

TFL_PSF_9131 SITE INVESTIGATIONS: SMALL SITES INITIATIVE LAND AT LEYTON ROAD, LEYTON E11 1LP

Summary Report

MARCH 2019

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CONSULTANCY

 **Hyder**

Land at Leyton Road, Leyton E11 1LP

Summary Report

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1 Introduction

Arcadis Consulting (UK) Limited (Arcadis) has been commissioned by Transport for London (TfL) to undertake a number of technical surveys for a site referred to as Leyton Road ('the Site').

TfL is aiming to divest a number of small sites to enable prospective regeneration. The objective of the Small Sites Initiative is to provide robust and pragmatic advice that sensibly de-risks each of the sites such that unreasonable "abnormal" development costs are not incurred by developers.

This report provides a summary of the technical surveys commissioned for the Site and reference should be made to the individual reports for further detailed information.

The Site is located in the London Borough of Ealing, in a mostly residential urban area. The Site is north of the A12 and the railway connecting Leytonstone and Snaresbrook, and south of Epping Forest.

The Site covers 0.19 hectares, centred at National Grid reference (NGR) TQ 39546 87894. Land use consists of mostly woodland and grass. Access to Site is off Poppleton Road on the west side or Teesdale Road on the east side. The Site is bound by residential gardens on Ashbridge Road to the north, Poppleton Road to the west, Teesdale Road/Leyton Way to the east and A12 to the south.

The surveys carried out for Leyton Road comprise the following;

- Topographical and Buried Services Survey (Ref 1 and 2);
- Archaeological Desktop Review (Ref 3);
- Ecological Study (Ref 4);
- Arboricultural Survey (Ref 5); and
- Geotechnical and Geo-Environmental Desk Study Report (Ref 6);

A summary of the findings of these surveys are detailed in the following sections.

2 Topographical and Buried Services Survey

The topographical survey indicates that the Site is very overgrown with areas which were inaccessible. Trees are located along the northern boundary. From the level measurements, the Site is generally flat with approximately 2m difference between east and south western boundary. The eastern boundary by Teesdale Road recorded levels of 30.54m, whilst the south western boundary has level measurements of 28.23m.

Due to the dense vegetation a GPR survey was not possible in some areas. Several boxes are indicated in a paved area accessed by some steps at the eastern end of the Site. Services are indicated in Teesdale Road.

3 Archaeology Desktop Review

An archaeological desk-top review for a site located at Leyton Road ("the Site"), has been carried out. This involved a rapid information-gathering and review of the site and a 500m study area using information from publicly held sources. A brief assessment of potential heritage/archaeological constraints and opportunities at the Site has been made.

There are no known heritage assets located within the Site. There is a low potential for unrecorded archaeological remains to be present within the Site.

This potential is based on the limited number of non-designated assets within the study area. A total of 14 heritage assets are located within 500m of the Site, of which the majority of these are historic structures.

Historic mapping has identified the potential for there to be archaeological deposits present within the site relating to the Site's use for recreation in the Modern period as a tennis ground and allotment gardens.

There are no world heritage sites or scheduled monuments within the Site or within the 500m study area. There are no listed buildings within the Site and 11 within the study area, the nearest of which to the Site is Leytonstone House, located 208m south-west of the Site.

There are two conservation areas, three archaeology priority areas and three assets on the heritage at risk register within the 500m study area. There are an additional 10 locally listed buildings within the 500m study area.

For any future planning application, early consultation with GLAAS is recommended to fully understand the requirements to submit a planning application for the Site at Leyton Road.

4 Ecological Study

The ecological assessment comprised a desk-based study using publicly available information and an ecological constraints survey to identify potential constraints present on Site.

Based on the assessment undertaken to date, there is potential for the Site to be utilised by badger, hedgehog, reptiles, amphibians and nesting birds.

There are statutory or non-statutory designated sites within, or in close proximity to the Site. The nearest site is Epping Forest SAC/SSSI which is located 200m north-east of the Site. It is considered unlikely that there will be any significant direct impacts to designated sites; however, assessment of any indirect impacts will depend on details of the proposed development.

Constraints are listed below:

- The site was largely covered by scrub, mature scattered trees and plantation woodland. These habitats have value in terms of green infrastructure, likely performing important ecosystem services (such as water quality and volume attenuation and air quality attenuation etc.).
- Trees within Site are protected under London policy (Strategic Policy 7.21)¹ and local policies (Core Strategy 5, 7 and 13)² which states that, where possible, the tree must be retained. If this cannot be achieved any loss of trees as the result of development should be replaced. Wherever appropriate, the planting of additional trees should be included in new developments;
- There is potential for nesting birds to be utilising all habitat on Site, including species listed on the London BAP and S41 Priority Species such as house sparrow. Removal of all trees and scrub on the Site will need to be conducted outside of the bird nesting season (March – August inclusive) or under an ecological watching brief.
- The Site has the potential to support badger setts and foraging and commuting badger. A badger survey is recommended to determine the presence/ absence of badger.
- The site has the potential to support roosting, commuting and foraging bats. A bat tree assessment is recommended to determine the suitability of mature trees present on Site for roosting bats.
- The Site is likely to be used by common species of mammal, likely to be fox and hedgehog (the latter a London BAP and S41 Priority Species), as a commuting/foraging route. Removal of habitats suitable for hedgehogs (on this Site hedges and introduced shrub) should be carried out under an ecological watching brief.
- The Site is likely to be used by common species of reptile and amphibians (including great crested newt), for potential hibernation opportunities. Removal of habitats suitable for reptiles and amphibians (on this Site scrub and tree roots) should be carried out under an ecological watching brief.
- Trees and other vegetation should be replaced within any proposed soft landscaping and these designs should be evolved in liaison with an ecologist and arboriculturist. In addition, rain gardens, biodiversity roofs and other green infrastructure should be considered within any development.
- There are also opportunities for enhancements for London BAP species. Bird boxes for sparrows would be a valuable enhancement, along with bat roosting boxes. Implementation permeable fencing would be of benefit to small mammals, such as hedgehog, which is a priority species currently in decline across the UK.

