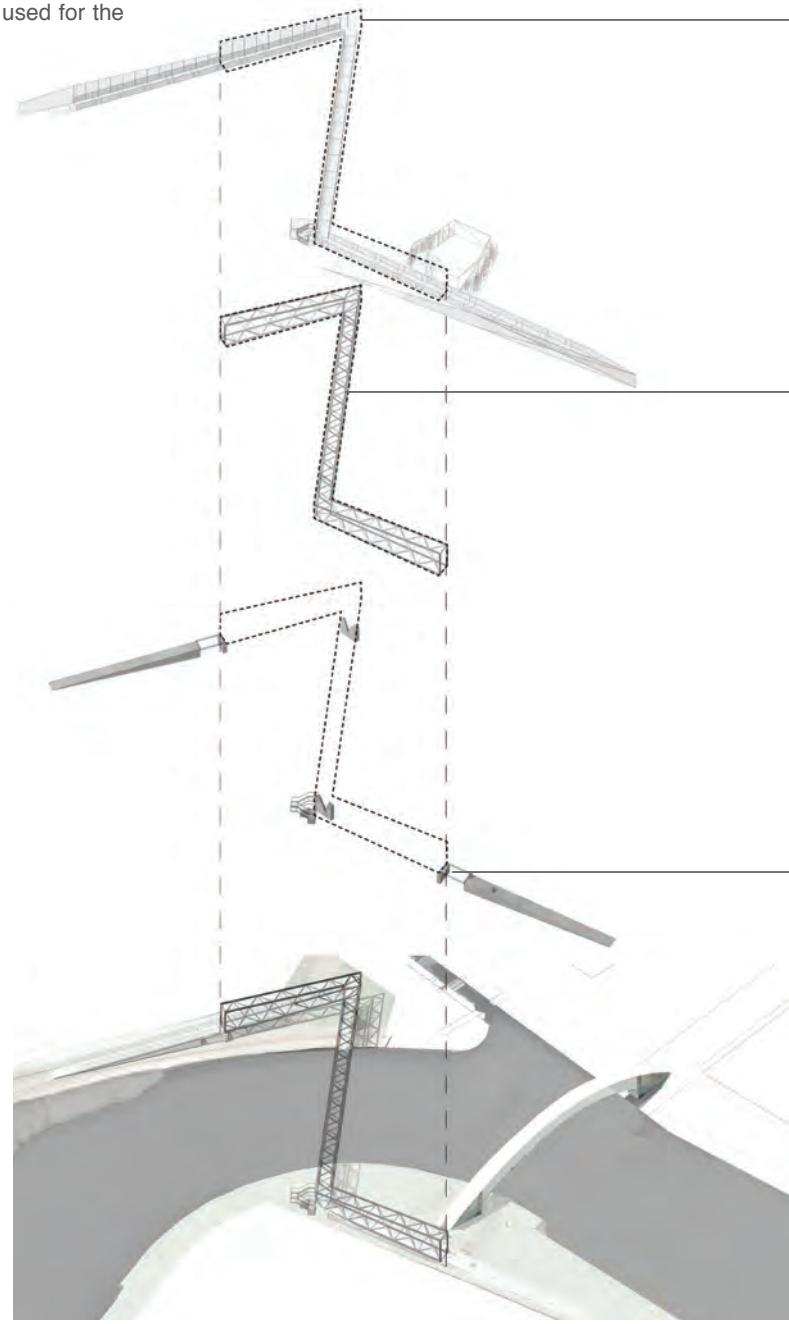
Model testing the showing development of the distinctive charecteristics of the Poplar Reach bridge's steel warren truss and sculptural concrete substructure.

ANATOMY OF THE STRUCTURES >



Detail view showing the use of the finer language of the mesh guardings continued to create larger enclosures to respond to security concerns along adjacent property boundaries.

The bridge at Poplar Reach is Ilustrated in the drawing on the right. Details of the other Leaway structures can be found in the Park Severances section of this document.



FINE GUARDINGS AND ENCLOSURES







Within or above the steel superstructures a language of galvanised steel framed guardings. The framing to these balustrades is constructed from steel flat plates, and infilled with either solid guarding panels or mesh infill where necessary. The use of mesh infilled frames should be extended to areas where enclosure is required for security reasons. A similar finish is proposed for the handrail and their supports across the structures.

STEEL SUPERSTRUCTURES





A language has been developed throughout all the Leaway structures of steel spanning structures constructed from simple steel sections - capturing the industrial character of the valley. These structures are to be painted with a protective layer of M.I.O paint in a dark grey colour.

CONCRETE SUPPORTS





The ground bearing structures supporting the spanning structures, and retaining walls to ramps have been developed to have a strong muscular character reflecting the existing supports of the many utilities bridges along the river Lea. An exposed aggregate finish is proposed for this concrete, with the concrete supports at Twelvetrees ramp considered a benchmark finish.

SURFACES - THE CONCEPT

The first phase of the Lea River Park - the Leaway - is a continuous North-South route along the River Lea established by connecting a range of existing but fragmented riverside paths, stitched together with new public realm interventions.

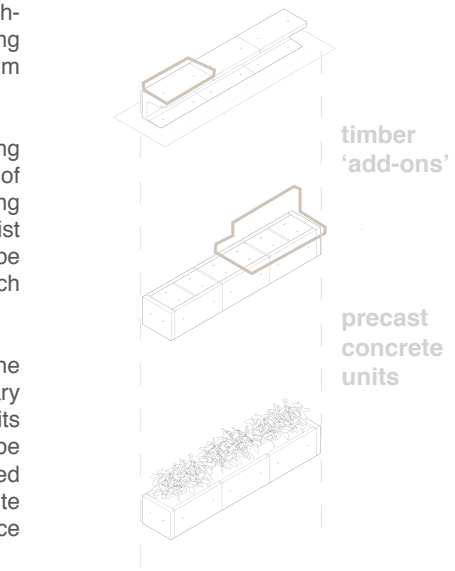
Key to the implementation of a 'quick win - long term value' project, is the continuing use of the existing surfaces where possible, judged through an updated set of the previous Fatwalk standards. Due to the broad range of previously existing surfaces, it would have been inappropriate to propose that the Leaway consist of a continuous monolithic surface treatment. This would have been both be prohibitively expensive, and disregarded the varying landscape settings which the Leaway passes through.

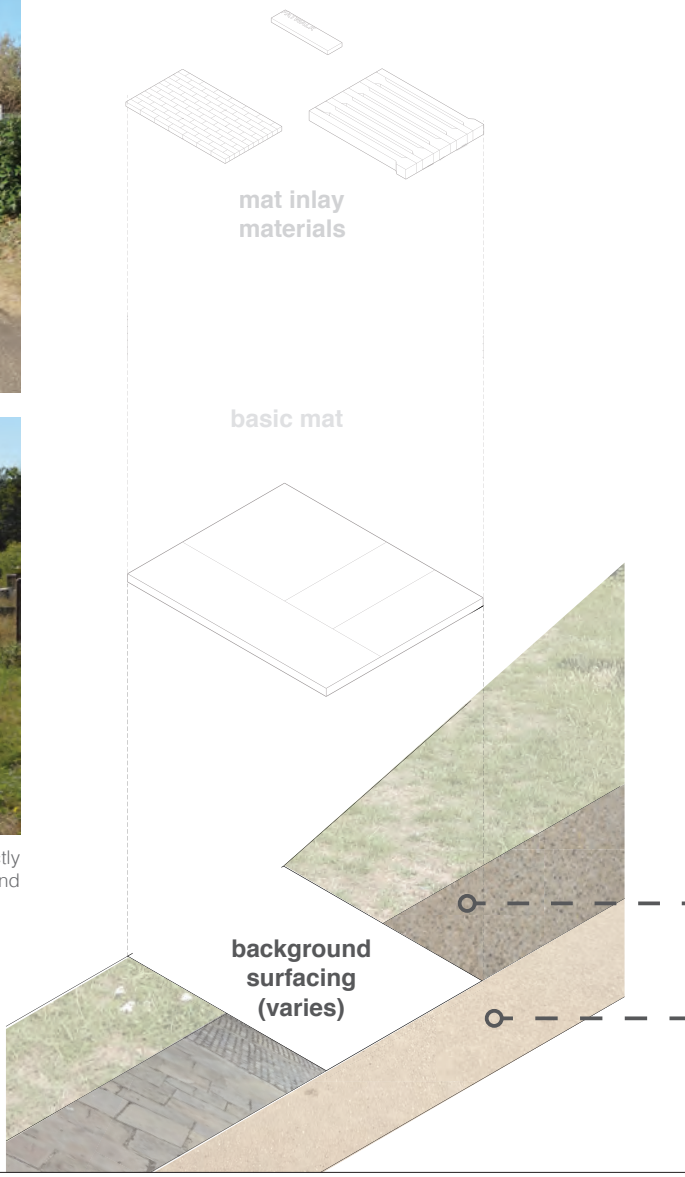
Where new surfaces are required, or where new paths are created, the performance specification should be considered. If the surface is the primary traficked route, a surface of hot rolled asphalt or spray tar and chip relating to its context, should be considered. All surfaces, proposed and existing, should be assessed to ensure that they are providing the necessary slip resistance required for their context and level/type of traffic. Adjacent surfaces to the principal route are either a planted (described later in this chapter), or a permeable surface such as self binding gravel.





Examples of the diverse range of existing path surfacing which, although they do not exactly match the material palette, are currently working successfully and should be kept and maintained.





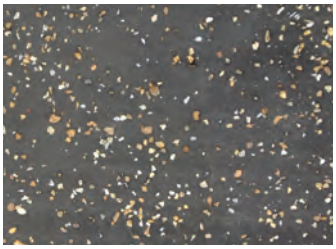
NEW INTERMEDIATE SURFACES

A variety of asphalt finishes can be achieved by controlling types of aggregate, shot-blasting, and additional finishes. The new surfaces within the park provide the opportunity to incorporate appropriate recycled or reclaimed aggregates eg. crushed brick from site clearance or chrushed shells within new paths by tidal waters.



Example of standard asphalt distinguished by the use of river gravel aggregate





Exposed aggregate at Wharfside Road



Spray tar and chippings repairs to existing asphalt pathway at Three Mills Green

EXISTING SURFACES RETAINED

Existing surface finishes (asphalt, concrete with different finishes, access panels) are retained and co-opted into the parks proposed network of paths and landscaping schemes

Existing Modular Paving

Where existing modular paving is incorporated into the primary trafficked route, it should be inspected and re-laid flush to regulations where appropriate. Where paving is damaged or lifted, it is appropriate to remove it (i.e. sections of Silvocea Way).



