

2 Existing Site Description

2.1 Introduction

The site is located on the south eastern edge of Birmingham city centre at an approximate National Grid Reference (NGR) of SP0748, 8656. The site is set in an area of retail, commercial and light industrial usage (although a number of residential conversions are evident). In terms of surrounding land-uses, these can be summarised as follows:

- It is bound to the north west by the Bull Ring car park;
- to the north east by Well Lane, beyond which is the former RTP Crisp building (which has recently been redeveloped as residential apartments) and a number of buildings in light industrial use;
- to the west by Park Street, beyond which is Selfridges, the Bull Ring and other retail outlets;
- to the south west by the A41 beyond which are buildings in commercial/retail usage and St Martin's Church; and
- to the east by Allison Street, beyond which is a Police Station and a building in industrial use, beyond which are buildings mainly in commercial/retail usage.

The proposed development area is approximately 0.77 hectares (approximately 1.9 acres) and presently comprises a number of properties, some moribund, with a variety of former uses including residential flats, retail outlets, a public house, offices, disused former Cold Store (ice manufacture), disused public house, disused picture house, unoccupied unit, disused lock up garage building and a pay and display car park (unsurfaced). Orwell Passage, a cobbled lane, extends onto the site from Allison Street. An aerial photograph of the site and surrounding areas (*Figure 2.1*) shows the adjacent land uses. The existing site layout is presented in *Figure 2.2*. The approximate areas are shown of the Phase 2 & 3 development (which is the subject of this ES) and the Phase 1 development (approved and under construction).

SECTION 2: EXISTING SITE DESCRIPTION

Environmental Statement
Beorma Quarter (Phase 2 & 3), Birmingham



Figure 2.1: Aerial photograph of site and immediate surrounds.

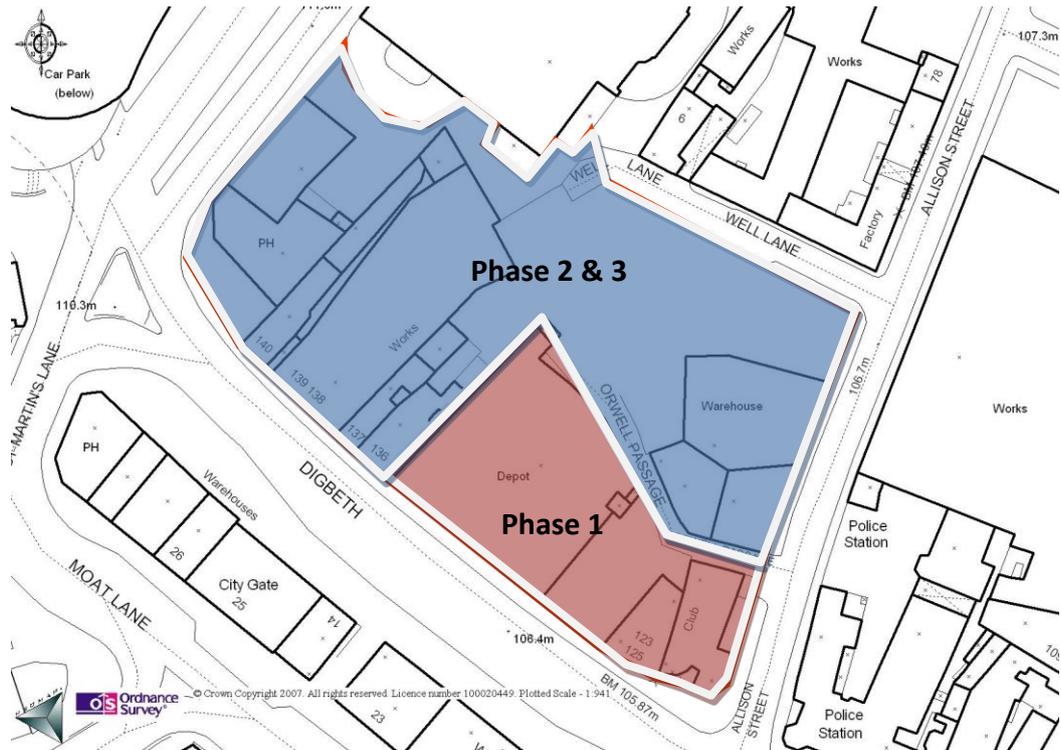


Figure 2.2: Existing Site Layout (note: Phase 1 is under construction)

A topographical survey indicates that ground elevations vary across the site from circa 111.0m above Ordnance Datum (AOD) in the northwest corner to *circa* 106.0 metres AOD in the south eastern area of the site; this equates to a 5.0 metre difference in level across the site in a north west to south east direction.

