



FLOOD RISK ASSESSMENT

LAND AT ASHBY ROAD AND NORMANDY WAY, HINCKLEY

DOCUMENT CONTROL

project number: ADC3405			report reference: ADC3405-RP-B	
version	date	author	reviewer	comments
1	09.03.26	Alice Kirsz		internal draft
2	17.04.26	Alice Kirsz	Richard Winn	first issue
3	18.08.26	Alice Kirsz	Richard Winn	updated to client comment

CONTENTS

1.0	INTRODUCTION	1
2.0	SITE DESCRIPTION.....	2
3.0	PROPOSED DEVELOPMENT	7
4.0	PLANNING CONTEXT	8
5.0	FLOOD RISK ASSESSMENT	17
6.0	CONCLUSIONS AND RECOMMENDATIONS	23
7.0	REFERENCES	24

APPENDICES

APPENDIX A	Site walkover photos
APPENDIX B	Topographical survey
APPENDIX C	CCTV survey outputs
APPENDIX D	Sewer plans

1.0 INTRODUCTION

- 1.1 Miller Homes have commissioned ADC Infrastructure Limited to produce a Flood Risk Assessment (FRA) in support of a full planning application for the erection of 482 dwellings on land at Normandy Way and Ashby Road, Hinckley, comprising development across two parcels including: the northern parcel (off Ashby Road) for residential development, public open space, play provision, structural landscaping, sustainable drainage infrastructure and the provision of a new vehicular route; the southern parcel (off Normandy Way) for residential development, public open space, landscaping and drainage infrastructure. Together with associated access, internal roads, pedestrian and cycle connections, utilities and all other associated infrastructure.
- 1.2 This report assesses the flood risk to the site and has been carried out in accordance with the requirements of the National Planning Policy Framework (NPPF) and associated Planning Practice Guidance (PPG). It investigates the flood risk posed to the site from fluvial, pluvial, sewer, tidal, canal, reservoir and groundwater-based sources. A section in this report provides recommendations for mitigation and an analysis of any likely residual risks.

2.0 SITE DESCRIPTION

- 2.1 The site comprises two segregated parcels one off Ashby Road, Hinckley, which will hereafter be referred to as the northern parcel, and another off Normandy Way, Hinckley, which will hereafter be referred to as the southern parcel.
- 2.2 The location of the site is included in Figure 1 below.



Figure 1: The site location with the red line boundary shown.

- 2.3 A walkover of the site, and its immediate vicinity has been undertaken by ADC Infrastructure. Photographs were taken across the site which focus upon the existing drainage features; copies of the photos taken during the site walkover can be found in **Appendix A**.

Topography

- 2.4 A topographical survey, shown in **Appendix B**, has been undertaken. The topographical survey demonstrates ground levels within the southern parcel to decline in a south-westerly direction, with a net elevation change of approximately 9m across the site.
- 2.5 Ground levels within the northern parcel are shown to fall from a high point towards the southern extents of the site to the north and west respectively, forming two alternative natural localised catchments. Levels declining to the west vary by approximately 13m, whilst levels declining to the north vary by approximately 11m.
- 2.6 Publicly available LiDAR datasets covering the site and the surrounding area have been obtained and reviewed to gain a better appreciation of the general topography of the wider catchment.

- 2.7 Contour lines were then extracted from the LiDAR data to form a digital elevation model, an extract of which is presented within Figure 2 overleaf.

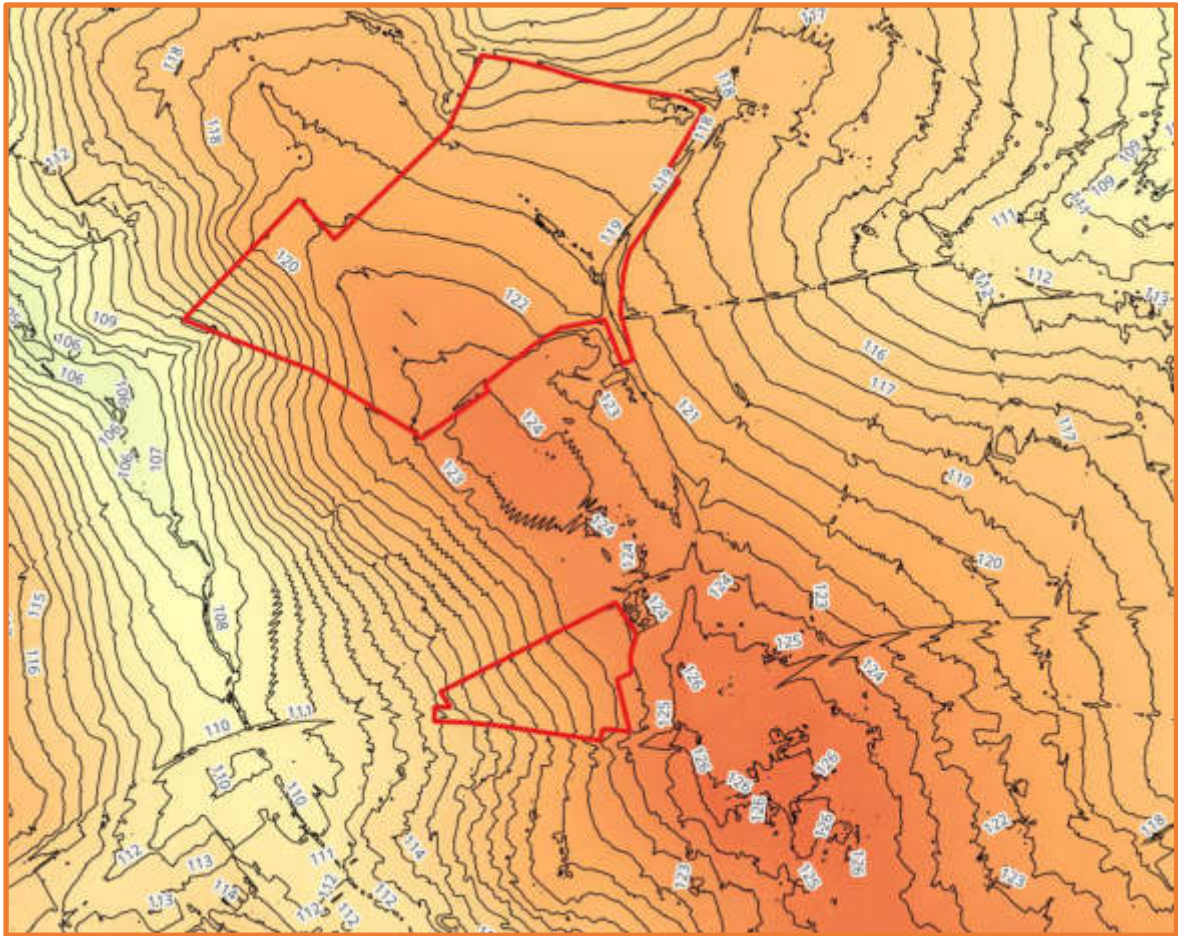


Figure 2: LiDAR map showing the elevation (m AOD) for the site and surrounding area.

- 2.8 Figure 2 demonstrates ground levels within the immediate catchment to decline towards an ordinary watercourse to the west of the site. The ordinary watercourse forms a tributary of the Tweed River, which is sited approximately 1km to the north of the northern parcel.

Existing drainage

- 2.9 The site is greenfield in nature and is not currently served by an adopted sewerage network. Although the northern parcel and southern parcel are part of the same wider drainage catchment their localised regimes differ and as such the existing drainage regime within each parcel has been assessed individually.

Northern parcel

- 2.10 Surface water runoff generated onsite is assumed to drain primarily via overland flow towards a series of land drainage ditches on the southern, western and northern site boundaries. The ditches are intuitively located at the localised low points within the site and convey runoff into the Tweed River and its main tributaries.
- 2.11 The site walkover confirmed the presence of the drainage ditches along the site boundaries, as well as a highway ditch that flows parallel to Ashby Road adjacent to the parcel's north-eastern extents. Photos of the drainage ditches are provided in **Appendix A**.

Southern parcel

- 2.12 Surface water runoff generated onsite is assumed to drain primarily via overland flow towards the highway to the south.
- 2.13 There is an unnamed ordinary watercourse to the west of the parcel that flows in a northerly direction and is a tributary of the Tweed River.
- 2.14 The watercourse flows as an open channel from an area of green space to the south of Normandy Way. It is then culverted beneath Normandy Way via twin 500mm culverts where it then continues to flow in a northerly direction as an open channel.
- 2.15 On the site walkover, evidence of a piped surface water drain within Normandy Way was located. A photo looking into the manhole chamber is shown in Figures 3a and b below.



Figures 3a/b: Photo of the upstream manhole chamber on the piped surface water drain (left), and a view inside the manhole chamber (right).

- 2.16 A CCTV survey to confirm the connectivity and downstream route of the drain was conducted by Onsite Central Ltd in January 2025, the outputs from the survey are presented within **Appendix C**. The survey demonstrates the drain to flow in a westerly direction within Normandy Way before outfalling into the unnamed ordinary watercourse to the west of the site (tributary of Tweed River).
- 2.17 A connection from the public 225mm surface water sewer network within Ashby Road into the drain was also confirmed.

Geology

- 2.18 The British Geological Survey (BGS) online mapping was reviewed to give an indication of the underlying ground conditions on site. The online mapping shows that the bedrock geology and superficial deposits are as follows:

Northern parcel

- **Bedrock Geology:**
 - Mercia Mudstone Group-Mudstone. These sedimentary rocks are fluvial, lacustrine and marine in origin. They are detrital, deposited in lagoons or shallow seas; where a hot, arid climate also leads to the precipitation of beds of evaporites.
- **Superficial Deposits:**
 - Oadby Till Member-Diamicton. These sedimentary deposits are glacial in origin. They are detrital, created by the action of ice and meltwater, they can form a wide range of deposits and geomorphologies associated with glacial and inter-glacial periods during the Quaternary.
 - Dunsmore Gravel – Sand and gravel. Sedimentary superficial deposit formed between 480 and 423 thousand years ago during the Quaternary period (central band of site).

Southern parcel

- **Bedrock Geology:**
 - Mercia Mudstone Group-Mudstone. These sedimentary rocks are fluvial, lacustrine and marine in origin. They are detrital, deposited in lagoons or shallow seas; where a hot, arid climate also leads to the precipitation of beds of evaporites.
- **Superficial Deposits:**
 - Oadby Till Member-Diamicton. These sedimentary deposits are glacial in origin. They are detrital, created by the action of ice and meltwater, they can form a wide range of deposits and geomorphologies associated with glacial and inter-glacial periods during the Quaternary.
 - Wolston Sand And Gravel - Sand and gravel. These sedimentary deposits are glacial in origin. They are detrital, created by the action of ice and meltwater, they can form a wide range of deposits and geomorphologies associated with glacial and inter-glacial periods during the Quaternary.
 - Bosworth Clay Member-Clay and silt. These sedimentary deposits are glacial in origin. They are detrital, created by the action of ice and meltwater, they can form a wide range of deposits and geomorphologies associated with glacial and inter-glacial periods during the Quaternary.

Soils

2.19 The Cranfield Soil and Agrifood Institute Soilscape mapping for the site was also reviewed. The mapping defined the underlying soil classification as:

- **Soilscape 18:** Slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils
- **Soilscape 8:** Slightly acid loamy and clayey soils with impeded drainage

Onsite drainage implications

2.20 Based upon the available data on the nature of the underlying soils and geology, it appears as through the site will possess low infiltration rates.

2.21 However, further investigation into ground conditions is required to make an informed judgement upon the true nature of onsite infiltration capacities. It is advised that any infiltration testing should be undertaken following BRE365 guidance.

