Avie Consulting Ltd
Unit 6 Killingbeck Court
Killingbeck Office Village
Killingbeck Drive
Leeds, LS14 6FD

Land off Lady House Lane, Huddersfield, HD4 7QE

MR J MCLOUGHLIN

Flood Risk Assessment and Drainage Strategy Statement

July 2026

P5018

Avie Consulting Ltd
Unit 6 Killingbeck Court
Killingbeck Office Village
Killingbeck Drive
Leeds, LS14 6FD

Revision History		
Initial Issue	28 July 2026	
Prepared By:		Checked:
	Shane Plunkett Civil Engineer	Steve Bowles Associate

Rev No	Date	Description	By	Checked
P01	28.07.2026	Initial Issue	STP	SAB

Avie Consulting Ltd
Unit 6 Killingbeck Court
Killingbeck Office Village
Killingbeck Drive
Leeds, LS14 6FD

Contents

1 INTRODUCTION

Avie Consulting Ltd has been commissioned by Mr J McLoughlin to prepare a Flood Risk Assessment and Drainage Strategy Statement to support a Full Planning Application for the construction of three residential dwellings, together with associated access, parking, landscaping and drainage infrastructure, on land off Lady House Lane, Huddersfield, HD4 7QE.

The purpose of this report is to assess flood risk to and from the proposed development and to outline a sustainable drainage strategy in accordance with the National Planning Policy Framework, associated Planning Practice Guidance and the requirements of Kirklees Council as Lead Local Flood Authority.

2 PROPOSED DEVELOPMENT

The site is predominantly greenfield and contains two detached outbuildings close to the existing access, understood to have been used or constructed as garages. The proposed development comprises three residential dwellings with associated access, parking, private gardens and drainage infrastructure.

Please refer to **Appendix A** for Site Development Proposals.

The site is located some 2.7km south of Huddersfield town centre at Ordnance Survey grid reference SE141138, with the nearest post code being HD4 7QE.

The site is bounded as follows:

- To the North – Grassland followed by a watercourse and residential dwellings fronting Newsome Road South.
- To the East – Yorkshire Wildlife Trust Stirley Nature Reserve.
- To the South – Lady House Lane followed by open grassland.
- To the West – Residential dwellings fronting Lady House Lane.

Site levels vary between roughly 145.00m and 125.00m AOD with the site falling away from Lady House Lane towards the north from its high point on the south of the site.

The site location plan is shown in **Appendix B**.

3 FLOOD RISK ASSESSMENT CRITERIA

Environment Agency flood mapping has been reviewed. The site is located entirely within Flood Zone 1 according to the Environment Agency Flood Map for Planning.

The indicative Floodplain Map for the site is shown in figure 1 below.

Figure 1

Although the site lies entirely within Flood Zone 1, the Flood Risk Assessment considers the following matters:

- Flooding from other sources such as rivers, tidal, sewers and overland flooding.
- The potential for the development to increase flooding elsewhere through the addition of hard surfaces.
- The effect of the new development on surface water run-off.
- The accuracy and limitations of the Environment Agency datasets.

4 EXISTING FLOOD DEFENCES

The site does not benefit from formal flood defences. As the site lies within Flood Zone 1 and is elevated above the nearby watercourse, flood defences are not considered necessary for the proposed development.

5 SOURCES OF FLOODING

As part of the flood risk assessment consideration should be given to the following sources of flooding and what effect these could have on the development.

5.1 Flooding from Rivers / Watercourses

The Flood Map for Planning identifies the site as lying entirely within Flood Zone 1.

An unnamed watercourse is located towards the north-western boundary of the land within the applicant's ownership. Based on the available topographical information, the proposed development area is situated significantly above the watercourse, with an approximate level difference of 20m between the southern part of the site and the lower northern extent.

The watercourse will be the proposed discharge point for the surface water discharge from the development. The precise outfall location, bank levels and any required erosion protection will be confirmed as part of the detailed drainage design.

On the basis of the Environment Agency mapping and the substantial level difference between the proposed development area and the watercourse, the risk of fluvial flooding to the proposed dwellings is considered **VERY LOW**.

5.2 Flooding from the Sea

The site is approximately 78km from the sea, as such the risk of flooding from this source is **VERY LOW**.

5.3 Flooding from Land

The potential for flooding from intense rainfall and overland surface water flow has been considered with reference to the local topography and published surface water flood mapping.

The site falls steeply northwards from Lady House Lane, from approximately 145.00m AOD near the southern boundary to approximately 125.00m AOD at the northern extent. Published mapping does not identify the proposed dwelling locations as being at significant risk of surface water flooding. However, the steep topography means that localised runoff may travel downslope during intense rainfall, particularly before the proposed drainage system is operational or if gullies become blocked.

The long-term surface water flood mapping in Figure 2 does not identify a surface water flow path through the proposed development area.

The detailed levels design should retain safe exceedance routes through landscaped and access areas and set finished floor levels at least 150mm above adjacent external levels. External levels should fall away from the buildings wherever practicable.

Subject to the proposed level and exceedance-routing measures, the risk of flooding from surface water and overland flow is considered **LOW**.