Blockwork paving - Silvocea Way



Blockwork paving appropriate to remove - Silvocea Way

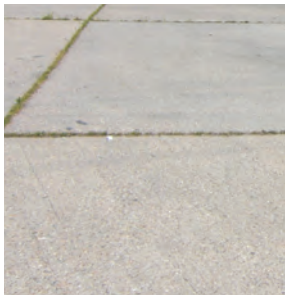


Cobbles - Cody Wilds



Artificial stone paving (ASP) - Around A13

Existing Continuous Surfaces



Insitu Concrete - North of A13

Re-use following inspection. Gaps should be repaired where necessary to comply with accessibility standards.



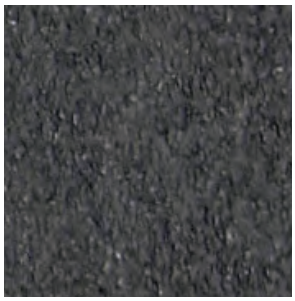
Existing public highways

Stippled concrete with granite kerb can be adopted into Leaway Route. Repairs should be made where necessary by the appropriate Borough Highways Team.



Precast concrete service covers

Re-use as footpath and unsure access remains possible. Inspect and repair where appropriate to comply with standards.



Black top - Asphalt

Clean and repair where necessary.

PAVING MATS - THE CONCEPT

Rather than attempting to provide a continuous surface we suggest a strategy of nodes at key decision points along the route. Instead of being used in an extensive and linear fashion, they are used in a more intensive but localised manner creating a series of episodic waymarkers or 'paving mats' which repeat along the length of the Leaway. The role of these mats is similar to that previously performed by the Fatwalk paving, albeit across a wider range of different physical forms:

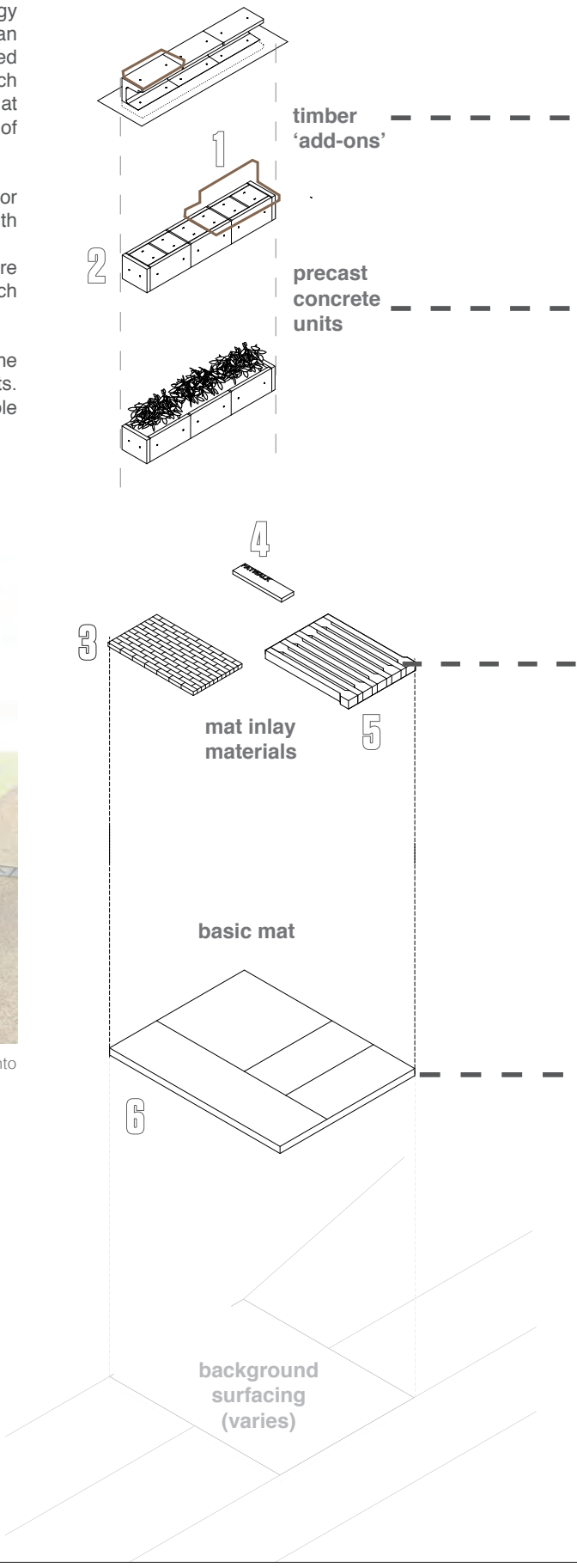
- Providing coherence and a distinctive and recognisable material identity for the Leaway. This is achieved through material quality as well as 'branding' with imprinted words.
- Assisting with wayfinding. The mats are located at key thresholds - where people join the Leaway, or have to make a decision about the direction in which to move.

Whilst providing an all important coherence along the length of the Leaway, the mats also recognise and respond to the particularity of their individual contexts. We have set out opposite the 'anatomy' of a paving mat, to explain the possible constituent ingredients.

See the following chapter 'PAVING MAT EXAMPLES' for further detail.



Creating a coherent approach to the layout of street furniture by condensing all elements into mats



VERTICAL ELEMENTS





Precast concrete channels in use at Three Mills Green

Timber 'add-ons'

These soften and adapt the basic concrete plinth/mat to provide a variety of seating conditions - including places with back- and arm-rests as required.

While the design is bespoke, it is an assemblage of robust, readily available components/materials, making repair - rather than replacement - feasible and relatively straight-forward.

It is intended that these elements - as part of the language of mats - provide a degree of continuity along the Leaway. Therefore, they possess a common language related to their materiality, and the 'chunky' dimensions of the timber - even when the specific seating arrangement differs.

This family resemblance extends to other seating proposed or installed along the Leaway route, such as the timber add-on to the existing wall at Twelvetrees Crescent, and the timber benches installed - as a continuation of the Leaway - at Three Mills Green.

PRECAST CONCRETE MAT ELEMENTS







3. Precast concrete plank paving to areas of paving mats. 300 x 100mm, thickness 80mm Product reference: Marshalls, Metrolinea City Silver Grey

4. Precast concrete plank cattle-slats. Brushed finish

5. Bespoke precast concrete 'signslab' with cast-in lettering set into paving mats.

INSITU CONCRETE MATS





Cast-in situ concrete mats with aluminium edging, incised lines/crack control joints and brushed and exposed aggregate finish. Where services are present and there is a greater risk of the surface being lifted for repair or maintenance, a modular material should be used as the primary mat area to avoid unsightly repairs.

BENCHES

In addition to the integration of benches within the paving mats (see preceding pages) - as part of a coherent Leaway wide identity- the strategy for seating also respond to the particularities (materiality, setting and potential use) of each portion of the Leaway route.

A variety of benches and seating along the route responds to the particularity of context, and the potential of different locations to support particular activities (ie. perches v. picnic tables). Seating should be placed at a minimum of 50m intervals where possible and should include provision of backrests, armrests as well as locations for wheelchairs or buggies to be positioned alongside.

PERCHES / STOOLS





Perches and stools could be provided along the Leaway route as less formal resting points. These should always compliment the regular provision of accessible benches.

BENCHES



Benches made from large format timbers with back and armrests are preferred. The large timbers should resist vandalism - theft, damage and arson - but should also be easy to source and replace when necessary. Arrangements of pre-cast concrete channels with (or without) 'timber add ons' is another seating option along the Leaway.

Left: Image shows a Leaway bench at Wharfside Road

INFORMAL SEATING

A resting place might be more ambiguous in character, with the potential to be a play structure or a retaining edge. The opportunity to appropriate found or reclaimed objects as seating should also be considered where possible.



Boulders embedded into a grassy verge; Queen Elizabeth Olympic Park, London.





Vertical arrangement of large format timbers for both seating and play; regeneration of Carlsberg Brewery, Copenhagen.


CANNING TOWN RIVERSIDE

TIMBER BENCHES



Furnitube, Fordham Bench - Queen Elizabeth Olympic Park



Escofet, Tramet - Three Mills Green



Bespoke Leaway bench at Silvocea Way

Although not illustrated in all of the examples above, installation of benches should always incorporate a provision of arm rests, back rests and appropriate space between benches for wheelchair users or buggies to be accommodated.

SEATING WITHIN THE LEAWAY LANDSCAPES



Cody Wilds, pre-cast concrete channels can be used both as a retaining edge and a bench.



Silvocea Way, timber benches form the corners of new areas of landscaping with a design which references the sites former timber wharf.



Silvocea Way, pre-cast concrete stools arranged informally to encourage rest and play on river edge.



STANDARDS FOR SEATING

4	Seating/Rest points

Design Intent

Mobility ranges vary greatly between disabled people, while factors such as weather, topography (gradients) and obstacles can also affect mobility ranges (see Appendix 4). Resting places should therefore be provided on all circulation routes.

Mobility impaired people need to rest and recover at reasonably frequent intervals, in commonly used pedestrian areas and the frequency of seating provision should consider the mobility ranges of disabled people as described in Standard 1 - Graded routes.

Inclusive design guidelines

Seating areas should provide a choice of different seat designs, for example single seats and benches and some seats should have backrests.

As an alternative to standard seating, consideration should be given to the provision of perching seats, either fixed or pull-down, with and without backs, as casual rest places in longer circulation routes.

When considering the design of seating designers should note that materials that are cold to the touch are best avoided.

Seating should be located along, but not within, pedestrian routes and may be combined with/ associated with merchandising, toilet provision and other spectator support services within the Olympic Park.

Seats may also be located on soft landscaping though this will require an associated accessible route.

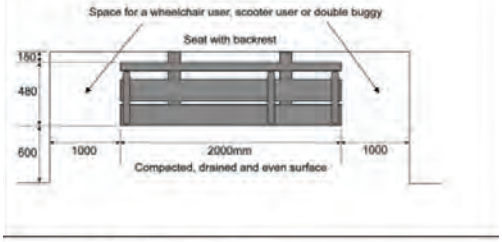
Seating provided in close proximity to each end of bridges

The preferred distance on level ground between resting places is 50m[1], though this may not be a formal seat.

Seating should:

- have a seat height of between a height of 470mm – 480mm for seats and benches[1]
- have a seat height of 650 mm – 800 mm for perch seats[2]
- be clearly identifiable against their surroundings[2]
- be sited on a suitable surface[2]
- designed to allow a wheelchair user or scooter user to sit alongside friends and family or in groups[2]
- armrests when provided at approximately 200mm above seat level[1]

Diagram 1: Indicative seating layouts



[1] Inclusive Mobility Department of Transport 2002

[2] BS 8300:2001(incorporating Amendment no 1) Design of buildings and their approaches t the needs of disabled people - Code of practice, 2001

Preferred distance on level ground between resting places is 50m*, though this may not be a formal seat

* Inclusive Mobility - Department of Transport 2002

Left: Extract from the LLDC's Inclusive Design Standards, avaible online at:

http://queenelizabetholympicpark.co.uk/our-story/transforming-east-london/accessibility

PLAY

The 'topography of difference' is also an opportunity to incorporate a wide range of exciting play spaces. Constrained by the often limited width of the Leaway, a strategy of peppering the route with interesting objects and landscapes offers the chance for active liminal play*, that draws on and reinforces the character of the valley areas.

