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NATIONAL BREAST IMAGING ACADEMY WYTHENSHAWE HOSPITAL, MANCHESTER

Verification Report & Maintenance Strategy

Curtins Ref: **072094-CUR-00-XX-T-C-92001**
Revision: P01
Issue Date: 16 January 2026

Client Name: Manchester University NHS Foundation Trust

Site Address: Wythenshawe Hospital, Southmoor Road, Wythenshawe, Manchester, M23 9LT

Rev	Description	Issued by	Checked	Date
P01	First Issue	JC	ATL	16 January 2026

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Authors	Signature	Date
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Reviewed	Signature	Date
Andy Losty Project Civil Engineer	[redacted]	16 January 2026

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1 Introduction

1.1 Project Background

Curtins have been appointed by Manchester University NHS Foundation Trust to provide a verification and maintenance plan for the below ground drainage design for the National Breast Imaging Academy, Wythenshawe Hospital, Manchester.

The report is based on currently available information and best practice guidance.

Proposals contained or forming part of this report represent the design intent and may be subject to alteration or adjustment in completing the detailed design for this project. Where such adjustments are undertaken as part of the detailed design and are deemed a material deviation from the intent contained in this document, prior approval shall be obtained from the relevant authority in advance of commencing such works.

The surface water network has been designed to accommodate the 1 in 100-year storm rainfall event plus 45% for climate change. As the flows are being attenuated by on site features, there will be a period of time after storm events where the network is still partially or fully surcharged and is draining down. Where this surcharging is still present after 48hrs appropriate action should be taken.

1.2 Planning Condition

This report has been produced in order to satisfy the discharge requirements of planning permission condition 11 as follows:

'No development hereby permitted shall be occupied until details of the implementation, maintenance and management of the sustainable drainage scheme have been submitted to and approved by the local planning authority. The scheme shall be implemented and thereafter managed and maintained in accordance with the approved details. Those details shall include:

- *Verification report providing photographic evidence of construction as per design drawings.*
- *As built construction drawings if different from design construction drawings.*
- *Management and maintenance plan for the lifetime of the development which shall include the arrangements for adoption by any public body or statutory undertaker, or any other arrangements to secure the operation of the sustainable drainage scheme throughout its lifetime.*

Reason - To manage flooding and pollution and to ensure that a managing body is in place for the sustainable drainage system and there is funding and maintenance mechanism for the lifetime of the development, pursuant to Policies EN08 and EN14 in the Manchester Core Strategy and in light of national policies within the NPPF and NPPG.'

1.3 Scope of the Maintenance Strategy

This report demonstrates the below ground drainage which has been installed for the development site and provides product information to inform future maintenance requirements.

This manual is intended to give an overview of the operation and maintenance for the drainage features included with the drainage strategy and in relation to typical details only. Where proprietary products are specified the manufacturer's instructions and recommendations should be followed in priority to this document unless specifically noted otherwise due to project constraints.

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The recommended operations and frequencies are typical only and should be more frequent initially to ensure that there are no unforeseen issues with the operation and then adjusted to suit the site requirements.

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2 Drainage Strategy

2.1 General

The drainage network on site is a private drainage network with an off-site section of the network being in public ownership, managed by United Utilities.

The drainage network is a separate foul and surface water system within the development.

Surface water discharges via a new manhole on an existing private surface water sewer within the site. This sewer ultimately discharges to a 300mm public surface water sewer to the south of the site.

Foul water discharges via multiple connection points to an existing private foul water sewer within the site. This sewer ultimately discharges to a 1500mm public combined water sewer to the east of the site, along Southmoor Road.

2.2 Foul Drainage

There are various foul water runs across the site that all discharge to the existing private foul water sewer via separate connections including new connections to existing manholes and new manholes constructed on the existing sewer.

The current peak foul flow rate has been estimated at 2.9l/s based on Discharge Units, from M&E Designer's drawing 3139-sha-00-nb-dr-m-4000.

The Final Construction Drainage Drawings are enclosed in Appendix C.

2.3 Surface Water Drainage

Any new development site drainage should be designed in accordance with current best practice to provide adequate capacity not to flood for the critical 1 in 30-year storm event and flood water generated for up to the critical 1 in 100-year plus climate change storm event shall be constrained within the areas on site so not to cause damage to buildings, essential services or adjoining developments and services.

Assessment was completed at preliminary design stage to confirm the most viable method of discharge was to the existing private surface water sewer within the site.

The on-site surface water network is based on a pipe system serving the site with a flow restriction.

Allowable discharge rates have been calculated based on a Greenfield runoff calculations for the site are 0.11ha.

The existing discharge rates from the site have been estimated as

- 1-year = 0.21 l/s
- 30-year = 0.41 l/s
- 100-year = 0.50 l/s.

Therefore, the discharge rate has been set at 5 l/s, for the 1, 30 & 100-year (+45%cc) storm events, in order to reduce the risk of Blockages

The discharge rate has been agreed with the LLFA and United Utilities.

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The proposed network on site requires attenuation to provide capacity to accommodate the volumes generated during the 1 in 100 year +45% design event whilst maintaining the maximum flow restriction.

There is a below ground cellular attenuation tank located on site. The tank is located in the southwest of the site and provides approximately 23.9m^3 attenuation volume.

Further details of the full drainage system can be found in the surface water drainage calculations enclosed in *Appendix D.*

2.4 Approvals

The connection to the private surface water sewer & private foul water sewer within the site has been approved under a Section 106 Agreement reference no. 06657912.

The Approval Notice is enclosed in Appendix A.

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3 Verification

3.1 Introduction

The verification section has been developed with reference to the drainage design details and philosophy provided in Section 2 of this report. Manchester City Council requirements are to verify the installation of the Drainage and SuDS to confirm by Photographic record that this has been installed.

The following elements have been recorded to date:

- Attenuation Tanks
- Flow Control Device - Hydrobrake

A CCTV Survey has also been provided along with as built record information.

3.2 Photographic Information

Figure 1 - Hydrobrake Photograph:

Refer to Curtins drawing 072094-CUR-00-XX-DR-C-92500 for Flow Control location and further information.

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Figure 2 - Attenuation Tank Photographs

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Refer to Curtins drawing 072094-CUR-00-XX-DR-C-92500 for attenuation tank location and further information.

Figure 3 – Typical Drainage Installation Photographs

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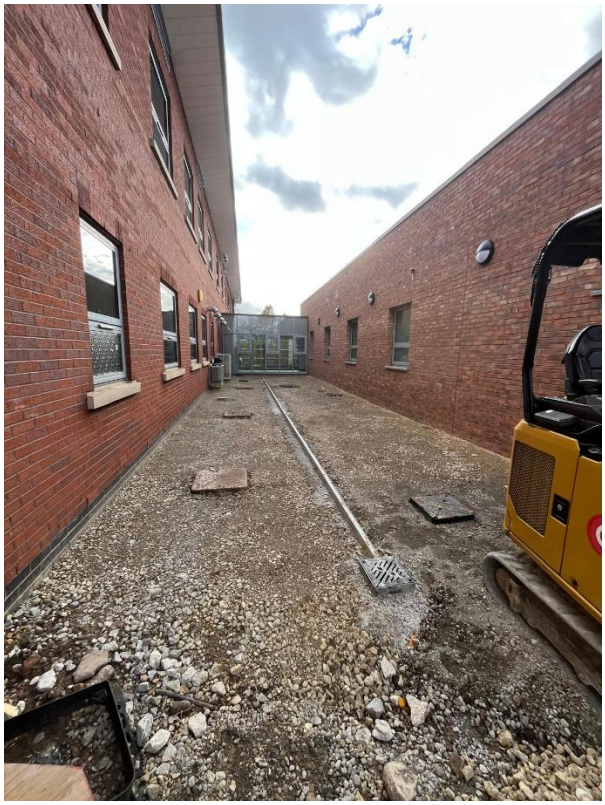

Refer to Curtins drawing 072094-CUR-00-XX-DR-C-92500 for all drainage feature locations and further information.

3.3 CCTV Survey and As Built information

As-built information has been provided which confirms the drainage networks have been installed to Curtins Design. This has been reflected on the As-Built drawings enclosed in *Appendix C.*

A CCTV Survey (reference 36806) was completed by Drain Alert on the installed drainage network in November 2025.

The survey confirms at this time, the drainage network was in general good condition but identified a small number of instances of deposits/ debris within the drainage.

A further Survey (reference 36853) was carried out, which confirms that these deposits have been removed, and that there are no defects within the constructed network.

The CCTV Report is available in *Appendix B.*

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4 General Maintenance

4.1 Components

This section is intended to give an overview of the operation and maintenance for the drainage features included with the drainage strategy and in relation to typical details. Where proprietary products are specified, the manufacturer's instructions and recommendations should be followed in priority to this document unless specifically noted otherwise due to project constraints.

The recommended operations and frequencies are typical only and should be more frequent initially to ensure that there are no unforeseen issues with the operation and then adjusted to suit the site requirements.

The following components have been included within the drainage design for the proposed development:

- Inspection, Manhole and Catchpit Chambers
- Pipes
- Attenuation Tank
- Flow Control Unit - Hydrobrake
- Drainage Channels and Gullies

The locations of the above drainage components are indicated on Curtins Drainage Drawing:

- 072094-CUR-00-XX-DR-C-92500-Proposed Drainage Layout

A suitable maintenance strategy should be adopted to ensure the drainage network is cleaned regularly and the routine maintenance and cleansing regime should be documented.

It is assumed that the maintenance of the private drainage network will be the responsibility of an on-site facilities management team. Confirmation is yet to be received that someone has been appointed to maintain the private drainage network.

The surface water network has been designed to accommodate the 1 in 100 year storm rainfall event plus an allowance for 45% climate change particular to the requirements of the site. As the flows are generally being attenuated on site and within SuDS features there will be a period of time after storm events where the network is still partially or fully surcharged and is draining down. Where this surcharging is still present after 48hrs appropriate action should be taken as noted below.

It is recommended that the drainage system is inspected as a minimum twice a year, with the system also being inspected after any major storm event.

Significant sediment deposition is likely in areas used for storage, so a post clean-up operation may be required including the removal of litter, vegetation, sewerage debris and larger objects.

Long-term management practices include monthly sweeping of external paved areas. The sweeping program will remove sand and contaminants directly from paved surfaces before they become mobilised during storm events and transported to the drainage system.

During the winter months, drainage features such as gullies and channels should be cleared of ice, snow, debris or litter.

Sediment/material removal should be undertaken in consultation with the environmental regulator to confirm appropriate protocols; especially where run-off is taken from potentially contaminated areas such as the filter drains and the upstream/downstream chambers.

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4.2 Inspection, Manhole and Catchpit Chambers

Access points have been located at the head of each run, at a change in direction and at a change of pipe size in accordance with Building Regulations Part H.

The appropriate barriers and signage should be installed during any opening of manholes to warn site users/pedestrians.

When accessing chambers, the latest Health and Safety legislation should be adhered to.

The appropriate health and safety equipment must be used when accessing manholes. Confined space certificates must be held by any personnel entering a manhole and the appropriate permits should be obtained from the Facilities Maintenance Manager prior to any access.

Sediment\material removal should be undertaken in consultation with the environmental regulator to confirm appropriate protocols; especially where run-off is taken from potentially contaminated areas.

Maintenance Schedule	Required Action	Frequency
Monitoring (to be undertaken more regularly within the first year of operation and adjusted as required)	Initial inspection should be provided as post construction CCTV survey.	N/A
	Inspect for evidence of poor operation via water level in chambers. If required take remedial action.	3-monthly, 48 hours after large storms.
Occasional maintenance	Check and remove large vegetation growth near pipe runs.	6 monthly
Remedial actions	Rod through poorly performing runs as initial remediation.	As required.
	If continued poor performance jet and CCTV survey poorly performing runs.	As required.
	Seek advice as to remediation techniques suitable for the type of performance issue and location.	As required If above does not improve performance.

4.3 Pipes

Pipes are proprietary products, and the materials can vary across the site and as such where used the manufacture's recommendations should be followed. Regardless of the product used the pipes are fully compliant with the Curtins drainage specification.

Pipes are intended to be the main conveyance across the development and where oversized they form the attenuation volume required by the limitation of the discharge rate. They are intended to be dry except for during rainfall events. These have been designed to be self-cleansing where possible for smaller diameter pipes. For larger diameter pipes the risk is reduced due to the overall pipe size.

Access for maintenance is provided through access chambers and manholes.

Regular inspection and maintenance is important to identify areas which may have been obstructed/clogged and may not be drainage correctly thus exposing the development to a greater level of flood risk.