3.0 PROPOSED DEVELOPMENT

- 3.1 The development proposals are for the erection of 482 dwellings on land at Normandy Way and Ashby Road, Hinckley, comprising development across two parcels including: the northern parcel (off Ashby Road) for residential development, public open space, play provision, structural landscaping, sustainable drainage infrastructure and the provision of a new vehicular route; the southern parcel (off Normandy Way) for residential development, public open space, landscaping and drainage infrastructure. Together with associated access, internal roads, pedestrian and cycle connections, utilities and all other associated infrastructure”.



Figure 4: The proposed site layout.

4.0 PLANNING CONTEXT

Flood and Water Management Act

- 4.1 In combination with the Flood Risk Regulations, 2010 (which enact the EU Floods Directive in England and Wales), the Flood and Water Management Act places significantly greater responsibility on Local Authorities to manage and lead on local flooding issues. The Act and Regulations together raise the requirements and targets that Local Authorities need to meet; this includes:
- to plan an active role in leading flood risk management in an area,
 - the development of a Local Flood Risk Management Strategy,
 - to prepare preliminary flood risk assessments (PFRAs), flood hazard and risk maps, and flood risk management plans (FRMPs),
 - to develop and implement drainage and flood risk management strategies,
 - to be responsible for the approval, adoption, and subsequent maintenance of Sustainable Urban Drainage Systems (SuDS)¹.
- 4.2 The Lead Local Flood Authority (LLFA) for the site are Leicestershire County Council, who have the responsibility for the management of flood risk for the local area. Their standard guidance has been consulted in the preparation of this flood risk assessment and drainage strategy.

The National Planning Policy Framework (NPPF)

- 4.3 The NPPF sets out the government's planning policies for England, and the expectations of how these policies should be applied. It acts as guidance for local planning authorities and decision-makers, both in drawing up plans and making decisions about individual planning applications.
- 4.4 Chapter 18 of the NPPF² sets out how the government intends decision-making authorities to manage flood risk and coastal change. The chapter sets out a series of policies which seek to minimise risks to development arising from all sources of flooding and coastal change, taking into account the impacts of climate change, by steering development away from areas of risk, ensuring that development will be safe for its lifetime without increasing flood risk elsewhere, and incorporating sustainable drainage systems where appropriate.
- 4.5 Policy F5 relates to the sequential test, the purpose of the sequential test is to ensure that areas at little or no risk of flooding from any source are developed in preference to areas at higher risk³. Policy F5⁴ states;
1. The aim of the sequential test is to steer new development to areas with the lowest risk of flooding from any source. Where the test applies, development proposals should not be located in areas at risk of flooding where alternative sites, appropriate for the development, are reasonably available in areas with a lower risk of flooding. The area to which the test is applied should not be greater than the anticipated catchment of the development in terms of its likely occupiers or users.

¹ (GOV.UK, 2010). Flood and Water Management Act. Chapter 2. Section 9.

² (Ministry of Housing Communities & Local Government, 2026). National Planning Policy Framework. Chapter 18. Pg.83.

³ (Ministry of Housing, Communities and Local Government, 2025) Planning Practice Guidance – Flood Risk and Coastal Change, paragraph 023

⁴ (Ministry of Housing Communities & Local Government, 2026). National Planning Policy Framework. Chapter 18. Pg.84.

2. The sequential test should be used in areas known to be at risk now or in the future from any form of flooding, other than for:
 - a) Sites allocated in the development plan which were subject to the sequential test during plan preparation;
 - b) Sites where a site-specific flood risk assessment demonstrates clearly that:
 - i. No built development within the site boundary, including access or escape routes, land raising or other potentially vulnerable elements, would be located on an area that would be at risk of flooding from any source, now and in the future (having regard to potential changes in flood risk); or
 - ii. Where the site would be at risk of surface water flooding only, the proposed layout, design, and mitigation measures would ensure that occupiers and users would remain safe from current and future surface water flood risk for the lifetime of the development without increasing flood risk elsewhere in accordance with policy F7.
 - c) For the following types of development:
 - i. Householder development;
 - ii. Small non-residential extensions (with a footprint of less than 250m²); and
 - iii. Changes of use, other than changes of use to a caravan, camping or chalet site, or to a mobile home or park home site.
3. The strategic flood risk assessment covering the area of the proposed development and the Flood Map for Planning should provide the evidential basis for applying the sequential test.

4.6 Policy F6⁵ advises;

1. In areas falling within flood zones 2, 3a, or 3b (as defined in Annex F, table 1):
 - a) Development proposals should be refused if the use is incompatible with the risk from river or sea flooding, as set out in Annex F, table 3; and
 - b) In certain other circumstances set out in Annex F, table 3, in addition to satisfying the sequential test in policy F5 where applicable, development will only be appropriate where an 'exception test' is satisfied. The exception test involves demonstrating that the development would meet all the following criteria:
 - i. Provide wider sustainability benefits to the community that outweigh the flood risk;
 - ii. Be safe for its anticipated lifetime in accordance with policy F7; and
 - iii. Not increase flood risk elsewhere and, where possible, reduce flood risk overall.
2. The application of the exception test should be informed by a site-specific flood risk assessment. The exception test does not need to be applied:
 - a) To those forms of development, or in those circumstances, where the sequential test is not required, as set out in policy F5; or

⁵ (Ministry of Housing Communities & Local Government, 2026). National Planning Policy Framework. Chapter 18. Pg.85-86.

- b) Where development is proposed on a site allocated in the development plan to which the exception test was applied at the plan-making stage, unless there has been a significant increase in the risk of flooding to the site subsequently, or the nature of the development itself has changed significantly from that which was allocated so as to introduce a more vulnerable use (having regard to Annex F, table 2).
- 4.7 Annex F of the NPPF comprises three essential tables for use when assessing flood risk and development compatibility.
- 4.8 Table 1⁶ outlines the flood zones arising from risks from river and sea flooding alongside their relative definitions. Table 1 has been reproduced below.

Flood Zone	Definition
Zone 1 Low Probability	Land having less than a 0.1% annual probability of river or sea flooding. (all land outside Zones 2, 3a and 3b)
Zone 2 Medium Probability	Land 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. (shown in light blue on the Flood Map for Planning)
Zone 3a High Probability	Land having a 1% or greater annual probability of river flooding; or Land having a 0.5% or greater annual probability of sea flooding. (land shown in dark blue on the Flood Map for Planning)
Zone 3b The Functional Floodplain	This zone comprises land where water from rivers or the sea has to flow or be stored in times of flood. The identification of functional floodplain should take account of local circumstances and not be defined solely on rigid probability parameters. Functional floodplain will normally comprise: • Land having a 3.3% or greater annual probability of flooding, with any existing flood risk management infrastructure operating effectively; or • Land that is designed to flood (such as a flood attenuation scheme), even if it would only flood in more extreme events (such as 0.1% annual probability of flooding). Local planning authorities should identify in their strategic flood risk assessments areas of functional floodplain and their boundaries accordingly, in agreement with the Environment Agency (not separately distinguished from Zone 3a on the Flood Map).

- 4.9 Flood Zones 2 and 3, shown on the Environment Agency's Flood Map for Planning, only account for river and sea flooding, and do not account for the benefits of flood defences or the possible effects of climate change. Reference should therefore also be made to the Environment Agency's other data on the Flood Map for Planning, and any current strategic flood risk assessment(s), when considering potential future flood risks to developments and land uses⁷.

⁶ (Ministry of Housing Communities & Local Government, 2026). National Planning Policy Framework. Annex F. Table 1. Pg.124

⁷ (Ministry of Housing Communities & Local Government, 2026). National Planning Policy Framework. Annex F. Table 1. Pg.124

4.10 Table 2⁸ of Annex F defines development type by its associated vulnerability to flooding, this is reproduced within the table below

Vulnerability Classification	Definition
Essential Infrastructure	Essential transport infrastructure (including mass evacuation routes) which has to cross the area at risk. Essential utility infrastructure which has to be located within a flood risk area for operational reasons, including electricity generation and storage, electricity network infrastructure, telecommunications infrastructure, water supply reservoirs and water treatment works that need to remain operational in times of flood. Wind turbines Solar farms. Hydrogen production facilities. Carbon Capture, distribution and storage facilities. Heat networks. Data Centres. Electric vehicle charging stations.
Highly Vulnerable	Police and ambulance stations; fire stations and command centres. Emergency dispersal points. Basement dwellings. Caravans, mobile homes, and park homes intended for permanent residential use. Installations requiring hazardous substances consent or which fall under The Control of Major Accident Hazards Regulations 2015. Where there is a demonstrable need for such installations – including bulk storage associated with port or similar facilities, and energy infrastructure and carbon capture or storage – to be located at coastal, water-side, or other high flood risk areas, they should be classified as ‘Essential Infrastructure’. Installations requiring a radioactive substances regulations permit for disposal to landfill or dedicated near-surface disposal by burial.
More Vulnerable	Hospitals Residential institutions such as residential care homes, children’s homes, social services homes, prisons, and hostels. Buildings used for dwelling houses (including floating/rising designs), student halls of residence, drinking establishments, nightclubs and hotels. Non-residential uses for health services, nurseries, and educational establishments. Landfill* and sites used for waste management facilities for hazardous waste. Sites used for holiday or short-let caravans and camping, subject to a specific warning and evacuation plan.
Less Vulnerable	Police, ambulance, and fire stations which are not required to be operational during flooding. Buildings used for: shops; financial, professional, and other services; restaurants, cafes, and hot food takeaways; offices; general industry, storage, and distribution; non-residential institutions not included in the ‘more Vulnerable’ class; and assembly and leisure. Land and buildings used for agriculture and forestry.

⁸ (Ministry of Housing Communities & Local Government, 2026). National Planning Policy Framework. Annex F. Table 2. Pg.125

	Waste treatment works which do not need to remain operational during times of flood. Minerals working and processing (except for sand and gravel working). Water treatment works which do not need to remain operational during times of flood. Sewage treatment works, if adequate measures to control pollution and manage sewage during flooding events are in place. Car parks. Land-raising (unless part of or enabling a development with a higher vulnerability classification).
Water Compatible Development	Flood control infrastructure. Water transmission infrastructure and pumping stations. Sewage transmission infrastructure and pumping stations. Sand and gravel working. Docks, marinas, and wharves. Navigation facilities. Ministry of Defence installations. Ship building, repairing, and dismantling, dockside fish processing and refrigeration and compatible activities requiring a waterside location. Water-based recreation (excluding sleeping accommodation). Lifeguard and coastguard stations. Amenity open space, nature conservation and biodiversity, outdoor sports and recreation and essential facilities such as changing rooms. Essential ancillary sleeping or residential accommodation for staff required by uses in this category, subject to a specific warning and evacuation plan.

4.1 Table 3⁹ of Annex F provides a matrix for the assessment of flood risk vulnerability and flood zone ‘incompatibility’.

Flood Zones	Flood Risk Vulnerability Classification				
	Essential Infrastructure	Highly Vulnerable	More Vulnerable	Less Vulnerable	Water Compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test Required.	✓	✓	✓
Zone 3a	Exception Test Required †	✗	Exception Test Required	✓	✓
Zone 3b	Exception Test Required*	✗	✗	✗	✓*
† In Flood Zone 3a – essential infrastructure should be designed and constructed to remain operational and safe in times of flood. * In Flood Zone 3b (functional flood plain) essential infrastructure that has passed the exception Test, and water- compatible uses, should be designed and constructed to: remain operational and safe for users in times of flood, result in no net loss of floodplain storage not impede water flows and not increase flood risk elsewhere.					

⁹ (Ministry of Housing Communities & Local Government, 2026). National Planning Policy Framework. Annex F. Table 3. Pg.128

Planning Practice Guidance (PPG)

- 4.2 The PPG associated with the NPPF provides more detailed guidance on how the requirements of the NPPF can be met in practice. It includes recommendations on the allowances for climate change and for the application of the sequential and exception tests stating:

“The sequential test should be applied to ‘Major’ and ‘Non-major’ development proposed in areas at risk of flooding, as set out in paragraphs 173 to 174 of the National Planning Policy Framework. Paragraphs 175, 176 and 180 set out exemptions from the sequential test.

