

# **TFL\_PSF\_9131 SITE INVESTIGATIONS: SMALL SITES INITIATIVE 108 PALMERSTON CRESCENT, ENFIELD, N13 4NH**

## **Summary Report**

FEBRUARY 2020



# 108 Palmerston Crescent, Enfield, N13 4NH

## Summary Report

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## VERSION CONTROL

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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 108 Palmerston Crescent, N13 4NH ('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 currently undeveloped with several large trees present. It is approximately 0.04 hectares in size and is at approximate National Grid Reference 530696 192138. It is located at the southern end of Palmerston Crescent near to the A406 North Circular.

The surveys carried out for 108 Palmerston Crescent comprise the following:

- Topographical Survey (Ref 1);
- Geotechnical and Geo-Environmental Desk Study (Ref 2);
- Flood Risk Review (Ref 3);
- Detailed Unexploded Ordnance report (Ref 4);

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

## 2 Topographical Survey

The survey recorded levels of 29.10m to 29.71m AOD along Palmerston Crescent. At the northern end measurements of 28.18m to 28.88m AOD were recorded. Services are present in the pavement along Palmerston Crescent. A buried services survey was not undertaken on this Site.

There are several large trees present across the Site.

### 3 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 is currently vacant land. The Site has previously been occupied by a likely residential building up until circa 1974 when it appears to have been demolished. There is potential for Made Ground to be present onsite as a result of the historical development on the site as well as neighbouring properties. The building may have had a basement.

Potential risks to human health, controlled waters and the built environment have been 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 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. Services may be present beneath the site which may require removal/ relocating prior to redevelopment.

Conventional shallow foundations may be appropriate for the site, but this would depend on the thickness of the Made Ground and the underlying ground conditions. 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 potential for the shrinkage and swelling of the underlying London Clay and sulphate attack to below ground concrete should also be considered.

## 4 Flood Risk Review

Flood risk to the site from all potential sources has been considered in the Flood Risk Review.

The site is located in Flood Zone 1 on the Flood Map for Planning (Rivers and the Sea) and therefore has a 'very low' risk of flooding from rivers and the sea, equivalent to an annual chance less than 1 in 1,000 (0.1%). No other local sources of flooding are considered to pose an onerous risk to the site in the context of its potential redevelopment.

According to the National Planning Policy Framework (NPPF), there is no requirement to produce a Flood Risk Assessment (FRA) to support future redevelopment of the site given the size (<1 hectare) and location of the site within Flood Zone 1. The Planning Practice Guidance (PPG) indicates that the site would be suitable for all types of development, including residential uses

A Drainage Strategy should be prepared to support future redevelopment of the site to ensure that proposals meet national and local requirements and off-site flood risk is not increased as a result of redevelopment proposals.

Given the proximity of the site to the New River aqueduct structure, it is recommended that Thames Water are consulted as part of any future development of the site in order to understand any constraints that may be associated with development adjacent to the aqueduct