The site's setting can best be characterised as being urban, with a mixture of retail, commercial and to a lesser extent light industrial land uses, but it is recognised that there are potentially sensitive residential areas in the locality that need to be taken into account in the assessment and implementation of the development.

The findings of the planning and land use history review (from historical maps and archaeological reports) for the various sections of land comprising the site are summarised below and discussed in greater detail in *Sections 5, 8* and *Section 14*. The historical maps are presented in *Appendix 14.1*.

2.1.1 The Site

The site is known to be located within an area of Birmingham which is rich in archaeology dating back to at least the twelfth century. The site dates back to medieval times when the town of Birmingham was first developed, being located within the early medieval core of the city. The site, since its initial development in the twelfth century, has been occupied by a wide variety of trades people and small businesses prior to the 1900s. In addition a twelfth century boundary ditch (Hersum Ditch) is thought to extend onto the site from the Park Street car park development adjacent to the northwest of the site. By 1795 the George Inn was located in the south western corner of the site and Allison Street had been constructed; Well Lane was constructed by 1828. The map of 1860 shows that the site is well developed with burgages, characterised by groups of long, thin plots with narrow frontages on to a main street. The map also identifies a museum, public house and music hall in the western site area, along the western boundary, and a cistern (underground water system) in the north eastern site area. The first edition OS map indicates that the area in the north of the site does not follow the burgage plot system, this area is more open and spacious and is likely to have been laid out in the nineteenth century. By the mid nineteenth century many of the yards behind the Digbeth properties contained courtyard housing (these were in fact recorded in the 1832 rate book, and some of which may be considerably older than that date). These courtyard houses remained until the end of the nineteenth century.

The Ordnance Survey map of 1890 indicates that the site had been developed with a number of residential or commercial properties. By 1905 however, a number of the buildings in the south-eastern area of the site were absent, a larger unidentified building now located in this area, on the southern boundary, which on the map of 1937 was annotated as an ice factory and by 1952 as cold storage. By 1927, there had been further reconfiguration of the buildings

on site and a picture house and public house were present on the western boundary. Also by 1937, a number of warehouses (including the former picture house), a weighing appliances works and a social club were also located on the site. Orwell Passage had also been developed leading from the eastern boundary through to the centre of the site. By 1971, the ice factory and cold storage was annotated as a cold storage depot, and by 1978 simply as a depot. By 1992, the warehouse on the northern boundary of the site was no longer shown. Since 1992 there have been no significant changes on the site configuration although the uses of the occupiers of the buildings may have changed periodically.

The site in recent history has been made up of a number of property holdings in a variety of uses including A1 Retail, A2 professional services, A4 Drinking Establishment, B1 office, B8 Storage, C3 residential and D2 leisure, with an area of car parking accessed off Well Lane. The site is located within the Digbeth, Deritend and Bordesley High Streets Conservation Area No. 31 and the cold store is a Grade 2 listed building (Digbeth Coldstore). There are also a number of other locally listed properties including 135-136 Digbeth, 137 Digbeth, and 138-139 Digbeth. These current land uses accord with the allocation for the site as a mixed use development in the current Birmingham Plan 2005. There is also a construction project ongoing with the Phase 1 hotel development.

2.2 Baseline Environmental Conditions

The key baseline environmental conditions for the study area are described briefly in the following subsections. Note that this is a brief overview to allow familiarisation with the current site and associated issues and is not intended to provide an in depth discussion. More detailed descriptions and substantive discussions are provided in the main ES sections that follow.

2.2.1 Archaeology and Cultural Heritage

As previously stated the first use of the site is thought to date back to at least the twelfth century and contains some of the city's last surviving remnants of the medieval property subdivision system, known as burgage plots. These are plots of land usually longer than they were wide so as to enable as many properties as possible to access the street (or market) frontage typically with trades people manufacturing goods within the plots for sale via the frontage. In addition a twelfth century boundary ditch (Hersum Ditch) is thought to extend onto the site from the Park Street car park development adjacent to the northwest of the site and is thought to have formed the north eastern boundary of twelfth century Birmingham. The ditch is thought to have been infilled in the early fourteenth century possibly as a result of the loss of significance as the town boundary when Park Street was built.

