

Thames Tideway Tunnel  
Thames Water Utilities Limited



# Application for Development Consent

Application Reference Number: WWO10001

## Design and Access Statement

Doc Ref: **7.04**

### Part 1

#### King George's Park

APFP Regulations 2009: Regulation **5(2)(g)**

Hard copy available in  
Box **69** Folder **A**  
January 2013

Thames  
Tideway Tunnel   
Creating a cleaner, healthier River Thames

This page is intentionally left blank

# Section 11

## King George's Park

This page is intentionally left blank

## 11.1 Introduction

11.1.1 A worksite is required to intercept the Frogmore Storm Relief – Buckhold Road CSO and to receive the Frogmore connection tunnel, which would be driven from Dormay Street. The proposed development site is known as King George's Park, which is located in the London Borough of Wandsworth.

11.1.2 We have agreed with the London Borough of Wandsworth that some elements of the detailed design proposals would be drawn up at a later stage. Therefore, the majority of the images and plans in this section are for illustrative purposes only. The proposed landscape design is indicative, except for the layout of the above-ground structures, which is illustrative.



Figure 11.1: Aerial photograph of the existing King George's Park site with LLAU indicated

### 11.2 Existing site context

11.2.1 The site itself comprises an area of land at the northern end of King George's Park, adjacent to the existing Buckhold Road entrance. The land comprises open grassland, public footpaths and scattered mature trees, including an avenue of flowering Cherry trees along the main footpath to the Buckhold Road entrance. The John Young memorial Oak tree and bench near the ornamental lake to the south are important features within the site.

11.2.2 The northern boundary of the site is characterised by low-level evergreen vegetation and includes an ornamental park gate with semi-circular railings at the Buckhold Road entrance. A large Red Oak tree stands in the northernmost part of the park adjacent to the Buckhold Road/Neville Gill Close junction. The site also includes part of an avenue of large London Plane trees and Black Poplars along the eastern boundary with Neville Gill Close. The eastern boundary is fenced with black-painted palisade-style metal railings. The site and the surrounding area are relatively flat and low lying, and are situated within the floodplain of the River Wandle.

11.2.3 King George's Park is designated as Metropolitan Open Land in the London Borough of Wandsworth's *Core Strategy 2010*. It is approximately 23ha in size and is classified as a 'district park' in the Greater London Authority's (GLA) *Open Space Hierarchy*.

11.2.4 King George's Park is also designated as a Site of Importance for Nature Conservation of grade 2 borough importance due to its assemblage of features of value and as an important wildlife corridor through the borough for notable species, including sparrows and bats.

11.2.5 There are no heritage designations or listed buildings on or adjacent to the site. The site is not subject to any tree preservation orders.

11.2.6 The site is bounded to the north by the Buckhold Road/Neville Gill Close junction. To the east it is bordered by Neville Gill Close, to the south by the ornamental lake and a dense area of mature trees within the park to the southwest. It is bounded to the west by Buckhold Road.

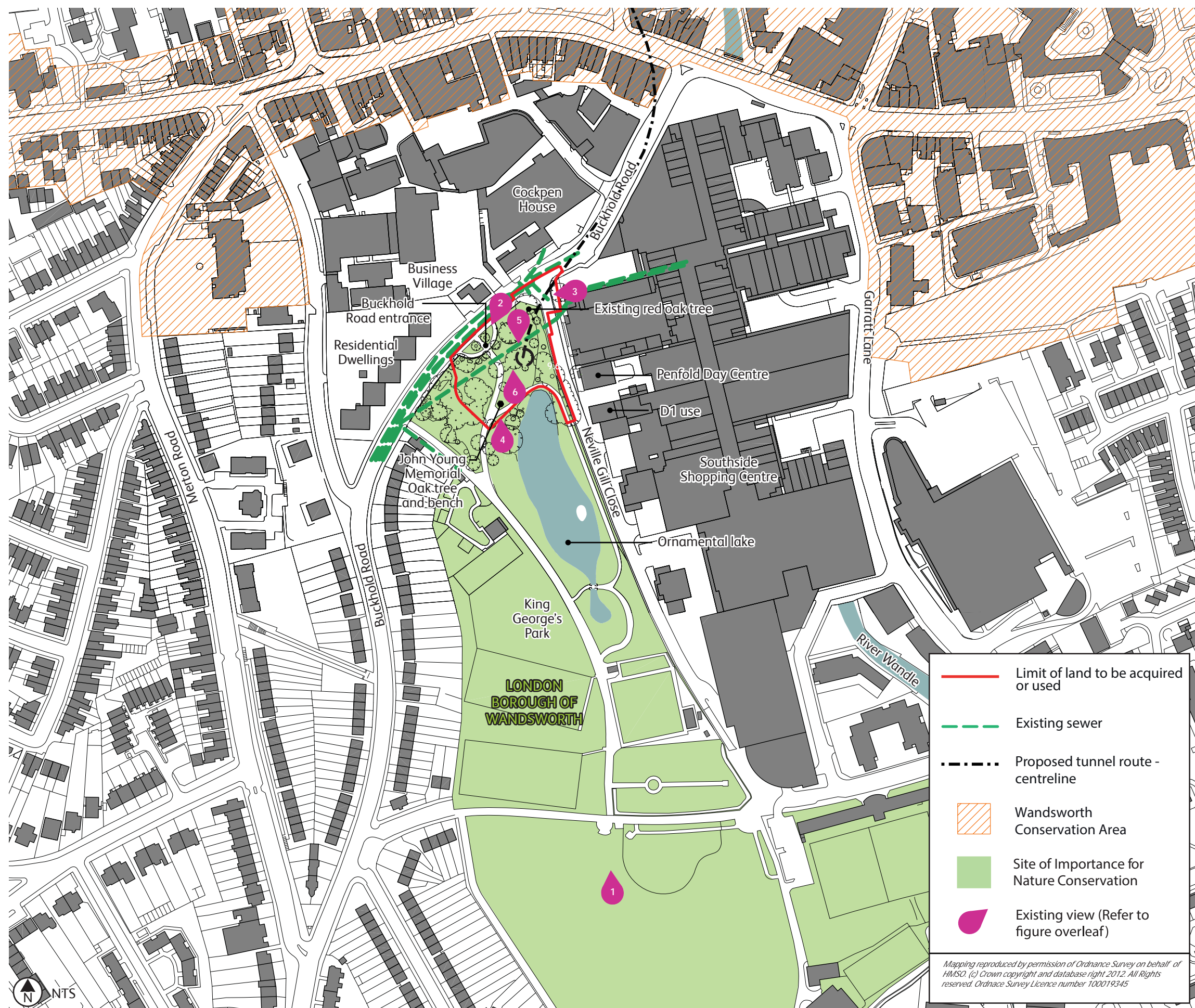


Figure 11.2: Existing site plan



Figure 11.3: Aerial view of King George's Park site



Figure 11.4: View of entrance area to King George's Park

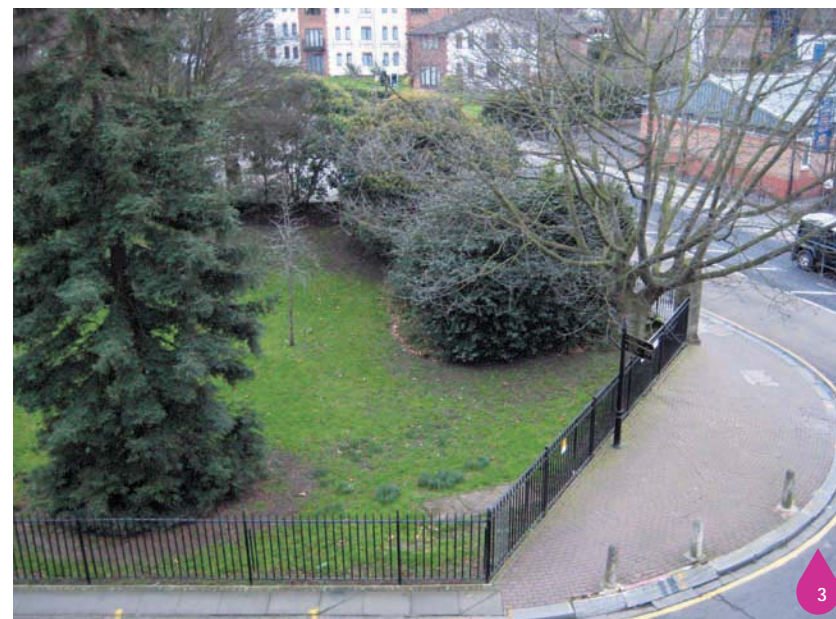


Figure 11.5: View at intersection of Buckhold Road and Neville Gill Close



Figure 11.6: View of the John Young memorial bench and tree



Figure 11.7: View south across the park and lake



Figure 11.8: View north across park towards the entrance gates

11.2.7 Immediately to the north of Buckhold Road is an Army Cadet Force voluntary youth organisation. The wider area to the north of the site across Buckhold Road was formerly dominated by commercial and retail uses. The Cockpen House and Business Village developments, which are currently under construction, will introduce residential uses. Both developments would be mixed-use and comprise buildings between four and sixteen storeys high. Wandsworth Town Conservation Area lies along Wandsworth High Street.

