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Land at Foxhole Farm Bolney

Flood Risk Assessment

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Land at Foxhole Farm Bolney
Flood Risk Assessment

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Executive Summary

Ramboll UK Limited ('Ramboll') has been commissioned by Wates Developments Limited (Wates) to produce a Flood Risk Assessment for the site at 'Land at Foxhole Farm Bolney'. The site is located at approximate coordinates 525911E, 122766N, at postcode RH17 5NB.

The Proposed Development is for an outline planning application (appearance, landscaping, layout and scale reserved), for the erection of up to 200 dwellings; a community building (use class F1) encompassing land for education provision, together with associated access, ancillary parking and landscaping; the creation of a vehicular access point from the A272 Cowfold Road, and pedestrian and cycle only access to The Street; and creation of a network of roads, footways, and cycleways through the site; together with the provision of countryside open space, children's play areas, community orchard, and allotments; sustainable drainage systems and landscape buffers.

A review of all available information relating to flood risk has been undertaken, and an assessment has been made of the existing baseline flood risk and potential future risk to the development. A summary of the flood risk from each source is as follows:

- Fluvial/Tidal – Site is located in Flood Zone 1, and as such there is a Low risk from fluvial/tidal flooding;
- Surface Water – While there are areas considered to be at a High risk from surface water flooding present in the northeast, northwest and south of the site, approximately 90% of the site is located in an area considered to be at a Very Low risk from surface water flooding. Proposed dwellings are located outside the areas of risk which will be managed as part of the surface water drainage strategy; and
- Groundwater – Upon review of the proposed layout and the proposed surface water drainage strategy, the overall risk to the Proposed Development is considered to be low.

As part of the surface water strategy for the Proposed Development, excess runoff from the site will be released at the mean annual flood return period which represents a considerable reduction in the peak flows presently emanating from the site during high return period flooding events. The strategy will therefore improve upon the current situation with regard to surface water management and flood risk.

Across the eastern part of the northern and central development areas, the existing drainage that would otherwise flow toward The Street will instead be collected and transported by the proposed network of swales (drainage channels) and attenuation areas (basins/ponds) away from this location to be released at a controlled rate toward separate locations in the west and south of the site. This represents a significant betterment to the present situation.

An analysis of the Flood Hazard Rating at the location of the proposed site access indicates there is no danger at this location and that the proposed access location is considered safe for emergency use.

Subject to inclusion of the proposed mitigation measures, and adherence to the proposed surface water drainage strategy, it is expected that flood risk at the site can be managed in a safe and sustainable manner.

1. Introduction

1.1 Appointment and Brief

1.1.1 Ramboll UK Limited ('Ramboll') has been commissioned by Wates Developments Limited (Wates) to produce a Flood Risk Assessment (FRA) for the site at 'Land at Foxhole Farm Bolney'. The site is located at approximate coordinates 525911E, 122766N, at postcode RH17 5NB.

1.1.2 The Proposed Development is for an outline planning application (appearance, landscaping, layout and scale reserved), for the erection of up to 200 dwellings; a community building (use class F1) encompassing land for education provision, together with associated access, ancillary parking and landscaping; the creation of a vehicular access point from the A272 Cowfold Road, and pedestrian and cycle only access to The Street; and creation of a network of roads, footways, and cycleways through the site; together with the provision of countryside open space, children's play areas, community orchard, and allotments; sustainable drainage systems and landscape buffers.

1.2 Scope and Objectives

1.2.1 This report considers the risks of various sources of flooding to the site and has been carried out in accordance with the National Planning Policy Framework (NPPF)[1]. It is to be used to assist the Local Planning Authority (LPA) and relevant statutory consultees when considering the flooding issues of the Proposed Development, as part of a planning application.

1.2.2 The report provides the following information:

1. A review of the flood risk to the site based upon flood data and the flood maps provided by the Environment Agency (EA) and the relevant Strategic Flood Risk Assessment (SFRA);
2. An assessment of flood risk from all sources including tidal, fluvial, pluvial, groundwater and other artificial sources;
3. An assessment of the potential for flood risk to arise as a result of the introduction of the Proposed Development including an assessment of whether the Proposed Development is likely to be affected by current or future flooding, and whether it will increase flood risk elsewhere; and
4. Proposals to mitigate any residual flood risks to the development.

[1] GOV.UK, National Planning Policy Framework, 2024 [online]. Available at: https://www.gov.uk/government/publications/national-planning-policy-framework--2. Accessed January 2025.

1.3 General Limitations and Reliance

1.3.1 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.

1.3.2 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.

1.3.3 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 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.

1.3.4 Unless otherwise stated in this report, the scope of services, assessment and conclusions made assume that the site will continue to be used for its proposed end-use without further significant changes onsite. Unless stated otherwise, the geological information provided is for general environmental interpretation and should not be used for geotechnical and/or design purposes.

2. Site Description

2.1 Site Location and Surroundings

2.1.1 The site is located at Foxhole Farm, Bolney, on land immediately east of Foxhole Lane. The site is centred at approximately 525911E, 122766N, at postcode RH17 5NB. The site measures 16.89 hectares (ha) in area.

2.1.2 Approximately 95% of the site currently consists of greenfield land, possibly used for pastoral farming, with the remaining 5% consisting of existing trees/hedgerows and farm buildings. Adjacent and surrounding land uses are as follows:

- North: Existing wooded areas, green space, and some housing. Lodge Lane is located approximately 250 m from the site;
- East: The Street and adjacent housing. The A23 is located approximately 360 m from the site;
- South: A272 Cowfold Road and adjacent housing/green space; and
- West: Foxhole Lane and adjacent green space/agricultural land. The Bolney Wine Estate is located approximately 120 m from the site.

2.1.3 The village of Bolney is located immediately to the east/northeast of the site. The closest town is Haywards Heath, located approximately 6 km east of the site.

2.1.4 The Site Location Plan is presented in Figure 2.1 at the rear of the report.

2.1.5 The Site Setting is presented in Figure 2.2 at the rear of the report.

2.2 Proposed Development

2.2.1 Outline planning application (appearance, landscaping, layout and scale reserved), for the erection of up to 200 dwellings; a community building (use class F1) encompassing land for education provision, together with associated access, ancillary parking and landscaping; the creation of a vehicular access point from the A272 Cowfold Road, and pedestrian and cycle only access to The Street; and creation of a network of roads, footways, and cycleways through the site; together with the provision of countryside open space, children's play areas, community orchard, and allotments; sustainable drainage systems and landscape buffers.

2.2.2 The Site Masterplan is presented in Appendix A at the rear of the report.

2.2.3 The southern development is designated as the Southern Parcel and proposes approximately 108 dwellings. The northern development is designated as the Northern Parcel and proposes approximately 92 dwellings.

2.2.4 The community building will ultimately sit within the Northern Parcel. It is noted however that this may be constructed at the same time as the development within the Southern Parcel. A confirmed commitment to phasing is not included at this stage as part of the application.

2.3 Site Topography

2.3.1 A site topographical survey[2] has been undertaken at the site. A description of the topography is summarised as follows:

Southern Parcel

2.3.2 Levels in the southern development are shown to fall from north to south. The survey indicates that levels at the northern end of the Proposed Development area are between approximately 34.3 and 35 m Above Ordnance Datum (AOD) at their highest, falling to approximately 22.2 m AOD at the southern end of the site, adjacent to the A272 (Cowfold Road).

Northern Parcel

2.3.3 Levels in the northern development are indicated to fall from a high of approximately 42 m AOD in the southeast of the Proposed Development area, to approximately 30.1 m AOD in the west. Levels are additionally shown to fall toward the north, east and west. Furthermore, levels are shown to fall from a high of approximately 37 m AOD in the north of the Proposed Development area toward the south, east and west. Together, these two high points are shown to connect to form a watershed running approximately north to south in the eastern half of the Proposed Development area, with land falling away more steeply toward both the east and west. The low point in the east of the site is recorded at approximately 34.2 m AOD.

Central Areas

2.3.4 Central areas of the site are typically shown to fall from west to east and north to south, with the highest level at the site (approximately 43 m AOD) located approximately 25 m south of the proposed northern development area.

[2] CD Surveys Ltd, Topographical Survey, Foxhole Farm, Bolney, Haywards Heath, WD/2309028/1, December 2023.

2.3.5 Dividing the Central Areas into their eastern and western sections, in the east the survey shows how the land falls from a high of approximately 43 m AOD in the northwest to a low of approximately 31.8 m AOD in the southeast. In the west the survey shows how the land falls from a high of between approximately 39.1 and 40.1 m AOD to the levels shown at the northern end of the Proposed Development area for the Southern Parcel (i.e., between approximately 34.3 and 35 m AOD).

Summary and Surrounding Area

2.3.6 The site topographical survey is presented in Appendix B at the rear of the report.

2.3.7 A site visit was undertaken in February 2024 by representatives from both Ramboll and Wates. The topography was observed to be in line with that shown in the topographical survey. A series of photographs taken while onsite are presented in Appendix C at the rear of the report.

2.3.8 Light Detection and Ranging (LiDAR) data[3], acquired from the EA, is shown to broadly agree with the findings of both the topographical survey and the site visit. Outside the site boundary, the topography is as follows:

- North: Land is shown to rise more steeply with levels of approximately 50 m AOD shown to be present approximately 160 m from the site;
- East: Land is shown to rise to a high of approximately 43 m AOD before falling away again toward the A23;
- South: Land is shown to typically be lower than the site and to fall away toward local watercourses; and
- West: Land is shown to fall away toward local watercourses.

2.3.9 LiDAR Topography is presented in Figure 2.3 at the rear of the report.

2.4 Existing Drainage

2.4.1 At present, the site is comprised of undeveloped, greenfield land with no impermeable surfaces and therefore no areas which are positively drained (i.e. by conventional underground pipes, gullies, manholes etc.).

Surface Water

2.4.2 According to the LandIS soils map[4], the site is stated to drain to the 'stream network'. This statement is backed up by observations made during the site visit undertaken in February 2024, where saturated ground and pooling of water were observed in many places across the site, as well as the drainage of surface water to existing watercourses both on and offsite.

[3] Department for Environment Food & Rural Affairs, Data Services Platform, LiDAR Composite Digital Terrain Model (DTM) – 1m [online]. Available at: https://environment.data.gov.uk/dataset/13787b9a-26a4-4775-8523-806d13af58fc. Accessed September 2024.

[4] LandIS, Soilscapes Viewer [online]. Available at: https://www.landis.org.uk/soilscapes/. Accessed September 2024.

2.4.3 During the February 2024 site visit, surface water drainage was identified in Cowfold Road to the south of the site. Formal drainage features were observed adjacent to the road as well as another watercourse approximately 70 m south of the site which was observed to be taking surface water drainage from Cowfold Road and the site and directing it south.

2.4.4 In the northwest of the site, surface water was observed to drain toward an existing culvert which directed flows beneath Foxhole Lane and into an existing watercourse to the west of the site.

2.4.5 Saturated ground and pooling were observed across the east of the site where the terrain was observed to slope down toward the east.

2.4.6 In the south of the site, water was observed to be directed toward the existing ditch oriented approximately east to west adjacent to the southern boundary of the site, via a network of existing ditches to the north, east and west. Water was observed in a similarly oriented east to west ditch located approximately halfway up the southern development area as well as in separate ditches running from north to south along both the eastern and western site boundaries in this part of the site.

2.4.7 Observations made onsite indicated that water collecting in the ditch at the southern boundary was directed into the existing sewer network in Cowfold Road.

Foul Water

2.4.8 Southern Water sewer records are presented in Appendix D at the rear of the report. They show the presence of existing wastewater sewer networks in both The Street to the east of the site and in Cowfold Road to the south. To the south of the site where the proposed foul discharge from the site is intended, the sewer is sized at a 225 mm diameter. Observations made while onsite, combined with a detailed review of the Southern Water sewer records, indicate that these wastewater sewers are in reality combined sewers. While they are identified as wastewater sewers on the sewer records presented in Appendix D, no separate surface water sewers are marked on the sewer records. Furthermore, a separate overflow 'wastewater' sewer is observed on the sewer records adjacent to The Street measuring approximately 1,200 mm in diameter. A sewer this size is considered to far exceed the typical diameter required for foul sewers. Furthermore, road gullies were observed on both The Street to the east of the site and along Cowfold Road to the south with little other route for discharge other than to the foul/combined sewer system.

2.4.9 The wastewater (combined) sewer network running south and southwest from The Street is shown on the sewer records to be disconnected from the sewer network running approximately east to west adjacent to the southern boundary of the site and Cowfold Road.

2.4.10 While onsite in February 2024, a foul pumping station was observed approximately 460 m south of the site and was considered to be the destination of the wastewater (combined) sewer network observed in the Southern Water sewer records.

3. Policy Framework

3.1 National Planning Policy Framework, 2024

3.1.1 The NPPF[1] was most recently updated in December 2024, with flood risk remaining primarily regulated through planning policy. The NPPF requires that a site-specific FRA be provided for all development in Flood Zones 2 and 3; all development sites over 1 ha in area; land which has been identified by the EA as having critical drainage problems; land which has been identified in an SFRA as being at increased flood risk in the future; or land that may be subject to other sources of flooding, where its development would introduce a more vulnerable use.

3.1.2 In terms of flood risk, the NPPF classifies land uses according to vulnerability as follows:

- Essential Infrastructure;
- Highly Vulnerable;
- More Vulnerable;
- Less Vulnerable; and
- Water-Compatible Development.

3.1.3 The Planning Practice Guidance[5] to the NPPF, advises on how to take account of and address the risks associated with flooding and coastal change in the planning process. This includes detail on when and how the Sequential and Exception Tests need be applied.

3.2 Mid Sussex District Council, District Plan, 2018

3.2.1 The Mid Sussex District Plan[6] sets out a vision for how Mid Sussex wants to evolve and a delivery strategy for how that will be achieved. It sets out broad guidance on the distribution and quality of development in the form of 'higher level' strategic policies.

3.2.2 Policy DP41 (Flood Risk and Drainage) states the following:

- Proposals for development will need to follow a sequential risk-based approach, ensure development is safe across its lifetime and not increasing the risk of flooding elsewhere. The District Council's SFRA should be used to identify areas at present and future flood risk from a range of sources including fluvial, surface water, groundwater, infrastructure, and reservoirs.

[5] GOV.UK, Guidance, Flood risk and coastal change [online]. Available at: https://www.gov.uk/guidance/flood-risk-and-coastal-change. Accessed January 2025.

[6] Mid Sussex District Council, Mid Sussex District Plan, 2018 [online]. Available at: https://www.midsussex.gov.uk/planning-building/mid-sussex-district-plan/. Accessed September 2024.

- Particular attention will be paid to those areas of the District that have experienced flooding in the past and proposals for development should seek to reduce the risk of flooding by achieving a reduction from existing runoff rates.
- Land that is considered to be required for current and future flood management will be safeguarded from development and proposals will have regard to relevant flood risk plans and strategies.