¹ Greater London Authority (2011) *The London Plan Strategic Policy 7.19 Biodiversity and Access to Nature and Policy 7.21 Trees and woodlands* (updated with the Minor Alterations to the London Plan 2016)

² London Borough of Waltham Forest (2012). *Waltham Forest Local Plan – Core Strategy (Adopted version)*

5 Arboricultural Survey

A constraints walkover and assessment was conducted to describe the general arboricultural features and potential constraints with regards to trees on Site.

A total of 41 arboricultural items were recorded within the study area as follows:

- 38 individual trees on-Site and one individual tree off-Site;
- Two Groups of trees on-Site.

Nineteen individual trees were graded as Category B (trees of moderate quality). Eighteen individual trees and two groups of trees have been identified as Category C (trees of low quality). Two individual trees have been graded as Category U (trees of poor quality unsuitable for retention).

There is currently no proposed design layout and therefore it is not possible to say whether the trees would need to be removed and if there is space for any new trees to be re-provisioned on the Site. This can be determined once designs are developed.

The dominant tree species within the Site are Common lime (*Tilia x europaea*) and Sycamore (*Acer pseudoplatanus*)

While the trees are not subject to Tree Preservation Orders or located within a Conservation Area, the LPA have indicated that this site is on their register for potential protection. This combined with other issues is likely to reduce the potential developable area of this Site to the north eastern section adjacent to Teesdale Road.

The main development considerations for the trees are:

- LPA status re register for potential protection;
- Amenity value of the trees when considered as a woodland group screening the A12/M11; and
- Shading from the trees should be considered on any proposed development.

Should any future proposed development require tree removals or RPA incursions within RPAs of the retained trees an Arboricultural Impact Assessment (AIA) will be required by the LPA in support of a planning application.

A bespoke Arboricultural Method Statement may be required post planning and when the construction details are known to protect the retained trees within and adjoining the Site.

All new tree planting should be in accordance with British Standard 8545: Trees: From Nursery to Independence in the Landscape – Recommendations, 2014 and all tree works must be carried out by a qualified contractor in accordance with BS3998:2010: Tree Work – Recommendations.

6 Geotechnical and Geo-Environmental Desk Study

The geo-environmental and geotechnical desk study comprises a review of existing historical and current information on the Site. No intrusive site investigations have taken place.

The Site previously comprised undeveloped land, before becoming tennis courts from circa 1919 – 1939 and later becoming allotments from circa 1953 until circa 1999. A residential house was present in the south western corner of the site from circa 1919 until circa 1999 when it was demolished. Due to the previous development, there is potential for Made Ground to be present.

Several off-site potential sources of contamination have been identified in the surrounding area, such as the railway line to the south and electricity substations to the south and east, however the majority are considered to be down gradient and are therefore not considered likely to have significantly impacted the site. There is however a historic landfill site up gradient of the site which is a potential source of ground gas and contamination that could have migrated beneath the site.

Potential risks to human health, controlled waters and the built environment have been identified associated with potential on-site sources of Made Ground, rubbish / fly tipping, and off site sources such as the historic landfill site. It is recommended that an intrusive site investigation is carried out prior to redevelopment to quantify these risks. This should include the contamination testing of soils and leachates, groundwater monitoring and gas monitoring in accordance with best practices and current guidance.

Potential founding solutions will be dependent on the encountered thickness of Made Ground and the geotechnical properties of the natural deposits. Made Ground is generally considered unsuitable for foundations due to its variable composition and its potential for high total and differential settlement. Deeper trench fill may be possible although the maximum practical extent of this type of foundation is in the region of 2-2.5m. In areas of deeper Made Ground, or where deeper soft / loose bands are recorded either piling or ground treatment e.g. vibro-stone columns should provide a suitable foundation solution. The advice of a specialist ground improvement contractor should be sought to verify the suitability of the ground for treatment. The presence of existing and future trees should be considered, as well as the risks associated with London Clay.

The Site is located in an area where there is a 'moderate' risk of encountering unexploded ordnance. Further assessment of the potential for encountering UXO is recommended.

7 References

- 1) Malcolm Hughes (2019), Ashbridge Road, Topographical Survey (53239/1)
- 2) Malcolm Hughes (2019), Leyton Road, Underground Services Survey (53239/UG)
- 3) Arcadis Consulting (UK) Limited (2019) Land at Leyton Road, Archaeological Desk Review (Report Number 10024781-ARC-13-XX-RP-YY-0001-01-Archaeology Desktop Review)
- 4) Arcadis Consulting (UK) Limited (2019) Land at Leyton Road, Ecology Assessment (Report Number 10024781-ARC-13-XX-RP-YY-0001-01-Ecological Assessment)
- 5) Arcadis Consulting (UK) Limited (2019) Land at Leyton Road, Preliminary BS5837:2012 Tree Survey Report (Report Number 10024781-ARC-13-XX-RP-YY-0001-01-Arboricultural Report)
- 6) Arcadis Consulting (UK) Limited ((2019) Land at Leyton Road, Geotechnical and Geo Environmental Desk Study (Report Number 10024781-ARC-13-XX-RP-YY-0001-01-Geo Report)

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