11.2.8 To the east, across Neville Gill Close, the land use is dominated by the Southside Shopping Centre, associated car parks and high-rise residential blocks. There are also various community facilities including the Penfold Day Centre and a currently vacant D1 use building (formerly an NHS clinic) to the southeast.

11.2.9 King George's Park continues to the south and southwest of the site. The park includes the ornamental lake, a children's playground, a council run children's centre (the One O'clock Centre), several tennis courts, a bowling green, an adventure playground, open areas and various sports pitches.

11.2.10 Beyond the area of dense mature trees to the southwest of the site, the park is bordered by two-storey terraced properties with large rear gardens on Buckhold Road.

11.2.11 The area to the west is residential and three-storey residential blocks line the far side of Buckhold Road.

Existing site access and movement

11.2.12 The site is fully publicly accessible via various pedestrian entrances to the park, including the entrances from Buckhold Road and Neville Gill Close.

11.2.13 There are vehicular accesses, normally used by council vehicles, via other entrances off the surrounding roads.

Highways

11.2.14 Buckhold Road (A218) is a single lane carriageway running northeast-southwest with a speed limit of 30mph. To the northeast of the site, it joins Wandsworth High Street (A3), which forms part of the Transport for London Road Network and a section of the Wandsworth Gyratory. To the southeast, it connects to Merton Road, which continues south towards the Wimbledon area.

11.2.15 Neville Gill Close is a two-way no through road with a speed limit of 30mph. It connects with Buckhold Road to the north as a minor arm at a priority junction.

Car parking

11.2.16 On-street parking bays are available for Blue Badge holders on the eastern side of Neville Gill Close.

11.2.17 There are three car parks near King George's Park: the Traders Hall multi-storey on Buckhold Road is accessible via Neville Gill Close, the Southside Shopping Centre multi-storey is less than 300m from the site on Mapleton Crescent, and the Sainsbury's car park on Garratt Lane is within 600m of the entrance to the park.

11.2.18 There is also a Zipcar car club parking space approximately 180m from the site in the Southside Shopping Centre car park.

Public transport

11.2.19 The nearest London Underground Station is East Putney, which is approximately 1.5km to the west of the site. It is accessible by buses that run along Wandsworth High Street approximately 200m to the northeast of the site.

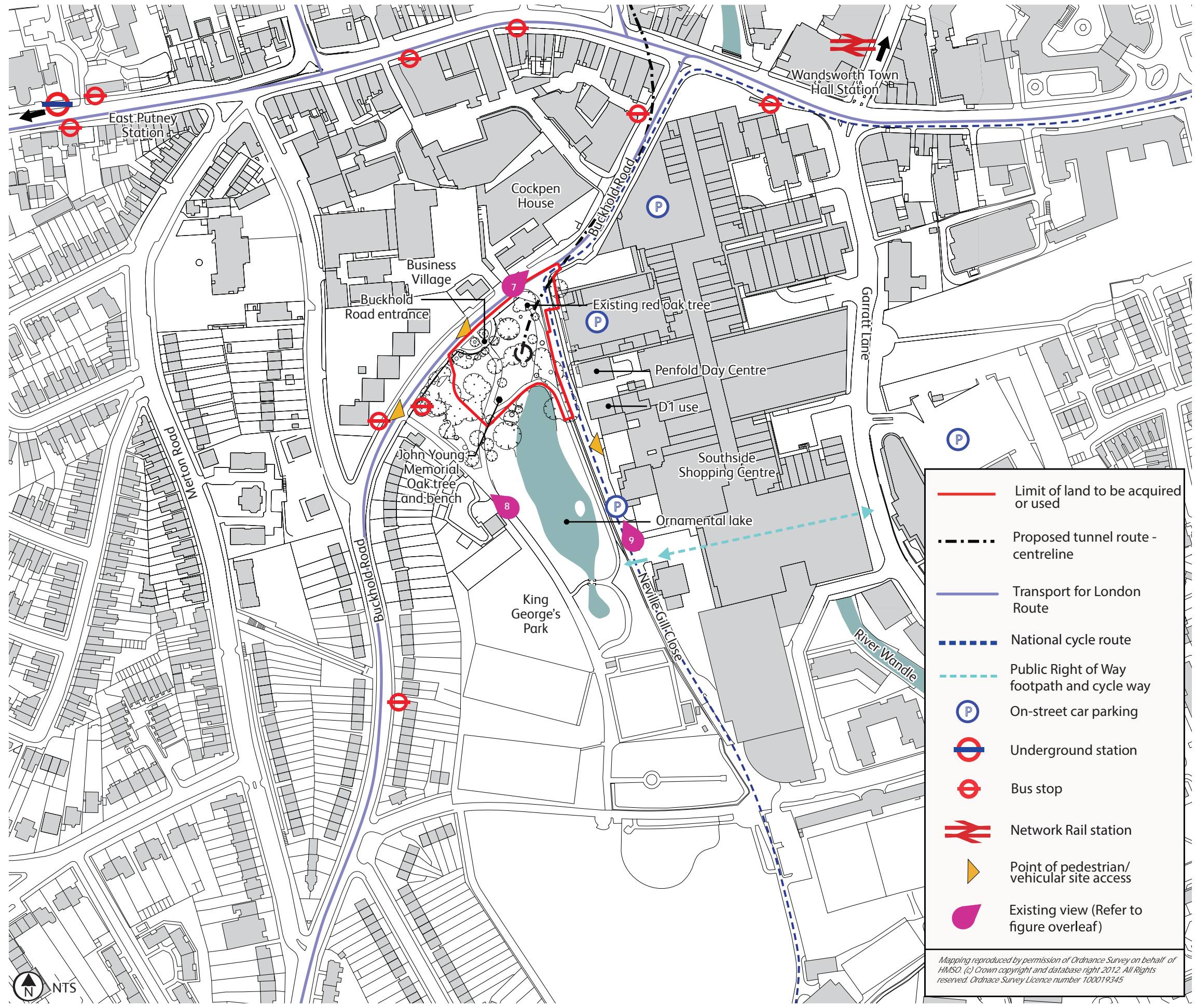


Figure 11.9: Existing site analysis

Mapping reproduced by permission of Ordnance Survey on behalf of HMISO. (c) Crown copyright and database right 2012. All Rights reserved. Ordnance Survey Licence number 100019345