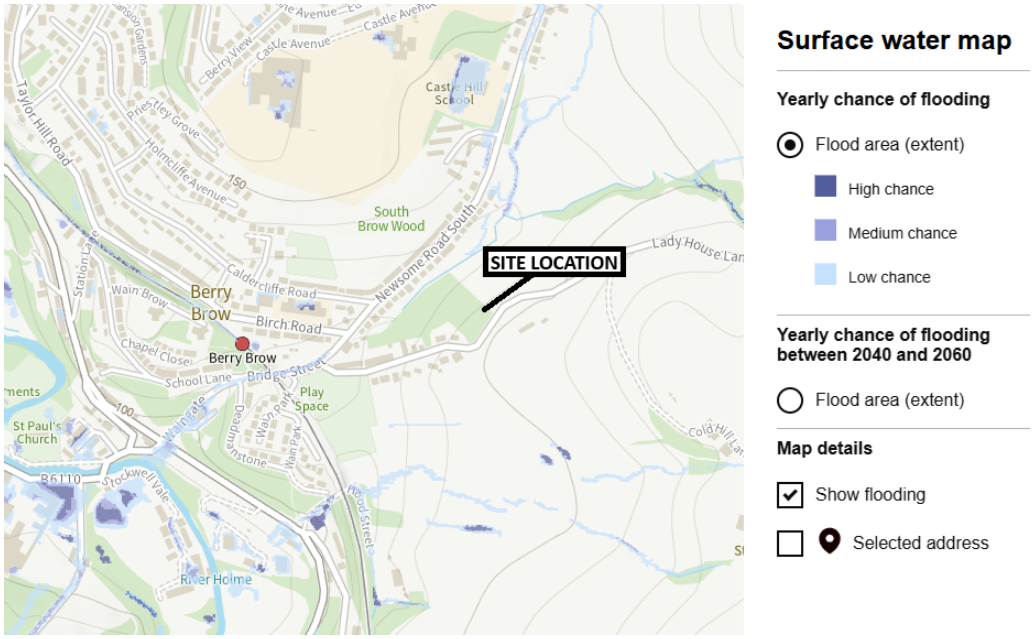


Figure 2

5.4 Flooding from Groundwater

Groundwater flooding occurs where groundwater levels rise above ground level or enter below-ground structures. Published geological mapping indicates Pennine Lower Coal Measures bedrock, comprising interbedded mudstone, siltstone and sandstone. No site-specific groundwater monitoring or infiltration testing has yet been undertaken. The sloping nature of the site reduces the likelihood of widespread groundwater emergence, although perched groundwater may be encountered locally within superficial deposits or weathered strata.

The risk of groundwater flooding is currently considered **LOW**. This conclusion should be reviewed following completion of the ground investigation, infiltration testing and any groundwater observations made during construction.

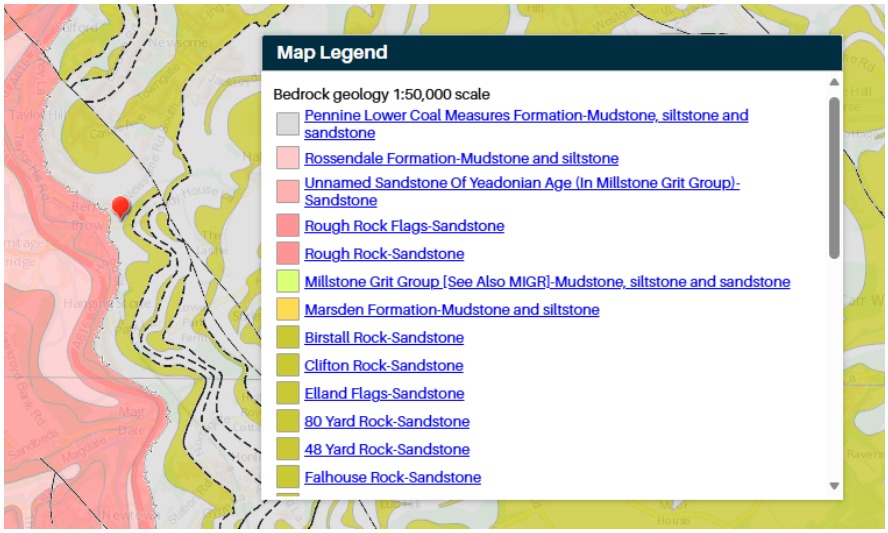


Figure 3

5.5 Flooding from Sewers

Sewer records have been obtained from Yorkshire Water for the site area and its immediate surroundings. There is a 250mm diameter combined water sewer recorded in Lady House Lane. The Yorkshire Water sewer record plan is contained within Appendix C.

There are no recorded incidents to the local sewers and, given the sites topography, we consider the risk of flooding from this source to be **VERY LOW**.

6 FLOOD RISK SUMMARY

Sources of Flooding	Risk			Control Measures
	High	Medium	Low	
Rivers:			X	None
Sea			X	None
Land			X	Finished floor levels to be set at least 150mm above adjacent proposed external levels, with exceedance flows directed away from buildings.
Groundwater			X	None
Existing sewers			X	None

7 INCREASE TO OFFSITE FLOODING

The proposed development will increase the impermeable area of the site and could increase the rate and volume of surface water runoff if it is not managed. The drainage strategy must therefore follow the surface water discharge hierarchy and restrict runoff so that flood risk is not increased elsewhere.

