3290
196-222 Kings Road
Subterranean Construction Method Statement Report
March 2014
1 Introduction

This report provides a summary of the work undertaken to date in assessing the impact of the proposed basement within the 196-222 Kings Road scheme. The report also outlines the work that is required in order to achieve the necessary third party approvals and the design philosophy to be applied in completing this work. This information has been provided to be read with and form part of the planning application.

The report sets out the preferred strategy based on the information currently available. It is noted that a site specific geotechnical and fabric investigations are ongoing and detailed information will be available at later design stages. As such the proposals outlined here are preliminary based upon record information for this and adjacent site obtained following a comprehensive desk study.

This information has been provided to be read with and form part of the planning application and responds to the items raised in the RBKC subterranean development SPD based on the information currently available.

Detailed construction drawings and supporting calculations will be prepared during subsequent design stages as information relating to the ground conditions is established, allowing the design to be finalised. Method statements for the excavations, construction sequence and temporary works will ultimately be developed by the Contractor however assumptions with regards to sequencing have been outlined for information.
The Project

The project involves redevelopment of the existing buildings at 196-222 Kings Road to create a mixed use scheme comprising of retail at ground, first floor and basement levels with residential and office space at higher levels. There is also a new cinema, pub and roof-top restaurant with retention of the existing Waitrose structure.

The alterations to the existing structure proposed are:
- Demolition of the buildings on the site with the exception of Friese Green House, Waitrose at ground and basement, and part of the Chelsea Cinema façade along Kings Road.
- The demolition of the existing basement below Habitat with excavation and construction of a new double storey basement.
- The demolition of the existing basement below The Trafalgar Public House with excavation and construction of a new single storey basement which adjoins the double storey basement.
- Infilling of the existing building vaults along the Kings Road which lie outside of the site boundary.
- Construction of new five and six storey structures incorporating the retained façade and a 2 and 3 storey building over the existing Waitrose supermarket.

The report provides reference to the preliminary findings of the site-specific ground investigation and findings of the desk study, together with outline site constraints information. A summary of assumed ground model is included together with description of the proposed superstructure and substructure works.

Comprehensive detailed structural and geotechnical assessment of the basement impact has not yet been completed given the current stage of structural design development. Where further work are to be completed, a description of the assessment is included together with details of the relevant design philosophy. The principal third party approvals and consultation to be sought are as noted below:
- Party wall awards
- Highways approval
- Thames Water build-over approval & easement
- National Grid Gas asset protection approval & easement
- Crossrail 2 consultation
- Building Control Building Regulations Part A approval

This report is to be read in conjunction with all relevant documents supporting the planning application.
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The Site

3.1
Site location

The site is located at 196-222 Kings Road, London, SW3 5XP in the Royal Borough of Kensington and Chelsea. The National Grid reference for the site is 527330, 178140.

The facade of the existing building faces south onto Kings Road which is the main point of access for the site. Directly opposite is a row of 4 storey Victorian/Edwardian terraces all with retail units at ground floor. The western edge of the building runs along Chelsea Manor Street and is opposite a 3 storey Victorian/Edwardian terrace which is a high street bank at ground floor and apartments above. Next to this are a series of 1 to 2 storey masonry former sorting offices which are unoccupied. To the east of the site is Cygnet house which has a boundary along the Waitrose supermarket. Hemus Place lies to the north of the site and is used as access for deliveries for both Habitat and Waitrose, beyond which are blocks of 5-6 storey Victorian terraces.

The site is located within a predominantly residential area of Chelsea with commercial buildings along the main roads generally at ground level only. To the north of the site lies St Lukes Gardens which is a large green former churchyard, and the Royal Brompton and Harefield NHS Trust. Chelsea Town Hall is situated to the south west of the site which includes Chelsea Library and Chelsea Sports Centre.
3.2 Site history and existing buildings

3.2.1 Site History

The history of the site and its surrounding area has been assessed using extracts from the Donald Insall Historic Buildings Report, historical ordnance survey (OS) maps dating from 1850 to the present day and other information that has been obtained from reliable sources. Note that the maps only indicate information on the date the survey was carried out. As such they do not comprise a continuous record of development. The Kings Road derived its name from a privately owned road which was used by King Charles II to access Hampton Court Palace to the West. It remained private up until the late 18th / early 19th century when permission was granted to start building along the road. The original Georgian terraces were often built to incorporate a single level of basement behind pavement vaults, which may have been replaced during the 19th century with more grand Edwardian or Victorian terraces with wider footprints. A brewery was constructed during the early 19th Century north of the site. It is likely that during its lifetime the brewery used ground water extraction from the below aquifer for use in the brewing process. This would have been ceased once the brewery closed in the middle of the 20th century. A garage was constructed over the site of the Manor Buildings (accessible via a road past the Public House) at the turn of the 20th century which took up a large site behind Kings Road. This garage has undergone many forms to present day including a warehouse and latterly a Waitrose Supermarket. The Gaumont Palace cinema was constructed around the same time as the Lord Nelson (now Trafalgar) public house circa 1932/33. The cinema was designed by architect William Trent of the Gaumont-British Picture Corporation. The corner of the cinemas fly tower and changing room block was seriously damaged during an air raid in WWII which is presumed to have been repaired at the time or soon after. In 1972 major alterations to the cinema building occurred to change its use to the flagship Habitat store. An additional second floor was constructed within the auditorium space to house the smaller cinema, and the Habitat store took over the 1st, ground and the majority of the basement. The former fly tower towards the rear of the cinema was completely demolished and rebuilt as Friese-Green House. This houses loading bays at ground floor and residential apartments above.
3.2.2 Existing buildings

The site comprises of 4 existing structures all differing in their type and era of construction. A structural fabric survey has been commissioned to confirm the current assumptions about the structures stated below. Record information has been compiled from numerous sources including; RBKC building control, Cadogan archive, Waterman Group and the RBKC library. There is no significant change in topography between the existing buildings.