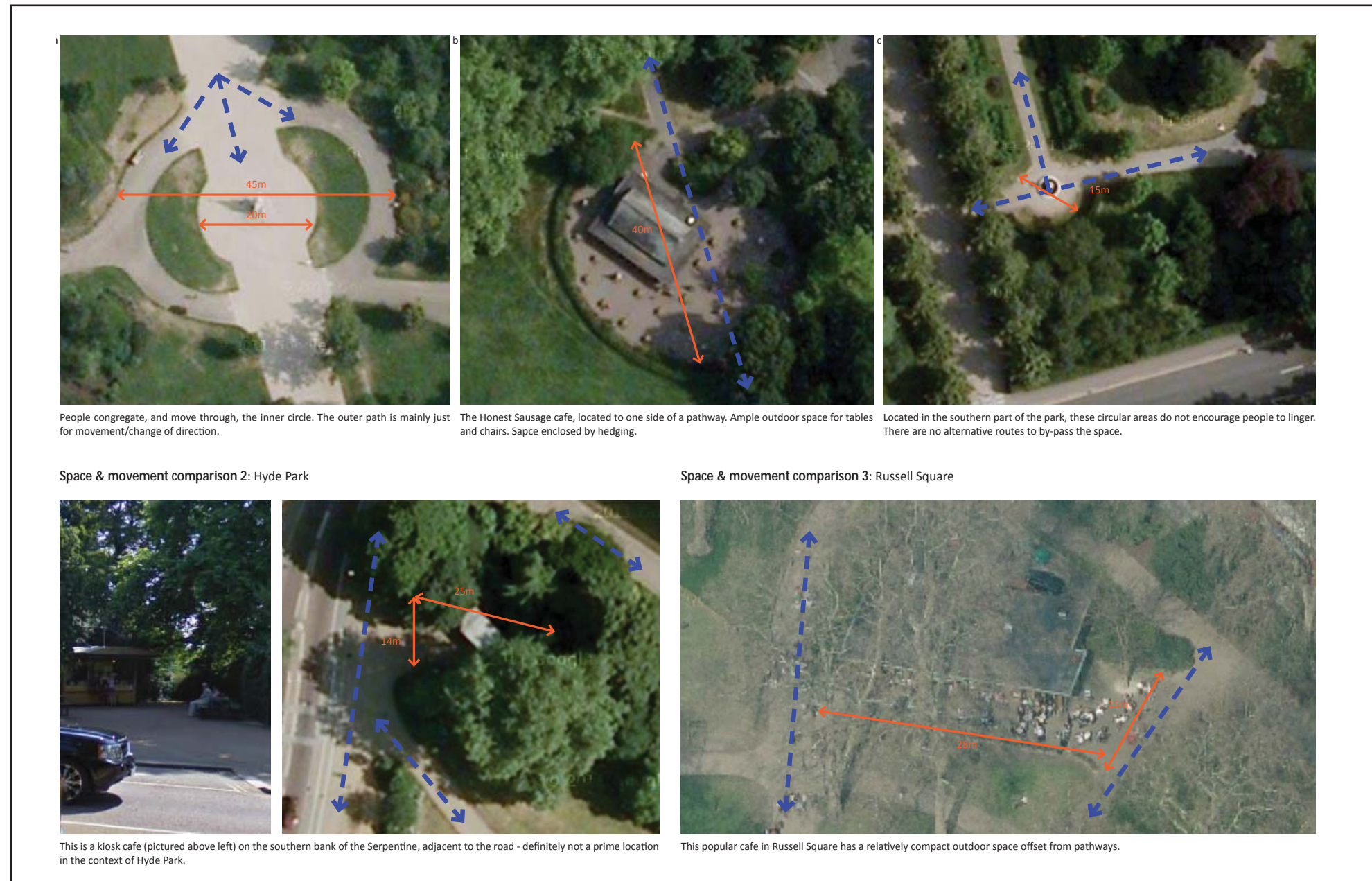


Figure 11.10: Extract from space analysis study



Figure 11.11: View east along Buckhold Road from the end of Neville Gill Close



Figure 11.12: View north of the entrance to the north west corner of the park



Figure 11.13: View north along Neville Gill Close

11.2.20 Wandsworth Town Rail Station is located approximately 1.3km to the northeast of the site and services Waterloo Station and Staines.

11.2.21 Thirteen daytime buses and three night bus routes operate within 640m of the site.

### Cycle routes

11.2.22 The main cycle routes in the area are National Cycle Network Route 20 from Crawley to Brighton and Route 4 from London to Fishguard, which runs along Neville Gill Close and continues north along Buckhold Road and east along Wandsworth High Street.

11.2.23 The closest Cycle Superhighway to the site is CS8, which runs between Ram Street and Millbank.

### Pedestrian routes

11.2.24 There are pedestrian entrances to the park off both Buckhold Road and Neville Gill Close. Two footpaths, including a permissive right of way, pass through the site itself.

11.2.25 There is also a pedestrian link from the park to the Southside Shopping Centre and Garratt Lane via Neville Gill Close.

Historical context

11.2.26 The site is located approximately 200m to the west of the current course of the River Wandle, on the western edge of its floodplain. The edge of the Kempton Park river terrace gravels, which form the side of the river valley, lies approximately 30m to the east. The River Wandle is one of the oldest rivers in the Thames system, and would have attracted prehistoric hunters, foragers and settlers (700,000 BC to AD 43).

11.2.27 In the Roman period (AD 43 to 410), the site comprised marshland that was unsuitable for settlement, but it may have been exploited for a number of resources and as grazing land. Wandsworth High Street, 250m to the northeast of the site, may have originally followed the line of an east-west Roman road from South London into Surrey. The crossing at the River Wandle probably attracted settlement and other activity.

11.2.28 The site remained marshy pastureland throughout the medieval period (AD 410 to 1485). The closest main settlement was Wandsworth, which grew up as a roadside settlement along the east-west road, beside the medieval church and the bridge over the River Wandle, approximately 200m to the northeast of the site. There is little recorded evidence of later medieval activity in the immediate vicinity of the site.

11.2.29 During the post-medieval period (AD 1485 to the present day), the site remained outside the Wandsworth settlement, probably on reclaimed land beside the River Wandle, the course of which was altered throughout this, and earlier, periods. The main channel became, in effect, a succession of level pools between mills. It remained a focus for many types of manufacturing and industrial processes, which characterised much of the development of Wandsworth throughout the post-medieval period.

11.2.30 In the 16th century, dye works were established along the River Wandle, and the area diversified in the 17th century with the production and/or processing of iron, gunpowder, leather, linen and copper.

11.2.31 At the start of the 19th century, the Surrey Iron Railway – the first public horse-drawn railway independent of a canal – was constructed 190m to the east of the site. The formerly open land of the site now accommodated a band of trees and an open drainage culvert that crossed the centre of the site on a northeast-southwest alignment. King George's Park, originally named Southfields Park, was laid out between 1921 and 1923 by Stephen Percival (Percy) Cane (1881 to 1976) and was opened by King George V in 1923. The northern section of the park featured a Victorian-style sunken garden.