The site is treated as a greenfield development for drainage purposes. Where infiltration is not feasible, surface water will be attenuated on site and discharged at a controlled rate to the existing watercourse located towards the north-west of the site. The proposed discharge rate of 2.5 L/s remains subject to agreement with Kirklees Council as Lead Local Flood Authority. The drainage system should accommodate the 1% annual exceedance probability rainfall event, including the appropriate climate change allowance and urban creep, without flooding buildings or increasing flood risk off site.

8 FLOOD RISK VULNERABILITY

The vulnerability of the proposed development has been assessed in accordance with the National Planning Policy Framework and the associated Planning Practice Guidance on flood risk and coastal change.

The proposed use should be considered against the flood risk vulnerability classification and flood zone compatibility guidance contained within the National Planning Policy Framework and Planning Practice Guidance.

The proposed residential development is classified as "**More Vulnerable**" in accordance with the National Planning Policy Framework and associated Planning Practice Guidance.

The site is indicated on the flood maps to be in Flood Zone 1.

Table 3: Flood Risk Vulnerability and Flood Zone 'Compatibility'

Flood Risk Vulnerability Classification (from Table 2)		**Essential Infrastructure**	**Water compatible**	**Highly Vulnerable**	**More Vulnerable**	**Less Vulnerable**
Flood Zone	Zone 1	✓	✓	✓	✓	✓
	Zone 2	✓	✓	Exception Test required	✓	✓
	Zone 3a	Exception Test required	✓	×	Exception Test required	✓
	Zone 3b	Exception Test required	✓	×	×	×

✓ Development is appropriate
× Development should not be permitted.

Utilising the Flood Zone Compatibility Table above, the development is deemed appropriate for the site and flood risk classification Flood Zone 1. The Sequential Test and Exception Test are not required on flood-zone compatibility grounds for this site, subject to the Local Planning Authority's wider consideration of flood risk from all sources.

As part of the assessment the following development constraints require consideration and recommendation made as to how to mitigate any flood risk appropriately.

8.1 Finished Floor Levels

The Environment Agency Flood Map for Planning identifies the site as Flood Zone 1. Published surface water mapping also does not identify a significant flood extent affecting the proposed dwelling footprints.

To provide resilience against localised runoff and drainage exceedance, finished floor levels should be set at least 150mm above adjacent proposed external levels. External levels should generally fall away from building thresholds, with exceedance flows directed towards roads, drives, gardens and other areas where temporary shallow flooding can occur without entering buildings.

8.2 Existing Flood Volumes

The site lies outside the mapped fluvial floodplain and no loss of mapped floodplain storage is expected. Flood

compensation is therefore not required.

8.3 Flood Routing

The detailed external levels and drainage design should maintain clear exceedance routes through the development. Surface water generated during events exceeding the drainage system design capacity, or during temporary blockage, should be directed away from dwellings and neighbouring properties and conveyed northwards through landscaped or access areas without creating unsafe depths or velocities.

8.4 Emergency Access

The site and its access from Lady House Lane are within Flood Zone 1. Safe access and egress are therefore expected to remain available during the design flood event. No separate flood evacuation plan is considered necessary, although the final levels design should ensure that drainage exceedance does not obstruct the access route.

9 CLIMATE CHANGE ALLOWANCES

The Environment Agency publishes climate change allowances for increases in peak rainfall intensity. The site lies within the Aire and Calder management catchment. For residential development with an assumed minimum design life of 100 years, the applicable upper-end peak rainfall allowance is 45% for the 1% annual exceedance probability rainfall event.

Aire and Calder Management Catchment peak rainfall allowances

3.3% annual exceedance rainfall event

Epoch	Central allowance	Upper end allowance
2050s	20%	35%
2070s	25%	40%

1% annual exceedance rainfall event

Epoch	Central allowance	Upper end allowance
2050s	25%	40%
2070s	30%	45%

*Use '2050s' for development with a lifetime up 2060 and use the 2070s epoch for development with a lifetime between 2061 and 2125.

Table 2

The proposed surface water drainage and attenuation systems will need to be designed to accommodate a 45% climate change allowance.

10 PROPOSED DRAINAGE STRATEGY

10.1 Surface Water

Kirklees Council is the Lead Local Flood Authority for the site. Surface water disposal must follow the drainage hierarchy: reuse, infiltration to ground, discharge to a surface water body, discharge to a surface water sewer and, only where the preceding options are not reasonably practicable, discharge to a combined sewer. The final surface water drainage strategy remains subject to BRE 365 infiltration testing, confirmation of the detailed outfall arrangement and agreement of the proposed discharge rate with Kirklees Council as Lead Local Flood Authority. The foul water drainage strategy remains subject to Yorkshire Water's response to the submitted Pre-Planning Enquiry.

The Surface Water drainage proposals for the site will consider severe storm events up to and including 1 in 100-year return period events with additional allowances for Climate Change (45%) and urban creep (10%). The provision of a rigorous treatment train will need to be included in the detailed design of the surface water drainage system in accordance with best practice and council policies.

Discharge to Ground

Infiltration has not yet been proven by site-specific testing. BRE 365 infiltration testing should be undertaken at representative locations and depths before the drainage design is finalised. The testing should also record groundwater conditions and consider the site's steep gradient, geology, slope stability, nearby structures and the required separation distances from buildings, boundaries and retaining structures. Infiltration drainage should not be discounted solely on the basis of desk-study geology; however, it should only be adopted where testing demonstrates that it is feasible, safe and maintainable.