3.3 Mid Sussex District Plan 2021 – 2039, Submission Draft (Regulation 19)

3.3.1 The District Plan 2021 – 2039[7] comprises an updated vision and strategy, along new site allocations and policies and will supersede the 2018 District Plan upon its adoption. This emerging local plan details Policy DPS4 (Flood Risk and Sustainable Drainage) which includes the following:

- Proposals for development will need to follow a sequential risk-based approach directing development away from areas at highest (flood) risk.
- Development should consider flood risk in line with latest national guidance. The cumulative impacts of all sources of flooding should be considered.
- Surface water drainage schemes must be implemented in all new development.

3.3.2 The site forms a proposed allocation pursuant to Policy DPA14: Land at Foxhole Farm, Bolney which provides a site plan and details of proposed onsite infrastructure.

3.4 Bolney Neighbourhood Plan, September 2016

3.4.1 The Neighbourhood Plan[8] sets out a number of policies which together with the NPPF and the District Plan ensure that new development in the Bolney Neighbourhood Plan area will be sustainable and in accordance with the vision.

3.5 Mid Sussex District Council, Level 1 Strategic Flood Risk Assessment, 2024

3.5.1 The Mid Sussex Level 1 SFRA[9] aims to provide the Council with a robust evidence base to inform the application of the Sequential and, if necessary, Exception Tests to inform the future development strategy for the district. The objectives of the Level 1 SFRA are as follows:

- Inform the sustainability appraisal of the Local Plan (Mid Sussex District Plan), so that flood risk is fully taken into account when considering allocation options and in the preparation of Plan policies;
- Apply the Sequential Test and, where necessary, the Exception Test when determining land use allocations;
- Inform the allocation of land to safeguard it for flood risk management infrastructure;

[7] Mid Sussex District Council, Mid Sussex District Plan 2021 – 2039, Submission Draft (Regulation 19), December 2023.
[8] Bolney Parish Council, Bolney Neighbourhood Plan 2015 – 2031, September 2016 [online]. Available at: https://www.midsussex.gov.uk/media/3321/bolney-neighbourhood-plan.pdf. Accessed January 2025.
[9] Aegaea, Mid Sussex District Council, 2024 [online]. Available at: https://www.midsussex.gov.uk/media/sl2jhk0z/env11-strategic-flood-risk-assessment-level-1-2024.pdf. Accessed September 2024.

- Inform policies for change of use and reducing the causes and impacts of flooding;
- Identify the requirements for site-specific flood risk assessments in particular locations, including those at risk from sources other than river and sea flooding;
- Determine the acceptability of flood risk in relation to emergency planning capability; and
- Help demonstrate how the adaptation to climate change has been met.

3.6 Mid Sussex District Council, Level 2 Strategic Flood Risk Assessment, 2024

3.6.1 The Mid Sussex Level 2 SFRA[10] provides a Level 2 assessment of sites identified for proposed allocation within the Mid Sussex District Plan. The objectives of the Level 2 SFRA are as follows:

- Assess the flood risk to proposed sites using the latest available flood risk data and climate change uplifts where available;
- Provide information and mapping to show flood risk from all sources for each site option;
- Provide recommendations for making the site safe from flooding throughout its lifetime where the Exception Test is required; and
- Take into account, as far as practically possible the most recent policy and legislation in the NPPF, Planning Practice Guidance (PPG) and Lead Local Flood Authority (LLFA) SuDS guidance.

3.7 MSDC response to Action Point AP-020, November 2024[11]

3.7.1 In terms of flood risk the Council have set out a general note explaining the implications of the latest FRAs in the context of the Framework and the previous work which informed the submitted Plan. In commenting upon policy DPA14 this note states that no change has been determined following the updated assessment and that the site selection assessment remains Very Positive in terms of combined fluvial and surface water flood risk.

3.8 West Sussex County Council, Local Flood Risk Management Strategy, 2014

3.8.1 The Local Flood Risk Management Strategy[12] sets out how the Council intends to carry out its flood risk responsibilities as LLFA. The overall aim is to ensure the risk from flooding and erosion is properly managed by using the full range of options in a coordinated way. The aim is for local authorities, communities, individuals, and voluntary groups to work together to:

1. Manage the risk to people and their property;
2. Achieve environmental, social, and economic benefits, consistent with the principles of sustainable development; and

[10] Mid Sussex District Council, Mid Sussex District Council Level 2 Strategic Flood Risk Assessment, 2024 [online]. Available at: https://www.midsussex.gov.uk/media/xtgdydna/env15-strategic-flood-risk-assessment-level-2-main-report.pdf. Accessed September 2024.
[11] MSDC response to Action Point AP-020, November 2024.
[12] West Sussex County Council, Local Flood Risk Management Strategy, 2014 [online]. Available at: https://www.westsussex.gov.uk/media/1595/local_flood_risk_management_strategy.pdf. Accessed September 2024.

3. Facilitate decision-making and action at the appropriate level – individual, community, or local authority, river catchment, coastal cell or national.

3.8.2 To reflect national strategic objectives in the local context, the partners in West Sussex have agreed to guide local focus and progress. These are to:

- Understand the areas that flood;
- Manage the flood risk in West Sussex;
- Enable people, communities, business, and public bodies to work together more effectively; and
- Put communities at the heart of what we do and help West Sussex residents during flood events and recover as quickly as possible after incidents.

4. Review of Baseline Flood Risk Data

4.1 Hydrological Setting

4.1.1 A review of the EA Statutory Main River Map[13] indicates there are no EA Main Rivers located within the boundary of the site. Ordnance Survey (OS) mapping[14] does suggest the presence of an ordinary watercourse in the northwest corner of the site, located adjacent to the western site boundary, which it indicates is directed into a culvert beneath Foxhole Lane and subsequently into another watercourse flowing away from the site toward the west. This latter watercourse is shown in the mapping to flow into the Rout Gill (another ordinary watercourse) approximately 260 m west of the site. The Rout Gill is shown to be flowing approximately north to south and joins the Holmbush Gill/River Adur (EA Main River) approximately 1.8 km to the south of the site. The Holmbush Gill/River Adur is the closest EA Main River to the site.

4.1.2 Furthermore, there is an extensive network of ponds, streams and larger watercourses draining the surrounding area. These are typically shown to be draining toward the Rout Gill either to the west or to the south of the site. In addition, the OS mapping indicates an ordinary watercourse is present approximately 70 m south of the site on the south side of Cowfold Road.

4.1.3 The Hydrological Setting is presented in Figure 4.1 at the rear of the report. Furthermore, existing watercourses/ditches at and within the vicinity of the site are presented in Appendix E at the rear of the report.

<u>February 2024 Site Visit – Observations</u>

4.1.4 During the site visit a culvert was observed taking flow from the northwest of the site beneath Foxhole Lane and into the subsequent watercourse flowing toward the west (as identified from OS mapping). A discernible watercourse in the northwest of the site, located adjacent to the western site boundary, was not identified. However, pooling was identified in the area prior to delivery into the culvert.

4.1.5 In the northeast of the site, saturated ground and standing water was observed in low lying areas. A watercourse (not identified in OS mapping) was also observed immediately to the northeast of the site flowing from north to south, with another branch flowing from west to east running parallel to the northern boundary of the site.

[13] Department for Environment Food & Rural Affairs, Data Services Platform, Statutory Main River Map [online]. Available at: https://environment.data.gov.uk/dataset/25dde009-ba7d-40de-8380-c5c3bb32ccdc. Accessed September 2024.

[14] Ordnance Survey, Data Hub, OS OpenMap – Local [online]. Available at: https://osdatahub.os.uk/downloads/open/OpenMapLocal. Accessed September 2024.

4.1.6 In the southern development area, two ditches were observed to be oriented in an east to west alignment, one adjacent to the southern boundary and Cowfold Road, and another approximately halfway up the Proposed Development area. The latter ditch was observed to be flowing from west to east. The former ditch was observed to be collecting flows from the site which were ultimately directed toward a manhole in the central area of the ditch. Further ditches were observed along the western and eastern boundaries of the proposed southern development area, with the eastern ditch partially culverted. Both were draining north to south.

4.1.7 A confluence of ditches was observed outside the southwest corner of the site on the west side of the entrance to Foxhole Lane. The ditch in the field to the west of the site was shown to be flowing from west to east. Observations made during a subsequent site visit in March 2025 revealed a culvert and headwall in this location on the west side of the entrance to Foxhole Lane that appeared to be directing flows into the main sewer network in Cowfold Road.

4.1.8 A number of manholes and surface water drains were observed along Cowfold Road as well as an open watercourse approximately 70 m south of the site (previously identified in OS mapping), flowing from north to south.

4.2 EA Flood Zone Designation (Fluvial and Tidal Flood Risk)

4.2.1 According to the EA Flood Map for Planning[15], the site is located within Flood Zone 1. The nearest area of Flood Zone 2 or 3 is located approximately 25 m south of the site and is associated with local drainage that is directed south toward the ordinary watercourse located approximately 70 m south of the site. The Flood Zones are defined as follows:

- Flood Zone 1 – Land defined as having a less than 0.1% annual probability of river or sea flooding;
- Flood Zone 2 – Land defined as having between a 1% and 0.1% annual probability of river flooding; or land having between a 0.5% and 0.1% annual probability of sea flooding; and
- Flood Zone 3 – Land defined as having a 1% or greater annual probability of river flooding; or land having a 0.5% or greater annual probability of sea flooding.

4.2.2 The EA Flood Map for Planning is presented in Figure 4.2 at the rear of the report.

4.3 EA Hydraulic Modelling

4.3.1 The EA have provided hydraulic modelling data in the form of the 'JFLOW Improvements for Solent and South Downs Area' project, issued in 2008[16].

[15] GOV.UK, Flood map for planning, Get flood risk information for planning in England [online]. Available at: https://flood-map-for-planning.service.gov.uk. Accessed September 2024.

[16] JBA Consulting, Environment Agency, JFLOW Improvements for Solent and South Downs Area, 2008.

4.3.2 The project modelled potential flood depths in the region under different return period scenarios. Under both the 1 in 100-year and 1 in 1,000-year scenarios, the site was modelled to not be affected by flooding. Under the 1 in 1,000-year scenario, the outer limit of the modelled extent of flooding is shown to be approximately 1.2 km from the south of the site.

4.4 Surface Water and Sewer Flood Risk

4.4.1 The topography of the site and the surrounding area is detailed in Section 2.3 and states how levels at the site are shown to fall away to the east, south and west from higher areas in the north and centre of the site. It also describes how higher levels are present to the north and east of the site.

4.4.2 The EA long term flood risk mapping[17] presents two scenarios for the yearly chance of flooding from surface water. The first is a present-day scenario and the second is a future scenario that presents a yearly chance of flooding between 2040 and 2060, the same as the present-day scenario but with an additional allowance for the impacts of climate change. According to the mapping under both scenarios, approximately 90% of the site is located in areas considered to be at a less than 0.1% risk from surface water flooding in any given year. Areas at High risk are present in the northeast and northwest of the site, as well as adjacent to the southern boundary, and are surrounded by areas at Medium and Low risk. Further areas of High, Medium and Low risk are present in the central part of the southern development area. The different surface water risk categories are defined below:

- High Chance – Greater than a 1 in 30 (3.3%) annual probability;
- Medium Chance – Between a 1 in 30 and 1 in 100 (3.3% to 1%) annual probability; and
- Low Chance – Between a 1 in 100 and a 1 in 1,000 (1% to 0.1%) annual probability.

[17] GOV.UK, Check the long term flood risk for an area in England [online]. Available at: https://www.gov.uk/check-long-term-flood-risk. Accessed April 2025.

4.4.3 Surface water flood risk under the future scenario is presented in Figure 4.3.

Figure 4.3: EA Surface Water Flood Risk Future Scenario

4.4.4 It is noted that the EA mapping[17] indicates areas at risk of flooding from surface water in addition to flood risk from rivers or the sea. It does not however account for building removal, ground raising, or site levelling. In addition, it does not consider specific drainage assets such as sewers, drains or ditches when calculating extents.

4.4.5 Whilst the surface water mapping indicates where there could be heightened surface water flood risks in some surrounding areas, this does not account for public surface water drainage measures which would be expected to significantly reduce surface water flood risks from that assumed and presented by the mapping.

4.4.6 The EA state that the Risk of Flooding from Surface Water map is an assessment of where surface water flooding may occur when rainwater does not drain away through the normal drainage systems or soak into the ground but lies on or flows over the ground instead[18]. It is further stated that it includes information about flooding extents and depths and that it is produced using national scale modelling and enhanced with compatible, locally produced modelling from lead local flood authorities.

4.4.7 The EA state that the mapping[17] may help to inform risk assessments[19]. However, it is additionally stated that further assessment is likely to be needed to assess planned development.

4.4.8 EA Surface Water Flood Risk is presented in Figures 4.4 and 4.5 at the rear of the report.

4.4.9 No potential overland flow paths are shown in the mapping[17] to be leading onto the site. The mapping does however indicate the presence of potential surface water flow paths to the west and south of the site, that could potentially be exacerbated by the Proposed Development. Existing potential flow paths are apparent along the tributary watercourse of the Rout Gill taking flows from the northwest of the site, along parts of The Street to the east of the site, along parts of Cowfold Road to the south of the site, and along the existing watercourse approximately 70 m south of the site assumed to be taking surface water drainage from Cowfold Road.

4.4.10 It is noted that the proposed surface water drainage strategy, as detailed in the Drainage Strategy report[20], and as visualised in the Drainage Layout sketches at the rear of the Drainage Strategy report, has been designed and sized to accommodate the expected runoff from the site with a suitable allowance included for the potential impacts of climate change and urban creep. Surface water from the site will be released at separate locations along the western and southern site boundaries and will be released at low return period runoff rates.

4.4.11 In the east of the site where the land is shown to slope down toward The Street, the proposed surface water drainage strategy, as detailed in the Drainage Strategy report, captures and diverts surface water away from this location and provides significant betterment to the present situation. This is detailed in Section 5.6.

4.4.12 Individual areas identified in the surface water mapping[17] as being at risk have been assessed separately in Section 5.2.

[18] Department for Environment Food & Rural Affairs, Data Services Platform [online]. Available at: https://environment.data.gov.uk/dataset/b5aaa28d-6eb9-460e-8d6f-43caa71fbe0e. Accessed April 2025.

[19] GOV.UK, Check your long term flood risk, Are you looking for information to support a planning application? [online]. Available at: https://check-long-term-flood-risk.service.gov.uk/information-for-planning. Accessed March 2025.

[20] Ramboll, Land at Foxhole Farm, Bolney, Drainage Strategy, RUK2021N00014-RAM-RP-00081.