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Maintenance Schedule	Required Action	Frequency
Monitoring (to be undertaken more regularly within the first year of operation and adjusted as required).	Initial Inspection should be provided as post construction CCTV survey.	N/A
Regular maintenance\ inspection	Inspect for evidence of poor operation via water level in chambers. If required, take remedial action.	3-monthly, 48 hours after large storms.
	Check and remove large vegetation growth near pipe runs.	Monthly or as required
Remedial Action	Rod through poorly performing runs as initial remediation.	As required.
	If continued poor performance jet and CCTV survey poorly performing runs.	As required.
	Seek advice as to remediation techniques suitable for the type of performance issue and location.	As required If above does not improve performance.

Regular maintenance\ inspection	Brushing and Vacuuming	Three times/year at end of winter, mid-summer, after autumn leaf fall, or as required based on site specific observations of clogging or manufacturers' recommendations.
Occasional maintenance	Stabilise and mow contributing and adjacent areas.	As required and as per landscape architect's specification.
	Removal of weeds	As required.
Remedial Action	Remediate any landscaping which, through vegetation maintenance or soil slip, has	As required.

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	been raised to within 50 mm of the level of the paving.	
	Remedial work to any depressions, rutting and cracked or broken blocks considered detrimental to the structural performance or a hazard to users.	As required.
	Rehabilitation of surface and upper sub-structure. This could include replacement of the jointing and bedding material. The upper geotextiles layer may also need replacing if clogged and Terram 1000 has a life span of 25 years.	As required (if infiltration performance is reduced as a result of significant clogging).

4.4 Attenuation Tanks

The attenuation tanks are geocellular units and are intended for storage of surface water run-off from the site up to and including the 1 in 100 year plus 45% climate change event to reduce the rate of run-off into the downstream network and to minimise flood risk.

The geocellular units are proprietary products and therefore manufacturer's recommendations should also be taken into consideration.

Access for maintenance has been provided by catchpit manhole chambers upstream and downstream of the tank. Vents are also provided to the upstream manholes.

Maintenance Schedule	Required Action	Frequency
Monitoring (to be undertaken more regularly within the first year of operation and adjusted as required).	Inspect inlets, outlets and overflows for blockages, and clear if required. If faults persist jetting and CCTV survey may be required.	Monthly and after large storms.
Regular maintenance\ inspection	Inspect and identify any areas that are not operating correctly. If required, take remedial action.	Monthly for 3 months, then six monthly.
	Debris removal from catchment surface (where may cause risks to performance).	Monthly

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	Remove sediment from pre-treatment structures.	Annually (or as required after heavy rainfall events)
Remedial Actions	Repair/rehabilitation of inlets, outlets and overflows.	As required.

4.5 Flow Control Device – Hydrobrake

The flow control units are intended for flood control and flow restriction.

The flow controls are specified as Hydro-brake or similar approved and are proprietary products; therefore, manufacturer's recommendations should also be taken into consideration.

Access for maintenance has been provided by locating within manhole chambers.

Maintenance Schedule	Required Action	Frequency
Monitoring (to be undertaken more regularly within the first year of operation and adjusted as required).	Inspect inlets for blockages, and clear if required. If faults persist jetting and CCTV survey may be required.	Monthly and after large storms.
Regular maintenance\ inspection	Inspect and identify any areas that are not operating correctly. If required, take remedial action.	Monthly for 3 months, then six monthly.
	Debris removal from catchment surface (where may cause risks to performance).	Monthly
	Remove sediment from pre-treatment structures and flow control chambers.	Annually (or as required after heavy rainfall events)
Remedial Actions	Repair/rehabilitation of inlets.	As required.

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4.6 Drainage Channels and Gullies

Channels and gullies should be inspected and cleaned in accordance with the manufacturer's details. Channel units can be cleaned through the use of a high-pressure hose; this can be fed into the channel system through access units strategically placed along the channel run. The throat section of channel units should be kept clear at all times to ensure uninterrupted flow of surface water into the drainage channel and any debris within the throat should be removed.

Locking bolts should be replaced and sufficiently tightened, taking care that the bolt heads do not stand above the top surface of the cover or grate. If covers are allowed to move within their frame, this may cause damage to the frame or seating.

Sediment\material removal should be undertaken in consultation with the environmental regulator to confirm appropriate protocols; especially where run-off is taken from potentially contaminated areas such as the car park channels.

Maintenance Schedule	Required Action	Frequency
Monitoring (to be undertaken more regularly within the first year of operation and adjusted as required).	Initial Inspection including channel outlet boxes.	Half yearly and after large storms.
Regular maintenance\ inspection	Litter and debris removal	Monthly or as required.
	Check and remove large vegetation growth near channel runs.	Monthly or as required
	Inspect for evidence of poor operation and/or weed growth. If required take remedial action. Inspect silt accumulation rates and establish appropriate brushing frequencies. Silt can also be caused by adjacent landscaping areas which should be reprofiled to provide a flat area or berm adjacent to the paving.	3-monthly, 48 hours after large storms.
Remedial Action	Inspect access/outlet boxes and rod through poorly	uired.

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	performing channels and outlets as initial remediation.	

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Appendix A

United Utilities Section 106 Approvals

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S106 Part 1 'Application to connect to a public sewer' Approval Notice

United Utilities
Water for the North West

United Utilities Reference Number:	**06657912**
Applicant details	
Applicant name	**John Baggaley (Project Manager)**
Applicant address *(including postcode)*	**John Turner Construction Group** **2 Preston Road** **Grimsagh** **Preston** **PR2 5SD**
Applicant email	**john.baggaley@johnturner.co.uk**
Site details: The site / property which is proposed for connection to the public sewer	
Site address *(including postcode)*	**Extension to To NBIA** **Wythenshawe Hospital** **Southmoor Road, M23 9QZ**

APPROVED

Your application for connection to the public sewer has been approved, to be made via a new connection:

To a private drain	☒	You may appoint your contractor and advise your appointed building control body (who should inspect the work). United Utilities should be advised when this work is complete.
Direct to the public sewer	☐	**Further action required.** You may now appoint an appropriately qualified contractor. Your appointed contractor is responsible for obtaining authorisation to work on a public sewer. (The S106 Part 2 application form **'Request for permission to work on a public sewer'** is available on our website; Sewer connections - United Utilities).

Mode of connection approved	**Other - please see comments box**					
Sewer connection type	Foul	☒	Surface water	☒	Combined	☐

This approval is valid for 12 months from the date below.
This approval does not grant access to third party land, permission should be sought if required between applicant and landowner.
If the new connection renders access unsafe or is otherwise detrimental to the manhole or sewer, a new/upgraded manhole will be requested.

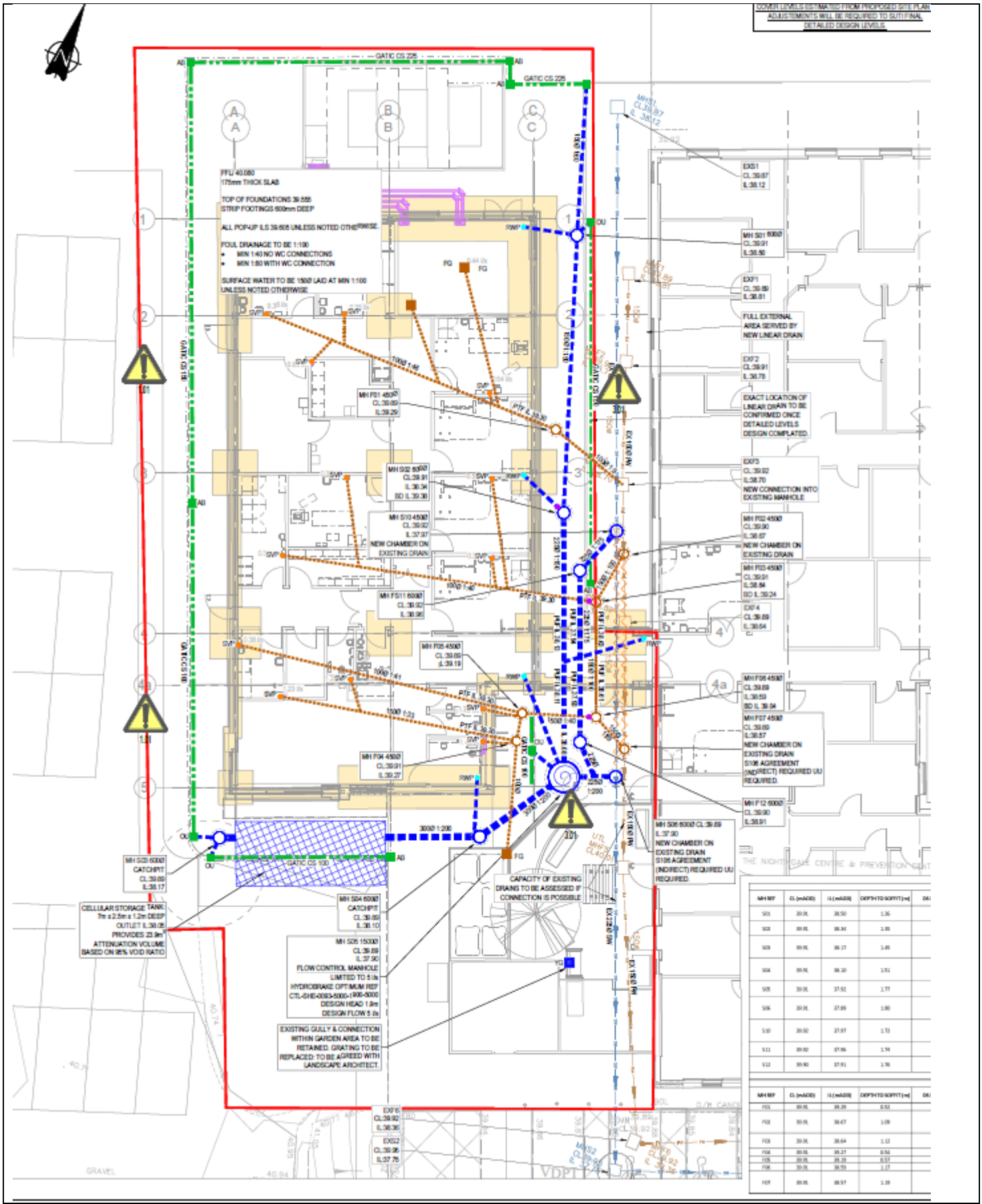
Comments

Approval granted for a 150mm foul connection into an existing private drain which ultimately discharges to the 1500mm combined public sewer to the east, along Southmoor Road.

Approval granted for a 225mm surface water connection into an existing private drain which connects to the 300mm surface water sewer to the south. Flows restricted to 5 l/s.

For low-lying sites, (where the ground level of the site or the level of a basement is below the ground level at the point where the drainage connects to the public sewer), care should be taken to ensure that the property is not at increased risk of flooding. If these circumstances exist it could affect the detailed design of your site and result in the need to incorporate appropriate mitigating measures in your drainage scheme.

Please note, if you are proposing to connect to an existing, unchartered drain or sewer then it is the developer's responsibility to confirm that it communicates with the Public Sewer
Connections may be made to private lateral drains or to existing neighbouring drain. A part 1 approval does not give permission to access third party land. The applicant must seek permission from the relevant landowner.



Developer Services Inspector	**Shelley McNamara**
Contact number	**07825 358095**
Date	**04/12/2024**

Appendix B

CCTV Drainage Survey Report by Drain Alert

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WEB PROJECT
CLICK TO OPEN THIS PROJECT

Project

Project Name:	2025_11_20 36853 Wythenshaw Hospital
Project Description:	CCTV Drainage Survey
Project Number:	36853
Project Status:	Complete
Project Date:	11/20/2025
Inspection Standard:	MSCC5 Sewers & Drainage GB (SRM5 Scoring)

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2025_11_20 36853 Wythenshaw Hospital	36853	11/20/2025

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WINCAN

Drain-Alert Ltd
Cripplegate Lane, Hoghton,Preston

Scoring Summary

Project Name	Project Number	Project Date
2025_11_20 36853 Wythenshaw Hospital	36853	11/20/2025

Structural Defects

Item No.	PLR	Grade	Description
All inspected pipes are in an acceptable structural condition (< grade 3).			

Service / Operational Condition

Item No.	PLR	Grade	Description
All inspected pipes are in an acceptable service condition (< grade 3).			

Abandoned Surveys

Item No.	PLR	Description
All inspections complete, none are abandoned.		