Robustness is key and materials used should aim to be self finished and low maintenance. In choosing what to place, 'real' materials and objects should be chosen over reproductions or artificial/ generic play equipment, which are perceived as attracting vandalism and encouraging anti-social behaviour.

Scope for moments of play should not be focused exclusively at children. Through the use of robust materials, activities including trials cycling, BMX, skateboarding, and free running, should be encouraged and accommodated. Structures and park furniture should be designed robustly enough to allow for appropriation by these users, rather than adding studs or other deterrents.

Play equipment should not impinge upon the key circulation routes of the Leaway, being instead, set into parallel stretches of landscape or wider clearings. Designers should also demonstrate that they have considered issues surrounding inclusive play provision, with designs which allow for users of all abilities to make use of the play provision proposed. Further advice is given in the LLDC's Inclusive Design Guideline 17 -'Inclusive Play'.

Some initial proposals:
- Bespoke play equipment
- Basic infrastructure (hillocks/retaining edges/channels) provides some basic opportunities/punctuation of the route
- Sited along links to adjacent communities (ie. Aberfeldy).
- Placing of erratic objects that both contribute to the curation of the valley and create curious and unsusual playspace

* Liminal play occupies spaces which have no fixed purpose, allowing the player to interpret and occupy through their own interpretations of the space's characteristics





Existing imaginative playspaces of Wild Kingdom, Three Mills Green



Urban sports including trials cycling, free running or exercise should be expected in this situation rather than designed out



Cast-in metal edgings can prepare street furniture for skaters; Normand Park, London

The industrial artefacts of Landschaftspark Nord Duisburg offer the chance for liminal play for both children and adults; slight adjustments to existing structures create climbing walls, and collected artefacts are robust enough to encourage clambering and imaginative play.



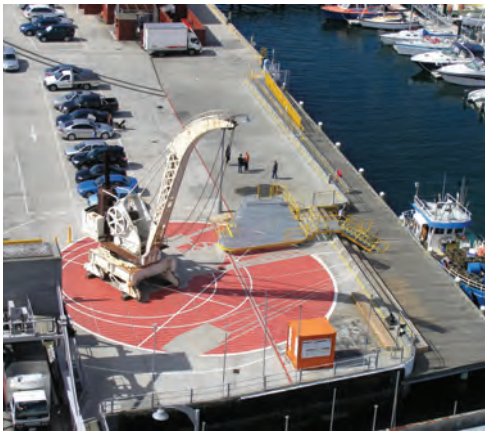








Sections of decommissioned industrial kit/found or recycled objects as things to play on/around



Painting hardstanding/tarmac to create a richer visual landscape, where games can be created based around the abstraction of the markings. In order to avoid confusion for users with visual impairment this is not considered appropriate along the key circulation routes of the Leaway.



Examples of the successful integration of formal and informal play can be seen in the play spaces delivered in the Queen Elizabeth Olympic Park, notably the Canal Park (above). Here slides are incorporated into the level changes of the site and recycled materials from the 2012 Olympics have been incorporated to create clambering play elements.



Play barges in the Netherlands



^ The park should also seek to provide moments for more conventional ‘play’ and recreation through the provision of: table tennis tables, informal markings for games such as petanque, or access to the water for kayaking/canoeing. The location of tables should be carefully planned, considering maintenance, discouragement of anti-social behaviour, likely footfall, and the creation of sheltered environments for play.

WAYFINDING

Wayfinding should be provided in several forms along the Leaway. Primarily, this will follow the Legible London signage used throughout London's Boroughs.

At informal entrances to the park and as part of the 'to the river' projects, Legible London finger posts should be used to locate the park within the surrounding streets, communities and transport links.

Additionally at the key valley entrances and complex knuckles of routes - such as at Twelvetrees/Bow Locks, the A13, East India Dock Basin, and Silvertown Viaduct - Legible London Midiliths should be used to inform the park users of orientation, route distances/times, adjacent attractions, and transport connections.

It is proposed that bespoke signage pavers along the route will feature both place names and directions, subtly reinforcing the users sense of direction along the Leaway. In addition to these pavers, opportunities to paint additional signage onto existing or proposed structures/benches should be identified, which could potentially lead to artist/designer commissions, which respond to the unique cultural and historic context of the Lower Lea Valley.

A final layer of signage and wayfinding on the Leaway, will deliver information about the curation of the valley's rich history. This should be developed as separate commission resulting in a signage system that can be published as an appendix to this document when complete. This category of signage may include interpretation boards about planting and the display of historic photographs, as well as additional information for park users, that cannot be accomodated within the format of Legible London.

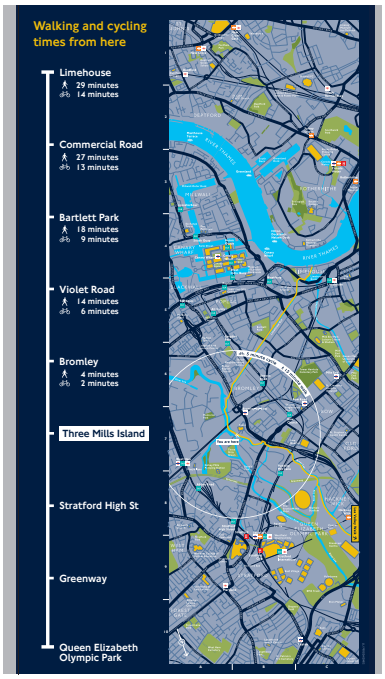
LEGIBLE LONDON



Midiliths - Installed adjacent to Cody Dock



Fingerposts - Twelcetrees Crescent



Detail of Midilith at Three Mills

The development of the Lea River Park over the coming decade, will be reflected in the ongoing development of the Legible London base mapping. Given the live nature of the base mapping for these signs, it is important that the boroughs are kept up to date with the delivery of new sections of the park, ensuring that refreshes of the physical signage panels are timed to coincide with key park milestones.



A Legible London Midilith as one of the street furniture elements that are consolidated on a typical paving mat

LEAWAY PAVING SLABS Bespoke



The bespoke signage paving slabs are seen as a secondary signage method, at low level, offering a background confirmation of the route. These should incorporate the names of the wharves or local parkspaces which the Leaway passes through. More information on these mats is provided in the following 'Paving Mat Examples' chapter and in the appendix 'Bespoke Signage Slabs'.



OPPORTUNISTIC SIGNAGE Commissions



This form of signage is intended as an additional layer of the parks overall curation. Locations should be identified for artist/designer commissions, which explore aspects of the Lea River Park's botanic, horticultural, industrial or social narratives.

RIVER GUARDING, BOLLARDS AND BINS

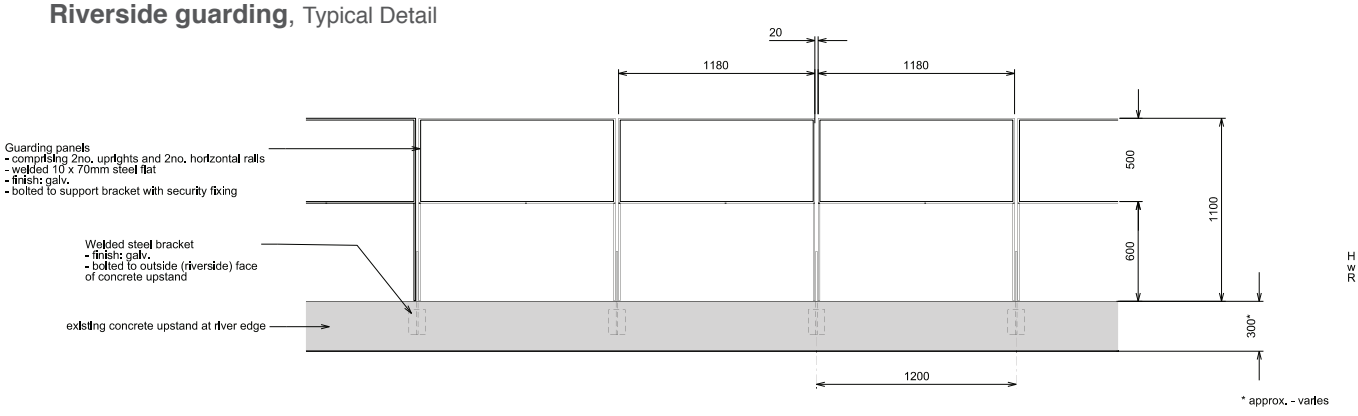
RIVER GUARDING

There is little consistency in existing riverside railing design beyond that the railings are always dark painted and generally have two horizontal rails. Proposed new railings should respond to both this trend and the language of the new connection structure balustrading (i.e. steel flats) with two horizontal rails and M.I.O paint finish. While M.I.O paint finishes have varying tones, other paint finishes should provide a close match, i.e. RAL 7021 (Black Grey).



M.I.O PAINT
Dark Grey

Riverside guarding, Typical Detail



BOLLARDS

Bollards should be avoided wherever possible as they can be a hindrance to people with visual impairment and should only be used after attempts have been explored to block access with either tree planting, and/or street furniture. When used, they should provide visual contrast to their surroundings. More advice on their use can be found in the LLDC's Inclusive Design Guidance 07 - 'Street furniture'. Any bollard used should be a minimum height of 1m, with a 150mm contrasting strip applied to the top.

A range should be selected which offers both fixed and removable options. Drop-down or removable bollards should be fitted with fire brigade accessible locks. However, FB11/14 locks should be avoided as their keys are readily available, and their use will make the bollard vulnerable to vandalism. Preferably bollards should be galvanised or painted Dark Grey in M.I.O paint.

The design of bollards should be simple and free of ornament or additional decoration. Forms which emphasise the language of standard steel angle sections and universal steel beams are preferred, in order to mirror the industrial character of the new park infrastructure. LB Tower Hamlets request that in their parks areas bollards are provided with a sloping top surface (below right).

Below are some examples of possible bollards:









^ Incorporating all street furniture into coherent layouts on paving mats

BINS

In consultation with the boroughs it has been established that bins should be placed: at entrance/ exit points, key 'nodes' and near to picnic areas.

Finishes should be in line with the material palette for the Lea River Park set out in this document, and should provide strong visual contrast to their surroundings.

LB Tower Hamlets request that bins in their park areas are root fixed and include domed tops (below centre).

Where possible in line with TfL streetscape guidance to help declutter the public realm these should be attached to existing street furniture such as light columns or signposts.

Bins should also be provided with covers, in order to decrease the occurrences of fly tipping of domestic or commercial waste and issues with vermin.
Choices should be made in consultation with the Borough's team who will maintain and empty the bins.