4.4.13 Sewer assets previously identified in Section 2.4 have the potential to surcharge and overflow should the site drainage strategy not be suitably designed to accommodate the additional flows expected from the Proposed Development. In the event of sewer overflow the excess water would be expected to flow downslope and would likely remain broadly in line with the potential overland flow paths described above. As such, potential sewer flooding leading onto the site is not expected to be an issue.

4.5 Geological and Hydrogeological Setting

4.5.1 Geology and ground conditions at the site were investigated by Geo-Environmental[21] in November 2023. A generalised summary of the ground conditions encountered at the site is presented in Table 4.1.

Table 4.1: Summary of Ground Conditions

Top (m BGL)	Base (m BGL)	Generalised Geology	Locations
0.00	0.30-0.41	**TOPSOIL**: Brown slightly silty clay with rootlets. Gravelly silty clay encountered within WS18 (southern development) only.	ALL
0.30-0.41	1.40-4.45	**UPPER TUNBRIDGE WELLS SAND FORMATION**: Soft to very stiff sandy CLAY and slightly gravelly sandy CLAY. Gravels are of fine to coarse, sub-angular of flint, sandstone and mudstone.	ALL
0.95-3.05	1.40-3.10	**UPPER TUNBRIDGE WELLS SAND FORMATION**: Orange brown gravelly SAND, very clayey SAND and SAND.	WS12 (central area), WS18

4.5.2 Groundwater monitoring investigations[22] undertaken between November 2023 and April 2024 across the site indicate a site-wide groundwater level typically shallower than 2 m Below Ground Level (BGL). In many areas of the site the level is shallower than 1 m BGL.

4.5.3 According to the Cranfield University LandIS soils map[23], the soil at the site is described as 'slightly acid loamy and clayey soils with impeded drainage'.

4.5.4 According to BGS GeoIndex Onshore data[24], the underlying rock unit beneath the site is defined as a moderately productive aquifer and is summarised as sandstones of the Ashdown Formation yielding up to 60 L/s and Tunbridge Wells Sand yielding up to 10 L/s; separated by Wadhurst Clay.

[21] Geo-Environmental, Land at Foxhole Farm, Bolney, West Sussex, RH17 5NB – Preliminary Report, GE22035/AP01/231115.
[22] Geo-Environmental, Land at Foxhole Farm, Bolney, West Sussex, RH17 5NB – Ground Gas Assessment & Winter Groundwater Monitoring, GE22035 – LRv1AP240501.
[23] LandIS, Soilscapes Viewer [online]. Available at: https://www.landis.org.uk/soilscapes/. Accessed September 2024.
[24] BGS British Geological Survey, GeoIndex Onshore [online]. Available at: https://mapapps2.bgs.ac.uk/geoindex/home.html. Accessed September 2024.

4.5.5 According to the British Geological Survey (BGS) Geology Viewer[25], the underlying geology beneath the site is divided between the Weald Clay Formation, described as mudstone, in the northern development area, and the Upper Tunbridge Wells Sand, described as sandstone and siltstone, across the rest of the site. No superficial geology layers are recorded. It is noted that the November 2023 site investigations[21] found the Upper Tunbridge Wells Formation across the entire site, including in the north where Weald Clay was anticipated.

4.6 Risks from Reservoirs, Canals, and Other Artificial Sources

4.6.1 According to EA mapping[17], the site is not shown to be at risk of flooding following a reservoir failure.

4.6.2 Dams in England are regulated by the Reservoirs Act 1975[26] which sets out stringent conditions for the operation of reservoirs to ensure high levels of safety. The EA routinely visits reservoirs across the country to assess risk, monitor progress and serve enforcement notices requiring operators to complete specific actions.

4.6.3 No other artificial sources have been identified that presently pose a flooding risk to the site.

4.7 Historic Flooding

4.7.1 According to the EA's Recorded Flood Outlines dataset[27], there are no records of historical flooding at the site. The nearest of which, dated to 1973, is located approximately 2 km southeast of the site and was attributed to channel capacity exceedance.

4.7.2 Historical Flooding is presented in Figure 4.6 at the rear of the report.

[25] BGS Geology Viewer [online]. Available at: https://geologyviewer.bgs.ac.uk. Accessed September 2024.

[26] Legislation.gov.uk, Reservoirs Act 1975 [online]. Available at: https://www.legislation.gov.uk/ukpga/1975/23/contents. Accessed September 2024.

[27] Department for Environment Food & Rural Affairs, Data Services Platform, Recorded Flood Outlines [online]. Available at: https://environment.data.gov.uk/dataset/8c75e700-d465-11e4-8b5b-f0def148f590. Accessed September 2024.

4.8 Baseline Flood Risk Summary

4.8.1 Table 4.2 should be considered in the assessment of flood risk for any proposed development at the site:

Table 4.2: Baseline Flood Risk Summary

Flood Risk	High	Medium	Low	Comment
Fluvial/Tidal			X	Site is located in Flood Zone 1.
Surface Water	X			Areas considered to be at a High risk from surface water flooding are present in the northeast and northwest of the site, in the south of the site, and adjacent to the southern boundary.
Groundwater		X		Shallow groundwater levels observed at the site, along with visibly poor infiltration, and a review of underlying geology, are suggestive of a moderate groundwater risk at the site, especially in low lying areas.
Reservoirs, Canals, and Other Artificial Sources			X	The site is not shown to be at risk following a reservoir failure.

5. Assessment of Flood Risk

5.1 Fluvial

5.1.1 The site is shown to be located in Flood Zone 1 and is therefore considered to be at a Low risk from fluvial (and tidal) flooding. The nearest area in Flood Zone 2 (Medium risk) or Flood Zone 3 (High risk) is located approximately 200 m west of the site and is associated with the Rout Gill.

5.2 Surface Water

5.2.1 As shown in Figures 4.4 and 4.5, no overland flow paths are indicated to be leading onto the site. A potential flow path is indicated to be present along the course of the ordinary watercourse leading away from the site in the northwest. This includes the area either side of the culvert beneath Foxhole Lane and extends into part of the site. The flow path is shown to cease when it reaches the course of the Rout Gill to the west of the site as it flows approximately north to south. Potential flow paths are also indicated in the mapping[17] along The Street to the east of the site and along Cowfold Road to the south. Adjacent to the south of the site, a potential flow path is shown to overlap with the ditch that is oriented approximately east to west and is located adjacent to the southern boundary.

5.2.2 In addition to the potential flow paths, an area of High risk is indicated in the northeast corner of the site. This is likely to be the result of lower topography in this area which is indicated on the site topographical survey[2] and it aligns with observations made onsite of saturated ground and pooling in this area (and lower topography).

5.2.3 Areas at Low risk shown to be present in the central part of the southern development area are considered to be the result of lower topography in these areas as indicated on the site topographical survey[2]. In the case of the extended area at Medium/Low risk in the northern part of the southern development area this is considered to be an existing drainage path. The formal drainage system will manage this and other areas of risk and transport excess surface water as described in the proposed drainage strategy report.

5.2.4 No dwellings are proposed to be located in any areas shown to be at risk from surface water flooding.

5.2.5 In each area of the site that is shown to be at risk from surface water flooding, the proposed masterplan has been designed to locate proposed dwellings outside these risk areas. It is noted that this is for the future scenario as shown in Figure 4.5. Each key area of risk within the site is considered below:

<u>Northeast development – Area at High, Medium and Low risk</u>

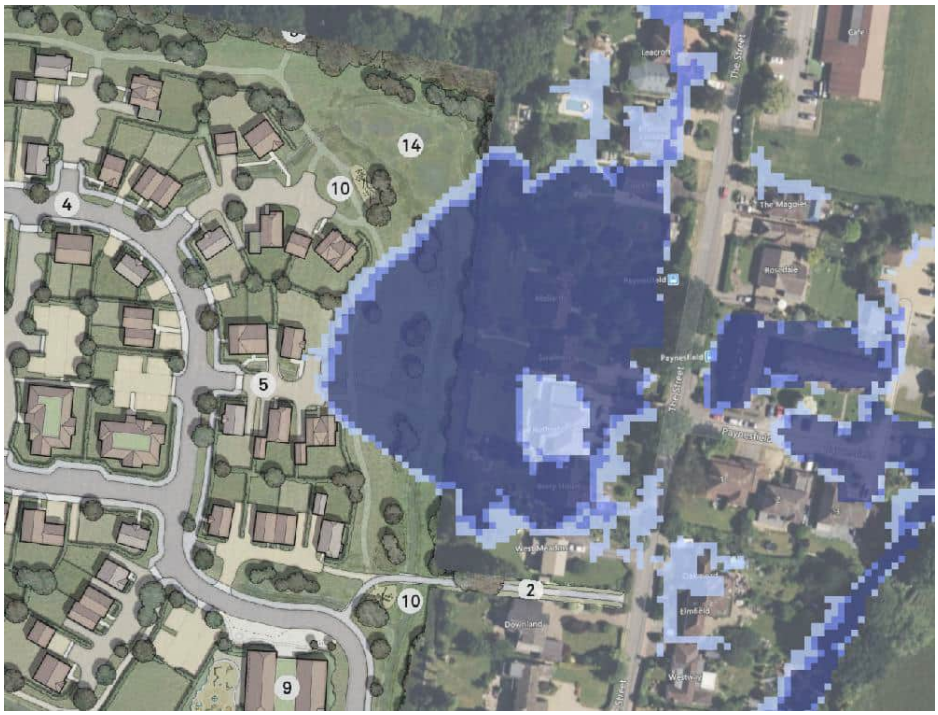


Figure 5.1: Surface Water Flood Risk – Northeast Development

5.2.6 In this part of the site all the proposed dwellings are shown to be outside the area of risk. This includes the area of Low risk. A small area of hardstanding is shown to be located in the area of Low risk. This area is shown in the Drainage Layout sketches at the rear of the Drainage Strategy report[20] to be draining east to be intercepted by the proposed swale network located in the area.

Southern development – Linear area at Medium and Low risk

Figure 5.2: Surface Water Flood Risk Southern Development 1

5.2.7 In this part of the site all the proposed dwellings are shown to be outside the area of risk. This includes the area of Low risk. A small area of hardstanding is shown to be located in the area of Low risk at the southern end of the linear area. As shown in the Drainage Layout sketches at the rear of the Drainage Strategy report[20], this linear area of risk will be intercepted by attenuation basin and swale features located in the area.

Southern development – Isolated areas at High, Medium and Low risk

Figure 5.3: Surface Water Flood Risk Southern Development 2

5.2.8 In this part of the site all the proposed dwellings are shown to be outside the area of risk. This includes the area of Low risk. A small area of hardstanding is shown to be located in the area of Low risk. The area of High risk is shown to be associated with the existing ditch oriented approximately east to west and is located approximately halfway up the southern development area. A smaller swale/attenuation area has been proposed in the Low risk area next to the LAP area and will intercept any surface water falling in this area. Any runoff flowing south from the High risk area associated with the existing ditch will be intercepted by road drainage and will be directed away from the proposed housing.

Southern development – Southeast corner, area at High, Medium and Low risk

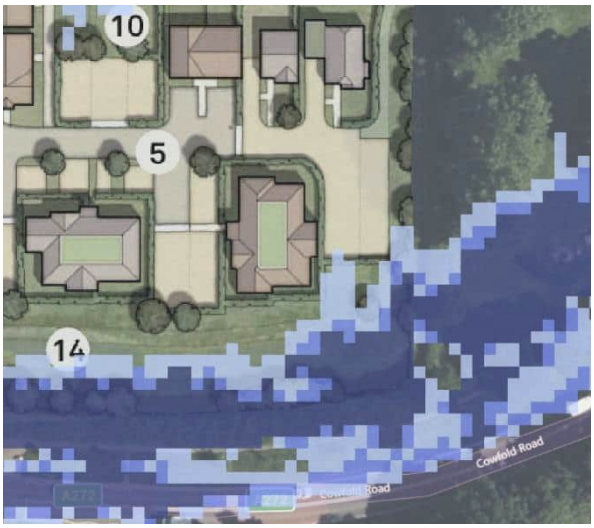


Figure 5.4: Surface Water Flood Risk Southern Development 3

5.2.9 In this part of the site all the proposed dwellings are shown to be outside the area of risk. This includes the area of Low risk. A small area of hardstanding is shown to be located in an area of Low risk. As shown in the Drainage Layout sketches at the rear of the Drainage Strategy report[20], any surface water falling in this area will be intercepted and stored in the proposed areas of permeable paving and in the proposed attenuation basin.

Southern development – Proposed access road

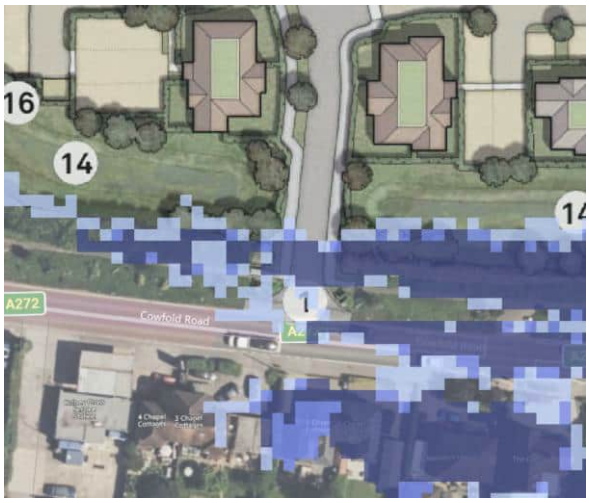


Figure 5.5: Surface Water Flood Risk Proposed Access Location

5.2.10 In the location of the proposed access road the existing site is indicated to be at a High chance of surface water flooding.

5.2.11 Further information regarding specific surface water flood risk areas at the site, including information regarding potential flood depths and velocities, and Flood Hazard Rating, with specific regard to access and egress, is presented in Appendix E at the rear of the report.

5.2.12 In summary, an analysis of local topography at the site access including along Cowfold Road to the south indicates that based on existing topography, surface water flood depths at the location of the proposed access road are unlikely to exceed 0.15 m.

5.2.13 Applying the Flood Hazard Rating as described in Flood Risks to People, FD2321/TR2[28], and assuming worst case values of 0.15 m for flood depth and 0.5 m/s for flow velocity, we get a Hazard Rating of 0.15 which is below the minimum threshold of 0.75 and as such is not even considered a "danger for some".

5.2.14 The proposed site access/egress is therefore considered safe for emergency use.

5.2.15 Furthermore, as noted in Section 4.4, the surface water modelling employed by the EA does not account for building removal, ground raising, or site levelling and does not consider specific drainage assets such as sewers, drains or ditches when calculating extents, of which many are known to be present either at or adjacent to the site. Measures such as site levelling would be expected as part of the development.