Information

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

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Drain-Alert Ltd
Cripplegate Lane, Hoghton,Preston

Defect Grade Description (Section)

Project Name	Project Number	Project Date
2025_11_20 36853 Wythenshaw Hospital	36853	11/20/2025

1:	Brick: No deformation. Minor structural defects. Rigid Pipes: No deformation. Minor structural defects, i.e. open or displaced joints without additional characteristics. Flexible Pipes: Deformation <= 5%. **Acceptable structural condition.**
2:	Brick: Deformation <= 5%. Circumferential cracking. Single longitudinal crack. Surface mortar loss (depth missing < 15 mm). Surface damage - spalling slight (breaking away of small fragments from the surface). Surface damage - wear slight (increased roughness). Rigid Pipes: Deformation <= 5%. Circumferential cracking. Surface damage - spalling slight (breaking away of small fragments from the surface). Surface damage - wear slight (increased roughness). Flexible Pipes: Deformation <= 10%. **Minimal collapse likelihood in the short term but potential for further deterioration.**
3:	Brick: Deformation > 5%. Total mortar loss (depth missing > 50 mm) without other defects. More than one longitudinal crack (at a single location). Multiple cracking. Single bricks displaced. No fracture and only moderate mortar loss. Surface damage - spalling medium (large areas of chipped brick). Surface damage - wear medium (entire surface of brick is missing). Rigid Pipes: Fractures. Longitudinal cracking or multiple cracking. Minor loss of level. Severe joint defects. Surface damage - spalling medium. Surface damage - wear medium. Flexible Pipes: Deformation <= 20%. **Collapse unlikely in the near future but further deterioration likely.**
4:	Brick: Total mortar loss (depth missing > 50 mm) or fractured. Displaced/hanging brickwork. Small number of missing bricks. Dropped invert (drop > 20 mm). Moderate loss of level. Surface damage - spalling large (entire surface of brick is missing). Surface damage - wear large (entire surface of brick missing). Rigid Pipes: Broken. Deformation <= 10% and fractured. Multiple fracture. Serious loss of level. Serious joint defects with voids or soil visible (open joint with > 50mm soil or void visible or joint displacement > 25% of diameter). Surface damage - spalling large. Surface damage - wear large. Flexible Pipes: Deformation <= 33%. **Collapse likely in the foreseeable future.**
5:	Brick: Already collapsed. Missing invert. Fractured. Displaced/hanging brickwork. Extensive areas of missing brickwork. Rigid Pipes: Already collapsed. Deformation > 10% and broken or fractured. Flexible Pipes: Deformation > 33%. **Collapsed or collapse imminent.**

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Completed section inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
1	1	20/11/25	12:03	Not Specified	No Rain Or Snow	Yes	AB 4X

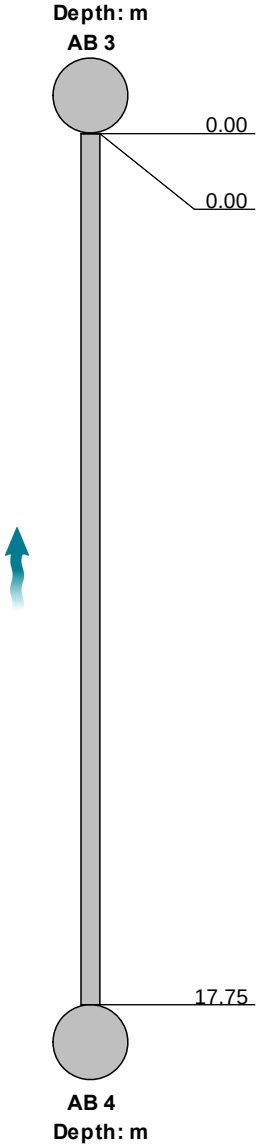
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
L Hilton	PK65 HFB	P350 Flexitrax	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw	**Inspection Direction:**	Upstream	**Upstream Node:**	AB 4
Road:	Southmoor Road	**Inspected Length:**	17.75 m	**Upstream Pipe Depth:**	
Location:	Footw ay	**Total Length:**	17.75 m	**Downstream Node:**	AB 3
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Surface w ater	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sew er	**Dia/Height:**	225 mm
Flow Control:	No flow control	**Material:**	Steel pipe
Year Constructed:	Not Specified	**Lining Type:**	No Lining
Inspection Purpose:	Sample condition survey	**Lining Material:**	No Lining

Comments:
Recommendations:

Scale: 1:154



Position [m]	Code	Observation	Grade
0.00	GY	Start node, gully, reference: AB 3	
0.00	WL	Water level, 5% of the vertical dimension	
17.75	GYF	Finish node, gully, reference: AB 4	

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

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Drain-Alert Ltd
Cripplegate Lane, Hoghton,Preston

Completed section inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
2	1	20/11/25	12:56	Not Specified	No Rain Or Snow	Yes	OU 2X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
L Hilton	PK65 HFB	P350 Flexitrax	Not Specified	Private Drain	Not Specified

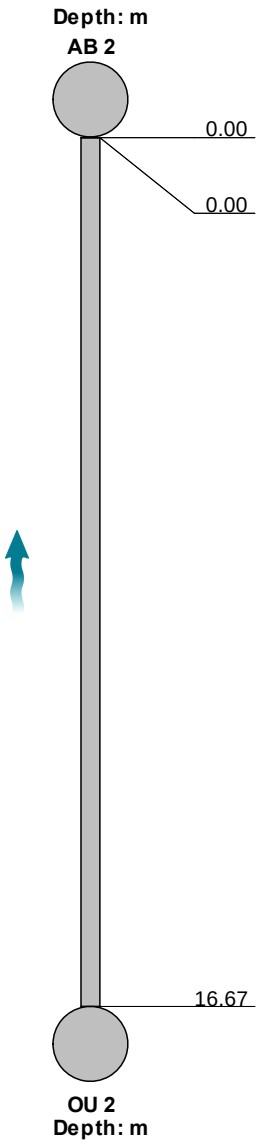
Town or Village:	Wythenshaw	**Inspection Direction:**	Upstream	**Upstream Node:**	OU 2
Road:	Southmoor Road	**Inspected Length:**	16.67 m	**Upstream Pipe Depth:**	
Location:	Footway	**Total Length:**	16.67 m	**Downstream Node:**	AB 2
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	150 mm
Flow Control:	No flow control	**Material:**	Steel pipe
Year Constructed:	Not Specified	**Lining Type:**	No Lining
Inspection Purpose:	Sample condition survey	**Lining Material:**	No Lining

Comments:
Recommendations:

Scale: 1:145

Position [m]	Code	Observation	Grade
0.00	GY	Start node, gully, reference: AB 2	
0.00	WL	Water level, 5% of the vertical dimension	
16.67	GYF	Finish node, gully, reference: OU 2	



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

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Cripplegate Lane, Hoghton,Preston

Completed section inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
3	1	20/11/25	13:08	Not Specified	No Rain Or Snow	Yes	AB 1X

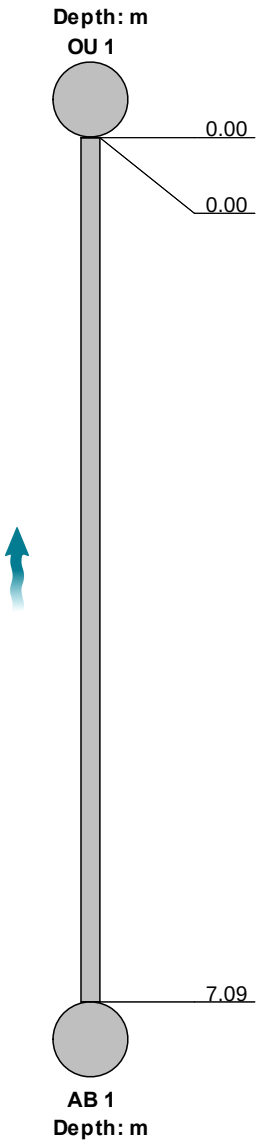
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
L Hilton	PK65 HFB	P350 Flexitrax	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw	**Inspection Direction:**	Upstream	**Upstream Node:**	AB 1
Road:	Southmoor Road	**Inspected Length:**	7.09 m	**Upstream Pipe Depth:**	
Location:	Footway	**Total Length:**	7.09 m	**Downstream Node:**	OU 1
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Flow Control:	No flow control	**Material:**	Steel pipe
Year Constructed:	Not Specified	**Lining Type:**	No Lining
Inspection Purpose:	Sample condition survey	**Lining Material:**	No Lining

Comments:
Recommendations:

Scale: 1:62



Position [m]	Code	Observation	Grade
0.00	GY	Start node, gully, reference: OU 1	
0.00	WL	Water level, 5% of the vertical dimension	
7.09	GYF	Finish node, gully, reference: AB 1	

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

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WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
4	1	20/11/25	13:25	Not Specified	No Rain Or Snow	Yes	AB 2X

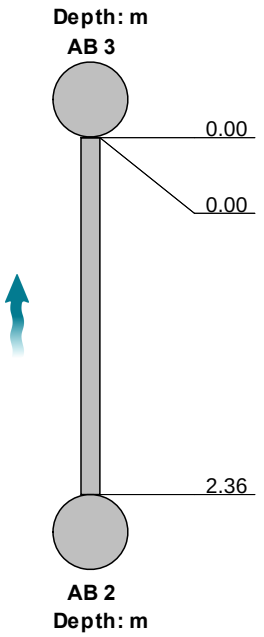
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
L Hilton	PK65 HFB	P350 Flexitrax	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw	**Inspection Direction:**	Upstream	**Upstream Node:**	AB 2
Road:	Southmoor Road	**Inspected Length:**	2.36 m	**Upstream Pipe Depth:**	
Location:	Footway	**Total Length:**	2.36 m	**Downstream Node:**	AB 3
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	150 mm
Flow Control:	No flow control	**Material:**	Steel pipe
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	Grade
0.00	GY	Start node, gully, reference: AB 3	
0.00	WL	Water level, 5% of the vertical dimension	
2.36	GYF	Finish node, gully, reference: AB 2: Concrete Surround Encasing Cables	

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

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Completed section inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
5	1	20/11/25	14:38	Not Specified	No Rain Or Snow	Yes	EX F1X

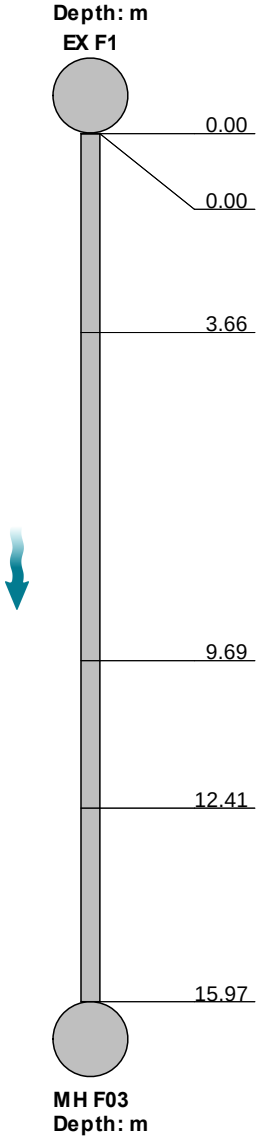
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
L Hilton	PK65 HFB	P350 Flexitrax	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw	**Inspection Direction:**	Downstream	**Upstream Node:**	EX F1
Road:	Southmoor Road	**Inspected Length:**	15.97 m	**Upstream Pipe Depth:**	
Location:	Footway	**Total Length:**	15.97 m	**Downstream Node:**	MH F03
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Foul	**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: 1:139



Position [m]	Code	Observation	Grade
0.00	MH	Start node, manhole, reference: EX F1	
0.00	WL	Water level, 5% of the vertical dimension	
3.66	REM	General remark: EX F2	
9.69	REM	General remark: EX F3	
12.41	REM	General remark: MH F02	
15.97	MHF	Finish node, manhole, reference: MH F03	

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

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Completed section inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
6	1	20/11/25	15:07	Not Specified	No Rain Or Snow	Yes	SVP 6X

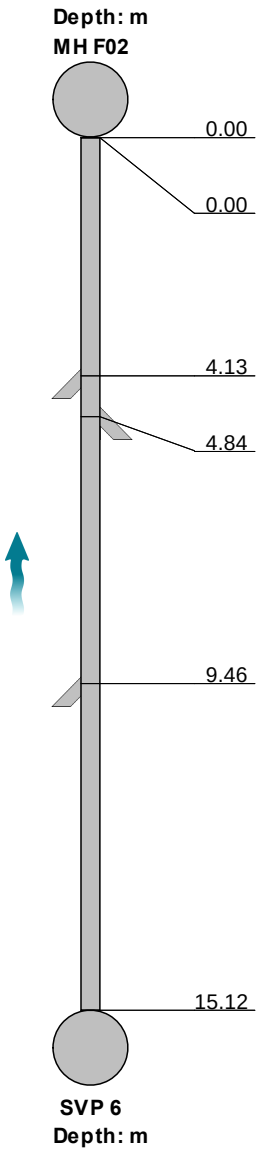
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
L Hilton	PK65 HFB	P350 Flexitrax	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw	**Inspection Direction:**	Upstream	**Upstream Node:**	SVP 6
Road:	Southmoor Road	**Inspected Length:**	15.12 m	**Upstream Pipe Depth:**	
Location:	Footway	**Total Length:**	15.12 m	**Downstream Node:**	MH F02
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Foul	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 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

Comments:
Recommendations:

Scale: 1:131



Position [m]	Code	Observation	Grade
0.00	MH	Start node, manhole, reference: MH F02	
0.00	WL	Water level, 0% of the vertical dimension	
4.13	JN	Junction at 3 o'clock, 100mm dia: SVP 9	
4.84	JN	Junction at 9 o'clock, 100mm dia: SVP 7	
9.46	JN	Junction at 3 o'clock, 100mm dia: SVP 8	
15.12	MHF	Finish node, manhole, reference: SVP 6	

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

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Completed section inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
7	1	27/11/25	10:45	Not Specified	No Rain Or Snow	Yes	MH S04X

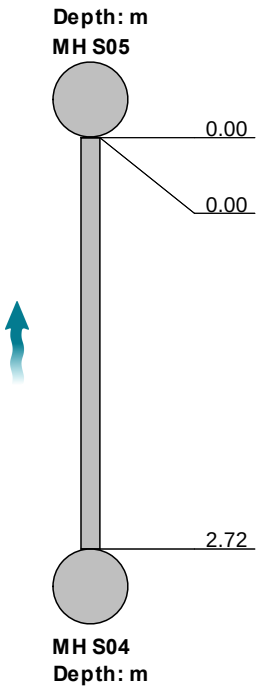
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
L Hilton	PK65 HFB	P350 Flexitrax	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw	**Inspection Direction:**	Upstream	**Upstream Node:**	MH S04
Road:	Southmoor Road	**Inspected Length:**	2.72 m	**Upstream Pipe Depth:**	
Location:	Footway	**Total Length:**	2.72 m	**Downstream Node:**	MH S05
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	300 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

Comments:
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	Grade
0.00	MH	Start node, manhole, reference: MH S05	
0.00	WL	Water level, 10% of the vertical dimension	
2.72	MHF	Finish node, manhole, reference: MH S04	

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

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Completed section inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
8	1	27/11/25	11:22	Not Specified	No Rain Or Snow	Yes	MH S02X

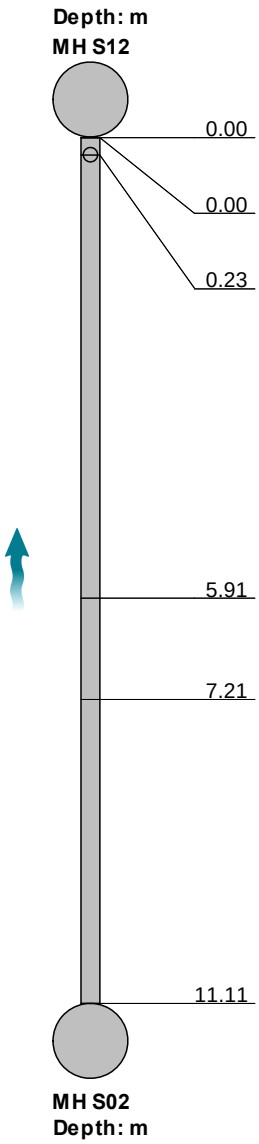
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
L Hilton	PK65 HFB	P350 Flexitrax	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw	**Inspection Direction:**	Upstream	**Upstream Node:**	MH S02
Road:	Southmoor Road	**Inspected Length:**	11.11 m	**Upstream Pipe Depth:**	
Location:	Footway	**Total Length:**	11.11 m	**Downstream Node:**	MH S12
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	225 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

Comments:
Recommendations:

Scale: 1:97



Position [m]	Code	Observation	Grade
0.00	MH	Start node, manhole, reference: MH S12	
0.00	WL	Water level, 5% of the vertical dimension	
0.23	JN	Junction at 12 o'clock, 150mm dia	
5.91	LL	Line deviates left	
7.21	LR	Line deviates right	
11.11	MHF	Finish node, manhole, reference: MH S02	

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

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Completed section inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
9	1	27/11/25	11:25	Not Specified	No Rain Or Snow	Yes	MH S01X

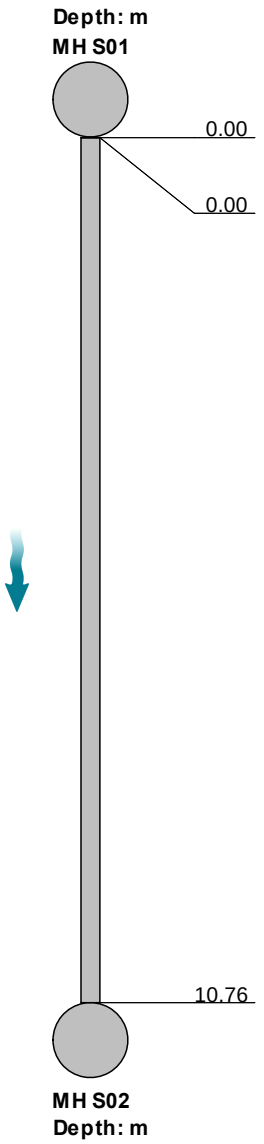
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
L Hilton	PK65 HFB	P350 Flexitrax	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw	**Inspection Direction:**	Downstream	**Upstream Node:**	MH S01
Road:	Southmoor Road	**Inspected Length:**	10.76 m	**Upstream Pipe Depth:**	
Location:	Footway	**Total Length:**	10.76 m	**Downstream Node:**	MH S02
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

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

Comments:
Recommendations:

Scale: 1:94



Position [m]	Code	Observation	Grade
0.00	MH	Start node, manhole, reference: MH S01	
0.00	WL	Water level, 5% of the vertical dimension	
10.76	MHF	Finish node, manhole, reference: MH S02	

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

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WEB PROJECT
CLICK TO OPEN THIS PROJECT

Project

Project Name:	2025_11_14 Wythenshaw Hospital 36806
Project Description:	CCTV Survey
Project Number:	36806
Project Status:	Complete
Project Date:	11/14/2025
Inspection Standard:	MSCC5 Sewers & Drainage GB (SRM5 Scoring)

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2025_11_14 Wythenshaw Hospital 36806	36806	11/14/2025

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2025_11_14 Wythenshaw Hospital 36806	36806	11/14/2025

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Scoring Summary

Project Name	Project Number	Project Date
2025_11_14 Wythenshaw Hospital 36806	36806	11/14/2025

Structural Defects

Item No.	PLR	Grade	Description
All inspected pipes are in an acceptable structural condition (< grade 3).			

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.

Item No.	PLR	Grade	Description
3	AB 3X	4	Settled deposits, hard or compacted, 40% cross-sectional area loss
8	Branch AX	4	Settled deposits, coarse, 50% cross-sectional area loss
9	MH F03X	3	Settled deposits, coarse, 5% cross-sectional area loss
11	MH S01X	3	Settled deposits, coarse, 10% cross-sectional area loss
13	MH S02X	3	Settled deposits, coarse, 5% cross-sectional area loss
24	MH S04X	3	Settled deposits, fine, 10% cross-sectional area loss

Abandoned Surveys

Item No.	PLR	Description
3	AB 3X	Survey abandoned
8	Branch AX	Survey abandoned

Information

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

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Defect Grade Description (Section)

Project Name	Project Number	Project Date
2025_11_14 Wythenshaw Hospital 36806	36806	11/14/2025

1:	Brick: No deformation. Minor structural defects. Rigid Pipes: No deformation. Minor structural defects, i.e. open or displaced joints without additional characteristics. Flexible Pipes: Deformation <= 5%. **Acceptable structural condition.**
2:	Brick: Deformation <= 5%. Circumferential cracking. Single longitudinal crack. Surface mortar loss (depth missing < 15 mm). Surface damage - spalling slight (breaking away of small fragments from the surface). Surface damage - wear slight (increased roughness). Rigid Pipes: Deformation <= 5%. Circumferential cracking. Surface damage - spalling slight (breaking away of small fragments from the surface). Surface damage - wear slight (increased roughness). Flexible Pipes: Deformation <= 10%. **Minimal collapse likelihood in the short term but potential for further deterioration.**
3:	Brick: Deformation > 5%. Total mortar loss (depth missing > 50 mm) without other defects. More than one longitudinal crack (at a single location). Multiple cracking. Single bricks displaced. No fracture and only moderate mortar loss. Surface damage - spalling medium (large areas of chipped brick). Surface damage - wear medium (entire surface of brick is missing). Rigid Pipes: Fractures. Longitudinal cracking or multiple cracking. Minor loss of level. Severe joint defects. Surface damage - spalling medium. Surface damage - wear medium. Flexible Pipes: Deformation <= 20%. **Collapse unlikely in the near future but further deterioration likely.**
4:	Brick: Total mortar loss (depth missing > 50 mm) or fractured. Displaced/hanging brickwork. Small number of missing bricks. Dropped invert (drop > 20 mm). Moderate loss of level. Surface damage - spalling large (entire surface of brick is missing). Surface damage - wear large (entire surface of brick missing). Rigid Pipes: Broken. Deformation <= 10% and fractured. Multiple fracture. Serious loss of level. Serious joint defects with voids or soil visible (open joint with > 50mm soil or void visible or joint displacement > 25% of diameter). Surface damage - spalling large. Surface damage - wear large. Flexible Pipes: Deformation <= 33%. **Collapse likely in the foreseeable future.**
5:	Brick: Already collapsed. Missing invert. Fractured. Displaced/hanging brickwork. Extensive areas of missing brickwork. Rigid Pipes: Already collapsed. Deformation > 10% and broken or fractured. Flexible Pipes: Deformation > 33%. **Collapsed or collapse imminent.**

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Completed section inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
1	1	14/11/25	0:45	Not Specified	Rain	No	OU 2X

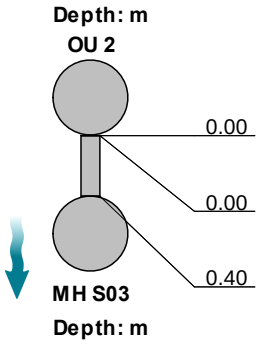
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Downstream	**Upstream Node:**	OU 2
Road:		**Inspected Length:**	0.40 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	0.40 m	**Downstream Node:**	MH S03
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 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

Comments:
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	Grade
0.00	WL	Water level, 0% of the vertical dimension	
0.00	REM	General remark: Start, Aco OU 2	
0.40	CPF	Finish node, catchpit, reference: MH S03	

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

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Section Inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
2	1	14/11/25	0:53	Not Specified	Rain	No	AB 2X

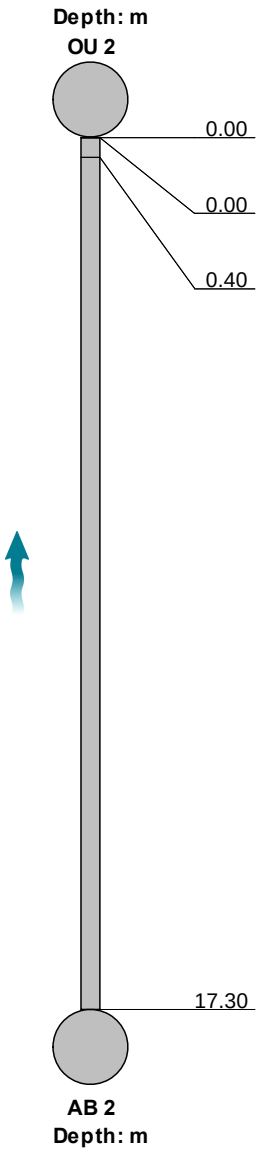
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Upstream	**Upstream Node:**	AB 2
Road:		**Inspected Length:**	17.30 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	17.30 m	**Downstream Node:**	OU 2
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	150 mm
Flow Control:	No flow control	**Material:**	Steel pipe
Year Constructed:	Not Specified	**Lining Type:**	No Lining
Inspection Purpose:	Sample condition survey	**Lining Material:**	No Lining

Comments:
Recommendations:

Scale: 1:150



Position [m]	Code	Observation	Grade
0.00	REM	General remark: Start, Aco OU 2	
0.00	WL	Water level, 5% of the vertical dimension	
0.40	DEC	Settled deposits, hard or compacted, 5% cross-sectional area loss	DEC - 0.40
17.30	REM	General remark: Finish, Aco AB 2	

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	0.0	0	0.0	0.0	0.0	0.0

Drain -Alert
Cripplegate Lane, Hoghton
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service@drain-alert.co.uk

Abandoned section inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
3	1	14/11/25	1:01	Not Specified	Rain	No	AB 3X