In applying paragraph 175 a proportionate approach should be taken. Where a site-specific flood risk assessment demonstrates clearly that the proposed layout, design, and mitigation measures would ensure that occupiers and users would remain safe from current and future surface water flood risk for the lifetime of the development (therefore addressing the risks identified e.g. by Environment Agency flood risk mapping), without increasing flood risk elsewhere, then the sequential test need not be applied.

The absence of a 5-year housing land supply is not a relevant consideration in applying the sequential test for individual applications. However, housing considerations, including housing land supply, may be relevant in the planning balance, alongside the outcome of the sequential test.”¹⁰

Local planning context

Hinckley & Bosworth Borough Council Borough Plan 2006-2026

- 4.3 The site falls within the jurisdiction of Hinckley and Bosworth Borough Council (HBBC) and is subject to the policies and guidance specified within the adopted Local Plan. HBBC is currently preparing a new Local Plan covering the period 2004-2045, which is presently at the Regulation 18 consultation stage.
- 4.4 Hinckley & Bosworth's adopted Development Plan comprises the Core Strategy (2009–2026) and the Site Allocations and Development Management Policies DPD (2006–2026).
- 4.5 Policy DM7 relates to pollution and flooding; part a and h states that “Adverse impacts from pollution and flooding will be prevented by ensuring that development proposals demonstrate that: a) it will not adversely impact the water quality, ecological value, or drainage function of water bodies in the borough; h) The development doesn’t create or exacerbate flooding by being located away from areas of flood risk unless adequately mitigated against in line with National Policy”.

Flood Risk Status

- 4.6 The Environment Agency online flood mapping shows that the site lies within Flood Zone 1, and outside of the Flood Zone plus climate change extents (see Figures 5 & 6).

¹⁰ (Ministry of Housing, Communities and Local Government, 2025) Planning Practice Guidance – Flood Risk and Coastal Change, paragraph 027

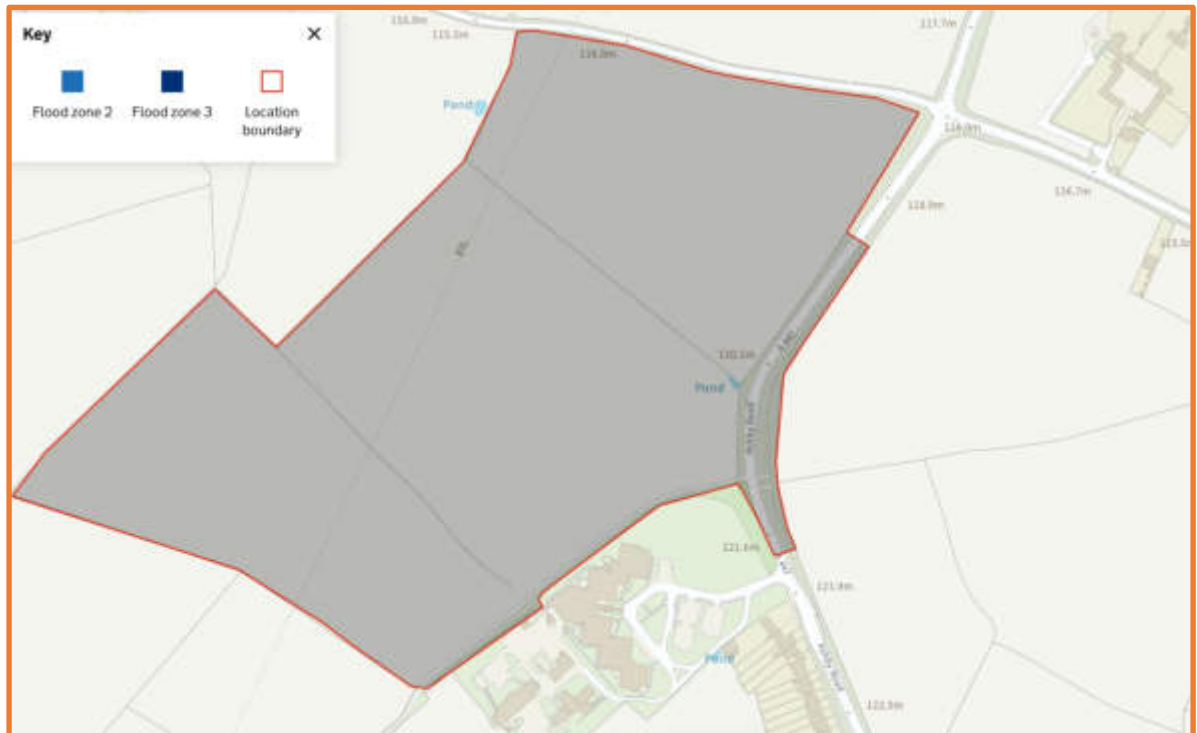


Figure 5: EA Flood Map for Planning Extract- northern parcel.

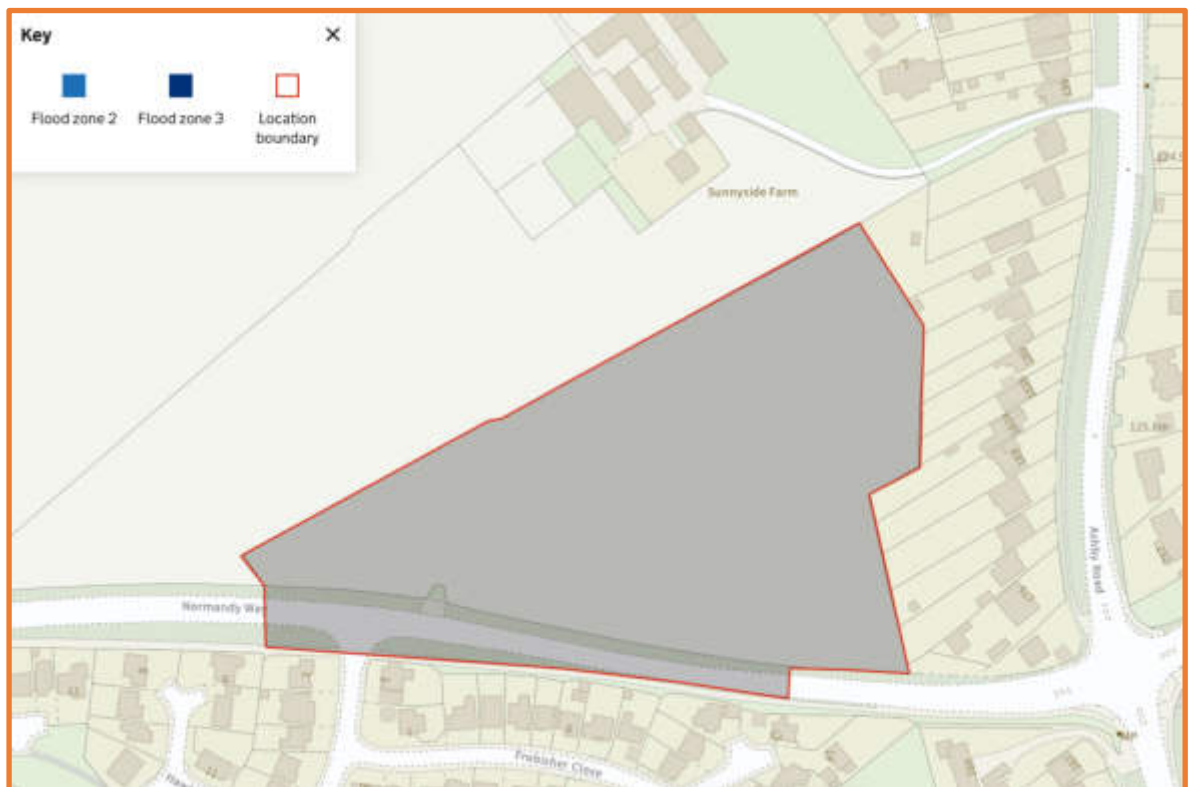


Figure 6: EA Flood Map for Planning Extract- southern parcel.

- 4.7 The Flood map for planning also demonstrates the sites to predominantly possess a very low chance of surface water flooding, see Figure 7 and 8 overleaf.

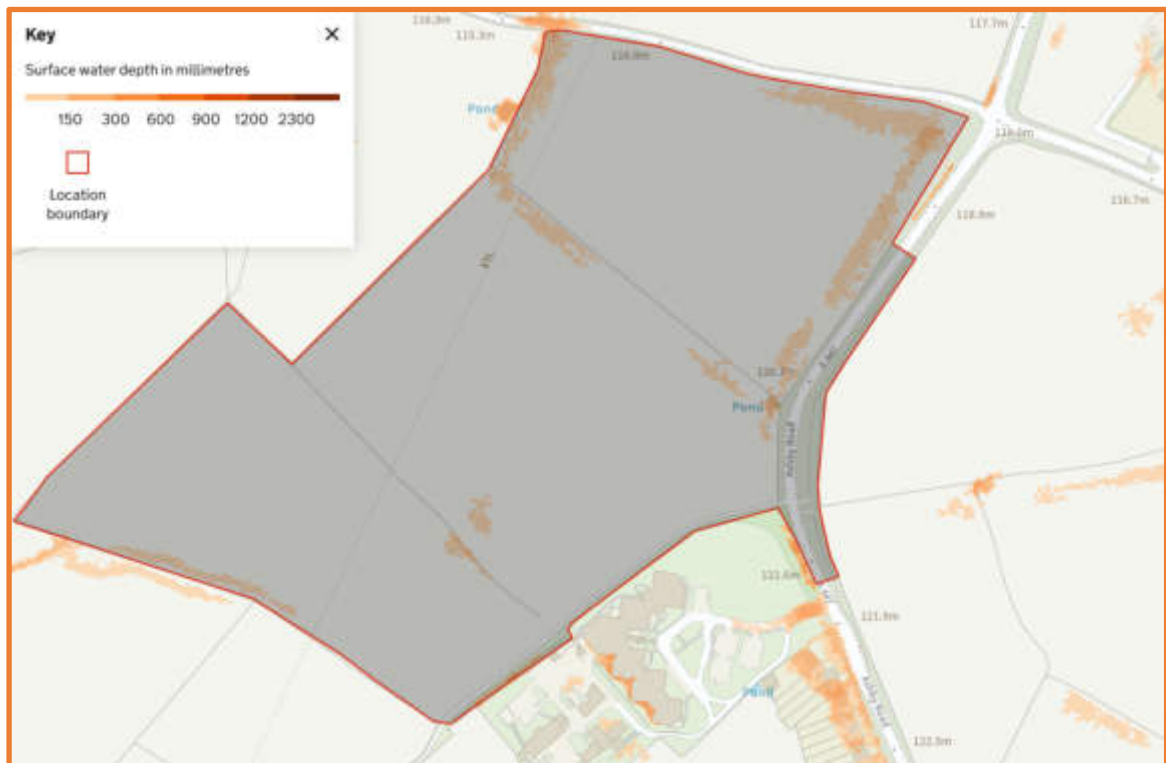


Figure 7: EA pluvial flood risk extents for the site and the surrounding area- 1 in 1000-year plus climate change- northern parcel.

