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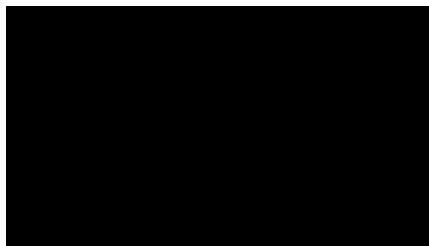
LAND AT FORMER WORTHING GASWORKS SITE, PARK ROAD, WORTHING PRELIMINARY RISK ASSESSMENT

**LAND AT FORMER WORTHING GASWORKS SITE,
PARK ROAD, WORTHING
PRELIMINARY RISK ASSESSMENT**

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Made by **Brian Kerr**
Checked by **Simon Stoker**
Approved by **Matthew Pannett / Simon Stoker**

Made by:

Checked/Approved by:



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EXECUTIVE SUMMARY

Ramboll UK Limited ("Ramboll") has been instructed by St William Homes LLP ("St William") (the "Client") to prepare a Preliminary Risk Assessment ("PRA") for Land at former Worthing Gasworks site, located at Park Road, Worthing (the "site") in connection with the proposed redevelopment of the site for residential use.

The objective of the PRA is to assess the potential for soil or groundwater contamination, both at and in the vicinity of the site, and its likely implications based on the proposed redevelopment.

The site was historically occupied by a gasworks and associated buildings and structures from the earliest dated maps (1875) until the demolition of the last remaining gasworks structure in 2019. More recently an SGN compound has been located in the east of the site and tenanted buildings occupied by charitable organisations, as well as parking for NHS staff, have been located in the southwest of the site.

Potentially contaminative historical features have been identified in the area surrounding the site, including additional gasworks structures, water works, a nursery, a steam sawmill, whiting and putty works, corporation yards, electricity works (including tanks and chimneys), a fire station, garages and transport depots.

Worthing Borough Council's Environmental Health Department has provided information detailing the presence of multiple 'medium' and 'high' priority sites in the near surrounds as well as evidence from site investigations of contaminants in the near surrounds including metals, hydrocarbons and PAH compounds.

The site is considered to be in an area of low to moderate sensitivity with respect to groundwater due to the presence of a Principal Aquifer at depth beneath the site. The site is not located within a Source Protection Zone. The nearest potable groundwater abstraction is located 1.6km north of site. The site is considered to be in an area of low sensitivity with respect to surface water resources as the nearest surface watercourse is the English Channel, 400m south of site. The site is located in Flood Zone 1.

The site has been identified for inspection under the Council's contaminated land strategy. The site is considered to be of medium priority for further investigation. It is considered suitable for its current use, but appropriate planning conditions will be applied to future developments.

The following potential risks to human health and controlled waters have been identified at the site in the context of the proposed development:

- Direct dermal contact, ingestion or inhalation of contaminated soils presenting a risk to future residential site users and construction/maintenance workers;
- Inhalation of asbestos fibres in Made Ground presenting a risk to future site users and construction/maintenance workers and adjacent site users;
- Accumulation of ground gas/vapours from on-site (and potentially off-site) sources presenting a risk to future site users, construction workers and on-site buildings;
- Volatilisation of potential contaminants from groundwater, including future site users and adjacent users;
- Permeation of organic contaminants into drinking water supply pipes presenting a risk to future site users and on-site buildings; and
- Leaching and vertical migration of contaminants in groundwater presenting a risk to underlying aquifers of the superficial deposits and Chalk.

As is typical for a brownfield site redevelopment, these risks require further assessment through intrusive ground investigation.

Based on the findings of this PRA, an intrusive investigation of the site is considered to be required to assess potential risks to human health and controlled waters in the context of the proposed development.

1. INTRODUCTION

1.1 Background

Ramboll UK Limited ("Ramboll") has been instructed by St William Homes LLP ("St William") (the "Client") to prepare a Preliminary Risk Assessment ("PRA") for Land at former Worthing Gasworks site, located at Park Road, Worthing (the "site") in connection with the proposed redevelopment of the site for residential use.

This report presents the objectives, scope, findings and conclusions of the PRA.

1.2 Objectives

The objective of the assessment was to assess the potential for soil or groundwater contamination, both at and in the vicinity of the site, and its likely implications in the context of a proposed development. No sampling or analysis of soils, waters or other materials was undertaken as part of the review. Review of compliance with environmental legislation is outside the scope of this review.

This assessment has been undertaken with the assumption that the site will be developed as residential apartments with soft landscaping. In the event of significant changes to the development proposals, further environmental assessment may be required.

1.3 Risk Assessment Framework

The Land Contamination: Risk Management¹ (LCRM) provides the technical framework for structured decision making about land contamination. LCRM advocates a phased approach, as follows:

- Stage 1: Risk assessment
- Stage 2: Options appraisal
- Stage 3: Remediation and verification

The initial Stage 1: Risk Assessment utilises a tiered approach to risk management, these tiers comprise:

- Tier 1: Preliminary Risk Assessment (PRA) – desk study and qualitative assessment to develop of an outline Conceptual Site Model (CSM);
- Tier 2: Generic Quantitative Risk Assessment (GQRA) – an estimation of risk through assessment of contaminant concentrations against generic assessment criteria; and
- Tier 3: Detailed Quantitative Risk Assessment (DQRA) – an estimation of risk through detailed site specific risk assessment.

This report comprises the preliminary risk assessment tier (Tier 1) described above.

1.4 Scope of Works

The agreed scope of the PRA has included the following:

- examination of historic, recent and current Ordnance Survey plans to identify activities which might have led to contamination of soil or groundwater (for example, from manufacturing processes, from storage activities or waste disposal practices) both on the site and on adjacent sites;
- examination of published records and plans of the shallow and deep geology and hydrogeology of the site to assess the vulnerability and sensitivity of groundwater and

¹ Land Contamination: Risk Management (LCRM), published by the Environment Agency in October 2020 (updated April 2021)

surface water resources to contamination, if present, and the possible direction of movement off site, if mobile;

- search of a proprietary database of environmental permits, records and incidents at the site and surrounding area; and
- enquiries of the Local Authority Environmental Health Department to obtain information on environmental conditions, incidents and known contamination risks and on the Local Authority's Contaminated Land Strategy.

Scope of Works Notable Exceptions and Restrictions:

- No sampling or analysis of soils, waters or other materials has been carried out as part of the PRA.
- The assessment did not include an audit of operational environmental compliance issues or environmental compliance requirements associated with close-down of operations and site exit.
- The assessment specifically excluded a detailed assessment as to the presence and condition of asbestos or asbestiform containing materials at the site.
- The assessment comprised a desk-based study.

1.5 The Proposed Development

The proposed development comprises the construction of 209 residential apartments spread across 5 blocks ranging in height from 3-7 storeys, associated access, parking, open space and landscaping.

2. SITE DESCRIPTION

The following information was derived from information obtained from publicly available information sources or reported by the client.

Figures showing the location of the site, site boundary, proposed development and key features on site are presented in Appendix 1.

2.1 Site Description and Setting

The site is located off Park Road, Worthing BN11 2AN approximately 500m southeast of Worthing town centre and 400m north of the sea front, at National Grid Reference 515244E, 102977N. The site is under the jurisdiction of the Worthing Borough Council ("WBC") and comprises a reversed 'L' shaped parcel of land situated in a mixed residential and commercial area. Access to the site is gained via Park Road, located to the southeast of site.

The site comprises an area of 2.7 acres (1.09 hectares) and is occupied by: two tenanted buildings in the south-west of site; a compound comprising small buildings and metal containers, previously leased to SGN, in the east of the site; a former gasholder base in the north-east of the site; and a car parking area leased to the NHS. A Gas Governor Compound sits immediately north-east of the site, outside of the application boundary. A site plan is provided in Appendix 1.

Planning Consent was granted in February 2017 for the demolition of the above-ground gasholder located in the north-east of the site (AWDM/1949/16). Demolition works commenced in 2018, and the scope of works undertaken comprised of dewatering, desludging, dismantling the large metal frame and columns, removal of the lifts, external tank structure. Infilling works were completed as necessary to facilitate a level free draining site.

2.2 Site Surrounds

A summary of adjacent and surrounding land uses is presented as Table 2.1 below.

Table 2.1: Adjacent and Surrounding Land Uses

Direction	Occupant	Activities	Distance
North	Lyndhurst Road	Road	Adjacent
	Residential houses	Residential	Approx. 10m north
	Worthing Hospital	Hospital	Approx. 30m north-east at its closest point
East	Park Road	Road	Adjacent
	Residential houses	Residential	Approx. 10m east
	NHS community building	Surgery/community centre	Approx. 10m east
South	Residential houses, retirement flats and commercial properties	Residential and commercial	Adjacent to 400m south
West	Waitrose	Supermarket and car park	Adjacent
	Residential houses	Residential	10m south-west

3. HISTORICAL & REGULATORY INFORMATION

3.1 Map History

Ramboll has undertaken a review of historical mapping and aerial imagery² (where available) obtained from a proprietary environmental database (Landmark Information Group, dated 10 May 2021) which is summarised below. The Envirocheck report obtained from Landmark Information Group, including historical maps, is presented in Appendix 2.

3.1.1 The Site

A summary of the site's history is provided below:

The earliest available map edition of 1880 showed the site to be occupied by a small gasworks which contained two gasometers, located in the north-east and north-west of site. A rectangular building appeared to be present in the north of site, in-between the two gasometers, potentially representing the location of other gasworks production uses such as retort houses.

The map dated 1875 showed buildings present adjacent to the north-western and north-eastern site boundary. A separate map dated 1875 confirmed the building in the north of the site to have been utilised as a coal store and a retort house. Several tanks were depicted in the north-west of the site.

By 1898, it is noted that the gasworks extended off-site to the west with the presence of a gasometer and associated buildings.

By 1912, the gasometer present in the north-east of site was not depicted and the buildings on site appeared to have increased in scale; new buildings of unknown use were present in the east of the site. A tank was present in the centre of the site.

By 1932, the buildings on site appeared to have increased in scale and a thin rectangular building was present in the south of the site.

By 1943, a large gasometer was present in the north-east of site and a tank was present in the south-central area of site (no longer present by 1976).

By 1952, the buildings in the east of site were no longer depicted and by 1974, the buildings in the north-west of the site were no longer present.

By 1988, the building in the south of the site had been replaced by two buildings which appeared to be those currently present on site. There also appeared to be new structures present adjacent to the eastern site boundary.

By 1994, the gasometer and buildings in the northwest of site were no longer present. The south of the site was labelled as a depot.

Satellite imagery (from Google Earthtm)² dated 8th June 2018 depicts the demolition of the large gasometer in the north-east of the site and by 2019 the gasometer was no longer present and the site appeared to be in its present day configuration.

3.1.2 Site Surroundings

A summary of the surround's history is provided below:

The earliest available map dated 1875 showed potentially contaminative land uses within 100 m of the site to comprise a water works, a nursery and steam sawmills to the north, and whiting &

² Google Earth Pro

putty works to the east. The area surrounding the site was predominantly occupied by residential land use.

By 1898, a gasometer and assumed gasworks production buildings were present to the immediate west of site. A corporation yard and mortuary were present 100m to the north of site and an infirmary present 90m to the north-east. There had been an increase in the density of residential land use in the near surrounds.

By 1912, an electricity works was present approximately 50m to the north adjacent to the corporation yard and a fire station was present 90m to the south-west of site. There had been a further increase in the density of residential land use in the near surrounds.

By 1932, there were a number of tanks and chimneys in association with the electricity works and corporation yard (named depot on the map), approximately 50m north of site.

By 1953, residential and office land use had increased in the near surrounds. A transport depot was present adjacent to the south of the site, a corporation depot was present approximately 150m south and garages were present approximately 100m and 250m west of site. The electricity works to the north of the site was identified as an engineering works.

By the 1960s, garages and depots were present within 100m west of site and by the 1970s the depot to the south had been divided into a depot and warehouse; a garage, depot and works were present to the north of the site.

By the 1980s, the electricity works (later depot) to the north and the garages to the west were no longer present. A superstore was present to the west of site.

By the 1990s, the gasometer to the west of the site was no longer present and the warehouse to the south had been replaced with residential land use.

3.2 Unexploded Ordnance (UXO)

A review of the Zetica online UXO map viewer³ shows that the site is located in a moderate-risk area for UXO. Additionally, the UXO map indicates the presence of a strategic industrial target approximately 500m north-west of the site, and an off-shore UXO find approximately 1.2km southwest of the site. It is recommended that a detailed UXO desk study and risk assessment are undertaken for sites in these areas, with potential for intrusive surveys to be required should the desk study not rule out significant UXO risk.

3.3 Environmental Database Records

The information presented in Table 3.1 has been obtained from a review of a proprietary environmental database (Landmark Information Group, dated 10 May 2021) procured by Ramboll relating to the site and surrounding land. The Envirocheck report obtained from Landmark Information Group, including environmental database information is presented in Appendix 2.

Table 3.1: Summary of Key Environmental Database Information

Data Type	Distance				Relevant records within 250m of the site
	On site	Within 250m	Within 500m	Within 1km	
Contaminated Land Register entries	0	0	0	0	None

³ <https://zeticauxo.com/downloads-and-resources/risk-maps/>

Data Type	Distance				Relevant records within 250m of the site
	On site	Within 250m	Within 500m	Within 1km	
Prosecutions or enforcement actions	0	0	0	0	None
Local authority pollution prevention and controls	0	1	N/R	N/R	Nearest record relates to PG6/34 Respraying of road vehicles permit (dated 20 December 1992, authorisation recorded as revoked) 85m southeast.
Pollution incidents	0	2	N/R	N/R	Nearest records relate to Category 3 (minor) incident involving industrial chemicals, located 190m south and dated August 1994, and Category 3 incident involving Teville Brook discoloured by unknown pollutants, located 210 m northwest and dated October 1993.
Substantiated Pollution Incident Register	0	0	0	2	None
Former landfill sites	0	0	0	0	None
Current landfill sites	0	0	0	0	None
Licensed waste management / Treatment facilities	0	1	0	4	Nearest record is for a lapsed licence for a scrapyard, located 154m north-west.
Potentially Infilled Land	0	2	N/R	N/R	Nearest records relate to unknown filled ground (pond, marsh, river, stream, dock etc) located 130 m west of site and recorded in 1879.
Registered Waste Sites	0	1	0	N/R	Nearest record relates to a scrapyard accepting waste including compressed gas cylinders, domestic electrical appliances, electrical and electronic components, fixtures and fittings and scrap metals. Located 150 m northwest of site.
Part A(1) Environmental Permits	0	0	0	0	None
Part A(2) Environmental Permits	0	0	0	0	None
Part B Environmental Permits	0	0	0	0	None

Data Type	Distance				Relevant records within 250m of the site
	On site	Within 250m	Within 500m	Within 1km	
Control of Major Accident Hazards Sites (COMAH)	1	0	0	0	Record on site for a lower tier COMAH site (Transco PLC), currently ceased to be supplied. No additional information relating to this record is available. Assumed to relate to previous gas storage at the site.
Notification of Installations Handling Hazardous Substances (NIHHS)	1	0	0	0	Record on site for Transco PLC, currently recorded as not active. No additional information relating to this record is available. Assumed to relate to previous gas storage at the site.
Planning Hazardous Substances Consents	1	0	0	0	Record on site for British Gas PLC. Permit 00/00339/HAZ relates to liquefied extremely flammable gas (including LPG) and natural gas (whether liquefied or not), dated October 1992). Assumed to relate to previous gas storage at the site.
Fuel Stations	0	0	0	1	None
Contemporary trade directory entries	0	37	N/R	N/R	Nearest active records relate to a dry cleaners 60m west, printers 160m southwest, hospital 190m north and garage 200m southeast. A number of inactive garages, car and tyre dealers are also recorded within 50m north-west of the site.
Points of Interest – Manufacturing and Production	0	9	N/R	N/R	Nearest records relate to unspecified works and factories 80m to southeast, 150m to northwest, energy production features 160m northwest, tanks 180m north and an industrial estate 220m southwest.
Registered Radioactive Substances	0	0	0	0	Information on certain radioactive substance authorisations is not publicly accessible
EA discharge consents	0	0	0	3	None
Radon affected area	Y	N/A	N/A	N/A	The site is in an intermediate probability radon area (1% to 3% of homes estimated to be at or above the Action Level).

The site lies in an “intermediate probability radon affected area” as defined by Public Health England (i.e. an area where between 1% and 3% of residential properties are projected to contain radon above the residential action threshold). Under Health and Safety legislation, employers have a duty to manage workplace risks including the potential for radon exposure. Health and Safety Executive guidance recommends radon monitoring for workplaces located in

radon Affected Areas. If the workplace radon threshold is exceeded, the Ionising Radiations Regulations 1999 require employers to take action to reduce risks.

According to BRE Report BR211 (2015) Radon: Protective Measures for New Buildings, radon protection measures are not required under building regulations for new buildings at this location.

The LinesearchbeforeUdig database, which lists pipelines distributing crude oil and refined hydrocarbon products owned and/or operated by a number of UK pipeline operators indicates that there are no records of underground oil or refined hydrocarbon product pipelines on the site or within 250m. Low Pressure (LP) and Medium Pressure (MP) gas mains operated by Southern Gas Networks were recorded within the northern and eastern boundaries of the site respectively, as well as adjacent to and running parallel with the northern and eastern boundaries of the site. UK Power Networks are understood to have assets in the vicinity of the site, however no plans were made available to Ramboll. A plan of SGN assets obtained from the LinesearchbeforeUdig database is presented as Appendix 3.

3.4 Regulatory Authority Enquiries

3.4.1 Local Authority Environmental Health Department

Ramboll requested information from the Environmental Health Department of the Adur & Worthing Councils, the following information was provided:

- The site has been identified for inspection under the Council's contaminated land strategy. The site is considered to be of medium priority for further investigation. It is considered suitable for its current use, but appropriate planning conditions will be applied to future developments.
- In terms of known contamination issues associated with the site or in the near vicinity, a summary of the information the Council provided is below:
 - Lyndhurst Road Gas Works. An area covering the subject site and immediate surrounds to the west are associated with coal gas and coke production between 1834 and 1931 and later used for gas storage. Transco currently utilise part of the site as a storage depot, where there may be a vehicle maintenance workshop. The area is of 'medium' priority for further investigation.
 - Area 2: Kings Hall, Park Road. Located to the south of the subject site, this area was occupied by a transport depot in 1953. By 1978, the use of this area had changed, with the northern part of the site used by a warehouse and the southern part as a depot.
 - Area 3: The Builder Centre. Approximately 50m south of the subject site, the Council state it is believed that a depot previously occupied this area from the 1950s and more recently the site was occupied by a builders merchant. A depot is considered to be a potentially contaminative use as there is a potential for the storage and/or spillage of fuel, oil, solvents etc.

In 2009, a Preliminary Contamination Risk Assessment was undertaken and in 2013 an Environmental Investigation Report was undertaken. The assessment identified low concentrations of heavy chain hydrocarbons and PAH compounds, generally consistent with waste oil and tars. The source of these contaminants was thought most likely to comprise of observed macadam fragments. Results of the Generic Quantitative Assessment indicated that the concentration of various organic and inorganic compounds identified did not pose a potentially unacceptable risk to future site residents.

- Area 4: Arnold Motors, 41 Park Road: Approximately 60m south of the subject site, this site is believed to have been occupied by a garage in the 1930s. Historic mapping

indicates that the site was occupied by a 'works' from the 1970s. The site is of 'medium' priority.

- Area 5: Barnet Metal Merchants, 30A Park Road: Located approximately 90m south-east of site, this area is believed to have been occupied by a scrap yard from the 1940s – 1960s, a builders yard in the 1990s and more recently uPVC window manufactures. This site is currently occupied by residential flats with no gardens. The site is considered to be suitable for use and of 'low' priority for further investigation.
- Area 6, 7, 9 & 10: Waitrose carpark, High Street: to the west of the subject site, this area is believed to have been occupied by a garage(s) between 1953 – 1978. This site is of 'medium' priority for further investigation.
- Area 8: Crown House, High Street: located approximately 95m south-west of the subject site, this site was occupied by a fire station from 1912 – 1967, as such fuel tanks may have been associated with the site although this is not confirmed. The site is of 'medium' priority.
- Area 11: Union Place, Worthing: Located approximately 150m south-west of the subject site, this area was historically occupied by a Police Station and depot from the 1930s – 1990s. Petroleum licensing records indicate one tank installed in 1980, which was filled with foam in 2004.
- Area 12: Rowlands House, High Street: located approximately 120m west of the subject site, this area was previously occupied by an industrial unit in 1976. This site is of 'medium' priority.
- Area 13: Pharos House, High Street: located approximately 125m west, this area was marked as a Corporation Depot on historic maps dating between 1953 – 1969 and as a depot on the 1976 map. Land charges records indicate tanks present at the site. This site is of medium priority for further investigation.
- Area 14: Lidl, North Street: located approximately 125m west, this area was occupied by a workshops, builders merchants store, general and heating engineers, glazing workshop from the 1950s. A former tank is present on site to the rear of building.

A Preliminary Site Contamination Assessment was undertaken in 1995 which found made ground and elevated levels of heavy metals. Remediation was recommended if landscaped areas were proposed.

A 2010 Geo-Environmental Investigation Report recorded no elevated levels of contaminants were found within the made ground.

- Area 15: 34 North Street: located approximately 200m west, this area is believed to have been occupied by an engineers between the 1920s - 1960s. The site currently occupied by Lidl and is of medium priority for further investigation. Land charges records indicate a tank still present on site.
- Area 16: 61 High Street: located approximately 180m northwest, this area is believed to have been occupied by an engineers from the 1930s – 1940s. This site is of 'medium' priority.
- Area 17: 43 North Street: located approximately 180m northwest, this area was occupied by a garage between 1903 – 1947. The site is of 'medium' priority.
- Area 18: 89 A High Street: located approximately 133m northwest, this area was occupied by a scrap yard from 1932 – 2000s. Prior to the development of the site a ground investigation was undertaken from which elevated levels of arsenic, lead and TPH contamination were identified. Remedial works involved the installation of a suitable membrane covered by hard standing across the whole site.

- Area 19: Corporation Depot, High Street: located approximately 90m north, this area was utilised as a depot during the 1930s until 1970s when it was re-labelled as a council depot. The site was developed for housing in the 1990s, no contamination investigation was undertaken prior to the housing development. The site is currently of 'high' priority.

Area 20: Corporation Depot and Electricity Works, High Street: located approximately 55m north, this area was in use historically as a water works with sewage wells and filter beds depot in 1875, from 1896 the site was a mortuary, from 1909 the site was a Corporation Depot with a series of tanks and chimneys and by 1950s an electricity works was present. The electricity works, tanks and chimneys remained on the site until it was developed for housing in the late 1980's and early 1990's. Petroleum licensing records indicate that the tanks were removed in 1987 and 1992. This area is of medium/high priority.

- Area 21: Kenvad Cars, Lyndhurst Road: located approximately 10m north, the workshop in this area has been used for car body repairs and the fitting of tyres, exhausts, batteries, minor mechanical repairs and ancillary storage since 1989. During the 1950's, part of the site housed an engineering works, although this use changed in the 1970s to include metal storage, fabrication and welding. A Geo-environmental & Geotechnical Assessment Report was undertaken in 2015 which identified elevated concentrations of arsenic, lead, mercury and a number of PAHs.

In 2017 a Remediation Strategy & Verification Plan was submitted with the remedial works involving cover system comprising a minimum 450mm thickness of certified clean topsoil laid over a geotextile membrane within soft landscaped areas. The site is considered to be of 'low' priority for further investigation.

- Area 22: Worthing Hospital, Lyndhurst Road: located approximately 25m north-east, this 'medium' priority site is considered to be potentially contaminated due to the possible presence of tanks, incinerators, etc. Prior to 1898, an infirmary and mortuary occupied the south-west of the site. At various stages since 1898, the hospital has been enlarged, reaching its current size and layout in approximately 1976.