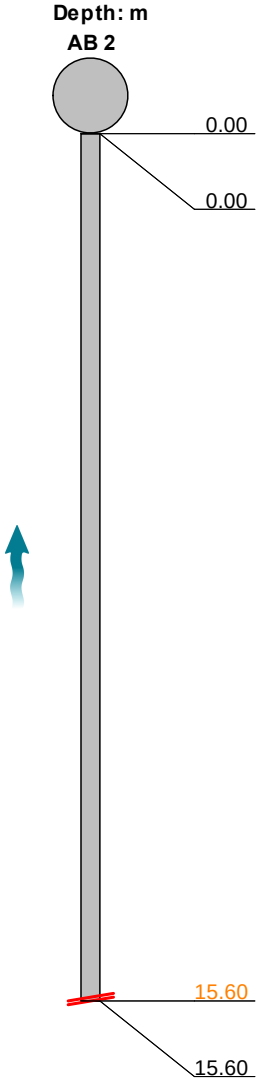
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Upstream	**Upstream Node:**	AB 3
Road:		**Inspected Length:**	15.60 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	15.60 m	**Downstream Node:**	AB 2
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	150 mm
Flow Control:	No flow control	**Material:**	Steel pipe
Year Constructed:	Not Specified	**Lining Type:**	No Lining
Inspection Purpose:	Sample condition survey	**Lining Material:**	No Lining

Comments:
Recommendations:

Scale: 1:136



Position [m]	Code	Observation	Grade
0.00	CUW	Loss of vision, camera under water	
0.00	REM	General remark: Start, Aco AB 2	
15.60	DEC	Settled deposits, hard or compacted, 40% cross-sectional area loss	4
15.60	SA	Survey abandoned: due to debris	

DEC - 15.60

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	5.0	0.3	5.0	4.0

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Completed section inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
4	1	14/11/25	1:18	Not Specified	Rain	No	AB 4X

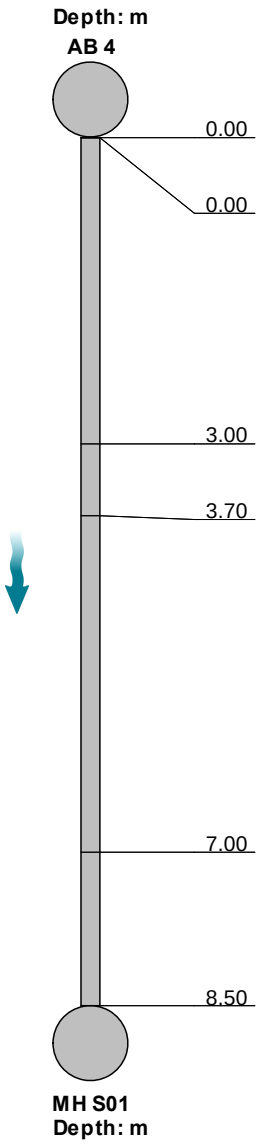
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Downstream	**Upstream Node:**	AB 4
Road:		**Inspected Length:**	8.50 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	8.50 m	**Downstream Node:**	MH S01
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

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

Comments:
Recommendations:

Scale: 1:74



Position [m]	Code	Observation	Grade
0.00	WL	Water level, 0% of the vertical dimension	
0.00	REM	General remark: Start, ACO AB 4	
3.00	LL	Line deviates left	
3.70	LR	Line deviates right	
7.00	LD	Line deviates down	
8.50	MHF	Finish node, manhole, reference: MH S01	

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

Drain -Alert
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Section Inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
5	1	14/11/25	1:24	Not Specified	Rain	No	AB 3X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Upstream	**Upstream Node:**	AB 3
Road:		**Inspected Length:**	17.70 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	17.70 m	**Downstream Node:**	AB 4
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	225 mm
Flow Control:	No flow control	**Material:**	Steel pipe
Year Constructed:	Not Specified	**Lining Type:**	No Lining
Inspection Purpose:	Sample condition survey	**Lining Material:**	No Lining

Comments:
Recommendations:

Scale: 1:154

Depth: m
AB 4

Position [m]	Code	Observation	Grade
0.00	WL	Water level, 0% of the vertical dimension	
0.00	REM	General remark: Start, Aco AB 4	
2.00	DEC	Settled deposits, hard or compacted, 5% cross-sectional area loss	
17.70	REM	General remark: Finish, Aco AB 3	

DEC - 2.00

AB 3
Depth: m

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	0.0	0	0.0	0.0	0.0	0.0

Drain -Alert
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Completed section inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
6	1	14/11/25	1:27	Not Specified	Rain	No	OU 4X

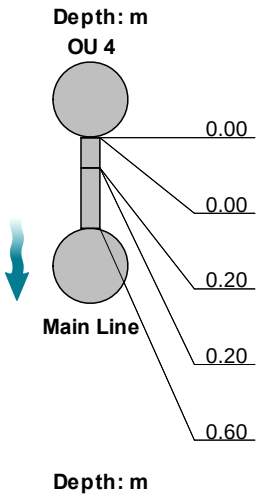
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Downstream	**Upstream Node:**	OU 4
Road:		**Inspected Length:**	0.60 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	0.60 m	**Downstream Node:**	MAIN LINE
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

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

Comments:
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	Grade
0.00	WL	Water level, 0% of the vertical dimension	
0.00	REM	General remark: Start, Aco OU 4	
0.20	LL	Line deviates left	
0.20	LD	Line deviates down	
0.60	BRF	Finish node, major connection without manhole, reference: Main Line	

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

Drain -Alert
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Section Inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
7	1	14/11/25	1:40	Not Specified	Rain	No	AB 4X

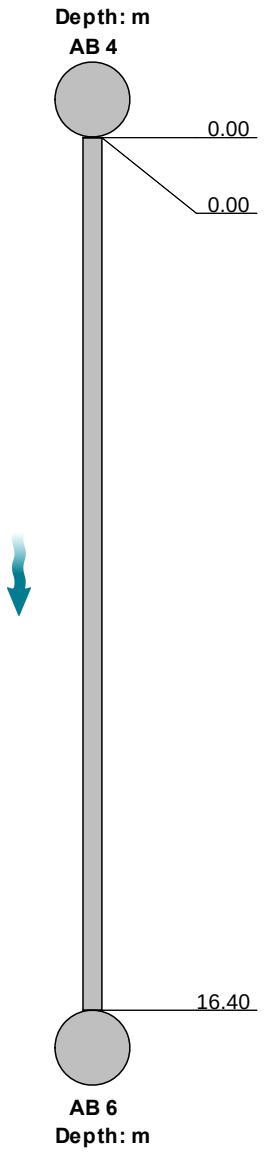
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Downstream	**Upstream Node:**	AB 4
Road:		**Inspected Length:**	16.40 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	16.40 m	**Downstream Node:**	AB 6
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	150 mm
Flow Control:	No flow control	**Material:**	Steel pipe
Year Constructed:	Not Specified	**Lining Type:**	No Lining
Inspection Purpose:	Sample condition survey	**Lining Material:**	No Lining

Comments:
Recommendations:

Scale: 1:142



Position [m]	Code	Observation	Grade
0.00	WL	Water level, 5% of the vertical dimension	
0.00	REM	General remark: Start, Aco AB 4	
16.40	REM	General remark: Finish, Aco AB 6	

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	0.0	0	0.0	0.0	0.0	0.0

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Abandoned section inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
8	1	14/11/25	1:43	Not Specified	Rain	No	BRANCH AX

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

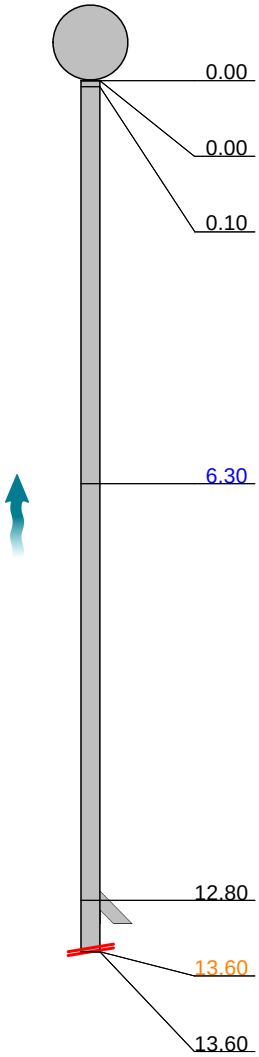
Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Upstream	**Upstream Node:**	BRANCH A
Road:		**Inspected Length:**	13.60 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	13.60 m	**Downstream Node:**	MH F03
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Foul	**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

Comments:
Recommendations:

Scale: 1:118

Depth: m
MH F03



Position [m]	Code	Observation	Grade
0.00	MH	Start node, manhole, reference: MH F03	
0.00	WL	Water level, 0% of the vertical dimension	
0.10	LL	Line deviates left	
6.30	DER	Settled deposits, coarse, 15% cross-sectional area loss	3
12.80	JN	Junction at 9 o'clock, 150mm dia	
13.60	DER	Settled deposits, coarse, 50% cross-sectional area loss	4
13.60	SA	Survey abandoned: due to debris	

DER - 6.30

DER - 13.60

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	8.0	0.7	10.0	4.0

Drain -Alert
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Completed section inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
9	1	14/11/25	1:49	Not Specified	Rain	No	MH F03X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

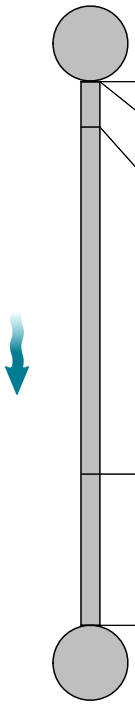
Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Downstream	**Upstream Node:**	MH F03
Road:		**Inspected Length:**	3.60 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	3.60 m	**Downstream Node:**	EX F1
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Foul	**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

Comments:
Recommendations:

Scale: 1:50

Depth: m
MH F03



Ex F1
Depth: m

Position [m]	Code	Observation	Grade
0.00	MH	Start node, manhole, reference: MH F03	
0.00	WL	Water level, 5% of the vertical dimension	
0.30	DER	Settled deposits, coarse, 5% cross-sectional area loss	3
2.60	LD	Line deviates down	
3.60	MHF	Finish node, manhole, reference: Ex F1	

DER - 0.30

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	2.0	0.6	2.0	3.0

Drain -Alert
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Section Inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
10	1	14/11/25	1:51	Not Specified	Rain	No	RWP 3X

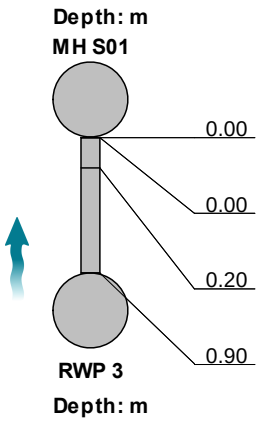
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Upstream	**Upstream Node:**	RWP 3
Road:		**Inspected Length:**	0.90 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	0.90 m	**Downstream Node:**	MH S01
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 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

Comments:
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	Grade
0.00	MH	Start node, manhole, reference: MH S01	
0.00	WL	Water level, 0% of the vertical dimension	
0.20	LU	Line deviates up	
0.90	REM	General remark: Limit of survey due to bend	

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	0.0	0	0.0	0.0	0.0	0.0

Drain -Alert
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Completed section inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
11	1	14/11/25	1:57	Not Specified	Rain	No	MH S01X

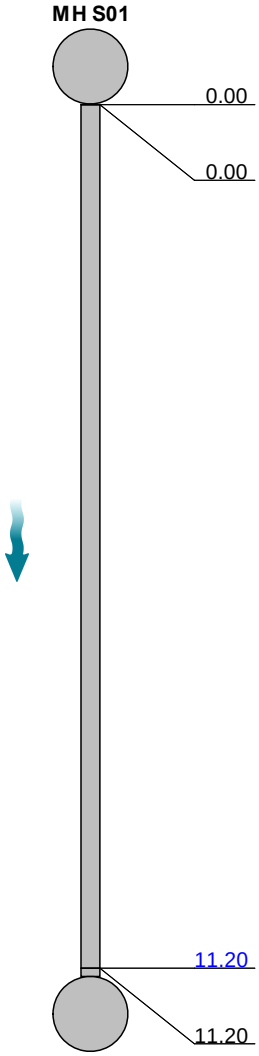
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Downstream	**Upstream Node:**	MH S01
Road:		**Inspected Length:**	11.20 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	11.30 m	**Downstream Node:**	MH S02
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

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

Comments:
Recommendations:

Scale: 1:98



Position [m]	Code	Observation	Grade
0.00	MH	Start node, manhole, reference: MH S01	
0.00	WL	Water level, 5% of the vertical dimension	
11.20	DER	Settled deposits, coarse, 10% cross-sectional area loss	3
11.20	MHF	Finish node, manhole, reference: MH S02	

DER - 11.20

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	2.0	0.2	2.0	3.0

Drain -Alert
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Section Inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
12	1	14/11/25	1:58	Not Specified	Rain	No	RWP 2X

