

Thames Tideway Tunnel
Thames Water Utilities Limited



Application for Development Consent

Application Reference Number: WWO10001

Planning Statement

Doc Ref: **7.01**

Appendix F

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

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Creating a cleaner, healthier River Thames

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Thames Tideway Tunnel

Planning Statement

Appendix F: King George’s Park

List of contents

	Page number
F.1 Introduction	1
F.2 Site description	2
F.3 Planning context	3
F.4 Site-specific description of development	5
Overview.....	5
Application for development consent.....	6
Construction	7
Site preparation	8
Shaft construction.....	9
Tunnelling.....	9
Secondary lining of connection tunnel and shaft	9
Construction of other structures.....	9
Completion of works and site restoration.....	10
Operation.....	10
CSO drop shaft.....	10
Interception chambers and culverts.....	10
Air management structures.....	10
Electrical and control kiosk	11
Permanent restoration and landscaping	11
Typical maintenance regime.....	11
Scheme development.....	12
F.5 Site-specific planning considerations.....	14
Meeting the need.....	14
Good design	15
Creating a new multifunctional space	16
Achieving high quality design and careful siting of the above-ground structures.....	17
Improving the quality of the site	18
Protecting historic and other key site features and managing construction impacts.	19
Providing effective flood alleviation.....	20

Conclusion.....	20
Water resources and flood risk	21
Air quality, emissions, dust and odour	23
Biodiversity and geological conservation.....	24
Landscape and visual impacts.....	25
Land use including open space, green infrastructure and green belt	27
Noise and vibration	28
Historic environment.....	28
Light.....	29
Traffic and transport	30
Waste management	32
Socio-economic.....	32
F.6 Overall conclusions.....	33
Annex F: Drawings for King George’s Park	37

List of figures

	Page number
Figure F.1 Aerial photograph of King George’s Park.....	2
Figure F.2 Functional components diagram	5
Figure F.3 Construction timeline.....	7
Figure F.4 Illustrative aerial view	16
Figure F.5 Estimated construction lorry profile	31

List of tables

	Page number
Table F.1 King George’s Park: Plans and documents that define the proposed development	6

Appendix F: King George's Park

F.1 Introduction

- F.1.1 Catchment modelling¹ indicates that in an average year, the Frogmore Storm Relief – Buckhold Road combined sewer overflow (CSO) spills approximately 21 times and discharges approximately 86,000m³ of untreated sewage into the River Thames in the London Borough of Wandsworth. On the basis that litter tonnages are proportional to discharge volumes, approximately 22 tonnes of sewage derived litter is also discharged from this CSO in an average year (*Environmental Statement*, Vol 9, Section 14).
- F.1.2 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. The Frogmore connection tunnel would connect King George's Park to Carnwath Road Riverside via the Dormay Street CSO.
- F.1.3 The Environment Agency identifies the Frogmore Storm Relief – Buckhold Road CSO as a CSO that needs to be controlled and Thames Water's² solution is for full interception. The CSO discharges have multiple impacts on water quality at the outfall location. This includes a localised effect of rapidly dropping dissolved oxygen levels, the release of pollutants and the discharge of sewage litter and effluent.
- F.1.4 Catchment modelling suggests that if the project is constructed as proposed, the annual discharge of untreated sewage into the tidal Thames would be reduced to approximately 1,500m³, and that the number of CSO spills would be reduced to one per year. The sewage derived litter from the CSO can be expected to reduce by approximately 98 per cent to less than one tonne per year (*Environmental Statement*, Vol 9, Section 14). The location of the site is identified in the Site location plan in Annex F.
- F.1.5 This assessment is structured as follows:
- a. Section F.2 provides a brief description of the King George's Park site.
 - b. Section F.3 sets out the planning context for works in this location.
 - c. Section F.4 describes the site-specific development for which consent is sought and how the proposals evolved in response to consultation.
 - d. Section F.5 analyses the principal site-specific planning considerations and how the proposals comply with relevant planning policy.

¹ The assessment of the beneficial effect of a reduction in sewage derived litter discharged to the tidal Thames was inferred from catchment modelling results of the reduction in discharge volume, frequency and duration and was not directly modelled. For further details on catchment modelling refer to *Environmental Statement* Vol 3, Section 11.

² Thames Water Utilities Ltd (TWUL). The Draft Development Consent Order (DCO) contains an ability for TWUL to transfer powers to an Infrastructure Provider (as defined in article 2(1) of the DCO) and/or, with the consent of the Secretary of State, another body.

- e. Section F.6 provides an overall conclusion of the site-specific assessment.

F.2 Site description

- F.2.1 The site itself comprises approximately 0.4ha 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. King George's Park is approximately 23ha in size.

Figure F.1 Aerial photograph of King George's Park



- F.2.2 The northern boundary of the site is characterised by low-level evergreen vegetation and includes an ornamental historic park gate with semi-circular railings at the Buckhold Road entrance. The gate dates back to 1922 but is not listed. 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.
- F.2.3 The key features of the site are illustrated in the Existing site features plan in Annex F.

- F.2.4 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.
- F.2.5 Immediately to the north of Buckhold Road is an Army Cadet Force voluntary youth organisation building. 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.
- F.2.6 To the east, across Neville Gill Close, the land use is dominated by the Southside Shopping Centre, associated car parks (including a multi-storey car park) 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.
- F.2.7 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.
- F.2.8 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.
- F.2.9 The area to the west is residential and three-storey residential blocks line the far side of Buckhold Road.

F.3 Planning context

- F.3.1 In developing the proposals and mitigation measures for the proposed development at King George's Park Thames Water had regard to the policies set out in the NPS, and to local development plan designations where these are relevant to the application.
- F.3.2 In this case, the local development plan comprises:
- a. The *London Plan* (July 2011)
 - b. The London Borough of Wandsworth's (the 'LBW') *Core Strategy* (October 2010)
 - c. The LBW's *Development Management Policies Document* (February 2012)
 - d. The LBW's *Site Specific Allocations Document* (February 2012)
- F.3.3 King George's Park is publicly accessible open space and designated Metropolitan Open Land. Despite the Metropolitan Open Land designation (which typically suggests a regional value), the site is valued at the borough scale by virtue of its size and location providing predominantly for

people who live and work in the local area. It is approximately 23ha in size and is classified as a 'district park' within the Greater London Authority Open Space Hierarchy. King George's Park is also designated as a Site of Importance for Nature Conservation of borough importance grade 2.

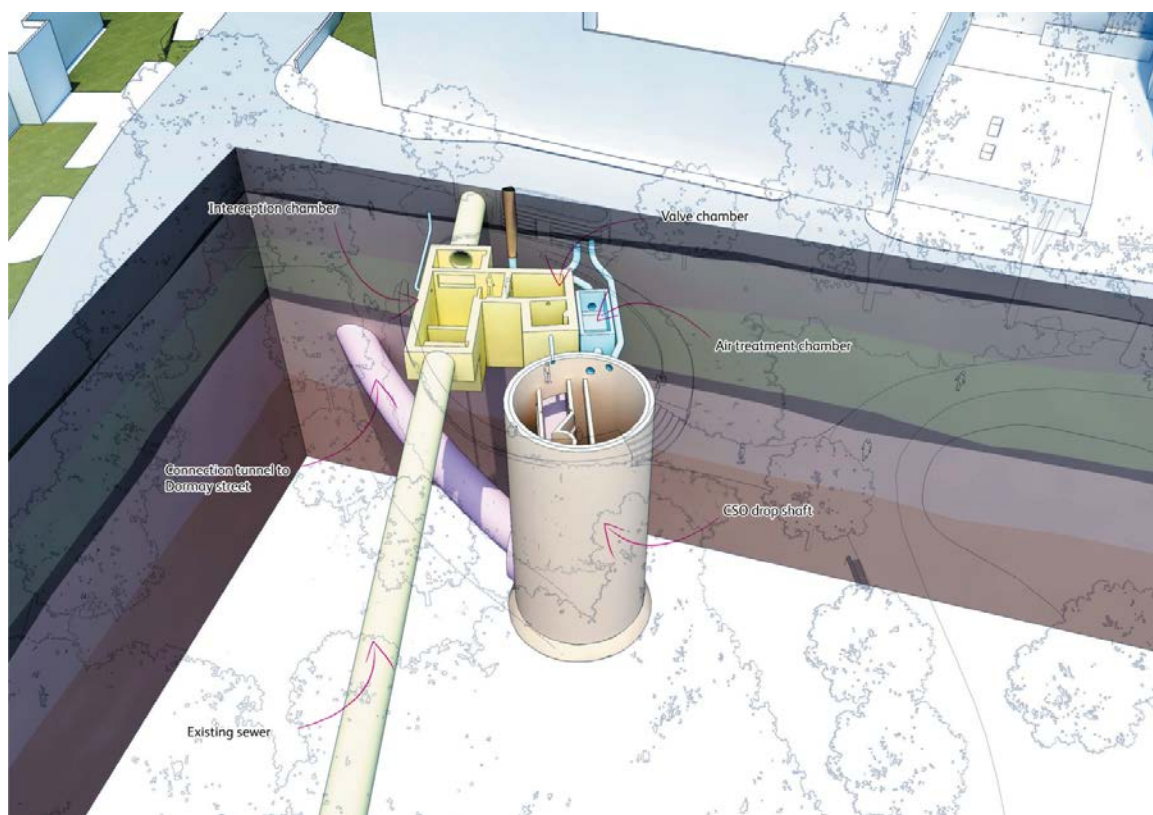
- F.3.4 The site is not within or adjacent to any conservation areas. Wandsworth Town Conservation Area lies approximately 125m to the northwest of the site. There are no listed buildings within or adjacent to the site. There are no tree preservation orders nor are there any public rights of way within or adjacent to the site. The site does, however, lie within the River Wandle archaeological priority area.
- F.3.5 Following the closure of the nearby Ram Brewery and its offices in 2006, proposals have come forward for redevelopment. The former Ram Brewery site is approximately 180m to the north of the King George's Park site. The former offices site known as Cockpen House is adjacent to the north of the King George's Park site across Buckhold Road. The proposed Frogmore connection tunnel to be received at King George's Park lies adjacent to these sites.
- F.3.6 On-going application monitoring identified several relevant planning permissions in the vicinity of the King George's Park site.
- F.3.7 A planning application for mixed use development at the site of the former Ram Brewery and adjacent land parcels was submitted in 2008 (reference: 2008/0955). The application was for the erection of 8 new buildings including two large residential towers of 32 and 42 storeys to the northern end of the site and a total of 831 residential units. The application was subject to public inquiry by the Secretary of State and subsequently refused. A revised outline planning application with all matters reserved except for landscaping was submitted in November 2012 (reference 2012/5290). It comprises 675 residential units (including a 35 storey tower) and 150,000-200,000m³ of retail, plus several ancillary uses. This application is currently pending with an anticipated determination date in spring 2013.
- F.3.8 On-going discussions have taken place with the developers of the Ram Brewery site in order to ensure the development can take place alongside the Frogmore connection tunnel and to achieve a mutually agreeable solution.
- F.3.9 A separate planning application for mixed use development was also submitted at the Cockpen House site in 2008 (reference: 2008/0960) for mixed use development comprising new buildings ranging from 5 to 16 storeys including 216 residential units and 1,010m³ of commercial space. The application was refused however the decision was overturned at appeal and the development is now under construction.
- F.3.10 A planning application was approved on a site to the north of Buckhold Road and to the east of Broomhill Road known as 'the Business Village' in March 2010 (reference: 2007/2999). The development comprises the erection of buildings between four and 16-storeys in height to provide 209 residential units and 10,500m³ of commercial floorspace. This development is also now under construction.

F.4 Site-specific description of development

Overview

- F.4.1 The proposed development at King George's Park would intercept the Frogmore Storm Relief – Buckhold Road CSO. The works would convey the flows from the existing pipework beneath King George's Park to the main tunnel via the Frogmore connection tunnel.
- F.4.2 The work would require the construction of a CSO interception chamber, hydraulic structures (including chambers, culverts and pipes), ventilation structures and an electrical and control kiosk. Flows would be transferred from the relatively shallow depth of the existing pipework to the deeper level of the Frogmore connection tunnel via a CSO drop shaft (approximately 21m deep) and associated connection tunnel.
- F.4.3 The ventilation structure and electrical control kiosk would be integrated into a single above-ground structure.
- F.4.4 All permanent works would be surrounded by an operational maintenance area to facilitate vehicle access during maintenance activities. The area would be landscaped upon completion.
- F.4.5 All works would be contained within the relevant zones as indicated on the Site works parameter plan.