Below are some examples of possible bins:



Broxap, Budworth Litter Bin



Broxap, Kelshall litter bin (LBTH approved)



Broxap, Queen Elizabeth Olympic Park

BICYCLE STANDS

Bicycle stands should be provided only where there is an identified need - at Leaway 'destinations' - points where park users are encouraged to stop and spend time in a particular park area. They should be located in a position with good passive surveillance, to reduce the risk of bicycle theft. Stands should include signage, to indicate that they are for push bikes only, and a tapping rail to aid the visually impaired. Specific product choices should be made in consultation with the relevant Borough and their *Streetscape Design Guidance,* with the Leaway finishes palette in mind.



FENCING/MESH ENCLOSURES

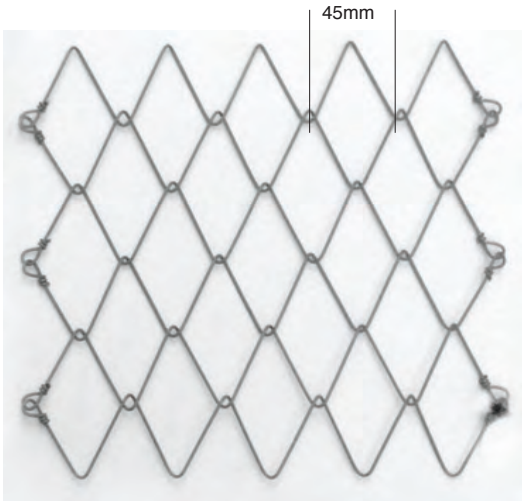
It is proposed that edge treatments (fences/railings/walls) should respond to the specific context/conditions/needs along the distinctive sections of the Leaway, rather than be unified along the whole route.

This strategy allows for the use of economic, 'off-the-peg' products, where appropriate. The finishes of all new fences should comply with the material palette established in this document, predominantly galvanised or mid grey.

Below are some examples of possible fence products:

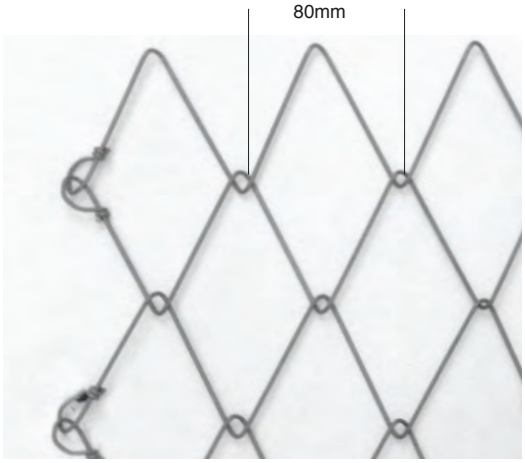
Option 1:
Product: Geobrugg Rombo G45/2 woven wire mesh.
Material: High tensile strength steel.
Finish: Proprietary SUPERCOATING corrosion protection system (zinc/ aluminium coating).

USE CRITERIA:
• Highly transparent minimal framing/ intermediate structure.
• Focused use on Leaway structures.
• High tensile steel resistant to cutting, etc.
• Used in locations where there is a risk of climbing and attendant security risks or risks of abuse to structures - e.g. perimeter fencing or full height enclosures that when climbed could provide access to structure.



Option 2:
Product: Geobrugg Rombo G80/3 woven wire mesh.
Material: High tensile strength steel.
Finish: Proprietary SUPERCOATING corrosion protection system (zinc/ aluminium coating).

USE CRITERIA:
• Highly transparent.
• Minimal framing/intermediate structure.
• Focused use on Leaway structures.
• High tensile steel resistant to cutting, etc. - 3mm thickness.
• Used in locations where there is low risk of abuse through climbing, and where maximum transparency is desired.



Option 3:
Product: Betafence Securifor 358 (or similar according to adjacent site's security requirements).
Material: Steel weld mesh.
Finish: Zincalu Super.

USE CRITERIA:
• 'Off-the-peg' system for use in extensive, background applications - e.g. perimeter fencing foregrounded by planting.
• The intention is that this fencing would be removed if/when adjacent sites are developed.
• Tops can be finished so as to greater dcrease climbing risks.





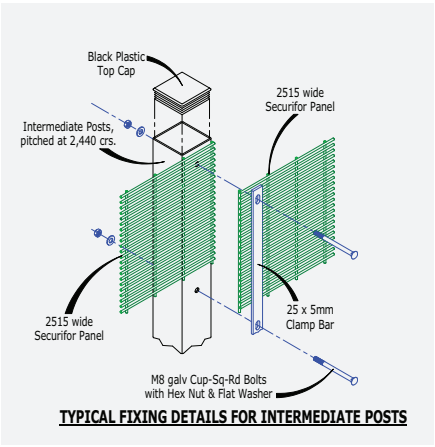
Option 4:
Re-use, renew, repair existing fence.





Rural Studio - Auburn University, USA





Betafence Securifor 358 is solution for boundaries to adjacent businesses, offering tested and industry recognised levels of security

LIGHTING

The Leaway is principally a day-time park to be enjoyed and utilised within daylight hours, and to minimise anti-social behaviour and misuse of park spaces, the provision of lighting has been kept to a minimum along the Leaway. However, as the park encompasses sections of public highway and makes infrastructure connections that may be used outside daylight hours, lighting will have to be considered in particular instances (eg. the underpass beneath the A13 and Silvertown Viaduct).

In these cases, lighting should be of high quality and integrated carefully into the area of landscape or infrastructure that requires illumination. The variety of conditions when this is required precludes proscriptive guidance within this design manual. Decisions should be made in conjunction with the appropriate Borough and the team that will ultimately be responsible for its maintenance.

To minimise the effects on biodiversity care should be taken to prevent the overspill of artificial lighting onto the river or onto areas of soft landscaping. The finish to new/renovated lighting within the park should be coordinated to match the surrounding street furniture. Preferred finishes are dark grey M.I.O or galvanised to other match park structures or Black RAL 9005 (as accepted in TfL Streetcape guidance).

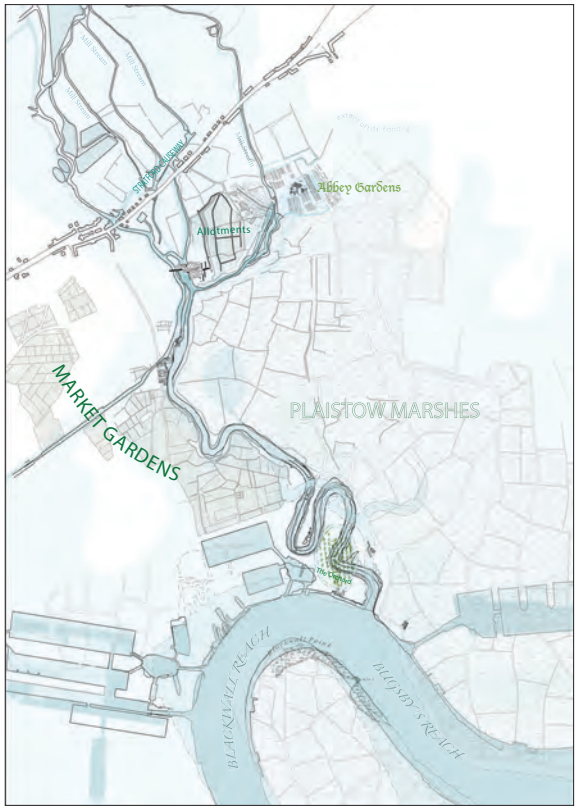
As the areas surrounding the park are regenerated and surrounding developments are bought forward, the local populations and footfall within the area will increase. When this ‘future context’ has been established, it will be important to revisit the need for lighting. Increased footfall may justify the lighting of landmark structures (existing bridges and new Leaway structures) and key park spaces, making the route safer and more accessible outside of daylight hours.

PLANTING

The planting plan for each area should strengthen the particularities of its context. The Leaway passes through diverse, characterful, landscapes that each draw upon the history and unique existing qualities of each location. Plans should respond to the subtle variety of landscapes along the Valley, and to the history of mixing native and non-native/exotic species.

The provision of interpretation boards should be included, alongside planting and landscape.

ANCIENT LANDSCAPES rediscovering the native valley





Very little remains of the native valley landscapes, centuries of 'improving', reclamation and channeling of the river have all played a part in the editing of the original topography.

A key component in the landscape strategy is that the river edge, when found, should be celebrated and its particular character enhanced. Planting groups of native riverine tree species and actively greening the river walls, will recreate a biodiverse river edge. Proposed planting includes naturalistic groups of native riverside trees within swards, with areas of wildflower meadow that combine to create wild spaces between the surviving reed beds and contrasting distinctly with the artificial wharves.

EDIBLE PLANTING a productive landscape



From the early twelfth Century, Stratford Langthorne Abbey began to reclaim marshland in the Lower Lea Valley. The Abbey was joined by mills, orchards and market gardens along the fertile river. It is proposed that part of the landscape strategy should be to 'improve' the corporate or municipal character of existing landscape, such as Cody Wilds, by the introduction of edible fruiting species.

This could re-establish a source of food and a culture of foraging along the Leaway route (where soil sampling proves that conditions are suitably uncontaminated). It is important that the landscape strategy progresses with an 'edible' emphasis, favouring fruiting hedgerows and trees where possible, to ensure the Leaway fulfils its potential as a productive urban landscape.

LANDMARK TREES planted wayfinding

Along the Leaway there are several locations such as Twelvetrees Crescent, which have established and mature hybrid black poplars and white poplars, these define the character of the valley and mark its route.

It is proposed that similar specimen planting should be used along the Leaway, both to act as landmarks along the valley and to tie this into the surrounding townscape.



The native Populus nigra betulifolia

EXISTING LANDSCAPES relaxing maintenance regimes

Along the proposed route of the Leaway are several areas of existing soft landscape which are to be incorporated into the Lea River Park. Areas such as the Cody Wilds are currently heavily maintained, with frequent mowing of meadows and cutting back of native hedgerows. This acts to suppress the rich diversity of the riverside meadows and hedgerows.

Maintenance routines should be developed which introduce more relaxed cycles, allowing flowering and fruiting to take place before strimming or thinning, to ensure that biodiversity potential is realised.



Latent wild flower at Cody Wilds is currently suppressed by a rigorous program of over-maintenance to could be relaxed to allow it to flourish

BROWNFIELD HABITATS

Alongside the narrative of native and edible landscapes is the more recent development of a new ‘natural’ landscape of the Lower Lea Valley - the brownfield site. Following years of semi-dereliction, industrial sites are being cleared for redevelopment, and consideration should be given as to how to maintain these habitats which can be rich in their own form of biodiveristy.

The artificial nature and industrial history of some stretches of the park could support a unique planting strategy celebrating both pollution-tolerant and bioremediator species, and those exotic species that have established themselves in London, both due to its warmer microclimate and history of international trade - a new urban wildspace.