Several ground investigations have been undertaken at the Worthing Hospital. Three of which have been undertaken within the search radius of this Environmental Search.

In 2012, an intrusive investigation identified elevated levels of lead and PAH and the presence of asbestos was also confirmed.

- The department holds no record of and landfills within a 250m radius of the site.
- The department does not hold information concerning radon.
- Records of known current or former nuisance issues, prosecutions or enforcements associated with the site or adjoining properties include the following:
 - records relating to the subject site comprise five complaints of odour during decommissioning of former gasholder in April 2018.
 - records in the near surrounds include accumulation of waste and noise (associated with construction and demolition).
- There are no private water supplies within a 2km radius of this site.
- There are no Part A(2) or Part B Environmental Permits licensed to the site or to adjoining properties.

3.4.2 Local Authority Planning Department

A summary of planning information identified within the site boundary is provided in Table 3.2 below.

Table 3.2: Summary of Relevant Planning Information at the Site

Applicant	Application ref.	Details of Application	Status
Not specified	03/00212/FULL	Change of use of the land and buildings to a bus depot and ancillary maintenance workshop	Refused (10 April 2003)
ECE Planning (on behalf of St William's LLP)	EIAOPINION/0006/20	Environmental Impact Assessment (EIA) Screening Opinion in relation to residential development at the former gas works site for up to 250 residential units (potentially including a building of up to 10 storeys)	Decision: EIA not required (18 December 2020)

3.5 Historical Potential for Ground Contamination

3.5.1 The Site

A review of the site history indicates the site was once occupied by a gas works since at least the 1880s, with structures including gasometers and gasholders, tanks, a coal store and retort house and other associated buildings constructed and demolished throughout the 20th and 21st Century. The last structure associated with the gas works (above ground gasholder) was demolished by 2019 and no redevelopment of the site has taken place since then, although a depot was constructed in the south of the site in 1988 prior to the demolition of the gas works. Given this site history, potential for ground contamination is anticipated to exist at the site.

3.5.2 The Surrounding Area

The following potentially contaminative activities have been identified as having taken place in the surrounding area:

- water works, nursery and steam sawmills within 100m of site (19th Century);
- gasometer and gas works buildings adjacent to west (1898 to 1990s)
- corporation yard and mortuary 100m north (1898), developing as electricity works and corporation depot 50m north by 1912;
- tanks and chimneys associated with electricity works and corporation depot by 1932;
- transport depot adjacent to south of site and garages 100m west of site by 1953; and
- garages and depots within 100 m west of the site by the 1960s and adjacent to the site by the 1970s.

information provided by the Council's Environmental Health Department has provided information confirming the presence of potential sources of contamination in the near surrounds, comprising depots, garages, works, fuel tanks, engineers and scrap yards. There are also multiple 'medium' and 'high' priority sites as identified by the Council as well as evidence from site investigations of contaminants in the near surrounds including metals, hydrocarbons and PAH compounds.

The above activities represent potential off-site sources of contamination that (if present) could potentially migrate beneath the site. The potential for off-site contamination (if present) to migrate beneath the site would be dependent on the underlying geological conditions, which are discussed in Section 4.

4. ENVIRONMENTAL SETTING

Desk-based research of the local geology, hydrogeology and hydrology was carried out in order to establish the potential for migration of contamination onto or away from the site, and to assess the sensitivity and vulnerability of the site's setting with respect to surface water, groundwater and ecological resources.

Information was obtained from a number of sources, including:

- examination of published geological maps produced by the British Geological Survey (BGS)⁴;
- review of publicly available BGS borehole logs for the site or near vicinity⁴;
- Department for Food, Environment and Rural Affairs (DEFRA) Magic Map application⁵;
- Environment Agency (EA) Catchment Data Explorer⁶;
- EA Flood Risk Map for Planning⁷;
- EA Flood Map for Surface Water⁸;
- Coal Authority Interactive Map⁹;
- A Landmark Information Group Envirocheck report procured by Ramboll (see Appendix 2); and
- Request to Worthing Council for pertinent environmental information.

4.1 Geology and Hydrogeology

According to the British Geological Survey (BGS) Geology of Britain viewer⁴ the site is underlain by superficial deposits comprising River Terrace Deposits (undifferentiated - sand, silt and clay). The bedrock geology at the site comprises the Seaford Chalk Formation in the north-east of site with the Lewes Nodular Chalk Formation present in the central and south-west of site.

Information obtained from the BGS borehole scan website⁴ records the presence of a borehole in the approximate centre of the site that extended to approx. 79m, potentially relating to a historic abstraction well.

The superficial deposits are classified by the EA as a Secondary B Aquifer (predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering)⁵. The bedrock geology of the Chalk is classified as a Principal aquifer (layers of rock or drift deposits that have high intergranular and/or fracture permeability).

Groundwater underlying the site is associated with the Littlehampton Anticline East groundwater body. The Environment Agency (EA) classified the Littlehampton Anticline East groundwater body as having a 'poor' overall status with a 'poor' quantitative status and 'good' chemical status under the Water Framework Directive (WFD) classification scheme as of 2019⁶.

According to EA information provided by a commercial environmental regulatory database provider, there are seven licensed groundwater abstractions within a 2km radius of the site, as detailed in Table 4.1 below.

⁴ <https://www.bgs.ac.uk/map-viewers/geology-of-britain-viewer/>

⁵ <https://magic.defra.gov.uk/magicmap.aspx>

⁶ <https://environment.data.gov.uk/catchment-planning/>

⁷ <https://flood-map-for-planning.service.gov.uk/>

⁸ <https://flood-warning-information.service.gov.uk/long-term-flood-risk>

⁹ <https://mapapps2.bgs.ac.uk/coalauthority/home.html>

Table 4.1: Licensed Groundwater Abstractions within 2km of the Site

Licence Holder	Distance from Site	Abstraction source	Purpose of Abstraction
Unigate Finance Company Ltd / Unigate Dairies Ltd / Unigate PLC (three records)	1536m North	Not specified	Dairies: General Cooling (Existing Licenses Only) (Low Loss).
Southern Water Services (two records)	1604m North	Not specified	Public Water Supply: Potable Water Supply – Direct Public Water Supply: General Use (Medium Loss)
Southern Water Services (two records)	1617m North	Not specified	Public Water Supply: Potable Water Supply – Direct Public Water Supply: General Use (Medium Loss)

The site is not situated within an EA designated groundwater Source Protection Zone⁵.

There may be some saline intrusion within the Chalk Aquifer given the distance to the coast.

4.2 Coal Mining

According to the Coal Authority, the site is not located in a Coal Mining Affected Area⁹. The Coal Authority Interactive Map does not show the site to be in a mine entry zone of influence or Development High Risk Areas. The BGS has stated that the site is located in an area where other (non-coal) mining activities are rare. One BGS recorded mineral site (East Worthing Brick Field) was located 890 m northeast of the site, comprising a ceased opencast brick pit which extracted common clay and shale.

4.3 Hydrology

The nearest identified surface watercourse is the English Channel, which is located approximately 400m south of the site. A culverted stream (Teville Brook) is located 500m north of site. The Environment Agency (EA) classified Teville Brook as having a 'poor' overall status with a 'poor' ecological status and 'failed' chemical status under the WFD classification scheme as of 2019⁶. Based on the location of the site relative to the coast, groundwater flow direction is anticipated to be towards the south.

According to an independent, third party environmental database, there are no licensed surface water abstractions within a 2km radius of the site.

According to the EA fluvial and tidal flood map for planning, the site is located in Flood Risk Zone 1 (Low Probability)⁷. This zone comprises land assessed as having a less than 1 in 1000 (<0.1%) annual probability of river or sea flooding. The closest area of land recorded as having an elevated risk of flooding is located approximately 240m south of the site.

According to the EA Flood Map for Surface Water⁸ which presents the theoretical potential for flooding from pluvial sources (i.e. flooding caused by rainwater exceeding capacity of drainage systems), the site is located in an area of Very Low flooding probability. This zone comprises land assessed as having a less than 1 in 1,000 annual probability of pluvial flooding (<0.1% in any year).

Surface water drainage networks are typically designed to accommodate only a 1 in 30 (3.3%) annual probability rainfall event. Older drainage networks may have a lower capacity, especially if they have not been maintained adequately. Although not true of every situation, surface water

flooding is typically relatively shallow and would be expected to subside following the storm event assuming drainage assets are maintained in an appropriate condition.

4.4 Ecology

No statutory designated ecologically sensitive sites are located within 2km of the site. The site is not located within 2km of a green belt. The site is not located within a nitrate vulnerable zone (NVZ), and the nearest NVZ is located 1.1km to the east of the site⁵.

4.5 Environmental Sensitivity and Vulnerability

The site is considered to be situated in an area of low to moderate sensitivity with respect to groundwater resources due to the presence of a Principal Aquifer at depth beneath the site. The site is underlain by the Littlehampton Anticline East groundwater body, classified by the EA as having a 'poor' overall status with a 'poor' quantitative status and 'good' chemical status. The site is not located in a groundwater SPZ, the nearest licensed potable groundwater abstraction is 1,604 m north of the site. Groundwater at site may be impacted by saline intrusions due to proximity to the coast. Groundwater vulnerability at the site is recorded as medium to high, and further deterioration of the overall 'poor' status of the groundwater should be avoided.

The site is considered to be in an area of low sensitivity with respect to surface water resources as the nearest surface watercourse is the English Channel 400m south of the site. There are no licensed surface water abstractions within 2km of the site.

There are no statutory designated ecologically sensitive areas or green belt areas within 2km. The nearest NVZ is located 1.1km east of the site.

5. QUALITATIVE RISK ASSESSMENT

5.1 Conceptual Site Model

The information presented in the previous sections of this report have been collated and evaluated to develop an initial conceptual site model for the proposed redevelopment. Further details of the legislative context and background to assessment methodologies are provided in Appendix 5.

5.1.1 Potential Sources

The potential contamination sources are summarised in Table 5.1.

Table 5.1: Potential Sources

On-site
Potentially contaminative historical uses of the site include a gas works which has included: <ul style="list-style-type: none"> gas holders, liquor tanks, tar tanks, retort house, tar dehydration plant, above ground tanks, interceptors, coal storage area, boiler house, garage, stores and workshops.
Off-site
Potentially contaminative historical uses off-site have included: <ul style="list-style-type: none"> Gas works (immediately to the west of site), Water works, Nursery, Steam saw mill, Whiting and putty works, Corporation yard, Electricity works (incl. tanks and chimneys), Fire station, Garages and Transport depots

5.1.2 Potential Receptors

The site-specific receptors as part of the proposed redevelopment that could potentially be affected by the contamination hazards are summarised in Table 5.2.

Table 5.2: Potential Receptors

Receptor	Comments
On-site	
Human health – end-users	Future residential users of the site after development
Human health - ground workers	Workers involved in construction and future maintenance workers and grounds persons
Buried infrastructure and building foundations	Buildings and materials used below ground e.g. foundations, buried concrete and water supply pipes
Buildings and structures	Buildings and enclosed structures on site
Flora	Plants (i.e. ornamental landscaping may uptake contaminants at phytotoxic concentrations
Secondary B Aquifer	Groundwater in the superficial deposits. Historical investigations suggest limited groundwater presence in the
Principal Aquifer	Groundwater in the Chalk
Off-site	
Human health - adjacent site users	Users of surrounding land uses
Groundwater	Groundwater in the superficial deposits and the Chalk

Receptor	Comments
Surface water (including aquatic life)	The nearest surface watercourse to the site is the English Channel, 400 m to the south. A culverted stream (Teville Brook) is also located 500 m north of the site

5.1.3 Potential Pathways

In order for the potential contaminants to pose a risk to the identified receptors, there has to be a viable pathway for the contaminant. The potential pathways are summarised in Table 5.3.

Table 5.3: Potential Pathways

Receptor	Pathway	Comments
Human health	Dust/soil ingestion/inhalation Inhalation of asbestos fibres Dermal contact	Future site users have the potential to come into direct contact with soils and dust/fibres liberated from soils in soft landscaped areas. This pathway will be eliminated where buildings, hardstanding and other engineered surfaces will remove the contaminant pathway. Construction workers have the potential to come in direct contact with soil and groundwater during construction activities.
	Ingestion of homegrown produce	The proposed development is understood to include soft landscaping areas, and consumption of potentially contaminated homegrown produce is not anticipated to occur. Therefore, this pathway is not considered further.
	Permeation of buried water supply pipes	Organic contaminants may permeate buried plastic water supply pipes and enter the drinking water supply system. This may affect future site users.
	Vapour inhalation	Volatiles from organic compounds could be generated from contaminants in the ground. These have the potential to migrate and build up in buildings and confined spaces potentially affecting future site users or construction workers.
	Build-up of ground gases within buildings or confined spaces	Future site users have the potential to be impacted by accumulation of explosive or asphyxiating ground gases in internal building spaces. Construction and maintenance workers may also be exposed to accumulation of harmful vapour and ground gases if working in confined spaces such as excavations or utility spaces. There may be some potential for ground gases and vapours to migrate off-site and impact adjacent site users.
	Build-up of radon within buildings or confined spaces	The site is located in an intermediate probability radon area. According to BRE Report BR211 (2015), no protective measures are required for new dwellings at the site. As such, radon is not considered further.

Receptor	Pathway	Comments
Water environment	Leaching of contaminants, and migration into water environment	<p>The site is underlain a layer of low permeability superficial deposits (classified as a Secondary B Aquifer, which are in turn underlain by Chalk (classified as a Principal Aquifer. The low permeability superficial deposits are anticipated to limit hydraulic continuity between the Made Ground and Chalk. There is potential for rainfall infiltration, leaching and contaminant migration in soft landscaped areas of the proposed development.</p> <p>There is potential for increased contamination via preferential pathways in the event that piled foundations or deep excavations form part of the proposed development.</p>
	Migration of contaminants to controlled water receptors via groundwater	<p>There may be the potential for contaminants in groundwater to migrate to the nearest surface watercourse (the English Channel).</p> <p>Given the distance of the English Channel (approximately 400 m) to the south of the site, the risk of contaminants in groundwater to migrate to the nearest surface watercourse (the English Channel) is anticipated to be low.</p>
Buildings and structures	Build up ground gases within buildings or confined spaces	Internal building spaces have the potential to be impacted by accumulation of explosive or asphyxiating ground gases
	Damage to buried structures / services	Some contaminants could affect subsurface construction materials e.g. damage to subsurface concrete by aggressive ground conditions.
Flora	Plant uptake	Ornamental flora in soft landscaping may have the potential to be impacted by phytotoxic contaminants in soils (copper, nickel, lead, zinc).

5.2 Qualitative Risk Assessment

Potential pollutant linkages are identified using the source-pathway-receptor framework detailed above. An assessment of the potential significance of each linkage is then made by consideration of the likely magnitude and mobility of the source, the sensitivity of the receptor and nature of the migration/exposure pathways.

This qualitative risk assessment has been undertaken in accordance with National House Building Council (NHBC) and EA, 2008¹⁰, further details of which are provided in Appendix 5 including definition of risk categories. Table 5.4 summarises the pollutant linkages and risk ratings associated with the proposed development. An illustration of the conceptual site model on which this risk assessment is based is presented in Appendix 1.

¹⁰ NHBC and Environmental Agency (2008). Guidance for Safe Development of Housing on Land Affected by Contamination. R&D Publication 66:2008

Table 5.4: Potential Pollutant Linkages

Hazard/Potential Source	Pathway	Potential Receptor	Potential Consequence of Risk being Realised	Probability of Risk being Realised	Risk Classification
On-site sources: Historical gas works (including gas holders, liquor tank, tar tank, retort house, tar dehydration plant, ASTs and interceptors, coal storage area, boiler house, garage, stores and workshops) and associated Made Ground.	Direct contact/ingestion of soils/dust/inhalation of dusts.	Future site users	Medium	Low likelihood	Moderate/low
		Construction/ maintenance workers	Medium	Likely	Moderate*
		Adjacent site users	Medium	Unlikely	Low
		Flora	Mild	Likely	Moderate/low
	Inhalation of asbestos fibres.	Future site users	Severe	Low likelihood	Moderate
		Construction/ maintenance workers	Severe	Likely	High*
		Adjacent site users	Severe	Unlikely	Moderate/low
		Future site users	Medium	Low likelihood	Moderate/low
	Accumulation and inhalation of ground gas/Vapours in confined spaces	Construction/ maintenance workers	Medium	Low likelihood	Moderate/low*
		Buildings and structures	Medium	Low likelihood	Moderate/low
		Adjacent site users	Medium	Unlikely	Low
		Future site users	Medium	Likely	Moderate
	Permeation of contaminants into drinking water pipes.	Buildings and structures	Medium	Likely	Moderate
		Secondary B Aquifer (superficial deposits)	Mild	Likely	Low/moderate
		Principal Aquifer (Chalk)	Medium	Low likelihood	Moderate/low
		Buildings and structures	Mild	Likely	Moderate/low
Leaching and lateral / vertical migration of contaminants in soils and groundwater.	Migration of contaminants via preferential pathways (e.g. piled foundations and service trenches).	Secondary B Aquifer	Mild	Likely	Moderate/low
		Principal Aquifer	Medium	Likely	Moderate

Land at Former Worthing Gasworks Site, Park Road, Worthing

Hazard/ Potential Source	Pathway	Potential Receptor	Potential Consequence of Risk being Realised	Probability of Risk being Realised	Risk Classification
Off-site sources (historical and contemporary): Gas works, water works, nursery, steam saw mill, whiting and putty works, corporation yard, electricity works (incl. tanks and chimneys), fire station, garages, transport depots.	Leaching and vertical migration of contaminants onto site in soils and groundwater. Volatilisation of potential contaminants from groundwater to the site causing vapour inhalation. Permeation of contaminants into drinking water pipes.	Future site users	Medium	Unlikely	Low
		Secondary B Aquifer	Mild	Unlikely	Very low
		Principal Aquifer	Medium	Unlikely	Low
		Buildings and structures	Mild	Unlikely	Very low
Notes					
Assessment completed assuming site in current condition. Should site levels be significantly altered during development, a reassessment would be required.					
Assessment completed assuming no remediation/mitigation in place.					
Should the development proposals alter significantly a review of this risk assessment may be required.					
* Given the use of appropriate personal protective equipment (PPE) and on-site health and safety precautions, risk to site development workers would be reduced to low.					

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

This Preliminary Risk Assessment (PRA) has been prepared in the context of the proposed redevelopment of the site as residential apartments with soft landscaping, amenity and car parking space.

The site was historically occupied by a gasworks from the earliest dated maps (1875) until the demolition of the remaining gasworks structures by 2019. Gasworks structures historically located at the site included gas holders, liquor tank, tar tank, tar dehydration plant, ASTs and interceptors, a coal store, a retort house, a boiler house, garages, stores and workshops. More recently an SGN compound has been located in the east of the site and tenanted buildings occupied by charitable organisations have been located in the southwest of the site.

Potentially contaminative historical features were identified in the area surrounding the site, including additional gasworks structures, water works, a nursery, a steam sawmills, whiting and putty works, corporation yards, electricity works (including tanks and chimneys), a fire station, garages and transport depots. The Council's Environmental Health Department has provided information detailing the presence of multiple 'medium' and 'high' priority sites in the near surrounds as well as evidence from site investigations of contaminants in the near surrounds including metals, hydrocarbons and PAH compounds.

The site is considered to be in an area of low to moderate sensitivity with respect to groundwater due to the presence of a vulnerable Principal Aquifer at depth beneath the site, with no groundwater SPZ in the vicinity of the site and the nearest potable groundwater abstraction located 1,604 m up-hydraulic gradient of the site. The site is considered to be in an area of low sensitivity with respect to surface water resources as the nearest surface watercourse is the English Channel 400 m south of the site. There are no statutory designated ecologically sensitive areas or green belt areas within 2km. The nearest NVZ is located 1.1 km east of the site. The site is located in Flood Zone 1.

The site has been identified for inspection under the Council's contaminated land strategy. The site is considered to be of medium priority for further investigation. It is considered suitable for its current use, but appropriate planning conditions will be applied to future developments.

The following potential risks to human health and controlled waters have been identified at the site. As is typical for a brownfield site redevelopment, these require further assessment through intrusive ground investigation:

- Direct dermal contact, ingestion or inhalation of contaminated soils presenting a risk to future residential site users and construction/maintenance workers;
- Inhalation of asbestos fibres in Made Ground presenting a risk to future site users and construction/maintenance workers and adjacent site users;
- Accumulation of ground gas/vapours from on-site (and potentially off-site) sources presenting a risk to future site users, construction workers and on-site buildings;
- Volatilisation of potential contaminants from groundwater, including future site users and adjacent users;
- Permeation of organic contaminants into drinking water supply pipes presenting a risk to future site users and on-site buildings; and
- Leaching and vertical migration of contaminants in groundwater presenting a risk to underlying aquifers of the superficial deposits and Chalk.

6.2 Recommendations

Based on the findings of this desktop environmental assessment, intrusive investigation of the site is considered to be required to assess potential risks to human health and controlled waters in the context of the proposed development.

The results of the investigation should be reported in a Ground Contamination Interpretative Report (GCIR) detailing the soil and groundwater conditions in relation to the development proposals.