5.2.16 A proposed surface water drainage strategy has been developed for the site. The strategy has proposed a connecting network of surface water attenuation areas, swales, and permeable paving that have been sized sufficiently to accommodate additional surface water runoff under a 1 in 100-year flooding event with a 45% increase in flows to account for the potential impacts of climate change. A 10% allowance for urban creep has also been accounted for. Proposed swales and new surface water sewer connections have been strategically located within the drainage strategy plan to direct surface water runoff toward lower lying areas where the proposed surface water attenuation areas will collect and store additional runoff from the Proposed Development. The strategy will ensure the satisfactory management of surface water falling on the site. Further details/mitigation measures are detailed in Section 5.6.

5.2.17 It is noted that the proposed surface water attenuation areas will release runoff at the mean annual flood return period, considered a 1 in 2.33 year event, thereby considerably reducing the peak flows presently emanating from the site during higher return period flooding events.

5.2.18 Furthermore, it is noted that the proposed surface water drainage strategy will capture and divert surface water away from The Street which will significantly reduce the volume of surface water reaching the existing sewer network in The Street and will hence reduce the risk of sewer flooding. Surface water betterment in this location is discussed in more detail in Section 5.6.

5.2.19 The overall risk to the Proposed Development is considered to be low.

[28] Defra/Environment Agency, Flood and Coastal Defence R&D Programme, Flood Risks to People, Phase 2, FD2321/TR2, Guidance Document.

5.3 Groundwater

5.3.1 While a moderate groundwater flood risk has been determined at the site, groundwater flooding is not considered to pose a significant risk to the Proposed Development.

5.3.2 No dwellings are proposed to be located in the lower lying areas of the site where the risk of groundwater emergence is considered to be the most likely. At the location of the proposed access road at the southern boundary of the site, any groundwater emerging could only reach a certain level before the natural topography of the land would direct it into the sewer network in Cowfold Road to the south. This would not permit any groundwater to reach the area of built development. Furthermore, any groundwater emerging in external areas of the site would be expected to be managed by the proposed surface water drainage strategy. The Proposed Development will not therefore have an adverse impact on the houses located on the south side of Cowfold Road and where surface water flooding on Cowfold Road is a direct result of groundwater emergence within the site, this should see a significant reduction. The risk at the proposed access location is discussed in more detail in Appendix E at the rear of the report.

5.3.3 Furthermore, the Mid Sussex District Council Level 2 SFRA[29], states in its summary of the site that the majority of the site is located within an area classified as having a less than 25% susceptibility to groundwater flooding.

5.3.4 No basement levels are being proposed as part of the Proposed Development. The risk therefore to internal areas of the site is considered to be minimal.

5.3.5 The overall risk to the Proposed Development is considered to be low.

5.4 Flood Risk Vulnerability

5.4.1 According to Annex 3[30] (Flood risk vulnerability classification) in the Planning Practice Guidance[5] to the NPPF, 'buildings used for dwelling houses' should be classified as 'More vulnerable'.

[29] Mid Sussex District Council Level 2 Strategic Flood Risk Assessment, August 2024, Appendix 1 – Site Assessment Summary Tables [online]. Available at: https://www.midsussex.gov.uk/media/oxog2eh4/env15-strategic-flood-risk-assessment-level-2-appendix-1.pdf. Accessed April 2025.

[30] GOV.UK, National Planning Policy Framework, Annex 3: Flood risk vulnerability classification [online]. Available at: https://www.gov.uk/guidance/national-planning-policy-framework/annex-3-flood-risk-vulnerability-classification. Accessed January 2025.

5.4.2 Table 2 (Flood risk vulnerability and flood zone 'incompatibility') in the Planning Practice Guidance[5] states that a 'More vulnerable' use is appropriate in Flood Zone 1 and that an Exception Test is not required.

5.5 Sequential Test

5.5.1 The aim of the Sequential Test, as defined by the Technical Guidance to the NPPF[1], is to ensure that areas at little or no risk of flooding from any source are developed in preference to areas at higher risk. This means avoiding, so far as possible, development in current and future medium and high flood risk areas considering all sources of flooding including areas at risk of surface water flooding.

5.5.2 While the Proposed Development is located entirely within Flood Zone 1 and while no dwellings are proposed to be located in areas considered to be at risk of surface water flooding, the proposed access off Cowfold Road is shown to be in an area at a High chance of surface water flooding and hence a Sequential Test Assessment[31] has been undertaken as part of the application. Given the proposed levels of the proposed access road and the reality of the flood hazard in this area (discussed in Appendix E), and given the unique requirements for development in the area of the parish, it was concluded that the site was the most suitable for development out of those that were available in the area. Hence the site is considered to have passed the Sequential Test.

5.5.3 No other sources of flood risk are considered to pose a significant risk to the site.

5.6 Further Mitigation/Assessment of Residual Risk

5.6.1 As part of our development of mitigation options, and in consideration of future site development, Ramboll has considered climate change in the following ways:

- Consideration of climate change allowances when considering peak fluvial flood levels – this is also a policy requirement of the EA for all NPPF-compliant FRAs;
- Consideration of greater frequency and higher magnitude of surface water flooding events and overland flow, and assessing how a site and building layout can be designed to manage this risk; and
- Consideration of the likely increased risk of seasonal groundwater flooding as a result of wetter winters.

5.6.2 Each of the above will be considered when assessing the mitigation measures, which are summarised in the remainder of Section 5.6.

<u>Fluvial Flooding</u>

5.6.3 The site has not been identified as being at risk from fluvial (or tidal) flooding and therefore no mitigation against this type of flooding is considered necessary.

<u>Surface Water Management</u>

[31] Land at Foxhole Farm Bolney, Sequential Test Assessment, Judith Ashton Associates in Liaison with Ramboll, April 2025.

5.6.4 The increase in impermeable area resulting from the Proposed Development will increase the surface water discharge generated at the site. To mitigate this, a surface water drainage strategy has been prepared by Ramboll and is detailed within the drainage strategy report[20]. The strategy is summarised as follows:

- The surface water drainage strategy is separate for the northern and southern development areas. The central areas of the site where no dwellings are proposed to be developed will be drained as part of the southern development area.
- The intention is for the site to discharge via a series of swales, surface water attenuation areas, permeable paving, and gravity driven surface water sewers to two separate locations within the boundaries of the site.
- For the northern development, the intention is to discharge into the existing culvert that is present beneath Foxhole Lane, to the west of the proposed development area. The majority of the proposed attenuation area will be located on this side of the site. In the east, runoff will be directed via swales to a smaller attenuation area in the northeast corner of the site before being redirected west via gravity driven surface water sewers.
- Across the eastern part of the northern development area, the existing drainage that would otherwise flow toward The Street will instead be collected by the proposed swale located adjacent to the eastern boundary of the site. The surface water will ultimately be transported away from this location and discharged at a controlled rate toward the west. This therefore represents a significant betterment to the present situation where the properties adjacent to The Street are subject to surface water flood risk from the surface water runoff flowing downslope off the site. This is illustrated in Figures 5.6 and 5.7.

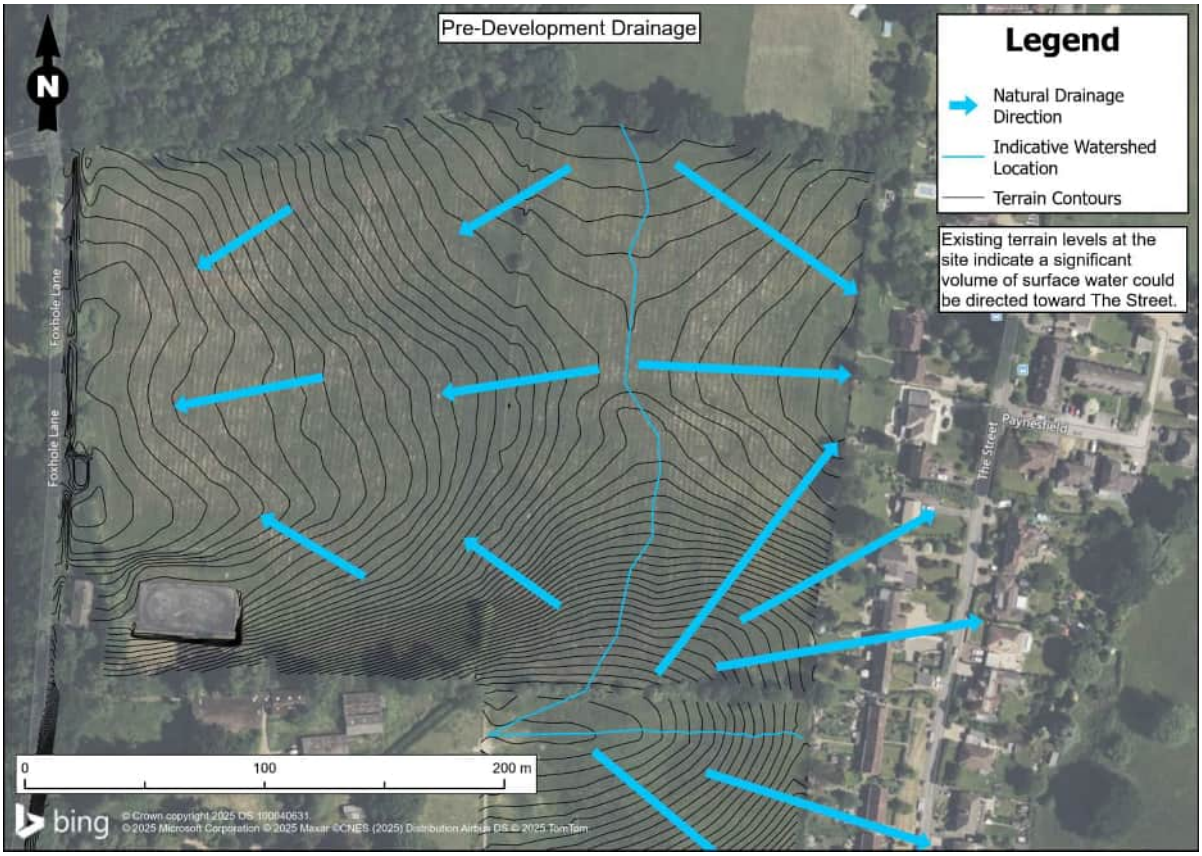


Figure 5.6: Surface Water Betterment in Northern Development – Pre-Development Drainage

Figure 5.7: Surface Water Betterment in Northern Development – Post-Development Drainage

- The total storage volume required for the proposed northern development area would be approximately 4,200 m^3. The area will be required to discharge at a greenfield runoff rate of 44.2 L/s. Surface water within the northern area of the site will be collected and transported via a network of strategically located swales, surface water attenuation areas, permeable paving, and gravity driven surface water sewers.
- For the southern development, the intention is to discharge into the existing east to west ditch that is currently present adjacent to the southern boundary. From here surface water will be directed into the existing sewer network in Cowfold Road, which subsequently directs flows south via an existing open watercourse located approximately 70 m south of the site. Surface water within both the central and southern areas of the site will be collected and transported via a network of strategically located swales, surface water attenuation areas, permeable paving, and gravity driven surface water sewers.
- Across the eastern part of the central development area where an access road is proposed to connect the northern and southern developments, the existing drainage that would otherwise flow toward The Street will instead be collected by the proposed swale located adjacent to the eastern boundary of the site. The surface water will ultimately be transported away from this location and discharged at a controlled rate toward the west and then south.

- This therefore represents a significant betterment to the present situation where the properties adjacent to The Street are subject to surface water flood risk from the surface water runoff flowing downslope off the site. This is illustrated in Figures 5.8 and 5.9.

Figure 5.8: Surface Water Betterment in Central Development – Pre-Development Drainage

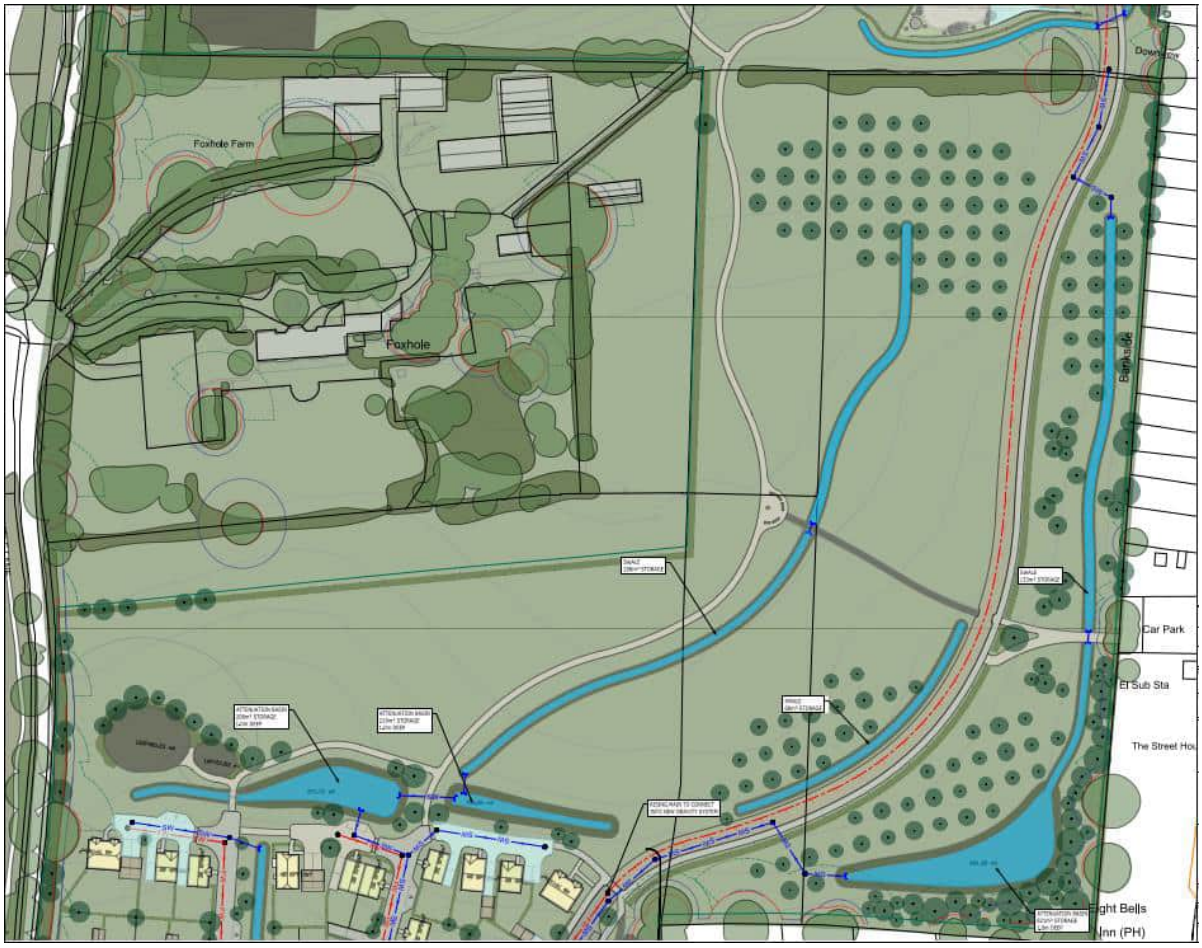


Figure 5.9: Surface Water Betterment in Central Development – Post-Development Drainage

- The total storage volume required for the proposed southern development area (including central development area) would be approximately 4,500 m^3. The area will be required to discharge at a greenfield runoff rate of 46.3 L/s. Surface water within the northern area of the site will be collected and transported via a network of strategically located swales, surface water attenuation areas, permeable paving, and gravity driven surface water sewers.