Seeding/plug planting of appropriate and colourful species, which offer broader ecological value should be explored. Succesful brownfield habitats have been established as part of the Queen Elizabeth Olympic Park, replicating the habitats lost during its construction.

A useful reference is also the work of Dr Stuart Connop of U.E.L, including the Barking Riverside brownfield habitat creation project (right).





Examples of test beds experimenting with brownfield habitats

BIODIVERSITY

In creating a verdant park within the industrialised Lower Lea, there are many locations where artificial landscapes can benefit from well judged habitat restoration or introduction, helping to return the channelised River Lea back towards a natural condition. These interventions offer the chance to greatly increase the biodiversity and resilience of the existing eco-systems.

Thames 21 is a charity and key project stakeholder which aims to transform the neglected rivers and waterways of London. The 'Love the Lea' campaign to clean up the River Lea has recently championed projects that include reed bed restoration and the re-introduction of inter-tidal planting areas.

REED BED RESTORATION Greening the river walls - 'Project Reed Bed'







An ongoing Thames 21 project is the restoration and cleaning of the reed bed at Poplar Reach, removing the invasive Japanese knotweed and large quantities of litter. Recently Thames 21 have developed a system of mats, which have been successfully installed along the sloping river walls of the Cody Wilds. These coir filled mesh panels are bolted down to the artificial concrete river wall. Installed in spring 2013, they have successfully taken and are now well established. Following a review of their construction methods, a second round of reed beds is planned as part of the Phase 1 Leaway.



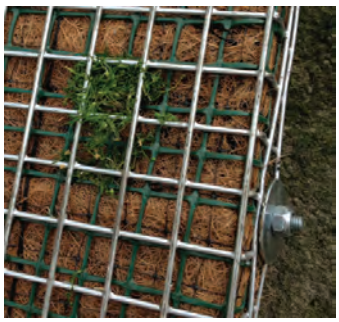


These and the existing reed beds, help to clean and oxygenate the river water, reducing the incidence - currently common - of the river's oxygen depletion through pollution incidents.

There are several other areas along the River Lea which could benefit from this system as well as the continued removal of rubbish and fly-tipping.

INTER TIDAL PLANTING restoring pre-flood defense landscapes







Thames 21 have also been working with Kings College to develop a system of planters which can be attached to vertical river walls, to introduce planting into the inter-tidal zones (above left and middle). Opportunities should also be found for the reintroduction of greater areas of inter-tidal flats, such as those created at Battersea Reach.

S.U.Ds Sustainable Urban Drainage

The green areas of the park can play a major role in the control and mitigation of rainwater and its entry into the river or main drains. This should be expressed where possible, helping to communicate the narrative of the role that considered landscapes can play in the city.

Many areas of the riverside contain buried services, so water attenuation should be most appropriately provided in the form of planted swales and rain gardens.

Tree planting should not involve hard landscaped surrounds. Instead, permeable areas should be left surrounding trees to allow for drainage and help to reduce water run off.

The use of S.U.Ds along the Leaway should build on the experience and success of L.B. Tower Hamlets, who have installed S.U.Ds across their Borough and are enthusiastic to continue to implement them. *SUDs Guidance,* produced by the Borough, can be referred to for further information.

Reference should also be made to the *London Sustainable Drainage Action Plan.*





Stockholm Tree Pits, Bethnal Green Road, Tower Hamlets



Swale, Derbyshire Street, Tower Hamlets



Rain Garden, Derbyshire Street, Tower Hamlets

MISCONNECTED DRAINS water pollution

Another program which Thames 21 is championing is ‘Connect Right’, involving the education of building users and households to ensure that their appliances and drains are connected properly into mains sewers. Their studies demonstrate the negative impact in water quality that the discharge of effluent and detergents pose. Chances to further educate the local population and industries should be taken within the park and its surrounding neighbourhoods.



PAVING MAT EXAMPLES

The linear route of the Leaway is formed from a collection of existing, improved and new riverside routes. As many of these do not need resurfacing (such as the Cody Wilds stretch) this does not lend itself to a singular continuous surface finish.

In this context, the coherence and identity of the Leaway should be established by a family of incidental interventions, rather than a literal continuity of surface.

The following chapter explores some scenarios for the deployment of the paving mats covered in the preceding continuity elements pages. It is anticipated that there will be a wide range of situations where the mats need to be deployed, with varying site geometries, levels and programmatic or operational requirements.

The concept of the mats is that they should play a ‘quiet’ role in experience of the park. They should be placed intelligently; to either provide localised rest points responding to key views, to collect street furniture together - avoiding clutter - or at key entrance points to incorporate signage, vehicle access restriction and to act as an orientation device. Mats should ‘play down’ to the particularities of their contexts, often responding orthogonally to their sites and maintaining signage strips perpendicular to the direction of travel.

As the park is delivered, it is anticipated that future design teams should visit and learn from the implementation of paving mats in earlier schemes, continuing a commonality throughout the Lea River Park which acts to connect its disparate parts.

Right: A section of the Leaway has already been delivered at Three Mills Green under the working title of the ‘Fatwalk’, here some of the initial mats can be visited to understand their aesthetic approach.


Danger
TREE MILLS
GREEN

HOW DO I KNOW I AM ON THE LEAWAY?

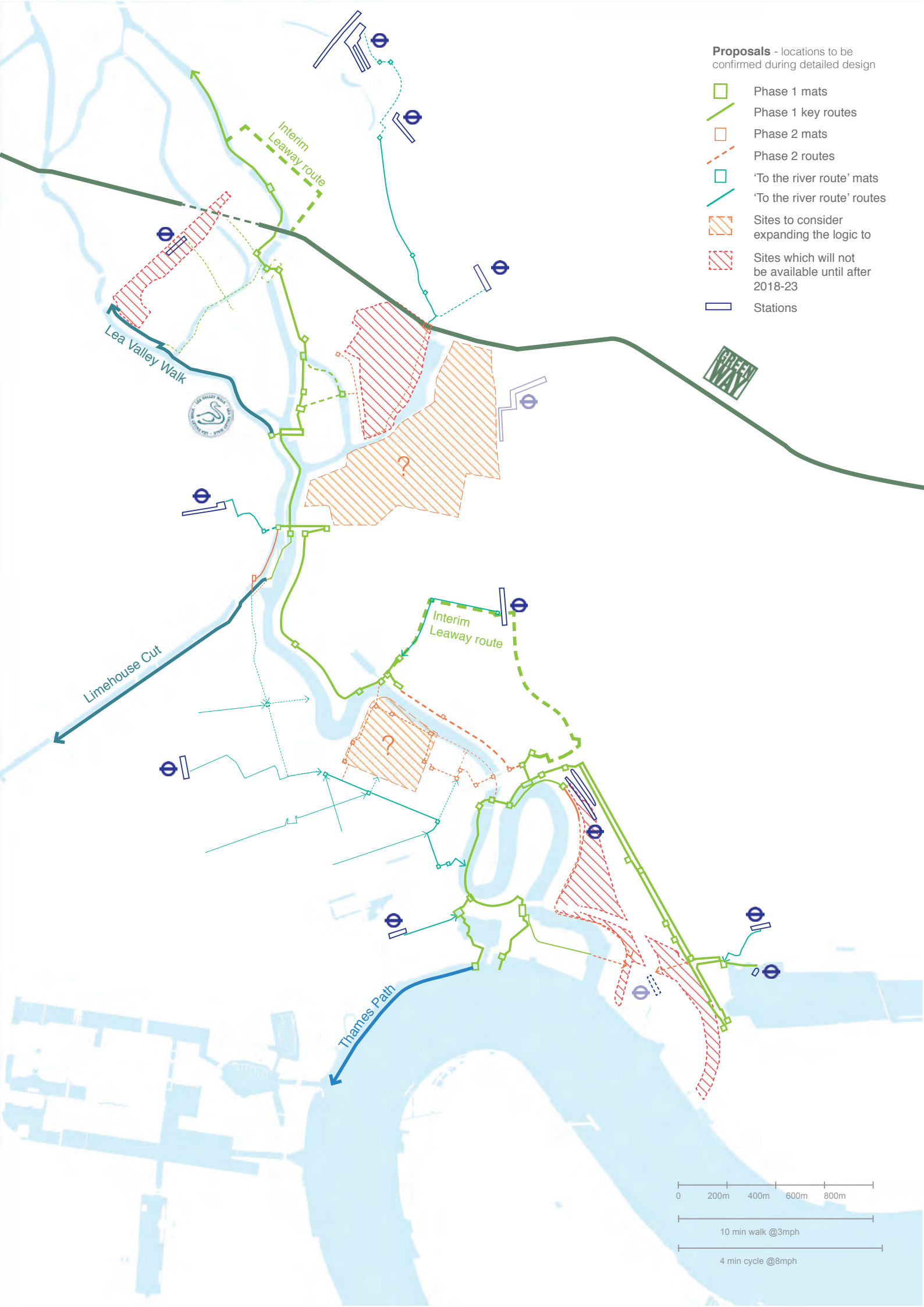
Instead of being used in an extensive and linear fashion new paving is used in a localised manner - creating a series of episodic way-markers - ‘paving mats’ which repeat along the length of the Leaway. The role of these mats would be similar to that previously imagined for the Fatwalk paving, albeit in a different physical form:

- Providing coherence and a distinctive and recognisable material identity for the Leaway. This could be achieved through material quality as well as ‘branding’ through imprinted words.

- Assisting with wayfinding. The mats would be located at key thresholds - where people join the Leaway, or have to make a decision about the direction in which to move.

Whilst providing an all important coherence along the length of the Leaway, the mats should recognise and respond to the particularity of their individual contexts. The Continuity Elements chapter established the anatomy of a paving mat, overleaf the principal of the design of these is fleshed out to explore how they might respond to the great range of locations down the valley.