Discharge to a Surface Water Body

An unnamed watercourse is located towards the north-western extent of the land within the applicant's ownership. Subject to BRE 365 infiltration testing demonstrating that infiltration is not feasible, surface water runoff will be attenuated on site and discharged at a controlled rate to this watercourse.

The proposed outfall will be located within the applicant's land ownership. The detailed design will confirm the outfall position, levels, construction, erosion protection and maintenance access. Any ordinary watercourse consent or other approval required from Kirklees Council will be obtained before construction.

A maximum discharge rate of 2.5 L/s is proposed, subject to agreement with Kirklees Council as Lead Local Flood Authority.

Discharge to Surface Water Sewer

Yorkshire Water sewer records do not identify a public surface water sewer within the immediate vicinity of the site. Discharge to a public surface water sewer has therefore been discounted.

Discharge to Combined Sewer

Foul water from the three proposed dwellings will discharge to the public combined sewer located within Lady House Lane, subject to confirmation of capacity, connection levels and discharge arrangements by Yorkshire Water.

A Section 106 sewer connection application will be submitted to Yorkshire Water before the connection to the public sewer is constructed.

11 PROPOSED DRAINAGE SCHEME

The proposed surface water drainage strategy has been developed in accordance with the surface water discharge hierarchy described above. It is proposed that surface water runoff from the development will be attenuated on site before discharging to the existing watercourse located to the north-west of the site.
The total development site area is approximately 2,920.205m², equivalent to 0.292 hectares. The proposed impermeable area has been assessed as 1,147.787m², inclusive of a 10% urban creep allowance. The proposed impermeable areas drawing is included within Appendix D.

Surface water runoff will be collected by a gravity drainage network and directed to a flow control chamber and underground attenuation tank. Flows will be restricted to a maximum discharge rate of 2.5 L/s by a flow control unit.

Following the flow-control chamber, surface water will discharge through a carrier pipe towards the north-western part of the site. Due to the significant level difference across the site, the carrier pipe will terminate at a designed outlet structure before discharging into a proposed conveyance swale. The swale will convey the restricted flows to the existing watercourse within the applicant's ownership.

The site falls at an approximate gradient of 1 in 5. The downstream carrier pipe will be designed at an appropriate diameter and gradient, with its hydraulic performance confirmed through the detailed drainage design. The transition between the carrier pipe and the conveyance swale will incorporate a suitable outlet structure and erosion protection.

The Lead Local Flood Authority's guidance indicates that runoff from greenfield developments should generally be restricted to 5.0 L/s per hectare. Based on a total site area of 0.292 hectares, this would provide an allowable discharge rate of approximately 1.46 L/s. However, achieving this rate is not considered practicable while also satisfying the LLFA requirement for the flow control device to have a minimum clear opening of 75mm.

A restricted discharge rate of 2.5 L/s is therefore proposed for agreement with the LLFA. This is considered to be the lowest practicable discharge rate that can be achieved while maintaining the LLFA's preferred minimum clear opening of 75mm within the flow-control device. The proposed arrangement will reduce the risk of blockage while providing a significant restriction on the peak rate of surface water runoff leaving the development.

The surface water drainage network and attenuation system will be designed to accommodate runoff from the proposed impermeable areas during storm events up to and including the 1 in 100-year return period event, including a 45% climate-change allowance and 10% urban creep allowance. Exact attenuation volumes required will be confirmed through detailed hydraulic modelling.

The surface water drainage system will remain private and will be maintained by the property owners or an appointed management company.

Volume of Runoff

Surface water runoff from the proposed impermeable areas will be temporarily stored within the underground attenuation tank before being discharged at a controlled rate of 2.5 L/s.

The attenuation system will be sized through detailed hydraulic modelling to ensure that no flooding occurs during storm events up to and including the 1 in 100-year return period event, including the appropriate climate change allowance. The final attenuation volume will be confirmed as part of the detailed drainage design.

Foul Water Drainage

Due to the level difference between the proposed development and the existing public sewer within Lady House Lane, a gravity foul water connection is not currently considered achievable.

Foul water flows from the development will therefore be directed to a package pumping station before being pumped to the existing public combined sewer located within Lady House Lane. The package pumping station will be positioned to minimise potential noise, odour, vibration and maintenance impacts on the proposed dwellings. Its final location, storage capacity, ventilation and access arrangements will be confirmed in accordance with the manufacturer's recommendations and Yorkshire Water's requirements. The pumping station will include suitable emergency storage and resilience measures to manage temporary pump failure, power failure or interruption to the downstream connection.

The final foul water connection arrangement will be confirmed following receipt of Yorkshire Water's Pre-Planning Enquiry response and confirmation of the public sewer levels. This may require a new private or adoptable connection chamber within the site, allowing the pumped rising main to discharge into a gravity connection to the public combined sewer.

A Pre-Planning Enquiry has been submitted to Yorkshire Water; however, a formal response has not yet been received. The response will confirm whether sufficient capacity is available within the existing public sewer, the acceptable pumped foul water discharge rate, the available connection point and the relevant public sewer invert levels. The foul water drainage design will be reviewed and finalised following receipt of Yorkshire Water's response.

12 DRAINAGE IMPACT

Restricting surface water runoff to a maximum discharge rate of 2.5 L/s for storm events up to and including the 1 in 100-year return period event, including the appropriate climate change allowance, will significantly reduce the peak rate of runoff leaving the site.