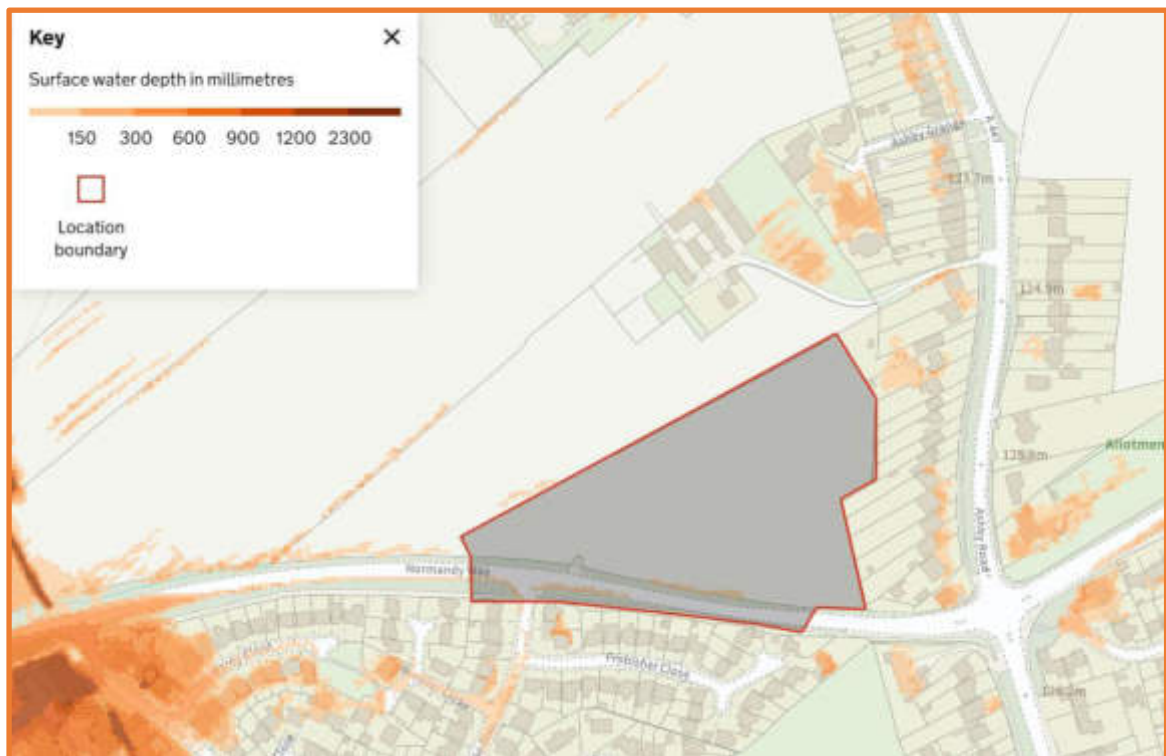


Figure 8: EA pluvial flood risk extents for the site and the surrounding area- 1 in 1000-year plus climate change- southern parcel.

Flood risk and development compatibility

- 4.8 The development is categorised as residential development. In Annex 3 of the NPPF, residential development is categorised as a 'more vulnerable' development type.

- 4.9 The development is located within Flood Zone 1 and outside of the flood zone plus climate change extents.
- 4.10 In accordance with Table 2 of the PPG, the development is deemed appropriate in regard to fluvial flood risk.
- 4.11 The flood mapping further demonstrates both parcels to possess a predominantly very low chance of surface water flooding up to the extreme 1 in 1000-year plus climate change (+CC) event. All mapped areas of surface water flood risk are isolated in nature and do not form part of a larger overland flow path and as such is considered suitable for mitigation. The proposed mitigation is outlined within section 5 of this report.
- 4.12 The development is therefore sequentially acceptable in terms of pluvial flooding, and the sequential test is not required in accordance with the PPG requirements.
- 4.13 The risk posed to the development from both fluvial and pluvial sources, alongside any required mitigation, is discussed in greater detail within section 5.

5.0 FLOOD RISK ASSESSMENT

- 5.1 In accordance with the NPPF and local planning guidance, this Flood Risk Assessment considers the risk posed to the development from a range of flooding sources. This section of the report details the investigation of flood risk from all pertinent sources; a subsequent section provides recommended mitigation where the risk is deemed significant.
- 5.2 The flood risks that may be posed to any site are summarised in the table below. The degree of risk to both the northern and southern parcel is indicated in the table below and site-specific factors are outlined and described in greater detail within the forthcoming sections.

Flooding Source	Degree of Risk	Source of Risk
Fluvial	Low	EA mapping demonstrates that the site lies within Flood Zone 1 and so is at a low risk of fluvial flooding.
Tidal	None	There are no tidal influences in the area and so there is considered no risk of tidal flooding.
Canals	Low	There are no canals within the vicinity of the site.
Groundwater	Low	A desktop review of the underlying geology infers that the lack of bedrock permeability onsite would render groundwater flooding to be unlikely.
Sewers	Low	There are no known records of a sewer flood event having occurred onsite.
Pluvial (Surface Water) runoff	Low	The EA mapping demonstrates that the majority of the site possesses a very low risk of pluvial flooding, any residual risk can be sufficiently mitigated onsite.
Reservoirs and Waterbodies	None	The EA mapping demonstrates that the site is at minimal risk of reservoir flooding.

Fluvial flooding

- 5.3 The Flood Map for Planning has been reviewed, and the mapping shows that the site lies wholly within Flood Zone 1 and is outside of the flood zone plus climate change extents.
- 5.4 There are no main rivers within the vicinity of the site that could potentially pose a risk to the development site. The nearest mapped watercourse is located approximately 140m to the west of the southern parcel, the watercourse flows adjacent to Normandy Road prior to discharging into a tributary of the Tweed River. The lowest point of the southern parcel is elevated circa 4m higher than the watercourse and as such is considered to possess a low risk of flooding from this source.
- 5.5 Unmapped drainage ditches are located at southern, western and northern boundaries of the northern parcel. The drainage ditches convey runoff from the existing arable fields to the wider land drainage network. All development is to be offset from any localised minor watercourses to mitigate against any residual risk.
- 5.6 Given the above the risk of fluvial flooding is deemed to be low.

Tidal flooding

- 5.7 The site is located within an area that is not tidally influence, therefore, it is deemed that there is no risk from tidal or coastal flooding.

Canal flooding

- 5.8 There are no canals within the immediate vicinity of the site, and therefore there is a low risk posed to the site.

Groundwater flooding

- 5.9 Groundwater flooding occurs when the water table rises following a period of prolonged rainfall and emerges on the ground surface. It is most likely to occur in low-lying areas that are underlain by permeable bedrock and superficial deposits.
- 5.10 A desk-based review of onsite geology however reveals that the promotion of groundwater movement within both parcels may be impeded by the presence of a mudstone bedrock and slowly permeable soils/ soils with impeded drainage.
- 5.11 It is recommended that a ground investigation is undertaken to confirm the underlying ground conditions on site. Should infiltration measurements be undertaken they should be conducted in accordance with BRE365 guidance. This would provide more detailed information on the ground conditions and henceforth provide further enlightenment on the site's vulnerability to groundwater flooding but given the available information the risk is considered to be low.

Pluvial risk

- 5.12 The EA publish pluvial (surface water) flood maps as part of the Flood Map for Planning service which show the route of surface water runoff across the ground. Typically, these flood maps identify overland drainage paths that are often part of a historic natural land drainage system. An overview of the surface water flood risk to the site is shown in Figure 7 & 8 within section 4 of this report.

Northern parcel

- 5.13 The flood map for planning demonstrates the parcel to possess a predominantly very low to low chance of surface water flooding under the present day scenario, this is with the exception of an isolated high (1 in 30-year) to medium (1 in 100-year) flood extent within the north-eastern extents of the site associated with a topographical low spot, and a medium chance extent associated with a minor ditch within the southern extents of the site. Under the climate change scenario these extents intuitively become larger yet remain isolated in nature.
- 5.14 The flood map for planning also displays data upon the depth of surface water flooding, since the climate change scenario displays the most exacerbated scenario this has been presented within Figure 7 in section 4 of this report and will be utilised to inform any mitigation.
- 5.15 The depth mapping demonstrates the maximum flood depth within the site for up to the 1 in 1000-year plus climate change event to be up to 300mm.
- 5.16 Given the magnitude of the mapped flood depth the real-world impact of the flood extents would be negligible, nevertheless any residual risk will be mitigated via the arrangement of ground

levels to divert any overland flows away from any built development and towards drainage outlets, SuDS, and landscaped areas. The general raising of finished floor levels (FFLS) above external ground level will also provide further protection from any residual risk.

- 5.17 Given the above, the northern parcel once constructed will possess a low risk of surface water flooding.

Southern parcel

- 5.18 The flood map for planning demonstrates the southern parcel to possess a very low chance of surface water flooding, there are no mapped extents within the proposed developable area of the parcel under any of the present-day scenarios nor the 1 in 30-year and 1 in 100-year plus climate change scenarios.
- 5.19 An isolated linear strip of surface water flood risk is present adjacent to the site's southern boundary for the extreme 1 in 1000-year plus climate change event, alongside some minor extents adjacent to the verge of Normandy Way. The associated climate change flood depth mapping has been presented within Figure 8 in section 4 of this report. The mapping demonstrates the flood depth to be below 150mm for up to the 1 in 1000-year+CC storm event, and as such the impact would be negligible. Any residual risk would too be mitigated via general ground reprofiling and the raising of FFLS above external ground level.

Sewer flooding

- 5.20 Sewer flooding occurs when the conveyed flows exceed the available capacity of the system. This may be due to intense rainfall events, restricted discharges to watercourses with high water levels, blockages, collapses, or equipment failure.
- 5.21 Sewer plans, shown in **Appendix D**, demonstrate a public foul sewer which flows in a southerly direction within Ashby Road to the east of both the northern and southern parcel.
- 5.22 A short length of surface water sewer is also located adjacent to the eastern boundary of the southern parcel. A CCTV survey, see **Appendix C**, demonstrates the public sewer to discharge into a drain which flows in a westerly direction within Normandy Way.
- 5.23 Whilst there are assets within close proximity to the site there are no known records of a sewer flood event having occurred onsite, and given the size of the localised sewers, should an event occur any impact is likely to be isolated in nature.
- 5.24 Given the above the risk of sewer flooding is deemed to be low.

Reservoirs and artificial waterbodies

- 5.25 The EA has prepared reservoir failure flood risk mapping as part of the 'Check Your Long-Term Flood Risk' service to show the largest area that might be flooded if a reservoir were to fail. The mapping displays a worst-case scenario and is only intended as a guide. The site is shown to be outside areas considered at potential risk of reservoir flooding, see Figure 9.



Figure 3: The flood risk from reservoir sources to the site.

Proposed mitigation

- 5.26 The risk of flooding to the site from a variety of sources has been investigated. The evidence expressed above demonstrates the site to be located wholly within Flood Zone 1 and therefore is deemed to possess a low risk of fluvial flooding.
- 5.27 The risk of flooding from surface water to the development areas is considered to be low or very low. Any minor areas of surface water flooding will be mitigated via localised ground reprofiling to avoid maintaining low points in the development areas that could otherwise collect runoff.
- 5.28 Flood risk as a result of tidal, canal, sewer, groundwater and reservoir influences have all been deemed as low and so no further mitigation is recommended.
- 5.29 Although the flood risk to the site from the variety of sources investigated has been deemed to be low; to alleviate any residual flood risk to the site the following should be analysed.

Access and egress

- 5.30 The PPG states that to ensure a development is safe for its lifetime the ability of residents and users to safely access and exit a building during a design flood and to evacuate before an extreme flood (0.1% annual probability of flooding plus climate change) must be considered¹¹.
- 5.31 The access and egress route from the development is shown to be in Flood Zone 1 and predominantly possess a very low chance of pluvial flooding.

¹¹ (Ministry of Housing, Communities and Local Government, 2025). Planning Practice Guidance. Flood risk and coastal change.

- 5.32 The surface water extents within the vicinity of the northern parcel's access possess an associated maximum depth of 30cm and as such any residual risk will be managed via the profiling of the proposed roundabout and highway to ensure that any surface water flows route towards adjacent landscaped areas and/or drainage outlets.