5.6.5 Climate change has the potential to increase the risk of flooding in the future. As such, an allowance of 45% has been made when considering runoff volumes and associated attenuation storage, as noted in the drainage strategy report[20]. The residual risk is therefore considered to have been managed through design.

5.6.6 Full details regarding street, neighbourhood, and parcel level measures, and surface water mitigation, are presented in the drainage strategy report. If followed, the strategy would be expected to prevent any potential increase in flood risk associated with surface water runoff, both onsite and elsewhere/downstream.

<u>Proposed Site Access</u>

5.6.7 Whilst the proposed access is shown to pass through an area deemed to be at a high risk from surface water flooding, there is no other suitable location for the proposed access. There are highway capacity, landscape and heritage issues that prevent access off Foxhole Lane or The Street, and highway constraints that prevent access being moved further west along Cowfold Road. Furthermore, an analysis of local topography at the location of the proposed site access and to the south beyond the A272 Cowfold Road has determined that the risk from surface water is minimal, especially when the proposed access road design is accounted for. It is proposed that the existing ditch running east to west adjacent to the southern boundary of the site, where the surface water flood risk is sourced, is culverted at the location of the proposed access and it is proposed that at least 0.75 m of cover will be provided to the top of the culvert which will provide a significant freeboard to the considered maximum modelled flood level as determined from analysis of local topography at the access location and to the south beyond the A272 Cowfold Road. Further site-specific modelling at this location is not therefore considered necessary and the access as proposed is considered safe for emergency access and egress. A Flood Hazard assessment has been undertaken and is presented in Appendix E at the rear of the report along with further detail regarding topography at the proposed site access location.

5.6.8 It is noted that the existing east to west ditch adjacent to the southern boundary of the site will be cleared and re-profiled as part of the development works. The existing ditch is presently heavily silted and full of debris. The proposed works will provide significant betterment at the location of the proposed ditch which following the works will be able to provide significantly more storage volume than is presently available. The proposed culvert beneath the access road is designed to ensure a connection for surface water between the parts of the ditch to the east and west of the proposed access road location, and to ensure the existing capacity of the ditch is not reduced. It is noted that as a result of the proposed surface water drainage strategy and the proposed works described above, there will be a significant reduction in surface water reaching Cowfold Road from the site. The proposed development/works will not therefore have an adverse impact on the houses located on the south side of Cowfold Road and where surface water flooding on Cowfold Road is a direct result of runoff from the site/the existing ditch at the southern boundary, this should see a significant reduction.

5.6.9 Further to the above the following mitigation measures are recommended:

- Finished Floor Levels (FFLs) – All FFLs and threshold levels should be at least 150 mm above the surrounding ground to manage future risk from surface water flooding and overland flow.
- Planning for Exceedance Events - This risk relates to the occurrence of intensive rainfall events (expected to become more frequent with the advent of climate change) which could cause overland flow and surface water flooding or cause the capacity of the site drainage system to be exceeded and result in flooding. To manage this risk, the development should consider exceedance overland flow routes during extreme flood events, adopting the principles set out in CIRIA C634, Designing for Exceedance in Urban

Drainage[32]. The design of exceedance routes should correlate with the proposed swales/surface water attenuation areas, which will make highly suitable exceedance flow paths.

- External Gradients - Along with the planning of exceedance routes, external gradients where possible, are to be designed to fall away from buildings, so that any overland flow resulting from extreme events would be channelled away from building entrances. Where this is not possible, linear interceptor drains should be located at all building entrances towards which there is a positive gradient for surface water to flow.
- Management of Flood Extents – Areas at risk from surface water were investigated during the February 2024 site visit and have been accounted for in the proposed surface water drainage strategy. Proposed surface water attenuation areas, connected by a network of proposed swales to convey surface water runoff, have been strategically located across the site.

Groundwater Flood Risk Management

5.6.10 In the event of groundwater emergence at the site, it is considered unlikely this would lead to flooding of the Proposed Development.

5.6.11 As shown in Figures 4.4 and 4.5, there are no existing overland flow routes leading onto the site. Any groundwater emergence outside the site is therefore considered unlikely to pose a significant risk.

5.6.12 Within external areas of the site any emerging groundwater would be expected to be managed by the proposed surface water drainage strategy.

5.6.13 No basement levels are being proposed as part of the Proposed Development. This is considered to negate the groundwater flood risk to internal areas of the site.

5.7 Summary

5.7.1 In summary, the Proposed Development is considered to be appropriate development for the site and as such no specific mitigation measures beyond those already detailed are proposed.

5.7.2 The site is considered safe for the lifetime of the development.

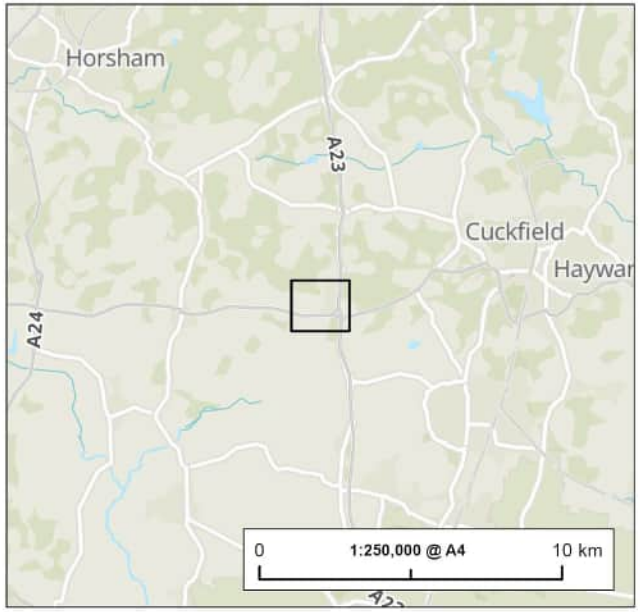
[32] CIRIA, Management of accelerated low water corrosion in steel maritime structures (C634), 2005 [online]. Available at: https://www.ciria.org/CIRIA/CIRIA/Item_Detail.aspx?iProductCode=C634&Category=BOOK.

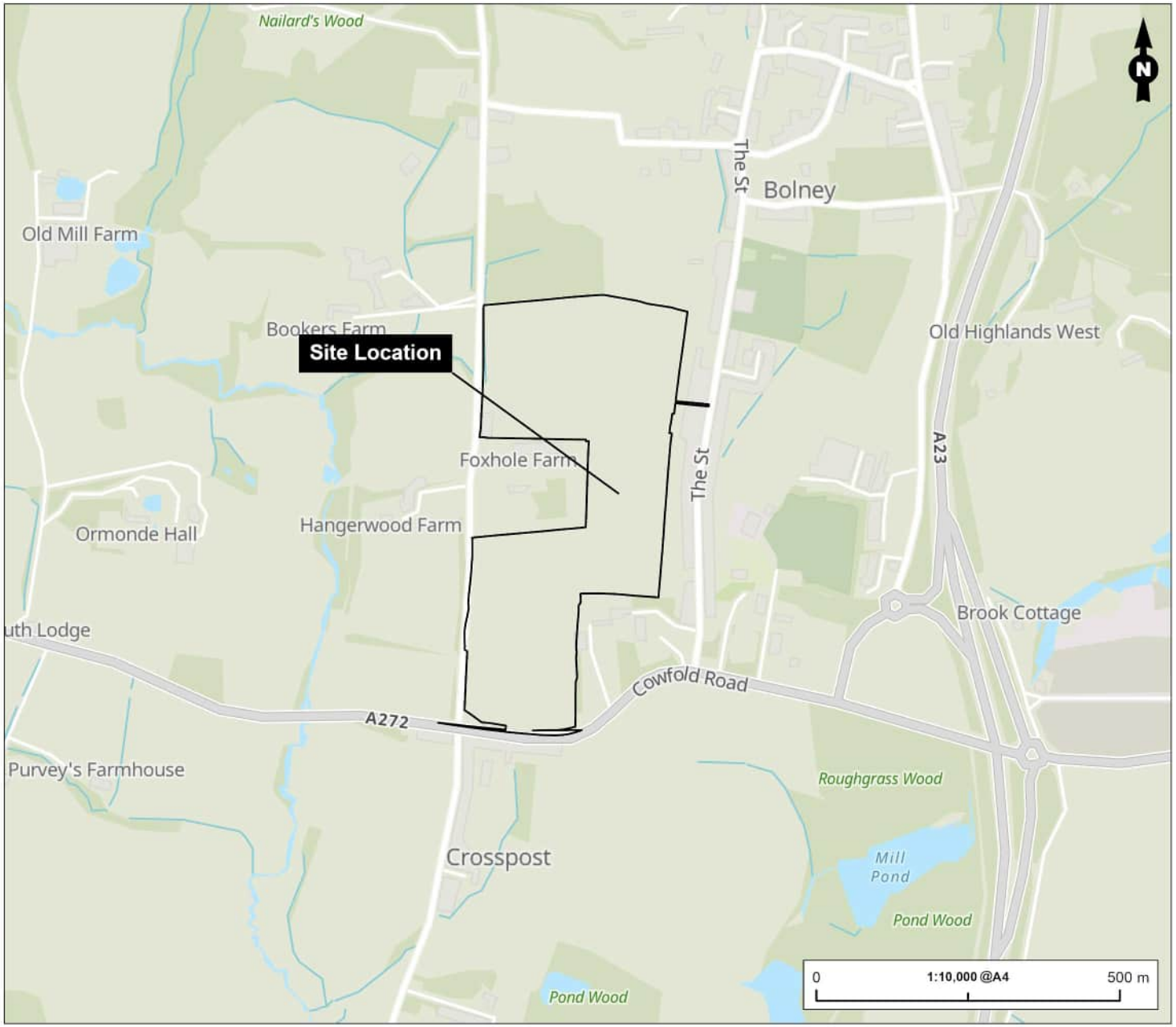
6. Conclusions

6.1.1 Based on the findings of this Flood Risk Assessment, and in consideration of the recommendations made, it is concluded that any flood risk at the site would be appropriately managed by the development proposals over the lifetime of the development, taking climate change into account and fittingly for the vulnerability of proposed users.

6.1.2 No further flood risk assessment is deemed necessary.

Figures





RAMBOLL

Figure Title: Site Location Plan	Project Name: Land at Foxhole Farm, Bolney	Date: April 2025	
		Prepared By: DM	Figure No.: 2.1
Client: **Wates Developments Ltd**	Project No./Filery ID: 1620011691-012 / RUK2021N00014	Scale: As Shown	Revision: 2.0

Site Location Plan.pagx

Coordinate System: British National Grid. Projection: Transverse Mercator. Datum: OSGB 1936.

Legend

Site Boundary

Figure Title
Site Setting

Project Name
Land at Foxhole Farm, Bolney

Project No./Filery ID
1620011691-012 / RUK2021N00014

Date	Figure No.	Revision
April 2025	2.2	2.0

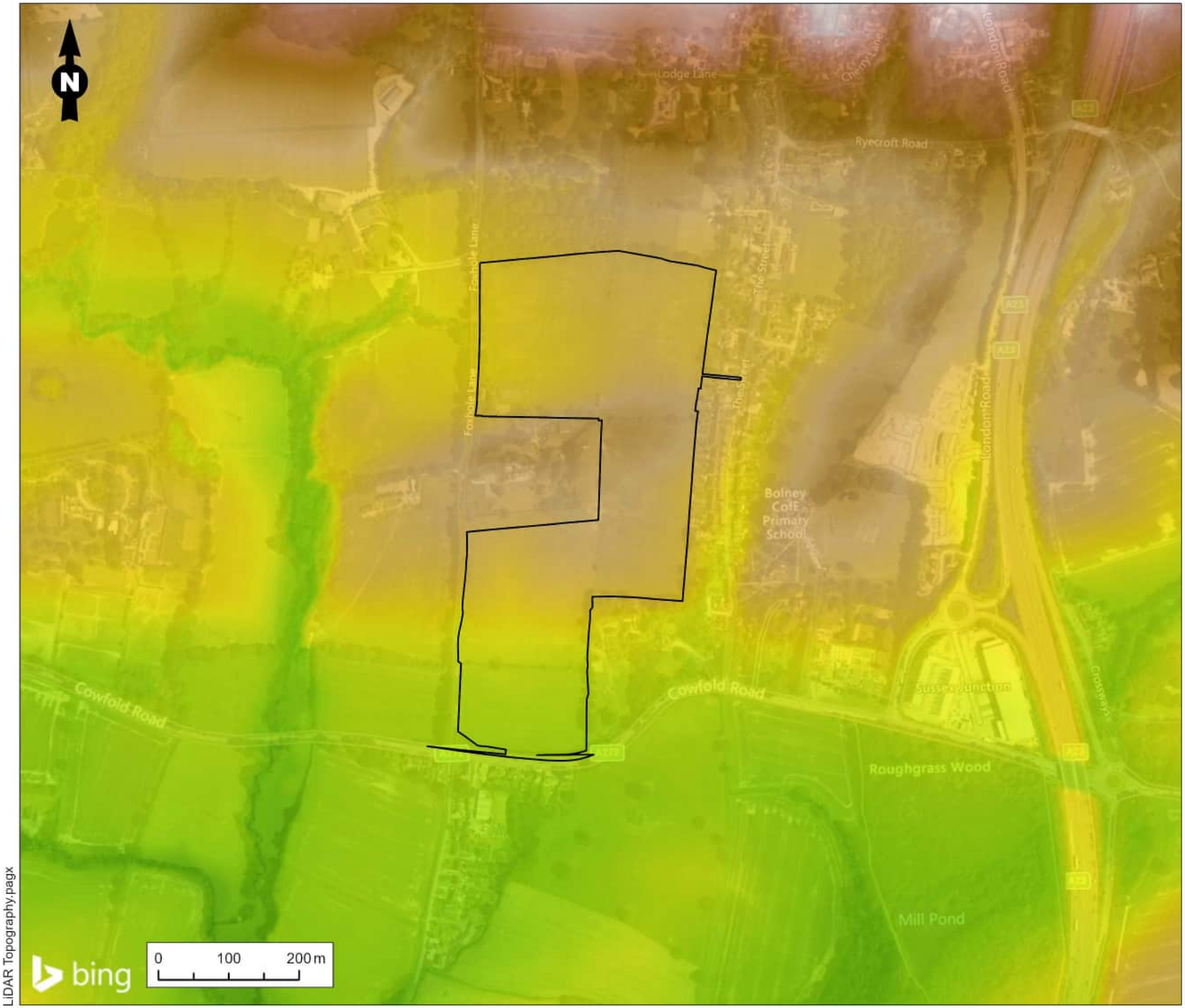
Prepared By	Scale
DM	1:5,000 @A4

Client
Wates Developments Ltd

RAMBOLL

SiteSetting.pagx

Coordinate System: British National Grid. Projection: Transverse Mercator. Datum: OSGB 1936.