APPENDIX 1 FIGURES

Figure 1: Site Location

Figure 2: Site Layout

Figure 3: Key Features

Figure 4: Conceptual Site Model

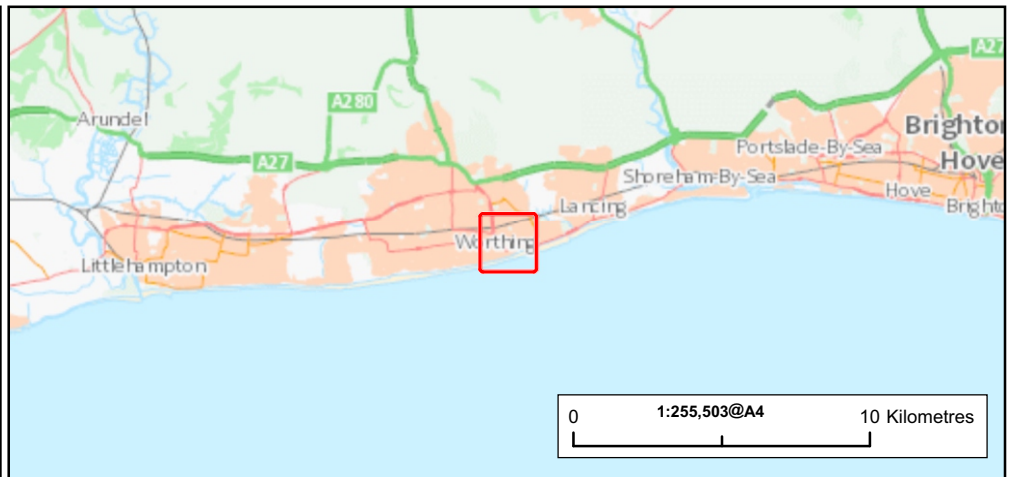

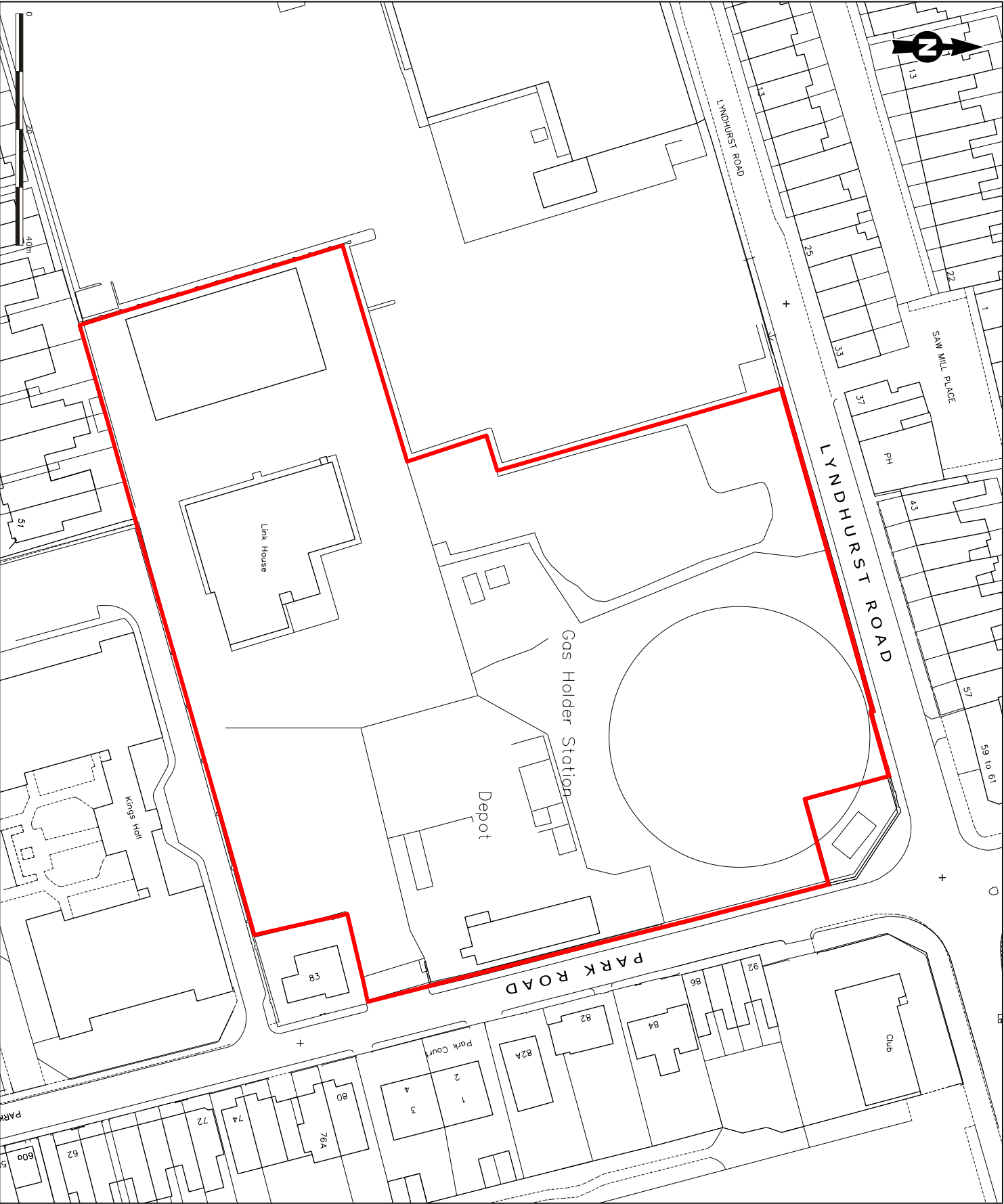


Figure Title Figure 1: Site Location		Project Name Worthing Gas Works		Date July 2021			
				Scale As shown			
Project Number 1620009339		Client St William LLP		Issue 1			Prepared By BVK



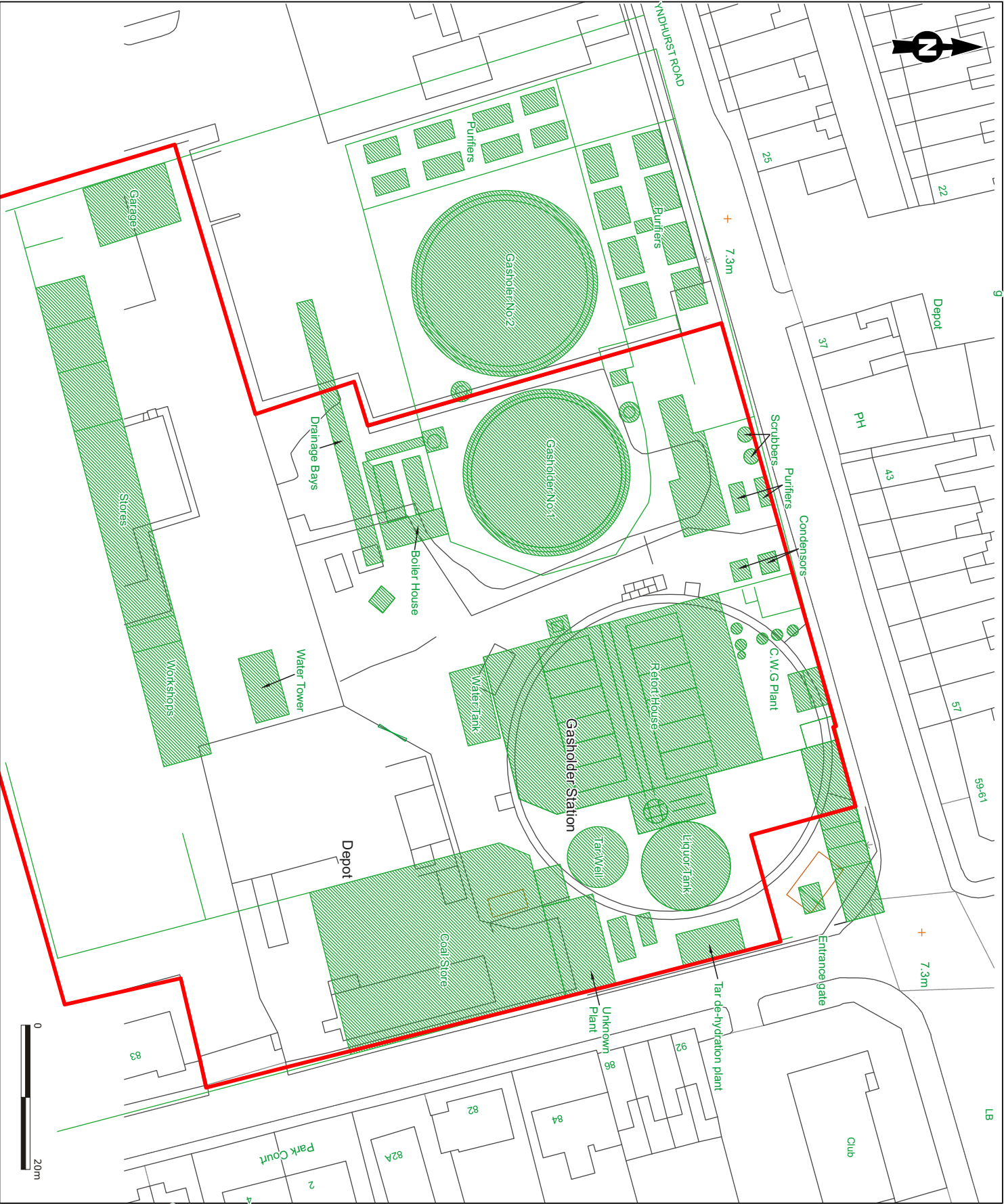


Legend



Current Site Boundary

Figure Title		Site Layout Plan	
Project Name		Worthing Gas Works	
Project Number	1620009339	Figure No.	2
Date	July 2021	Prepared By	BVK
Scale	As shown	Issue	2
Client		St William LLP	
RAMBOLL			



Legend

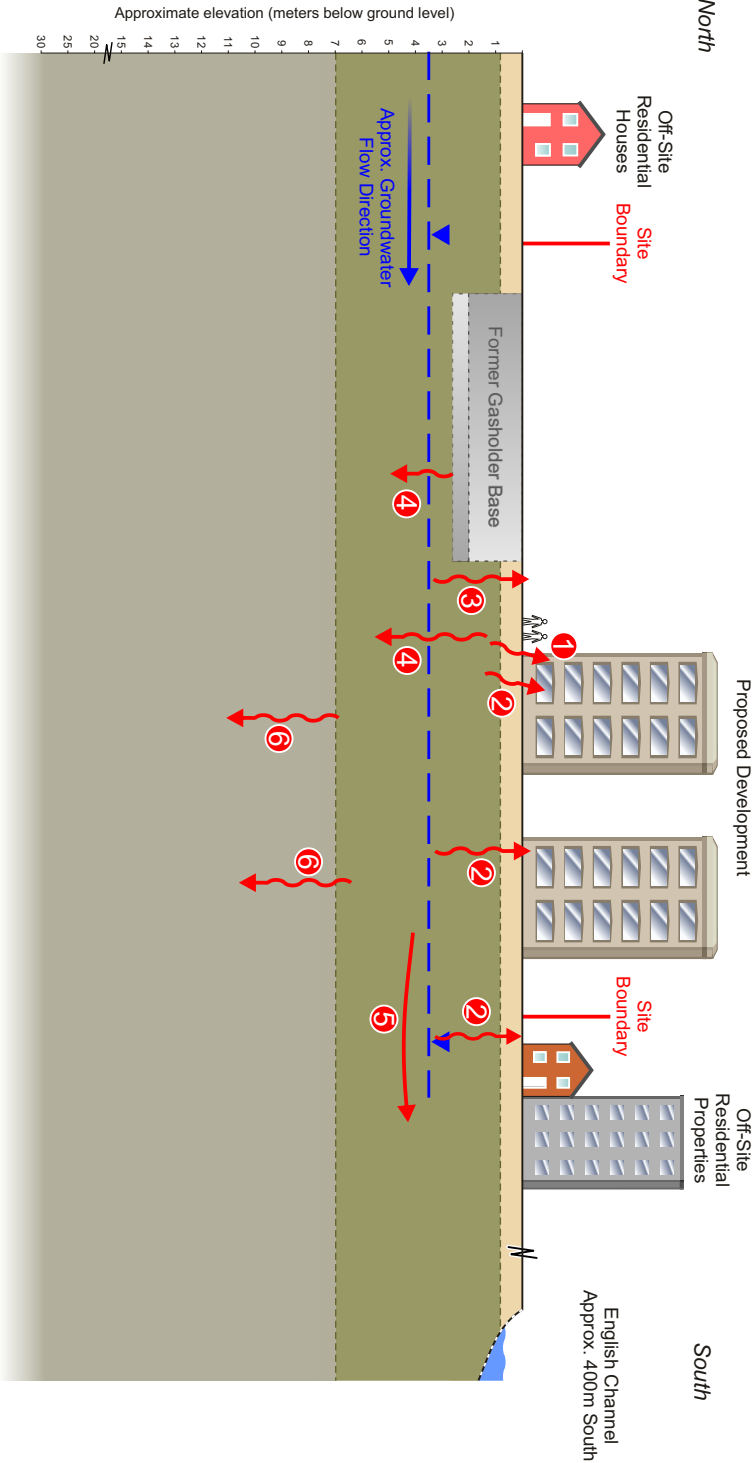
- Current Site Boundary
- Historical Structures
- Current Structures

Figure Title
Historical Layout Plan

Project Name
Worthing Gas Works

Project Number 1620009339	Figure No. 3
Date July 2021	Prepared By BVK
Scale As shown	Issue 2
Client St William LLP	





Legend

- Made Ground
- River Terrace Deposits
- Chalk
- Water Table
- 1 Direct contact with contaminated soil
- 2 Ground gas/vapour migration and inhalation
- 3 Volatilisation from groundwater
- 4 Leaching of contaminants in unsaturated soil
- 5 Lateral migration within groundwater
- 6 Vertical migration of contaminants

Figure Title
Conceptual Site Model for Proposed Development (North - South)

Project Name
Worthing Gas Works

Project Number	Figure No.
1620009339	4
Date	Prepared By
May 2021	RN/BVK
Scale	Issue
Not to scale	1
Client	
St William LLP	

APPENDIX 2

HISTORICAL MAPPING

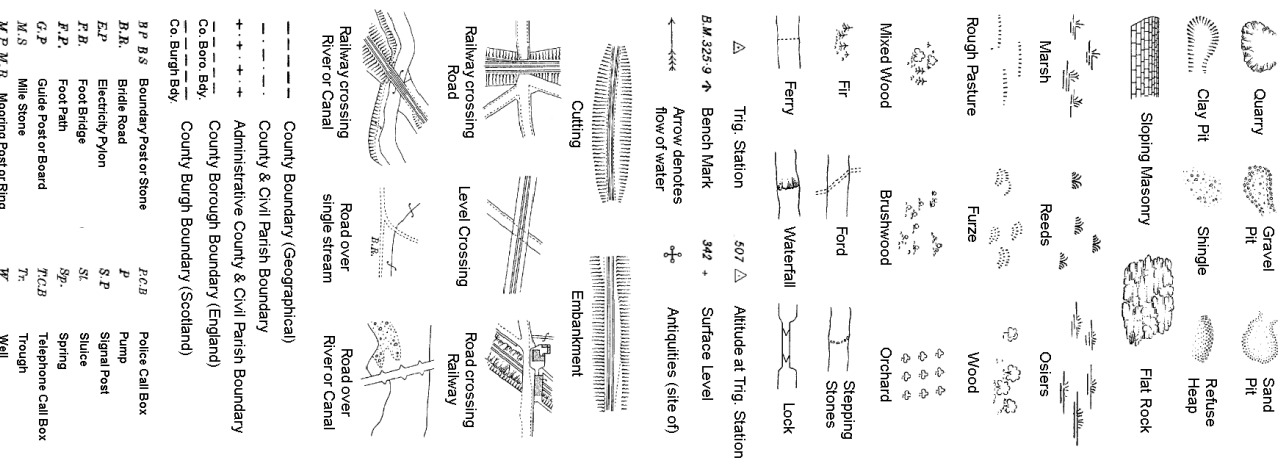
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Sussex	1:2,500	1912	4
Sussex	1:2,500	1932	5
Ordnance Survey Plan	1:2,500	1953	6
Ordnance Survey Plan	1:2,500	1954	7
Ordnance Survey Plan	1:1,250	1961 - 1971	8
Ordnance Survey Plan	1:1,250	1973 - 1978	9
Supply of Unpublished Survey Information	1:1,250	1973	10
Supply of Unpublished Survey Information	1:1,250	1975	11
Additional SIMs	1:1,250	1981 - 1990	12
Additional SIMs	1:1,250	1986 - 1992	13
Additional SIMs	1:1,250	1988	14
Large-Scale National Grid Data	1:1,250	1984	15
Large-Scale National Grid Data	1:1,250	1995	16
Historical Aerial Photography	1:2,500	1999	17

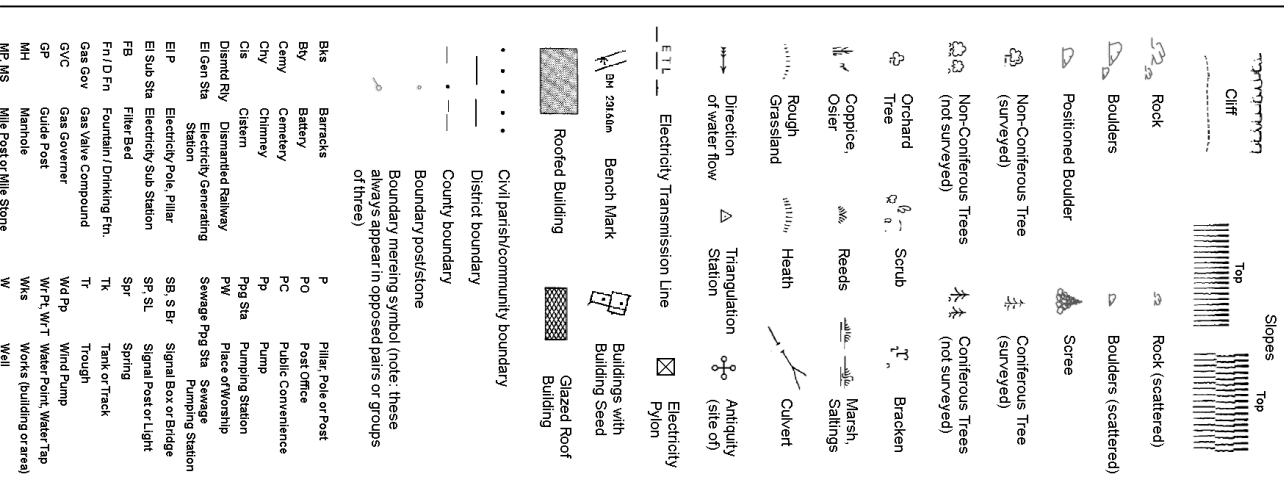
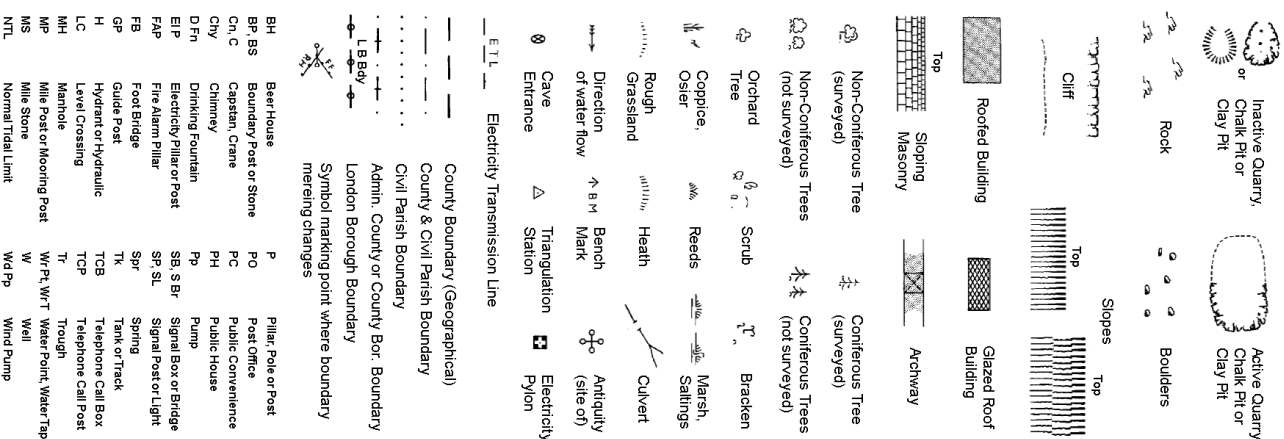
Historical Mapping Legends

Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information

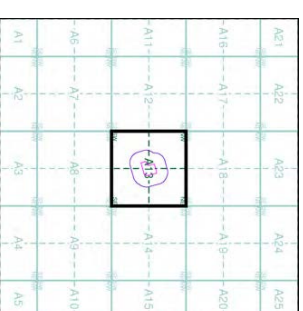
1:2,500 and 1:1,250



Large-Scale National Grid Data 1:2,500 and 1:1,250



Historical Map - Segment A13



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National Grid Reference: 515220, 102930
Site Area (Ha): 1.18
Search Buffer (m): 100

Site Details

Park Road, WORTHING, BN11 2AN

Map Name(s) and Date(s)



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Search Buffer (m):	100

Site Details

Park Road, WORTHING, BN11 2AN

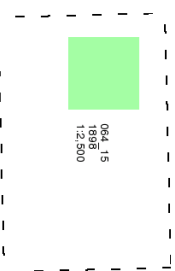
Sussex

Published 1898

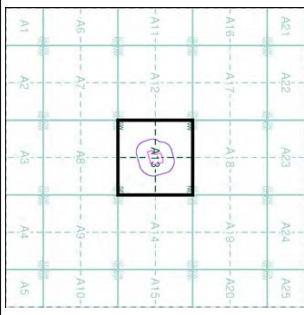
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1880 it covered the whole of Great Britain. The maps were published by the Ordnance Survey, the national mapping agency for Great Britain. The maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 278269218_1.1
Customer Ref: 1620009339
National Grid Reference: 515220, 102930
Site: A
Site Area (Ha): 1.18
Search Buffer (m): 100
Site Details
Park Road, WORTHING, BN11 2AN

Source map scale - 1:2,500

giving rise to significant inaccuracies in outlying areas

064.15
1912
1:2,500

A 5x5 grid of points labeled A1 through A25. The points are arranged in a regular grid. A 2x2 square region is highlighted with a thick black border, containing points A11, A12, A13, and A14. Point A13 is at the center of this square and is also circled with a purple line.



Search Butter (m): 100

Park Road, WORKING, BN11 2AN

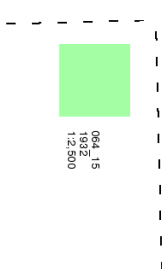
Sussex

Published 1932

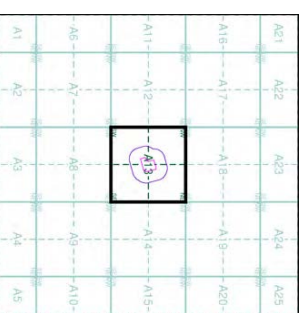
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1880 it had been extended to cover the whole of the country. The maps of Great Britain published in 1932 were the last of the series. The maps were surveyed between 1840 and 1880 and the maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

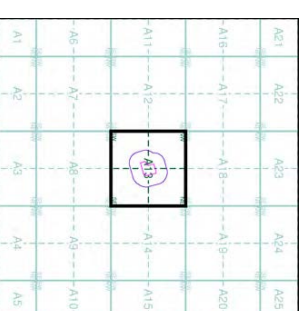
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 Search Buffer (m): 100
 Site Details
 Park Road, WORTHING, BN11 2AN

Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1838, all OS maps were based on the Cassini Projection, with independent surveys in a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

TOI403SE	1933	TOI503SW	1933	TOI503SE
1:1,250	1:1,250	1:1,250	1:1,250	1:1,250
TOI402NE	1933	TOI502NW	1933	TOI502NE
1:1,250	1:1,250	1:1,250	1:1,250	1:1,250

Historical Map - Segment A13



Order Details

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Customer Ref:	1620009339
National Grid Reference:	515220, 102930
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Search Buffer (m):	100

Site Details

Park Road, WORTHING, BN11 2AN

Ordnance Survey Plan

Published 1961 - 1971

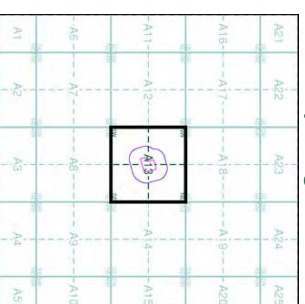
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Map Name(s) and Date(s)

TO1403SE	1967	TO1503SE	1967
1:1,250	1:1,250	1:1,250	1:1,250
TO1402NE	1967	TO1502NE	1967
1:1,250	1:1,250	1:1,250	1:1,250

Historical Map - Segment A13



Order Details

Order Number: 278269218_1,1
 Customer Ref: 1620009339
 National Grid Reference: 515220, 102930
 Slice: A
 Site Area (Ha): 1.18
 Search Buffer (m): 100
 Site Details
 Park Road, WORTHING, BN11 2AN



Additional SIMS

Published 1981 - 1990

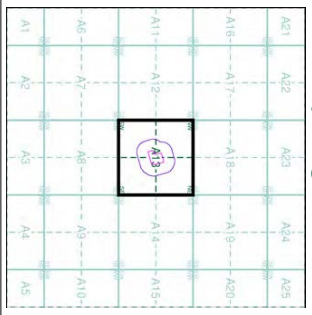
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's Survey of Information on Microfilm) are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information at both 1:2,500 and 1:1,250 scales. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

TO1403SE	TO1503SW
1981	1988
1:1,250	1:1,250
TO1402NE	TO1502NW
1990	1998
1:1,250	1:1,250

Historical Map - Segment A13



Order Details

Order Number: 278269218_1_1
Customer Ref: 1620009339
National Grid Reference: 515220, 102930
Site: A
Site Area (Ha): 1.18
Search Buffer (m): 100
Site Details
Park Road, WORTHING, BN11 2AN

Large-Scale National Grid Data Published 1994

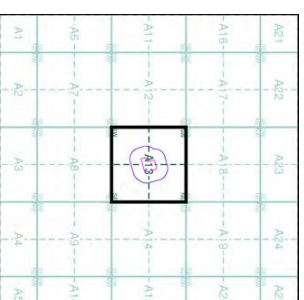
Source map scale - 1:1,250

Large Scale National Grid Data: superseded SIM cards (Ordnance Survey's Survey of Information on Microfilm) in 1992, and continued to be produced until 1998. These maps were the fore-runners of digital mapping and so provide information on houses and roads, but tend to show less detail than the current 1:1,250 scale maps. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

TO1403SE	TO1503SW	TO1503SE
1994	1994	1994
1:1,250	1:1,250	1:1,250
TO1402NE	TO1502NW	TO1502NE
1994	1994	1994
1:1,250	1:1,250	1:1,250

Historical Map - Segment A13



Order Details

Order Number: 278269218_1.1
Customer Ref: 1620009339
National Grid Reference: 515220, 102930
Site: A
Site Area (Ha): 1.18
Search Buffer (m): 100
Site Details
Park Road, WORTHING, BN11 2AN

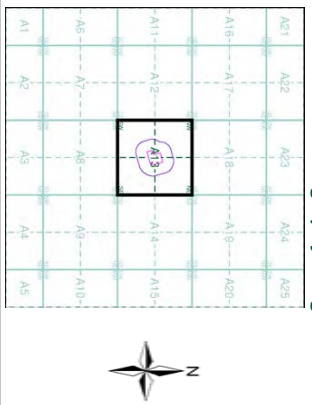


Historical Aerial Photography

Published 1999

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A13



Order Details

Order Number: 278269218_1_1
Customer Ref: 1620009339
National Grid Reference: 515220, 102930
Slice: A
Site Area (ha): 1.18
Search Buffer (m): 100

Site Details

Park Road, WORTHING, BN11 2AN



10k Raster Mapping Published 2000

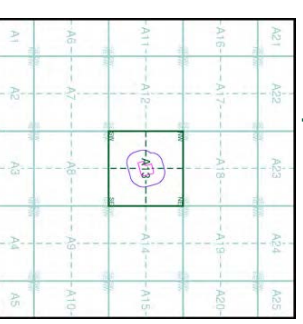
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan data which replaced the old 1:10,000 maps originally published in 1970. The data is the latest available and includes all roads, buildings, and other features. The maps are published in a standard format and are available for use in a variety of applications. The maps are published in a standard format and are available for use in a variety of applications. The maps are published in a standard format and are available for use in a variety of applications.