Right: An indication of the deployment of paving mats throughout the developing Lea River Park and its approaches


Proposals - locations to be confirmed during detailed design
Phase 1 mats
Phase 1 key routes
Phase 2 mats
Phase 2 routes
'To the river route' mats
'To the river route' routes
Sites to consider expanding the logic to
Sites which will not be available until after 2018-23
Stations
Interim Leaway route
Lea Valley Walk
Limehouse Cut
Interim Leaway route
Thames Path
?
?
0
200m
400m
600m
800m
10 min walk @3mph
4 min cycle @8mph

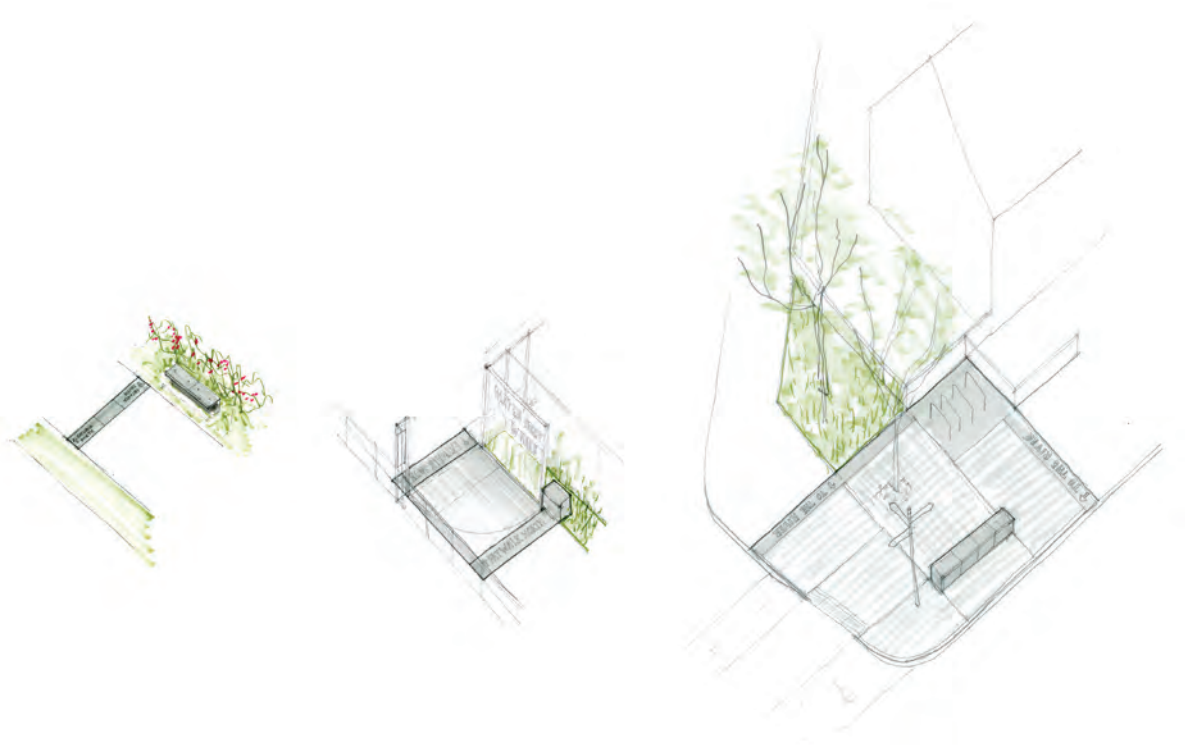
PAVING MATS - A RANGE OF SCALES

As the core of the park's broad context and a design strategy which is based on a reading of the landscape through a 'topography of difference', placing mats at key route decisions will inevitably lead to a range of scenarios for their deployment.

To orientate park users these mats will range in scale from an strip inlaid into existing surfaces, to larger 'three dimensional' mats which are incorporated into the retrofitting of city scale infrastructure.

The geometries of the paving mats should be simple and legible. Where possible, paving mats should be orthogonal and perpendicular to the direction of travel. Where site geometries are more complicated, paving mats should carefully rationalise these geometries rather that adding to the visual confusion.

Please see Appendix 3 for Worked Examples.



'INSET'

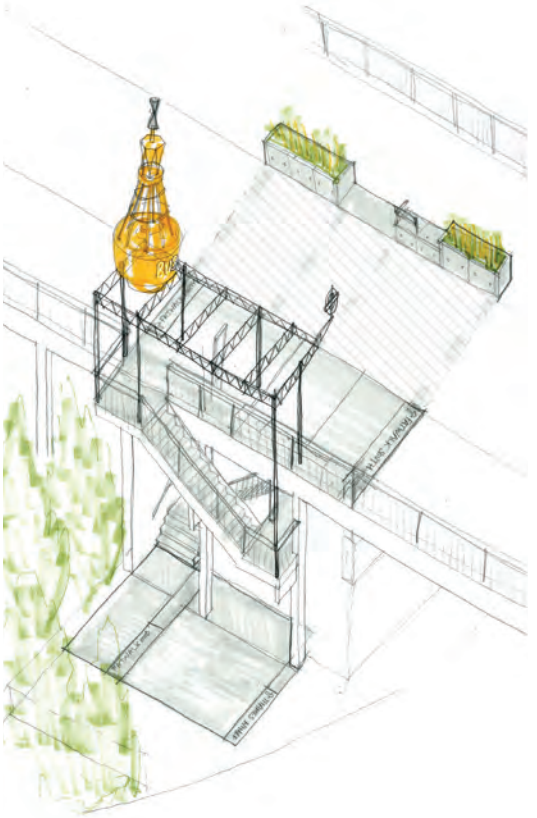
- Cody Wilds
- Isthmus
- Thames Path
- Short Wall

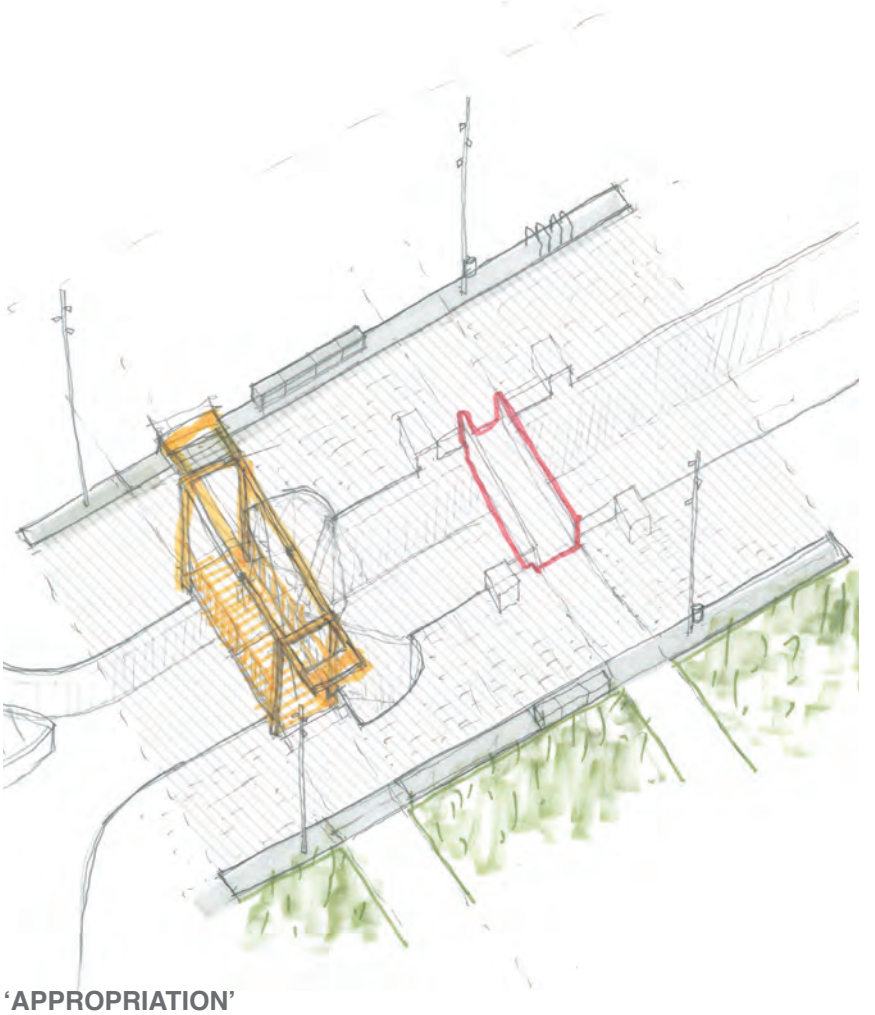
'THRESHOLD'

- Mayer Parry
- Poplar Reach Cable Bridge
- Crown Wharf

'ENTRANCE'

- Abbot Road
- Cody Road
- Star Lane
- Twelvetrees Crescent





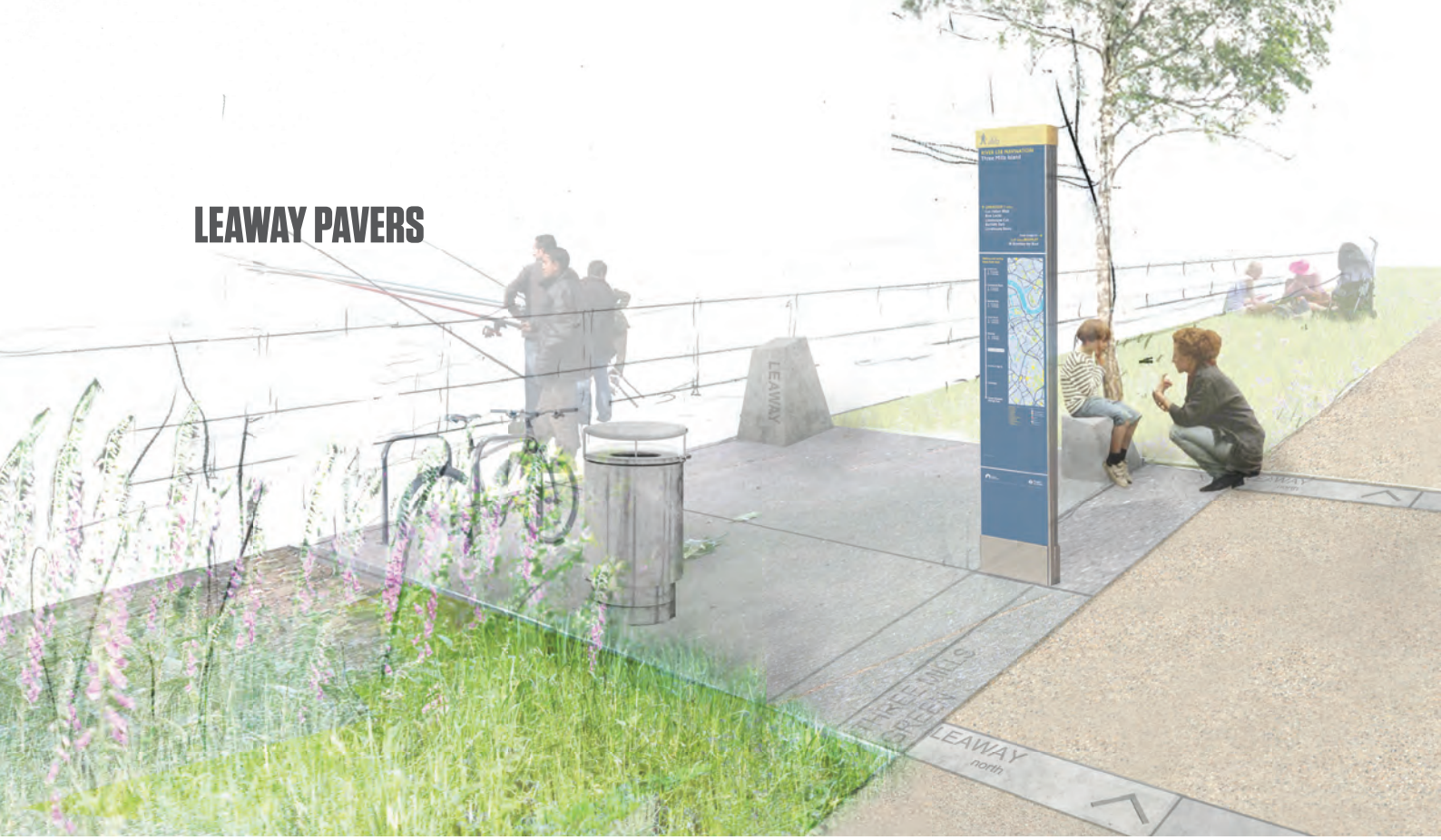
‘INTERCHANGE’

- A13
- Silvertown Viaduct
- Twelvetrees Crescent stair and ramp

‘APPROPRIATION’

- Cody Dock
- Bow Locks
- Three Mills
- East India Dock Basin

LEAWAY PAVERS



Key to the wayfinding strategy of the Lea River Park is the development of the bespoke Leaway paving slabs alongside the standardised Legible London products. As the Leaway route is sometimes potentially unclear, especially around existing infrastructure, these slabs provide a background level of reassurance to park users that they are following the correct route.