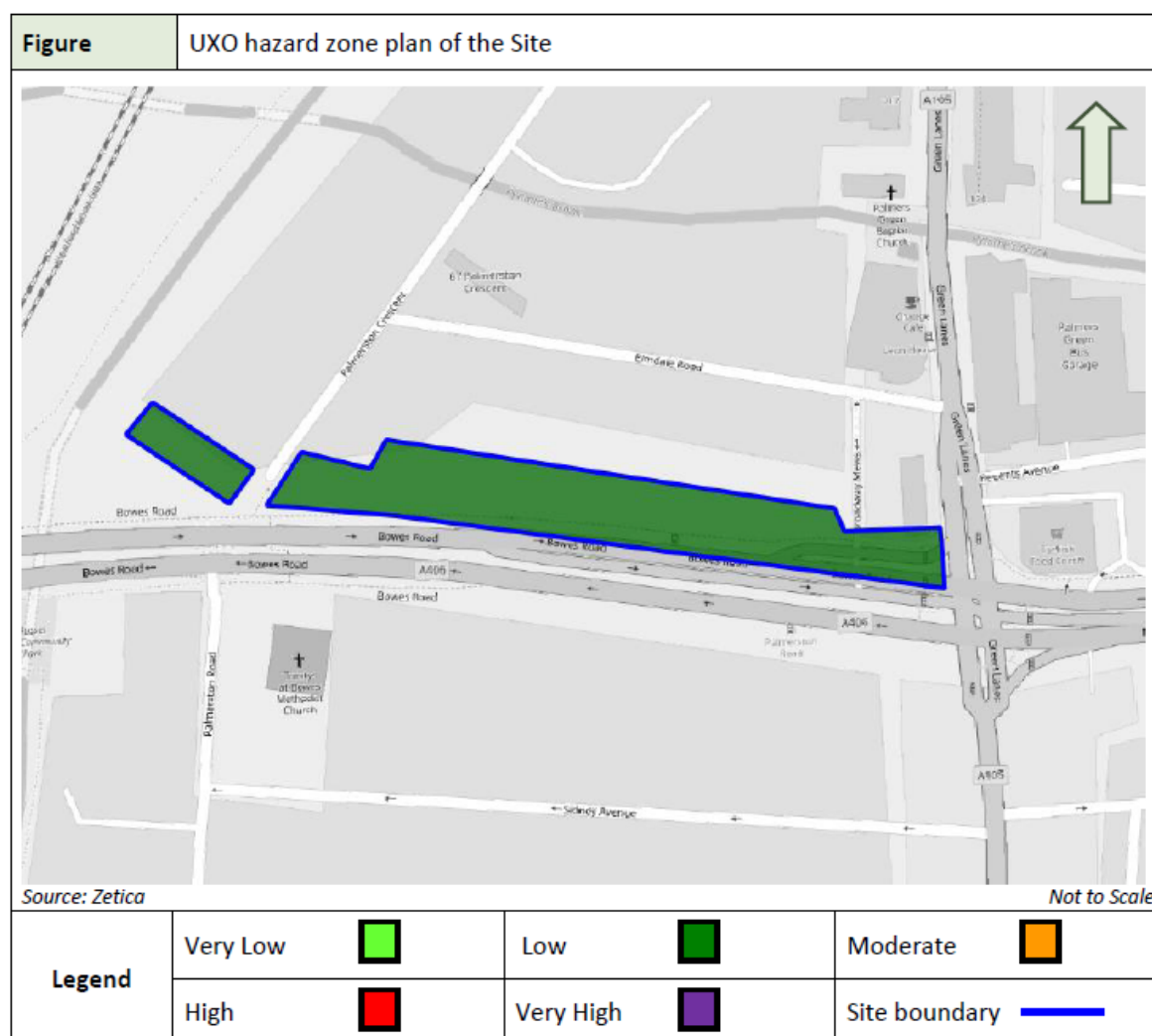
## 5 Detailed Unexploded Ordnance Report (Zetica)

**Key findings:** No sources of Unexploded Ordnance (UXO) hazard have been identified.

**Key actions:** Proceed with works.

No records have been found indicating that the Site was bombed and no other significant sources of UXO hazard have been identified on the Site.

Given this, it is considered that the Site has a low UXO hazard level, as shown in the following the Figure, which is reproduced as Figure 3 in the Zetica report.



The main findings of the report are summarised below.

- No records of bombing or military activity on the Site during World War One (WWI) have been found.
- During World War Two (WWII) the main strategic targets in the vicinity of the Site included transport infrastructure and public utilities.
- No records have been found indicating that the Site was bombed during WWII. Records indicate that the nearest High Explosive (HE) bombs fell approximately 0.1km south of the Site.
- No records of military activity on the Site post-WWII have been found.

The Zetica report should be reviewed to fully understand the risk associated with developing the site and the mitigation measures that should be put in place.



## 6 References

1. 40Seven (January 2020) Topographical Survey – 108 Palmerston Road (Site Ref: 1178\_P\_Palmerston\_Crescent).
2. Arcadis Consulting (UK) Limited (January 2020) at 108 Palmerston Road, Geotechnical and Geo Environmental Desk Study (Report Number 10038043-ARC-06-XX-RP-YY-0022-01-Geo Report\_108 Palmerston Crescent).
3. Arcadis Consulting (UK) Limited (January 2020) 108 Palmerston Road, Flood Risk Review (Report Number 10038043-ARC-06-XX-RP-YY-0023-01-Flood Risk Review\_108 Palmerston Crescent).
4. Zetica Ltd (2020) UXO Desk Study and Risk Assessment Palmerston Road (P9364-20-R1).

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