Drainage system design

- 5.33 The National Standards for SuDS has a series of recommendations in relation to the design of prospective drainage systems for new developments. These are to ensure that drainage systems on new developments are designed to a standard to negate the additional flood risk that may arise from the development. The National Standard for SuDS states:

*"The surface water drainage system shall be designed so that, unless an area is designated to hold or convey water as part of the design, flooding does not occur on any part of the development for rainfall events up to the 3.3% AEP event."*¹²

*"The surface water drainage system shall be designed so that flooding does not occur during rainfall events up to a 1% AEP event in any part of: a building (including a basement); any utility plant susceptible to water (for example, pumping station or electricity substation) within the development; or any route designed to provide safe access and escape during flooding."*¹³

Exceedance routes

- 5.34 The National Standards for SuDS guidance also specifies that:

*"The surface water drainage system shall be assessed for exceedance events in excess of the 1%AEP event with expected exceedance routes identified across the development to confirm there is no adverse flood risk to the development or elsewhere."*¹⁴

- 5.35 The proposed SuDS features have been sized to accommodate all runoff generated onsite for up to the 1 in 100-year+40% storm event, as such there will be no exceedance flows within the site for the 1%AEP event. Any exceedance flows from higher order storm events will be diverted towards landscaped areas and drainage outlets.

Finished floor levels

- 5.36 The site is not located within an area where there is a residual flood risk, however finished floor levels according to the gov.uk website should be a minimum of whichever is higher of 600mm above the; average ground level of the site, adjacent road level to the buildings, estimated river or sea flood level for the site. Where there is a high level of certainty about the estimated flood level, this can be reduced to 300mm¹⁵.

¹² (Department for Environment, Food and Rural Affairs, 2025). National standards for sustainable drainage systems (SuDS) paragraph 3.35

¹³ (Department for Environment, Food and Rural Affairs, 2025). National standards for sustainable drainage systems (SuDS) paragraph 3.36

¹⁴ (Department for Environment, Food and Rural Affairs, 2025). National standards for sustainable drainage systems (SuDS) paragraph 3.40

¹⁵ (Environment Agency, 2024). Flood risk assessment standing advice.

External site levels

- 5.37 External site levels should be designed to route any excess runoff away from buildings, and into landscaped areas or drainage outlets. Any raising of levels onsite should be designed to ensure that there is no increase in surface water runoff onto neighbouring third-party land.
- 5.38 Likewise, similar design considerations to minimise any potential risk from sewer flooding arising from the onsite drainage network should be considered, to prevent foul effluent from entering the proposed dwellings.

Flood compensatory storage

- 5.39 The cumulative impacts of development have the potential to reduce floodplain storage, where flood storage from any source of flooding is to be lost as a result of development, on-site level-for-level compensatory storage, accounting for the predicted impacts of climate change over the lifetime of a development, should be provided. Where it is not possible to provide compensatory storage onsite, it may be acceptable to provide it off-site if it is hydraulically and hydrologically linked¹⁶.
- 5.40 The development proposals do not reduce any floodplain storage and therefore no further mitigation is required.

¹⁶ (Ministry of Housing, Communities and Local Government, 2025). Planning Practice Guidance. Flood risk and coastal change.

6.0 CONCLUSIONS AND RECOMMENDATIONS

- 6.1 Miller Homes have commissioned ADC Infrastructure Limited to produce a Flood Risk Assessment (FRA) in support of a full planning application for the erection of 482 dwellings on land at Normandy Way and Ashby Road, Hinckley, comprising development across two parcels including: the northern parcel (off Ashby Road) for residential development, public open space, play provision, structural landscaping, sustainable drainage infrastructure and the provision of a new vehicular route; the southern parcel (off Normandy Way) for residential development, public open space, landscaping and drainage infrastructure. Together with associated access, internal roads, pedestrian and cycle connections, utilities and all other associated infrastructure.
- 6.2 This report assesses the flood risk to the site and has been carried out in accordance with the requirements of the National Planning Policy Framework (NPPF) and associated Planning Practice Guidance (PPG). It investigates the flood risk posed to the site from fluvial, pluvial, sewer, tidal, canal, reservoir and groundwater-based sources. A section in this report provides recommendations for mitigation and an analysis of any likely residual risks.
- 6.3 The development is categorised as residential development. In Annex 3 of the NPPF, residential development is categorised as a 'more vulnerable' development type. The site is located wholly within Flood Zone 1 and outside of the flood zone plus climate change extents. In accordance with Table 2 of the PPG, the development is deemed appropriate in regard to fluvial flood risk.
- 6.4 The flood map for planning demonstrates both parcels to possess a predominantly very low chance of surface water flooding up to the extreme 1 in 1000-year plus climate change (+CC) event. All mapped areas of surface water flood risk are isolated in nature and do not form part of a larger overland flow path and as such is considered suitable for mitigation. Sufficient mitigation in the form of ground reprofiling, the raising of FFLs and the provision of a new drainage network has been proposed. The development in its built form will possess a low risk of pluvial flooding and as such is considered appropriate.
- 6.5 Flood risk as a result of tidal, canal, sewer, groundwater and reservoir influences have all been deemed as low or negligible, so no further mitigation is recommended.
- 6.6 Provided that the recommendations of this report are followed, then the development can proceed without being at any significant flood risk and without increasing flood risk elsewhere. The development proposals are considered sustainable from a flood risk perspective.

7.0 REFERENCES

- Environment Agency, 2022. *Flood risk assessments: climate change allowances*. [Online] Available at: <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances> [Accessed December 2024].
- Environment Agency, 2024. *Preparing a flood risk assessment: standing advice*. [Online] Available at: <https://www.gov.uk/guidance/flood-risk-assessment-standing-advice> [Accessed December 2024].
- GOV.UK, 2010. *Flood and Water Management Act*. [Online] Available at: <https://www.legislation.gov.uk/ukpga/2010/29> [Accessed December 2024].
- Ministry of Housing, Communities and Local Government, 2026. *National Planning Policy Framework*. [Online] Available at: <https://www.gov.uk/guidance/national-planning-policy-framework> [Accessed August 2026].
- Ministry of Housing, Communities and Local Government, 2025. *Planning Practice Guidance - Flood Risk and Coastal Change*. [Online] Available at: <https://www.gov.uk/government/collections/planning-practice-guidance> [Accessed 25 September 2025].

APPENDIX A

SITE WALKOVER SURVEY



Photo looking west across the southern land parcel.



Photo of the land drainage ditch along the boundary of the southern land parcel.



Photo looking towards the south-west site corner, showing the noticeable drop in gradient.



Photo of existing pond feature and outfall in the south-west site corner.



Photo of looking northwards across the central field parcel



Photo looking north-east across the northern field parcel.



Photo of the land drainage ditch along the western boundary of the northern field parcel



Photo of culvert beneath Rogue's Lane in the far north-west corner of the site.



Photo of manhole 1602 on the combined sewer in the field to the north of the site.



Photo of manhole 1502 in the junction of Ashby Road/Rogue's Lane, which is the preferred connection point for the site (left), and manhole 1401 further down Ashby Road (right).



Photos of the land drainage ditches adjacent to the eastern site boundary along Ashby Road.

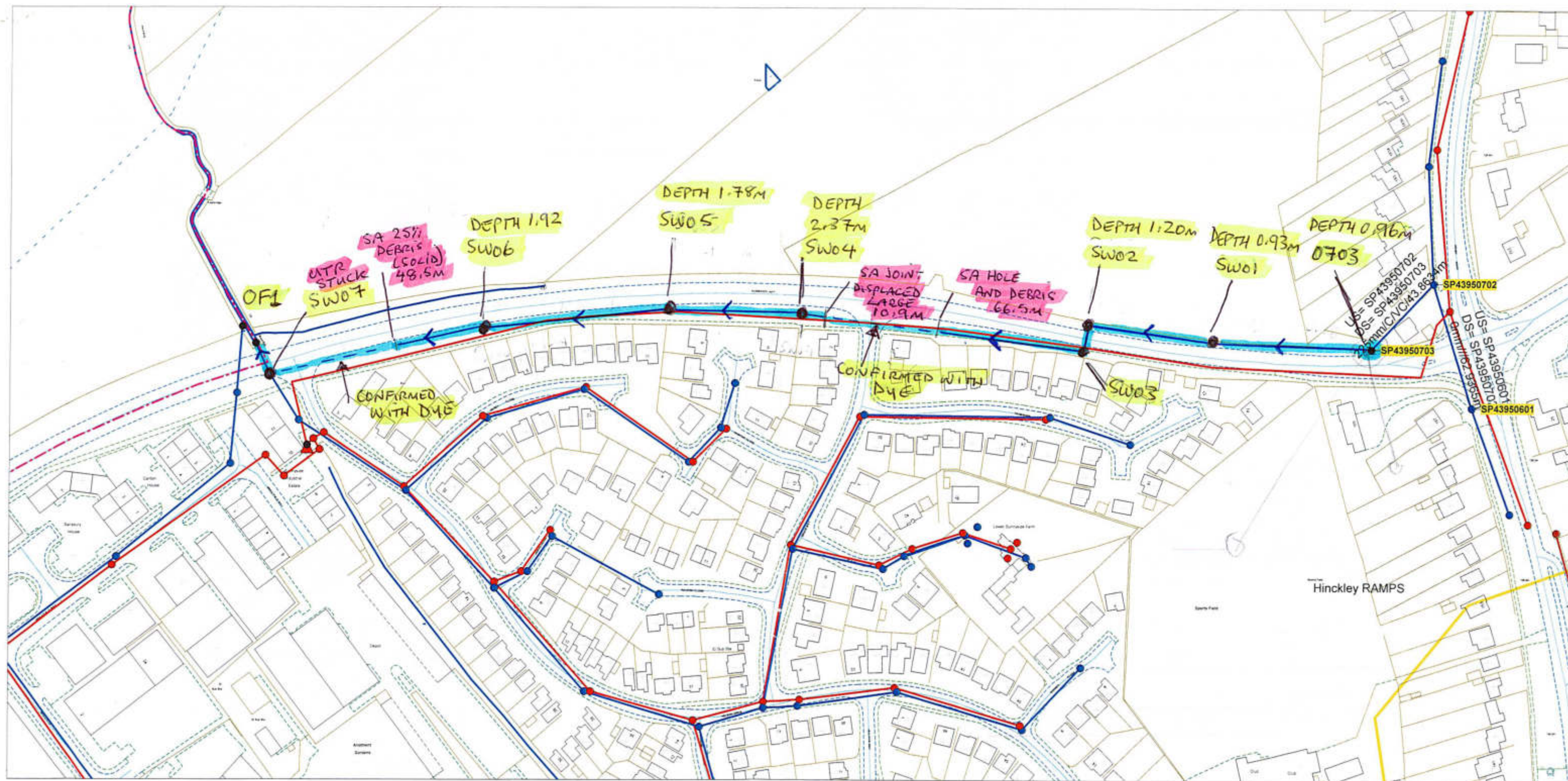
APPENDIX B

TOPOGRAPHICAL SURVEY

APPENDIX C

CCTV OUTPUTS

CCTV JOB D/S TO ITS DISCHARGE
POINT ???



Project

Project Name: OSCC2413592 - Verge on Normandy Way
Project Description: CCTV Report
Project Number: OSCC2413592
Project Date: 21/01/2025

Table of Contents

Project Name	Project Number	Project Date
OSCC2413592 - Verge on Normandy Way	OSCC2413592	21/01/2025

Project Information	P-1
Scoring Summary	P-2
Section Item 1: SW01 > SW02 (SW01X)	1
Section Item 2: 0703 > SW01 (0703X)	3
Section Item 3: SW02 > SW03 (SW02X)	5
Section Item 4: SW03 > SW04 (SW03X)	6
Section Item 5: SW03 > SW04 (SW03X)	8
Section Item 6: SW04 > SW05 (SW04X)	10
Section Item 7: SW05 > SW06 (SW05X)	11
Section Item 8: SW06 > SW07 (SW06X)	12
Section Item 9: SW07 > OF1 (SW07X)	14

Project Information

Project Name
OSCC2413592 - Verge on Normandy Way

Project Number
OSCC2413592

Project Date
21/01/2025

Client

Company: ADC Infrastructure Limited
Contact: Alice Kirsz
Department: 4th Floor, City Buildings
Street: 34 to 36 Carrington Street
Town or City: Nottingham
County: Nottinghamshire
Post Code: NG1 7FG
Email: alice.kirsz@adcinfrastructure.com

Site

Street: Normandy Way
Town or City: Hinckley
County: Leicestershire
Post Code: LE10 1SH

Contractor

Company: OnSite Central Ltd
Street: 89 Blackpole West
Town or City: Blackpole, Worcester
County: Worcestershire
Post Code: WR3 8TJ
Phone: 01905 340054

Scoring Summary

Project Name
OSCC2413592 - Verge on Normandy Way

Project Number
OSCC2413592

Project Date
21/01/2025

Structural Defects

- Grade 3: Best practice suggests consideration should be given to repairs in the medium term.
- Grade 4: Best practice suggests consideration should be given to repairs to avoid a potential collapse.
- Grade 5: Best practice suggests that this pipe is at risk of collapse at any time. Urgent consideration should be given to repairs to avoid total failure.