The use of an attenuation tank and flow control unit will ensure that flows are stored on site and released gradually to the downstream conveyance swale and watercourse. Subject to agreement of the proposed discharge rate with the LLFA and completion of the detailed hydraulic and outfall design, the proposed drainage strategy is expected to have a negligible impact on the receiving watercourse and will not increase flood risk elsewhere.

13 GENERAL REMARKS

This report has been prepared for Mr J McLoughlin and their immediate advisers in connection with the proposed residential development of the site. It may not be reproduced in whole or in part, or relied upon by a third party, without the written agreement of Avie Consulting Ltd.

Avie Consulting Ltd accepts no liability for use of this report for any purpose other than that for which it was prepared.

14 RECOMMENDATIONS / CONCLUSIONS

- The site lies within Flood Zone 1 and the proposed residential development is appropriate in flood-zone terms.
- Residential dwellings are classified as More Vulnerable development. This use is compatible with Flood Zone 1.
- Finished floor levels should be set at least 150mm above adjacent external levels, with external levels falling away from building thresholds where practicable.
- The detailed levels design should preserve safe exceedance routes and direct surface water away from dwellings, adjoining properties and the site access.
- BRE 365 infiltration testing should be undertaken before the surface water drainage strategy is finalised. The testing should consider groundwater, slope stability and separation distances from buildings, boundaries and retaining structures.
- The Yorkshire Water Pre-Planning Enquiry response should be reviewed when received to confirm public sewer capacity, the acceptable pumped foul discharge rate, the point and level of connection and any requirements for a new connection chamber.
- The final drainage layout and hydraulic calculations should demonstrate no flooding of buildings during the 1% annual exceedance probability event including 45% climate change and 10% urban creep, with any exceedance contained and safely routed within the site.
- Foul water should discharge to the public combined sewer, subject to Yorkshire Water approval and a Section 106 connection application.

APPENDIX A - Site Development Proposals

PROPOSED INDICATIVE SITE PLAN
1 : 200

Rev No.	Description	Drawn:	Date

DO NOT SCALE OFF THIS DRAWING

ACUMEN
Designers & Architects
acumenarchitects.co.uk 01484 546 000
Headrow House, Old Leeds Road, Huddersfield, Huddersfield HD1 1SG

Client: MR J MCLOUGHLIN

Project: LADYHOUSE LANE

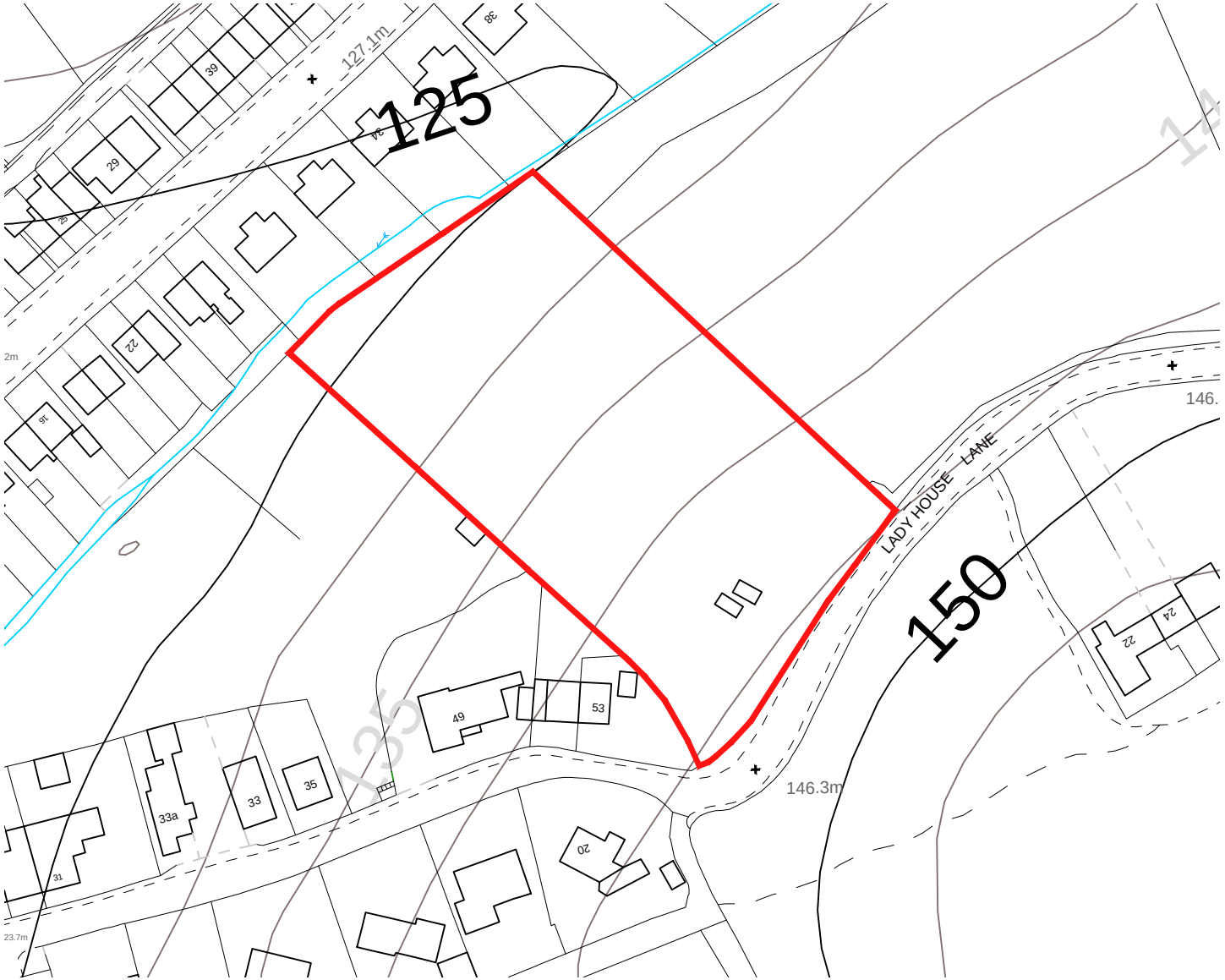
Description: PROPOSED INDICATIVE SITE PLAN