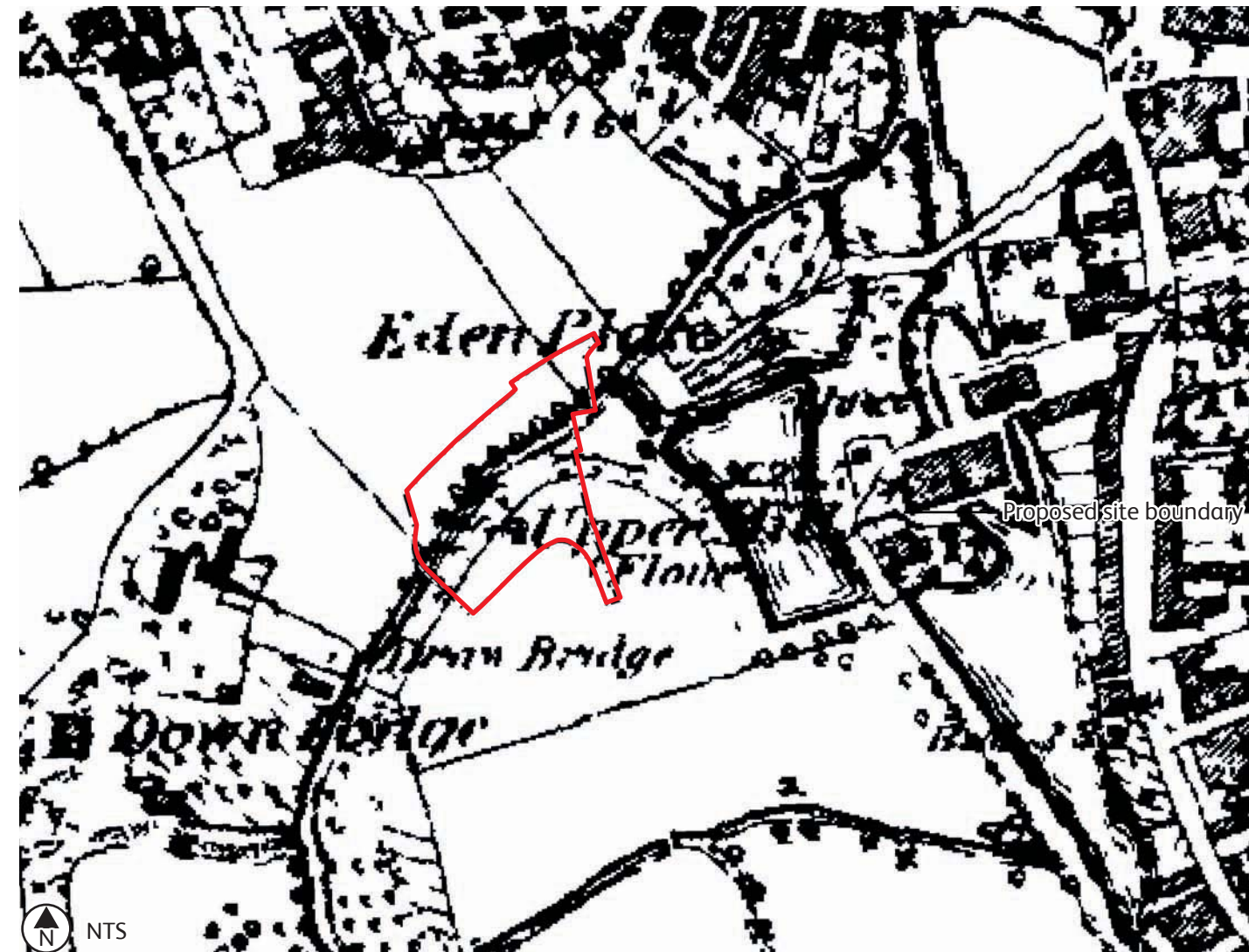


Figure 11.14: Historical map from 1874

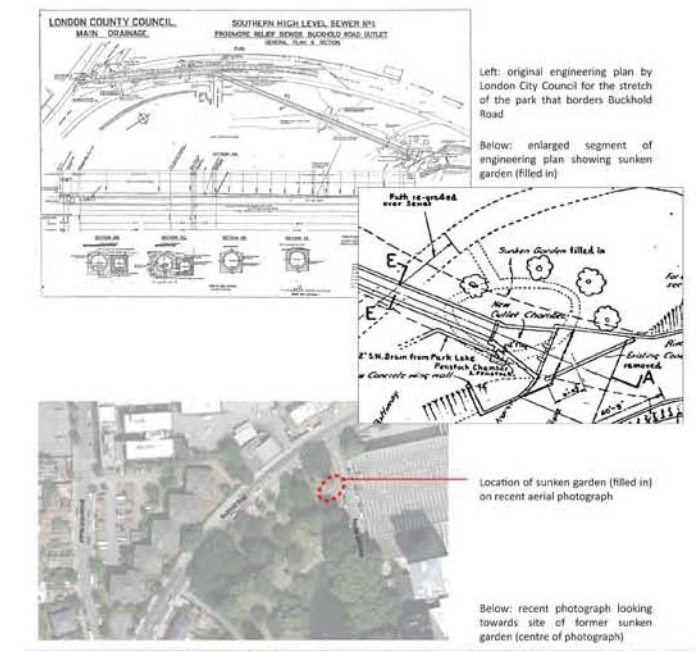


Figure 11.15: Historical context diagrams

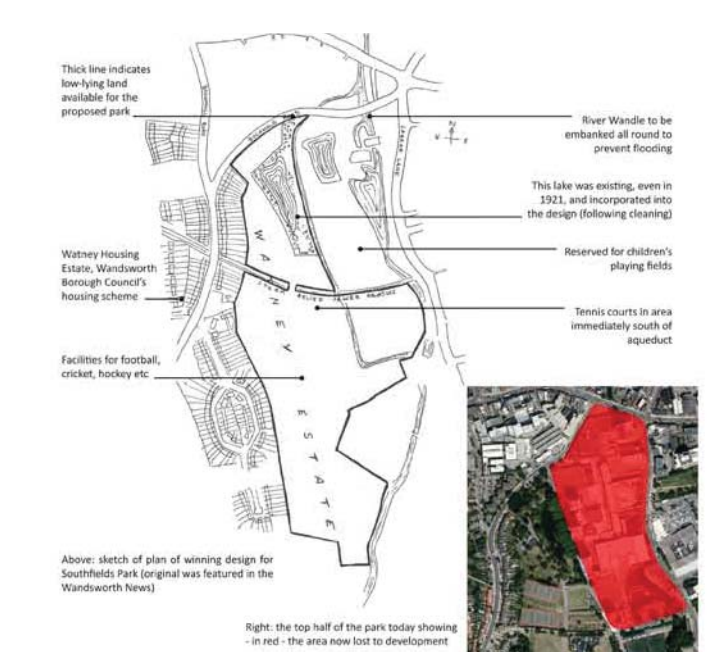


Figure 11.16: Historical context diagrams

Site analysis: Opportunities and constraints

The site-specific design opportunities included:

- a. Enhance the relationship between the park and the surroundings.
- b. Improve movement through the park.
- c. Enhance the setting of the park.
- d. Introduce a new character area to the park with the potential for new activities.

The site-specific design constraints included:

- a. the need to minimise any loss of use of the park
- b. the shallow depth of the Frogmore Storm Relief – Buckhold Road CSO, which protrudes above ground level
- c. the need to protect the historic ornamental gates on Buckhold Road
- d. the need to protect the John Young memorial Oak tree and bench
- e. flood risk associated with the fluvial floodplain of the River Wandle
- f. a proposed National Grid cable that will run beneath the park
- g. the need to maintain the quality and character of the park
- h. the need to protect mature trees and associated roots, particularly the Black Poplars and the Red Oak.



Figure 11.17: Existing site opportunities and constraints sketch

This page is intentionally left blank

### 11.3 Design evolution and alternatives

11.3.1 As the majority of the infrastructure for the project would be below ground, the key design objective for the permanent above-ground works was to integrate the functional components into the surroundings. The site-specific design objective at King George's Park was to successfully integrate the permanent works into the park. We also sought to enhance the park and introduce a new character area with the potential for new activities and ways of enjoying the park.

11.3.2 The design of our proposals at King George's Park was also significantly influenced by an extensive process of stakeholder engagement and design review. In order to ensure design quality, we undertook two rounds of review hosted by the Design Council CABE. We also held various pre-application meetings with the London Borough of Wandsworth and other strategic stakeholders. More information on our public consultation process is provided in the *Consultation Report*, which accompanies the application.

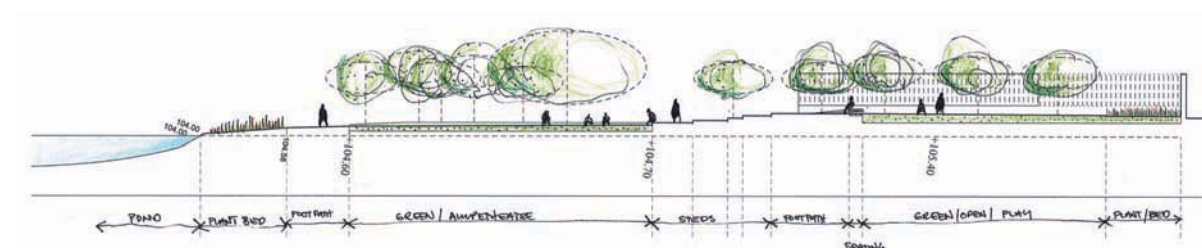


Figure 11.18: Design development sketches

October 2010

## Phase one consultation

11.3.3 King George's Park was presented as our preferred site at phase one consultation because it would enable us to intercept the Frogmore Storm Relief – Buckhold Road CSO directly. The site is also further away from residential properties than the other site considered and would avoid the need for significant works in Broomhill Road and Buckhold Road. Although the use of this site would mean the temporary loss of a section of King George's Park, the vast majority of the park would remain available for use.

11.3.4 At phase one consultation, we proposed to position the CSO drop shaft close to the Buckhold Road entrance on the northern side of the CSO. We proposed to incorporate a ventilation column approximately 10m high and 1m in diameter into a single structure with an electrical and control kiosk. We suggested that the structure could be integrated into a café or a park information stand. We proposed to include areas of hardstanding around these structures to enable maintenance vehicle access. The remainder of the site would be reinstated to the existing parkland.



Figure 11.19: Phase one consultation

## Design development

11.3.5 We received feedback from the London Borough of Wandsworth, the GLA, English Heritage and members of the public and the key concerns included:

- the proximity and potential impact of the proposed works on the historic ornamental gates on Buckhold Road
- the permanent maintenance access; the feedback included a suggestion that the access should be from Neville Gill Close rather than Buckhold Road.

11.3.6 Following phase one consultation, we moved the location of the CSO drop shaft and permanent above-ground structures eastwards. We increased the diameter of the shaft from 7m to approximately 9m, due to revised project-wide hydraulic requirements.

April 2011

## CABE sketch review

11.3.7 We held a sketch review based on our initial site assessment and sketched ideas for the site with the Design Council CABE in April 2011.