Section	PLR	Grade	Description
4	SW03X	5	Hole in drain or sewer from 7 o'clock to 5 o'clock

Service / Operational Condition

- Grade 3: Best practice suggests consideration should be given to maintenance activities in the medium term.
- Grade 4: Best practice suggests consideration should be given to maintenance activity to avoid potential blockages.
- Grade 5: Best practice suggests that this pipe is at a high risk of backing up or causing flooding.

Section	PLR	Grade	Description
1	SW01X	5	Roots, mass, 50% cross-sectional area loss
2	0703X	5	Roots, mass, 40% cross-sectional area loss
4	SW03X	4	Settled deposits, coarse, 30% cross-sectional area loss
5	SW03X	4	Joint displaced, large
8	SW06X	4	Settled deposits, coarse, 25% cross-sectional area loss

Abandoned Surveys

Section	PLR	Description
2	0703X	Survey abandoned
4	SW03X	Survey abandoned
5	SW03X	Survey abandoned
8	SW06X	Survey abandoned

Information

These scoring summaries are based on the SRM grading from the WRc.

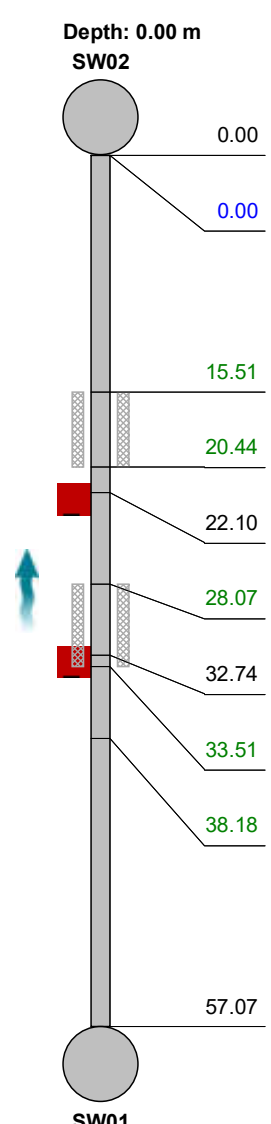
Section Inspection - 07/01/2025 - SW01X

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
1	1	07/01/25	9:24	OSCC2413592	No Rain Or Snow	No	SW01X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
OnSite - MH		409		Crafter	0.00 m	Not Specified	1

Town or Village:	Hinkley	Inspection Direction:	Upstream	Upstream Node:	SW01
Road:	Normandy Way	Inspected Length:	57.07 m	Upstream Pipe Depth:	1.200 m
Location:	Verge	Total Length:	57.07 m	Downstream Node:	SW02
Surface Type:		Joint Length:		Downstream Pipe Depth:	0.000 m
Use:	Surface water	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	150 mm		
Flow Control:	No flow control	Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:495	Position [m]	Code	Observation	MPEG	Photo	Grade
							
		0.00	MH	Start node, manhole, reference: SW02	00:00:03		
		0.00	WL	Water level, 5% of the vertical dimension	00:00:04		
		15.51	S01	RF	Roots, fine, start	00:02:02	
		20.44	F01	RF	Roots, fine, finish	00:02:39	2
		22.10	CN	Connection other than junction at 2 o'clock, 150mm dia	00:02:56		
		28.07	S02	RF	Roots, fine, start	00:03:44	
		32.74	CN	Connection other than junction at 2 o'clock, 150mm dia	00:04:22		
		33.51	F02	RF	Roots, fine, finish	00:04:34	2
		38.18	RM	Roots, mass, 50% cross-sectional area loss	00:05:12	SW01X_U 0701202 5_0924_0	5
		57.07	MHF	Finish node, manhole, reference: SW01	00:08:47		

Construction Features

Structural Defects

Miscellaneous Features

Service & Operational Observations

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	3	15.0	0.5	26.0	5.0

Section Pictures - 07/01/2025 - SW01X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
1	Upstream	SW01X	OSCC2413592	OSCC2413592



SW01X_U_07012025_0924_001.jpg, 00:05:12, 38.18 m
 Roots, mass, 50% cross-sectional area loss

Item No. 2	Insp. No. 2	Date 07/01/25	Time 9:44	Client's Job Ref OSSC2413592	Weather No Rain Or Snow	Pre Cleaned No	PLR 0703X
Operator OnSite - MH		Vehicle 409		Camera Crafter	Preset Length 0.00 m	Legal Status Not Specified	Alternative ID 1

Town or Village:	Hinkley	Inspection Direction:	Upstream	Upstream Node:	0703
Road:	Normandy Way	Inspected Length:	71.20 m	Upstream Pipe Depth:	0.930 m
Location:	Verge	Total Length:	75.00 m	Downstream Node:	SW01
Surface Type:		Joint Length:		Downstream Pipe Depth:	0.000 m
Use:	Surface water	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	150 mm		
Flow Control:	No flow control	Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Recommendations:

Scale:	1:650	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 0.00 m SW01 0.00 0.00 10.33 33.61 63.51 71.06 71.20 75.00 0703 Depth: 0.93 m							
	0.00	MH	Start node, manhole, reference: SW01	00:00:02			
	0.00	WL	Water level, 5% of the vertical dimension	00:00:04			
	10.33	CN	Connection other than junction at 2 o'clock, 150mm dia	00:01:25			
	33.61	CN	Connection other than junction at 2 o'clock, 150mm dia	00:04:12			
	63.51	CN	Connection other than junction at 2 o'clock, 150mm dia	00:08:49			
	71.06	RM	Roots, mass, 40% cross-sectional area loss	00:10:04	0703X_U_07012025_0944_00	5	
	71.20	SA	Survey abandoned: 40% ROOTS MASS	00:11:34			
	75.00		End of pipe				

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	10.0	0.1	10.0	5.0

Section Pictures - 07/01/2025 - 0703X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
2	Upstream	0703X	OSCC2413592	OSCC2413592



0703X_U_07012025_0944_002.jpg, 00:10:04, 71.06 m
 Roots, mass, 40% cross-sectional area loss

Item No. 3	Insp. No. 3	Date 07/01/25	Time 10:00	Client's Job Ref OSCC2413592	Weather No Rain Or Snow	Pre Cleaned No	PLR SW02X
Operator OnSite - MH		Vehicle 409		Camera Crafter	Preset Length 0.00 m	Legal Status Not Specified	Alternative ID 1

Town or Village:	Hinkley	Inspection Direction:	Downstream	Upstream Node:	SW02
Road:	Normandy Way	Inspected Length:	10.83 m	Upstream Pipe Depth:	0.000 m
Location:	Verge	Total Length:	10.83 m	Downstream Node:	SW03
Surface Type:		Joint Length:		Downstream Pipe Depth:	1.200 m
Use:	Surface water	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	225 mm		
Flow Control:	No flow control	Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Recommendations:

Scale: 1:94 Position [m] Code Observation MPEG Photo Grade

Depth: 0.00 m
SW02

0.00

0.00

MH Start node, manhole, reference: SW02 00:00:02

WL Water level, 5% of the vertical dimension 00:00:04

10.83

MHF Finish node, manhole, reference: SW03 00:01:51

SW03
Depth: 1.20 m

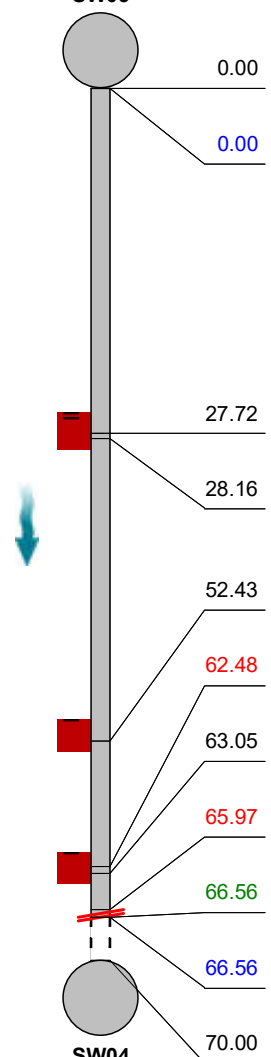
Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 07/01/2025 - SW03X

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
4	4	07/01/25	10:48	OSCC2413592	No Rain Or Snow	No	SW03X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
OnSite - MH		409		Crafter	0.00 m	Not Specified	1

Town or Village:	Hinkley	Inspection Direction:	Downstream	Upstream Node:	SW03
Road:	Normandy Way	Inspected Length:	66.56 m	Upstream Pipe Depth:	0.000 m
Location:	Footway	Total Length:	70.00 m	Downstream Node:	SW04
Surface Type:		Joint Length:		Downstream Pipe Depth:	0.000 m
Use:	Surface water	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	225 mm		
Flow Control:	No flow control	Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:607	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 0.00 m SW03 							
		0.00	MH	Start node, manhole, reference: SW03	00:00:03		
		0.00	WL	Water level, 5% of the vertical dimension	00:00:05		
		27.72	CN	Connection other than junction at 2 o'clock, 150mm dia	00:02:20		
		28.16	CN	Connection other than junction at 2 o'clock, 150mm dia	00:02:35		
		52.43	CN	Connection other than junction at 2 o'clock, 150mm dia	00:04:40		
		62.48	OJM	Open joint, medium	00:05:49		1
		63.05	CN	Connection other than junction at 2 o'clock, 150mm dia	00:06:01		
		65.97	H	Hole in drain or sewer from 7 o'clock to 5 o'clock	00:07:06	SW03X_D_0701202_5_1048_0	5
		66.56	DER	Settled deposits, coarse, 30% cross-sectional area loss	00:08:48	SW03X_D_0701202_5_1048_0	4
		66.56	SA	Survey abandoned: DUE TO HOLE AND DEBRIS	00:09:19		
		70.00		End of pipe			
				SW04 Depth: 0.00 m			

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
2	165.0	2.5	166.0	5.0	1	5.0	0.1	5.0	4.0

Section Pictures - 07/01/2025 - SW03X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
4	Downstream	SW03X	OSCC2413592	OSCC2413592



SW03X_D_07012025_1048_003.jpg, 00:07:06, 65.97 m
Hole in drain or sewer from 7 o'clock to 5 o'clock



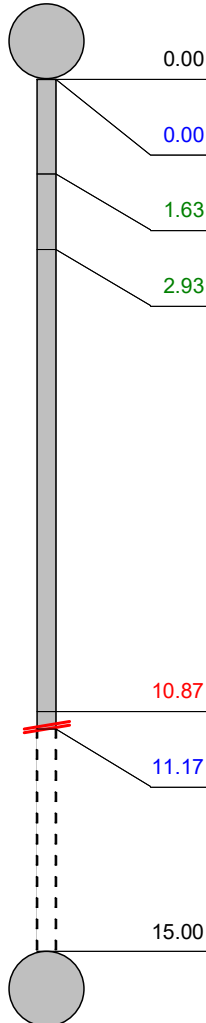
SW03X_D_07012025_1048_004.jpg, 00:08:48, 66.56 m
Settled deposits, coarse, 30% cross-sectional area loss

Section Inspection - 07/01/2025 - SW03X

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
5	5	07/01/25	11:34	OSCC2413592	No Rain Or Snow	No	SW03X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
OnSite - MH		409		Crafter	0.00 m	Not Specified	1