It is probable that the area of the site to the south of Well Lane, in the sixteenth century and possibly earlier, was the site of a pool. This is supported by the knowledge that in 1809 a spring was recorded just to the south of Well Lane. By the mid nineteenth century a mineral water manufacturers had established in this area of the site and to the east of their premises, on the corner of Well Lane and Allison Street was the Digbeth Artesian Spring, which was constructed around the site of the spring.

Previous archaeological assessments for the site and immediate surrounding area have identified evidence for watercourses and wells within the subject site. These deposits suggest that organic finds such as wood and leather may survive, along with waterlogged plant, insect and pollen remains. In some areas the medieval/early post-medieval deposits may have been scoured-out, but it is likely that 'islands' of earlier deposits may have survived later disturbance. Evidence from the adjoining Park Street excavations demonstrated survival of well-preserved archaeological deposits indicating occupation from the 12th century onwards. The structures comprised tanks, probably used for hemp or flax processing, property boundary ditches, and evidence for pottery manufacture and metalworking. In particular, the alignment of the 12th century ditch found in the Park Street excavation indicates that this feature will continue into the subject site.

2.2.2 Air Quality and Climate

The site is located within Birmingham City centre, and is currently dominated by retail, commercial and light industrial uses. The site lies adjacent to one of the main roads (A41) leading into Birmingham city centre; this main road could give rise to elevated pollution levels.

The area in which the site is located is a designated Air Quality Management Area (AQMA) for nitrogen dioxide as designated by Birmingham City Council in 2003, and for particulate matter (PM10), as designated in 2004. Four areas were originally identified by Birmingham City Council as likely to exceed the annual mean objective for nitrogen dioxide: Bristol Road, Stratford Road in Sparkhill, the City Centre and the M6 and A38(M). As a result of these exceedances the council declared the whole borough an AQMA in 2003. Measures to improve levels of NOx and PM10 within Birmingham city were established in an Air Quality Action Plan.

Given the location of the proposed development, baseline air pollution levels are considered to be typical of an urban background. The main adverse effects of the proposed development on local air quality and local sensitive receptors is considered to be the impacts of demolition and construction activities, notably the generation of dust, rather than the operation of the site *per se* but air quality issues associated with traffic and how these may affect the baseline have also been considered.

2.2.3 Ecology and Nature Conservation

The development site does not support a wide variety of ecological species and is not of any notable significance from a nature conservation perspective. Given that the majority of the site is occupied by buildings and hard standing there is little space for natural habitat to develop; where such habitats do occur these are restricted to neglected areas at the base of walls or along individual property boundaries. Species that are present on the site are typical of inner city and wasteland sites. Where plants do exist on the site, these are species commonly found throughout the West Midlands and of no substantial ecological importance.

With regard to nesting birds, the buildings at the site present limited nesting opportunities. Inner urban areas of Birmingham are known to support a few pairs of the black redstart however there was no evidence that this bird species is nesting at the site, with feral pigeon being the only species noted.

A bat survey undertaken at the site did not identify any bat activity and there were no obvious signs that bats were present at the site.

There are no Special Areas of Conservation, SPAs or RAMSAR sites within 1km of the site, although there are a number of non-statutory Sites of Local Importance for Nature Conservation (SLINC) within the same distance. There are some wildlife corridors identified in the Birmingham and Black Country Nature Conservation Strategy, some of which are also SLINCs. The nearest of these is the Snowhill – Solihull Railway wildlife corridor, which is over 200 metres away to the northwest.

2.2.4 Townscape and Visual Character

The site is located within the Digbeth, Deritend and Bordesley High Streets Conservation Area No. 31, hence the townscape and visual impact of the proposed development on the site and its surroundings will be a critical aspect of the development, notably given the proposed tall tower element.

The existing site setting can best be characterised as a component part of an urban area, which is undergoing extensive physical and economic change. The site itself is relatively rundown, with a number of the buildings currently redundant and in varying states of disrepair, some of which are of low visual quality, low value and low sensitivity to change.

There are a number of views into the area, the main views being from St Martins Church, the Bull Ring, Selfridges, the main A41 road leading into Birmingham city centre and adjacent sensitive landuses such as the recently developed residential apartments and police station.