Map Name(s) and Date(s)

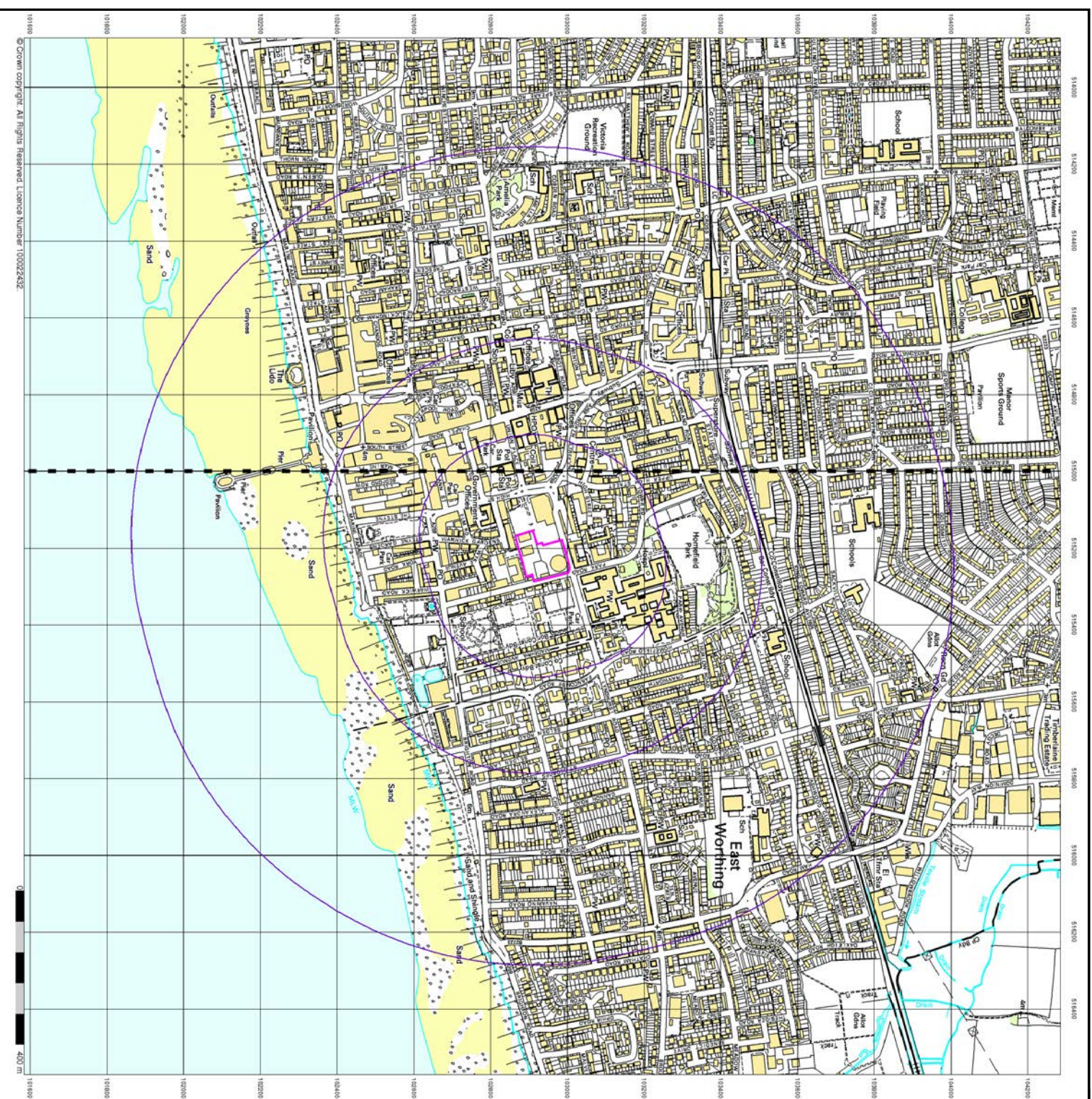
TO10SW 2000 1:10,000	TO10SE 2000 1:10,000
----------------------------	----------------------------

Historical Map - Slice A



Order Details

Order Number: 278269218_1_1
Customer Ref: 1620009339
National Grid Reference: 515220, 102930
Slice: A
Site Area (ha): 1.18
Search Buffer (m): 1000
Site Details
Park Road, WORTHING, BN11 2AN



APPENDIX 3

LEGISLATIVE CONTEXT AND METHODOLOGIES

LEGISLATIVE CONTEXT

England

The regime for contaminated land was set out in Part 2A (ss.78A-78YC) of the Environmental Protection Act 1990 (EPA), as inserted by S.57 of The Environment Act 1995 and came into effect in England on 1st April 2000 as The Contaminated Land (England) Regulations 2000 (SI 2000/227). These regulations were subsequently revoked with the provision of The Contaminated Land (England) Regulations 2006 (SI 2006/1380) (as amended), which came into force in August 2006, and consolidated the previous regulations and amendments. Revised statutory guidance ("the Guidance") for local authorities on how to implement the regime, including the decision-making process on whether land is contaminated land in the legal sense, has been published by Defra and entered into force in April 2012.

Under Part 2A of the EPA Section 78A(2), "contaminated land" is defined as "land which appears... to be in such a condition, by reason of substances in, on or under the land, that:

- a) significant harm is being caused or there is a significant possibility of such harm being caused¹; or
- b) significant pollution of controlled waters is being caused, or there is a significant possibility of such pollution being caused".

"Significant harm" is defined in the Guidance on risk-based criteria and must be the result of one or more relevant 'contaminant linkages' relating to the land. The presence of a contaminant linkage relies on the Source-Pathway-Receptor concept, where all three factors must be present and potentially or actually linked for a potential risk to exist. Under the Guidance, a 'significant contaminant linkage' is one which gives rise to a level of risk sufficient to justify a piece of land being determined as contaminated land. Should the authority consider that there is an unacceptably high probability, supported by robust science-based evidence that significant harm would occur if no action is taken to stop it, the land should be deemed a Category 1: Human Health. Land should be placed into Category 2 if the authority concludes, on the basis that there is a strong case for considering that the risks from the land are of sufficient concern, that the land poses a significant possibility of significant harm. Both Category 1 and Category 2 cases would be capable of being determined as contaminated land under Part 2A on the grounds of significant possibility of significant harm to human health. If the legal test for significant possibility of significant harm is not met, the authority should place the land into Category 3. If the local authority considers that there is no risk or that the level of risk posed is low, the land should be placed into Category 4.

For six common contaminants (benzo(a)pyrene, cadmium, arsenic, benzene, hexavalent chromium and lead), a set of screening values have been developed and endorsed for use by Defra² (the Category 4 Screening Levels, or C4SLs) that describe a level of risk just below the Category 3/4 boundary set in the Statutory Guidance, i.e. where concentrations are below the C4SL, there is no risk or the level of risk is acceptably low. The Environment Agency states under their Land Contamination Risk Management (LCRM)³ approach that they expect C4SL values to be used in risk assessments for land contamination.

The pollution of controlled waters is defined in Section 78A(9) of the Act as "the entry into controlled waters of any poisonous, noxious or polluting matter or any solid waste matter". The new Guidance stresses that the Part 2A regime is designed to identify and deal with 'significant pollution' and not lesser levels of pollution. As with human health risk, Categories 1 and 2 comprise land where the local authority considers that a significant possibility of significant pollution of controlled waters exists and Categories 3 and 4 comprises cases where the authority considers that a significant

¹ Water Act 2003 (Commencement No. 11) Order 2012

² SP1010: Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination – Policy Companion Document, Defra, revised December 2014

³ Environment Agency (2020) Land Contamination Risk Management

possibility of such pollution does not exist. The local authority should be satisfied that a substance is continuing to enter controlled waters or is likely to enter controlled waters.

Risk Assessment Framework

“Significant harm” or “significant pollution of controlled waters” is defined in the Guidance on risk-based criteria and must be the result of one or more relevant ‘contaminant linkages’ relating to the land.

The presence of a contaminant linkage relies on the Source-Pathway-Receptor concept, where all three factors must be present and potentially or actually linked for a potential risk to exist. For a risk of pollution or environmental harm to occur as a result of ground contamination, all of the following elements must be present:

- A source - a substance that is capable of causing pollution or harm;
- A receptor - something which could be adversely affected by the contaminant; and
- A pathway - a route by which the contaminant can reach the receptor.

If one of these elements is absent there can be no significant risk. If all are present then the magnitude of the risk is a function of the magnitude and mobility of the source, the sensitivity of the receptor and the nature of the migration pathway.

The Land Contamination: Risk Management⁴ (LCRM) provides the technical framework for structured decision making about land contamination. LCRM advocates a phased approach, commencing with Stage 1 Risk Assessment comprising:

- Preliminary Risk Assessment (PRA) – desk study and qualitative assessment to develop of an outline Conceptual Site Model (CSM);
- Generic Quantitative Risk Assessment (GQRA) – an estimation of risk through assessment of contaminant concentrations against generic assessment criteria; and
- Detailed Quantitative Risk Assessment (DQRA) – an estimation of risk through detailed site-specific risk assessment and development of site-specific assessment criteria (SSAC) and site-specific risk assessment.

Each stage of assessment is focussed upon the development and refinement of a conceptual site model, which identifies Source-Pathway-Receptor linkages. The conceptual site model has been developed with consideration to guidance including BS EN ISO 21365:2020 Soil quality – Conceptual site models for potentially contaminated sites.

RISK ESTIMATION

An assessment of environmental risks is made for each potential pollutant linkage identified.

Risk estimation has been completed in accordance with the guidance provided in:

- NHBC and Environment Agency 2008. Guidance for the Safe Development of Housing on Land Affected by Contamination. R&D Publication 66: 2008.

The following is taken directly from NHBC/EA 2008. The key to the classification is that the designation of risk is based upon the consideration of both:

- the magnitude of the potential consequence (i.e. severity) [takes into account both the potential severity of the hazard and the sensitivity of the receptor]; and

⁴ Land Contamination: Risk Management (LCRM), published by the Environment Agency in October 2020 (updated April 2021)

- the magnitude of probability (i.e. likelihood) [takes into account both the presence of the hazard and receptor and the integrity of the pathway].

Table 1: Classification of Consequence (after NHBC/EA 2008)

Category	Definition
Severe	<p>Highly elevated concentrations likely to result in "significant harm" to human health as defined by the EPA 1990, Part 2A, if exposure occurs.</p> <p>Equivalent to EA Category 1 pollution incident including persistent and/or extensive effects on water quality; leading to closure of a potable abstraction point; major impact on amenity value or major damage to agriculture or commerce.</p> <p>Major damage to aquatic or other ecosystems, which is likely to result in a substantial adverse change in its functioning or harm to a species of special interest that endangers the long-term maintenance of the population.</p> <p>Catastrophic damage to crops, buildings or property.</p>
Medium	<p>Elevated concentrations which could result in "significant harm" to human health as defined by the EPA 1990, Part 2A if exposure occurs.</p> <p>Equivalent to EA Category 2 pollution incident including significant effect on water quality; notification required to abstractors; reduction in amenity value or significant damage to agriculture or commerce.</p> <p>Significant damage to aquatic or other ecosystems, which may result in a substantial adverse change in its functioning or harm to a species of special interest that may endanger the long-term maintenance of the population.</p> <p>Significant damage to crops, buildings or property.</p>
Mild	<p>Exposure to human health unlikely to lead to "significant harm".</p> <p>Equivalent to EA Category 3 pollution incident including minimal or short-lived effect on water quality; marginal effect on amenity value, agriculture or commerce.</p> <p>Minor or short lived damage to aquatic or other ecosystems, which is unlikely to result in a substantial adverse change in its functioning or harm to a species of special interest that would endanger the long-term maintenance of the population.</p> <p>Minor damage to crops, buildings or property.</p>
Minor	<p>No measurable effect on humans.</p> <p>Equivalent to insubstantial pollution incident with no observed effect on water quality or ecosystems.</p> <p>Repairable effects of damage to buildings, structures and services.</p>

* For these purposes, disease is to be taken to mean an unhealthy condition of the body or a part of it and can include, for example, cancer, liver dysfunction or extensive skin ailments. Mental dysfunction is included only insofar as it is attributable to the effects of a pollutant on the body of the person concerned.

The likelihood of an event (probability) takes into account both the presence of the hazard and target and the integrity of the pathway and has been assessed based on the categories given below.

Table 2: Classification of Probability (after NHBC/EA 2008)

Category	Definition
High Likelihood	There is pollutant linkage and an event would appear very likely in the short-term and almost inevitable over the long-term, or there is evidence at the receptor of harm or pollution.
Likely	There is pollutant linkage and all the elements are present and in the right place which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short-term and likely over the long-term.

Low Likelihood	There is pollutant linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a long period such an event would take place and is less likely in the shorter term.
Unlikely	There is pollutant linkage, but circumstances are such that it is improbable that an event would occur even in the very long-term.

The potential severity of the risk and the probability of the risk occurring have been combined in accordance with the following matrix in order to give a level of risk for each potential hazard.

Table 3: The Classification of Risk (after NHBC/EA 2008)

		Consequence			
		Severe	Medium	Mild	Minor
Probability	High Likelihood	Very high	High	Moderate	Low
	Likely	High	Moderate	Moderate/Low	Low
	Low Likelihood	Moderate	Moderate/ Low	Low	Very low
	Unlikely	Moderate/ Low	Low	Very low	Very low

Very high risk

There is a high probability that severe harm could arise to a designated receptor from an identified hazard at the site without remediation action OR there is evidence that severe harm to a designated receptor is already occurring. Realisation of that risk is likely to present a substantial liability to be site owner/or occupier. Investigation is required as a matter of urgency and remediation works likely to follow in the short-term.

High risk

Harm is likely to arise to a designated receptor from an identified hazard at the site without remediation action. Realisation of the risk is likely to present a substantial liability to the site owner/or occupier. Investigation is required as a matter of urgency to clarify the risk. Remediation works may be necessary in the short-term and are likely over the longer term.

Moderate risk

It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that any such harm would be severe, and if any harm were to occur it is more likely, that the harm would be relatively mild. Further investigative work is normally required to clarify the risk and to determine the potential liability to site owner/occupier. Some remediation works may be required in the longer term.

Low risk

It is possible that harm could arise to a designated receptor from identified hazard, but it is likely at worst, that this harm if realised would normally be mild. It is unlikely that the site owner/or occupier would face substantial liabilities from such a risk. Further investigative work (which is likely to be limited) to clarify the risk may be required. Any subsequent remediation works are likely to be relatively limited.

Very low risk

It is a low possibility that harm could arise to a designated receptor, but it is likely at worst, that this harm if realised would normally be mild or minor.

No potential risk

There is no potential risk if no pollution linkage has been established.

APPENDIX 4

GENERAL LIMITATIONS AND RELIANCE

General Limitations and Reliance

This report has been prepared by Ramboll exclusively for the intended use by the Client in accordance with the agreement between Ramboll and the Client defining, among others, the purpose, the scope and the terms and conditions for the services. No other warranty, expressed or implied, is made as to the professional advice included in this report or in respect of any matters outside the agreed scope of the services or the purpose for which the report and the associated agreed scope were intended or any other services provided by Ramboll.

In preparation of the report and performance of any other services, Ramboll has relied upon publicly available information, information provided by the client and information provided by third parties. Accordingly, the conclusions in this report are valid only to the extent that the information provided to Ramboll was accurate, complete and available to Ramboll within the reporting schedule.

Ramboll's services are not intended as legal advice, nor an exhaustive review of site conditions and/or compliance. This report and accompanying documents are initial and intended solely for the use and benefit of the client for this purpose only and may not be used by or disclosed to, in whole or in part, any other person without the express written consent of Ramboll. Ramboll neither owes nor accepts any duty to any third party, unless formally agreed by Ramboll through that party entering into, at Ramboll's sole discretion, a written reliance agreement.

The scope of services, assessment and conclusions made in this report have been prepared for the currently proposed development of the site (residential apartments with soft landscaping, amenity and car parking space. In the event of significant changes to the proposed development further assessment may be required.

Ramboll's scope of services for this assignment did not include collecting samples of any environmental media. Ramboll cannot rule out the existence of conditions, including, but not limited to, contamination not identified and defined by the data and information available to and/or obtained by Ramboll. Specifically, this assessment must not be considered as an asbestos survey (whether in built structures, waste, soils, etc.), even though the subject of asbestos-containing materials may have been discussed in the report.

Land at Former Worthing Gasworks, Park Road, Worthing
Heritage Statement
July 2021

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Report

Heritage Statement

Site

Land at Former Worthing Gasworks, Park Road, Worthing

Client

St William Homes LLP

Planning Authority

Adur and Worthing District Council

Grid reference

NGR TQ 15243 02986

Prepared By

Robin Sheehan and Chris Colville

Reviewed By

Chris Colville

Report Status

Final

Date

23 July 2021

Orion Ref

PN2774/HS/4

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Executive Summary

This heritage statement considers land at the former Worthing Gasworks, Park Road, Worthing (the application site) and the potential impact of the proposed development on the setting and significance of those designated and non-designated heritage assets located in its vicinity.

In accordance with Paragraph 194 of the *National Planning Policy Framework* (NPPF 2021), Policy 16: Built Environment and Design of the *Worthing Core Strategy* (WCS 2011), saved Policy BE1: Built Environment of the *Worthing Local Plan* (WLP 2003) and Policy DM24: The Historic Environment of the emerging *Submission Draft Worthing Borough Council Local Plan 2020-2036* (submission draft WBCDLP), this report first identifies and describes the historical development of the application site and outlines the significance of the designated and non-designated heritage assets before going on to consider the impact of the proposal on that significance.

There are no listed buildings located within the application site. Within the immediate vicinity, to the south-west of the application site is a small group of individually listed buildings, which comprise nos. 40 and 40a High Street (NHLE no. 1250305), 42 High Street (NHLE no. 1263332) and 44 High Street (NHLE no. 1250306). This group is located just over 100 metres from the south-west boundary of the application site and to the south of the access road to the Waitrose carpark. The proposed development is unlikely to be seen in backdrop views of this terrace, given the separation between them. The siting of the taller element (Block B) within the central part of the site will also ensure that this element is not perceived in the backdrop view of the listed terrace group from High Street looking north-east. Therefore, it is considered that the proposal will have no adverse visual impact on the setting of the heritage assets.

In the wider vicinity of the application site there are a number of listed buildings, with the closest being nos. 13-18 Warwick Place (consecutive - Grade II listed and located at the northern end of Warwick Place, NHLE nos. 1263179 and 1263132) approx. 135 metres to the south. There are also a number of listed buildings located on Union Place to the west of the application site, the northern end of High Street to the north-west of the site and North Street also to the north-west of the site. Given the separation between these heritage assets and the application site, combined with the design approach adopted, the proposal will have no impact on their settings. The distance between these listed buildings and the application site and, in most cases the existing development between them will ensure that there is no harm on the setting and significance of the designated heritage assets identified.

The application site is located to the immediate north of the Warwick Gardens Conservation Area. While the majority of the proposed development will not be evident in views from within the designation, the attic storey to Block B will be visually evident above the ridgeline to the three-storey Charlcote Road terrace group in views looking north from Warwick Gardens. This aspect of the proposal will cause some harm to the setting of the Conservation Area (deemed to be at the lower end of the less than substantial harm scale), given that it will be evident in backdrop views of the terrace group from Warwick Gardens. It is considered, however, that the lightness of the facing material to the top storey will lessen its visual prominence in backdrop views of the Charlcote Road terrace group from within the designation, thereby lessening the degree of harm. Warwick Gardens also benefits from a number of trees which line either side of the road, which has the benefit of impeding longer views of the Charlcote Road terrace group noted, although it is acknowledged that the top storey to Block B is likely to be evident during the winter months, in particular. The minor level of harm identified will also be outweighed by the benefits associated with the proposal. In the context of housing delivery within the Borough, the less-than-substantial harm should be considered against the importance of allocated sites such as the application site for housing delivery over the emerging plan period. In this respect, such sites are proposed to deliver around 50% of the housing requirement (refer to the ECE Planning Statement for further details). The application site plays an extremely important role, therefore, in contributing to the housing delivery target for Worthing. The submission draft WBCDLP

promotes maximisation of housing delivery on sustainable sites making the most efficient use of land (Policies SO17 and DM2). The proposal clearly meets these requirements.

The Steyne Gardens Conservation Area is located approx. 53 metres to the south of the application site. The north-eastern part of the designation captures the southern part of Park Road and Warwick Place. The design approach to Blocks D and E, which front Park Road, have been handled in a sensitive manner to ensure that they are not overly prominent in views to and from the Conservation Area. The three-storey height to the Park Road frontage is consistent with the scale of Kings Hall to the south. In this regard, the top two-storeys have been setback to ensure that the upper part of these blocks are not apparent in views from the designation. With this in mind, the proposal will cause no harm to the setting of the heritage asset.

The Little High Street Conservation Area is located to the north-west of the application site. The design approach to Blocks C and D, which front Lyndhurst Road, have been handled in a sensitive manner to ensure that they are not overly prominent in views to and from the Conservation Area. The three-storey height to the Lyndhurst Road frontage is responsive to the two-scale of the terrace group located on the north side of Lyndhurst Road. In this regard, the top two-storeys have been setback to ensure that the upper parts of these blocks are not apparent in views from the designation. With this in mind, the proposal will cause no harm to the setting of the heritage asset.

Beach House Park is a Registered Park and Garden of Local Historic Interest, which is located approximately 37 metres to the east of the application site and is separated from the application site by the existing terrace housing on the east side of Park Road. This provides a buffer between these elements. There is also a substantial line of trees along the western boundary of the park, which further impedes any visual connections between the park and the application site. In this regard, the proposed three storeys to Blocks D and E fronting Park Road with a further two storeys set back, will be visually recessive in backdrop views of the park. With this in mind, the proposal will cause no adverse harm to the setting of the non-designated heritage asset.