Town or Village:	Hinkley	Inspection Direction:	Upstream	Upstream Node:	SW03
Road:	Normandy Way	Inspected Length:	11.17 m	Upstream Pipe Depth:	2.370 m
Location:	Verge	Total Length:	15.00 m	Downstream Node:	SW04
Surface Type:		Joint Length:		Downstream Pipe Depth:	0.000 m
Use:	Surface water	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	225 mm		
Flow Control:	No flow control	Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:130	Position [m]	Code	Observation	MPEG	Photo	Grade																																																																				
Depth: 0.00 m SW04  <table><tr><th>Position [m]</th><th>Code</th><th>Observation</th><th>MPEG</th><th>Photo</th><th>Grade</th></tr><tr><td>0.00</td><td>CP</td><td>Start node, catchpit, reference: SW04</td><td>00:00:03</td><td></td><td></td></tr><tr><td>0.00</td><td>WL</td><td>Water level, 5% of the vertical dimension</td><td>00:00:05</td><td></td><td></td></tr><tr><td>1.63</td><td>IR</td><td>Infiltration, running from 2 o'clock to 3 o'clock</td><td>00:00:17</td><td></td><td></td></tr><tr><td>2.93</td><td>IR</td><td>Infiltration, running at 12 o'clock</td><td>00:00:30</td><td></td><td></td></tr><tr><td>10.87</td><td>JDL</td><td>Joint displaced, large</td><td>00:01:32</td><td>SW03X_U_07012025_1134_0</td><td>1 / 4</td></tr><tr><td>11.17</td><td>SA</td><td>Survey abandoned: JOINT DISPLACED LARGE</td><td>00:02:09</td><td></td><td></td></tr><tr><td>15.00</td><td></td><td>End of pipe</td><td></td><td></td><td></td></tr></table> Construction Features Miscellaneous Features Structural Defects Service & Operational Observations <table><thead><tr><th>STR No. Def</th><th>STR Peak</th><th>STR Mean</th><th>STR Total</th><th>STR Grade</th><th>SER No. Def</th><th>SER Peak</th><th>SER Mean</th><th>SER Total</th><th>SER Grade</th></tr></thead><tbody><tr><td>1</td><td>2.0</td><td>0.2</td><td>2.0</td><td>1.0</td><td>1</td><td>5.0</td><td>0.4</td><td>5.0</td><td>4.0</td></tr></tbody></table>								Position [m]	Code	Observation	MPEG	Photo	Grade	0.00	CP	Start node, catchpit, reference: SW04	00:00:03			0.00	WL	Water level, 5% of the vertical dimension	00:00:05			1.63	IR	Infiltration, running from 2 o'clock to 3 o'clock	00:00:17			2.93	IR	Infiltration, running at 12 o'clock	00:00:30			10.87	JDL	Joint displaced, large	00:01:32	SW03X_U_07012025_1134_0	1 / 4	11.17	SA	Survey abandoned: JOINT DISPLACED LARGE	00:02:09			15.00		End of pipe				STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade	1	2.0	0.2	2.0	1.0	1	5.0	0.4	5.0	4.0
Position [m]	Code	Observation	MPEG	Photo	Grade																																																																						
0.00	CP	Start node, catchpit, reference: SW04	00:00:03																																																																								
0.00	WL	Water level, 5% of the vertical dimension	00:00:05																																																																								
1.63	IR	Infiltration, running from 2 o'clock to 3 o'clock	00:00:17																																																																								
2.93	IR	Infiltration, running at 12 o'clock	00:00:30																																																																								
10.87	JDL	Joint displaced, large	00:01:32	SW03X_U_07012025_1134_0	1 / 4																																																																						
11.17	SA	Survey abandoned: JOINT DISPLACED LARGE	00:02:09																																																																								
15.00		End of pipe																																																																									
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade																																																																		
1	2.0	0.2	2.0	1.0	1	5.0	0.4	5.0	4.0																																																																		

Section Pictures - 07/01/2025 - SW03X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
5	Upstream	SW03X	OSCC2413592	OSCC2413592



SW03X_U_07012025_1134_005.jpg, 00:01:32, 10.87 m
Joint displaced, large



SW03X_U_07012025_1134_006.jpg, 00:01:32, 10.87 m
Joint displaced, large

Item No. 6	Insp. No. 6	Date 07/01/25	Time 11:45	Client's Job Ref OSCC2413592	Weather No Rain Or Snow	Pre Cleaned No	PLR SW04X
Operator OnSite - MH		Vehicle 409		Camera Crafter	Preset Length 0.00 m	Legal Status Not Specified	Alternative ID 1

Town or Village:	Hinkley	Inspection Direction:	Downstream	Upstream Node:	SW04
Road:	Normandy Way	Inspected Length:	65.26 m	Upstream Pipe Depth:	0.000 m
Location:	Verge	Total Length:	65.26 m	Downstream Node:	SW05
Surface Type:		Joint Length:		Downstream Pipe Depth:	2.370 m
Use:	Surface water	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	225 mm		
Flow Control:	No flow control	Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Recommendations:

Scale:	1:566	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 0.00 m SW04 0.00 CP Start node, catchpit, reference: SW04 00:00:02							
0.00 WL Water level, 5% of the vertical dimension 00:00:04 6.47 CN Connection other than junction at 2 o'clock, 150mm dia 00:00:41							
29.44 CN Connection other than junction at 2 o'clock, 150mm dia 00:02:46 50.24 CN Connection other than junction at 2 o'clock, 150mm dia 00:04:33							
65.26 MHF Finish node, manhole, reference: SW05 00:06:05 SW05 Depth: 2.37 m							

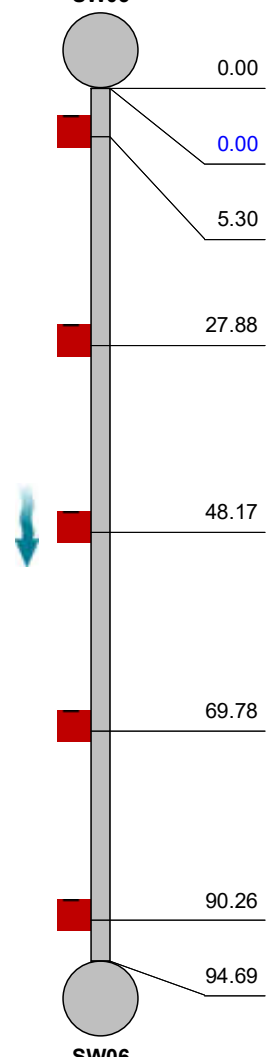
Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 07/01/2025 - SW05X

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
7	7	07/01/25	11:56	OSCC2413592	No Rain Or Snow	No	SW05X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
OnSite - MH		409		Crafter	0.00 m	Not Specified	1

Town or Village:	Hinkley	Inspection Direction:	Downstream	Upstream Node:	SW05
Road:	Normandy Way	Inspected Length:	94.69 m	Upstream Pipe Depth:	0.000 m
Location:	Verge	Total Length:	94.69 m	Downstream Node:	SW06
Surface Type:		Joint Length:		Downstream Pipe Depth:	0.000 m
Use:	Surface water	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	225 mm		
Flow Control:	No flow control	Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:820	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 0.00 m SW05 							
		0.00	MH	Start node, manhole, reference: SW05	00:00:03		
		0.00	WL	Water level, 5% of the vertical dimension	00:00:06		
		5.30	CN	Connection other than junction at 2 o'clock, 150mm dia	00:01:22		
		27.88	CN	Connection other than junction at 2 o'clock, 150mm dia	00:03:15		
		48.17	CN	Connection other than junction at 2 o'clock, 150mm dia	00:04:52		
		69.78	CN	Connection other than junction at 2 o'clock, 150mm dia	00:06:35		
		90.26	CN	Connection other than junction at 2 o'clock, 150mm dia	00:08:15		
		94.69	MHF	Finish node, manhole, reference: SW06	00:08:46		
SW06 Depth: 0.00 m							

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 07/01/2025 - SW06X

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
8	8	07/01/25	12:25	OSCC2413592	No Rain Or Snow	No	SW06X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
OnSite - MH		409		Crafter	0.00 m	Not Specified	1

Town or Village:	Hinkley	Inspection Direction:	Downstream	Upstream Node:	SW06
Road:	Normandy Way	Inspected Length:	48.55 m	Upstream Pipe Depth:	0.000 m
Location:	Verge	Total Length:	55.00 m	Downstream Node:	SW07
Surface Type:		Joint Length:		Downstream Pipe Depth:	0.000 m
Use:	Surface water	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	225 mm		
Flow Control:	No flow control	Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:477	Position [m]	Code	Observation	MPEG	Photo	Grade
		0.00	MH	Start node, manhole, reference: SW06	00:00:02		
		0.00	WL	Water level, 5% of the vertical dimension	00:00:04		
		15.88	S01	Settled deposits, coarse, 10% cross-sectional area loss, start	00:01:31		
		17.21	CN	Connection other than junction at 2 o'clock, 150mm dia	00:01:42		
		40.10	CN	Connection other than junction at 2 o'clock, 150mm dia	00:03:32		
		47.75	CN	Connection other than junction at 9 o'clock, 150mm dia	00:04:24		
		48.55	F01	Settled deposits, coarse, 10% cross-sectional area loss, finish	00:06:02	SW06X_D_07012025_1225_0	3
		48.55	DER	Settled deposits, coarse, 25% cross-sectional area loss: SOLID	00:06:04	SW06X_D_07012025_1225_0	4
		48.55	SA	Survey abandoned: 25% DEBRIS	00:06:08		
		55.00		End of pipe			

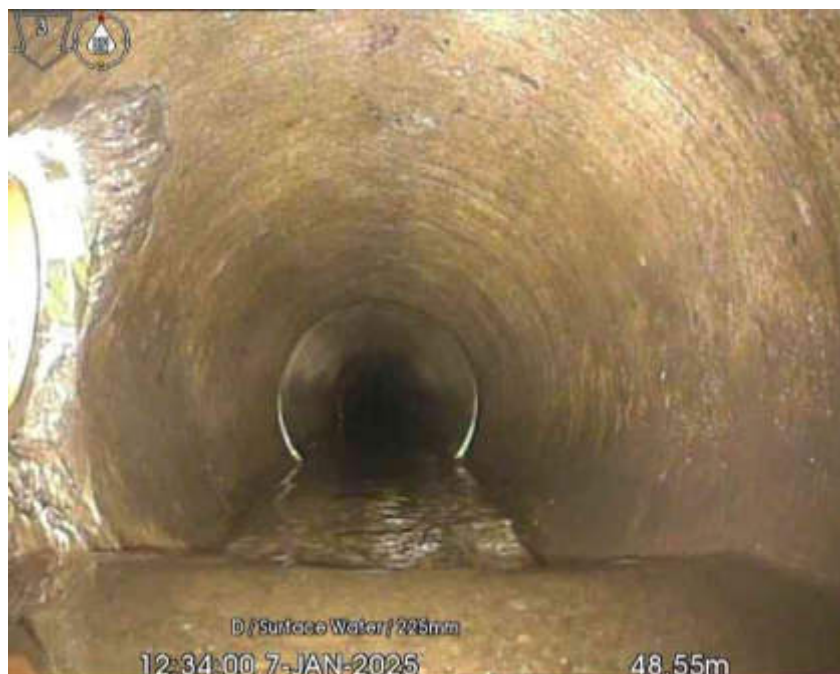
Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	2	5.0	1.5	71.0	4.0

Section Pictures - 07/01/2025 - SW06X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
8	Downstream	SW06X	OSCC2413592	OSCC2413592



SW06X_D_07012025_1225_007.jpg, 00:06:02, 48.55 m
 Settled deposits, coarse, 10% cross-sectional area loss, finish



SW06X_D_07012025_1225_008.jpg, 00:06:04, 48.55 m
 Settled deposits, coarse, 25% cross-sectional area loss, SOLID