Chelsea Cinema (Habitat & Cinema Building)

The Cinema building was built in the early 1930s and is generally formed with concrete basements with pad and strip foundations. The superstructure consists of a steel frame with concrete planks and masonry stability walls and facades. It is likely that the internal structure was significantly modified during the 1970s however the extent is unclear. It is known that the depth of the basement was increased in parts during the refurbishment works. On plan the Cinema has an area of 50m long by 40m wide and 5 storeys high. There are Victorian cellar vaults running under the Kings Road pavement which appear to be generally filled.

Trafalgar Public House

The Trafalgar occupies a 25m x 25m area with 2 storeys above the ground floor. It was originally constructed at a similar time to the Cinema building in the early 1930s and also has a concrete basement with a steel framed superstructure.

Friese Green House

Friese Green House replaced the original fly tower of the cinema in the 1970s however has retained the same basement area. The building is approximately 30m x 10m on plan and is 7 storeys high. There are offices based on the 1st to 4th floors with residential on the upper floors and delivery bays at ground level.

Waitrose

The most recently constructed building was that of Waitrose which was in the early 1980s formed of reinforced concrete walls, columns and slabs. It is approximately 85m long x 75m high and varies between 1 and 4 storeys in height. The building is founded on concrete pads and ground beams with a ground bearing slab.
4.0 Ground Model

4.1 Published geology

A site specific geotechnical investigation will be undertaken as part of the next design stage to confirm the assumed ground model; however a body of information as part of a desk study has informed the outline proposals as discussed below.

London belongs to the Thames Basin which is a broad syncline of chalk occupied in its centre by sands and clays. Fluvial deposits associated with the former deposits of the River Thames lie on top of the bedrock. These different terraces are the remains of the river's floodplains. The geology from previous boreholes around the site indicates the build-up to be Made Ground overlying Terrace Gravel underlain by the London Clay. Underlying the clay are Reading beds, Thanet Sand and Chalk. Geological maps from Envirocheck reports show that the area has not been significantly modified by artificial ground.

4.2 Previous Ground investigation

Based on the BGS borehole information for surrounding areas, geological maps and information from borehole logs, the geology has been identified and described in the following sections.

Made Ground

The depth of Made Ground appears to vary greatly between the local borehole logs. The closest boreholes suggest between 2.3m-3.3m of made ground however to the South and West of the site this drops down to nominal amounts.

Terrace Gravels

A layer of Kempton Park Terrace Gravels (KPTG) underlay the Made ground in most locations. This band of gravels varies in thickness from 3.6m-6.4m and typically contains a perched water table. SPT N-values from the KPTG show values ranging from 34 at the top to 58 at the base of the layer. The perched water has been measured at between 2.8m-4.0m from the formation level of London Clay (5.0-6.0m below ground level). The general flow of the water would be expected to be south towards the River Thames.

London Clay

London Clay was encountered in all the boreholes closest to the site at a depth of between -1.4mOD & -0.9mOD (8.5m-9.0m below ground level). The boreholes show that the London Clay formation is higher to the West and South of the site. Artesian ground water level was found some 28m below ground level. In one of the boreholes however this is likely to have changed substantially since its recording in 1906.

Woolwich and Reading Beds/Lambeth Group

Reading beds were encountered at a depth of approximately -50m to -60m below ground level in the boreholes located close to the site. The thickness of the beds was around 17m-23m.

These can be described as a variable series of clay, loam, sand and pebble beds which are locally cemented into sandstone or conglomerate. The sands are generally yellow, greenish, or brown and contain layers of mottled clay occasionally with bands of lignite. The base of this stratum is formed of greenish sand with flint pebbles where Thanet Sands are present below.

Thanet Beds

Thanet sands were encountered at a depth of between -70m to -85m below ground level in the BGS boreholes located close to the site.

The bulk of the Thanet Sand comprises silty, fine-grained sand. The colour varies between greenish and brownish grey. At the surface, the sands weather to a pale yellowish grey. At the base, the strata comprising of a conglomerate of rounded flint pebbles and almost unworn nodular flints. The flints are typically coated with dark green glauconite and lie within a matrix of glauconitic sandy clay.

Upper Chalk

It would be expected that an Upper Chalk layer underlays the Thanet Beds however there is no borehole information recovered to support this. The Upper Chalk band is softer than the Middle Chalk. Flints are abundant as a general rule. The base of the division is a hard band called the Chalk Rock, which in the area north of the Thames, is the most prominent horizon in the Chalk. It consists of one or more beds of hard, creamy limestone each approximately 1 foot thick, usually with scattered green grains of glauconite. Between the creamy limestone bands are layers of hard nodular chalk formed in a softer matrix.