There is a number of Local Interest Buildings (non-designated heritage assets) in the immediate and wider vicinity of the application site. These include nos. 2, 4, 9, 11 and 12 Warwick Place, which are located just over 150 metres to the south of the application site and are attached to a listed building group. In setting terms, the terrace group is legible in views primarily along Warwick Place, with limited visibility from elsewhere. The roofline to the easternmost terrace group located on the north side of Ash Grove is evident in views from Warwick Place. In this regard, given the separation between the application site and the non-designated heritage assets noted, combined with the closed nature of this road, the new development will not be legible in the context of the terrace group. With this in mind, the proposal will cause no harm to the setting of the non-designated heritage assets.

Other Local Interest Buildings are also identified on Wyke Avenue (Nos 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 and 15), which are all located to the south of the application site and mostly located within the Warwick Gardens Conservation Area. There is very limited inter-visibility between Wyke Avenue and the application site, given the separation that exists (approx. 100 metres between the northern end of Wyke Avenue and the southern boundary of the application site). In this regard, the proposed taller Block B is unlikely to be evident in views along Wyke Avenue, given the alignment of existing development along the northern side of Wyke Avenue and Ash Grove and the avenue of trees that also exists (the latter impedes more open views in a northerly direction). With this in mind, the proposed development will not adversely impact on the setting of the non-designated heritage assets noted.

1.0 Introduction

- 1.1 This heritage statement considers land at the former Worthing Gasworks, Park Road, Worthing (Figure 1). The site (hereinafter referred to as the application site) is located at National Grid Reference TQ 15243 02986.
- 1.2 In accordance with the Paragraph 194 of the *National Planning Policy Framework* (NPPF 2019) and the requirement for applicants to describe the significance of heritage assets including contribution to setting, the report draws together available information on designated and non-designated heritage assets. The assessment includes the results of a site survey, an examination of published and unpublished records, charts historic land-use through a map regression exercise and considers relevant local and national policy and guidance.
- 1.3 The relevant designated and non-designated heritage assets located in the immediate and wider vicinity of the application site are identified in Section 3.
- 1.4 A site visit was undertaken on 23rd September 2020 when the conditions were overcast, but visibility was good.
- 1.5 The report enables relevant parties to assess the significance of designated and non-designated heritage assets within and in the vicinity of the site, thus enabling potential impacts on these assets to be identified along with the need for design solutions.

Location and Description

- 1.6 The application site comprises an L shape in layout terms and is approximately 1.1 ha in area. The site boundary abuts Lyndhurst Road to the north and Park Road to the east and is delineated by a 2-metre-high brick wall. To the immediate north-east on the corner of Lyndhurst Road and Park Road is the Gas Governor compound bounded by a high brick wall. Immediately south of the application site are the residential areas of Charlecote Road, Warwick Gardens and Kings Mews. Immediately west of the site boundary is the Waitrose superstore and car park (Figure 1).
- 1.7 The application site itself is a former gasworks and depot and accessed from the western side of Park Road (Plates 1 and 2). Located in the north-east corner of the site was a large circular gas holding tower, now demolished, leaving an area of open waste ground (Plate 3). The southern portion of the site is separated by a chain link fence and characterized by a large area of hard standing. Immediately adjacent to the entrance in the south-east corner is an active depot for a gas network company, which is comprised of open storage sheds and a single storey 20th century brick office building. This is not listed and has no historic value (Plates 4 and 5).
- 1.8 The south-west part of the application site includes two single-storey 20th century commercial buildings. Constructed in brick with flat roofs, the buildings are not listed and have no historic value (Plate 6 – 7). Detached from these buildings to the west is a large steel walled commercial unit. This structure is also unlisted and has no historic value (Plate 8).
- 1.9 Abutting the north-west boundary of the application site (and separated by a security fence) is a large superstore and associated car parking (Plate 9). The southern boundary of the site is marked by a brick wall running east-west. Immediately to the south of this is Kings Mews, a three-storey 20th century block of residential flats (Plate 10). To the south-west of the southern site boundary, the rear elevations of the early 20th century properties of Charlecote Road can be glimpsed through a dense tree line (Plate 11 and 12). These buildings are not listed but do form part of the Warwick Gardens Conservation Area, which abuts the application site boundary.

- 1.10** Approximately 11 metres north of the application site boundary on the northern side of Lyndhurst Road are a row of two storey terraced houses dating from the late 19th century (Plates 13 and 14) whose principal elevations face the application site. These buildings are not listed and are not located within a conservation area, but have some heritage value given their construction date.
- 1.11** Running north-south alongside the eastern boundary of the application site is Park Road. The northern half of the road is largely characterised by a mixture of detached two storey residential housing dating from the 19th and 20th centuries fronting the road's eastern side, with numbers 86-92 having views directly over the open north-east corner of the site (Plates 15 and 16). These buildings are not listed and are not within a conservation area.
- 1.12** The southern part of Park Road is similarly characterised by largely two and three storey terraced housing dating from the 19th and 20th centuries, most of which predominantly front the eastern side of the road (Plates 17 and 18). The south-western end is largely taken up by the rear gardens of properties on Warwick Place. Located approximately 102 metres south-east of the application site boundary and accessed via a narrow road alongside number 30 is 30a and 30b (the Former Tamplins brewery and oast house). This building has since been converted into two residential properties. The building is not listed, but is considered a building of local interest. Approximately 49 metres from the application site's south-east corner is the boundary of the Steyne Gardens Conservation Area of which some of Park Road forms a part of (i.e. north-eastern corner of designation).
- 1.13** The application site is not located within a conservation area, nor are any of the standing buildings within the site boundary listed or identified as 'Local Interest Buildings' in Appendix 8 of the *Worthing Local Plan* (WLP 2003). The Warwick Gardens and Steyne Gardens conservation areas are located in the immediate vicinity of the application site, with the Little High Street Conservation Area located approximately 109 metres to the north-west. Located in the wider vicinity and west of the application site are the South Street and Chapel Road conservation areas.



Figure 1 Location and extent of application site



Plate 1 View looking east towards site entrance and Park Road taken from central part of application site.



Plate 2 View looking north along Park Road from site entrance.



Plate 3 View across north-east corner of site where the gasholder tower once stood. At the centre of the picture in the distance is the Worthing Hospital (comprising 4 storeys – arrowed).



Plate 4 View looking south-east across application site showing gas network depot sheds, with the 3 storey flats of Kings Mews to right of the picture.



Plate 5 View looking south-east with single storey gas network office in left of picture and 20th century properties on the eastern flank of Park Road beyond.



Plate 6 View looking south-west across site showing 20th century single storey commercial units. Note that this picture is taken from centre of the site.



Plate 7 East elevation of 20th century commercial units. Note that this view is taken from centre of site looking west.



Plate 8 East elevation of large steel commercial unit. Note that this view is taken from centre of site looking south-west.



Plate 9 View looking north-west showing Waitrose superstore and car park. Note that this view is taken from the site's western boundary.



Plate 10 North-east elevation of the 20th century Kings Mews flats, taken at the site's southern boundary looking south-east.



Plate 11 View looking south from south-west corner of the site. The rear elevations of the properties on Charlecote Road can be glimpsed through the dense tree line.



Plate 12 Principal (south) elevations of properties at the eastern end of Charlecote Road, which back onto the application site. Kings Mews flats can be seen in the right of the picture. Note that this view is taken from the corner of Warwick Gardens and Charlecote Road looking north-east.



Plate 13 19th century terraced housing fronting the northern side of Lyndhurst Road. Note that this view is taken from the southern side of Lyndhurst Road looking north-east.



Plate 14 View of site's northern boundary wall. Note that this view is taken from the northern side of Lyndhurst Road looking south-east.



Plate 15 Principal (west) elevation to nos. 86-92 Park Road, which date from the 19th century. Note that this view is taken from Park Road looking north-east.



Plate 16 View looking west across application site. Note that this view is taken from the eastern side of Park Road directly outside nos. 86-92.



Plate 17 View looking south along Park Road. Note that this view is taken from the east side of Park Road opposite the application site's entrance.



Plate 18 View looking north-west towards site taken from the eastern side of Park Road opposite Kings Mews.

2.0 Planning Background and Development Plan Framework

Planning (Listed Building and Conservation Areas) Act 1990

2.1 The *Planning (Listed Building and Conservation Areas) Act 1990* sets out broad policies and obligations relevant to the protection of Listed Buildings and Conservation Areas and their settings.

2.2 Section 66(1) states:

In considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses.

2.3 Section 69 of the Act requires local authorities to define as conservation areas any *areas of special architectural or historic interest the character or appearance of which it is desirable to preserve or enhance* and Section 72 gives local authorities a general duty to pay special attention *to the desirability of preserving or enhancing the character or appearance of that area* in exercising their planning functions. These duties are taken to apply only within a Conservation Area. The Act does not make specific provision with regard to the setting of a Conservation Area, that is provided by the policy framework outlined below.

National Planning Policy Framework (NPPF) and National Planning Practice Guidance (NPPG)

2.4 Government policy in relation to the historic environment is outlined in Section 16 of the *National Planning Policy Framework 2021* (NPPF), entitled *Conserving and Enhancing the Historic Environment*. This provides guidance for planning authorities, property owners, developers and others on the conservation and investigation of heritage assets. Overall, the objectives of Section 16 of the NPPF can be summarised as seeking the:

- Delivery of sustainable development;
- understanding the wider social, cultural, economic and environmental benefits brought by the conservation of the historic environment;
- conservation of England's heritage assets in a manner appropriate to their significance; and
- recognition of the contribution that heritage assets make to our knowledge and understanding of the past.

2.5 Section 16 of the NPPF recognises that intelligently managed change may sometimes be necessary if heritage assets are to be maintained for the long term.

2.6 Paragraph 194 states that planning decisions should be based on the significance of the heritage asset, and that the level of detail supplied by an applicant should be proportionate to the importance of the asset, and should be no more than sufficient to understand the potential impact of the proposal upon the significance of that asset.

2.7 *Heritage Assets* are defined in Annex 2 as a building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. Heritage assets include designated heritage assets and assets identified by the local planning authority (including local listing).

2.8 *Designated Heritage Assets* comprise: World Heritage Sites, Scheduled Monuments, Listed Buildings, Protected Wreck Sites, Registered Parks and Gardens, Registered Battlefields and Conservation Areas.

- 2.9** *Significance* is defined as: the value of a heritage asset to this and future generations because of its heritage interest. This interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting.
- 2.10** *Setting* is defined as: the surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral.
- 2.11** The NPPF is supported by the *National Planning Policy Guidance* (NPPG). In relation to the historic environment, paragraph 18a-001 states that:
- Protecting and enhancing the historic environment is an important component of the National Planning Policy Framework's drive to achieve sustainable development (as defined in Paragraphs 6-10). The appropriate conservation of heritage assets forms one of the 'Core Planning Principles'.*
- 2.12** Paragraph 18a-002 makes a clear statement that any decisions relating to Listed Buildings and their settings and Conservation Areas must address the statutory considerations of the *Planning (Listed Buildings and Conservation Areas) Act 1990*, as well as satisfying the relevant policies within the National Planning Policy Framework and the Local Plan.
- 2.13** Paragraph 18a-013 outlines that the assessment of the impact of a proposed development on the setting of a heritage asset needs to take into account and be proportionate to the significance of the asset being considered, and the degree to which the proposed development enhances or detracts from the significance of the asset and the ability to appreciate the significance.
- 2.14** The NPPG outlines that although the extent and importance of setting is often expressed in visual terms, it can also be influenced by other factors such as noise, dust and vibration. Historic relationships between places can also be an important factor stressing ties between places that may have limited or no intervisibility with each other. This may be historic as well as aesthetic connections that contribute or enhance the significance of one or more of the heritage assets.
- 2.15** Paragraph 18a-013 concludes:
- The contribution that setting makes to the significance of the heritage asset does not depend on there being public rights or an ability to access or experience that setting. This will vary over time and according to circumstance. When assessing any application for development which may affect the setting of a heritage asset, local planning authorities may need to consider the implications of cumulative change. They may also need to consider the fact that developments which materially detract from the asset's significance may also damage its economic viability now, or in the future, thereby threatening its on-going conservation.*
- 2.16** The key test in NPPF paragraphs 199-202 is whether a proposed development will result in substantial harm or less than substantial harm. However, substantial harm is not defined in the NPPF. Paragraph 18a-017 of the NPPG provides additional guidance on substantial harm. It states:

What matters in assessing if a proposal causes substantial harm is the impact on the significance of the heritage asset. As the National Planning Policy Framework makes clear, significance derives not only from a heritage asset's physical presence, but also from its setting. Whether a proposal causes substantial harm will be a judgment for the decision taker, having regard to the circumstances of the case and the policy in the National Planning Policy Framework. In general terms, substantial harm is a high test,

so it may not arise in many cases. For example, in determining whether works to a listed building constitute substantial harm, an important consideration would be whether the adverse impact seriously affects a key element of its special architectural or historic interest. It is the degree of harm to the asset's significance rather than the scale of the development that is to be assessed.

- 2.17** Paragraph 202 of the NPPF outlines that where a proposed development results in less than substantial harm to the significance of a heritage asset, the harm arising should be weighed against the public benefits accruing from the proposed development. Paragraph 18a-020 of the NPPG outlines what is meant by public benefits:

Public benefits may follow from many developments and could be anything that delivers economic, social or environmental progress as described in the National Planning Policy Framework (Paragraph 7). Public benefits should flow from the proposed development. They should be of a nature or scale to be of benefit to the public at large and should not just be a private benefit. However, benefits do not always have to be visible or accessible to the public in order to be genuine public benefits.

- 2.18** Paragraph 203 states:

the effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect directly or indirectly non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.

- 2.19** In considering any planning application for development, the planning authority will be mindful of the framework set by government policy, in this instance the NPPF, by current Development Plan Policy and by other material considerations.

Local Planning Policy

Worthing Core Strategy

- 2.20** The Worthing Core Strategy (WCS 2011) forms one part of the relevant development plan. The WCS 2011 contains a number of relevant policies including Policy 16: Built Environment and Design, which states:

Throughout the borough all new development will be expected to demonstrate good quality architectural and landscape design and use of materials that take account of local physical, historical and environmental characteristics of the area. In particular, new development should display a good quality of architectural composition and detailing as well as respond positively to the important aspects of local character, exploiting all reasonable opportunities for enhancement. Where appropriate, innovative and contemporary design solutions will be encouraged.

The settlement structure, landscape features and buildings which represent the historic character of Worthing should be maintained; preserving and enhancing existing assets. Where the quality of the existing building(s) or local character is weak, solutions need to be sought which raise overall quality.

Design should encompass well-structured streets that are safe, pedestrian friendly, with an accessible lay-out and that will increase permeability throughout the borough. Development layouts, pedestrian environments and public spaces should be designed in a manner which maximises connectivity and actual and perceived safety.

This will be achieved by carefully arranging buildings, spaces and access points to maximise natural surveillance, making good use of natural and artificial light and ensuring that the mix of uses and dwelling types contributes positively to the area.

New development should factor the site's physical features and resources into the design, considering wind direction and solar orientation when designing streets and buildings to minimise energy demand.

Worthing Local Plan 2003 (Saved Policies 2007)

- 2.21** The Worthing Local Plan (WLP 2003) contains a number of saved policies (2007), which form part of the relevant development plan. The WLP 2003 contains saved Policy BE1: Built Environment, which states:

Proposals for development or redevelopment will be permitted provided that:

- (i) the architectural composition, including external appearance and character, achieves a good standard of design and is compatible with its surroundings or enhances the appearance of the locality;*
- (ii) the siting, layout, density, orientation and prospect take full account of the characteristics of the site and its surroundings;*
- (iii) the form and character, including height, massing, scale and proportions, are compatible with its surroundings or enhance the appearance of the locality;*
- (iv) the relationship between built forms and the open spaces surrounding them is compatible with the character and appearance of the locality.*

Submission Draft Worthing Borough Council Local Plan 2020-2036

- 2.22** The Submission Draft Worthing Borough Council Local Plan 2020-2036 (submission draft WBCDLP) contains a number of relevant policies that when adopted, will form part of the relevant development plan. Policy DM24: The Historic Environment states:

a) Where development affecting any designated or undesignated heritage asset is permitted, it must be of a high quality, respecting its context and demonstrating a strong sense of place.

b) Proposed development should take account of the information and guidance in Worthing's Conservation and Heritage Guide (which will be updated and periodically reviewed).

Designated Heritage Assets

c) Development should not adversely affect the setting of heritage assets. Where a proposed development would lead to substantial harm to, or total loss of a designated heritage asset, a Heritage Impact Assessment must be submitted describing the significance of any heritage assets affected, including any contribution made by their setting.

d) Planning permission and/or Listed Building consent will only be granted provided that the appearance, significance, or historic character of the Listed Building is not adversely affected. The reinstatement or replication of original features such as windows or doors will be supported. Materials used must be consistent with those originally used or typical of the locality. Change of use may be supported where this secures the retention of a building of historic architectural interest where it could otherwise be lost.

e) Development in Conservation Areas will be required to be of a high standard of design and materials so as to respect, preserve and enhance the character and appearance of that area, and preserve important features. Conservation Area Character Appraisals will be used to assess applications within designated Conservation Areas and opportunities will be taken to preserve and enhance these

areas, and to implement the recommendations of Conservation Area Management Plans. The importance to the local area of Buildings of Local Interest within Conservation Areas will be a material consideration in assessing an application for their demolition or development. Where, in compelling circumstances, the Council is minded to grant permission for demolition of a building in a Conservation Area, this shall not be granted until detailed plans for redevelopment have been approved.

f) Planning permission to replace shopfronts of inappropriate design or materials, or in poor condition, in Conservation Areas will be granted providing the replacement is of appropriate design and materials, respecting the character of both the building and the Conservation Area. Advertisements in Conservation Areas should respect the character, proportions and design of the building on which it is displayed, and use traditional materials where necessary. Internally illuminated signs will generally not be permitted.

Undesignated Heritage Assets

g) The following locally listed heritage assets will be a material consideration when determining planning applications:

- i. Buildings of Local Interest;
- ii. Environmental Areas of Special Character;
- iii. Parks and Gardens of Local Interest.

They have been identified for their contribution to the character of the area in which they are located as set out in Worthing's Conservation and Heritage Guide. Their importance to the local area and community will be considered, and account will be taken of the desirability to sustain and enhance their significance. Development proposals should respect, support, and where possible, positively contribute to the essential character of these heritage assets. Other buildings and features of design and architectural interest not included above may also be considered undesignated heritage assets and therefore will also be subject to these requirements.

h) The Council will preserve archaeological features against damaging or discordant development. Such features should only be removed or altered in compelling circumstances where there is no practical alternative and where provision can be made for recording. Where a site includes, or potentially includes heritage assets of archaeological interest, an appropriate desk-based assessment will be required and a field evaluation where necessary.

i) The Council intends to work with others to identify important views in order to protect them. Guidance on this will be incorporated into Worthing's Conservation and Heritage Guide when it is updated. Significant changes should be identified in planning proposals. The relationship between 'views' and the 'function' they serve must be considered. Where views are demonstrably important to local character, development proposals should respect and protect what makes the view special. West Sussex County Council's Landscape and Environment Information will be relevant to this analysis as well as local evidence and site specific documentation. Development is likely to affect important views:

- i. between settlements;
- ii. across character areas;
- iii. capturing transitions between landscape, townscape and seascape;
- iv. to and from designated heritage assets.

Supplementary Planning Guidance

- 2.23** Worthing's Tall Building Guidance SPD (Tall Building SPD 2013) contains guidance on tall buildings and how they respond to the local townscape and enhance the public

realm. The relevant part of the Tall Building SPD 2013 is contained in Part 4: Design Criteria (2. Townscape/Public Realm) and is cited below.

It is vital that proposals for tall buildings relate and respond to the townscape and enhance the public realm. To ensure this proposals must:

- *understand and respect the local context which will inform the appropriate massing, scale and height of the building;*
- *complement the existing urban fabric;*
- *promote a high level of interest at ground level and integrate visually with the streetscape;*
- *seek to enhance the public realm, add vitality and regenerate areas; and*
- *provide (where appropriate) a vertical mix of uses*

Other Guidance

Historic Environment Good Practice Advice In Planning Note 2: Managing Significance in Decision-Taking in the Historic Environment (Historic England 2015)

2.24 The purpose of this document is to provide information to assist local authorities, planning and other consultants, owners, applicants and other interested parties in implementing historic environment policy in the NPPF and NPPG. It outlines a six-stage process to the assembly and analysis of relevant information relating to heritage assets potentially affected by a proposed development:

- Understand the significance of the affected assets;
- Understand the impact of the proposal on that significance;
- Avoid, minimise and mitigate impact in a way that meets the objectives of the NPPF;
- Look for opportunities to better reveal or enhance significance;
- Justify any harmful impacts in terms of the sustainable development objective of conserving significance and the need for change; and
- Offset negative impacts on aspects of significance by enhancing others through recording, disseminating and archiving archaeological and historical interest of the important elements of the heritage assets affected.

Historic Environment Good Practice Advice In Planning Note 3: The Setting of Heritage Assets (Historic England 2017)

2.25 Historic England's Historic Environment Good Practice Advice in Planning Note 3 provides guidance on the management of change within the setting of heritage assets.

2.26 The document restates the definition of setting as outlined in Annex 2 of the NPPF. Setting is also described as being a separate term to curtilage, character and context; while it is largely a visual term, setting, and thus the way in which an asset is experienced, can also be affected by noise, vibration, odour and other factors. The document makes it clear that setting is not a heritage asset, nor is it a heritage designation, though land within a setting may itself be designated. Its importance lies in what the setting contributes to the significance of a heritage asset.

2.27 The Good Practice Advice Note sets out a five-stage process for assessing the implications of proposed developments on setting:

1. Identification of heritage assets which are likely to be affected by proposals;
2. Assessment of whether and what contribution the setting makes to the significance of a heritage asset;
3. Assessing the effects of proposed development on the significance of a heritage asset;
4. Maximising enhancement and reduction of harm on the setting of heritage assets; and

5. Making and documenting the decision and monitoring outcomes

- 2.28** The guidance reiterates the NPPF in stating that where developments affecting the setting of heritage assets results in a level of harm to significance, this harm, whether substantial or less than substantial, should be weighed against the public benefits of the scheme.

3.0 Historical Context and Location of Heritage Assets

Introduction

- 3.1** The following section presents a historical development of the application site and wider area through the results of a map regression exercise and review of relevant background documentation.
- 3.2** The location of designated and non-designated heritage assets within and surrounding the site are also discussed below; the designated heritage assets identified are shown in Figure 10.