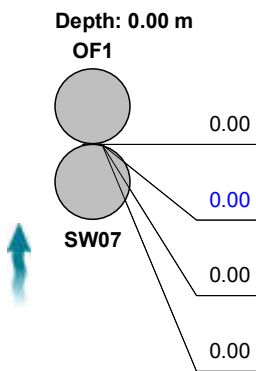
Section Inspection - 07/01/2025 - SW07X

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
9	9	07/01/25	13:15	OSCC2413592	No Rain Or Snow	No	SW07X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
OnSite - MH		409		Crafter	0.00 m	Not Specified	1

Town or Village:	Hinkley	Inspection Direction:	Upstream	Upstream Node:	SW07
Road:	Normandy Way	Inspected Length:	0.00 m	Upstream Pipe Depth:	0.000 m
Location:	Verge	Total Length:	0.00 m	Downstream Node:	OF1
Surface Type:		Joint Length:		Downstream Pipe Depth:	0.000 m
Use:	Surface water	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	900 mm		
Flow Control:	No flow control	Material:	Concrete		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
							
		0.00	OF	Start node, outfall, reference: OF1	00:00:01		
		0.00	WL	Water level, 5% of the vertical dimension	00:00:03		
		0.00	MHF	Finish node, manhole, reference: SW07	00:03:05		
		0.00	MHF	Finish node, manhole, reference: SW07: RECORDED IN REVERSE	00:03:10		

Construction Features

Miscellaneous Features

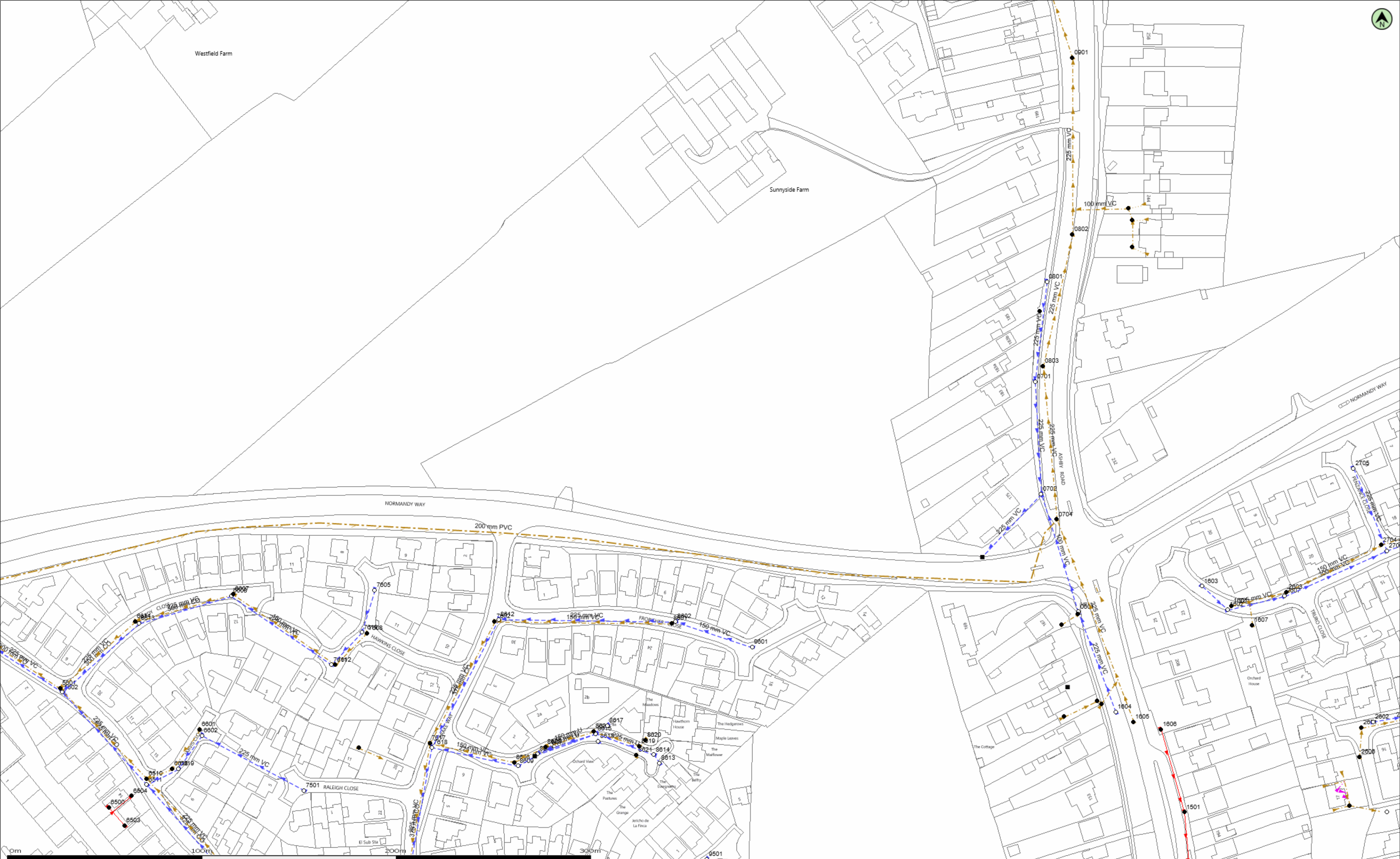
Structural Defects

Service & Operational Observations

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

APPENDIX D

SEWER PLANS



(c) Crown copyright and database rights 2023 Ordnance Survey 100031673

Date: 08/12/23

Scale: 1:1250

Map Centre: 442904,295774

Data updated: 14/11/23

Our Ref: 1342207 - 1

Wastewater Plan A2

Do not scale off this map. The plan and any information supplied with it is furnished as a general guide, is only valid at the date of issue and no warranty as to its correctness is given or implied. In particular this plan and any information shown on it must not be relied upon in the event of any development or works (including but not limited to excavations) in the vicinity of SEVERN TRENT WATER assets or for the purposes of determining the suitability of a point of connection to the sewerage or distribution systems. Reproduction by permission of Ordnance Survey on behalf of HMSO. ©Crown Copyright and database rights 2023. All rights reserved. Ordnance Survey licence number 100031673. Document users other than SEVERN TRENT WATER business users are advised that this document is provided for reference purpose only and is subject to copyright, therefore, no further copies should be made from it.

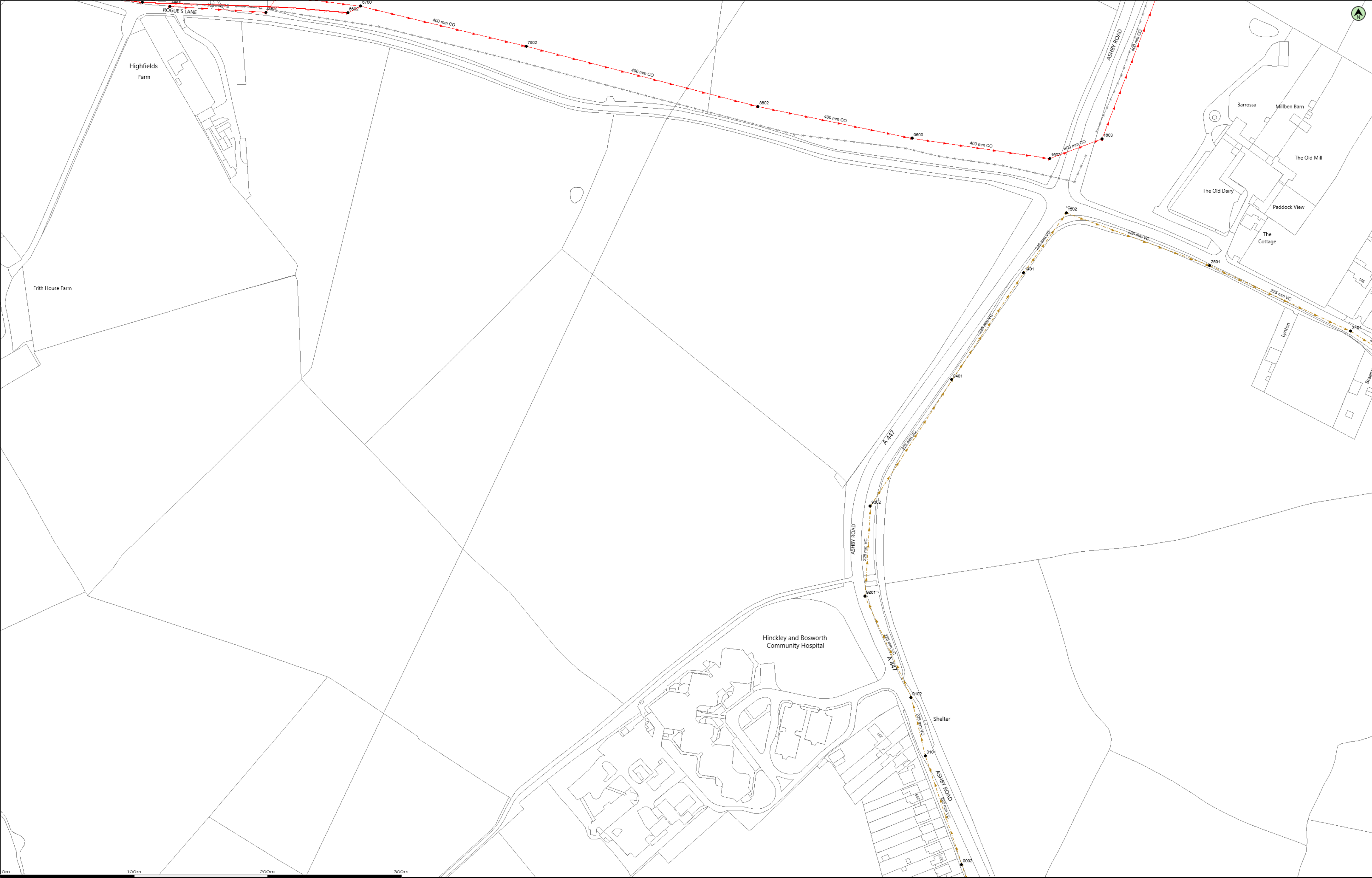
Public Foul Gravity/Lateral Drain	→→→→→	Highway Drain	→→→→→
Public Combined Gravity/Lateral Drain	→→→→→	Overflow Pipe	→→→→→
Public Surface Water Gravity/Lateral Drain	→→→→→	Disposal Pipe	→→→→→
Pressure Foul	→→→→→	Culverted Water Course	→→→→→
Pressure Combined	→→→→→	Pumping Station	▲▲▲▲▲
Pressure Surface Water	→→→→→	Fitting	■

Manhole Foul	●
Manhole Surface	○
Abandoned Pipe	—X—X—X—X—X—
Chamber	■
Section 104 sewers are shown in green	
Private sewers are shown in magenta	

matthew.genn@adcinfastructure.com

Normandy Way





Do not scale off this map. The plan and any information supplied with it is furnished as a general guide, is only valid at the date of issue and no warranty as to its correctness is given or implied. In particular this plan and any information shown on it must not be relied upon in the event of any development or works (including but not limited to excavations) in the vicinity of SEVERN TRENT WATER assets or for the purposes of determining the suitability of a point of connection to the sewerage or distribution systems. Reproduction by permission of Ordnance Survey on behalf of HMSO. ©Crown Copyright and database rights 2023. All rights reserved. Ordnance Survey licence number 100031673. Document users other than SEVERN TRENT WATER business users are advised that this document is provided for reference purpose only and is subject to copyright, therefore, no further copies should be made from it.

Public Four Gravity/Lateral Drain	Highway Drain	Manhole Foot	Manhole Surface
Public Combined Gravity/Lateral Drain	Overflow Pipe	Abandoned Pipe	Chamber
Public Surface Water Gravity/Lateral Drain	Disposed Pipe	Section 161 sewers are shown in green	Private sewers are shown in magenta
Pressure Fault	Converted Water Course		
Pressure Combined	Pumping Station		
Pressure Surface Water	Filling		

matthew.genn@adcinfrastucture.com

Ashby Road