Figure F.2 Functional components diagram



Application for development consent

F.4.6 The extent of the proposals for which development consent is sought, is defined by the limits of land to be acquired or used and drawings shown in Table F.1

Table F.1 King George's Park: Drawings that define the proposed development

Drawing title	Status	Location
Proposed schedule of works	For approval	Schedule 1 to the <i>Draft Thames Water Utilities Limited (Thames Tideway Tunnel) Development Consent Order</i>
Access plan	For approval	<i>Book of Plans, Section 11</i>
Demolition and site clearance plan	For approval	<i>Book of Plans, Section 11</i>
Site works parameter plan	For approval	<i>Book of Plans, Section 11</i>
Permanent works layout	Illustrative	<i>Book of Plans, Section 11</i>
Proposed site features plan	Indicative except the above-ground structures, which is illustrative	<i>Book of Plans, Section 11</i>
Proposed landscape plan	Indicative except the above-ground structures, which is illustrative	<i>Book of Plans, Section 11</i>
Section AA	Illustrative	<i>Book of Plans, Section 11</i>
As existing and proposed elevation (various)	Illustrative	<i>Book of Plans, Section 11</i>
Kiosk design intent	Indicative	<i>Book of Plans, Section 11</i>
Construction phases plans (various)	Illustrative	<i>Book of Plans, Section 11</i>
Highway layout during construction (Various)	Illustrative	<i>7.10.7 Transport Assessment: King George's Park Figures</i>
Permanent highway layout (various)	Illustrative	<i>7.10.7 Transport Assessment: King George's Park Figures</i>
Construction base case highway layout	Illustrative	<i>7.10.7 Transport Assessment: King George's Park Figures</i>

F.4.7 The NSIP works (Work No. 9a) comprise the construction of a CSO drop shaft with an internal diameter of approximately 9m and a depth of 21m. Associated development (Work no. 9b) comprises works to intercept and divert flow from the Frogmore Storm Relief – Buckhold Road CSO and into

the Frogmore Connection Tunnel (Work no. 7) including construction of an interception chamber, CSO overflow structures, hydraulic structures and other structures to manage and intercept flow. The full description of the proposed development can be found in Schedule 1 to the Development Consent Order and further details of the temporary construction works and permanent operational structures are contained below.

F.4.8 At this site, approval is sought for the works shown on the Works plan showing Work Nos. 9a and the Site works parameter plan, which shows the relevant zones and limits of land to be acquired or used in which the associated development works would be undertaken (Work No. 9b) Access plans, and Demolition and site clearance plans. The plans for approval are contained in the *Book of Plans* along with other plans showing the construction phasing and permanent works plans relevant to this site. These other plans are marked either for approval, for information, indicative or illustrative depending on the level of detail they provide. Section 2 of the *Planning Statement* explains in more detail the overall approach to the level of detail and how the plans for approval developed. The Good design subsection of this appendix explains the level of detail with regard to the proposed above-ground structures at this site and the need to obtain further approvals.

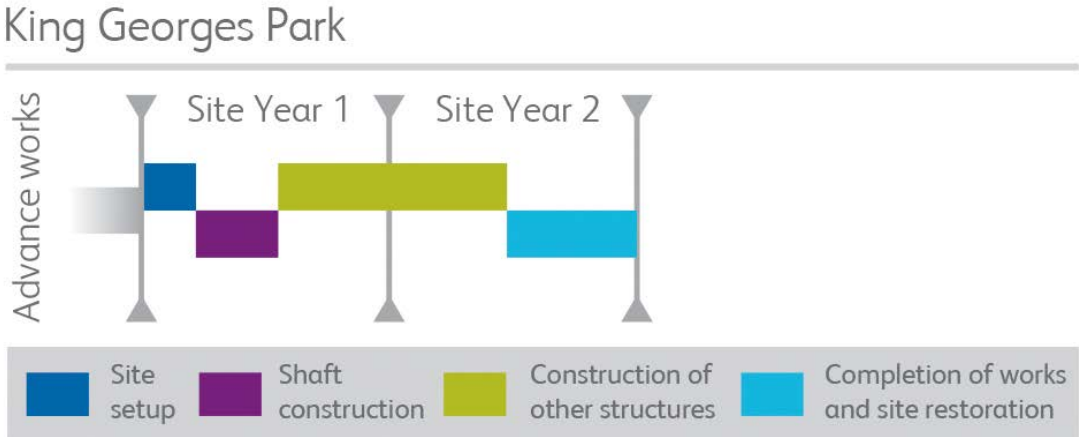
Construction

F.4.9 The construction at King George’s Park is anticipated to take approximately two and a half years and would involve the following steps (with some overlaps):

- a. Site Year 1: site preparation (approximately two months)
- b. Site Year 1: shaft construction (approximately four months)
- c. Site Years 1 to 2: construction of other structures (approximately 12 months)
- d. Site Years 2 to 3: completion of works and site restoration (approximately six months).

F.4.10 The construction timeline is presented graphically in Figure F.3 below.

Figure F.3 Construction timeline



- F.4.11 Construction would occur from 8am to 6pm Monday to Friday and 8am to 1pm Saturdays. Construction activities may occasionally be required outside of these hours during key construction activities. It is not anticipated that there would be any continuous 24-hour working at this site.
- F.4.12 Further information about working hours and site specific restrictions are contained within the *Code of Construction Practice (CoCP)* Parts A and B, which accompany the application.
- F.4.13 Construction traffic would access the site from Buckhold Road (A218), turning right into the site from a new entrance on Neville Gill Close. Traffic would leave the site via the same route. Beyond this, construction traffic would use the major road network to get to and from its final destination.
- F.4.14 A new temporary access with appropriate traffic management measures would be created off Neville Gill Close. This would require lowering of the existing curb, alteration of the traffic island at the junction of Neville Gill Close and Buckhold Road and removal of the iron railing fence. An illustration of the construction access route is shown on the Construction phase plans.
- F.4.15 There would be a need to suspend or relocate a small number of parking bays on Neville Gill Close during construction. There would be a short footpath diversion around the construction site from the existing park entrance on Buckhold Road (A218). It is not anticipated that any other footpath or road diversions, junction changes or bus stop relocations would be required.
- F.4.16 It is anticipated that an average of four heavy goods vehicles (HGVs) would access the site per day for the majority of the construction period. This would rise to approximately eight HGVs per day over an estimated four month period while the shaft is being excavated. There may be additional periods during key construction activities when these HGV numbers would need to be exceeded. Further details regarding the number and breakdown of anticipated heavy goods vehicles accessing the site per day is contained within the *Transport Assessment*, which accompanies the application.
- F.4.17 Potential layouts of the construction site are shown on the Construction phase plans, which are in Annex F. It should be noted that these layouts are for guidance only. The contractor may arrange the site in a different way, depending on the chosen construction method, provided that any environmental effects are appropriately managed and that main construction activities are contained within the appropriate zones.

Site preparation

- F.4.18 Prior to any works commencing the site boundary would be established and secured. The boundary would be built to an appropriate height for the site. Welfare and office facilities would also be set up with utility and power connections installed. Utility diversions would be undertaken where necessary.

F.4.19 It is anticipated that the hoarding enclosing the construction site would be up to 2.4m in height. Protective hoarding is required around the existing John Young memorial tree and bench. The enclosed area would then be cleared, with areas of top soil stripped and stock piled.

F.4.20 Trees located within the footprint of the site would be either removed and those bordering the site would be pruned back. Particular care would be taken around the root zone of the black poplar tree located to the east of the site along the Neville Gill Close boundary.

Shaft construction

F.4.21 The 9m internal diameter CSO drop shaft would then be constructed. This would comprise excavating in approximately 1m increments and then using a sprayed concrete lining to form the shaft walls. This process would be repeated until the required depth of shaft is reached.

F.4.22 Excavated material from the shaft would be lifted to ground level using a mobile crane prior to being deposited in a material handling area within the site and subsequently removed from site by HGVs utilising the construction access road. The concrete required on the site may either be batched on-site, or delivered ready mixed as required.

Tunnelling

F.4.23 The Frogmore connection tunnel from Dormay Street to King George's Park would be driven from Dormay Street. Therefore there would be no tunnelling activity at King George's Park apart from removal of the tunnel boring machine from the shaft.

Secondary lining of connection tunnel and shaft

F.4.24 A secondary concrete lining would then be applied to the drop shaft. This is required to improve the durability, water tightness and structural integrity of the shaft and tunnel. The process would involve casting an *in situ* concrete lining using a curved mould, or shutter, to form the internal face of the tunnel and the drop shaft. The secondary lining would be progressed by continuously pouring concrete to the shutter as it is advanced vertically up the wall of the shaft.

F.4.25 The concrete for the secondary lining may either be batched on-site, or delivered ready mixed to site. It would be pumped from surface level to the drop shaft. The Frogmore connection tunnel would be secondary lined from Dormay Street.

Construction of other structures

F.4.26 The internal layout of the CSO drop shaft, including concrete access platforms and the concrete vortex generator would then be constructed.

F.4.27 Other below ground hydraulic structures, including the interception chamber and valve chamber would be constructed from *in situ* concrete poured into shuttered excavations to provide the structure's shape.

F.4.28 The integrated above ground ventilation structure and electrical and control kiosk would then be built.

F.4.29 Further details of the permanent works layout are illustrated on the indicative Permanent works layout plan, which accompanies the application.

Completion of works and site restoration

F.4.30 On completion of the permanent structures, the site area would be landscaped and the operational maintenance hardstanding area formed.

F.4.31 The area adjacent to the below ground structures would be finished in a hard landscape material. This would facilitate safe operational access, while retaining a natural appearance. There is a level difference of up to approximately 750mm between the existing park and the elevated operational hardstanding area would be achieved by a slope, seating or steps.

F.4.32 Final landscaping would incorporate a 700mm depression for flood mitigation purposes. Further details of the landscaping proposals are located on the indicative Proposed landscape plan, which accompanies the application.

F.4.33 As the landscaping is progressed, the hoarding around the construction site would be removed. The system would then be commissioned. Temporary weld mesh fencing would surround the vehicles and equipment to provide a segregated safe working area. Once all work is finished, temporary fencing, vehicles and equipment would be removed from site, and final landscaping requirements completed.

Operation

CSO drop shaft

F.4.34 The CSO drop shaft would have an approximate internal diameter of 9m. The shaft would be approximately 21m deep to the invert of the tunnel.

F.4.35 The shaft would be finished level with the surrounding hardstanding which would be approximately 1m above existing ground level. There would be flush mounted covers on top of the shaft to allow access and inspection.

Interception chambers and culverts

F.4.36 The interception and valve chambers would be below ground and finished level with the surrounding hardstanding which would be approximately 0.5m above existing ground level. The connection culvert would be below ground. There would be flush mounted covers on top of the chambers to allow access and inspection.

F.4.37 Manhole covers would be bolt-down to resist internal water pressure during some CSO overflow events.

Air management structures

F.4.38 Treated air serving the shaft would be released through a ventilation column approximately 4m minimum to 8m maximum high, near to the electrical and control kiosk. The interception chamber would vent through an approximately 6m high column, which would be a separate structure from the passive filter column.

- F.4.39 Below ground structures would contain an air treatment chamber and connect the ventilation columns to the structures that they are ventilating. These would have ground level covers to allow access and inspection.

Electrical and control kiosk

- F.4.40 An electrical and control kiosk, approximately 3m high, would sit adjacent to the ventilation structure and would be positioned adjacent to the boundary with Neville Gill Close.

Permanent restoration and landscaping

- F.4.41 The design would incorporate re-contouring of the site to improve flood plain flow characteristics as agreed with the Environment Agency. This would require part of the existing site adjacent to the shaft to be lowered by up to 700mm.
- F.4.42 The area around the shaft, interception chamber and valve chamber would be finished with hardstanding to allow crane access to the shaft and chamber access covers. This hardstanding would usually be publicly accessible but a right of access over it would be retained and temporary security fencing would be installed when the area is used for operations and maintenance access. A new pedestrian entrance would be provided at the junction of Buckhold Road and Neville Gill Close.
- F.4.43 A new gated vehicle access would be constructed off Neville Gill Close for maintenance access to the site.
- F.4.44 The design would accommodate the raised level required for the shaft and interception structures with a design that is in keeping with the character of the park and the overall landscape design for the site.
- F.4.45 The amount of soft landscaping within the site boundary would be maximised. The planting and landscape design would reinforce edge planting to park boundaries within the site boundary. The existing avenue of trees on the eastern edge of the park that terminates at the north end with the Black Poplar tree would be retained. The John Young tree and memorial bench would also be retained in their current position in the final design.
- F.4.46 Lighting would be provided to the public realm at the entrance, along the steps around the permanent platform of the works. A low level light on kiosk doors would be provided for maintenance purposes in hours of darkness. This light would only be activated by a directional motion control switch.