Historical Background

Historical overview: Parish of Broadwater

- 3.3** The ancient parish of Broadwater contained the formerly separate settlements of Broadwater, Offington, and Worthing. The latter's growth as a seaside resort in the 19th century led to Broadwater eventually being engulfed; in 1894 the part within Worthing borough became a separate civil parish, and in 1902 the rest of Broadwater civil parish was divided between the borough of Worthing and Durrington and Sompting parishes.¹
- 3.4** The village of Broadwater is presumably so-named due to its position at a short and wide expanse of water; low-lying lands near the Broadwater or Sompting brook and Teville stream were probably once tidal inlets, and the area has much marshland, with some land round the Broadwater or Sompting brook remaining liable to floods in 1875. The higher ground in the north of the parish has been utilised for pasture for sheep and cattle, as well as for crops, and although by the mid-19th century there was more arable land than pasture there, arable land declined after circa 1875.²
- 3.5** The alluvial soil along the Teville stream and Broadwater or Sompting brook was used as pasture and meadow from at least the 1580s; Worthing's growth included building along the upper part of the Teville stream, which was piped underground. Around 45 acres along the lower part of the stream were drained to form Brooklands Park, and in 1958 a boating lake was opened as a tidal reservoir for surface water from the streams. To the north and north-west drainage and reclamation of low-lying land continued for the construction of trading estates and houses. Large-scale production of fruit and flowers under glass was undertaken in the southern part of the parish in the late 19th century, and Worthing became a national centre for glass-house produce. Nurseries and glass-houses were established in other parts of the parish, but had almost entirely disappeared by 1977.³
- 3.6** Broadwater and Offington had open fields; Offington's were inclosed in the 16th or early 17th century, and Broadwater's in 1805.
- 3.7** A network of roads and tracks existed in the north of the parish before the 19th century; the Chichester to Brighton Roman road crossed the parish north of Broadwater village, a more northerly course than the modern road, through what was later the grounds of Charmandean House, and the modern road existed by 1616. In the Middle Ages Broadwater village had roads leading in all directions, including to Sompting, Offington, Findon and Littlehampton. In 1800 two roads from London, via Sompting and via Findon and Steyning converged in Broadwater and led south to Worthing. A turnpike road from Worthing through Broadwater, Findon, and

¹ Baggs et al 1980

² *ibid.*

³ *ibid.*

Washington was opened in 1802; the part south of Offington corner was disturnpiked in 1823, that to the north in 1878.⁴

- 3.8** The Domesday Survey of 1086 recorded thirty-seven inhabitants in Broadwater. In the 1660s there were circa 42 households, and circa 60 families in 1724. In 1831 the parish's population was c. 560, which had risen to 643 in 1841, although this may have included some holiday visitors. After Worthing's boundary extension in 1875 the population was recorded as 841 in 1881, although by 1901 it had increased to 1,187.⁵
- 3.9** The former village of Broadwater was long and narrow, extending south-east and east from Broadwater green, the church occupying a central location, its size indicating a relatively large population. The village 'had a very shabby appearance' in the late 18th and early 19th centuries, but was improved by 1811, apparently due to Worthing's prosperity. Several houses were built or rebuilt, including the rectory and manor-house. Buildings extended over most land to either side of the village street in the 1720s, but those in the central part were gone by 1780; the gap remained until the later 19th century when building began there. The 1778 Yeakell and Gardner map shows the extent of Worthing at this time (Figure 2), which had expanded further to the south-west by the early 19th century (Figure 3).
- 3.10** In the 19th century there were several large houses near the village with small landed estates attached to them, which prevented large-scale building development until they were split up and sold in the 20th century. By 1896 there were some terraced cottages and semi-detached houses at the east end of the village, and although part of the area between the village and Worthing was increasingly filled by houses and glass-houses after 1850, the village remained separate from the town until the 20th century. Broadwater Road and Broadwater Street West had been widened by 1940, and by the 1970s the old village had become a suburban shopping centre.⁶
- 3.11** The estate that became the manor of Broadwater was in 1066 held of King Edward the Confessor by Wigot of Wallingford as 29 hides. Nine hides at Aldrington later became part of Lewes rape and the remaining 20 were held by William de Braose in 1086, and descended with the honor of Bramber.
- 3.12** In 1086 William held 2 hides in demesne and the rest of Broadwater was held by Robert le Savage. Between 1242 and 1256 the manor was in dispute between Robert and Sir John de Gatesden, and passed in 1256 to Sir John and his wife Hawise. After their deaths the manor passed to Sir John de Camoys and his wife Margaret, and the manor descended with this family until the later 15th century when it passed to Sir Reynold Bray, possibly under a settlement of 1497.⁷
- 3.13** The manor passed to the Sandys family in the early 16th century and by 1660 the manor was held by Sir Robert Houghton of Shelton, although in 1661 his widow Elizabeth married Sir George Pretymann of Lodington and they quitclaimed the manor to Sir Edward Hungerford in 1672. He mortgaged the manor several times, and in 1709 he and his mortgagees sold it to Fisher Tench and Samuel Thayer, and it was subsequently sold to James Butler of Warminghurst, and it descended with Rowdell in Washington until 1793 when Patty Clough sold it to John Newland, apparently the tenant of Broadwater farm. In 1880 it was settled on W. F. Tribe, whose Trustees sold it to Misses Annie and Edith Nicholls; in 1929 Annie sold the manor-house with circa 11 acres to the Seaview Estates Development Company and in 1930 it was bought by M. D. M. Neligan who converted it into a boys' preparatory school.

⁴ *ibid.*

⁵ *ibid.*

⁶ *ibid.*

⁷ *ibid.*



Figure 2 Extract from 1778 Yeakell and Gardner map showing the extent of Worthing at this time.

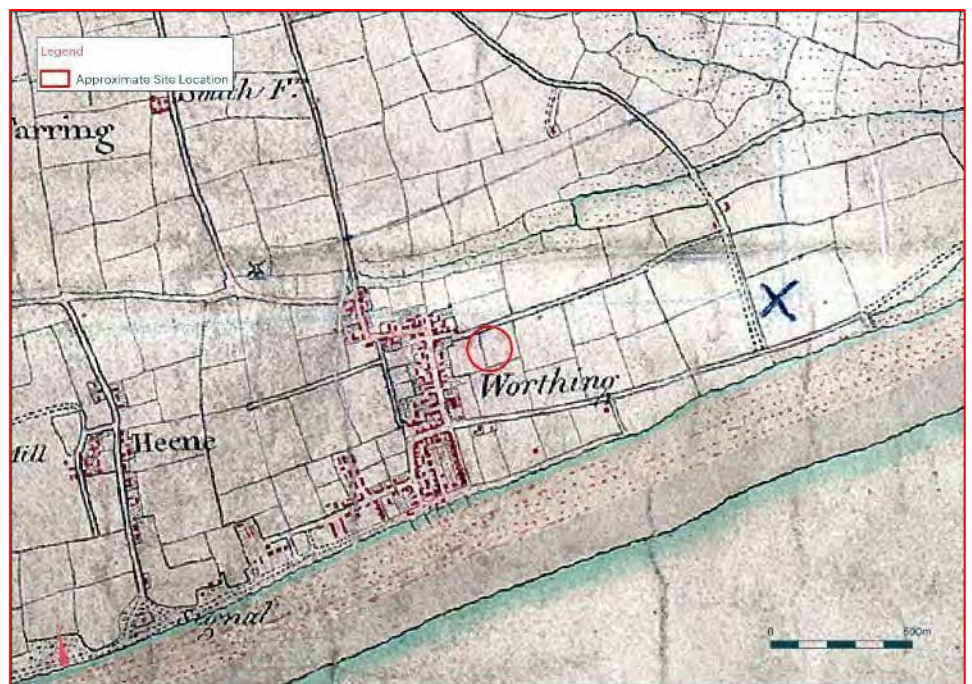


Figure 3 Extract from 1806 Ordnance Survey drawing showing the extent of Worthing at this time.

- 3.14** In November 1833 John Bryan of Maidstone, Kent and the firm of Bryan, Howden & Co., Gas Contractors of Bankside, Southwark, London entered into an agreement with the Town Commissioners of Worthing to supply the town with gas, for a term of 21 years. The Agreement stipulated that Bryan obtain a site, erected Works, laid mains, and supplied 120 lamps and columns, to be located within the area already supplied and lit with oil lamps. Gas supply was to be for private residents and business premises⁸. The site was apparently chosen for its proximity to the coast, as coal was transported to the works by sea⁹.
- 3.15** In December 1833 Bryan purchased a rectangular piece of land (i.e. eastern part of application site) containing a lime kiln in the Home Field from the Trustees of George Newland and constructed a Works for the supply of gas to Worthing. This original site was later the entrance yard to the Works entrance following expansion of the site. The works were small, supplying around 2¼ million cubic feet per annum; the retort bench was formed of two beds of two and three cast iron retorts, and there was one gas holder 24 feet in diameter and 8 feet deep that contained 3,500 cubic feet of gas¹⁰. The 1848 Broadwater Tithe map shows the extent of the Gasworks at this time (apportionment 64 in the north-eastern corner of the application site – Figure 4). An annotated plan of the early works was published in 1931, and depicts the holder, although to a larger scale than it was in reality. Oak baulks were used to cover the holder when it later became disused, and the tank was still present in 1931¹¹.
- 3.16** In 1835 a Syndicate purchased the works from Bryan and in July the Company was floated as the Worthing Gas Light and Coke Company; board members included Bryan. The lime kiln was demolished in the following year and a manager's cottage was built on the site, although this was later converted to a sulphate house, still in use in 1931.
- 3.17** The works were not maintained in good repair, and in 1855 a consulting engineer was commissioned to undertake a survey to ascertain their suitability for commercial sale or lease. His report was damning, stating that the condition was 'the worst he had ever witnessed' with poor quality gas being produced, and insufficient and poor quality equipment. He proposed several improvements be undertaken to improve the situation. Subsequent reconstruction included the construction of a new retort bench of three settings, with each arch containing three fireclay retorts 15 inches in diameter and 7 feet 6 inches long, and the installation of a new condenser, scrubber, two 6 square feet purifiers and station meter, as well as the complete overhaul of mains and services¹². Unfortunately, despite there also being some staffing changes at managerial level, the works continued to perform badly, and in August 1857 the works were leased to William Beck Hills of Maidstone. His tenure ended in 1862 and a new lease was agreed with Messrs Horatio Bros of London and George Dunbar Malam of Altrincham, both of whom were known names in the gas industry¹³.
- 3.18** At the same time, the original gas holder was scrapped and in 1834 a new larger holder was constructed, 40 feet in diameter and 12 feet deep, capable of holding 15,000 cubic feet of gas. The works performed considerably better under these leases and in 1868 the Company sought to resume control, applying to Parliament for Statutory powers and a Bill of incorporation enabling the purchase of additional land to extend the manufacturing plant, and to extend supply to include the Town of Worthing, the District of West Worthing and the parishes of Broadwater, Heene and West Tarring. An adjoining piece of land immediately west of the site was purchased from Sophia Jones for the construction of a manufacturing plant, thereby increasing the area of the works

⁸ Stephenson, 1931a

⁹ Stephenson, 1931b

¹⁰ Stephenson, 1931a

¹¹ Stephenson, 1931a.

¹² Stephenson, 1931b

¹³ *ibid*

- 3.19** Between 1870 and autumn 1871 further works on the new site included construction of a new retort house with provision for six beds of retorts, each bed to contain six retorts 21 inches x 15 inches; three beds were built and fitted, the rest to be built when demand required. Coal stores, purifiers, condenser, scrubber and station meter and house were also installed¹⁵. By 1875 gas production had risen to 22 million cubic feet per year. Site alterations completed by 1876 included the reuse of the original retort house (original site) for workshops and stores, and the construction of new offices and boardroom, also on the original site. The 1875 Ordnance Survey map shows the extent of the Gasworks at this time (Figure 5).
- 3.20** The company apparently went from strength to strength and in the early 1881 another gas holder was erected, with a capacity of 200,000 cubic feet; the new retort house was completed at this time with the addition of the second bench of retorts. In the following year a new tower scrubber and condenser were fitted, thus completing the manufacturing plant¹⁶. East Lodge was acquired in the mid-late 1880s and became the official manager's residence. In 1894 it was decided that a new site be acquired for expansion, and a new works was constructed at Ham Bridge, although in 1896 the decision was made to sell the Ham Bridge site¹⁷.
- 3.21** Also in 1896, a 21 year lease was obtained for 1 ½ acres of land adjoining the southern boundary of the works, and in the following year further extension of the carbonising plant was agreed as gas production had reached 81 million cubic feet. A new wing to the retort house on the south side was constructed, with a bench of six beds, and the works' boundary wall was completed at around the same time. The Gasworks at this time is illustrated in the 1898 Ordnance Survey map (Figure 6).
- 3.22** By 1892 the 1862 gas holder had become too small and was dismantled, its tank covered over and converted into a liquor tank. In 1899 several improvements were undertaken to increase storage and output capacity. Gas storage was increased by converting the remaining two holders to three lifts by adding a flying lift to each, and the height of the tower scrubbers was doubled. The engine house and adjoining boiler house had been constructed with the same roof, so to expand the engine house, the boilers and partition wall were removed. Three of the retort settings built in 1871 were demolished and new boilers installed in their place; they therefore shared a chimney with the remaining three retort settings, although the settings were not used again until the First World War. Finally, a new steam, engine and exhauster were installed, followed by a sulphate of ammonia plant in the following year¹⁸.
- 3.23** In 1900 annual gas output stood at 114 million cubic feet, and business remained strong. In 1904, the opportunity arose to extend the works, with the purchase of the land the company had been leasing from Davies, which was by this time being used for coke storage and as a general storage ground, and also land to the south of this including a building known as The Cottage. However, the company's application to Parliament for a Provisional Order to manufacture on the land was refused, in part due to opposition from surrounding property owners. In 1906 the company entered into negotiations to purchase land on the south side of the railway at Goring to build new works, and in 1907 a Bill was promoted to obtain the power to acquire this land, but also, to cease production at the Park Road site within 10 years of commencing gas production at Goring¹⁹.
- 3.24** In 1908 The Cottage and other land adjoining the Park Road property were acquired and a large coal store was built on the part fronting Park Road. The existing 1870 coal store that formed the north bay of the retort house was adapted for additional

¹⁵ Ibid

¹⁶ Ibid

¹⁷ Stephenson 1932a

¹⁸ Ibid

¹⁹ Ibid

carbonising plant, a bench of seven beds of retorts with regenerative furnaces. By 1910 capacity had again become insufficient, as output reached 190 million cubic feet, and a new holder was built at the Goring site. To fill the holder from the Park Lane site, a 10 inch steel main was run and the gas driven by a compressor with horizontal steam engine²⁰. The 1912 Ordnance Survey map illustrates the expansion that had occurred in the 1900s (Figure 7).

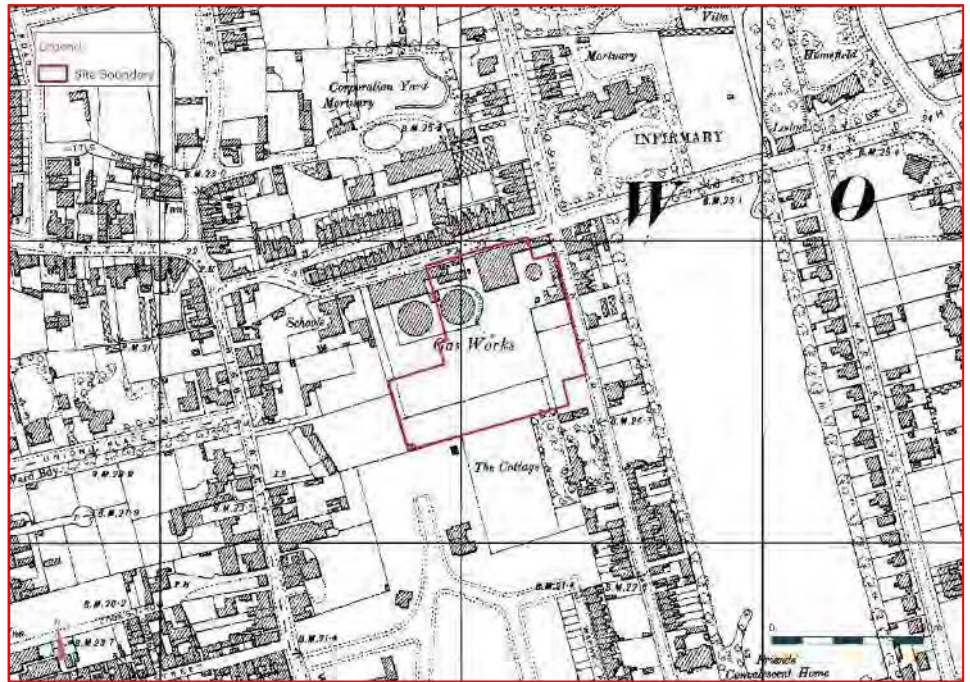


Figure 6 Extract from 1898 Ordnance Survey map showing the application site at this time.

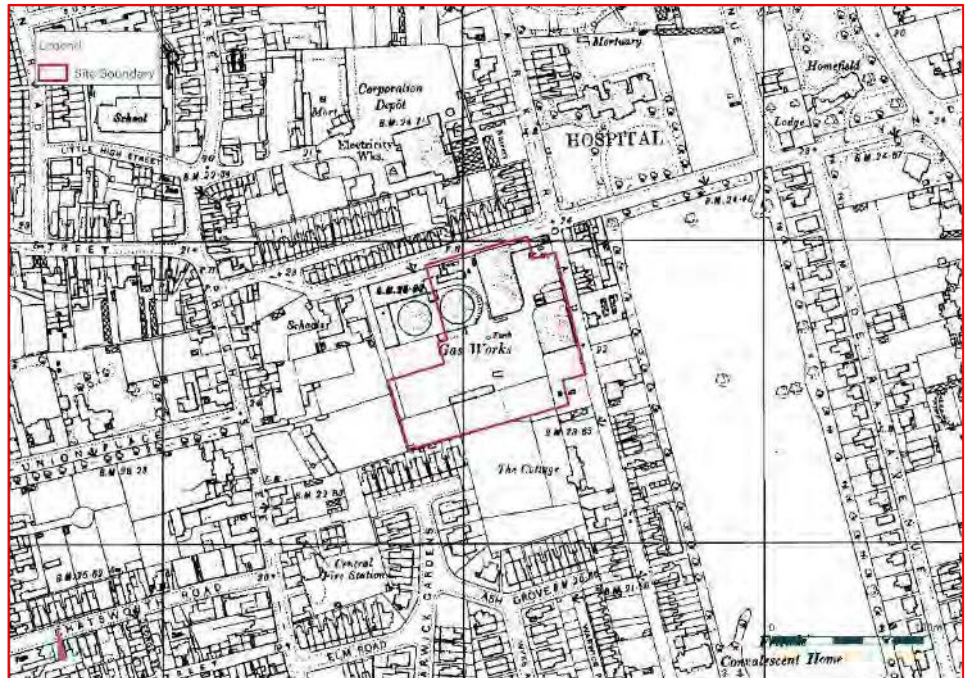


Figure 7 Extract from 1912 Ordnance Survey map showing the application site at this time.

²⁰ Ibid

- 3.25** By 1918 several elements of the works required replacing or repair including the retort bench in the south bay of the house, which was updated, and new furnaces were installed. A charging machine was also installed along with electrically driven coal breaker, hoppers, elevators, conveyors, marking a technological advance at the carbonising plant. By 1920 output was 237 million cubic feet. The boiler capacity became insufficient and in 1921 a boiler house was constructed and boiler installed and was in use in the following year. In the same year the 1908 retort settings at the north bay of the retort house were demolished and replaced with a carburetted water gas plant, followed by a further boiler, and the old boilers in the retort house were decommissioned. By 1923 the offices at Park Road along with a Warwick Street showroom had become inadequate and premises at 19 Chapel Road were acquired for a new showroom and offices. In 1925, the by now inadequate stores and workshops were converted to stores only and new workshops were built, including a large meter repair and tin smiths' shop.
- 3.26** Gas supply had been extended further outwards as new housing was built and in 1925 the trunk mains were extended. The carbonising plant was working to full capacity by 1926 and a large scheme was undertaken, with the removal of the three old beds of sixes, the large chimney shaft of 1871 and the two old boilers and settings, replaced with a bench of six beds of retorts; the total carbonising capacity was increased to 2.4 million cubic feet per day. In 1927, a steam engine and new exhaustor were installed to increase capacity. Increased supply to ever more new properties and areas resulted in yet more improvements in 1929, including a new 60 feet water tower. A second exhaustor, a washer, and water cooled condenser as well as the enlargement of all connections to 18 inches.
- 3.27** Over time various areas suffered with lack of pressure, and so trunk mains had to be extended, or new ones laid, from the works. For example, in 1926 a new 10 in trunk main was laid from the works along Lyndhurst Road and to Sompting Road, East Broadwater via Ladydell Road.
- 3.28** By 1930 the business had outgrown its site and it was evident that an entirely new works was needed, and in 1931 the Worthing Gas Company was amalgamated into the Brighton and Hove Gas Company to form the Brighton, Hove and Worthing Gas Company. Manufacture of gas at Worthing ceased and the works were used for storage. The 1932 Ordnance Survey map shows the application site at this time (Figure 8). A new main was laid from Portslade to Worthing, and the area was supplied by the Portslade Works. By 1935 there was a storage gasholder in Goring, although the premises in Worthing and Goring were later disused, and in 1949 the company was absorbed into the Southeastern Gas Board²¹.
- 3.29** In 1934 it was reported that the No. 1 Gasholder at the Worthing Works (of three lifts, the top being a 'flying lift', and the guide framing consisting of cast iron columns and wrought iron girders) had been rebuilt 'during the past year' following the demolition of the existing gas holder. The new four-lift holder was constructed in the existing tank, and was capable of holding 257,000 cubic feet. It became functional on 21 September 1934²².
- 3.30** The retort house at the Worthing works, built 1870, extended 1897 was demolished in 1937, and the gas holder station continued to be used for the natural storage of gas.
- 3.31** Throughout the remainder of the of the 20th century the Gasworks infrastructure was gradually removed, with only a handful of structures remaining by the 1990s, including a Gasholder Station which had been installed in the 1930s (Figure 9). The Gasholder Station was removed more recently (planning ref: AWDM/1949/16 - Prior Notification of

²¹ Baggs et al 1980b

²² National Gas Archive Ref: BRH/1934/V7/P116

proposed demolition gasholder and associated structures at former gas works, which was granted on 8 February 2017.)

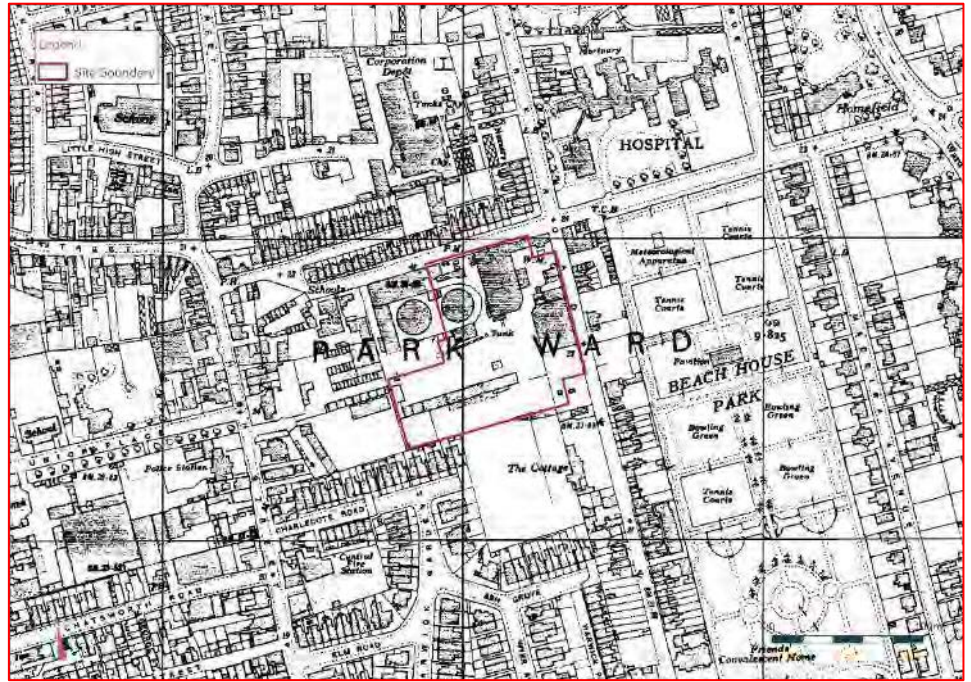


Figure 8 Extract from 1932 Ordnance Survey map showing the application site at this time.