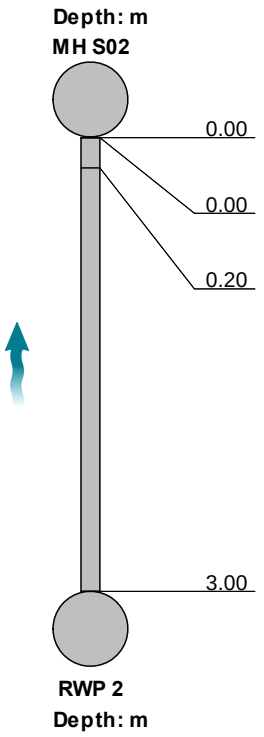
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Upstream	**Upstream Node:**	RWP 2
Road:		**Inspected Length:**	3.00 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	3.00 m	**Downstream Node:**	MH S02
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

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

Comments:
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	Grade
0.00	MH	Start node, manhole, reference: MH S02	
0.00	WL	Water level, 10% of the vertical dimension	
0.20	LU	Line deviates up	
3.00	REM	General remark: Rest bend	

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	0.0	0	0.0	0.0	0.0	0.0

Drain -Alert
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Completed section inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
13	1	14/11/25	2:01	Not Specified	Rain	No	MH S02X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

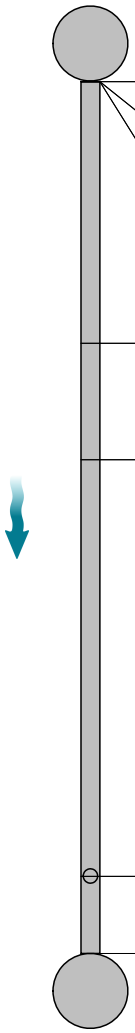
Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Downstream	**Upstream Node:**	MH S02
Road:		**Inspected Length:**	11.30 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	11.30 m	**Downstream Node:**	MH S12
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	225 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

Comments:
Recommendations:

Scale: 1:98

Depth: m
MH S02



Position [m]	Code	Observation	Grade
0.00	MH	Start node, manhole, reference: MH S02	
0.00	WL	Water level, 5% of the vertical dimension	
0.00	DER	Settled deposits, coarse, 5% cross-sectional area loss	3
3.40	LL	Line deviates left	
4.90	LR	Line deviates right	
10.30	JN	Junction at 12 o'clock, 150mm dia	
11.30	MHF	Finish node, manhole, reference: MH S12	

DER - 0.00

MH S12
Depth: m

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	2.0	0.2	2.0	3.0

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Section Inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
14	1	14/11/25	2:21	Not Specified	Rain	No	SVP 6X

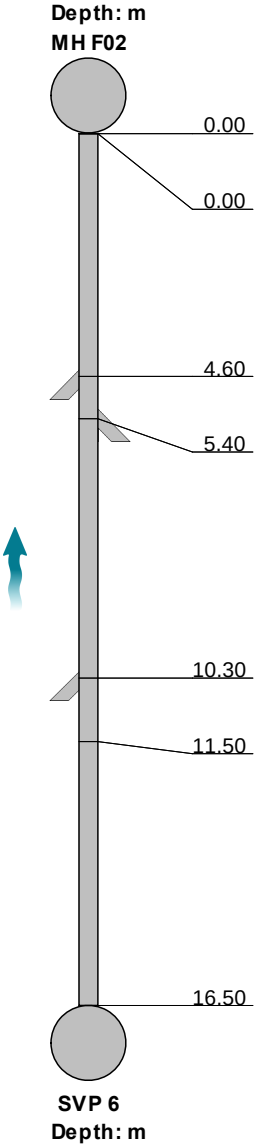
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Upstream	**Upstream Node:**	SVP 6
Road:		**Inspected Length:**	16.50 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	16.50 m	**Downstream Node:**	MH F02
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Foul	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 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

Comments:
Recommendations:

Scale: 1:143



Position [m]	Code	Observation	Grade
0.00	MH	Start node, manhole, reference: MH F02	
0.00	WL	Water level, 0% of the vertical dimension	
4.60	JN	Junction at 3 o'clock, 100mm dia	
5.40	JN	Junction at 9 o'clock, 100mm dia	
10.30	JN	Junction at 3 o'clock, 100mm dia	
11.50	DER	Settled deposits, coarse, 10% cross-sectional area loss	
16.50	REM	General remark: Rest bend	

DER - 11.50

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	0.0	0	0.0	0.0	0.0	0.0

Drain -Alert
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Section Inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
15	1	14/11/25	2:23	Not Specified	Rain	No	SVP 11X

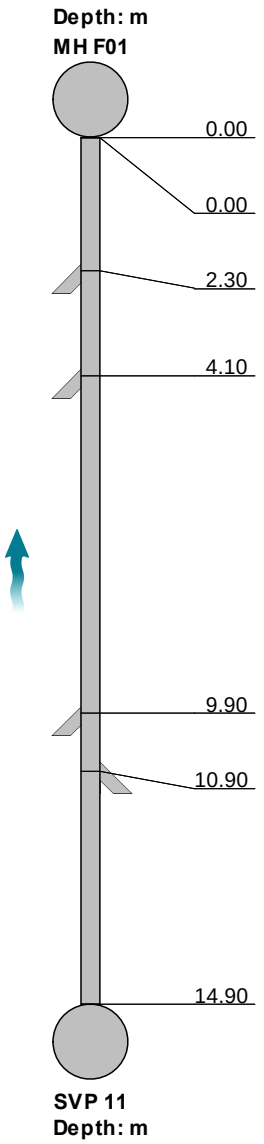
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Upstream	**Upstream Node:**	SVP 11
Road:		**Inspected Length:**	14.90 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	14.90 m	**Downstream Node:**	MH F01
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Foul	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 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

Comments:
Recommendations:

Scale: 1:130



Position [m]	Code	Observation	Grade
0.00	MH	Start node, manhole, reference: MH F01	
0.00	WL	Water level, 0% of the vertical dimension	
2.30	JN	Junction at 3 o'clock, 100mm dia	
4.10	JN	Junction at 3 o'clock, 100mm dia	
9.90	JN	Junction at 3 o'clock, 100mm dia	
10.90	JN	Junction at 9 o'clock, 100mm dia	
14.90	REM	General remark: Rest bend	

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	0.0	0	0.0	0.0	0.0	0.0

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Completed section inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
16	1	14/11/25	2:38	Not Specified	Rain	No	MH F01X

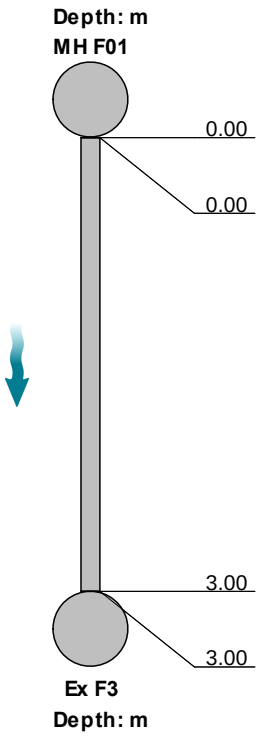
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Downstream	**Upstream Node:**	MH F01
Road:		**Inspected Length:**	3.00 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	3.00 m	**Downstream Node:**	EX F3
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Foul	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 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

Comments:
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	Grade
0.00	MH	Start node, manhole, reference: MH F01	
0.00	WL	Water level, 0% of the vertical dimension	
3.00	JN	Junction at 6 o'clock, 100mm dia: Drop shaft	
3.00	MHF	Finish node, manhole, reference: Ex F3	

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

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Section Inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
17	1	14/11/25	2:40	Not Specified	Rain	No	MH S03X

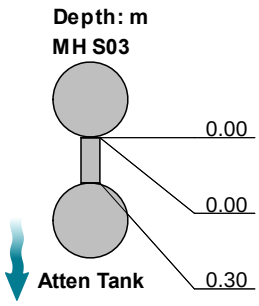
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Downstream	**Upstream Node:**	MH S03
Road:		**Inspected Length:**	0.30 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	0.30 m	**Downstream Node:**	ATTEN TANK
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	300 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

Comments:
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	Grade
0.00	CP	Start node, catchpit, reference: MH S03	
0.00	WL	Water level, 0% of the vertical dimension	
0.30	REM	General remark: Finish, Attenuation Tank Inlet	

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	0.0	0	0.0	0.0	0.0	0.0

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Section Inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
18	1	14/11/25	2:42	Not Specified	Rain	No	OU 1X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

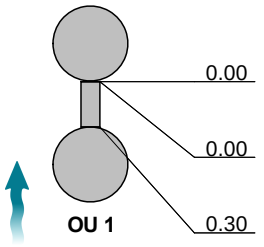
Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Upstream	**Upstream Node:**	OU 1
Road:		**Inspected Length:**	0.30 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	0.30 m	**Downstream Node:**	MH S03
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 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

Comments:
Recommendations:

Scale: 1:50

Depth: m
MH S03



Position [m]	Code	Observation	Grade
0.00	CP	Start node, catchpit, reference: MH S03	
0.00	WL	Water level, 0% of the vertical dimension	
0.30	REM	General remark: Finish, Aco OU 1	

Depth: m

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	0.0	0	0.0	0.0	0.0	0.0

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Section Inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
19	1	14/11/25	2:46	Not Specified	Rain	No	AB 1X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

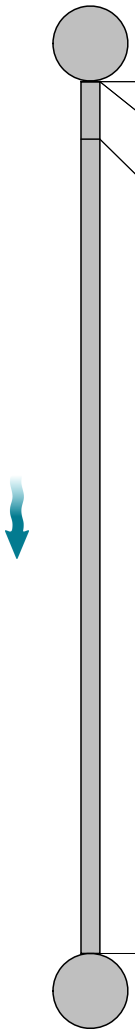
Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Downstream	**Upstream Node:**	AB 1
Road:		**Inspected Length:**	7.50 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	7.50 m	**Downstream Node:**	OU 1
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Flow Control:	No flow control	**Material:**	Steel pipe
Year Constructed:	Not Specified	**Lining Type:**	No Lining
Inspection Purpose:	Sample condition survey	**Lining Material:**	No Lining

Comments:
Recommendations:

Scale: 1:65

Depth: m
AB 1



Position [m]	Code	Observation	Grade
0.00	WL	Water level, 0% of the vertical dimension	
0.00	REM	General remark: Start, Aco AB 1	
0.50	DER	Settled deposits, coarse, 5% cross-sectional area loss	
7.50	REM	General remark: Finish, Aco OU 1	

DER - 0.50

OU 1
Depth: m

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	0.0	0	0.0	0.0	0.0	0.0

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Section Inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
20	1	14/11/25	2:48	Not Specified	Rain	No	OU 5X

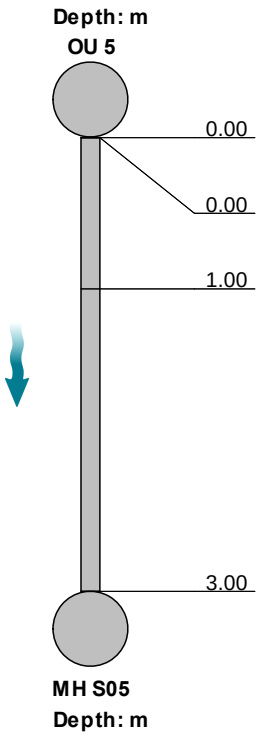
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Downstream	**Upstream Node:**	OU 5
Road:		**Inspected Length:**	3.00 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	3.00 m	**Downstream Node:**	MH S05
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 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

Comments:
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	Grade
0.00	WL	Water level, 0% of the vertical dimension	
0.00	REM	General remark: Start, Aco OU 5	
1.00	LD	Line deviates down	
3.00	REM	General remark: Limit of survey due to bend	

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	0.0	0	0.0	0.0	0.0	0.0

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Section Inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
21	1	14/11/25	2:50	Not Specified	Rain	No	UPSTREAMX

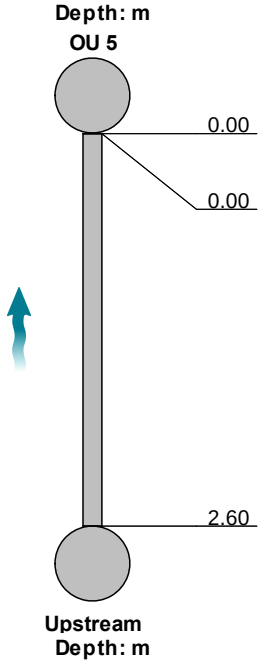
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Upstream	**Upstream Node:**	UPSTREAM
Road:		**Inspected Length:**	2.60 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	2.60 m	**Downstream Node:**	OU 5
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 mm
Flow Control:	No flow control	**Material:**	Steel pipe
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	Grade
0.00	WL	Water level, 0% of the vertical dimension	
0.00	REM	General remark: Start, Aco OU 5	
2.60	REM	General remark: Head of line	

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	0.0	0	0.0	0.0	0.0	0.0

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Section Inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
22	1	14/11/25	2:51	Not Specified	Rain	No	ATTEN TANKX