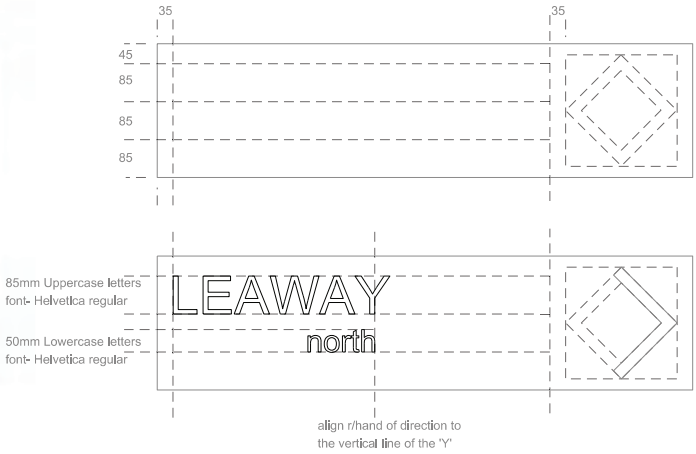
These custom paving slabs are designed to be easy to form, similar to methods used to fabricate Charcon's CG marker blocks. It is expected that the agreed designs will be made available to the project partners to ensure a continuity in what is signed and the agreed specifications.

The following is a draft specification for the bespoke precast concrete signage slabs;

- 300x1233mm, nominal thickness 75/150mm (to be confirmed by structural engineer to comply with expected vehicle loadings)
- Natural colour concrete, to a standard surface finish to provide required PTV value.
- Cast in lettering, 5mm deep, formed from laser cut acrylic or similar
- Lettering, Helvetica Regular, uppercase names 85mm high and cardinal directions in lowercase text 50mm high
- To be installed on an appropriate sub-base determined by the ground conditions and an assessment of the necessary vehicle traffic for either maintenance or emergency access.







Top: An early concept view of a paving mat, including signage strips which extend into the main pathway.

Above: Some examples of the custom pavers which have been developed for the Lea River Park.

PAVING MAT - 'INSET'

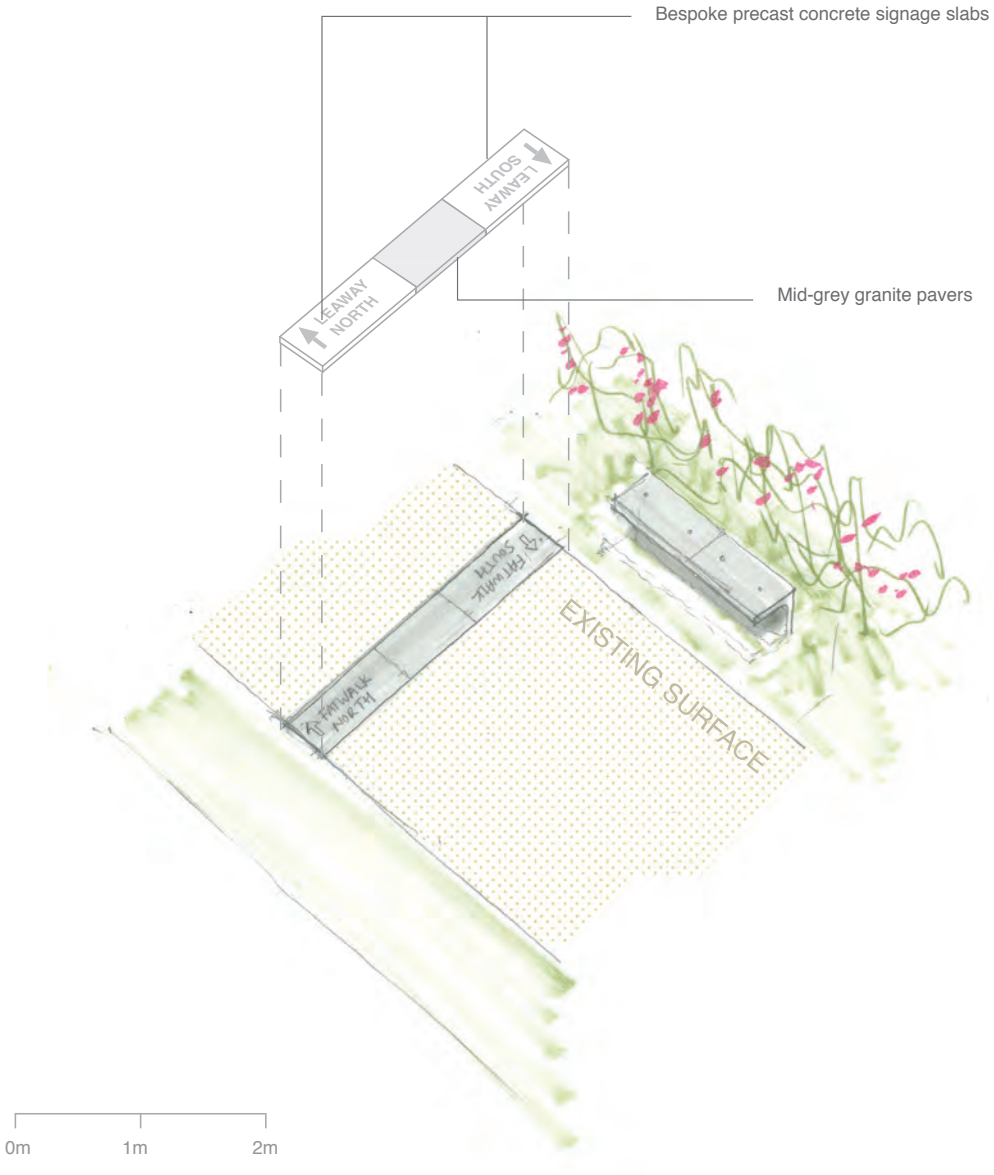
The simplest form of paving mats are inset strips of bespoke directional signage pavers and granite pavers. The custom pavers can be easily fitted into either new or existing surfaces providing park users with a reinforcement of the route of the Leaway and its direction.

This one of the most common examples of mats found within the park, showing how easily they can be retrofitted into the existing riverside walkways.

Examples of locations include,
- Cody Wilds
- Twelvetrees Crossing
- Thames Path
- Short Wall



Custom paver installed at Three Mills Green



PAVING MAT - 'THRESHOLD'

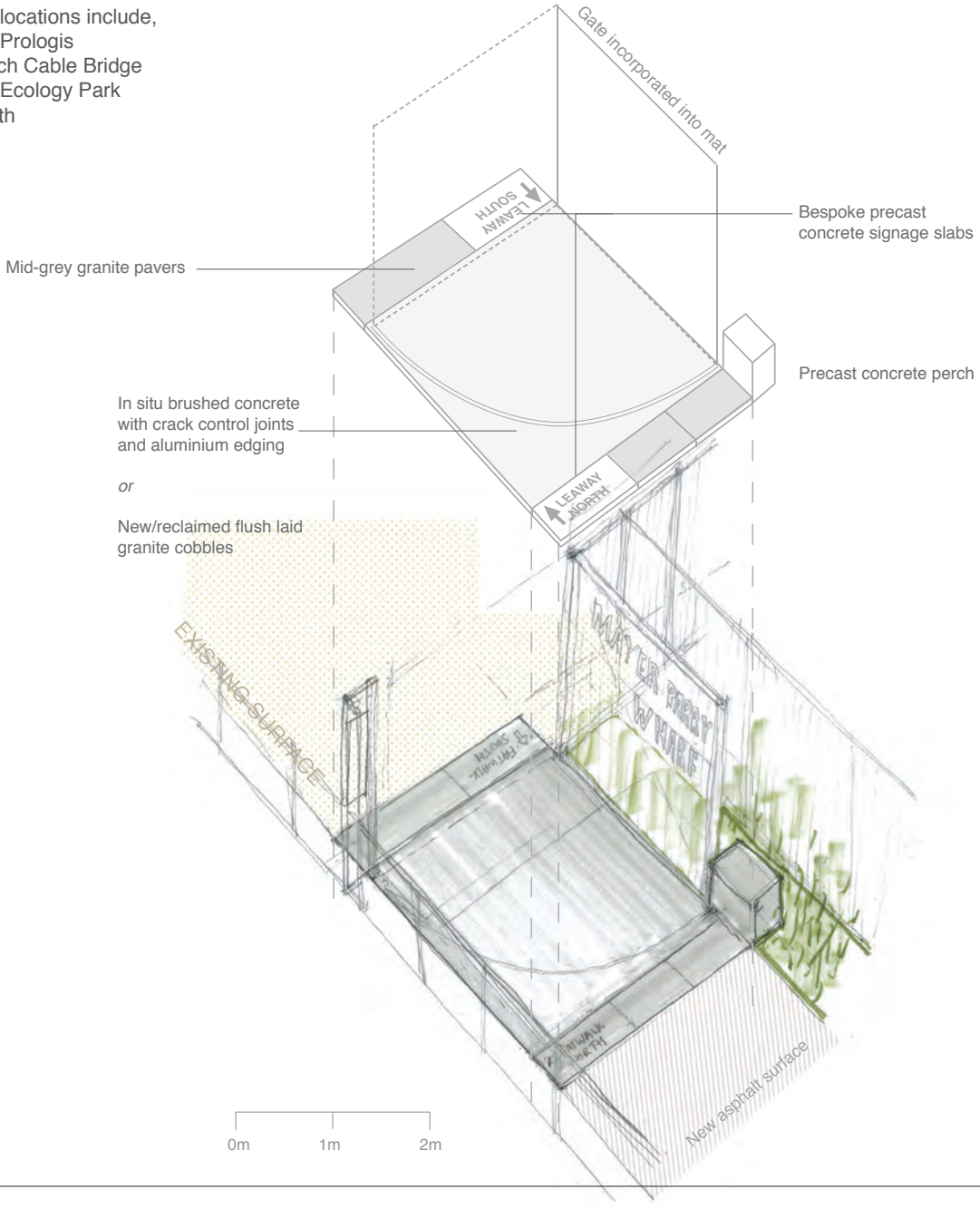
This paving mat variation will also be relatively common at junctions between differing site conditions along the Leaway. These will exist at junctions between new and appropriated route sections, mediating between new and old surfaces and where gates may need to be provided for security or to conform with landowners operational requirements.