Typical maintenance regime

- F.4.47 A light commercial vehicle would undertake three to six monthly maintenance works. This would be carried out during normal working hours and would take approximately half a day. There would be no aerial lighting. Additionally, once every ten years, more significant maintenance work would be carried out. This would also be carried out in normal working hours. Vehicular requirements for these visits would include two mobile cranes and associated support vehicles and equipment.

Scheme development

- F.4.48 The proposed King George's Park site was subject to over two years of extensive consultation and engagement. The site featured as a preferred site to intercept the Frogmore Storm Relief – Buckhold Road CSO in phase one and phase two consultation. The site was also subject to a phase of interim engagement and a period of pre-application publicity. Throughout this period, the scheme evolved in response to consultation, through engagement with key stakeholders and through on-going design development. The *Consultation Report*, which accompanies the application, contains detailed information on the consultation process.
- F.4.49 At phase one consultation, which ran from September 2010 to January 2011, King George's Park was the preferred site to intercept the Frogmore Storm Relief – Buckhold Road CSO and to receive the Frogmore connection tunnel driven from the Bell Lane Creek site (now Dormay Street) to transfer flows to the main tunnel. A site known as Car Park off Broomhill Road, to the rear of flats facing onto Buckhold Road was originally shortlisted as a potential alternative CSO site. However, King George's Park was the preferred site for the following reasons:
- a. It would enable the direct interception of the Frogmore Storm Relief – Buckhold Road CSO.
 - b. It is located further away from residential properties than Broomhill Road.
 - c. It would avoid the need for significant works in Broomhill Road and Buckhold Road (which would be required if the alternative site was used).
 - d. Although the use of King George's Park would mean the temporary loss of a section of the park, the vast majority of the park would remain available for use.
- F.4.50 The option of driving the Frogmore connection tunnel from King George's Park (rather than Bell Lane Creek) was assessed. However, the drive option proposed at phase one consultation remained the preferred option because King George's Park was considered to be a valuable public open space and the option to drive the connection tunnel from Bell Lane Creek would minimise the area required for the King George's Park site. Furthermore, there would be an additional environmental impact on the trees and wildlife if King George's Park was used as a drive site, compared to its use as a reception site.
- F.4.51 At phase one consultation, the CSO drop shaft was proposed close to the existing Buckhold Road entrance. A single structure comprising the ventilation column and electrical and control kiosk was proposed adjacent to the shaft, with hardstanding around the structures to enable maintenance vehicle access.
- F.4.52 The key concerns raised by the LBW, the Greater London Authority, English Heritage and members of the public during phase one consultation included:

- a. the impact of the loss of amenity space on sports and recreation activity and impact on Metropolitan Open Land
 - b. the impact of the loss of green space and local wildlife including trees
 - c. the permanent maintenance access off Buckhold Road
 - d. the proximity and potential impact of the proposed works on the historic ornamental gates on Buckhold Road.
- F.4.53 The LBW did not object to the use of King George's Park to intercept the CSO. However it was concerned about the impact of the permanent above-ground structures and extent of hardstanding.
- F.4.54 Following phase one consultation, in accordance with the council's advice, the location of the CSO drop shaft and permanent above-ground structures were moved eastwards and the extent of permanent hardstanding was minimised. The diameter of the shaft was increased from 7m to approximately 9m due to revised project-wide hydraulic requirements. Other key design developments included providing an area of landscaping and utility connections to serve a temporary café/information kiosk, and a reduction in the height of the proposed ventilation structure. Refer to the Good design subsection for further details of design development
- F.4.55 At phase two consultation, which ran from November 2011 to February 2012, King George's Park remained the preferred site to connect the Frogmore Storm Relief – Buckhold Road CSO to the main tunnel via the Frogmore connection tunnel. It also remained the preferred site to receive the tunnel boring machine driven from Dormay Street (formerly Bell Lane Creek).
- F.4.56 Following phase two consultation, there were no significant modifications to the design of the engineering components at this stage. Key design developments included the relocation of the main entrance to the junction of Neville Gill Close/Buckhold Road, the further reduction of existing hardstanding, landscaping improvements and the incorporation of flood alleviation measures. Refer to the Good design subsection for further details.
- F.4.57 The proposed site was identified and then assessed through a robust, qualitative, and iterative site selection process, and was subject to over two years of extensive consultation and engagement. The site selection methodology used to select the site was subject to consultation with local authorities and key stakeholders. For further details refer to the *Final Report on Site Selection Process*, which accompanies the application.
- F.4.58 No feasible or preferable alternative sites were put forward by stakeholders and the extensive site selection process did not identify any alternative sites that would be suitable for the works that are required.
- F.4.59 As a result of the improvements and the identification of mitigation measures the King George's Park site was the most appropriate site to intercept the Frogmore Storm Relief – Buckhold Road CSO and to receive the Frogmore connection tunnel. It was therefore publicised as Thames

Water's proposed site at Section 48 publicity, which ran from July 2012 to October 2012.

- F.4.60 In summary, the principal issues that arose from pre-application consultation and Section 48 publicity for King George's Park are identified below. These are subsequently addressed in the respective planning assessment subsections as follows.
- a. Concerns regarding the temporary loss of public open space during construction: This issue is addressed in the Land use including open space, green infrastructure and green belt section below.
 - b. Incorporate additional specimen trees to improve the setting of the permanent works: This issue is addressed in the Good design subsection below.
 - c. Concerns about amenity impacts arising from construction: This issue is addressed in Good design, Noise and vibration, Landscape and visual impacts subsections below.
 - d. Providing a new entrance to the park at the junction of Buckhold Road and Neville Gill Close through the proposed public space, and improve pedestrian routes into the Park: This issue is addressed in the Good design subsection below.
 - e. The need to retain and protect the Black Poplar and Red Oak trees: This issue is addressed in the Good design subsection below.
 - f. Removing the existing Buckhold Road entrance and the associated hardstanding: This issue is addressed in the Good design subsection below.
 - g. The historic gates and railings should be protected, preserved and re-used elsewhere in the park: This issue is addressed in the Good design subsection below.
 - h. Potential impacts on flood storage in the park and incorporation of flood alleviation measures: This issue is addressed in the Good design, Water quality, resources and flood risk subsections below.

F.5 Site-specific planning considerations

- F.5.1 This section provides an analysis of the key planning considerations associated with the proposed works at King George's Park. It considers the issues and factors identified in the NPS and other issues relevant to the site, as set out in para. F.4.60.

Meeting the need

- F.5.2 The proposed works at King George's Park would be successful in meeting the specific need of intercepting the Frogmore Storm Relief – Buckhold Road CSO and facilitating construction of the Frogmore connection tunnel by receiving the tunnel boring machine driven from Dormay Street. These works would make an important contribution to the wider need for the project and delivery of infrastructure as identified in the NPS.

- F.5.3 Currently in an average year, the Frogmore Storm Relief – Buckhold Road CSO discharges approximately 86,000m³ of untreated sewage into the River Thames. The CSO discharges approximately 21 times a year and releases approximately 22 tonnes of sewage derived litter.
- F.5.4 The CSO was identified by the Environment Agency as a CSO that needs to be controlled. The proposed solution to control the CSO is for full interception. The CSO discharges have multiple impacts on water quality in this location, including a localised effect of rapidly dropping dissolved oxygen levels, the release of pollutants and the discharge of sewage derived litter and effluent.
- F.5.5 Modelling suggests that if the project is constructed as proposed, the annual discharge of untreated sewage into the River Thames would be reduced to 1,500m³, and the number of CSO spills would be reduced to approximately one per year. The sewage derived litter from the CSO can be expected to reduce by approximately 98 per cent to less than one tonne per year (*Environmental Statement, Vol 9, Section 14*).

Good design

- F.5.6 The amount, layout and scale of the proposed development are primarily dictated by the function it needs to perform. In this case, the function would be to transfer flows from the Frogmore Storm Relief – Buckhold Road CSO and direct flows into the main tunnel via the Frogmore connection tunnel. The location and value of the site as public open space is also a key consideration.
- F.5.7 Early site analysis and subsequent engagement identified that the design needed to respond to a number of opportunities and constraints.
- F.5.8 The site-specific design opportunities included:
- Enhance the relationship between the park and the surroundings.
 - Improve movement through the park.
 - Enhance the setting of the park.
 - Introduce a new character area to the park with the potential for new activities.
- F.5.9 The site-specific design constraints included:
- the need to minimise any loss of use of the park
 - the shallow depth of the Frogmore Storm Relief – Buckhold Road CSO, which protrudes above ground level
 - the need to protect the historic ornamental gates on Buckhold Road
 - the need to protect the John Young memorial Oak tree and bench
 - flood risk associated with the fluvial floodplain of the River Wandle
 - a proposed National Grid cable that will run beneath the park
 - the need to maintain the quality and character of the park.
 - the need to protect mature trees and associated roots, particularly the Black Poplar and the Red Oak.

- F.5.10 The design of the proposals for the site evolved through phase one and phase two consultation and formal consultation with key stakeholders including the Design Council CABE, the LBW, Thames Water's pan-London strategic stakeholders and the local community. Details of the consultation process for this site are reported in the *Consultation Report* and the evolution of the design is explained in further detail in the *Design and Access Statement (DAS)*. Based on the analysis of opportunities and constraints, and the feedback from stakeholder consultations, the principal objectives that influenced the design include:
- a. creating a new multifunctional space
 - b. achieving a high quality of design and careful siting of the above-ground structures
 - c. improving the quality of the site
 - d. protecting historic and other key site features and managing construction impacts
 - e. providing effective flood alleviation.

Figure F.4 Illustrative aerial view



Creating a new multifunctional space

- F.5.11 As shown on the indicative Proposed landscape plan, a raised area of permanent hardstanding is proposed above the CSO drop shaft, with a timber seating area providing vistas over the park to the ornamental lake. This area is referred to in the *DAS* (which accompanies the application) as

a 'multifunctional area' of public space. The final detailed design would be guided by the potential solution illustrated in the *DAS* and consistent with the generic and site-specific design principles, which would be secured by a Requirement or Section 106. The final detailed proposals would in due course be submitted for approval by the LBW, pursuant to a site-specific Requirement.

- F.5.12 The area of permanent hardstanding above and around the shaft would be raised above the ground existing level of King George's Park (as required by design principle KNGG .P8) by approximately 1m. This is necessary to enable construction of new structures around the very shallow existing sewer and also to align the hardstanding with Neville Gill Close, which is elevated above the ground level in the park.
- F.5.13 The Design Council CABE and the LBW provided guidance throughout consultation with regard to the function and design of the proposed multifunctional space, and the proposals developed in accordance with this guidance. The Design Council CABE stated the "*idea of a sloping platform that is adaptable in use, accommodating informal activities as well as local events, could become a valued addition to the park's facilities*". The illustrative design proposal within the *DAS* suggests the space could be used for a mobile café which would increase the activity within the space and introduce a new character area to the park. This concept was welcomed by the Design Council CABE and the LBW, who had both advised against the permanent installation of a café use. Design principle KNGGP.10 ensures that the required service connections to the area of hardstanding would be provided to enable others to set up a café should this prove desirable and economically viable in the future.
- F.5.14 The Design Council CABE requested that "*bold solutions for incorporating access ramps*" into the design should also be considered. The illustrative proposal in the *DAS* indicates that a ramp could be included to the southwest of the multifunctional space in order to facilitate inclusive access to this part of the park. This is also shown on the indicative Proposed landscape plan.