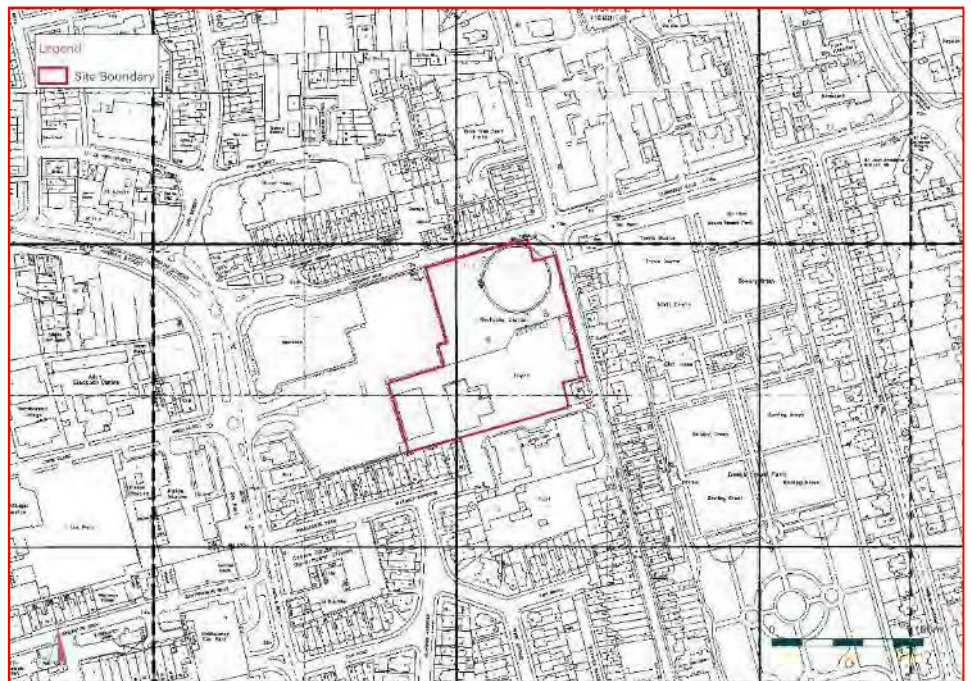


Figure 9 Extract from 1994 Ordnance Survey map showing the application site at this time. Note that most of the Gasworks' infrastructure has been removed, although the Gasholder Station remains.

- 3.32** The Yeakall and Gardner map of 1778 (Figure 2) depicts Worthing as a small village with any development largely confined to the east and west of what is now High Street which runs north-south through its centre. To the south of High Street, running east-west is what would become Brighton Road which has a number of buildings within their own garden plots running down to the shoreline. The surrounding landscape is shown as open agricultural or pastureland sub-divided into individual field parcels with blocks of woodland to the north-east and south-west. The application site lies to the east of High Street beyond the buildings and garden plots and is located in one large field parcel with no sign of development within the field boundary.
- 3.33** The Ordnance Survey drawing of 1806 (Figure 3) shows the continuation of Brighton Road to the east and Lyndhurst Road to the north of the application site. The land south of the junction of High Street and Brighton Road has been further developed along with land to the west on both the north and south sides of what is now Montague Street. The large parcel of land where the application site is located has now been divided into approximately six individual field parcels and remains undeveloped.
- 3.34** The 1848 tithe map for the parish of Broadwater (Figure 4) clearly shows the location of the application site occupying apportionments 64, 65, 66 and 96, with 64 having buildings within its boundary which are labelled as Gas Works. There is now a new road, East Street, running north-south between Lyndhurst Road and Brighton Road which forms the site's eastern boundary. The parcels of land to the immediate north, west and south as well as the majority of the application site remain largely undeveloped. Further to the south, Warwick Place is beginning to be developed along with a number of buildings along East Street.
- 3.35** By the time of the Ordnance Survey mapping of 1875 (Figure 5), there has been widescale development across Worthing. As well as residential development along East Street and Lyndhurst Road there are also industrial processes taking place close to the application site including a sawmill, water works and whiting and putty works. The application site at this time encompassed a larger area with its north-west corner occupied by a number of smaller structures with its southern portion largely open. Most of the development on the site takes place in its north-east corner with a large structure fronting the south side of Lyndhurst Road. To the west and east of this are two large circular structures labelled as Gasometers.
- 3.36** The 1898 Ordnance Survey map (Figure 6) shows a further large gas holding tank has been constructed in the north-west of the site and further buildings fronting the south side of Lyndhurst Road. To the north-east of the application site in an area formerly marked as a horticultural nursery, an infirmary and mortuary is now shown and accessed by a continuation of East Street northwards and renamed Park Road. To the south of the site boundary the roadways that are to become Elm Road, Warwick Gardens, Ash Grove and Wyke Avenue have been laid out with a couple of properties already having been constructed.
- 3.37** By the time of the Ordnance Survey mapping of 1912 (Figure 7), much of the land to the north, south and west of the application site along the main roads has largely been developed, although the parcels of land in the immediate vicinity remain undeveloped. Plot 65 as shown on the tithe map of 1848 (Figure 4) and encompassed within the application site boundary, has a new large building fronting East Street. Another new detached linear building running east-west on the site's southern boundary is also now shown.
- 3.38** The Ordnance Survey map of 1932 (Figure 8) shows the construction of a number of smaller structures with the application site namely in its north-east corner, south of one of the gas holding tanks and east and west of the range of buildings on the site's southern boundary. The hospital to the north-east has been extended into the

neighbouring parcel of land. To the east of the application site, beyond Park Road is Beach House Park, a formerly laid out garden with tennis courts, bowling greens with a pavilion at its centre.

- 3.39** By the time of the Ordnance Survey mapping of 1961 – 1971, the buildings in the north-east corner of the application site and those fronting Park Road have been demolished and replaced by a large gas holding tank. The remaining open parcel of land directly south of the application is shown as having been developed and is marked as a depot.
- 3.40** The Ordnance Survey map of 1994 (Figure 9) illustrates some the greatest change within the application site and its immediate environs. To the west of the application site boundary the majority of the buildings that were present here have been demolished, including the two smaller gas holding tanks and have been replaced by a large superstore and car park. The linear range of buildings in the southern portion of the site have been demolished and replaced with two larger rectangular buildings. The depot area immediately south of the site boundary has been developed into residential flats, labelled as Kings Hall.
- 3.41** The Ordnance Survey mapping of 2020 shows the site as it currently exists, with the final large gas holding tank having been demolished.

Heritage Assets

Listed Buildings

- 3.42** The application site does not contain any listed buildings but there are a number of listed buildings in the immediate and wider vicinity.
- 3.43** Those listed buildings closest to the application site are identified below, with their locations shown in Figure 10.
- The Swan Inn, Grade II listed and located at the corner of High Street and Little High Street (NHLE no. 1250307). This heritage asset is located 188 metres to the north-west of the application site (Plate 19). The NHLE citation states:
Probably mainly C18 but considerably modified. 3 storeys. Rendered (except rear north gable which is brick). Slate roof in 2 steep spans, the rear somewhat higher. East Street front: 3 sash windows with glazing bars (top middle one blind). Parapet with rudimentary pediment. Modern extension towards street on ground floor. West front: 4 irregularly-spaced sash windows with glazing bars.
 - Number 43 North Street, Grade II listed and located at the corner of High Street and Little High Street (NHLE no. 1250469). This heritage asset is located 196 metres to the north-west of the application site (Plate 20). The NHLE citation states:
Late C18 or circa 1800. 2 storeys. Mansard roof; all pitches except upper rear (which is slated) of old tiles. Gable chimneys. Rear is of flint with brick quoins, but front is much modified, probably in the early C20. 2-storeyed bow windows, with imitation timbering to the gable heads, either side of central doorway with possibly mid C19 straight hood above (on classical brackets).
 - Adult Education Centre (Block Fronting Union Place), Grade II listed and located on the northern side of Union Place (NHLE no. 1263176). This heritage asset is located 204 metres to the west of the application site (Plate 21). The NHLE citation states:
Probably circa 1830. A moderately ambitious design but very badly mutilated. Stuccoed. 2 storeys. An order of Ionic pilasters supporting entablature and parapet embraces both floors; originally the order evidently extended to 4 bays, but only the 2 left-hand bays (complete) are intact. Similarly, there are 4 sash windows with

glazing bars but the 2 upper right-hand ones have been replaced by one wide modern window. Extensions to left and right.

- Conservative Headquarters, Grade II listed and located on the northern side of Union Place (NHLE no. 1263175). This heritage asset is located 137 metres to the west of the application site (Plate 22). The NHLE citation states:

Toward mid C19. Detached 2-storey, stuccoed house with hipped slate roof over projecting eaves. Symmetrical. 3 sash windows with glazing bars, in moulded surrounds (middle upper one blind, right-hand lower one a doorway up steps, with overlight).

- Church of St Paul, Grade II* listed and located on the corner of Ambrose Place and Chapel Road (NHLE no. 1250172). This heritage asset is located 351 metres to the west of the application site (Plate 23). The NHLE citation states:

Chapel of ease, now church. 1812, exterior by John Rebecca of Worthing, interior by Charles Hide; extended and altered 1893. Yellow stock brick in Flemish bond with ashlar dressings, east end stuccoed and scored as ashlar; concealed roof 2 storeys, 3 x 6 bays. East end: 3-bay pedimented Tuscan portico on 3-step podium with attached pilasters at gable wall. Blocked central entry, now window, and side-doors, all in moulded architraves, the side-doors having panelled double-doors and fanlights with decorative glazing bars. Plat band breaking forward over doors and with segmental pediment over central door; 3 recesses above. Behind portico, body of church has tall, flat-coped, parapet with dies and, at east end, central cupola, on stepped podium, with Greek-key frieze and ball-finial. Returns: east bay treated as front and having a curved-backed rectangular recess to ground floor and a 24-pane sash window in eared architrave above. To rest, 2-light segmental-arched mullioned windows to ground floor and round-arched windows above, all having gauged brick arches and stone inner surrounds and cills; ashlar cill band to 1st floor. On south side at left end, steps up to door in projecting flat-roofed porch; further left tall added 1-storey block with 2 windows. North side marked by attached church hall of 1964. Interior: added chancel at west end in classical style with columns, attached pilasters, moulded cornice, keyed arch with panelled soffit, panelled vault, tessellated floor, and alabaster and marble facings of 1912. Body of church has coffered ceiling with panelled beams; columns support side galleries which have panelled and balustraded fronts and original pews; organ gallery at east end with royal coat of arms. Decorative mid-C19 wooden pulpit and choir stalls. Font, brought from Chichester Cathedral, has C 15 octagonal polished stone bowl. The chapel of ease was built to serve Worthing when this was still part of the parish of Broadwater. H A L Jefferson, St Paul's Church Worthing: a short history (1969).

- St Paul's War Memorial, Worthing is Grade II listed and located on the corner of Richmond Road and Chapel Road (NHLE no. 1452981). This heritage asset is located 328 metres west of the application site. The NHLE citation states:

A First World War memorial, built about 1920; with later additions for the Second World War.

- Number 44 High Street, Grade II listed and located on the corner of Charlecote Road and High Street (NHLE no. 1250306). This heritage asset is located 101 metres south-west of the application site (Plate 24). The NHLE citation states:

Probably circa 1800 or before. Painted cobbles. Tiled roof. 3 sash windows with glazing bars (but no top left one and the bottom right being modern). Set back somewhat from No 42. Nos 40 to 44 (even) including No 40A form a group.

- Number 42 High Street, Grade II listed and located on the corner of Charlecote Road and High Street (NHLE no. 1263332). This heritage asset is located 102 metres south-west of the application site (Plate 24). The NHLE citation states:

Probably mid C19. 3 storeys. Stucco-fronted. Slate roof. One window (casements on 1st and 2nd floors, the former wider, and a sash bow window on the ground floor). Nos 40 to 44 (even) including No 40A form a group.

- Numbers 40 and 40a, High Street, Grade II listed and located on the corner of Charlecote Road and High Street (NHLE no. 1250305). This heritage asset is located 103 metres south-west of the application site (Plate 24). The NHLE citation states:

Early C19. 3 storeys. 1 window. Curved front on 1st and 2nd floors with 3 light windows in it. Stuccoed. Long and short quoins. Cornice. 6 panel moulded door. Modern shop front. Nos 40 to 44 (even) including No 40A form a group.

- Numbers 15-18 Warwick Place, Grade II listed and located at the northern end of Warwick Place (NHLE no. 1263179). This heritage asset is located 134 metres south of the application site (Plate 25). The NHLE citation states:

Probably circa 1835. A range of 2-storey cottages under separate (slate) roof-span from Nos 13 and 14. Stuccoed. One sash window with glazing bars each (but lower ones of Nos 16 and 17 altered). Right-hand doors with shallow porches of ogee form. Nos 13 to 18 (consec) form a group.

- Numbers 13 and 14, Warwick Place, Grade II listed and located at the northern end of Warwick Place (NHLE no. 1263132). This heritage asset is located 150 metres south of the application site (Plate 26). The NHLE citation states:

Probably circa 1835. 2 storey cottages. Stuccoed. Slate roof. One sash window with glazing bars each (but lower ones altered). Right-hand doors under shallow porches of ogee form. Nos 13 to 18 (consec) form a group.

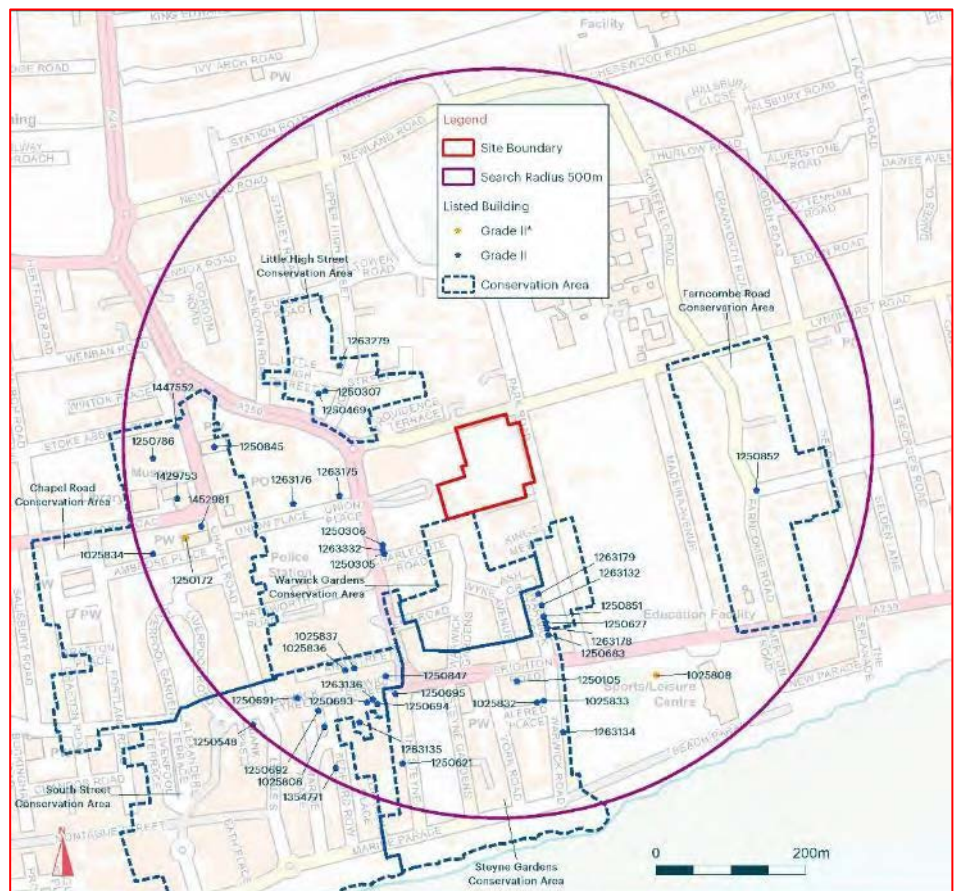


Figure 10 Designated heritage assets located within 500 metres of the application site.



Plate 19 East elevation to the Grade II listed 'Swan Inn' (now the New Amsterdam Public House taken from High Street).



Plate 20 Principal south elevation to the Grade II listed no. 43 North Street taken from North Street.



Plate 21 Principal south-west elevation to the Grade II listed Adult Education Centre taken from Union Place.



Plate 22 Principal south elevation to the Grade II listed Conservative Headquarters taken from the corner of Union Place and High Street.



Plate 23 Long distance view of the Grade II* listed St. Paul's Church (arrowed), taken from the western boundary of the application site looking west.



Plate 24 Principal west elevation to nos. 40, 40a, 42 and 44 High Street taken from the west side of High Street looking east. Note that nos. 40 and 40a are located at the southern end of the terrace (centre of picture).



Plate 25 Principal west elevations to the Grade II listed nos. 15-18 Warwick Place.



Plate 26 View taken from the southern end of Warwick Place, numbers 13-14 make up part of the far end of the terrace. The roof line of no. 17 Ash Grove can be glimpsed through the trees at the end of the road.

3.44 There are a number of listed buildings located in the wider vicinity (those within a 500 metre radius), identified in order of their proximity to the application site as follows:

- Number 10 Warwick Place (Grade II listed, NHLE no. 1250851), located to the south of the application site.
- Number 8 Warwick Place (Grade II listed, NHLE no. 1250627), located to the south of the application site.
- Number 7 Warwick Place (Grade II listed, NHLE no. 1263178), located to the south of the application site.
- Numbers 5 and 6 Warwick Place (Grade II listed, NHLE no. 1250683), located to the south of the application site.
- The Hollies (Grade II listed, NHLE no. 1263279), located to the north-west of the application site.
- The Worthing Tabernacle (Grade II listed, NHLE no. 1250845), located to the north-west of the application site.
- Number 8 Ann Street (Grade II listed, NHLE no. 1025836), located to the south-west of the application site.
- Building at rear of no. 35 Warwick Street (Grade II listed, NHLE no. 1025837), located to the south-west of the application site.
- Number 45 Warwick Street (Grade II listed, NHLE no. 1250847), located to the south-west of the application site.
- Numbers 22 and 24 Brighton Road (Grade II listed, NHLE no. 1250105), located to the south of the application site.
- Numbers 34,36 and 36A Warwick Street (Grade II listed, NHLE no. 1250695), located to the south-west of the application site.
- Numbers 21 and 23 Alfred Place (Grade II listed, NHLE no. 1025832), located to the south of the application site.
- Numbers 25 and 27 Alfred Place (Grade II listed, NHLE no. 1025833), located to the south of the application site.
- Number 28 Warwick Street (Grade II listed, NHLE no. 1263136), located to the south-west of the application site.
- Numbers 30,32 and 32A, Warwick Street (Grade II listed, NHLE no. 1250694), located to the south-west of the application site.
- 24 and 26 Warwick Street (Grade II listed, NHLE no. 1250693), located to the south-west of the application site.
- Worthing War Memorial (Grade II listed, NHLE no. 1447552), located to the north-west of the application site.
- Worthing Town Hall including Assembly Hall and Worthing Room (Grade II listed, NHLE no. 1250786), located to the north-west of the application site.
- Former Worthing Library, Museum and Art Gallery (Grade II listed, NHLE no. 1429753), located to the west of the application site.
- Number 5 Warwick Street (Grade II listed, NHLE no. 1250691), located to the south-west of the application site.
- Numbers 10, 12 and Thieves Kitchen Public House, Warwick Street (Grade II listed, NHLE no. 1250692), located to the south-west of the application site.
- Bedford Hall (Grade II listed, NHLE no. 1025806), located to the south-west of the application site.
- Building in Library Place at rear of numbers 20 and 22 Warwick Street (Storehouse of Misters Colin Moore) (Grade II listed, NHLE no. 1263135), located to the south-west of the application site.
- Chatsworth Hotel Steyne Hotel (Grade II listed, NHLE no. 1250621), located to the south of the application site.
- Numbers 1-15, Warwick Road (Grade II listed, NHLE no. 1263134), located to the south of the application site.
- Beach House (Grade II* listed, NHLE no. 1025808), located to the south-east of the application site.
- Lamp Standard (Grade II listed, NHLE no. 1250852), located to the east of the application site.
- 'Numbers 1-14 including sections of railings along the front' (Grade II listed, NHLE no. 1025834), located to the west of the application site.

- Numbers 8-14 Bedford Row (Grade II listed, NHLE no. 1354771), located to the south-west of the application site.
- Lloyd's Bank (Grade II listed, NHLE no. 1250548), located to the south-west of the application site.

Conservation Areas

Warwick Gardens Conservation Area

- 3.45** The south-west corner of the application site abuts the northern boundary of the Warwick Gardens Conservation Area. The *Warwick Gardens Conservation Area Appraisal* summarises the important attributes of the areas closest to the application site follows:

Warwick Gardens Conservation Area is a small area of Edwardian dwellings which are of good quality and largely unspoilt. The buildings are not grand, but they exhibit numerous features of Edwardian house design in a consistent group. Edwardian domestic architecture evolved from a more formal Victorian style.

Typically the Edwardian buildings are characterised by ornamental brickwork and tiling, ornate gables, finials, turrets, balconies and bays, and a use of stained and etched glazing. All the buildings in the Conservation Area are of the same very narrow period except No. 16 Wyke Avenue. None have been extensively redeveloped, and many original features are still evident. Important characteristics of these streets are:

- *a rigid building line*
- *two-storey dwellings, either semi-detached or terraced, (although 41-47 Warwick Gardens have three-storeys)*
- *pitched natural slate roofs*
- *brick elevations*
- *brick and boulder flint boundary walls*

Steyne Gardens Conservation Area

- 3.46** The application site is located 53 metres to the north of the Steyne Gardens Conservation Area. The *Steyne Gardens Conservation Area Appraisal* summarises the important attributes of the areas closest to the application site as follows:

York Road, Alfred Place, Warwick Road, Warwick Place, and Park Road

These streets, which lie either side of Brighton Road, consist mostly of 19th century terraced properties largely in residential use. There are, however, several industrial buildings of historic interest surviving in this otherwise predominantly residential area, including the Tower Brewery attached to the Egremont Public House on the west side of Warwick Road, together with associated buildings on the east side of Warwick Road and on Alfred Place, a former banana ripening warehouse on York Road, and workshops, a malthouse and other former industrial buildings on Park Road. There is an intimate sense of enclosure in the streets in this area, particularly in Warwick Road. Given their proximity to the town centre and the seafront and the absence of on-site parking, the streets are heavily parked but receive relatively little through traffic. There are a number of ground floor commercial uses at the northern end of Warwick Road and at the southern end of Warwick Place. The area as a whole contains a large proportion of listed buildings. The listed terrace on the east side of Warwick Road is a particularly important feature in the street scene, and whilst some houses in the terrace are well maintained and in good decorative order, others are in need of repair and some are missing important original features.

Locations in the area were featured in the film "Wish You Were Here", a 1950s period film partly shot in Worthing. Alleys and twittens are essential to the intimate

character of the area. Visually, physically and symbolically this area is closely linked to the seafront. Several of the cottage properties in the area have ogee porches and are traditionally held to be fisherman's dwellings, the shape being reminiscent of an upturned boat. A curious Dutch architectural influence is exhibited in York Road by a terrace of four houses, which have elaborate Flemish gables.

Architectural and historic townscape elements which should be preserved:

- Individually styled or uniform terraced properties.
- A common building line close to the back. of the pavement.
- Boundary walls or railings.
- Elevations finished in light coloured painted stucco (early 19th century) or red or yellow brick (late 19th century),
- Slate roofs.
- Cant bays on late 19th century terraces.
- Timber sliding sash windows.
- Ogee porches on early 19th century properties.
- Red brick pavings, particularly those in clay, and granite kerbs and pavements.
- In Warwick Place, kerbs in a soft grey ragstone.
- Architectural detailing such as string courses, finials, and dressings to door and window openings.
- In Warwick Place, detached front gardens with enclosing boundary walls.
- Industrial buildings of historic interest and character, Especially important examples are the former malthouse on Park Road, The Tower Brewery on Warwick Road, storage buildings associated with the brewery on Warwick Road and Alfred Place, (now occupied by Balamy's Garage). and the warehouse on York Road.