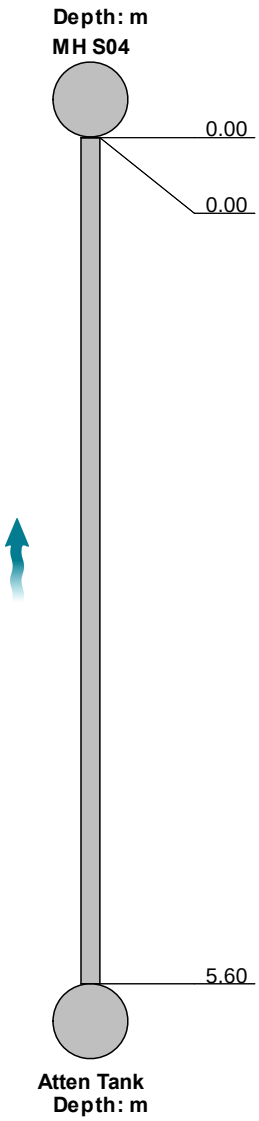
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Upstream	**Upstream Node:**	ATTEN TANK
Road:		**Inspected Length:**	5.60 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	5.60 m	**Downstream Node:**	MH S04
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	300 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

Comments:
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	Grade
0.00	CP	Start node, catchpit, reference: MH S04	
0.00	WL	Water level, 5% of the vertical dimension	
5.60	REM	General remark: Finish, Attenuatioon Tank Outlet	

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	0.0	0	0.0	0.0	0.0	0.0

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Section Inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
23	1	14/11/25	2:53	Not Specified	Rain	No	RWP 1X

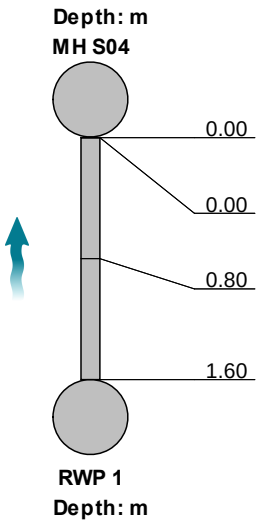
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Upstream	**Upstream Node:**	RWP 1
Road:		**Inspected Length:**	1.60 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	1.60 m	**Downstream Node:**	MH S04
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

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

Comments:
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	Grade
0.00	CP	Start node, catchpit, reference: MH S04	
0.00	WL	Water level, 0% of the vertical dimension	
0.80	LU	Line deviates up	
1.60	REM	General remark: Rest bend	

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	0.0	0	0.0	0.0	0.0	0.0

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Completed section inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
24	1	14/11/25	2:55	Not Specified	Rain	No	MH S04X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

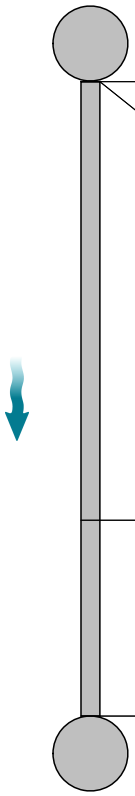
Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Downstream	**Upstream Node:**	MH S04
Road:		**Inspected Length:**	4.20 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	4.20 m	**Downstream Node:**	MH S05
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	300 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

Comments:
Recommendations:

Scale: 1:50

Depth: m
MH S04



Position [m]	Code	Observation	Grade
0.00	CP	Start node, catchpit, reference: MH S04	
0.00	WL	Water level, 5% of the vertical dimension	
2.90	DES	Settled deposits, fine, 10% cross-sectional area loss	3
4.20	CPF	Finish node, catchpit, reference: MH S05	

DES - 2.90

MH S05
Depth: m

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	2.0	0.5	2.0	3.0

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Completed section inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
25	1	14/11/25	3:14	Not Specified	Rain	No	MH S05X

Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

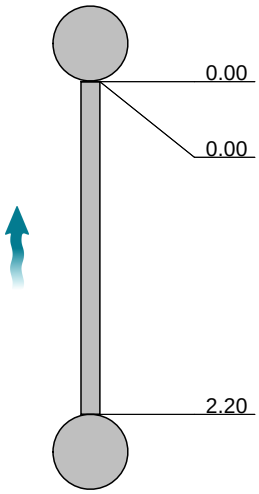
Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Upstream	**Upstream Node:**	MH S05
Road:		**Inspected Length:**	2.20 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	2.20 m	**Downstream Node:**	MH S06
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	225 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

Comments:
Recommendations:

Scale: 1:50

Depth: m
MH S06



Position [m]	Code	Observation	Grade
0.00	MH	Start node, manhole, reference: MH S06	
0.00	WL	Water level, 5% of the vertical dimension	
2.20	CPF	Finish node, catchpit, reference: MH S05	

MH S05
Depth: m

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

Drain -Alert
Cripplegate Lane, Hoghton
Tel. 01254 851500
service@drain-alert.co.uk

Section Inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
26	1	14/11/25	3:17	Not Specified	Rain	No	RWP 4X

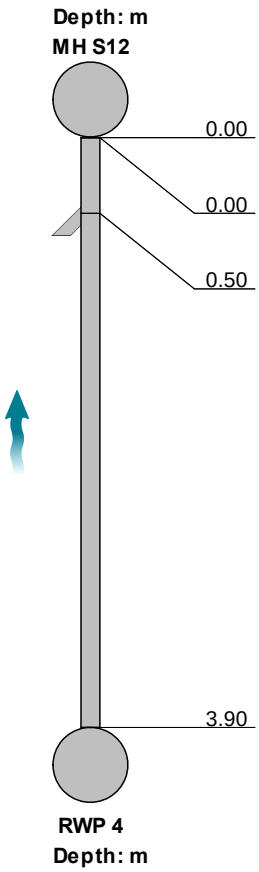
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Upstream	**Upstream Node:**	RWP 4
Road:		**Inspected Length:**	3.90 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	3.90 m	**Downstream Node:**	MH S12
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

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

Comments:
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	Grade
0.00	MH	Start node, manhole, reference: MH S12	
0.00	WL	Water level, 5% of the vertical dimension	
0.50	JN	Junction at 3 o'clock, 150mm dia: Drop shaft	
3.90	REM	General remark: Rest bend	

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	0.0	0	0.0	0.0	0.0	0.0

Drain -Alert
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Completed section inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
27	1	14/11/25	3:21	Not Specified	Rain	No	MH S12X

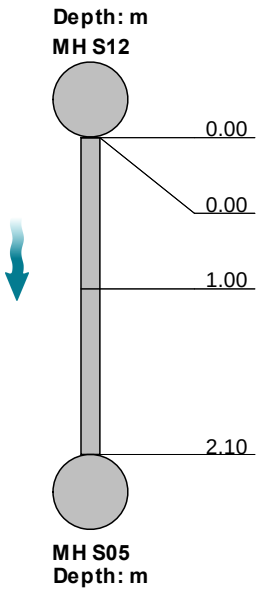
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Downstream	**Upstream Node:**	MH S12
Road:		**Inspected Length:**	2.10 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	2.10 m	**Downstream Node:**	MH S05
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Surface water	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	225 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

Comments:
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	Grade
0.00	MH	Start node, manhole, reference: MH S12	
0.00	WL	Water level, 5% of the vertical dimension	
1.00	LD	Line deviates down	
2.10	CPF	Finish node, catchpit, reference: MH S05	

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

Drain -Alert
Cripplegate Lane, Hoghton
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service@drain-alert.co.uk

Section Inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
28	1	14/11/25	3:29	Not Specified	Rain	No	RWP 5X

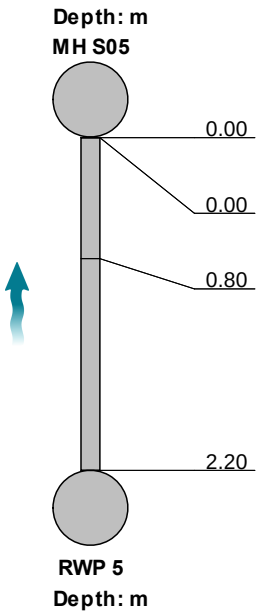
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Upstream	**Upstream Node:**	RWP 5
Road:		**Inspected Length:**	2.20 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	2.20 m	**Downstream Node:**	MH S05
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

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

Comments:
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	Grade
0.00	CP	Start node, catchpit, reference: MH S05	
0.00	WL	Water level, 5% of the vertical dimension	
0.80	LU	Line deviates up	
2.20	REM	General remark: Limit of survey due to bend	

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	0.0	0	0.0	0.0	0.0	0.0

Drain -Alert
Cripplegate Lane, Hoghton
Tel. 01254 851500
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Section Inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
29	1	14/11/25	3:33	Not Specified	Rain	No	BRANCH AX

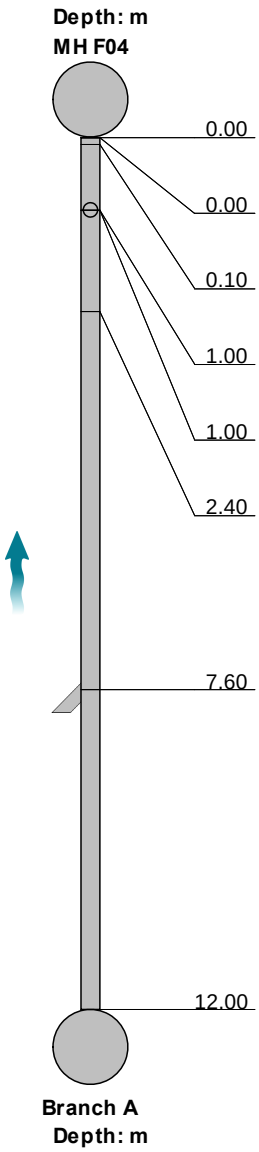
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Upstream	**Upstream Node:**	BRANCH A
Road:		**Inspected Length:**	12.00 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	12.00 m	**Downstream Node:**	MH F04
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Foul	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 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

Comments:
Recommendations:

Scale: 1:104



Position [m]	Code	Observation	Grade
0.00	MH	Start node, manhole, reference: MH F04	
0.00	WL	Water level, 0% of the vertical dimension	
0.10	LR	Line deviates right	
1.00	LR	Line deviates right	
1.00	JN	Junction at 12 o'clock, 100mm dia	
2.40	LR	Line deviates right	
7.60	JN	Junction at 3 o'clock, 100mm dia	
12.00	REM	General remark: Rest bend	

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	0.0	0	0.0	0.0	0.0	0.0

Drain -Alert
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service@drain-alert.co.uk

Completed section inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
30	1	14/11/25	3:35	Not Specified	Rain	No	BRANCH BX

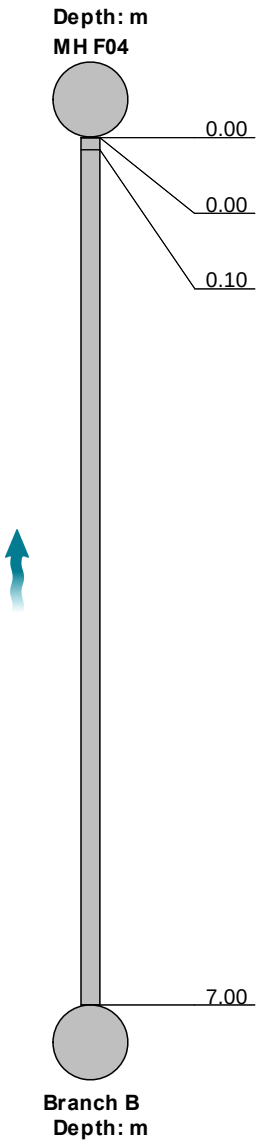
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Upstream	**Upstream Node:**	BRANCH B
Road:		**Inspected Length:**	7.00 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	7.00 m	**Downstream Node:**	MH F04
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Foul	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 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

Comments:
Recommendations:

Scale: 1:61



Position [m]	Code	Observation	Grade
0.00	MH	Start node, manhole, reference: MH F04	
0.00	WL	Water level, 0% of the vertical dimension	
0.10	LL	Line deviates left	
7.00	GYF	Finish node, gully, reference: FG 1	

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

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Section Inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
31	1	14/11/25	3:36	Not Specified	Rain	No	BRANCH CX

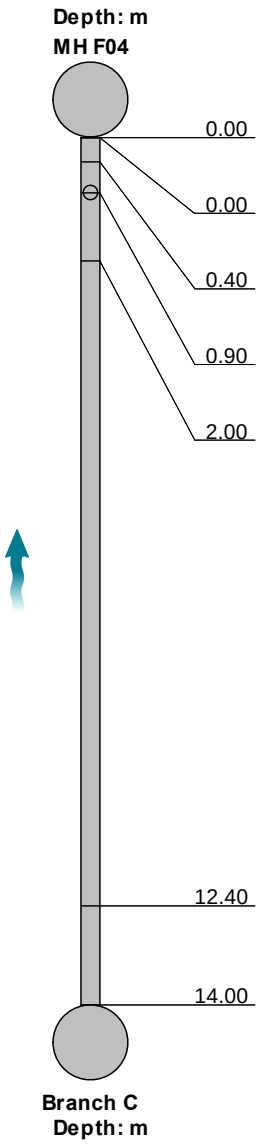
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Upstream	**Upstream Node:**	BRANCH C
Road:		**Inspected Length:**	14.00 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	14.00 m	**Downstream Node:**	MH F04
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Foul	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 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

