

# TFL\_PSF\_9131 SITE INVESTIGATIONS: SMALL SITES INITIATIVE NORTH EALING CAR PARK, NORTH EALING STATION, W5 3AF

## Summary Report

FEBRUARY 2019

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# North Ealing Car Park, North Ealing Station W5 3AF

## Summary Report

Author Various

Checker Alison Pugh

Approver Alison Pugh

Report No 10024781-ARC-11-XX-RP-YY-0001-01-Summary Report

Date FEBRUARY 2019

## VERSION CONTROL

Version	Date	Author	Changes
01	February 2019	Various	1 <sup>st</sup> issue

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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 North Ealing Car Park ('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 a car park area situated approximately 80m north of North Ealing train station. It is approximately 0.15 hectares in size and centred around national grid reference 518860, 181330. The site surface is mostly covered with concrete hardstanding with mature trees along the north west boundary.

The Site is located within a predominantly residential area with houses adjacent to the north and west, railway line to the east beyond which is residential flats and playing fields.

The surveys carried out for North Ealing Car Park comprise the following;

- Topographical and Buried Services Survey (Ref 1 and 2);
- Archaeological Desktop Review (Ref 3);
- Ecology Assessment (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 generally flat with the levels at the northern extend recorded as 37.66m and at the southern boundary as 37.25m. The Site is covered with tarmac with some trees / bushes around the edges in particular along the western boundary.

The buried service survey indicates that there is a surface water sewer along the eastern and southern boundary with associated inspection covers. There are some overhead cables along the western boundary.

### 3 Archaeology Desktop Review

An archaeological desk-top review for North Ealing Car Park 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 designated assets within the Site but there are 13 grade II listed buildings and five conservation areas within the study area. There are no archaeological propriety areas on the Site but there is one within the study area.

The data received from the Greater London Historic Environment Record (GLHER) revealed the presence of Prehistoric archaeology present in the study area with artefacts, with the archaeological propriety area recognised for its Prehistoric remains.

There have been no archaeological interventions or investigation on the Site and those within the study area lend little weight to the archaeological potential of the Site. A map regression exercise revealed that the Site has not been affected by Modern buildings which could mean that potential below ground archaeological remains could have survived well.

There are areas of non-designated built heritage within the study area, but seemingly no inter-visibility with the Site.

For any future planning application, the Greater London Archaeological Advisory Service (GLAAS) should be consulted before proceeding with any submission. They might recommend a full archaeological desk-based assessment (DBA) for the Site to support an application, possibly with the results of an intrusive investigation to establish the presence, significance and extent of any remains. The designated built heritage located within close proximity to the Site makes the likelihood high that any future planning submission will have to take into account the setting of the asset and possibly even building conservation considerations.

## 4 Ecological Assessment

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 are no likely significant ecological constraints with regards to the development of this Site.

No statutory or non-statutory designated sites (including ancient woodlands or woodlands listed on the Ancient Woodland Inventory (AWI)) were identified within close proximity of the Site.

Constraints are listed below:

- The Site was covered by hardstanding of negligible nature conservation value.
- The trees adjacent to the Site had potential for nesting birds, including species listed on London BAP and Priority Species S41 such as house sparrow
- The Site is likely to be used by common species of mammals, likely to be fox and hedgehog (London BAP and Priority Species S41), as a commuting/foraging route.
- There will be some ecological benefit from the removal of non-native and invasive species on LISI, which is likely to occur when the Site is cleared for any construction. There is no legal obligation to control the LISI species (Butterfly-bush and Green Alkanet) recorded on Site or to remove it as controlled waste but it is good practice to remove them and to avoid their spread.
- 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.
- Soft landscaping 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.



## 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 16 arboricultural items were recorded within the study area as follows:

- Fourteen individual trees off-Site;
- One hedgerow and one group of trees off-Site on the northern boundary.

Three individual trees were graded as Category B (trees of moderate quality). Eleven individual trees and one hedgerow and one group of trees have been identified as Category C (trees of low quality).

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 adjacent to the Site is Oak (*Quercus robur*).

No trees are subject to Tree Preservation Orders or located within a Conservation Area.

While unlikely to prevent development, tree protection for trees to be retained and tree re-provisioning for any trees lost due to development are a material consideration for planning determination. If trees cannot be replaced on-Site due to development, off-Site options for tree re-provisioning to ensure no net loss should be considered. Individual Local Planning Authorities may ask for re-provisioning in excess of 1 to 1 for trees of Category B grade.

The main development considerations for the trees are:

- Over-hanging crowns;
- The planting location, height, width and density of the crowns will cast shade on to the Site;
- The Root Protection Area (RPA) of the trees within the Site; and
- According to British Geological Survey on-line map the Site is on Silt and Clay. Therefore, the foundation design of any proposed new structure will have to reduce the risk of vegetation induced clay shrinkage subsidence damage occurring.

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 was undeveloped until it became part of railway land for the adjacent railway from circa 1915, although no associated rail structures were noted on site. The site was developed into a car park from circa 1974 and there is the possibility of Made Ground being present. Contamination from fuel leaks/ spills from the use of the site as a car park is not expected to have significantly impacted the site due to the provision of hardstanding.

The majority of the potential off-site sources of contamination are not directly up hydraulic gradient and therefore it is considered unlikely that contamination would have migrated beneath the site. An electricity substation adjacent to the south west of the Site is considered to be a potential source of contamination due to its close proximity to the site.

Potential risks to human health and the built environment have been identified associated with potential on-site sources of Made Ground and off-site source of the electricity substation. No sensitive controlled water receptors were identified.

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 (if encountered) 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.

Consideration will need to be given to the presence of existing trees along the north western boundary, which may need to be removed or retained, and the planting of future trees when deciding upon the depths of the foundations. In addition, the risks associated with the London Clay include high plasticity clay which are subject to shrinkage, swelling and sulphate attack should be considered during the investigation / design

There is a potential risk from unexploded ordnance (UXO) and it is recommended that a site specific detailed desk study is undertaken to assess, and potentially zone, the UXO hazard level on the Site.

## 7 References

- 1) Malcolm Hughes (2019) Boileau Road, Topographical Survey (53238/1)
- 2) Malcolm Hughes (2019) North Ealing Car Park, Underground Services Survey (53238/UG)
- 3) Arcadis Consulting (UK) Limited (2019) TfL Phase 2 Site Investigations: Small Sites Initiative North Ealing Car Park, 10024781-ARC-11-XX-RP-YY-0001-01-Archaeology Desktop Review
- 4) Arcadis Consulting (UK) Limited (2019) North Ealing Car Park, Ecology Assessment (Report Number 10024781-ARC-11-XX-RP-YY-0001-01-Ecological Assessment)
- 5) Arcadis Consulting (UK) Limited ((2019) North Ealing Car Park, Preliminary BS5837:2012 Tree Survey Report (Report Number 10024781-ARC-11-XX-RP-YY-0001-01-Arbicultural Report)
- 6) Arcadis Consulting (UK) Limited ((2019) North Ealing Car Park, Geotechnical and Geo Environmental Desk Study (Report Number 10024781-ARC-11-XX-RP-YY-0001-01-Geo Report)

Arcadis Consulting (UK) Limited

Arcadis House  
34 York Way  
London N1 9AB  
United Kingdom  
T: +44 (0)20 7812 2000

[arcadis.com](https://www.arcadis.com)

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