Achieving high quality design and careful siting of the above-ground structures

- F.5.15 The ventilation column proposed at King George's Park would be a maximum of 8m in height. A smaller diameter column to serve the CSO interception chamber would be a maximum of 6m in height. An integrated electrical and control kiosk and ventilation structure would be a maximum of 3m in height. This is shown in the Site works parameter plan which is for approval. Details of the external appearance and materials of the ventilation column and electrical and control kiosk would in due course be submitted to the LBW for approval, pursuant to a site-specific Requirement. Local input to the final solution would ensure the materials would be high quality and durable.
- F.5.16 The proposed height of the ventilation structure was reduced in scale from approximately 10m to approximately 6m in height. Early designs proposed a kiosk and ventilation column combined as one structure and integrated as part of a café or information stand for the park. This option was

eventually rejected, in consultation with the LBW, in favour of a separate ventilation column to create a memorable place and celebrate the project.

- F.5.17 The LBW specifically requested that the permanent works should be *“located on the Neville Gill Close boundary away from the junction of Neville Gill Close and Buckhold Road”*. In accordance with this advice, the integrated electrical and control kiosk and ventilation structure would be located adjacent to the eastern boundary of the site. This would maintain the openness of the multifunctional space and reinforce the ‘perimeter planting zone’ (as detailed in the *DAS*). Consolidating the permanent structures into one area east of the multifunctional space would increase their distance from residential properties along Buckhold Road and would facilitate maintenance access from Neville Gill Close, as required by the LBW.

Improving the quality of the site

- F.5.18 The proposed main entrance would be at the north-eastern corner of the park at the junction of Neville Gill Close and Buckhold Road, as shown on the Access plan, which is for approval. This was primarily so that the new pedestrian access would also enhance the existing setting of the park by creating a new main pedestrian entrance to link directly with the areas of public realm and pedestrian routes associated with the Cockpen House and Business Village development. The relocation of the access was requested by the LBW and was supported by the Design Council CABE. Design principle KNGGP.03 ensures that the design would consider and accommodate plans for alternative/additional pedestrian access at this corner of the park.
- F.5.19 The existing main Buckhold entrance would be removed which would enable the ‘D-shaped’ area of hardstanding in front of the entrance to be replaced with soft landscaping. This responds to the LBW’s phase two consultation comment which stated that *“the existing recessed and hard paved entrance should be grassed and planted to”* to meet the overarching objective of reducing hardstanding in the park. This design minimises the amount of hardstanding in the park other than that required for the proposed public realm and creates a wide, open entrance to the park. Design principle KNGGP.05 encapsulates this. All new paths and areas of hardstanding would be surfaced in Bredon Gravel, as required by the LBW. Design principle KNGGP.06 seeks to maximise the amount of soft landscaping within the site boundary to maintain the character of the park.
- F.5.20 In line with the views of the LBW, the design proposes a non-secure/un-gated approach for the proposed landscape design, as detailed in the *DAS*.
- F.5.21 The Design Council CABE highlighted the importance of devising an appropriate strategy for the site in terms of pedestrian movement and circulation. Illustrative proposals in the *DAS* advocate 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 site. This is committed to by design principle KNGGP.04 which would ensure that the design would link key

points within the park so that they are legible and integrated into existing or future conditions of the park.

- F.5.22 The LBW commented at phase two consultation that the proposal should include “*more adequate*” landscaping and planting. Illustrative proposals now incorporate further planting including shrub and tree planting around the north-eastern and northwestern perimeter of the site. This is committed to by design principle KNGGP.01 which seeks to ensure that the planting and landscape design would reinforce edge planting at the park boundaries within the site boundary. KNGGP.06 ensures that at least four specimen trees would be planted along the northwestern boundary.
- F.5.23 Furthermore, in agreement with the LBW, advanced planting is proposed prior to construction. This would mitigate the loss of existing trees within the main site area and would help screen the construction works. It was 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. This is encapsulated by design principle KNGGP.15.

Protecting historic and other key site features and managing construction impacts

- F.5.24 All the important site features listed in F.5.9 would be protected, as indicated on the indicative Proposed landscape plan. This is committed to by a range of site-specific design principles, and Requirements as explained below.
- F.5.25 The Greater London Authority and the Design Council CABI requested that the historic gates and railings are protected, preserved and relocated elsewhere in the park. As illustrated in the *DAS*, the existing historic gates of the original park entrance would be relocated to the north-western Buckhold Road access to the park. Design principle KNGGP.01 commits to the re-use of railings and gates, where possible and practicable, as part of the new park boundary fronting Buckhold Road. The final details of the relocation and replacement fencing/railings/enclosures would in due course be submitted for approval by the LBW (pursuant to a site-specific Requirement).
- F.5.26 In response to consultation feedback from the LBW, design principle KNGGP.09 was developed so that the John Young bench and memorial tree would be retained in their current position in the final design. Section 4 of *CoCP* Part B requires protective hoarding to be installed around the existing memorial tree and bench. A site-specific Requirement would ensure that specific protective works to the memorial tree and bench are undertaken during site setup and details of these works submitted to the LBW in due course for approval.
- F.5.27 Design principle KNGGP.02 was developed with the LBW in order to ensure that the existing avenue of trees along the eastern edge of the park, which terminates at the north end with the Black Poplar and Red Oak trees would be retained, with the exception of trees shown on the Site clearance and demolition plan for removal and the possible pruning of the

Red Oak. Section 11 of *CoCP* Part B seeks to protect trees during construction, in particular the Black Poplar and the Red Oak tree.

- F.5.28 In addition to the measures already discussed, Thames Water sought to limit potential construction impacts throughout the consultation period and through numerous design developments. Section 4 of *CoCP* Part B would incorporate planted hoarding on public facing sections. The site cabins and welfare facilities would be coloured dark green to tie in the colour of the hoardings. Operating plant and equipment would be set back from the bank of the ornamental lake to leave an 8m buffer zone, unless agreed otherwise (Section 4).

Providing effective flood alleviation

- F.5.29 Detailed design development work, flood modelling as part of the *Flood Risk Assessment*, and on-going consultation with the Environment Agency identified the need for flood storage capacity in the ground to facilitate flood water conveyance and reduce the flood risk to properties surrounding the park. This is shown on the indicative Proposed landscape plan. A potential design solution for the treatment of this space is illustrated as a 'sunken garden' in the *DAS*. This proposal was discussed with the LBW and the Environment Agency, and received the latter's agreement.
- F.5.30 Design principle KNGGP.12 ensures that the design shall incorporate the re-contouring of the site to improve flood plain characteristics as agreed with the Environment Agency. This would require part of the existing site adjacent to the shaft to be lowered by up to 700mm. Re-contouring would be in keeping with the character of the park and the overall landscape design for the site. Any approved Environment Agency Flood Alleviation Scheme shall be considered during construction, with designs amended accordingly, wherever practical.
- F.5.31 Refer to the Water resources and flood risk subsection for further details.

Conclusion

- F.5.32 In conclusion, the proposals for King George's Park were carefully developed through a collaborative process of design review and extensive consultation. The key functional requirements at this site relate to the need to build and ventilate the tunnel in an efficient manner, the interception of the Frogmore Storm Relief – Buckhold Road CSO and connection with the Frogmore connection tunnel. The aesthetic components relate to the creation of new multifunctional area within the context of a high quality landscaped site, while protecting and enhancing historic and other key site features. The functional and aesthetic elements are combined in a way that would create an attractive and adaptable space. Through a careful and considered site layout and appropriate landscaping, the proposal responds sensitively to the characteristics of the site and its neighbours, and is successfully integrated into an existing area of Metropolitan Open Land.
- F.5.33 The design life of the major civil engineering components of the project is 120 years, including buildings. The details of the external finishes of the above-ground structures are not specified in the application, but are to be

submitted for the subsequent approval of the local planning authority. These details must be in accordance with the design principles, which require materials to be high quality and long lasting. The project was therefore designed to be durable and resilient to change.

- F.5.34 The proposals at this site achieve good design, in accordance with NPS paras. 3.5.1 to 3.5.4.

Water resources and flood risk

- F.5.35 There are no licensed or known unlicensed abstraction sources from the upper or lower aquifers located within a radius of 1km around the site.
- F.5.36 The licensed groundwater abstractions from the Chalk would not be impacted as no construction would take place in or around the lower aquifer.
- F.5.37 The King George's Park site is locally designated as a Site of Importance for Nature Conservation. There are no other environmental designations relevant to ground water within the vicinity of the site.
- F.5.38 The site is located within Flood Zone 3a and is approximately 180m to the southwest of the River Wandle. The river flows northwards within a predominantly man-made channel towards Wandsworth town centre and passes through a culvert beneath the Southside Shopping Centre (to the east of the site). The river re-emerges north of Wandsworth High Street and continues to flow north to discharge into the River Thames via Bell Lane Creek.
- F.5.39 A Flood Risk Assessment including the sequential and exception test was undertaken in accordance with NPS Section 4.4 accompanies the application and is included within the *Environmental Statement* (Vol 3, Section 15 and Vol 4, Section 15). The results of the modelling in the Flood Risk Assessment demonstrate that the flow capacity of the twin culvert beneath the Southside Shopping Centre is not sufficient to convey the 1 in 100 year fluvial flood event. Such events would cause backing up in the River Wandle channel upstream and water to come out of the bank adjacent to the recreation ground located immediately to the east of King George's Park and south of Mapleton Road. The predominant flow path follows a westerly direction into King George's Park where water would pond until it reaches sufficient level to spill over into the northern part of the park and propagate northwards to the location of the proposed site.
- F.5.40 Regarding surface water flood risk, the King George's Park site is located within a depression. There is therefore the potential for overland flow, generated on the surrounding highways and impermeable surfaces, to flow towards and pond on the site. King George's Park site is also located within a Critical Drainage Area. As a result, the surface water management plan identifies flood depths of up to 1.5m on the site for a 1 in 100 year flood, plus a climate change rainfall event.
- F.5.41 Appropriate measures are embedded within the design to avoid the proposed hardstanding area and raised CSO shaft causing an increase in flood risk on the site or elsewhere. As part of the phase two consultation and Section 48 response, the LBW raised concerns over the requirement

for compensatory flood storage within the park and requested that there is a full understanding of land levels and predicted localised flooding. Similarly the Environment Agency raised concerns over the proposed development in undefended floodplain associated with the River Wandle and the implications this may have on flood storage and surrounding flood levels.

- F.5.42 Thames Water has consulted with the Environment Agency and the Council in relation to the flood storage and flood level implications to this site. This required a collaborative working relationship between all parties. This took place over the last 12 months and included meetings, presentations, hydraulic modelling, reporting and on-going correspondence to achieve an understanding of the flood risk issues at the King George's Park site.
- F.5.43 A shallow landscaped depression is indicated on the indicative Proposed landscape plan to the west of the drop shaft. This would be created through landscaping and would effectively lower the existing ground levels to facilitate the northward flow of floodwaters through the park at this point. Design principle KNGGP.12 requires re-contouring of part of the site to improve flood plain flow characteristics as agreed with the Environment Agency through lowering part of the adjacent site by up to 700mm.
- F.5.44 The Environment Agency is in the early stages of devising a Wandsworth Town Flood Alleviation Scheme to reduce the risk of flooding from the River Wandle, which could potentially include a flood storage option at King George's Park. It is uncertain when or if this scheme would be implemented. However, design principle KNGGP.12 requires the consideration of any approved Environmental Agency flood alleviation scheme and provides the flexibility for the proposed design at King George's Park to be amended in accordance with future Environment Agency proposals through discussion with the Environment Agency, wherever practical. The final detailed surface water drainage proposals would in due course be submitted for approval by the LBW (pursuant to a site-specific Requirement).
- F.5.45 The Environment Agency confirmed their approval of the design proposals at the King George's Park site in October 2012.
- F.5.46 The *Environmental Statement* (Vol 9, Appendix M) concludes that the incorporation of these design measures would ensure that the proposed works do not result in a significant increase in the flood levels in the park or surrounding area during the 1 in 100 year (1 per cent AEP) including climate change fluvial event.
- F.5.47 In accordance with the *CoCP Part A* (Section 8) all site drainage during construction would be drained and discharged to mains foul or combined sewers. Where this is not practicable, the site would be drained such that accumulating surface water would be directed to holding or settling tanks, separators and other measures prior to discharge to the combined or surface water drains. Foul drainage from the site welfare facilities would be connected to the mains foul or combined sewer. This design measure would help manage the risk from this source during construction but would not reduce the level of risk associated with this flood source. Section 8 of

the CoCP Part B seeks to ensure that all hardstanding (as far as reasonably practicable) would incorporate permeable surfacing.