11.3.8 Our proposals indicated a raised area of hardstanding above the CSO drop shaft and introduced level changes within the wider landscape scheme on account of the shallow depth of the CSO. We also proposed to finish the area of hardstanding as a multifunctional area of public space within the landscaping scheme. We proposed to use the level changes to create steps or seating, and tables and other seating could be incorporated on top of the hardstanding. We included a ramp to the southwest of the multifunctional space in order to facilitate inclusive access to this part of the park. We also included a new pedestrian path to the south of the hardstanding.

11.3.9 We proposed to position a separate ventilation column on the multifunctional space, and reduced it from approximately 10m to approximately 6m high in response to modified project-wide air management proposals. A combined ventilation structure and electrical and control kiosk would be positioned on the boundary with Neville Gill Close, which could potentially be integrated into a café. The permanent maintenance access was now proposed via a sliding gate on Neville Gill Close.

11.3.10 The Design Council CABE panel commented that the project would provide an ideal opportunity to broaden the appeal of this well-loved local amenity and would give something back to the community. It also commented that the proposals showed promise but should be underpinned by a stronger narrative. It suggested that the multifunctional space in the park could draw on the character of the setting, support movement through the area and meet the needs of park users.

11.3.11 The panel asked how the proposals could contribute to the wider use of the park by the community. It suggested a more attractive use for the site to take advantage of the extensive proposed area of hardstanding. It also recommended that the site should be adaptable to enable the character of the space to evolve and accommodate informal activities.

11.3.12 The panel agreed that a café use could be appropriate but advised against a permanent installation unless a strong business case could be demonstrated. The panel also noted an opportunity to be inventive with the design of the permanent above-ground structures to help create a memorable place, with features that link to the wider story of the project.

11.3.13 The panel recommended that the design team should give thought to the tranquil area around the ornamental lake and consider acoustic buffers/banks and the prevailing wind and orientation. It also suggested analysing pedestrian movement patterns in the surrounding area.

11.3.14 Finally, the panel recommended engaging with the local authority early in the process in order to establish a management and maintenance strategy.



Figure 11.20: Design Council CABE sketch review

June 2011

CABE scheme review

11.3.15 We presented a more detailed scheme that incorporated the Design Council CABE's suggestions at a subsequent review in June 2011. There were no significant modifications to the design of the engineering components at this stage.

11.3.16 We proposed to include space for a mobile café, a new path to link the Buckhold Road entrance to the eastern side of the ornamental lake and a brickwork ventilation structure to match the Buckhold Road entrance that included a brown roof. We also proposed mature tree planting, a timber seating area with vistas over the park, and a sliding gate matching the existing fence for the permanent maintenance access off Neville Gill Close.

11.3.17 The panel commented that the presentation gave a good sense of how the project would create a new space within the park that would draw on the character of the setting, support movement through the area, and meet the needs of park users.

11.3.18 The panel suggested that "a sloping platform that is adaptable in use [Letter dated 27 June 2011]" that could accommodate informal activities and local events could be a valuable addition to the park's facilities. It also suggested considering bold solutions for incorporating access ramps.

11.3.19 The panel welcomed the concept of a mobile café; however, it noted the need to be inventive in order to create a memorable place. It suggested that the proposals should show an appreciation for the park's special landscape qualities and integrity, including the mature trees in the vicinity. The panel also suggested relocating the park entrance to the corner of Buckhold Road and Neville Gill Close.



Figure 11.21: Design Council CABE scheme review

February 2012

Phase two consultation

11.3.20 The design presented at phase two consultation was similar to the scheme review design.

11.3.21 The London Borough of Wandsworth was supportive of the proposal to include a biodiverse roof on the ventilation structure but commented that the designs should include "more adequate" landscaping and planting.

11.3.22 The London Borough of Wandsworth, supported by the GLA and the Design Council CABE, commented that the main Buckhold Road entrance to the park should be relocated and that the existing hard-paved, recessed entrance should be grassed over and partially planted to compensate for land taken for the permanent works. Both the GLA and the Design Council CABE commented that the historic gates and railings should be protected, preserved and re-used elsewhere in the park. Finally, the GLA commented that the number of ventilation columns should be reduced.

11.3.23 The Environment Agency commented that the area of hardstanding was too large and should be reduced as much as possible. Both the Environment Agency and the London Borough of Wandsworth noted that compensatory flood storage may be required elsewhere in the park.

11.3.24 The main concerns raised by members of public in relation to the permanent design included that the permanent structures were too large and too close to residential properties.



Figure 11.22: Phase two consultation

Section 48 publicity

11.3.25 Following phase two consultation, we continued to liaise with representatives of the London Borough of Wandsworth to develop the design and design principles for the site in order to accommodate their aspirations for the area. We also considered the council's *Area Spatial Strategy* for Central Wandsworth, published in the *Site Specific Allocations Document* (February 2012) and liaised with the Environment Agency to develop a suitable flood risk mitigation strategy for the site.

11.3.26 In response to phase two consultation and further design development, we made the following design changes:

- a. incorporating additional specimen trees to improve the setting of the permanent works
- b. providing a new entrance to the park at the junction of Buckhold Road and Neville Gill Close through the proposed public space
- c. retaining and protecting the Red Oak tree and incorporating it into the new entrance
- d. removing the existing Buckhold Road entrance and the associated area of hardstanding
- e. relocating the ornamental gates elsewhere in the park
- f. creating a depression in the landscape adjacent to the multifunctional space in order to mitigate project impacts on upstream flood risk.



Figure 11.23: Section 48 publicity

This page is intentionally left blank



### 11.4 Proposed design

11.4.1 This section describes the amount, layout and scale of the proposed development and how the functional components would be integrated into the existing site. Details of the proposed landscaping and appearance of the site are also embedded in the description where relevant.

#### Fixed principles

11.4.2 The Site works parameter plan defines the zones in which the proposed works would take place. The plan indicates the general location of the CSO drop shaft, the integrated electrical and control kiosk and ventilation structure, and the ventilation columns.

11.4.3 The site-specific design principles are included in the *Design Principles* document which accompanies this application. These principles establish the parameters for the above ground structures and landscaping on the site and have, where possible, been developed in consultation with the local authority. The site-specific principles should be read in conjunction with the project-wide design principles.