Legend

Site Boundary

LiDAR 1m DTM / m AOD

60

10

Figure Title
LiDAR Topography

Project Name
Land at Foxhole Farm, Bolney

Project No./Filery ID
1620011691-012 / RUK2021N00014

Date	Figure No.	Revision
April 2025	2.3	2.0

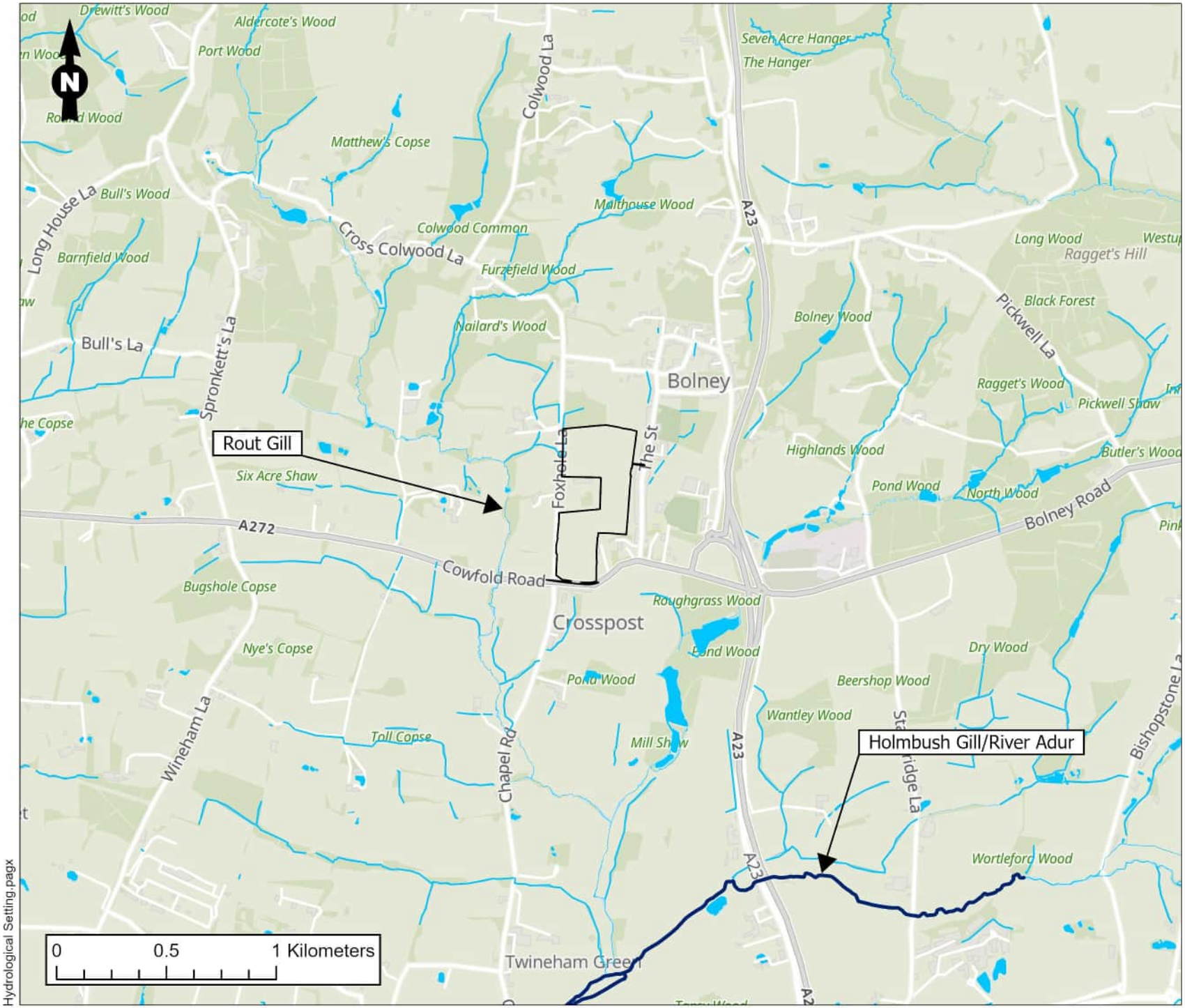
Prepared By	Scale
DM	1:7,500 @A4

Client
Wates Developments Ltd

RAMBOLL

LIDAR Topography.pagx

Coordinate System: British National Grid. Projection: Transverse Mercator. Datum: OSGB 1936.



Legend

- Site Boundary

Watercourses

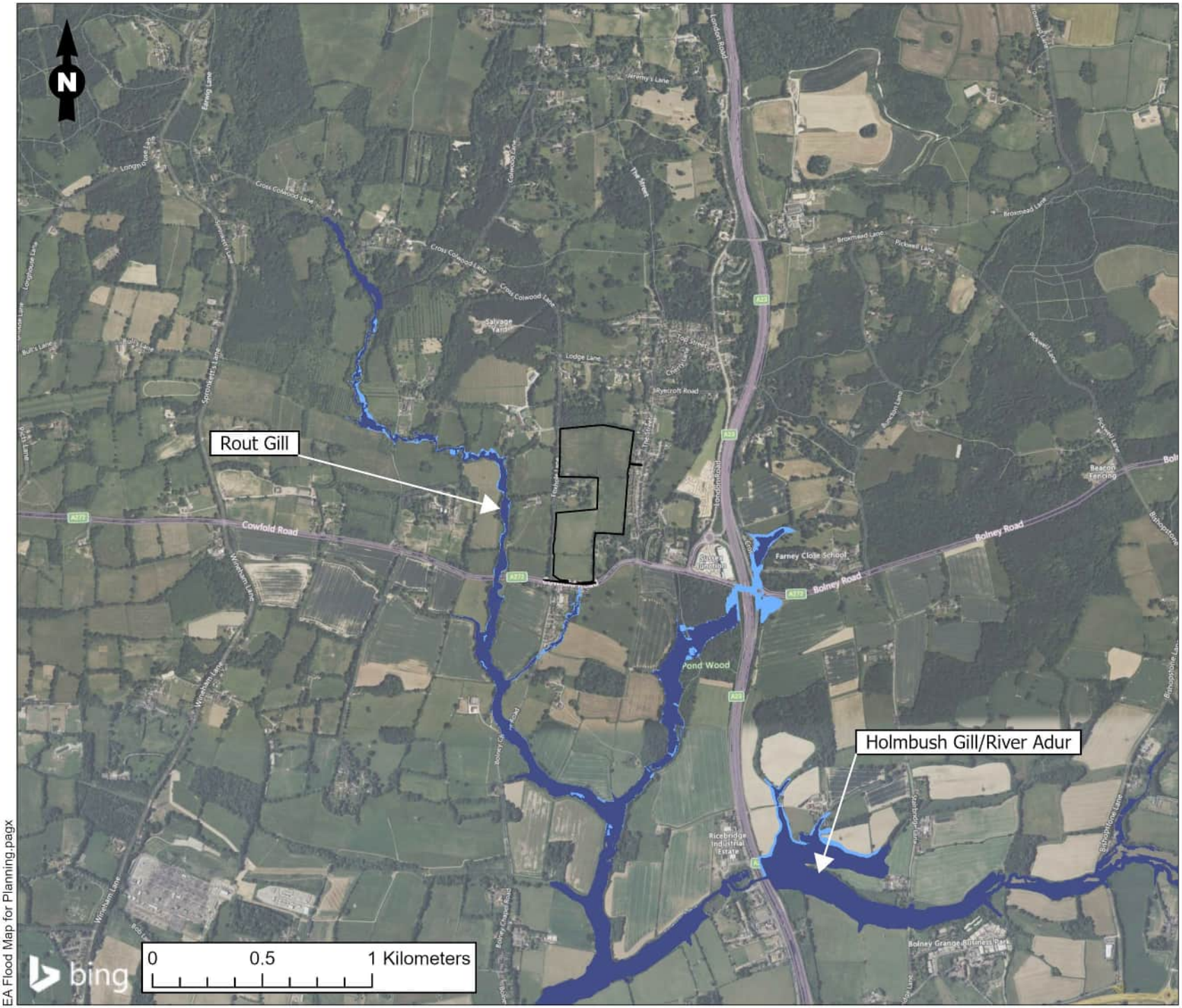
- EA Main River
- OS Watercourses
- OS Waterbodies

Figure Title	Hydrological Setting
Project Name	Land at Foxhole Farm, Bolney
Project No./Filery ID	1620011691-012 / RUK2021N00014
Date	April 2025
Figure No.	4.1
Revision	2.0
Prepared By	DM
Scale	1:24,000 @A4
Client	**Wates Developments Ltd**

RAMBOLL

Hydrological Setting.pagx

Coordinate System: British National Grid. Projection: Transverse Mercator. Datum: OSGB 1936.



Legend

- Site Boundary
- EA Flood Zone 3
- EA Flood Zone 2

Figure Title
EA Flood Map for Planning

Project Name
Land at Foxhole Farm, Bolney

Project No./Filery ID
1620011691-012 / RUK2021N00014

Date	Figure No.	Revision
April 2025	4.2	2.0

Prepared By	Scale
DM	1:24,000 @A4

Client
Wates Developments Ltd

RAMBOLL

EA Flood Map for Planning.pagx

Coordinate System: British National Grid. Projection: Transverse Mercator. Datum: OSGB 1936.

Legend

- Site Boundary

Surface Water Flood Risk

Yearly chance of flooding

- High (Greater than 3.3% AEP)
- Medium (Between 1% and 3.3% AEP)
- Low (Between 0.1% and 1% AEP)

Figure Title
EA Surface Water Flood Risk Present Day

Project Name
Land at Foxhole Farm, Bolney

Project No./Filery ID
1620011691-012 / RUK2021N00014

Date	Figure No.	Revision
April 2025	4.4	1.0

Prepared By	Scale
DM	1:5,000 @A4

Client
Wates Developments Ltd

RAMBOLL

EA Surface Water Flood Risk.pagx

Coordinate System: British National Grid. Projection: Transverse Mercator. Datum: OSGB 1936.

Legend

- Site Boundary

Surface Water Flood Risk

Yearly chance of flooding between 2040 and 2060

- High (Greater than 3.3% AEP)
- Medium (Between 1% and 3.3% AEP)
- Low (Between 0.1% and 1% AEP)

Figure Title
EA Surface Water Flood Risk Future Scenario

Project Name
Land at Foxhole Farm, Bolney

Project No./Filery ID
1620011691-012 / RUK2021N00014

Date	Figure No.	Revision
April 2025	4.5	1.0

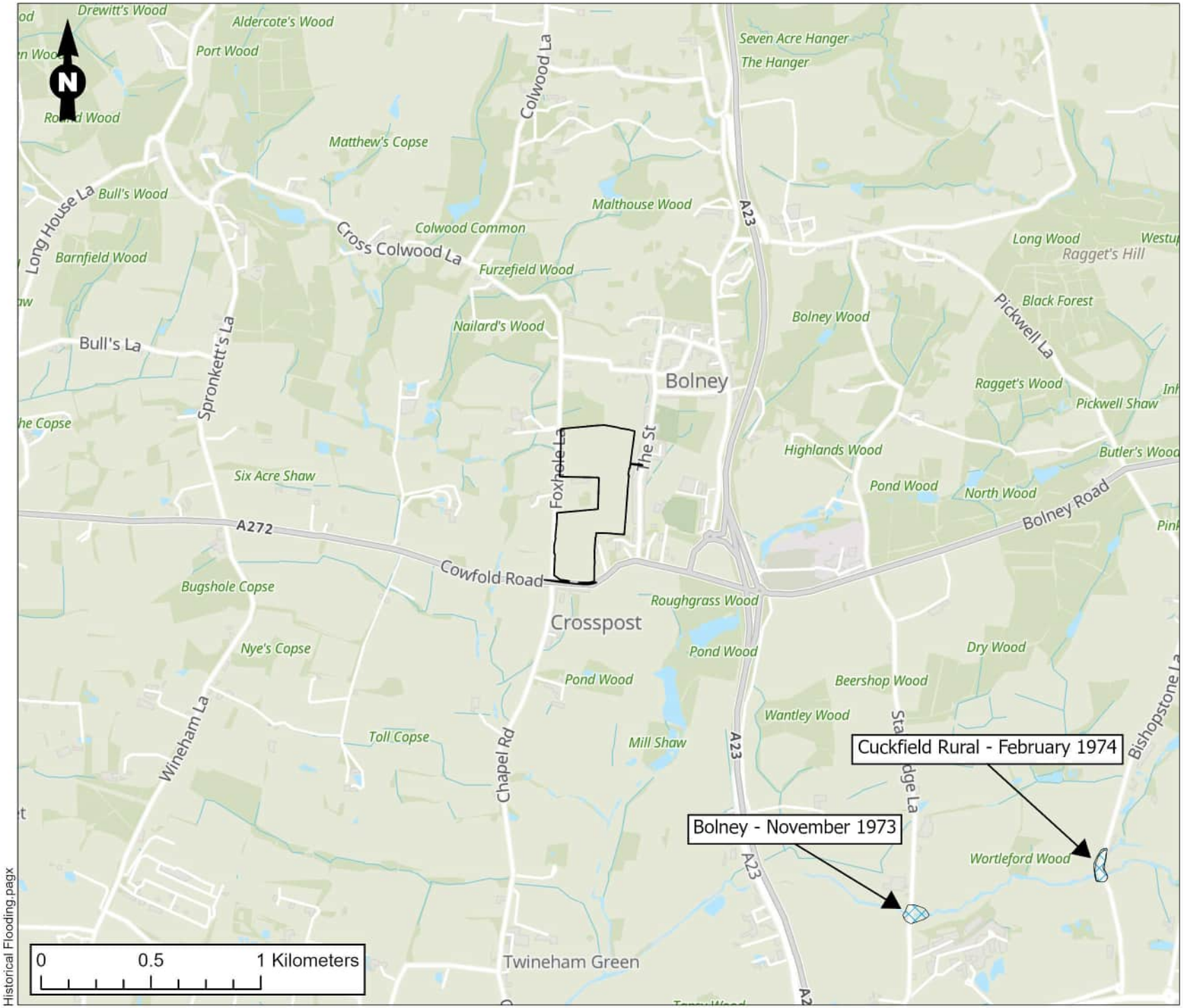
Prepared By	Scale
DM	1:5,000 @A4

Client
Wates Developments Ltd

RAMBOLL

EA Surface Water Flood Risk.pagx

Coordinate System: British National Grid. Projection: Transverse Mercator. Datum: OSGB 1936.