Drawing No	Rev No
2988_SK01	

Scale	Date Drawn	Drawn By	Authorised By
1 : 200 @ A1	06/19/26	AO	JC

Purpose of Issue
Planning ○ Building Regs ○ Tender ○ Construction ○ Comment ● Info ○

APPENDIX B - Site Location Plan



Only figured dimensions should be used.

Scaled dimensions should be checked with the Architect.

DO NOT SCALE OFF THIS DRAWING

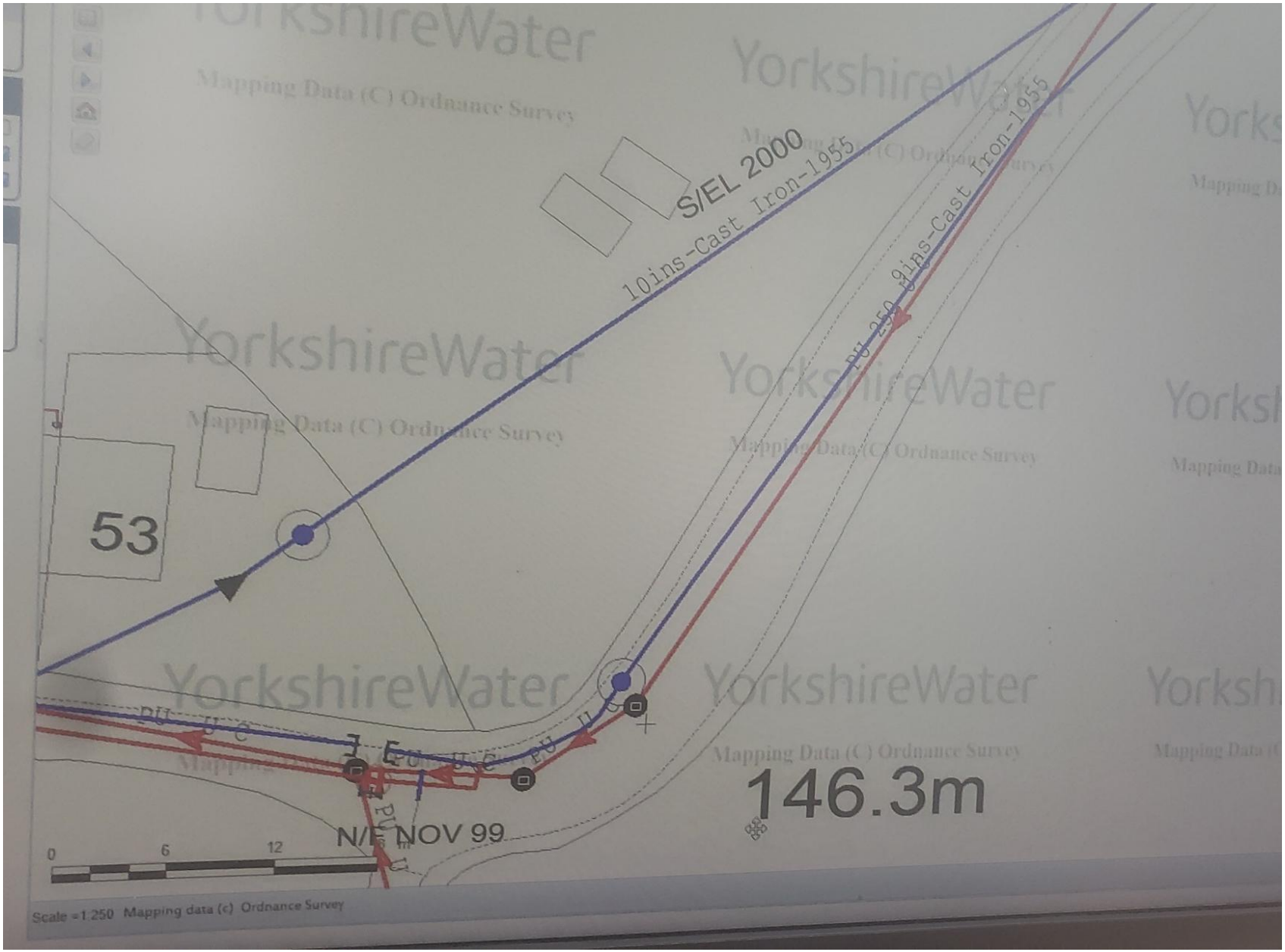
rev	description	drwn	auth	date

Client	Project	Description
MR J MCLOUGHLIN	LADYHOUSE LANE	LOCATION PLAN

Project No	Drawing No	Rev	Scale	Date Drawn	Drawn By	Authorised By	Purpose of Issue
2988	LOC	/	1:1250@ A4	08.06.26	AO	JC	Planning○ Building Regs○ Tender○ Construction○ Comment○ info●