Little High Street Conservation Area

- 3.47** The application site is located to the south-east of the Little High Street Conservation Area. The *Little High Street Conservation Area Appraisal* summarises the important attributes of the areas closest to the application site as follows:

Located immediately to the north of the Town Centre, the existing junction of High Street with Little High Street and Upper High Street marks the position of the former T-shaped northern termination of High Street. This is clear on the 1875 O.S. map, which shows the formal relationship of Northend Cottage (now known as The Hollies, and listed Grade II) to this layout. Even though Upper High Street now passes by The Hollies to the east, the importance of this villa and its front garden as the terminal feature of High Street is still very apparent.

On the west side of High Street is The Swan Inn with 43 North Street to the west (both listed grade II). The open space to the south of these buildings represents a layout essentially unchanged from the 1875 O.S. map and probably formed their gardens from the time of their construction (late 18th century).

The construction of residential streets close by which occurred around 1900 is indicative of the development and expansion of Worthing at this time. Good examples of a range of house types characteristic of the period are represented adjacent to the Conservation Area. Providence Terrace is modest but well proportioned housing. Other terraces on Ashdown Road, Sussex Road and Upper High Street, exhibit some architectural decoration which raises their level of interest. Slight bends in these residential streets also contribute to their visual attractiveness. Semi-detached pairs of villas on Tower Road are somewhat grander and have more decoration. This quality declines steadily moving eastwards, and runs out in Park Road.

The open area at the junction of Little High Street with High Street and Upper High

Street is well defined by buildings of acknowledged special quality, both new and old. The quality of boundary treatments, landscaping and some street furniture makes this an already pleasant space with the potential to be very attractive indeed.

The residential streets adjacent to the Conservation Area have setbacks and gentle curves which enhance the street scene to a higher overall quality than would otherwise derive from the architectural design alone. The residential streets benefit from trees on both sides in most cases.

Vistas along these streets leading to and from the Conservation Area are also important and need protecting from unsympathetic redevelopment.

Non-Designated Heritage Assets

- 3.48** Local Interest Buildings (as identified in Appendix 8 of the WLP 2003), Registered Park and Gardens of Local Historic Interest (as identified in Appendix 5 of the WLP 2003) located within 250 metres of the application site include those identified below.

Beach House Park (Registered Park and Gardens of Local Historic Interest)

- 3.49** Beach House Park, located approximately 37 metres to the east of the application site, is 'historically important as gardens and setting of Beach House (listed Grade II*). Now an attractive example of a seaside pleasure garden with important bowling greens and an architecturally interesting pavilion, and wrought iron gates and railings. Within the park is a war memorial to carrier pigeons by Leslie Sharp of Goring, promoted by the actress Nancy Price, and unveiled in 1951 by the Duke and Duchess of Hamilton.'

- 3.50** The park dates from 1924 and so it is assumed that the pavilion is of the same period. It is of 'half-timbered' construction above a brick plinth, with decorative timber balconies, dormer windows and a clock turret. The whole building is reminiscent of the Arts and Crafts movement.

Local Interest Buildings

- 3.51** Numbers 2, 4, 9, 11 and 12 Warwick Place are located just over 150 metres to the south of the application site and are attached to the listed buildings noted in paragraph 3.43 above. The Local Interest Buildings are also located within the Steyne Gardens Conservation Area.
- 3.52** Other Local Interest Buildings are also identified on Warwick Road (Nos. 16, 17, 18, 19, 20, 21, 21A, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33 and 34), Warwick Street (Nos. 1, 3, 4, 7, 9, 11, 13, 14, 15, 15A, 17, 19, 25, 27, 29, 31, 33, 35, 37, 39, 41 and 43) and Wyke Avenue (Nos 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 and 15), which are all located to the south and south-west of the application site.

4.0 Proposed Development and Potential Impact on Heritage Assets

Background

- 4.1** This section identifies and assesses the impacts of the proposal on the significance of the heritage assets located within and in the vicinity of the application site. In assessing the heritage impacts of the proposal, the relevant policies cited in section 2.0 have been referenced.

The Proposed Development

- 4.2** The proposal represents an enhancement opportunity to this part of Worthing in both architectural and streetscape terms. It comprises a planning application for the provision of new residential accommodation and associated landscaping/parking within the application site, which is located to the south of Lyndhurst Road and to the west of Park Road. The Waitrose superstore and car park is located to the west of the application site, with Kings Mews to the south and Charlcote Road to the south-west. The description of development is as follows:

Full planning application for the demolition of existing structures, partial removal of boundary walls and the construction of 209 residential apartments spread across 5 blocks ranging in height from 3-7 storeys, associated access, parking, open space and landscaping.

- 4.3** A total of 209 residential units are proposed, within five blocks (A-E).
- 4.4** Block A is located in the south-western part of the site and comprises part three (southernmost part of building), four and five storeys with a recessed attic storey (4th floor level) and a total of 44 units (x20 no. 1 bed units and x24 no. 2 bed units).
- 4.5** Block B is located to the east and north-east of Block A and is located in the centre of the application site. It comprises six full storeys with a recessed attic storey (6th floor level) and a total of 33 units (x10 no. 1 bed units, x20 no. 2 bed units and x3 no. 3 bed units).
- 4.6** Block C is located in the north-western part of the application site with a street frontage to Lyndhurst Road. It comprises a total of three full storeys fronting Lyndhurst Road with a further two storeys set back (i.e. 5 storeys in total). A total of 44 units (x4 no. studio, x5 no. 1 bed units and x35 no. 2 bed units).
- 4.7** Block D is located in the north-eastern part of the application site with street frontages to Lyndhurst Road to the north and Park Road to the east. It comprises a total of three full storeys fronting Lyndhurst Road and Park Road with a further two storeys set back (i.e. 5 storeys in total). A total of 46 units (x6 no. studio units, x3 no. 1 bed units, x34 no. 2 bed units and x3 no. 3 bed units) is proposed.
- 4.8** Block E is located in the south-eastern part of the site, with a street frontage to Park Road to the east. It comprises four full storeys at its western end and three-storeys at its eastern end fronting Park Road. A total of 42 units (x12 no. one bed units, x28 no. two bed units and x2 no. 3 bed units).
- 4.9** The bulk of the car parking will be provided in the southern part of the application site, with landscaped areas between the main residential blocks.
- 4.10** The design approach adopted ensures that the new build is responsive to the local vernacular in terms of its placement within the application site, its materiality, the setbacks utilised and the provision of green space and landscaping.

- 4.11** As noted in paragraphs 3.42-3.47, there are a number of designated heritage assets located in the immediate and wider vicinity of the application site. The proposed development, therefore, has the potential to impact on the settings and significance of the heritage assets identified. These are considered in turn below.

Listed Buildings in the vicinity

Description, setting and potential impacts

- 4.12** By virtue of their designation as listed buildings, those identified in the vicinity of the application site are a nationally important component of the historic environment resource. In this context, they are good examples of building typologies within this part of the Worthing, which retain much of their architectural integrity.

Immediate vicinity

- 4.13** To the south-west of the application site is a small group of individually listed buildings, which comprises nos. 40 and 40a High Street (NHLE no. 1250305), 42 High Street (NHLE no. 1263332) and 44 High Street (NHLE no. 1250306). This group is located just over 100 metres from the south-west boundary of the application site and to the south of the access road to the Waitrose car park. The listed group rises to three-storeys and backdrop views are unimpeded by development (Plate 27). The proposed development within the application site is unlikely to be seen in backdrop views of this terrace, given the separation between them. The siting of the taller element (Block B) within the central part of the site will also ensure that this element is not perceived in the backdrop view of the listed terrace group from High Street looking north-east (Plate 27). Therefore, it is considered that the proposal will have no adverse visual impact on the setting of the heritage assets.

Wider vicinity

- 4.14** To the south of the application site is a terrace group located on Warwick Place, which includes a number of listed buildings with the closest being the part of the group that comprises nos. 13-18 Warwick Place (consecutive), Grade II listed and located at the northern end of Warwick Place (NHLE no. 1263179 and NHLE no. 1263132). This part of the group is located just over 135 metres from the application site (Plate 25). In setting terms, the terrace group is legible in views primarily along Warwick Place, with limited visibility from elsewhere. The roofline to the easternmost terrace group located on the north side of Ash Grove is evident in views from Warwick Place (plates 25 and 26). In this regard, given the separation between the application site and the heritage assets noted, combined with the closed nature of this road, the new development will not be legible in the context of the terrace group. With this in mind, the proposal will cause no harm to the setting of the heritage assets.
- 4.15** To the west of the application site are a number of listed buildings located on the north side of Union Place. The closest to the site (approx. 137 metres) is the Grade II listed 'Conservative Headquarters', which is close to the junction with High Street. This is a distinctive circa 1830s building, which is seen in views of the application site looking east along Union Place. It is perceived in views of the Waitrose superstore and the application site, although is not overly prominent in this context. In this regard, while Blocks A, B and C will be evident in views from Union Place (Plate 28), there is adequate separation between the heritage assets located on Union Place and the application site to ensure that there will be no adverse impact on their settings.
- 4.16** To the north-west of the application site are a number of listed buildings, which include 'The Swan Inn' (now the New Amsterdam Public House) and 'The Hollies' both located on the west side of High Street and no. 43 North Street. These heritage assets are

located just under 200 metres from the application, with the existing development located on the south side of High Street and the north side of Lyndhurst Road providing a buffer between them. This limits any inter-visibility between the application site and the heritage assets noted. In this regard, the scale of Blocks C and D, with three storeys fronting Lyndhurst Road and a further two-storeys set back, is such that the new blocks will not be perceived in views of the heritage assets. Within this in mind, the proposal will cause no harm to the setting of the heritage assets.

- 4.17** The other listed buildings identified in paragraphs 3.43-44 and in Figure 10 above, are located a considerable distance from the application site. There is very limited to no inter-visibility between the heritage assets within the study area and the application site, given the separation and existing development between them. In this regard, the proposal will have no impact on their settings. The distance between these listed buildings and the application site will ensure that there is no harm on the setting and significance of the designated heritage assets identified.



Plate 27 View of the Grade II listed terrace group comprising nos. 40 and 40a (far right of picture), 42 (centre-right) and 44 (centre) High Street. Note that this view is taken from the south-west looking north-east.



Plate 28 Visual showing how the development will be perceived from the eastern end of Union Place (looking east). Source: AVR London

*Description, setting and potential impacts*Warwick Gardens Conservation Area

- 4.18** The application site is located to the immediate north of the Warwick Gardens Conservation Area. The northern part of the designation captures the eastern end of Charlecote Road, which adjoins part of the southern boundary to the application site. The terrace group located on the north side of Charlecote Road (i.e. within the CA designation) comprises three storeys, with distinctive gables at roof level (Plate 29). The majority of the residences within the designation date from the Edwardian period.
- 4.19** While the majority of the proposed development will not be evident in views from within the designation, the attic storey to Block B will be visually evident above the ridgeline to the three-storey Charlcote Road terrace group (Plate 30). This aspect of the proposal will cause some harm to the setting of the Conservation Area (deemed to be at the lower end of the less than substantial harm scale). It is considered, however, that the lightness of the facing material to the top storey will lessen its visual prominence in views from within the designation, thereby lessening the degree of harm. Warwick Gardens also benefits a number of trees which line either side of the road, which has the benefit of impeding longer views of the Charlcote Road terrace group noted, although it is acknowledged that the top storey to Block B is likely to be evident during the winter months, in particular.
- 4.20** The minor level of harm identified will also be outweighed by the benefits associated with the proposal. In the context of housing delivery within the Borough, the less-than-substantial harm should be considered against the importance of allocated sites such as the application site for housing delivery over the emerging plan period. In this respect, such sites are proposed to deliver around 50% of the housing requirement (refer to the ECE Planning Statement for further details). The application site plays an extremely important role, therefore, in contributing to the housing delivery target for Worthing. The submission draft WBCDLP promotes maximisation of housing delivery on sustainable sites making the most efficient use of land (Policies SO17 and DM2). The proposal clearly meets these requirements.
- 4.21** Overall, the design approach has been handled in a sensitive manner to ensure that the development is not overly prominent in views from the Conservation Area. The visual harm associated with Block B is minor and will be outweighed by the planning benefits identified.

Steyne Gardens Conservation Area

- 4.22** The Steyne Gardens Conservation Area is located approx. 53 metres to the south of the application site. The north-eastern part of the designation captures the southern part of Park Road and Warwick Place. The buildings on Park Road are of an intimate two-scale with very limited inter-visibility between them and the site. To the north of the designation a number of three-storey residential buildings are evident. These include Kings Hall, which provides a buffer between the application site and the designation.
- 4.23** The design approach to Blocks D and E, which front Park Road, has been handled in a sensitive manner to ensure that they are not overly prominent in views to and from the Conservation Area. The three-storey height to the Park Road frontage is consistent with the scale of Kings Hall to the south. In this regard, the top two-storeys have been setback to ensure that the upper parts of these blocks are not apparent in views from the designation (Plate 32). The new development represents a high quality intervention, which will enhance the street scene to this part of Park Road. The landscape approach will also soften street scene. With this in mind, the proposal will cause no harm to the setting of the heritage asset.

- 4.24** The Little High Street Conservation Area is located to the north-west of the application site. The designation captures Little High Street and part of North Street. The Corner House Public House is located on the corner of Lyndhurst Road and North Road and has some inter-visibility with the application site, although it is acknowledged that this is limited. The designation is separated from the application site by the existing two-storey terrace located on the north side of Lyndhurst Road, which provides a buffer between them.
- 4.25** The design approach to Blocks C and D, which front Lyndhurst Road, has been handled in a sensitive manner to ensure that they are not overly prominent in views to and from the Conservation Area. The three-storey height to the Lyndhurst Road frontage is responsive to the two-storey scale of the terrace group located on the north side of Lyndhurst Road. In this regard, the top two-storeys have been setback to ensure that the upper part of these blocks are not overly apparent in views from the designation. With this in mind, the proposal will cause no harm to the setting of the heritage asset.



Plate 29 Part view of terrace located on the northern side of Charlecote Road (eastern end). Note that this part of the terrace is located within the Warwick Gardens Conservation Area.



Plate 30 Visual showing the attic storey to Block B (arrowed), which will be evident in backdrop views of the Charlecote Road terrace group. Note that this view is taken from Warwick Gardens looking north-east. Source: AVR London



Plate 31 View looking south along Park Road, showing the intimately scaled two-storey buildings located within the Steyne Gardens Conservation Area.



Plate 32 Visual looking north along Park Road, showing Kings Hall and the new development, which is glimpsed (arrowed). Note that this view is taken from within the Steyne Gardens Conservation Area. Source: AVR London

Potential Impacts on Non-Designated Heritage Assets

Description, setting and potential impacts

- 4.26** As noted in paragraphs 3.48-52 there are a number of Local Interest Buildings (as identified in Appendix 8 of the WLP 2003) located within 250 metres of the application site including those identified below. Beach House Park, located to the east of the application site, is also identified on the Register of Parks and Gardens of Local Historic Interest (as identified in Appendix 5 of the WLP 2003).

Beach House Park (Registered Park and Gardens of Local Historic Interest)

- 4.27** Beach House Park, located approximately 37 metres to the east of the application site, is separated from the application site by the existing terrace housing on the east side of Park Road. This provides a buffer between these elements. There is also a substantial line of trees along the western boundary of the park, which further impedes any visual connections between the park and the application site. In this regard, the proposed three storeys to Blocks D and E fronting Park Road with a further two storeys set back, will be visually recessive in backdrop views of the park. With this in mind, the proposal will cause no adverse harm to the setting of the non-designated heritage asset.

Local Interest Buildings

- 4.28** Numbers 2, 4, 9, 11 and 12 Warwick Place are located just over 150 metres to the south of the application site and are attached to the listed buildings noted in paragraph 3.43 above. The Local Interest Buildings are also located within the Steyne Gardens Conservation Area. In setting terms, the terrace group is legible in views primarily along Warwick Place, with limited visibility from elsewhere. The roofline to the easternmost terrace group located on the north side of Ash Grove is evident in views from Warwick Place (Plate 26). In this regard, given the separation between the application site and the non-designated heritage assets noted, combined with the closed nature of this road, the new development will not be legible in the context of

the terrace group. With this in mind, the proposal will cause no harm to the setting of the non-designated heritage assets.

- 4.29** Other Local Interest Buildings are also identified on Wyke Avenue (Nos 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 and 15), which are all located to the south of the application site and mostly located within the Warwick Gardens Conservation Area. There is very limited inter-visibility between Wyke Avenue and the application site, given the separation that exists (approx. 100 metres between the northern end of Wyke Avenue and the southern boundary of the application site). In this regard, the proposed taller Block B is unlikely to be evident in views along Wyke Avenue, given the alignment of existing development along the northern side of Wyke Avenue and Ash Grove and the avenue of trees that also exists (the latter impedes views in a northerly direction). With this in mind, the proposed development will not adversely impact on the setting the non-designated heritage assets noted.

5.0 Summary and Conclusions

- 5.1** In summary, the proposal is compliant with the relevant heritage paragraphs contained in Section 16 of the NPPF 2021 and relevant local heritage policy including Policy 16: Built Environment and Design of the *Worthing Core Strategy* (WCS 2011), saved Policy BE1: Built Environment of the *Worthing Local Plan* (WLP 2003) and Policy DM24: The Historic Environment of the *Submission Draft Worthing Borough Council Local Plan 2020-2036* (submission draft WBCDLP).
- 5.2** There are no listed buildings located within the application site. Within the immediate vicinity, to the south-west of the application site is a small group of individually listed buildings, which comprise nos. 40 and 40a High Street (NHLE no. 1250305), 42 High Street (NHLE no. 1263332) and 44 High Street (NHLE no. 1250306). This group is located just over 100 metres from the south-west boundary of the application site and to the south of the access road to the Waitrose carpark. The proposed development is unlikely to be seen in backdrop views of this terrace, given the separation between them. The siting of the taller element (Block B) within the central part of the site will also ensure that this element is not perceived in the backdrop view of the listed terrace group from High Street looking north-east. Therefore, it is considered that the proposal will have no adverse visual impact on the setting of the heritage assets.
- 5.3** In the wider vicinity of the application site there are a number of listed buildings, with the closest being nos. 13-18 Warwick Place (consecutive - Grade II listed and located at the northern end of Warwick Place, NHLE nos. 1263179 and 1263132) approx. 135 metres to the south. There are also a number of listed buildings located on Union Place to the west of the application site, the northern end of High Street to the north-west of the site and North Street also to the north-west of the site. Given the separation between these heritage assets and the application site, combined with the design approach adopted, the proposal will have no impact on their settings. The distance between these listed buildings and the application site and, in most cases the existing development between them will ensure that there is no harm on the setting and significance of the designated heritage assets identified.
- 5.4** The application site is located to the immediate north of the Warwick Gardens Conservation Area. While the majority of the proposed development will not be evident in views from within the designation, the attic storey to Block B will be visually evident above the ridgeline to the three-storey Charlcombe Road terrace group in views looking north from Warwick Gardens. This aspect of the proposal will cause some harm to the setting of the Conservation Area (deemed to be at the lower end of the less than substantial harm scale), given that it will be evident in backdrop views of the terrace group from Warwick Gardens. It is considered, however, that the lightness of the facing material to the top storey will lessen its visual prominence in backdrop views of the Charlcombe Road terrace group from within the designation, thereby lessening the degree of harm. Warwick Gardens also benefits from a number of trees which line either side of the road, which has the benefit of impeding longer views of the Charlcombe Road terrace group noted, although it is acknowledged that the top storey to Block B is likely to be evident during the winter months, in particular. The minor level of harm identified will also be outweighed by the benefits associated with the proposal. In the context of housing delivery within the Borough, the less-than-substantial harm should be considered against the importance of allocated sites such as the application site for housing delivery over the emerging plan period. In this respect, such sites are proposed to deliver around 50% of the housing requirement (refer to the ECE Planning Statement for further details). The application site plays an extremely important role, therefore, in contributing to the housing delivery target for Worthing. The submission draft WBCDLP promotes maximisation of housing delivery on sustainable sites making the most efficient use of land (Policies SO17 and DM2). The proposal clearly meets these requirements.

- 5.5** The Steyne Gardens Conservation Area is located approx. 53 metres to the south of the application site. The north-eastern part of the designation captures the southern part of Park Road and Warwick Place. The design approach to Blocks D and E, which front Park Road, have been handled in a sensitive manner to ensure that they are not overly prominent in views to and from the Conservation Area. The three-storey height to the Park Road frontage is consistent with the scale of Kings Hall to the south. In this regard, the top two-storeys have been setback to ensure that the upper part of these blocks are not apparent in views from the designation. With this in mind, the proposal will cause no harm to the setting of the heritage asset.
- 5.6** The Little High Street Conservation Area is located to the north-west of the application site. The design approach to Blocks C and D, which front Lyndhurst Road, have been handled in a sensitive manner to ensure that they are not overly prominent in views to and from the Conservation Area. The three-storey height to the Lyndhurst Road frontage is responsive to the two-scale of the terrace group located on the north side of Lyndhurst Road. In this regard, the top two-storeys have been setback to ensure that the upper parts of these blocks are not apparent in views from the designation. With this in mind, the proposal will cause no harm to the setting of the heritage asset.
- 5.7** Beach House Park is a Registered Park and Garden of Local Historic Interest, which is located approximately 37 metres to the east of the application site and is separated from the application site by the existing terrace housing on the east side of Park Road. This provides a buffer between these elements. There is also a substantial line of trees along the western boundary of the park, which further impedes any visual connections between the park and the application site. In this regard, the proposed three storeys to Blocks D and E fronting Park Road with a further two storeys set back, will be visually recessive in backdrop views of the park. With this in mind, the proposal will cause no adverse harm to the setting of the non-designated heritage asset.
- 5.8** There is a number of Local Interest Buildings (non-designated heritage assets) in the immediate and wider vicinity of the application site. These include nos. 2, 4, 9, 11 and 12 Warwick Place, which are located just over 150 metres to the south of the application site and are attached to a listed building group. In setting terms, the terrace group is legible in views primarily along Warwick Place, with limited visibility from elsewhere. The roofline to the easternmost terrace group located on the north side of Ash Grove is evident in views from Warwick Place. In this regard, given the separation between the application site and the non-designated heritage assets noted, combined with the closed nature of this road, the new development will not be legible in the context of the terrace group. With this in mind, the proposal will cause no harm to the setting of the non-designated heritage assets.
- 5.9** Other Local Interest Buildings are also identified on Wyke Avenue (Nos 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 and 15), which are all located to the south of the application site and mostly located within the Warwick Gardens Conservation Area. There is very limited inter-visibility between Wyke Avenue and the application site, given the separation that exists (approx. 100 metres between the northern end of Wyke Avenue and the southern boundary of the application site). In this regard, the proposed taller Block B is unlikely to be evident in views along Wyke Avenue, given the alignment of existing development along the northern side of Wyke Avenue and Ash Grove and the avenue of trees that also exists (the latter impedes more open views in a northerly direction). With this in mind, the proposed development will not adversely impact on the setting of the non-designated heritage assets noted.

Sources

Archive

1778 Yeakell and Gardner map

1806 Ordnance Survey drawing

1848 Broadwater Tithe map

Demolition of retort house (2 images), 1937 *Brighton, Hove and Worthing Gas Company Magazine* p431

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Plan of Worthing in 1814 appended by SO Stephenson with the gasworks in S. O. Stephenson (1931b) 'History of the Worthing Gas, Light & Coke Company' in *Brighton, Hove and Worthing Gas Company Magazine* 1931 Vol 5 pp110-116

1964 plan of Worthing holder station NGA SE/SX/WTG/E/E/1

Cartographic

1875 Ordnance Survey map

1898 Ordnance Survey map

1912 Ordnance Survey map

1932 Ordnance Survey map

1954 Ordnance Survey map

1994 Ordnance Survey map

2006 Ordnance Survey map

2020 Ordnance Survey map

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