2.2.5 Daylight, Overshadowing and Night Light

Due to the scale of the proposed development daylight and sunlight accessibility on existing, neighbouring buildings, residential properties within the proposed scheme itself and the surrounding area, as well as open space and public amenity areas may be affected by the new development. Surrounding properties presently have a relatively unimpeded open view given the open low rise nature of the site.

There is currently a limited amount of nightlight generated at the site and the light intensity given off from the site and immediate surroundings is relatively subdued compared to the general dominance of light scatter from Birmingham city centre, which is a dominant light feature at night.

2.2.6 Wind

The proposed development is a high density development which includes a number of multi-storey buildings. Given the proposed design of the development there is potential to impact on the local wind environment and for the creation of wind turbulence within the development and immediate surrounds.

The current site is relatively low level and has large open areas at the core which are unlikely to give rise to wind vortex effects.

2.2.7 Noise and Vibration

Noise and vibration impacts from the site presently are minimal, the main sources of noise and vibration being the Phase 1 construction activities and the related traffic movements. The site, being located adjacent to Birmingham city centre and on one of the main roads leading into the city, is exposed to relatively high levels of off-site road noise.

This is not considered to be a particularly noise sensitive environment although it is recognised that there are local residential areas that could be impacted by nuisance levels of noise if they arose.

2.2.8 Socio-economic Activities

The economic health of local commerce has a direct influence on local employment opportunities and unemployment levels. The area in which the site is situated is particularly deprived in terms of crime, employment, health, housing and income. The site is in the main commercial in nature, with some residential use but the immediate surroundings are mainly commercial, and to a lesser extent light industrial, in nature with only limited residential

communities. The site in its present condition makes a limited contribution to the local community, and provides limited employment opportunities.

2.2.9 Soils, Geology and Land Contamination

The site since its initial development in the twelfth century has been occupied by a wide variety of trades people and small businesses prior to the 1900s. Since the 1900s the site has been under commercial and industrial usage. Recently the site is, in the main, in commercial use with offices, a book retailers, public house, small shop (food). In addition, there are a number of vacant disused buildings and car parking areas. Historically, the surrounding area has contained some medium to large scale industrial activity, which has the potential to cause contamination of soils and groundwater, although not on a large scale.

The demolition of buildings over the years and the presence of the Cold Store (ice works), a weighing appliance works, and more recently a car park located in the north eastern area of the site (a large percentage of which is unsurfaced) may have led to contamination of the site soils and whilst widespread contamination is considered unlikely, localised areas of contamination may be present. These could be disturbed during the development earthworks, but management of such occurrences should not be difficult or environmentally problematic. Given the age of many of the buildings at the site it is likely that some degree of asbestos-containing materials (ACMs) will be present and surveys to date have confirmed that asbestos is present and will require careful management during the demolition works. There is also localised evidence of asbestos contamination in the site soils (probably from earlier demolition and construction activities).

The site lies above a major sandstone aquifer, which is considered to have high permeability and potential resource value for water abstractions. The site is directly underlain by Made Ground (*i.e.* disturbed by human activity), which is also likely to be permeable and thus water can pass relatively easily through the site soils. The majority of the site is underlain by natural Bromsgrove Sandstone with localised sand and gravel in places above the sandstone; in the south eastern area of the site the made ground is underlain by Mercia Mudstone. The Birmingham Fault, according to a geological map for the area, lies close to the south east corner of the site. A geological fault has been identified on the site during a previous site investigation in the north east area of the site, which appears to pass through the site beneath the Cold Store, this possibly being the Birmingham Fault or a separate fault running parallel to this.

The current ground coverage is a mixture of hard-standing (built development) and unsurfaced exposed Made Ground.

2.2.10 Traffic and Transport

The site is located in a central location with good access to the existing public transport, including the Digbeth frontage, which has multi stop bus stops, and Birmingham New Street train station, this being a short walking distance from the site.

The site can be accessed off the main A41 road leading into Birmingham city centre, and from Allison Street and Well Lane, both of which are off the A41.

2.2.11 Water Quality and Hydrology

The site is not located within a flood risk zone; the nearest area at risk of extreme flood (without flood defences) being located circa 70 metres to the south east. The nearest surface watercourse to the site is the River Rea approximately 364 metres to the east of the site, at its closest point. The water quality of the river is classified by the EA as being of poor quality.