Legend

- Site Boundary
- Historical Flooding

Figure Title	Historical Flooding
Project Name	Land at Foxhole Farm, Bolney
Project No./Filery ID	1620011691-012 / RUK2021N00014
Date	April 2025
Figure No.	4.6
Revision	2.0
Prepared By	DM
Scale	1:24,000 @A4
Client	**Wates Developments Ltd**

RAMBOLL

Historical Flooding.pagx

Coordinate System: British National Grid. Projection: Transverse Mercator. Datum: OSGB 1936.

Appendix A
Site Masterplan

KEY

1. New vehicular access from Cowfold Road
2. New pedestrian / cycle links to The Street
3. New pedestrian link to existing PRoW
4. Primary tree-lined access roads
5. Secondary informal 'rural' lanes / mews
6. New publicly accessible countryside open space
7. Viewpoint with seating area and interpretation
8. Community orchard
9. Community hub building
10. Children's play areas (LEAPs and LAPs)
11. Outdoor gym
12. Community allotments
13. Outdoor educational space
14. SuDS basins
15. Foul water pumping station
16. Electricity Substation
17. New woodland planting
18. Country estate road through countryside open space

rev.	date	changes description	status	issued by
P07	10/04/2025	Drawing updated to incorporate comments from pre-app	S4	DM
P06	07/01/2025	Drawing updated for planning; annotation added	S4	DM

N

0.0 12.5 25.0 50.0 62.5m

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mail@re-format.co.uk
+44 (0)1730 778778

drawn by **DM**
date created **Aug 2024**
checked by **MS**
scale at A1 **1:1250**

project title **Foxhole Farm, Bolney**
document title **Illustrative Masterplan**

project	originator	volume	level	type	role	number
P20074	RFT	XX	XX	DR	A	0101

status **S4** suitability description **For Planning** revision **P07**

Appendix B
Site Topographical Survey

525760E 525780E 525800E 525820E 525840E 525860E 525880E 525900E 525920E 525940E

123160N 123140N 123120N 123100N 123080N 123060N 123040N 123020N

Notes:

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INDICATIVE

Legend:

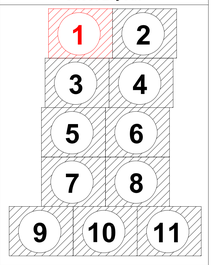
Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

Fences:
Barbed Wire Fence BW
Chestnut Paling Fence CP
Closed Board Fence CB
Chestnut Paling Fence CP
Chain Link Fence CL
Post and Chain Fence P/C
Post and Rail Fence P/R
Post and Wire Fence P/W
Interwoven IW
Close Link Fence CLF
Close Mesh Fence CMF
Wire Mesh Fence W/M

Abbreviations:

BOLLARD			
CONCRETE SILLCOM IC	BO	MARKER	MK
CONCRETE PAVING SLABS	CPS	PARKING METER	PM
COVER LEVEL	CVL	ROAD SIGN	RSN
ELECTRIC	EL	ROAD SIGN TRAFFIC	RST
ELECTRICITY POLE	EP	RETAINING WALL	RTW
FENCE POST	FP	SOCKET FOR BOLLARD	SOB
FLOWER BED	FB	SOCKET FOR POST	SOP
HEDGEROW	HR	STOP VALVE	SV
INSPECTION	IC	TELEGRAPH POLE	TELEP
LIGHT POLE	LP	TELEPHONE	TEL
INSPECTION COVER	IC	UNABLE TO LIFT	UTL
KERB DROPPED	KD	WATER VALVE	WV
KERB OUTLET	KO	WATER METER	WM
MAN HOLE	MH		

Sheet Layout



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STN12	526044.935	122741.166	35.370
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STN14	525958.393	122676.956	35.758
STN15	525860.651	122679.868	35.375
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STN17	525775.368	122551.600	25.888
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STN2B	525847.432	122891.134	42.495
STN2C	525891.580	122892.276	42.211
STN2D	525906.396	122900.808	41.953
STN3	525841.598	122903.239	39.624
STN4	525772.223	122903.708	36.225
STN5	525785.533	122935.155	32.967
STN6	525853.447	122950.731	33.480
STN7	525856.549	123023.943	32.554
STN8	525995.895	123020.293	36.338
STN9	526077.766	122974.281	35.866
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STNE11	525934.873	122859.688	42.001
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STNE2	525762.282	122789.699	39.533
STNE2A	525742.597	122837.063	39.886
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STNE4	525803.161	122845.195	41.049
STNE5	525779.253	122844.816	41.170
STNE9	525834.899	122839.852	40.363
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STNG10	526113.235	122713.290	28.378
STNG11	526105.477	122813.261	32.104
STNG12	526129.569	122915.347	34.552
STNG13	526152.963	123031.368	35.232
STNG2	525793.139	122438.483	22.834
STNG20	525723.315	122463.875	23.495
STNG3	525845.441	122428.005	22.478
STNG4	525897.799	122425.938	22.693
STNG5	525961.282	122456.755	23.114
STNG6	526035.054	122528.078	24.289
STNG7	526116.303	122536.115	25.049
STNG8	526112.862	122578.094	26.604
STNG9	526122.571	122644.410	29.990
STNL1	526134.668	122968.053	35.001

Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client

Wates

Location

Foxhole Farm, Bolney
Haywards Heath

Drawing Title

Topographical Survey
Sheet 1 of 11

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/1	Revision Suffix
Scale 1:200m (A0)	Date December 2023

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Email: mail@cdsurveys.com
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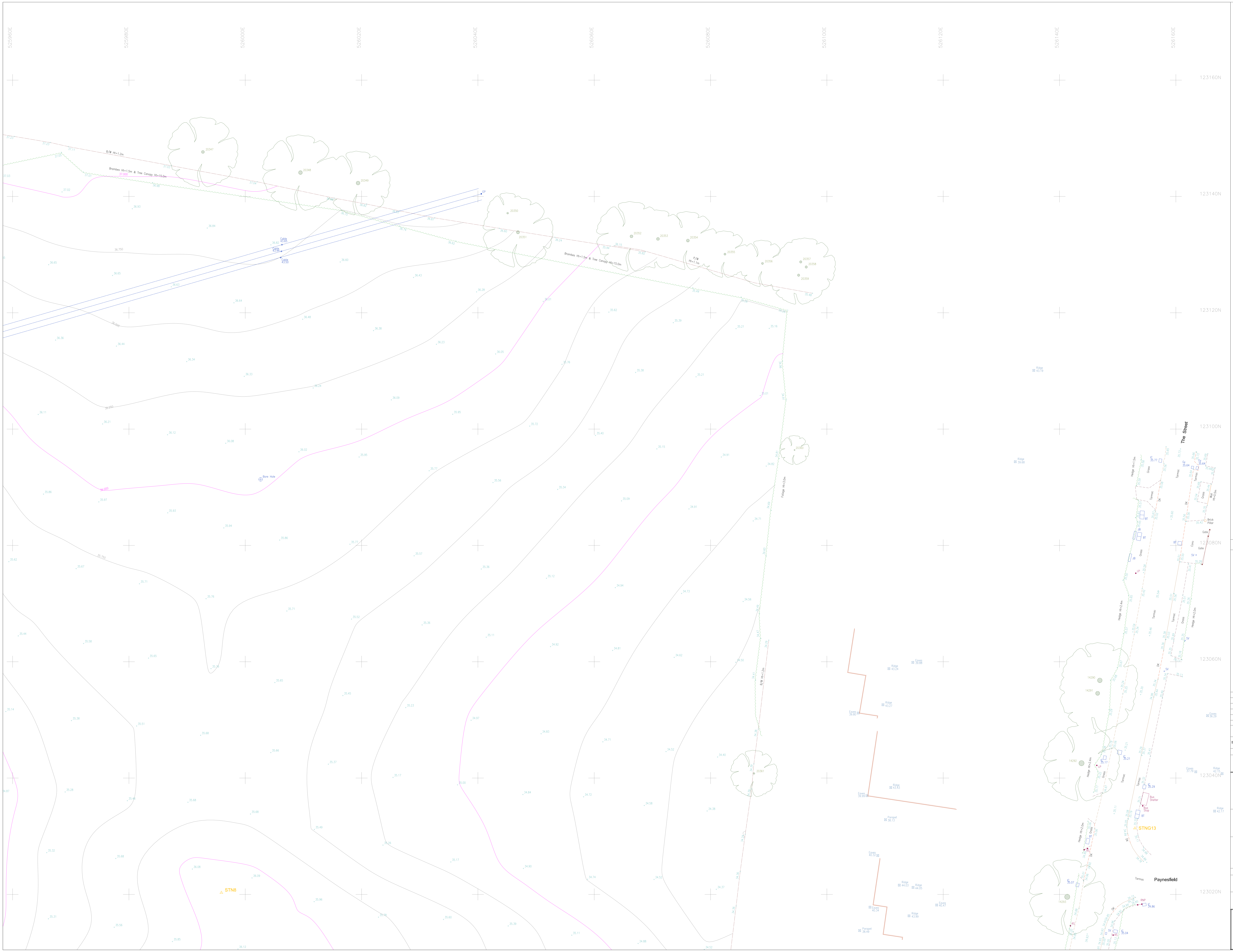

Notes:

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Grid coordinates are based on an OS GNSS system on a plane grid with a scale factor of 1.0000.

INDICATIVE

Legend:

Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

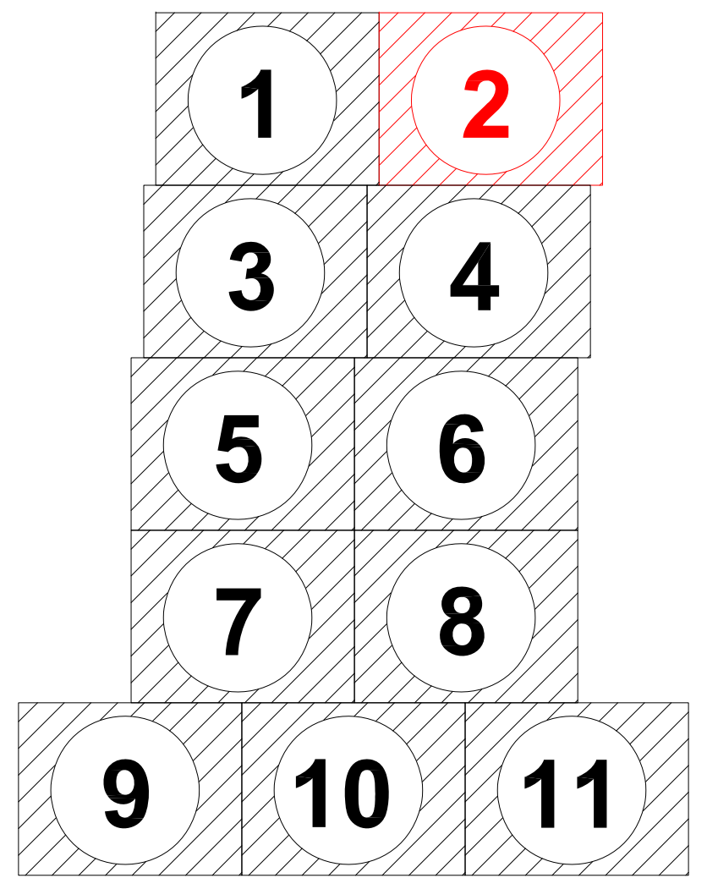
Fences:

Barbed Wire Fence	B/W
Corrugated Iron Fence	C/I
Closed Board Fence	C/B
Chestnut Paling Fence	C/P
Iron Railing Fence	I/R
Post and Chain Fence	P/C
Post and Rail Fence	P/R
Post Wire Fence	P/W
Interwoven	I/W
Chain Link Fence	C/L
Larch Lap Fence	L/L
Wire Mesh Fence	W/M

Abbreviations:

BOLLARD	BO	MARKER	MK
BRITISH TELECOM IC	BT	PARKING METER	PM
CONCRETE PAVING SLABS	CPS	ROAD NAME PLATE	RNP
COVER LEVEL	CL	ROAD SIGN	RS
DROP KERB	DK	RODDING EYE	RE
ELECTRICITY POLE	EP	RETAINING WALL	Rtw
FIRE HYDRANT	FH	RAINWATER PIPE	RPW
FLOWER BED	F/B	SOIL VENT PIPE	SVP
FOOTPATH	FP	STOP VALVE	SV
GAS VALVE	GV	TELEGRAPH POLE	TP
GULLY	GY	TRAFFIC LIGHT	TL
INSPECTION COVER	IC	UNABLE TO LIFT	UTL
PIPE INVERT LEVEL	IL	VENT PIPE	VP
KERB OUTLET	KO	WATER METER	WM
MAN HOLE	MH		

Sheet Layout



Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS
Datum

Client

Wates

Location

Foxhole Farm, Bolney
Haywards Heath

Drawing Title

Topographical Survey
Sheet 2 of 11

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/2	Revision Suffix
Scale 1:200m (A0)	Date December 2023

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525740E

123000N

122980N

122960N

122940N

122920N

122900N

122880N

122860N

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Legend:

Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

Fences:
Barbed Wire Fence B/W
Corrugated Iron Fence C/I
Closed Board Fence C/B
Chestnut Paling Fence C/P
Post and Rail Fence P/R
Post and Chain Fence P/Ch
Post and Rail Fence P/W
Post and Wire Fence P/B
Interwoven I/B
Chain Link Fence C/L
Hit and Miss H/M
Wire Mesh Fence W/M

Abbreviations:

BOLLARD			
BRITISH TELECOM JC		MARKER	Mr
BRITISH TELECOM SLABS	BO BTJC BTS	PARKING METER	PM
COVER (GAS)	CG	PARKING PLATE	PP
COVER (TEL)	CT	ROAD SIGN	RS
DROP KERB	DK	WOODING TRI	SP
ELECTRICITY POLE	EP	SERVICE BOX	SB
FALL(DOWN)	F(D)	SWANNECK BED	SBP
FALL(UP)	F(U)	SWANNECK KERB	SBK
FOOTBALL	FB	STOP VALVE	SV
GUY WIRE	GW	TELEGRAPH POLE	TP
HEDGE	H	TRIANGULATION PT	TPC
INSPECTION COVER	IC	UNABLE TO LIFT	UTL
KERB (FLAT) LEVEL	KL	VENT PIPE	VP
KERB OUTLET	KO	WATER METER	WM
MAN HOLE	MH		

Sheet Layout

1	2	
3	4	
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9	10	11

Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client

Wates

Location

Foxhole Farm, Bolney
Haywards Heath

Drawing Title

Topographical Survey
Sheet 3 of 11

Job No.	2309028	Old Job No.	
Drawing Number	WD/2309028/3	Revision Suffix	
Scale	1:200m (A0)	Date	December 2023

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INDICATIVE

Legend:

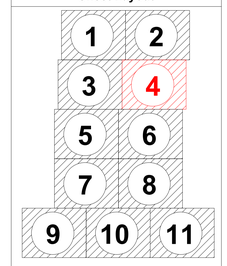
Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

Fences: Barbed Wire Fence B/W; Corrugated Iron Fence C/I; Closed Board Fence C/B; Concrete Post Fence C/P; Iron Railing Fence I/R; Post and Chain Fence P/Ch; Post and Rail Fence P/R; Post Wire Fence P/W; Chain Link Fence C/L; Close Mesh Fence C/M; Wire Mesh Fence W/M

Abbreviations:

BOLLARD	BO	MARKER	MK
BRICK/BLOCK/KERB/ AC	BK	MANHOLE METER	MH
CONCRETE PAVING SLABS	CPS	POST NAME PLATE	PNP
COVER LEVEL	CL	ROAD SIGN	RS
DRAIN INVERT	DI	STREET LIGHTING	SL
ELECTRICITY POLE	EP	RETAINING WALL	RW
FIRE HYDRANT	FH	SUMMERTIME BOX	SMB
GAS VALVE	GV	TELEPHONE POLE	TP
FOOTPATH	FP	STOP VALVE	SV
GAS VALVE	GV	TELEGRAPH POLE	TGP
INSPECTION	IP	TELEPHONE BOX	TB
INSPECTION COVER	IC	UNABLE TO LIFT	UTL
KERB INVERT LEVEL	KL	VENT PIPE	VP
MANHOLE	MH	WATER METER	WM
MINI KIOLT	MK		

Sheet Layout



Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client: Wates

Location: Foxhole Farm, Bolney Haywards Heath

Drawing Title: Topographical Survey Sheet 4 of 11

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/4	Revision Suffix
Scale 1:200m (A0)	Date December 2023

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122840N
122820N
122800N
122780N
122760N
122740N
122720N
122700N

STNE1
STNE1A
STNE2
STNE2A
STNE3
STNE4
STNE5
STNE9
STNE10A
STN1

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Hedges
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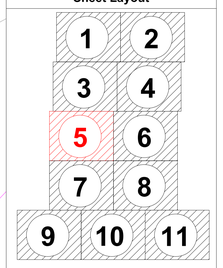
Corrugated Iron Fence C/I
Closed Board Fence C/B
Open Board Fence O/B
Iron Railing Fence I/R
Post and Chain Fence P/C
Post and Rail Fence P/R
Post Wire Fence P/W
Chain Link Fence C/L
Wire Fence W/F
Wire Mesh Fence W/M

Abbreviations:
BOLLARD BO
CONCRETE/SILICOM /C C
CONCRETE PAVING SLABS CPS
COVER LEVEL CL
DRAIN DR
ELECTRICITY POLE EP
FIRE HYDRANT FH
GAS VALVE GV
INVERT LEVEL IL
MANHOLE MH
GAS VALVE GV
INSPECTION COVER IC
KERB RAISED LEVEL KRL
KERB SUNK KS
MAN HOLE MH

MARKER MK
PARKING METER PM
POST NAME PLATE PNP
ROAD SIGN RS
STREET LIGHTING SL
RETAINING WALL RW
SHAMROCK SHR
TELEPHONE POST TP
SIGN VALVE SV
TELEGRAPH POLE TP
TRAFFIC LIGHT TL
UNABLE TO LIFT UTL
VENT PIPE VP
WATER METER WM

Sheet Layout



Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client: Wates

Location: Foxhole Farm, Bolney Haywards Heath

Drawing Title: Topographical Survey Sheet 5 of 11

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/5	Revision Suffix
Scale 1:200m (A0)	Date December 2023

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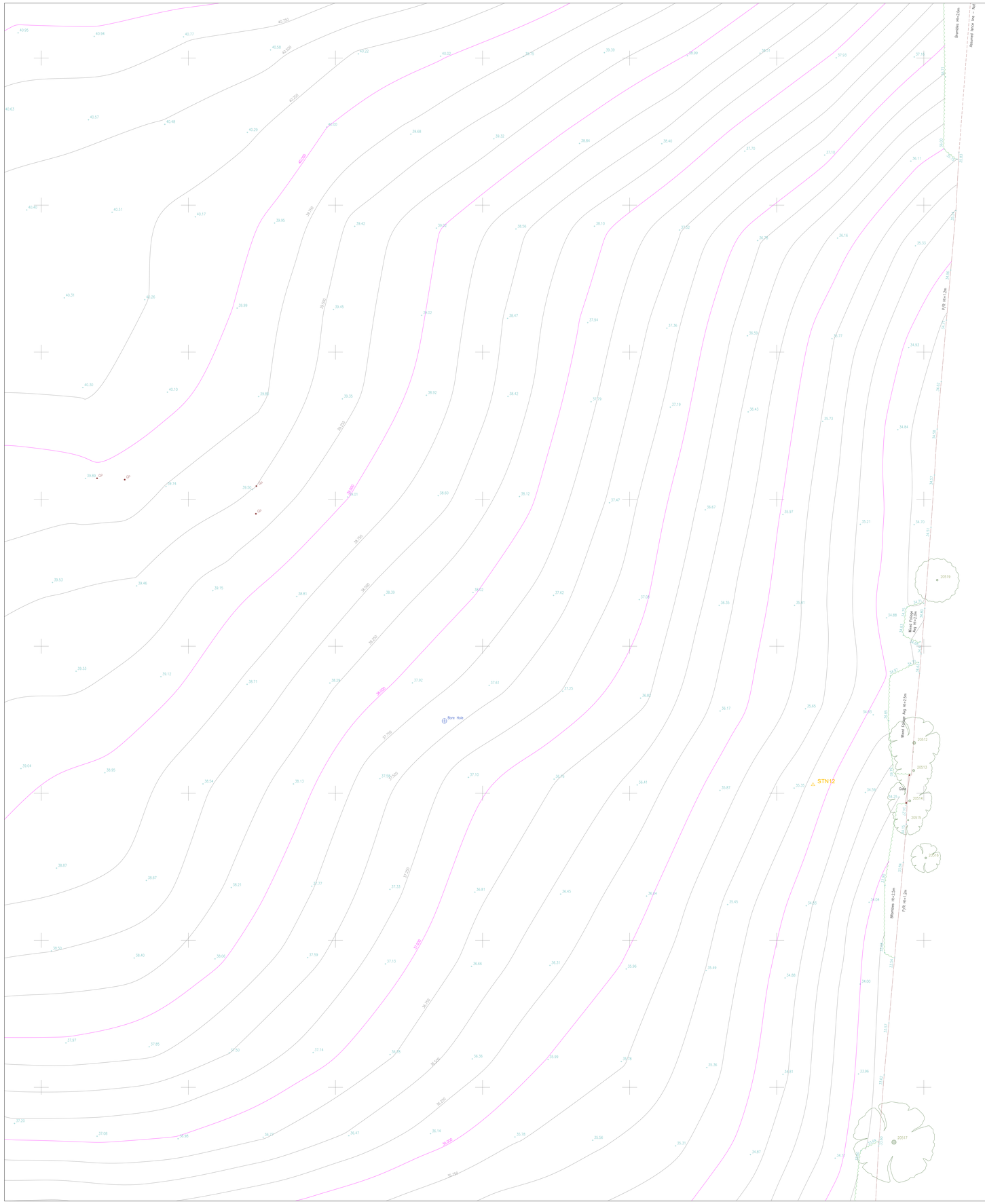
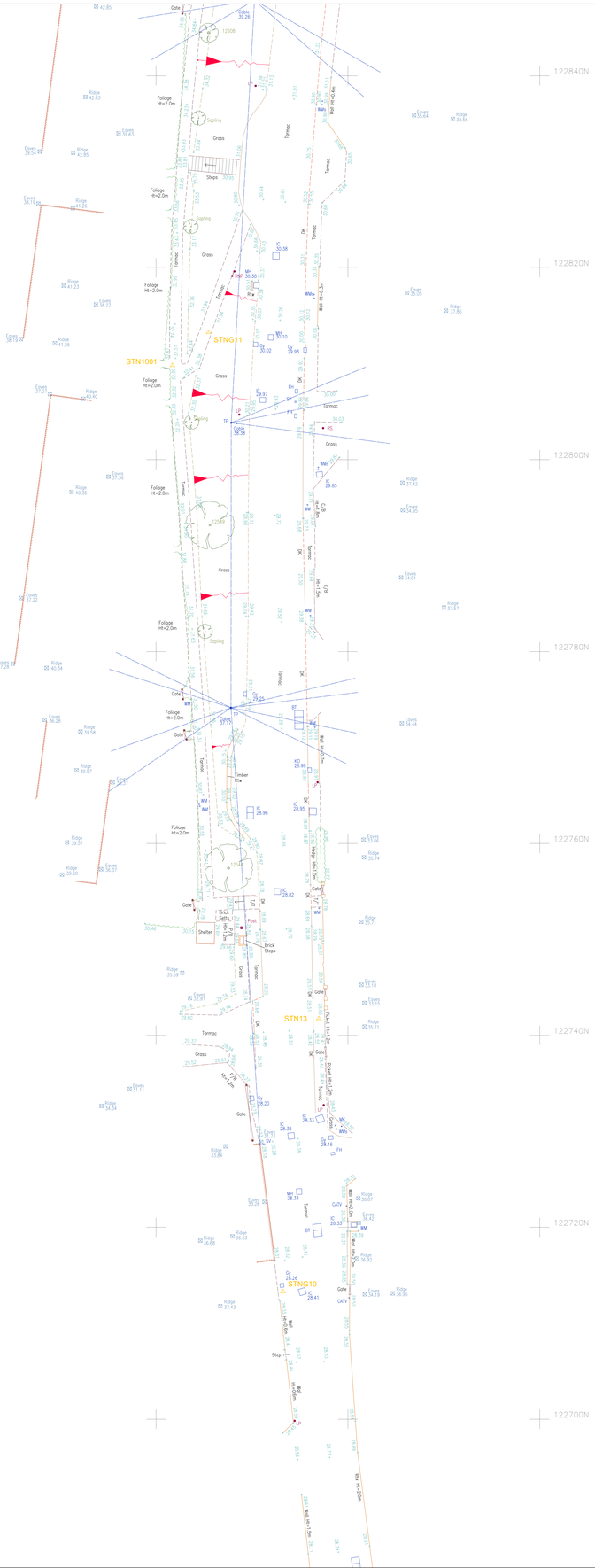




Notes:

Whilst every effort has been made to correctly identify species of trees on the site, we advise that an arboriologist be consulted before any final decisions are made.

All information contained in this drawing (including digital data) should be checked and verified prior to any fabrication or construction.

Grid coordinates are based on an OS GNSS system on a plane grid with a scale factor of 1.0000.

INDICATIVE

Legend:

Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

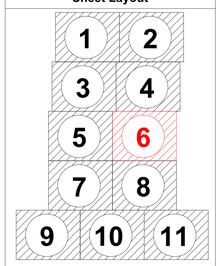
Fences

Barbed Wire Fence	B/W
Corrugated Iron Fence	C/I
Closed Board Fence	C/B
Chain Link Fence	C/L
Iron Railing Fence	I/R
Post and Train Fence	P/R
Post and Wire Fence	P/W
Post Fence	P/F
Chain Link Fence	C/L
Stock Fence	S/F
Wire Mesh Fence	W/M

Abbreviations:

BOLLARD	BO	MARKER	MK
CONCRETE ELECOM 4C	CE	MANHOLE METER	MH
CONCRETE FRAME SLABS	CFS	POST NAME PLATE	PNP
COVER LEVEL	CL	ROAD SIGN	RS
DRAIN MANHOLE	DM	SOIL VENT PIPE	SVP
DESTINATION POLE	DP	RETAINING WALL	RW
FIRE HYDRANT	FH	SUBMERGED PIPE	SUBP
INVERT LEVEL	IL	TRAFFIC LIGHT	TL
LAMP POST	LP	TOP OF BANK	TOB
GAS VALVE	GV	TELEGRAPH POLE	TP
GULLY	G	TELEPHONE POLE	TELEPHONE POLE
INSPECTION COVER	IC	UNABLE TO LIFT	UTL
KERB RAISED LEVEL	KL	VENT PIPE	VP
MANHOLE	M	WATER METER	WM
MAN HOLE	MH		

Sheet Layout



Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client

Wates

Location

Foxhole Farm, Bolney
Haywards Heath

Drawing Title

Topographical Survey
Sheet 6 of 11

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/6	Revision Suffix
Scale 1:200m (A0)	Date December 2023

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Notes:

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Grid coordinates are based on an OS GNSS system on a plane grid with a scale factor of 1.0000.

INDICATIVE

Legend:

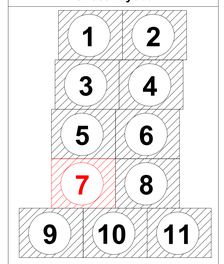
Fences
Walls
Hedges
Trees
Buildings
Overhead Electric
Overhead Phone
Gate

Fences	
Barbed Wire Fence	B/W
Corrugated Iron Fence	C/I
Closed Board Fence	C/B
Open Board Fence	O/B
Iron Railing Fence	I/R
Post and Train Fence	P/T
Post and Wire Fence	P/W
Post Fence	P/F
Chain Link Fence	C/L
Hedge Fence	H/F
Wire Mesh Fence	W/M

Abbreviations:

BOLLARD		MARKER	
BOTTOM/CILLCOM /C	BO	MARKER POST	MP
CONCRETE PAVING SLABS	CPS	METER	MET
COVER LEVEL	CL	POST NAME PLATE	PNP
DRAIN	DR	ROAD SIGN	RS
ELECTRICITY POLE	EP	RETAINING WALL	RW
FIRE HYDRANT	FH	SHRUB/TREE	S/T
GAS VALVE	GV	SUNKEN/SUNK	SUNK
INVERT	IN	SOIL VENT	SV
INSPECTION COVER	IC	TELEGRAPH POLE	TP
KERB/ INVERT LEVEL	K/I	TOP/TOPSOIL	T/S
MANHOLE	MH	UNABLE TO LIFT	UTL
MAN HOLE	MH	VENT PIPE	VP
		WATER METER	WM

Sheet Layout



Rev. Suffix	Date	Initial	Revision Details

Surveyor	LW	Verified By	LW	CAD Operator	TJH	Approved By	ARL	Date	14.12.23

Levelling GNSS Datum OSGB36

To an OS GNSS Datum

Client: Wates

Location: Foxhole Farm, Bolney
Haywards Heath

Drawing Title: Topographical Survey
Sheet 7 of 11

Job No. 2309028	Old Job No.
Drawing Number WD/2309028/7	Revision Suffix
Scale 1:200m (A0)	Date December 2023

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STN14
STNG9
STNG8
STNG7
STNG6
20524
20529
20530
20539
Mixed Foliage Avg Ht=5.0m
P/W Ht=1.0m
Gate
38.21
38.99
Ridge
36.72
36.74
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