- F.5.48 Thames Water considered design approaches and measures to ensure surface water is positively drained from this site when operational. The permanent design would comply with the design principles, including generic site drainage principle SDRN.03, which requires site drainage to ensure that post-development surface water run-off rates do not exceed existing rates. Pursuant to a Requirement the specific drainage details would be submitted and approved in writing by the local authority. Design principle KNGGP.05 seeks to reduce hardstanding as far as practicable, and design principle KNGGP.06 seeks to maximise the amount of soft landscaping within the site to improve water drainage
- F.5.49 The proposed development would be appropriate for the area. Flood risk to the development would remain unchanged and would be managed through appropriate design measures in the CoCP. The development would not lead to a significant increase in flood risk in the surrounding areas, and there is the potential through the proposed Landscape design to improve flood plain flow characteristics, so the criteria in NPS para. 4.10 would be met.

Air quality, emissions, dust and odour

- F.5.50 The LBW has declared the whole Borough an Air Quality Management Area. Local monitoring data indicates that there are currently exceedences of the air quality standard for nitrogen dioxide in the vicinity of the site.
- F.5.51 The nearest receptors which may be sensitive to air quality changes are potential occupiers of nearby residential dwellings and commercial/retail units under construction to the north and northwest at Cockpen House and the Business Village, and occupiers of nearby residential dwellings at Park View Court to the northwest. Other sensitive groups include users of King George's Park, Southside Shopping Centre, Penfold Day Centre, the Southwest London Army Cadet Force and the One O'clock centre.
- F.5.52 An assessment of the air quality impacts of the proposed development during construction and operation is provided in the *Environmental Statement* (Vol 9, Section 4) and includes impacts arising from emissions and dust. In accordance with the measures incorporated into Section 7 of CoCP Part A, all reasonable steps would be taken to minimise detrimental impacts on air quality or amenity resulting from emissions and dust. With the implementation of the CoCP measures, the overall effect on local air quality from construction (ie, effects from construction road traffic and construction plant) would not be significant at any of the closest sensitive receptors.
- F.5.53 The consideration of operational air quality impacts including odour are set out in Section 8 of the *Planning Statement*. The project-wide *Air Management Plan*, which accompanies the application, is designed to ensure that the air in the tunnels is kept fresh, that a low pressure is maintained within the tunnels to prevent unwanted releases and that when air is released it is treated. This would be achieved by a combination of forced or active ventilation and treatment and passive air treatment. In

addition, at all sites there are to be ventilation structures which would allow air to enter and leave the tunnel system.

- F.5.54 When the tunnels are empty, clean air would be drawn into the tunnels at specific sites by the extraction of air at other specific sites so as to keep the air in the tunnels fresh. This means that odours would not build up while the tunnels are empty. As the tunnels fill, air displaced from the tunnels would initially be extracted and treated at the active ventilation sites before being released and later, depending of the level of filling, would pass through the passive carbon filters. These filters clean the air and remove any odours before it is released.
- F.5.55 At passive ventilation sites a passive carbon filter would be installed within a below ground chamber. During a typical year this treats all the air displaced from the particular shaft which would occur only when the shaft is drowned by the rising wastewater in the tunnel. During infrequent, extreme storm events (approximately once in 15 years), the air that is pushed out of the shaft could exceed the capacity of the passive filter and would be released untreated through a pressure relief structure to prevent damage to the passive filter. For 100 per cent of the time during a typical year, all air released would be treated, which means that all regulatory requirements would be met and there would be no nuisance odours or loss of amenity due to odours.
- F.5.56 The construction and operational effects with regard to air quality and odour would be consistent with the NPS policy objectives to minimise detrimental impacts on amenity and the likelihood of nuisance (paras. 4.12.3, 4.11.4 and 4.11.5) at King George's Park. Appropriate measures are proposed to ensure that proposals would not lead to any substantial changes in air quality, emissions, dust or odour or a significant loss of amenity during construction or operation.

Biodiversity and geological conservation

- F.5.57 The site is not designated for its geology or geomorphological importance, and there are no internationally (Special Protection Areas, Ramsar sites) or nationally designated ecological sites (Sites of Special Scientific Interest, Marine Conservation Zones) in the vicinity of the site.
- F.5.58 The site lies within King George's Park Site of Importance for Nature Conservation (Grade B) designated both as an important wildlife corridor and for its assemblage of features of value. In addition, as recognised within the citation for the designated site, the habitats provide a corridor for the movement of notable species (including sparrows and bats) across the Site of Importance for Nature Conservation and through the borough.
- F.5.59 As there would be no in-river works associated with the proposed development on this site, there would not be any impacts on aquatic ecology.
- F.5.60 In terms of terrestrial ecology, the site includes amenity grassland, mature trees, shrub planting, standing water, a lake with marginal inundation vegetation and dense continuous scrub. In addition, surveys indicated that hedgehogs may occasionally pass through the site as they move between areas of shelter within King George's Park.

- F.5.61 The *CoCP* requires an ecological management plan to be prepared for the site, to detail the approach to managing effects on ecological receptors.
- F.5.62 There are a number of site-specific measures set out in *CoCP* Part B to improve terrestrial ecology on site during construction. Section 11 of the *CoCP* Part B states that advanced planting, avoiding trees where possible, would provide high quality planting to that lost. As a result, there would be no significant effects on terrestrial habitats or species.
- F.5.63 Generic design principle FNCC.10 would ensure that the combined kiosk and ventilation structure incorporates a brown roof to reduce surface water run-off and to promote biodiversity. By covering the roof with materials such as low nutrient rubble and gravels, natural colonisation by brownfield plants of particular value to insects and birds, would be promoted.
- F.5.64 Design principle KNGGP.15 seeks to ensure that advanced planting shall be undertaken prior to site clearance and construction in order to partially screen views of the site and to enhance the setting of the park. The advanced planting would comprise tree and hedge planting along the path that runs adjacent to the lake and continues for a short distance where the path forks towards Buckhold Road and up towards the site. Design principle KNGGP.13 states that on completion of the works, approaches such as gaps in fence bottoms and railings shall be provided, where appropriate, in order to allow hedgehogs free transit through the site. Design principle KNGGP.14 would incorporate suitable ground treatment and planting structures into the landscape design in order to promote natural colonisation by terrestrial invertebrates. Replacement trees would include semi-mature and specimen trees.
- F.5.65 The *Environmental Statement* (Vol 9, Section 6) concludes that there would be improvements to the habitat resource on site due to advanced planting and reinstatement of habitats on site following completion of works.
- F.5.66 In accordance with NPS policy, the proposed development and mitigation measures would avoid significant harm to biodiversity and geological conservation interests. Thames Water also sought to take advantage of the opportunities to conserve and enhance biodiversity and the works proposed to provide advanced planting, the reinstatement of trees and planting would significantly improve the quality of the site. These measures would be addressed through final landscape designs to be submitted to and approved by the LBW, and would allow for the maximisation of opportunities for building in beneficial biodiversity features as part of good design (NPS para. 4.5.14).
- F.5.67 As required by the NPS (para. 4.5.17), the footprint of the proposals is no greater than it needs to be and measures are in place to mitigate any adverse effects and to put in place proposals to enhance the value of long term habitats on the site.

Landscape and visual impacts

- F.5.68 The site does not lie within or in close proximity to any nationally designated landscapes. The local townscape shaped the design development and evolution of the proposed works in this location.

- F.5.69 The *Core Strategy* and the draft West Hill Road Conservation Area Appraisal (produced by the LBW) were taken into account in this assessment, in accordance with NPS para. 4.7.2.
- F.5.70 The existing visual quality of the site is good, with the landscape and planting generally well maintained. The site is largely open and green in character, with strong vegetated enclosures to the boundaries and a clear vista over the ornamental lake. The mature cherry trees that line the main footpath running south through the park are in fair condition, with potential for enhancement.
- F.5.71 The intensity of construction activity (and related visual and townscape impacts) would vary throughout the phases.
- F.5.72 The King George's Park townscape and visual assessment (*Environmental Statement*, Vol 9, Section 11) identifies residencies on Buckhold Road where the impact of the construction activity in and around the site might be most visible particularly because of its proximity. This includes foreground visibility of the tree removal, construction activity and plant, welfare facilities, site hoardings and construction traffic along Buckhold Road and Neville Gill Close. Views east from these residencies on to the site are largely obscured by the presence of mature vegetation along the boundary of King George's Park. During summer, screening provided by this vegetation is more effective than in winter months. However, some of this vegetation lies within the site boundary so this may be removed during construction. Views on to the site from the lower floors of these residences would also be partially reduced by the use of climbing plants on the site hoardings, as required by section 4 of *CoCP* Part B. Views into the site would be more visible from upper floors. Views from these properties are generally well contained and the nature of the construction activity is such that it would be temporary and well controlled.
- F.5.73 The *Environmental Statement* (Vol 9, Section 11) identifies a potential significant temporary visual impact from the Chinese Bridge in King George's Park (viewpoint 2.1) and from the lakeside footpath close to the children's playground (viewpoint 2.7). Views towards the site are both partially screened by existing mature tree planting around the periphery of the lake. Views would also be screened by measures set out in *CoCP* Part B including advanced planting undertaken in the park along the main north-south footpath (Section 11) and by the use of climbing plants along the site hoardings (Section 4). These viewpoints are used by recreational users of the park, and no residential properties are affected. Therefore, in planning terms the visual impact would not be significant particularly given that the nature of construction activity would be temporary and well controlled.
- F.5.74 The *Environmental Statement* (Vol 9, Section 11) also identifies a potential significant temporary visual impact from Neville Gill Close. The retention of mature trees along the boundary of King George's Park and the use of climbing plants on the site hoardings would reduce these effects. There are no residential properties in this location, therefore in planning terms the visual impact would not be significant.

F.5.75 Once the project is operational, the tree planting established as part of the site would have matured, providing significant visual improvements and enhancements to the character of the site.

F.5.76 In conclusion, construction activity would result in temporary visual impacts on sensitive receptors in close proximity to the site. A range of mitigation measures is applied to reduce these impacts as much as practicably possible. Once construction is complete the improvements to the quality of the site would benefit townscape and visual amenity. The proposals are therefore consistent with the approach required in NPS Section 4.7. The landscape and design proposals were designed taking careful account of the townscape characteristics of the area, to minimise adverse effects during construction and to create significant longer term townscape and visual benefits.

Land use including open space, green infrastructure and green belt

F.5.77 King George's Park is a publicly accessible open space. The park was formally on the Historic Parks and Gardens Register and is now designated as Metropolitan Open Land. Despite the Metropolitan Open Land designation (which typically suggests a regional value), the site is valued at the borough scale by virtue of its size and location providing predominantly for people who live in the local area. It is approximately 23ha in size and is classified as a 'district park' within the Greater London Authority Open Space Hierarchy.

F.5.78 The *Open Space Assessment* reviewed the quality and value of this area and assessed the potential impact of the project upon it. It concludes that there is no deficiency of open space provision in the area. See the Land use plan in Annex F.

F.5.79 According to the *Open Space Assessment*, the proposals at King George's Park would require the temporary fencing off of a small part of the park during construction. This temporary loss would be approximately 0.3ha, which is less than two per cent of the total area of King George's Park (approximately 23ha). During construction, the park would continue to function as a District Park with a range of informal and formal recreational facilities. The impact of the loss of part of the park during construction would not be significant.

F.5.80 Once the construction works are complete, the site would be returned to public open space. An area of existing hardstanding (described in para. F.5.19) measuring approximately 0.03ha would be returned to soft landscaping. The proposed area of hardstanding would measure approximately 0.05ha and would replace an area of land previously laid to grass / vegetated. The net loss of green space as a result of the project would therefore be approximately 0.02ha, which would amount to less than one per cent of the total area of King George's Park. This land would need to be permanently acquired but the proposed area of hardstanding would be landscaped in such a way that users would be able to continue to use it for passive recreational purposes, as it is as present. Further, it is proposed that the space would be significantly enhanced with the

provision of a high quality public realm and sensitive landscaping adding value to its function. As illustrated in the *Design and Access Statement*, Thames Water developed a design solution to illustrate a way in which a mobile café could be created. This is summarised in the Good design subsection.

- F.5.81 In undertaking the balancing exercise envisaged by NPS paras. 4.8.13 and 4.8.14, the loss of a very small area of open space therefore needs to be weighed not just against the benefits associated with the interception of the CSO, but also against the benefits of the longer term enhancement of that space. The permanent works including the re-provision of enhanced landscaping and a high quality public realm would significantly improve the park overall.
- F.5.82 The proposed works would not prevent the beneficial continuation of surrounding land uses, either during construction or operation. Similarly, no extant planning permissions, committed developments, or policy allocations for future development within the surrounding area would be adversely impacted as a result of the works.