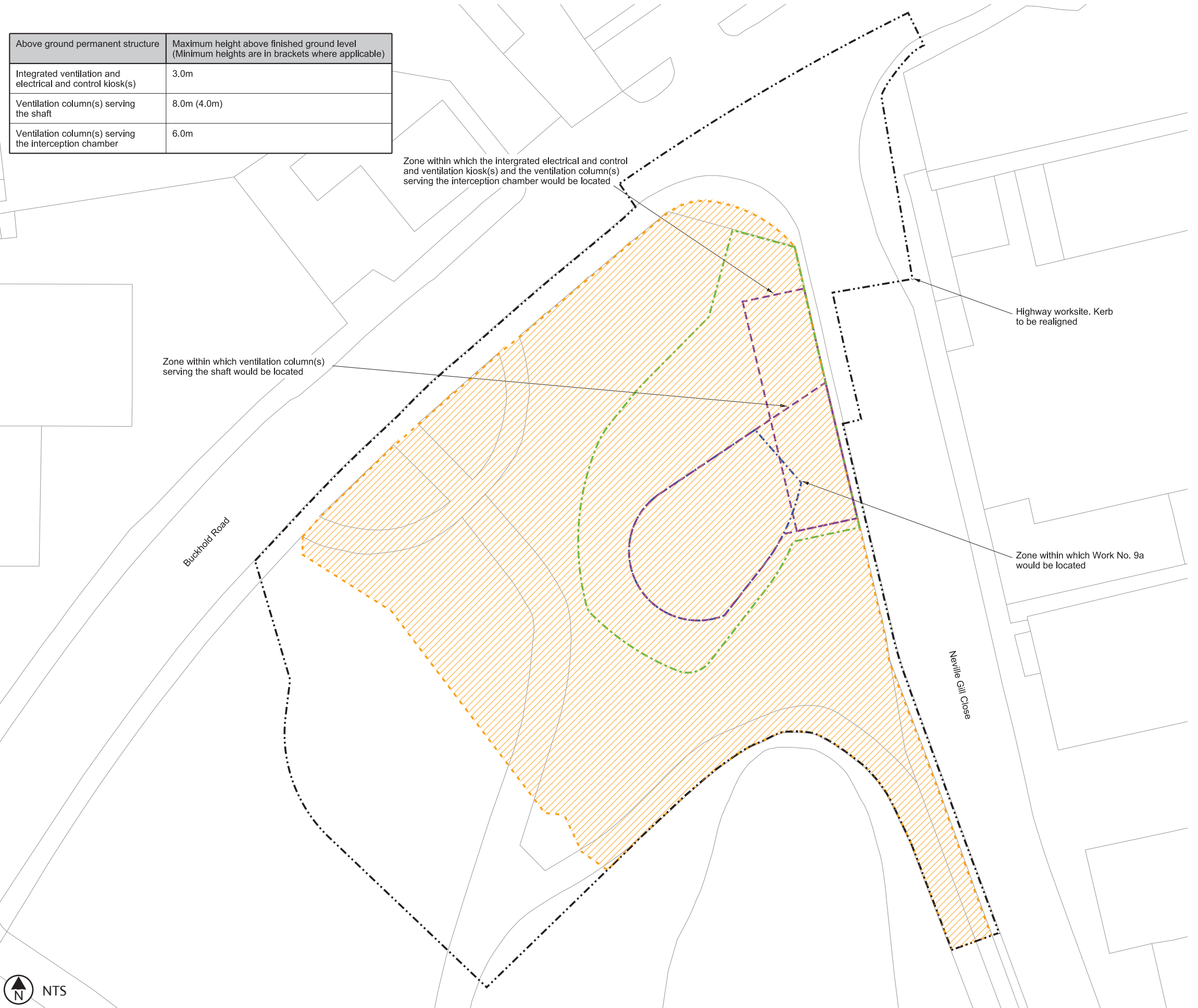


Figure 11.24: Site works parameter plan - refer to Site works parameter plan in the *Book of Plans*

## Design objectives

11.4.4 The main driver behind the development of the indicative designs was to explore ways in which to reinstate and improve the designated area of public open space. We had regard to the designations and associated policies to which the site is subject. The London Borough of Wandsworth's *Development Management Policies Document (DMPD) Policy DMO1* and *Unitary Development Plan Saved Policy ON4* seek to protect Metropolitan Open Land and general design policies such as *Core Strategy Policy IS3* and *DMPD Policy DMS1* promote good quality design and townscape. Our other objectives included:

- Enhance the existing setting of the park by creating a new main pedestrian entrance to link to the Cockpen House and Business Village development. This development will also connect to Wandsworth High Street, which would enable a direct link between the high street and the new entrance.
- Create a multifunctional public space with its own sense of place and character. This would provide a transition between the street and the park and provide opportunities for different activities throughout the year.
- Use the slightly elevated nature of the multifunctional space to maximise views to the south over the ornamental lake to the rest of the park.
- Provide semi-mature tree and shrub/perennial planting to partially screen and obscure surrounding car parks and passing traffic while also enabling 'glimpsed' views into the park.

e. Create a sense of ownership, enclosure and safety by ensuring high levels of pedestrian footfall and encouraging people to spend time in the space in order to provide a level of 'natural surveillance'.

f. Reconfigure pedestrian routes to respond to north-south desire lines through the park and integrate the multifunctional space into the wider network of footpaths in the park.

g. Respect the original design and integrity of the park in a contemporary manner.

h. Bring this under-used part of the park back to life by giving it meaning and coherence within the wider layout of the park.

## Use and programme

11.4.5 The flexible multifunctional space in King George's Park would be able to accommodate various uses. Its position at the new entrance and the presence of large areas of seating would make it an ideal meeting point. Potable water and power connections would be installed to enable provision of a mobile food stand or café by others.

11.4.6 The south-facing space would be accessible to people of all ages and pleasant to use all year round.



Figure 11.25: Aerial view of site proposal

## Detailed description

11.4.7 The project works at this site would involve the reconfiguration of the northeastern corner of King George's Park. The main character areas of the landscape design include the 'new entrance area', the 'perimeter planting zone', the 'multifunctional space', the 'sunken garden' and the 'lakeside area'.

### New entrance area

11.4.8 At phase two consultation, the London Borough of Wandsworth asked us to move the existing main Buckhold Road entrance to the northeastern corner of the park at the junction of Neville Gill Close and Buckhold Road. This was primarily so that it could link to the areas of public realm proposed for the new Business Village development. This suggestion had a number of additional benefits in line with our design objectives for the site. In particular, it would promote the use of this corner of the park and increase pedestrian traffic and surveillance of the multifunctional space.

11.4.9 The precise location and configuration of the new entrance was influenced by a number of factors including the need to reconcile the level changes across the site and to create an accessible step-free route into the park; the desire to retain the Red Oak tree; flood mitigation issues and Thames Water's access requirements.

11.4.10 We undertook a number of studies of pedestrian circulation within the park and concluded that the existing main Buckhold Road entrance should be removed. This would enable us to break out the 'D-shaped' area of hardstanding in front of the entrance and replace it with soft landscaping. The historic ornamental gates could be relocated to the northwestern Buckhold Road access to the park. This access would be used as the main entrance to the site during construction therefore the gates could be permanently relocated in a single move.

11.4.11 In line with London Borough of Wandsworth policies, we followed a non-secure/un-gated approach for the proposed landscape design. The new entrance would be generously proportioned and located underneath the canopy of the Red Oak. This large, handsome tree would be the main visual marker of the new entrance. New signage would be integrated in the paving at ground level adjacent to the tree.



Figure 11.26: Proposed entrance to site

### Perimeter planting zone

11.4.12 In view of the site's proximity to two roads and relatively high buildings, we sought to create a sense of enclosure for the multifunctional space. We propose to include shrub and tree planting around the northeastern and northwestern perimeters of the site to create a natural buffer to the adjacent roads and car parks. The perimeter planting would predominantly be higher than existing adjacent planting; however, some lower shrubs would be incorporated to allow 'glimpsed' views into and out of the park.

11.4.13 One of the project's overarching objectives is to retain as many existing trees as possible. Any trees removed during construction would be replaced with large species of native deciduous trees to ensure adequate mitigation.

11.4.14 At King George's Park, we conducted a number of studies on how tree loss would affect the character of the park. We also produced several visualisations during the design process to determine the appropriate size and number of trees to be planted in the perimeter zone. As a result, we propose to include a mixture of semi-mature and mature specimen trees in order to maintain a strong landscaped edge. This edge would also strike an appropriate balance between screening, enclosure and visibility.

11.4.15 We sought to re-use and reinstate as much of the historic railings around the edge of the park as possible to ensure visual continuity. The former main Buckhold Road entrance would be blocked up with the railings and the perimeter planting. An existing electrical box adjacent to the 'D-shaped' area of hardstanding at the entrance would also be repositioned to the east of its current location within the perimeter planting zone.



Figure 11.27: Steps from the lakeside towards the perimeter of park

Existing



Option 1



Option 3



Figure 11.28: Tree analysis diagrams produced in development of the design

### Multifunctional space

11.4.16 We sought to make the raised area of hardstanding above the CSO drop shaft a multifunctional space that would be simple, open, and clutter free. The height of this space was determined by the shallow depth of the CSO and the hydraulic requirements of the drop shaft. The advantage of the raised space is that it would enable elevated views to the south over the park and the ornamental lake. The perimeter planting zone around the space and other tree planting would be arranged not to impede these views.

11.4.17 We propose to include a generously-sized seating bench, which would vary in width up to a maximum of approximately 2.2m. This bench would provide much-needed seating and relaxation space within this corner of the park. We sought to design a solid, yet elegant contemporary sculptural seating element, which would reinforce the sense of enclosure in the space. It would form an important feature in the multifunctional space and would help to define the character of the area and enhance the 'sense of place'.

11.4.18 A mobile café would increase the activity within the multifunctional space, which would promote natural surveillance and a sense of security while adding to its character. We would provide service connections to enable others to set up such a café should this prove desirable and economically viable.

11.4.19 We sought to respect the original design and integrity of the park and the proposed shape of the space was influenced by a Victorian sunken garden that was laid out in this area in the original design of the park, which had a distinctive sinuous form. The proposed shape also responds to the shape of the corner of the park and the natural curve of the ornamental lake, which has a direct, visual connection to the multifunctional space.

11.4.20 However, we sought to respond to the existing character of the park with a more contemporary design and the proposed kiosk, seating and lighting features would bring a strong contemporary character to the space.

11.4.21 The multifunctional space would sit directly off the new entrance on one of the key pedestrian desire lines through the park. Increased activity and pedestrian footfall though this currently underused area would make the space self-policing by means of 'natural surveillance'.