The example below shows an early study for a paving mat at the threshold between Electra Wharf and the new Mayer Parry/Crown Wharf permissive route.

Here a gate might be incorporated, with its swing, drop bolts and stays. These threshold mats should aim to inform the route options, with this mat incorporating signage showing alternative routes in the exceptional circumstances when the wharf must be shut for the transfer of goods.

In detailing the mats consideration should be given to the presence of any underlying services. This might determine whether monolithic in situ concrete or small format paving (which can be lifted and relaid) is more appropriate.

Examples of locations include,
- Cody Dock/Prologis
- Poplar Reach Cable Bridge
- Bow Creek Ecology Park
- Thames Path



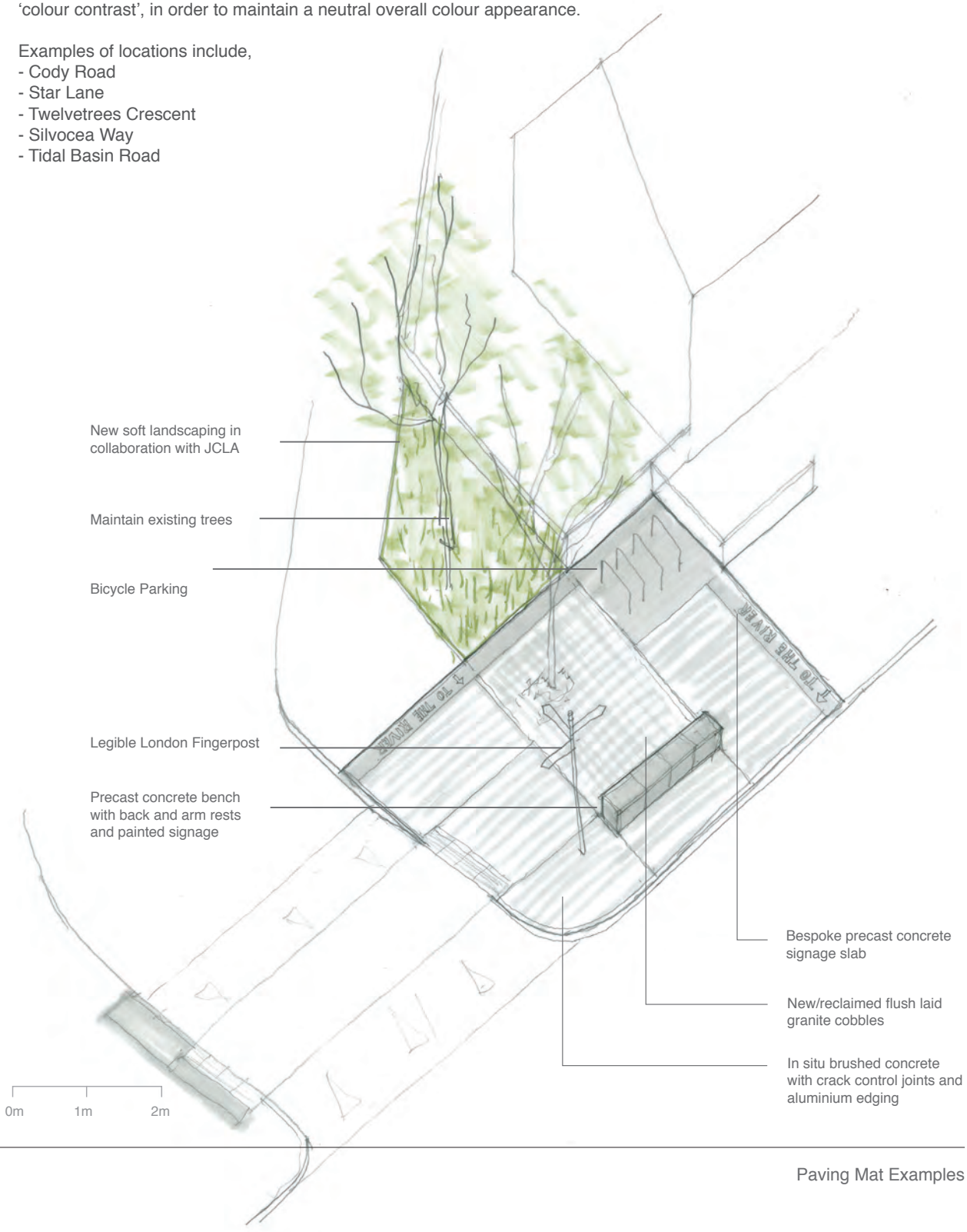
PAVING MAT - 'ENTRANCE'

This mat variation is expected to play the role of a 'welcome mat' at the entrances into the park from neighbouring communities. Their greater scale allows them to include additional elements such as wayfinding, benches, cycle parking or trees. Typically they will combine precast directional paving slabs and small module paving within areas of in situ brushed concrete

The example below shows an early study for a 'to the river' mat at the junction of Abbott Road and Dee Street.

Here an existing tree would be incorporated. When paving mats need to include tactile paving, the required visual contrast from its surroundings should be developed - where appropriate - through tonal contrast instead of 'colour contrast', in order to maintain a neutral overall colour appearance.

Examples of locations include,
- Cody Road
- Star Lane
- Twelvetrees Crescent
- Silvocea Way
- Tidal Basin Road

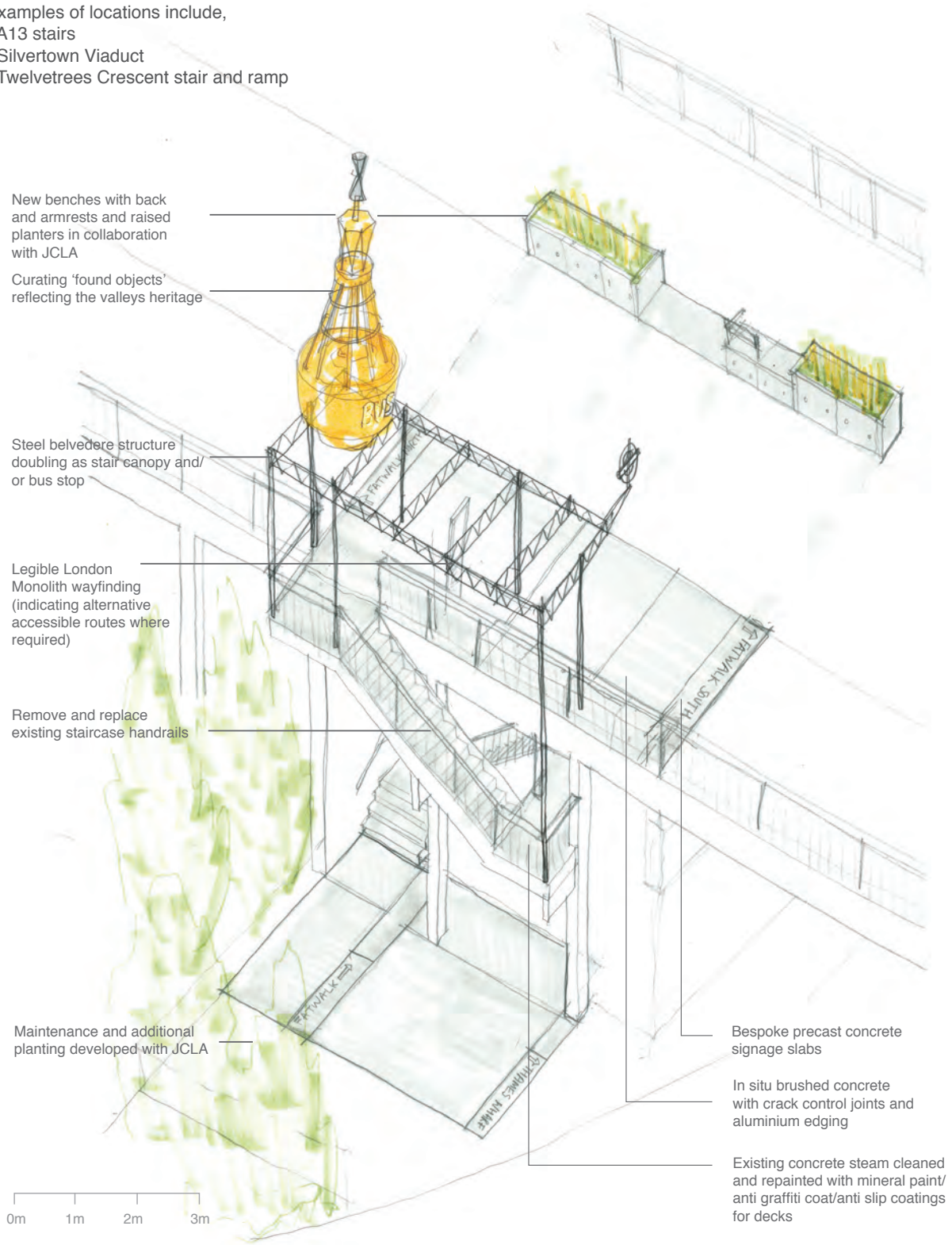


PAVING MAT - 'INTERCHANGE'

These paving mats exist at the key park entrances and around valley crossings where the continuation of the Leaway is made less legible by the infrastructure severances. In these scenarios it is likely that the opportunities will arise to tackle level changes and tie the park into existing route networks.

These mats should be highly visible and are expected to become more vertical, acting as gateways as well as offering benches, wayfinding and planting strategies

Examples of locations include,
- A13 stairs
- Silvertown Viaduct
- Twelvetrees Crescent stair and ramp



PAVING MAT - 'APPROPRIATION'

Located in larger park areas and in historic settings these mats co-opt existing surfaces and structures while incorporating park furniture such as benches, bins, lighting and cycle parking.

The approach illustrated below for Cody Dock comprises new linear mats either side of the dock entrance. These contain all of the new park furniture, preventing the cluttering of the heritage setting. The goal here is to frame a larger quayside area, supporting its development as an active node along the Leaway, from where several different routes can be taken or local attractions explored.

Examples of locations include,
- Cody Dock
- Bow Locks
- Three Mills
- East India Dock Basin