ACUMEN
DESIGNERS & ARCHITECTS
acumenarchitects.co.uk 01484 546 000
Headrow House, Old Leeds Road, Huddersfield, HD1 1SG

APPENDIX C - Yorkshire Water sewer record plan


YorkshireWater
Mapping Data (C) Ordnance Survey
S/EL 2000
10ins-Cast Iron-1955
PU 250 9ins-Cast Iron-1955
53
PU
N/E NOV 99
146.3m
0
6
12
Scale =1:250 Mapping data (c) Ordnance Survey

APPENDIX D - Proposed Impermeable Areas & Drainage Strategy

OS GRID REFERENCE
372845, 166017

TOPOGRAPHIC SURVEY INFORMATION REQUIRED TO DETERMINE OUTFALL CONNECTION DETAIL TO EXISTING WATERCOURSE.

ATTENUATION DETAILS
16.5m x 4m x 0.8m = 62.7m³ (59.565m³ ASSUMING 95% VOID RATIO).

IN ORDER TO RESTRICT FLOWS TO 2.5 L/s, a 62.7m³ ATTENUATION TANK IS TO BE INSTALLED UP STREAM OF THE FLOW CONTROL DEVICE.

RODDING ACCESS SHOULD BE INSTALLED TO ALLOW FOR MAINTENANCE.

ATTENUATION TANK TO BE INSTALLED AS PER MANUFACTURERS DETAILS & SUFFICIENT COVER PROVIDED.

DRAINAGE SYSTEM IS TO BE PIPED DOWNSTREAM OF THE FLOW CONTROL UNIT UNTIL IT REACHES THE SURFACE. AT THIS POINT, THE SYSTEM SHOULD DISCHARGE TO A CONVEYANCE SWALE DIRECTING FLOWS TOWARDS THE EXISTING WATERCOURSE LOCATED AT THE NORTH WEST CORNER OF THE SITE.

FLOW CONTROL DETAILS
REF: CTL-SHE-0075-2500-1000-2500
FLOW: 2.5 L/s
HEAD: 1m

KIRKLEES COUNCIL ARE THE LLFA FOR THIS AREA.

GUIDANCE HAS BEEN PROVIDED BY THE LLFA TO STATE THAT AN ALLOWABLE DISCHARGE RATE WOULD BE EQUIVALENT TO 5 L/s PER HECTARE. THE DEVELOPABLE SITE AREA EQUATES TO 2920.205m² (0.292ha).

USING THIS AREA, THE ALLOWABLE DISCHARGE RATE EQUATES TO:

5L/s / 0.292ha = **1.46 L/s**

AS IT IS IMPRACTICAL TO RESTRICT FLOWS TO THIS RATE WITH AN ORIFICE SIZE LESS THAN 75mm, A DISCHARGE RATE OF 2.5L/s HAS BEEN PROPOSED.

FLOW CONTROL DEVICE TO BE INSTALLED WITHIN THE DRAINAGE SYSTEM TO RESTRICT FLOW AS CLOSE TO GREENFIELD RUN OFF RATES.

A **2.5 L/s** FLOW CONTROL DEVICE HAS BEEN PROPOSED DUE TO IT BEING IMPRACTICAL TO RESTRICT FLOWS LOWER WITHOUT ACHIEVING A 75mm ORIFICE.

RESTRICTING FLOWS LOWER THAN THIS INTRODUCES A SIGNIFICANT BLOCKAGE AND FLOOD RISK ON THE DRAINAGE SYSTEM.

KIRKLEES FLOOD RISK AND DRAINAGE MANAGEMENT TEAM TO CONFIRM ACCEPTANCE PRIOR TO CONSTRUCTION.

FOUL PACKAGE PUMP TO BE INSTALLED DUE TO ANTICIPATED LEVEL DIFFERENCE OF THE NEW DWELLINGS AND PUBLIC SEWER WITHIN LADY HOUSE LANE. FOUL PUMP TO BE AT LEAST 7m FROM ANY DWELLING.

EXACT LEVELS TO BE CONFIRMED PRIOR TO CONSTRUCTION.

YORKSHIRE WATER PRE-PLANNING ENQUIRY HAS BEEN SUBMITTED BUT A RESPONSE HAS NOT YET BEEN RECEIVED. ENQUIRY TO CONFIRM EXISTING PUBLIC SEWER CAPACITY AND ALLOWABLE FOUL PUMP RATE.

FOUL PACKAGE PUMP TO BE INSTALLED AS PER MANUFACTURERS GUIDANCE.

FOUL RISING MAIN TO DISCHARGE TO YORKSHIRE WATER SEWER LOCATED WITHIN LADY HOUSE LANE.

ADDITIONAL CHAMBER MAY BE REQUIRED ON SITE PRIOR TO DISCHARGE TO ACHIEVE A GRAVITY CONNECTION TO THE PUBLIC SEWER.