Figure 11.29: View over multifunctional space to kiosk and vent column



Figure 11.30: Character of bench and circular space



Figure 11.31: Character of bench and circular space

### Sunken garden

11.4.22 Our detailed design development work identified the need for a 'depression' in the ground to facilitate flood water conveyance and reduce the flood risk to properties surrounding the park. We proposed to treat this depression in an interesting, playful way by creating a 'sunken garden'. We discussed this proposal with the London Borough of Wandsworth and the Environment Agency, and received the latter's agreement.

11.4.23 The shallow, slightly dish-shaped area would convey flood water during very rare flooding events and could form a large swale garden. This proposal is sympathetic to the historic character of the park and references the former Victorian sunken garden.

11.4.24 The planting selected for this area would be textured, shade-loving and would create a distinctive woodland under-storey feel. They would also provide seasonal variety so that the character of the garden would change throughout the year. The banks of the sunken garden would be vegetated and edged with various deciduous trees to blend seamlessly into the surrounding level changes and pathways. The bottom of the garden would likely be planted with a mixture of ground covers and seasonal bulbs to provide an unobstructed route for flood waters.



Figure 11.32: View of the proposed sunken garden

### Lakeside area

11.4.25 During the construction phase, the grassed area adjacent to the ornamental lake would be required for the construction site. This area of lawn would be reinstated in order to blend the new space seamlessly into the existing park. The lakeside area would be fully integrated by tying the proposed paths into the gently curved pattern of the existing paths.

11.4.26 The lakeside area would be sheltered by the new raised multifunctional space and the surrounding planting, which would reinforce the character of both areas and enhance their spatial relationship.

11.4.27 We have agreed with the local authority to undertake some tree planting in the park before commencing construction. This advanced planting would mitigate the loss of existing trees within the main site area and help to screen the construction works. We have agreed that the planting would continue and repopulate the historic Cherry tree avenue to the south of the main space, which leads into the wider park.



Figure 11.33: Site section featuring lake and sunken garden



This page is intentionally left blank

## Integration of the functional components

11.4.28 The majority of the proposed works are below-ground structures, including:

- a CSO drop shaft
- a CSO interception chamber
- a connection culvert
- a valve chamber
- an air treatment chamber
- associated hydraulic structures, culverts, pipes and ducts.

11.4.29 Post construction, the following structures would be visible on the site:

- One column to serve the CSO drop shaft
- one ventilation column to serve the CSO interception chamber
- an integrated electrical and control kiosk and ventilation structure.

### CSO drop shaft and associated structures

11.4.30 The CSO drop shaft would be approximately 9m in internal diameter. Along with all the associated below-ground infrastructure, it would sit between the new entrance and the ornamental lake.

11.4.31 The area of hardstanding over the drop shaft would be raised approximately 1m above the existing ground level. It would also align the area with Neville Gill Close, which is elevated above the ground level of the park, to enable maintenance vehicle access.

11.4.32 The hardstanding would facilitate maintenance vehicle access and incorporate ground-level access covers to the below-ground infrastructure.

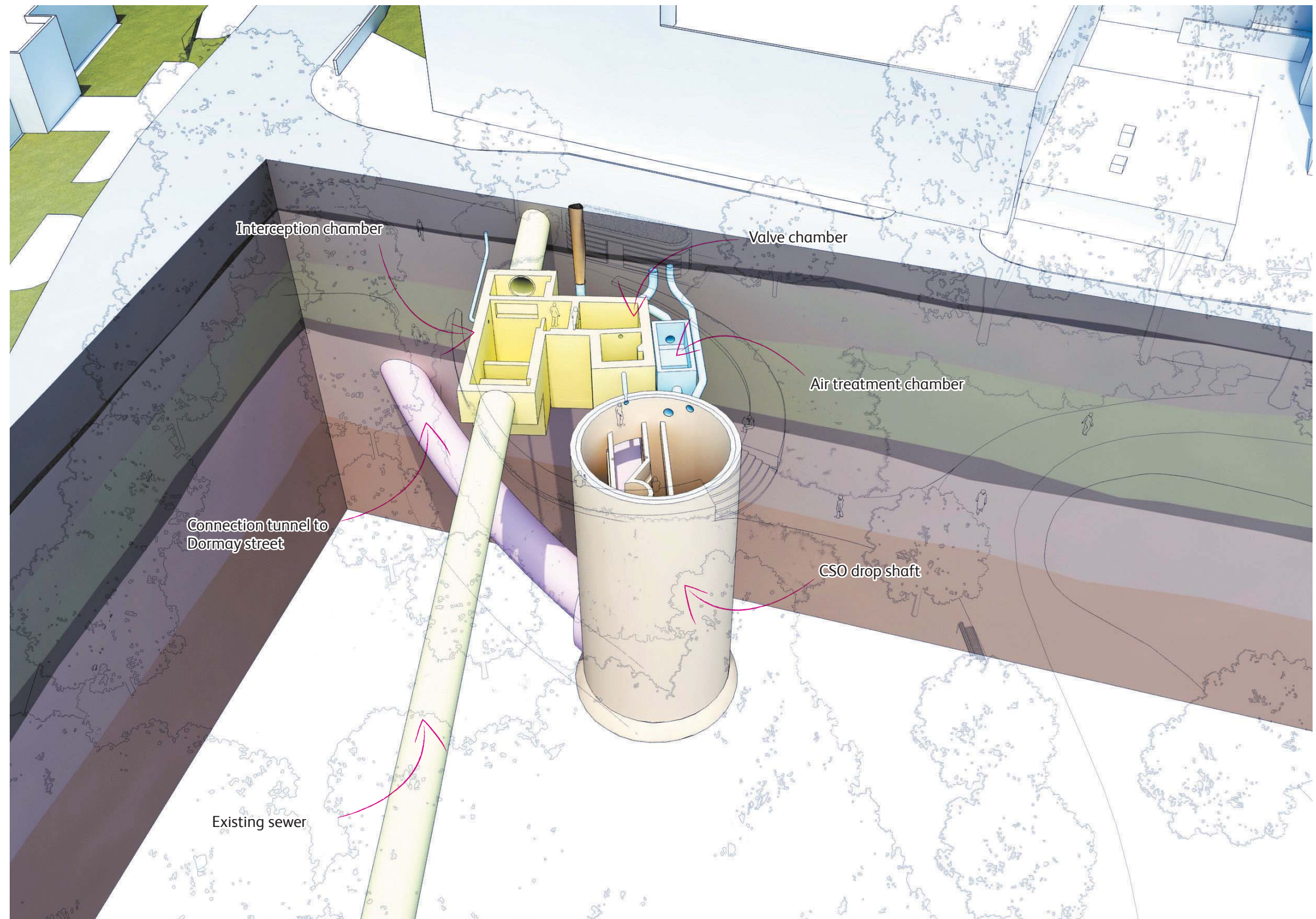


Figure 11.34: Functional components diagram: below ground view



**Ventilation columns**

11.4.33 The number and size of the ventilation columns is determined by the air management requirements for the site. At King George's Park, we propose to include one ventilation column to serve the CSO drop shaft, which would stand between 4m and 8m high. The column would sit within the multifunctional space. It would feature the project's 'signature' design, which could form a feature for the space and celebrate the project.

11.4.34 We also propose to include a smaller diameter column to serve the CSO interception chamber that would be up to 6m high. This column would sit on the eastern boundary of the site.

11.4.35 The integrated electrical and control kiosk and ventilation structure would be up to 3m high and sit on the eastern boundary of the site in order to maintain the openness of the multifunctional space and reinforce the perimeter planting zone. The structure would feature a planted brown roof to promote biodiversity and to help integrate the structure into the surrounding parkland.

11.4.36 Consolidating the permanent structures into one area to the east of the multifunctional space would increase their distance from residential properties along Buckhold Road. It would also facilitate maintenance access from Neville Gill Close, in response to feedback received from the London Borough of Wandsworth.

Figure 11.35: Functional components diagram: above ground view

## Lighting design

11.4.37 As there are no fences around the park, the multifunctional space would be open to the public at night. However, the London Borough of Wandsworth does not encourage use of the park after dark therefore the proposed lighting scheme was kept to a minimum. The scheme was developed to reinforce the design objectives for this site. The final scheme would be based on the project-wide lighting design principles and agreed at a later stage.

11.4.38 Lighting levels would seek to minimise any impacts on terrestrial ecology, while ensuring the safety of the space. Functional and decorative LED lighting could be incorporated into the underside of the sculptural seating bench and steps in order to reduce visual clutter and give the space a coherent and contemporary feel.

11.4.39 The Red Oak tree at the new entrance could be up-lit to add visual interest at night and draw attention to the entrance. No other trees would be up-lit.