The site is located on a major sandstone aquifer and there are there are four licensed groundwater abstractions within a 1 km radius of the site, the nearest being located 525 metres to the west, the abstracted groundwater being for “general use”. A public water supply abstraction borehole is located circa 716 metres to the south.

There is a groundwater abstraction well beneath the former cold store on the site. The well appears to have been sunk for abstraction purposes when the site manufactured ice, the abstracted water being for ice making and general usage. The well was constructed circa 1899 directly beneath the works, the water being pumped to the surface at approximately 1,200 gallons per hour. A note with the borehole log, dated September 1942, stated that the borehole overflowed in 1900. Another note, dated October 1981, states that the well has been disused since 1965 and is sealed at present. The note goes on to state that the cellars and lift shaft have recently become flooded and that the borehole may possibly be opened from investigation. A note on the log, dated 1948, states that the well was dry and that it had failed in 1937 due to falling yields between 1899 and 1935.

Information gleaned from a 1995 archaeological study for the site noted that the former Digbeth Mineral Springs Company (mineral water manufacture from 1850) was situated in the north eastern area of the site, which reportedly was originally built as a school. Adjoining this building was a cistern at the same location as a spring. In 1889 workmen came across a large tank whilst lowering a yard (the tank was dated 1854), which was fed by a 400 feet deep (122 metre) artesian bore. The bore was connected via culverts to a series of wells, which in turn were connected to an underground reservoir circa 40 feet (circa 12 metre) long. Workmen noted from the pattern of brick work that this was already quite dated. The wells were amongst many on the Park Street side of upper Digbeth, which was called Well Street in the

18th century, and included wells in many of the cellars fronting Digbeth, which would have provided an extensive water supply.

The different account between the water being pumped (*i.e.* having to be mechanically lifted from the aquifer in the Cold Store) and artesian (*i.e.* was free flowing out of the borehole under its own pressure) could elude to there being two different historic abstraction boreholes on the site, or they could be one and the same that may have originally been artesian but which at a later date required pumping due to falling groundwater levels. However, it is apparent that there is a substantial body of groundwater beneath the site.

Large parts of the site are unsurfaced and allow the infiltration of rainwater through shallow soils to the groundwater horizon within the site, which may possibly be in continuity with the River Lea. This represents a potential pollutant migration pathway if there was contamination on site, but groundwater contamination has not been observed on the site and the proposed future activities have low pollution potential.

2.2.12 Waste Management

The current site activities generate small quantities of an ad-hoc range of waste materials, both hazardous and non-hazardous. Currently the storage and management of these materials is similarly *ad-hoc*, being managed by the various tenants at the site that remain. The waste streams have not been quantified but are typical of a commercial/residential type development *i.e.* in the main general wastes comprising paper, cardboard and plastic. There are no large volume hazardous waste producers on the site.

2.2.13 Telecommunications Interference

The site and surrounding area is mainly in commercial use, with a small number of residential dwellings, these dwellings being situated at an elevated position relative to the site (although still low rise in nature). Television usage is likely to be in the main limited to the residential dwellings. Whilst the exact nature of the methods used to receive TV services in these dwellings is not known, these methods are likely to include cable, satellite, and terrestrial. Cable TV services are received via cables connected directly into a receiver; satellite and terrestrial TV services are received via a receiving wireless antenna connected by cable to a receiver.

There has been a marked increase in the uptake of digital terrestrial, satellite and cable TV in recent years in part due to the phasing out of analogue signals. The anticipated switchover to a digital television signal in central Birmingham started in 2011. This is not a cause for concern with the existing site usage but the proposed development involves tall buildings which could give rise to interference and this has been assessed during the EIA.

2.2.14 Summary

The current site is generally characterised by a mixed commercial and residential development, with a number of buildings either underused or not in use (moribund), and largely in varying states of disrepair. Additionally, an unsurfaced pay and display car park is situated in the north eastern area of the site. The environmental conditions on the site are generally poor in that whilst widespread contamination of the soils and groundwater is not anticipated, current ecological habitats at the site are limited and the site is underutilised and most of the buildings are in a poor or dilapidated condition.

The remaining sections of the ES discuss each of the above issues in detail and use them as the baseline against which potential impacts associated with the development have been assessed.