FINISHED FLOOR LEVELS TO BE RAISED 150mm ABOVE EXISTING GROUND LEVELS AND THRESHOLD DRAINS TO BE INSTALLED PROVIDE ADDITIONAL PROTECTION FROM ANY OVER LAND FLOWS.

ALL LEVELS ON SITE ARE INDICATIVE FOR PLANNING PURPOSES. TOPOGRAPHIC SURVEY & CONFIRMED FINISHED FLOOR LEVELS REQUIRED PRIOR TO A DETAILED DESIGN FOR CONSTRUCTION.

EXISTING 10 INCH CAST IRON WATER MAIN PASSES THROUGH FRONTAGE OF SITE. 3m EASEMENT TO BE GIVEN EITHER SITE OF WATER MAIN.

WATER MAIN LOCATION & DEPTH TO BE SURVEYED PRIOR TO CONSTRUCTION.

142.500 TBC
PLOT 3

142.500 TBC
PLOT 2

142.200 TBC
PLOT 1

RE 141.750
IL 140.760
RE 144.450
IL 140.480
IL 141.695
IL 141.600
IL 144.320
IL 144.725
IL 141.600
RE 144.150
IL 143.930
IL 140.520
IL 141.385
IL 141.960
IL 143.670
RE 140.560

3m Easement
3m Easement
3m Easement
3m Easement

No.53
49
35
146.3m
LADY HOUSE LANE

Notes-

All dimensions are in millimetres unless noted otherwise

DO NOT SCALE THIS DRAWING - IF IN DOUBT ASK

1. All dimensions & levels to be checked by the contractor prior to commencement of work, any discrepancy shall be reported immediately to Avie Consulting Ltd
2. All work shall be carried out in accordance with Local Authority, statutory authority, health & safety requirements and regulations.
3. The drawings shall be read in accordance with all other contract documents relevant at that time of issue and during the period of the contract.
4. The contractor must ensure the overall stability of the works is adequate at all stages of the construction.
5. No allowance has been made for cutouts, holes, notches, etc. for services. All of these are to be agreed prior to the start of the works.
6. Any existing live services will require identifying and diverting to accommodate proposed works.

DRAINAGE KEY-

- XXX.XXX — GROUND FLOOR LEVEL
- SITE BOUNDARY
- PROPOSED SURFACE WATER DRAIN / MINI ACCESS CHAMBER/PPIC (150/100)
- PROPOSED FOUL WATER DRAIN / MINI ACCESS CHAMBER/PPIC (150/250)
- PROPOSED CONVEYANCE SWALE
- EXISTING DRAIN
- EXISTING YORKSHIRE WATER MAIN & 3m EASEMENT
- EXISTING WATERCOURSE
- RE — RODDING EYE
- DC — DRAINAGE CHANNEL
- TRAPPED POLYPROPYLENE SURFACE WATER GULLY (CONNECTION PIPE 110Ø)

FOR PLANNING

Rev	Details	By	Chk.	Date
P01	Initial issue	S.T.P.	T.C.	28.07.2026

AVIE CONSULTING LTD
6 Killingbeck Court,
Killingbeck Office Village,
Killingbeck Drive,
Leeds LS14 6FD.
Tel: 0113 249 7416
www.avie-consulting.co.uk

Client:
Acumen Architects

Project:
Residential Development at
Land off Lady House Lane,
Huddersfield, HD4 7QE

Title:
Proposed Drainage Strategy

Drawn:	Checked:	Date:	Scale:	Original dwg size
S.T.P.	T.C.	July 2026	1:200	A1

Drawing Number: P5018-AVE-XX-XX-DR-C-0001
Rev: P01

OS GRID REFERENCE
414126 , 413882

PLOT 3
PLOT 2
PLOT 1
3m Easement
3m Easement
3m Easement
3m Easement
No.53
LADY HOUSE

Notes-

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All dimensions are in millimetres unless noted otherwise

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2. All work shall be carried out in accordance with Local Authority, statutory authority, health & safety requirements and regulations.
3. The drawings shall be read in accordance with all other contract documents relevant at that time of issue and during the period of the contract.
4. The contractor must ensure the overall stability of the works is adequate at all stages of the construction.
5. No allowance has been made for cutouts, holes, notches, etc. for services. All of these are to be agreed prior to the start of the works.
6. Any existing live services will require identifying and diverting to accommodate proposed works.

PROPOSED IMPERMEABLE AREAS

	464.909m^2 - 0.046ha
	178.283m^2 - 0.018ha
	458.871m^2 - 0.046ha
TOTAL:	1102.063m^2 - 0.110ha
TOTAL (INC URBAN CREEP):	1147.943m^2 - 0.115ha

Rev	Details	By	Chk	Date
P01	Initial issue	S.T.P.	T.C.	28.07.2026

AVIE CONSULTING LTD
6 Killingbeck Court,
Killingbeck Office Village,
Killingbeck Drive,
Leeds LS14 6FD.
Tel: 0113 249 7416
www.avie-consulting.co.uk

Client:
Mr J McLoughlin

Project:
Residential Development at
Land off Lady House Lane,
Huddersfield, HD4 7QE

Title:
Proposed Impermeable Areas

Drawn:	Checked:	Date:	Scale:	Original dwg size
S.T.P.	T.C.	July 2026	1:250	A3

Drawing Number: P5018-AVE-XX-XX-DR-C-0002
Rev: P01