11.4.40 The base of the signature ventilation column could be highlighted with a collar of low level LEDs, which would wash the column with a subtle light.



Figure 11.36: Indicative lighting plan



Figure 11.37: Typical light fitting



Figure 11.38: Indicative lighting on benches



Figure 11.39: Typical light fitting



Figure 11.40: Indicative lighting on benches



Figure 11.41: Indicative uplighting on trees

## Landscaping and appearance

### Hard landscape palette

11.4.41 The proposed hard landscape materials and furniture palette comprises good quality contemporary fittings that would stand the test of time. Street lights, bins and furniture would match the London Borough of Wandsworth's specifications to facilitate management and maintenance. Hard surface materials would be robust, fit-for-purpose, and appropriate to the setting to maintain long-term quality.

a. Breedon gravel has a soft natural finish with a less urban character and would be appropriate for a park setting. It would be used at the new entrance space and on the paths surrounding the multifunctional space. The aggregate colour would tie in with the proposed layer of resin-bonded gravel below.

b. Resin-bonded gravel would be used within the multifunctional space. It would form an attractive, durable and low maintenance surface. Its textured aggregates would also provide a suitable anti-skid surface.

c. High quality, precast, polished concrete would be used for the sculptural bench. It would incorporate a high proportion of recycled waste product.

d. A high quality, sustainably-sourced hardwood timber would be used for the top of the sculptural bench.

e. Reconstituted stone cladding would be used for the integrated kiosk and ventilation structure.

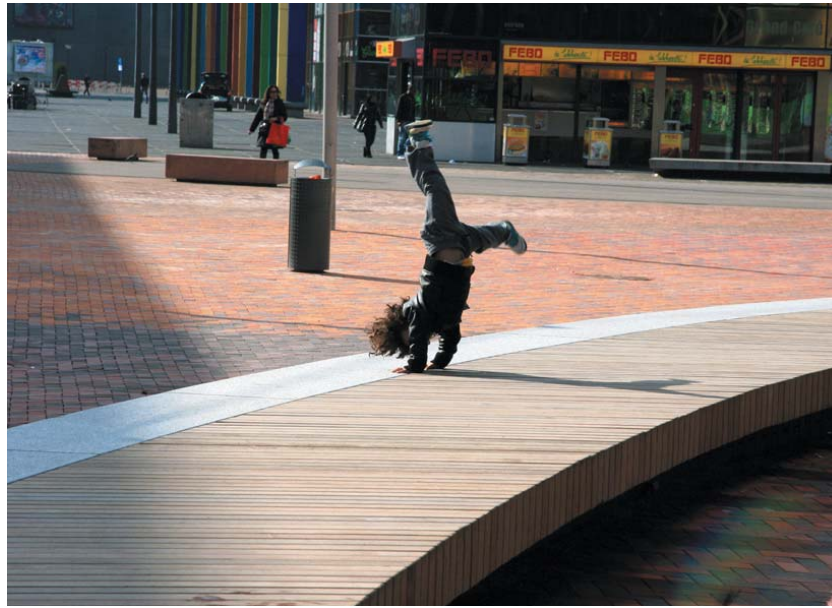


Figure 11.42: Indicative timber bench



Figure 11.43 : Indicative timber bench and surfacing



Figure 11.44: Indicative path surfacing



Figure 11.45: Indicative timber bench



Figure 11.46: Granite setts



Figure 11.47: Resin bonded gravel



Figure 11.48: Bollards

Soft landscape palette

11.4.42 The proposed soft landscape materials comprises of the following.

- a. Advanced planting of Cherry trees (*Prunus sargentii* 'Accolade') would establish the structure of the site as early as possible.
- b. We propose to include large semi-mature and specimen deciduous trees for the edge of the multifunctional space within the perimeter planting zone and to replace any trees that would be lost during construction. Tree species include Norway Maple (*Acer platanoides*), Northern Red Oak (*Quercus rubra*), Giant Redwood (*Sequoia sempervirens*), Large-leaved Lime (*Tilia platyphyllos*), and London Plane (*Platanus x hispanica*). We propose to include small, deciduous feature trees such as Snowy mespilus (*Amelanchier lamarckii*) to introduce seasonal variation and to buffer the entrance slope and lakeside area.
- c. We proposed to include shade- and damp-tolerant species including varieties of ferns, such as Soft Shield Fern (*Polystichum setiferum*), Hard Fern (*Blechnum spicant*) and Hart's Tongue (*Asplenium scolopendrium*). Herbaceous planting such as gunnera and hosta would further enhance the lush green character of the swale.
- d. The planted brown roof on the top of the kiosk structure would enhance biodiversity within the area. Recycled local excavated material and soil would be used to provide the substrate for the roof; over time, plant species would colonise and establish the roof to form a planted green roof.
- e. Native and non-native shrub, perennial and grass species would form the natural green buffer in the perimeter planting zone. Examples of possible native shrub species include Common Privet (*Ligustrum vulgare*), Grey Willow (*Salix cinerea*) and Common Dogwood (*Cornus sanguinea*).



Figure 11.49: Lush damp loving planting



Figure 11.50: Street tree planting



Figure 11.51: Indicative planting



Figure 11.52: Indicative planting



Figure 11.53: Deciduous tree planting



Figure 11.54: Brown roof planting



Figure 11.55: Indicative planting

## 11.5 Access and movement

11.5.1 We propose to create a new pedestrian entrance to the park at the junction of Neville Gill Close and Buckhold Road. The existing main entrance on Buckhold Road would be removed. Pedestrians would also be able to enter the park via the proposed maintenance access off Neville Gill Close.

11.5.2 We propose to include short pedestrian paths to link the new entrance through the multifunctional space to the existing paths to the east and west of the ornamental lake, in order to create better linkages through the park.

11.5.3 In line with project-wide aspirations and good practice, landscaping treatments and materials would ensure that the pedestrian routes meet the best standards of accessibility. Where possible, we propose to include slopes rather than steps. Where steps are necessary, they would form a positive feature of the design and would comply with the relevant approved building regulations.

11.5.4 Due to the level changes around the multifunctional space, we would provide a ramp to the southwest of the space in order to facilitate inclusive access. The ramp would comply with the relevant accessibility standards and the inclusive access principles set out in DMPD Policy DMS 1. The ramp would have a gentle gradient of 1:45 and would be surfaced in a slip-resistant material, which complies with the Disability Discrimination Act.



Figure 11.56: Site movement development sketch



Thames Water access requirements

11.5.5 Permanent vehicular access to the site would be via the new access off Neville Gill Close. Bollards would be included to restrict access to Thames Water maintenance vehicles and other approved vehicles only.

11.5.6 Once the project is operational, it is anticipated that Thames Water personnel would visit the site approximately every three to six months to inspect and carry out maintenance of the electrical and control, ventilation and below-ground equipment. This would likely involve a visit by personnel in a small van during normal working hours and may take several hours.

11.5.7 It is anticipated that a major internal inspection of the tunnel system and underground structures would be required once every ten years. This process would likely require a small team of inspection staff and support crew, two mobile cranes to lower the team into the CSO drop shaft and supporting vehicles. The inspection would be carried out during normal working hours and would likely take several weeks.

11.5.8 Most maintenance works could be carried out without closing the ramped access path from the new entrance to the lakeside. In the event that the new entrance needs to be closed, the nearby Neville Gill Close and northwestern Buckhold Road entrances would remain open.

11.5.9 Thames Water may also need to visit the site for unplanned maintenance or repairs, for example, in the event of a blockage or an equipment failure. Such a visit may require the use of vans, lorries and mobile cranes.



Figure 11.57: Permanent works layout- refer to Permanent works layout in the *Book of Plans*

## Copyright notice

Copyright © Thames Water Utilities Limited January 2013.  
All rights reserved.

Any plans, drawings, designs and materials (materials) submitted by Thames Water Utilities Limited (Thames Water) as part of this application for Development Consent to the Planning Inspectorate are protected by copyright. You may only use this material (including making copies of it) in order to (a) inspect those plans, drawings, designs and materials at a more convenient time or place; or (b) to facilitate the exercise of a right to participate in the pre-examination or examination stages of the application which is available under the Planning Act 2008 and related regulations. Use for any other purpose is prohibited and further copies must not be made without the prior written consent of Thames Water.

### **Thames Water Utilities Limited**

Clearwater Court, Vastern Road, Reading RG1 8DB

The Thames Water logo and Thames Tideway Tunnel logo are © Thames Water Utilities Limited. All rights reserved.

DCO-DT-000-ZZZZZ-070400