Noise and vibration

- F.5.83 The noise conditions in the vicinity of the site are predominantly generated from road traffic noise arising from vehicles associated with the Southside Shopping Centre to the east of the site and occasional vehicles associated with the surrounding residential/mixed-use developments to the north and west.
- F.5.84 The nearest residential receptors are located at 55-75 Buckhold Road, 1 to 72 Albon House, 1 to 20 Park View Court, Cockpen House. The nearest non-residential receptors are The Penfold Day Centre, One O'clock Centre and the King George's Park site itself.
- F.5.85 The NPS recognises that Nationally Significant Infrastructure Projects are likely to take place in mature urban environments, and in the short term, to lead to noise disturbance during construction.
- F.5.86 A series of measures are embedded within the project design, within Section 6 of the *CoCP* Part A. This includes operating in accordance with best practice, selection of the quietest cost effective plant available, and optimisation of plant layout to minimise noise emissions. Compliance with these measures is secured through a project-wide Requirement.
- F.5.87 As a result of the proposed mitigation measures and the sensitive site layout and design, there would be no significant noise or vibration effects at this site during the construction or operational phases, as confirmed in the *Environmental Statement* (Vol 9, Section 9). The proposed works therefore comply with NPS paras. 4.9.8 and 4.9.9.

Historic environment

- F.5.88 This site does not contain any significant (statutorily protected or otherwise important) heritage assets, nor are there any in the immediate vicinity.

- F.5.89 The site does not lie within a conservation area and contains no locally listed buildings. King George's Park is no longer included in the English Heritage Register of Parks and Gardens of Special Historic Interest.
- F.5.90 There are a range of site-specific design principles and measures in *CoCP* Part B to protect and/or enhance important historic features in King George's Park. These measures were developed in consultation with the LBW and the Design Council CABE. The final details of these measures would in due course be submitted for approval by the LBW, pursuant to a set of requirements. They are summarised below.
- a. The historic ornamental gates and historic railings would be protected and reinstated or relocated elsewhere if practicable.
 - b. The John Young bench and memorial tree shall be protected during construction and retained in its current position in the final design.
- F.5.91 For further details, refer to the Good design subsection of this appendix under the heading of Protecting important site features and managing impacts.
- F.5.92 Measures were taken to minimise the land take at the site. An approach to recording evidence is proposed, which was developed and agreed with English Heritage. As a result, there would be no residual archaeological impacts on at this site. If in undertaking any works, archaeological finds not previously identified are found to be present at the site, then no further development shall take place until a written scheme of investigation is agreed with the LBW (pursuant to a site-specific Requirement).
- F.5.93 The design developed, as far as is practical, to take opportunities to enhance the long term setting of the northern section of King George's Park.
- F.5.94 In conclusion, as a result of the mitigation measures proposed, both the construction and operational phases would not involve any activities which would cause substantial harm affect buried or above-ground heritage assets. The proposals accords with the decision making principles in the NPS.

Light

- F.5.95 Measures are included within the *CoCP* Part A to ensure that all reasonable steps would be taken-to minimise detrimental impact on amenity resulting from artificial light. For example, site lighting during construction would be capped and directional to ensure minimal light spill and lighting is only used when necessary and as such there would be no unreasonable effect on residential properties during the construction period. The *Environmental Statement* (Vol 9, Section 11) states that effects arising from lighting during the construction and operational phases were not assessed. This is on the basis that there would not be any significant effects.
- F.5.96 The *Daylight/Sunlight Assessment* establishes that the proposed temporary and permanent works at King George's Park would not have a material impact on sunlight or daylight of surrounding residential

properties, therefore this issue was scoped out of the detailed assessment.

- F.5.97 Design principle KNGGP.11 was developed through consultation with the LBW. A low level light shall be provided to the kiosk doors to allow access for maintenance purposes in the hours of darkness. This light shall only be activated by a directional motion control switch, linked to the door opening. In addition, low level lighting would be provided at the entrance, along the steps around the permanent platform of the works.
- F.5.98 The final detailed lighting proposals would in due course be submitted for approval by the LBW alongside other landscaping details, pursuant to a site-specific Requirement.
- F.5.99 In conclusion, all reasonable steps have been taken to minimise any detrimental effects arising from the use of artificial lighting at the site in accordance with NPS para. 4.12.7. As a result, there would be no significant artificial light effects on amenity during the construction or operational phases.

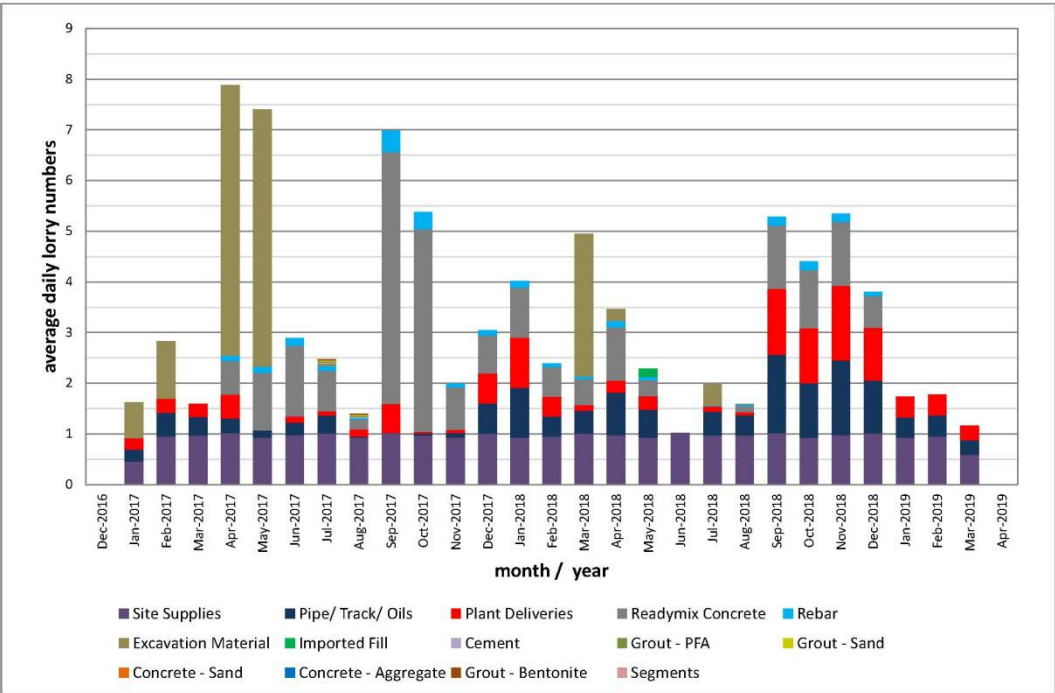
Traffic and transport

- F.5.100 The King George's Park site has 'moderately good' public transport accessibility with a Public Transport Accessibility Level of 4. Wandsworth Town Rail Station is approximately 1km to the northeast of the site. The closest underground station, East Putney station, is approximately 1.5km to the west and is accessible by buses which route along Wandsworth High Street (A3) approximately 200m walking distance to the northeast of the King George's Park site. There are 13 daytime bus routes operating within walking distance of the site.
- F.5.101 Access to and from the King George's Park site would be via the provision of a new vehicular access on Neville Gill Close, which would be used on a right turn in and left turn out only arrangement by construction vehicles. Neville Gill Close would be accessed via Buckhold Road. Construction vehicles would access Buckhold Road via Wandsworth High Street to the northeast.
- F.5.102 At this site there would be no parking provided within the site boundary for construction workers and parking on surrounding streets is restricted. The *Transport Assessment* assumes, based on a robust assessment, that the predominant mode of travel for workers would be bus, travelling to and from the site from the bus stops closest to the site, including, inter alia, the bus stops on Broomhill Road to the south-west and the Wandsworth Southside bus stop on Buckhold Road. A range of measures to reduce car use would be incorporated into a site-specific travel plan, which would be subject to a site-specific Requirement to submit to the local planning authority for approval. The requirements for the site-specific travel plans are set out in the *Draft Project Framework Travel Plan*, which accompanies the application.
- F.5.103 During construction, HGV movements would take place on weekdays between 8am to 6pm and on Saturdays from 8am to 1pm. Up to one hour before and after these hours for mobilisation and demobilisation of staff. In exceptional circumstances, on agreement with the local authority, HGV

and abnormal load movements could occur up to 10pm or later for large concrete pours. There would be no continuous working at this site.

F.5.104 As stated in the *Transport Assessment*, it is anticipated that an average of four HGVs would access the site per day for the majority of the construction period. This would rise to approximately eight HGVs per day over an estimated four month period while the shaft is being excavated. There may be additional periods during key construction activities when these HGV numbers would need to be exceeded. Further details regarding the number and breakdown of anticipated heavy goods vehicles accessing the site per day is contained in the *Transport Assessment*. The histogram in Figure F.5 shows the construction vehicle profile during construction.

Figure F.5 Estimated construction lorry profile



F.5.105 As shown on the Access plan which is for approval, a small section of the highway on the western side of Neville Gill Close would be temporarily stopped up for construction of crossover(s) for the site and permanent access. The kerb on the eastern side of Buckhold Road would be realigned and the pedestrian refuge relocated to accommodate construction vehicles. There would be no suspension of parking bays during construction. However, it may be necessary to extend the single-yellow parking restrictions immediately around the proposed site access on Neville Gill Close.

F.5.106 Measures to further reduce transport impacts are detailed in the *CoCP* Part A. These include HGV management and control measures such as designated vehicle routes to sites for construction vehicles. There is also a provision for management plans, for construction workers journeys to and from the site. In addition to the general measures in the *CoCP* Part A, the following traffic and vehicle control measures are incorporated into the *CoCP* Part B.

- a. Layout to enable pedestrian access to/from park on Buckhold Road would be maintained during relevant construction phases.
- b. Access would be from Neville Gill Close with right turn in, left turn out only.
- c. Pedestrian access diversion would be maintained throughout the works.
- d. The footpath diversion within the park would be adequately signed.

F.5.107 In conclusion, construction works in this location are not likely to result in any significant transport effects on road operation or delays. A range of measures are in place in the *CoCP* and travel plan which would mitigate any potential significant impacts. HGV traffic at this site would not be substantial. Parking would not be affected during construction. In addition there would be no significant effects regarding pedestrian and cyclist amenity, safety or local public transport services.

F.5.108 During the operational phase there would be very occasional vehicle trips to and from the site for maintenance and it is unlikely that any parking bays would need to be suspended to provide maintenance vehicle parking therefore there would be no significant traffic impacts.

Waste management

F.5.109 The project-wide Waste Strategy was developed to provide a framework for the management of materials and waste that would be produced throughout the construction and operation of the project. This ensures that the requirements set out in NPS para. 4.14.6 would be satisfied, and the Waste Strategy would be secured via an obligation in accordance with NPS para. 4.14.7.

F.5.110 No particular site-specific waste issues arise at this site.

Socio-economic

F.5.111 The project-wide socio-economic issues and benefits of the project both during construction and operation, and equalities considerations are detailed in Section 8 of the *Planning Statement*.

F.5.112 Within the immediate area there is a mix of uses surrounding the site, predominantly comprising residential and town centre/employment land uses. King George's Park, a public open space, extends to the south of the site and provides recreational facilities. Southside Shopping Centre is located to the east. Residential uses in the vicinity comprise detached or semi-detached dwellings as well as high rise residential blocks located above Southside Shopping Centre. Nearby community facilities include the Penfold Day Centre, the South West London Army Cadet Force facility and the King George's Park One O'clock Centre. Considerable regeneration activity, including residential-led mixed use development, is taking place to the north of the site.

F.5.113 The community profile suggests that the local community is made up of residents who are predominantly of white or black ethnicity, who generally experience good health and have average life expectancy. However, there

are significant incidences of income and overall deprivation within the vicinity of the site.

- F.5.114 In accordance with the NPS, the project undertook an initial Equalities Impact Assessment in order to identify potential (direct or indirect) adverse, differential or positive impacts on equalities groups and to determine whether a full Equalities Impact Assessment should be undertaken. Given the scale of the project and the potential for impacts on certain equalities groups, it was determined that a full assessment should be undertaken.
- F.5.115 The Equalities Impact Assessment concluded that there are no differential negative equalities issues at this site.
- F.5.116 Construction is expected to require a maximum workforce of approximately 40 workers at any one time. This would not significantly alter the demand for services in the surrounding area. These jobs and training opportunities would provide a stimulus to the local economy.
- F.5.117 There would be no significant socio-economic impacts on any nearby sensitive receptors including the users of King George's Park, and there would be no adverse impacts on the functionality of the park during construction of operation.
- F.5.118 Although the proposed works would cause short term inconvenience for some local residents, these would be limited in time and mitigated as far as practical. In the longer term, benefits would arise from the enhancements to the King George's Park site. The creation of a raised platform with seating and a power and water supply would allow for new activities within the park, such as a mobile café. The space would continue to be used for passive recreational purposes and the new pleasantly landscaped area provides an alternative type of space and functionality to other parts of the park. As described in the Good design subsection, there would be improvements to pedestrian movements and linkages within the park and around the wider area with the town centre and nearby developments.

F.6 Overall conclusions

- F.6.1 There is a need to intercept the Frogmore Storm Relief – Buckhold Road CSO. In an average year, the CSO discharges approximately 21 times and discharges 86,000m³ of untreated sewage into the River Thames in the London Borough of Wandsworth. The Environment Agency identified the Frogmore Storm Relief – Buckhold Road CSO as a CSO that needs to be controlled.
- F.6.2 The reduction of discharges from the Frogmore Storm Relief – Buckhold Road CSO would significantly improve the water quality in the tidal Thames with consequent benefits to water quality, ecology, recreation and amenity. It would also help to reduce sewage derived litter and the health risks to users.
- F.6.3 King George's Park was selected after extensive consideration and engagement as the appropriate site on which to meet the need. The site is

suitable and the application proposals would meet the identified need through full interception.

F.6.4 Given the site's location in proximity to residential development, it is inevitable there would be some disturbance during the construction period. Thames Water sought to minimise any disturbance that would be experienced through sensitive design and mitigation, and it is concluded that only one negative effect is likely to remain: a temporary townscape and visual effect during construction from residencies on Buckhold Road and from views within the park.

F.6.5 The assessment above explained that the proposals incorporate measures to limit the effect of any potential impacts. For this one remaining effect, the project design was refined and all practicable mitigation identified and committed to, in accordance with the advice in the NPS. This minor residual impact is only temporary in nature and is an unavoidable consequence of intercepting the CSO which runs beneath the northern part of the King George's Park site.

F.6.6 The proposals at King George's Park would give rise to a number of other significant beneficial effects:

- a. improvements to the visual appearance and setting of the park by:
 - i removal of the existing Buckhold Road entrance and associated hardstanding
 - ii creation of a new access at Neville Gill Close which offers a wider, open entrance to the park, and provides links between the town centre and the new Cockpen House and Business Village development (currently under construction)
 - iii landscaping including planting around the perimeter of the park and the continuation and re-population of Cherry Tree Avenue to the south of the main space
 - iv protection and re-use of the historic cast iron railings and gate as part of a new park boundary respects the original design and integrity of the park.
- b. improvements to the public realm by:
 - i providing a well landscaped and inclusive multifunctional public space within the park with potential for new activities, such as a mobile café. The elevated nature of the space also maximises views to the south over the ornamental lake to the rest of the park.
 - ii improving movement through the site by creating short pedestrian paths to link the new entrance through the multifunctional space to the existing paths to the east and west of the lake. This would also help to integrate the multifunctional space into the wider network of footpaths in the park.
- c. creation of a legacy through the design of the permanent structures
- d. improvements in biodiversity:
 - i advanced planting to create habitats for invertebrates

- ii a brown roof on the electrical and control kiosk to enable the natural colonisation of plants of particular value to insects and birds
- iii gaps in fence bottoms and railings to enable hedgehogs to travel freely through the site.

e. re-contouring of the site to improve flood plain flow characteristics.

F.6.7 The proposed works at the King George's Park site, and the mitigation measures developed and advanced as part of the application, directly accord with the approach required by the NPS. Adverse effects have been minimised as far as possible and opportunities taken to enhance the local environment and to leave a positive legacy.

F.6.8 Sections 8 and 9 of the *Planning Statement* considers the implications of the local effects of the works at King George's Park and the other sites, and describes the overall balance between impacts and benefits associated with the project as a whole, against the guidance in the NPS. It concludes that the works at King George's Park, and the project as a whole, are compliant with the NPS and that development consent should be granted.

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Annex F: Drawings for King George's Park

List of drawings

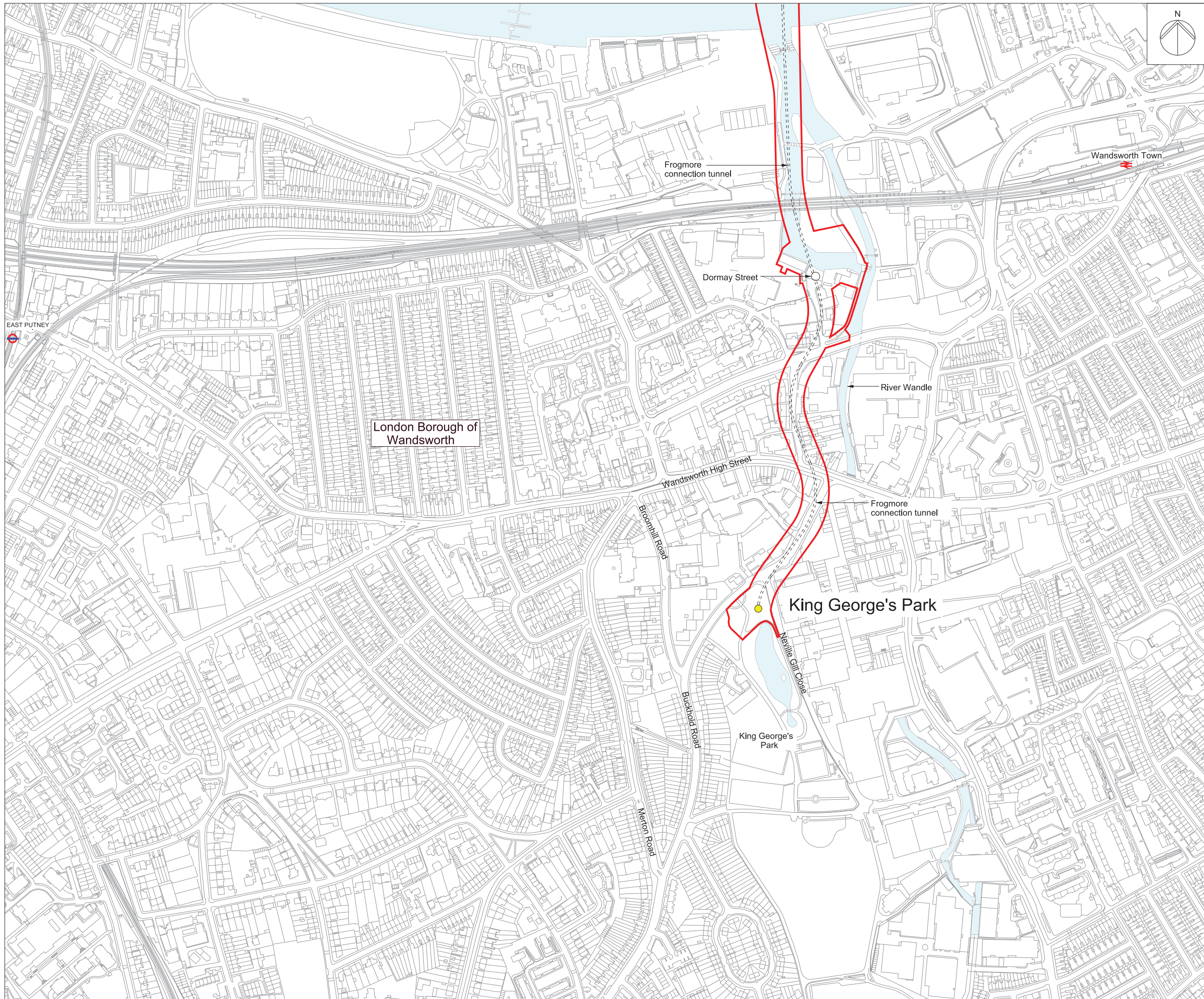
King George's Park: Location plan

King George's Park: As existing site features plan

King George's Park: Construction phases plans

King George's Park: Land use plan

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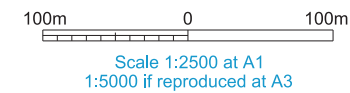
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Coordinates are to be Ordnance Survey Datum OSGB36. All levels are in metres and relate to the Tunnel Datum which is 100 metres below Ordnance Datum Newlyn.

- Key:
- Local authority boundary
 - Order limits
 - Tunnel
 - Shaft

- Notes:
1. The alignment of the tunnels are illustrative within limits of deviation.



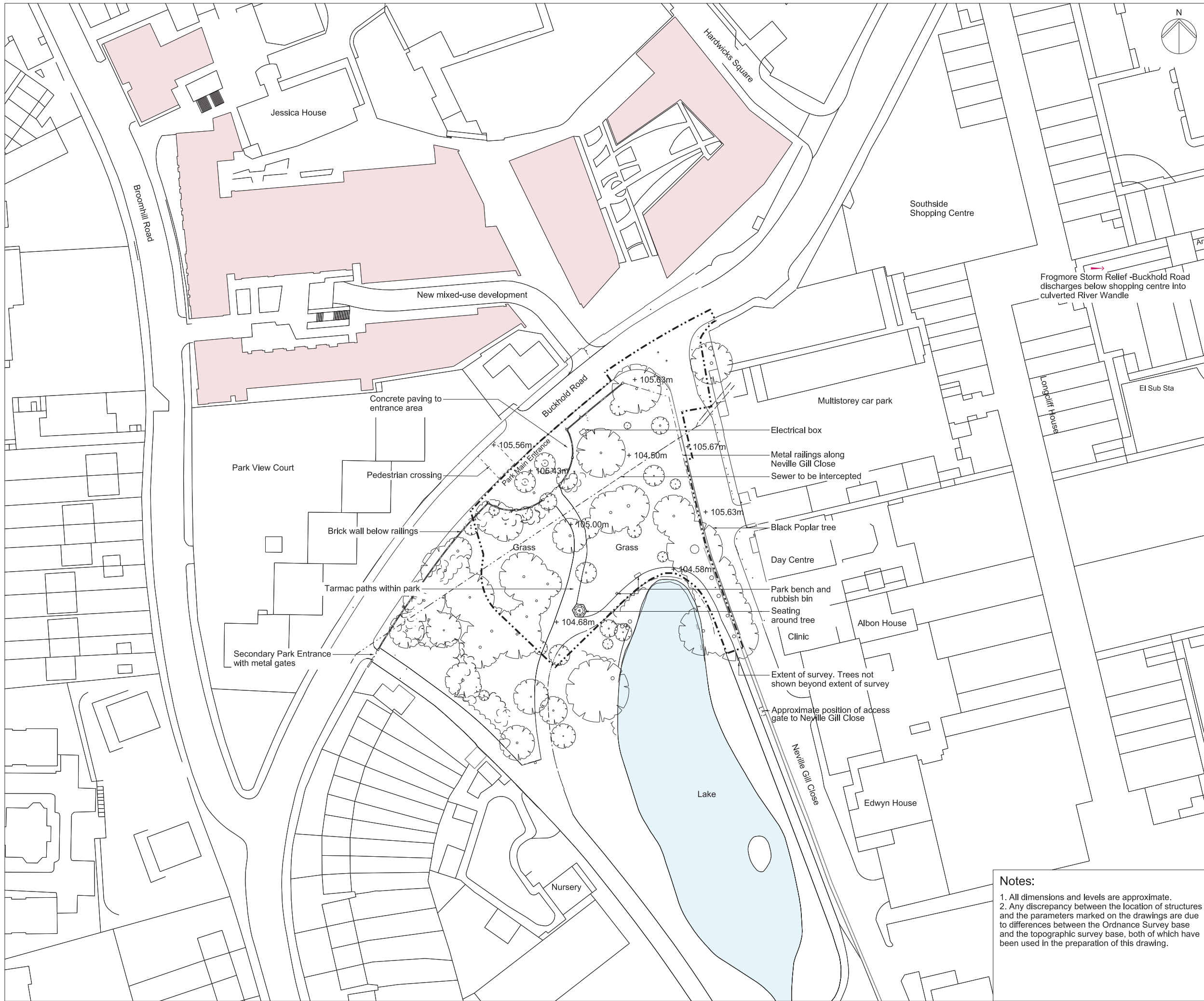
FOR INFORMATION

Location
King George's Park
 London Borough of Wandsworth

Document Information
Application for Development Consent
 Location plan

Book of plans - section 11
 DCO-PP-09X-KNGGP-110001
 January 2013



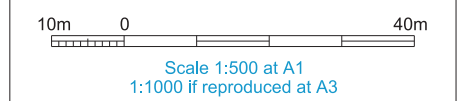


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- Key:**
- Limits of land to be acquired or used (LLAU)
 - + 105.40m Existing levels (shown in metres above tunnel datum)
 - Consented development footprint (by others)
 - Approximate position of CSO outlet
 - Existing trees within surveyed area (trunk sizes vary)



FOR INFORMATION

Location
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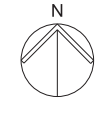
Document Information
Application for Development Consent

As existing
Landscape plan
Book of plans - section 11
DCO-PP-09X-KNGGP-110002
January 2013



Notes:

1. All dimensions and levels are approximate.
2. Any discrepancy between the location of structures and the parameters marked on the drawings are due to differences between the Ordnance Survey base and the topographic survey base, both of which have been used in the preparation of this drawing.

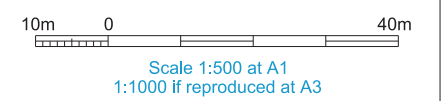


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- Key:**
- Limits of land to be acquired or used (LLAU)
 - Hoarding
 - Maximum extent of working area
 - Existing permissive right of way
 - Route of temporary diversion of footway
 - Site access
 - Access / haul route
 - Existing sewers
 - Advanced planting to be agreed with local authority (see note 5)



Notes :

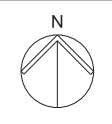
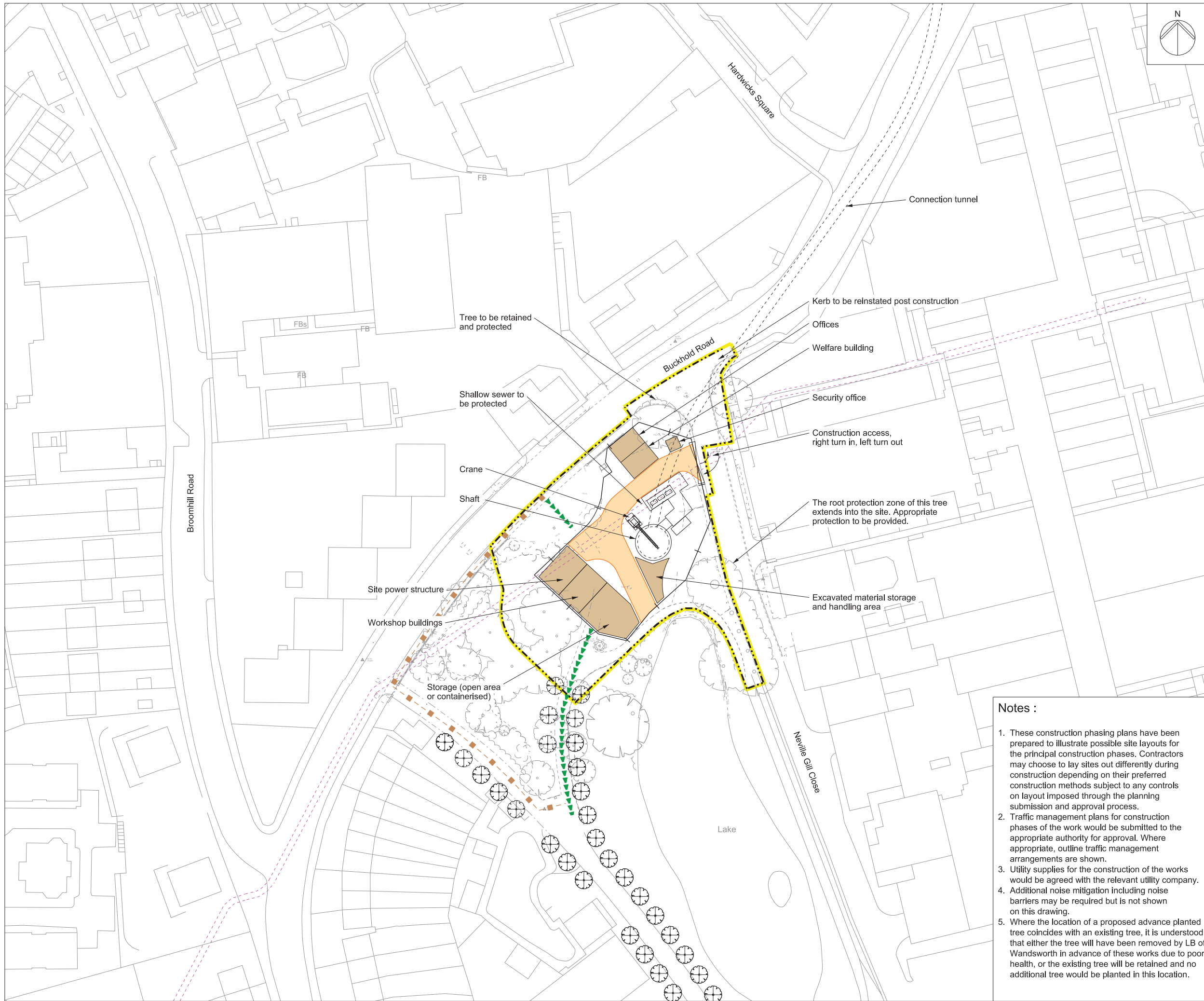
1. These construction phasing plans have been prepared to illustrate possible site layouts for the principal construction phases. Contractors may choose to lay sites out differently during construction depending on their preferred construction methods subject to any controls on layout imposed through the planning submission and approval process.
2. Traffic management plans for construction phases of the work would be submitted to the appropriate authority for approval. Where appropriate, outline traffic management arrangements are shown.
3. Utility supplies for the construction of the works would be agreed with the relevant utility company.
4. Additional noise mitigation including noise barriers may be required but is not shown on this drawing.
5. Where the location of a proposed advance planted tree coincides with an existing tree, it is understood that either the tree will have been removed by LB of Wandsworth in advance of these works due to poor health, or the existing tree will be retained and no additional tree would be planted in this location.

ILLUSTRATIVE

Location
King George's Park
London Borough of Wandsworth

Document Information
Application for Development Consent
Construction phases - phase 1
Site setup and shaft construction
Book of plans - section 11
DCO-PP-09X-KNGGP-110014
January 2013





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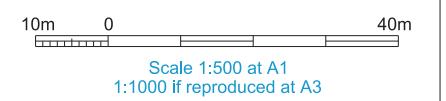


Coordinates are to be Ordnance Survey Datum OSGB36. All levels are in metres and relate to the Tunnel Datum which is 100 metres below Ordnance Datum Newlyn.

- Key:
- Limits of land to be acquired or used (LLAU)
 - Hoarding
 - Maximum extent of working area
 - Existing permissive right of way
 - Route of temporary diversion of footway
 - Site access
 - Access / haul route
 - Existing sewers
 - Advanced planting to be agreed with local authority (see note 5)

Notes :

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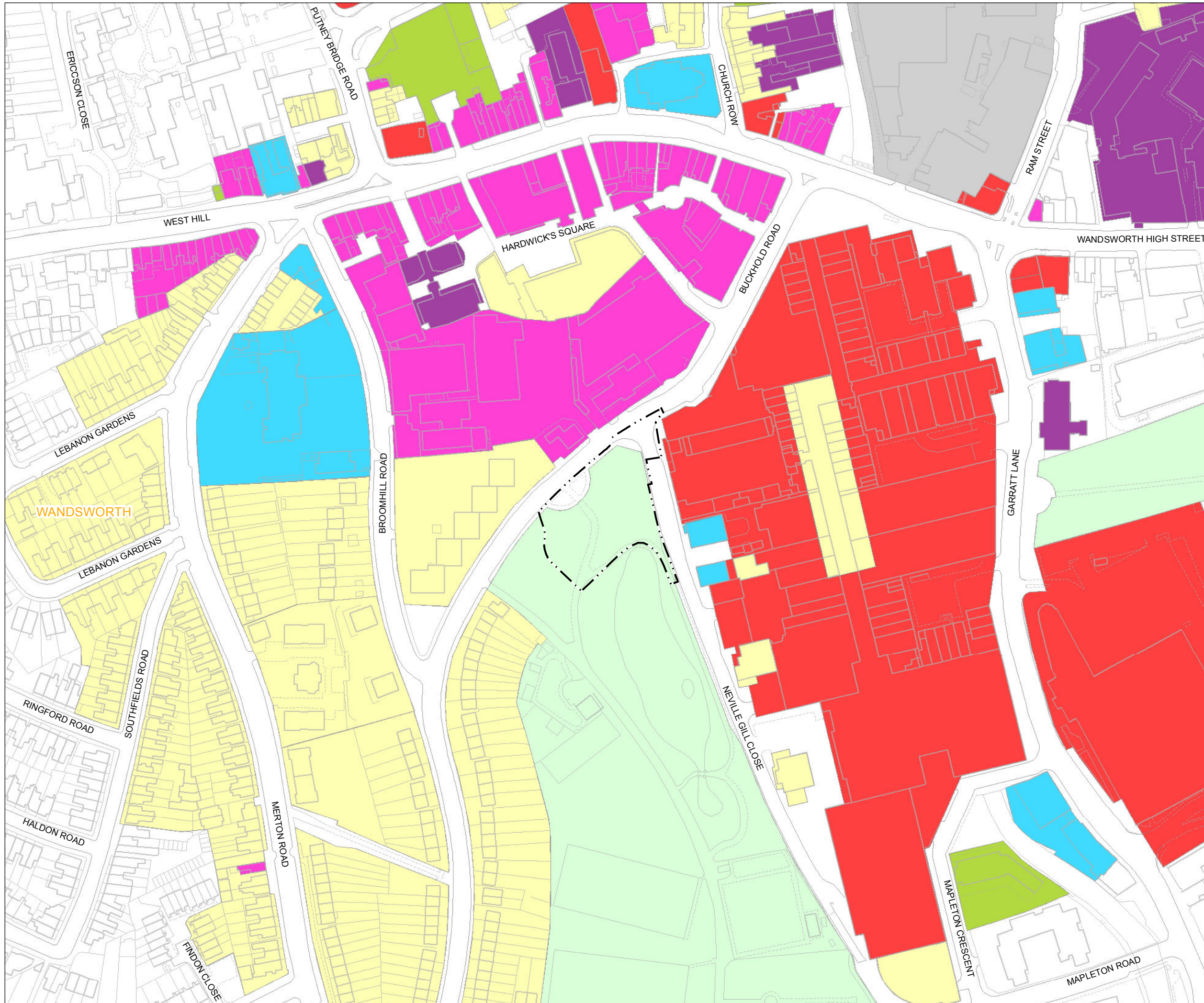


ILLUSTRATIVE

Location
 King George's Park
 London Borough of Wandsworth

Document Information
Application for Development Consent
 Construction phases - phase 2
 Construction of other structures
 Book of plans - section 11
 DCO-PP-09X-KNGGP-110015
 January 2013

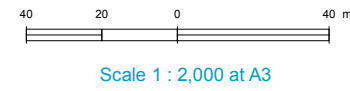




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- Key**
- Limits of Land
 - - - to be Acquired or Used
- Land Use**
- Class A1-A5 (Shops, Financial & Professional Services, Restaurants, Drinking Establishments and Hot Food Takeaways)
 - Class B1 (Business (Offices except A2) Research and Development, Light Industry)
 - Class B2-B8 (General Industrial / Storage or Distribution)
 - Class C3-C4 (Dwelling Houses)
 - Class D1-D2 (Non Residential Institutions (Community Facilities) and Assembly and Leisure)
 - Mixed Use
 - Other
 - Open Space



FOR INFORMATION

Location
King George's Park
 London Borough of Wandsworth

Document Information
Planning Statement
 Land use

1PL03-MG-00833
 January 2013

Thames Tideway Tunnel
 Creating a cleaner, healthier River Thames

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