Comments:
Recommendations:

Scale: 1:122



Position [m]	Code	Observation	Grade
0.00	MH	Start node, manhole, reference: MH F04	
0.00	WL	Water level, 0% of the vertical dimension	
0.40	LU	Line deviates up	
0.90	JN	Junction at 12 o'clock, 100mm dia	
2.00	LR	Line deviates right	
12.40	LU	Line deviates up	
14.00	REM	General remark: Rest bend	

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	0.0	0	0.0	0.0	0.0	0.0

Drain -Alert
Cripplegate Lane, Hoghton
Tel. 01254 851500
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Completed section inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
32	1	14/11/25	3:38	Not Specified	Rain	No	MH F04X

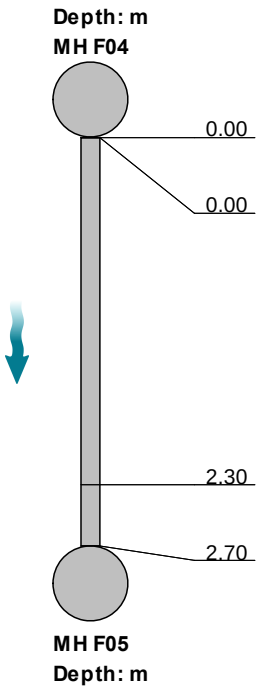
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Downstream	**Upstream Node:**	MH F04
Road:		**Inspected Length:**	2.70 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	2.70 m	**Downstream Node:**	MH F05
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Foul	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 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

Comments:
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	Grade
0.00	MH	Start node, manhole, reference: MH F04	
0.00	WL	Water level, 0% of the vertical dimension	
2.30	LR	Line deviates right	
2.70	MHF	Finish node, manhole, reference: MH F05	

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

Drain -Alert
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Tel. 01254 851500
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Completed section inspection

WEB PROJECT CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
33	1	14/11/25	3:39	Not Specified	Rain	No	MH F05X

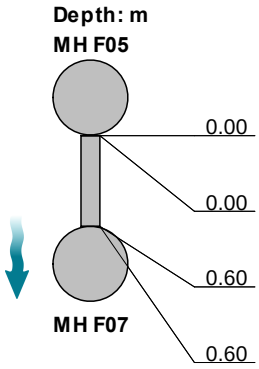
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
J Gostelow	PN17 AAK	Flexirod	Not Specified	Private Drain	Not Specified

Town or Village:	Wythenshaw Hospital	**Inspection Direction:**	Downstream	**Upstream Node:**	MH F05
Road:		**Inspected Length:**	0.60 m	**Upstream Pipe Depth:**	
Location:		**Total Length:**	0.60 m	**Downstream Node:**	MH F07
Surface Type:		**Joint Length:**		**Downstream Pipe Depth:**	

Use:	Foul	**Pipe Shape:**	Circular
Type of Pipe:	Gravity drain/sewer	**Dia/Height:**	100 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

Comments:
Recommendations:

Scale: 1:50



Position [m]	Code	Observation	Grade
0.00	MH	Start node, manhole, reference: MH F05	
0.00	WL	Water level, 0% of the vertical dimension	
0.60	JN	Junction at 6 o'clock, 100mm dia: Drop shaft	
0.60	MHF	Finish node, manhole, reference: MH F07	

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 C

Final Construction Drainage Drawing

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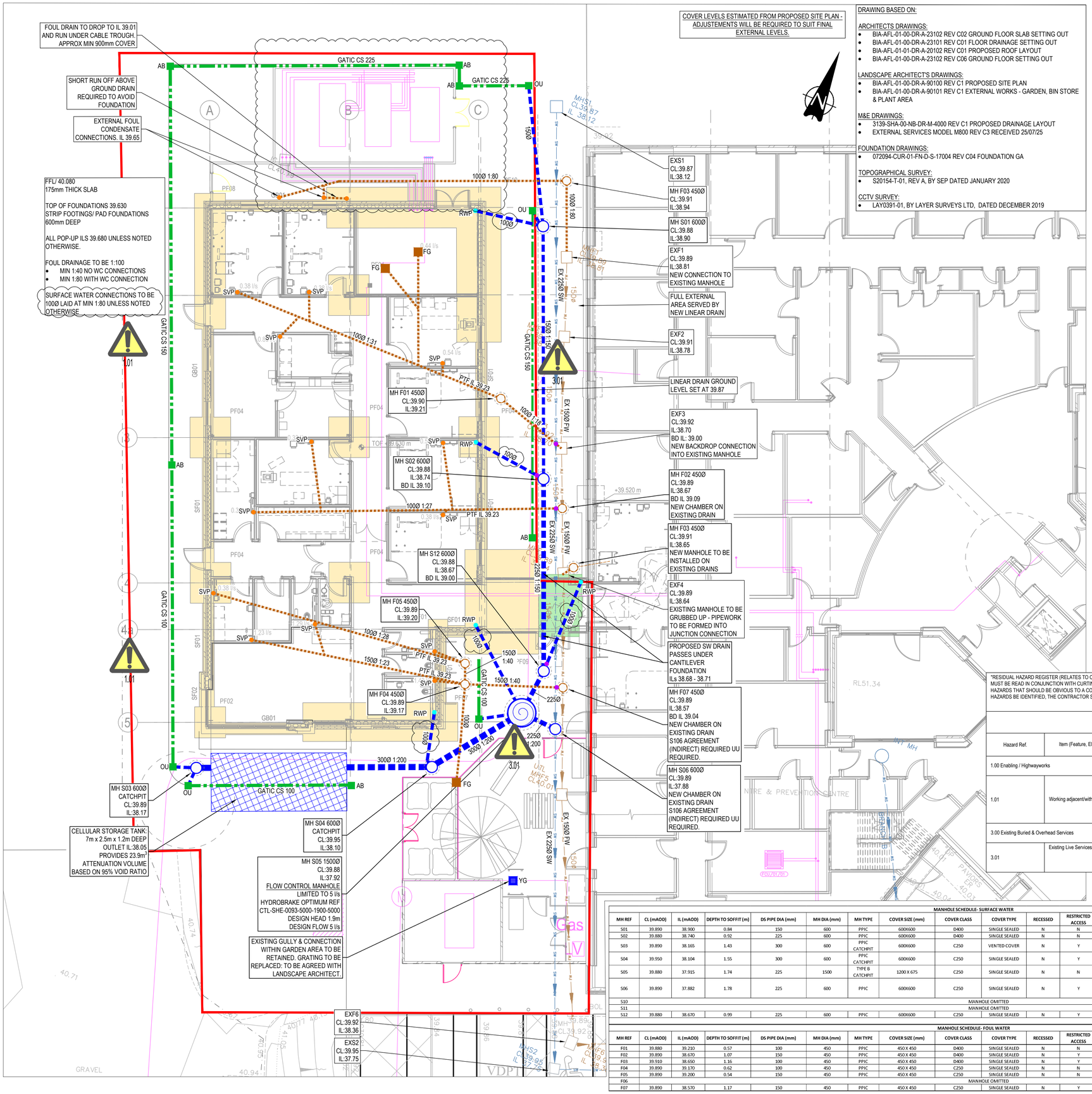

COVER LEVELS ESTIMATED FROM PROPOSED SITE PLAN - ADJUSTEMENTS WILL BE REQUIRED TO SUIT FINAL EXTERNAL LEVELS.

DRAWING BASED ON:

ARCHITECTS DRAWINGS:
- BIA-AFL-01-00-DR-A-23102 REV C02 GROUND FLOOR SLAB SETTING OUT
- BIA-AFL-01-00-DR-A-23101 REV C01 FLOOR DRAINAGE SETTING OUT
- BIA-AFL-01-01-DR-A-20102 REV C01 PROPOSED ROOF LAYOUT
- BIA-AFL-01-00-DR-A-23102 REV C06 GROUND FLOOR SETTING OUT

LANDSCAPE ARCHITECT'S DRAWINGS:
- BIA-AFL-01-00-DR-A-90100 REV C1 PROPOSED SITE PLAN
- BIA-AFL-01-00-DR-A-90101 REV C1 EXTERNAL WORKS - GARDEN, BIN STORE & PLANT AREA

M&E DRAWINGS:
- 3139-SHA-00-NB-DR-M-4000 REV C1 PROPOSED DRAINAGE LAYOUT
- EXTERNAL SERVICES MODEL M800 REV C3 RECEIVED 25/07/25

FOUNDATION DRAWINGS:
- 072094-CUR-01-FN-D-S-17004 REV C04 FOUNDATION GA

TOPOGRAPHICAL SURVEY:
- S20154-T-01, REV A, BY SEP DATED JANUARY 2020

CCTV SURVEY:
- LAY0391-01, BY LAYER SURVEYS LTD, DATED DECEMBER 2019

SURFACE WATER DRAINAGE
PROPOSALS WILL BE SUBJECT TO AGREEMENT WITH THE RELEVANT AUTHORITIES.

PROPOSED FLOW RATES:
SW OUTFALL
ALLOWABLE DISCHARGE RATES HAVE BEEN CALCULATED BASED ON A GREENFIELD RUNOFF CALCULATIONS FOR THE SITE ARE 0.11Ha.
THE EXISTING DISCHARGE RATES FROM THE SITE HAVE BEEN ESTIMATED AS:
1-YEAR **0.21 l/s**
30-YEAR **0.41 l/s**
100-YEAR **0.50 l/s.**

THEREFORE, THE DISCHARGE RATE HAS BEEN SET AT 5 l/s, FOR THE 1, 30 & 100-YEAR (+45%CC) STORM EVENTS, IN ORDER TO REDUCE THE RISK OF BLOCKAGES

AGREEMENT OF THIS DISCHARGE RATE IS TO BE AGREED WITH THE LLFA & UNITED UTILITIES.

LEVELS INDICATE THAT PUMPING WILL NOT BE REQUIRED.

SURCHARGED OUTFALL:
THE DRAINAGE MODEL HAS BEEN CARRIED OUT WITHE A ASSUMED SURCHARGED OUTFALL LEVEL AET 1m ABOVE THE SOFFIT OF THE EXISTING DRAIN.

ATTENUATION REQUIREMENTS:
ATTENUATION OF APPROX. 24m³ IS PROVIDED BY CELLULAR ATTENUATION

SUSTAINABLE FEATURES:
DUE TO SITE CONSTRAINTS, SUDS FEATURES NOT CONSIDERED VIABLE FOR THE SITE.

INFILTRATION IS NOT CONSIDERED APPROPRIATE FOR THIS SCHEME.

FOUL WATER DESIGN

FW OUTFALL
FW PEAK FLOW RATE ESTIMATED AT 2.9 l/s BASED ON 17.3 DUs, FROM M&E DESIGNER'S DRAWING 3139-SHA-00-NB-DR-M-4000.

LEVELS INDICATE THAT PUMPING WILL NOT BE REQUIRED.

A S106 (INDIRECT) AGREEMENT WITH UNITED UTILITIES IS REQUIRED FOR BOTH SW & FOUL DRAINAGE OUTFALLS.

ASPECTS OF THIS DRAWING MAY BE SUBJECT TO CHANGE FOLLOWING THE DEVELOPMENT OF THE CONTRACTOR DESIGN PORTIONS. WHILST THIS DRAWING IS NOTED AS A 'PRELIMINARY CONSTRUCTION' STATUS, PROCUREMENT AND CONSTRUCTION WORKS SHOULD NOT PROGRESS UNTIL THESE ITEMS HAVE BEEN CONCLUDED

COVER LEVELS ESTIMATED FROM PROPOSED SITE PLAN - ADJUSTMENTS WILL BE REQUIRED TO SUIT FINAL DETAILED DESIGN LEVELS.

CONSTRUCTION RECORD - FINAL CONSTRUCTION
THE INFORMATION IS BASED ON CONFIRMATION FROM THE CONTRACTOR OF THE INSTALLED WORKS. THERE MAY BE VARIATIONS ON SITE WHICH ARE NOT REFLECTED ON THIS DRAWING AND HAS NOT BEEN VERIFIED BY CURTINS.

"RESIDUAL HAZARD REGISTER (RELATES TO CIVIL/STRUCTURAL MATTERS ONLY)
MUST BE READ IN CONJUNCTION WITH CURTINS RESIDUAL HAZARD REGISTER XXXXX-CUR-ZZ-XX-HA-X-00001.
HAZARDS THAT SHOULD BE OBVIOUS TO A COMPETENT CONTRACTOR HAVE NOT BEEN INDICATED ON THIS DRAWING. SHOULD ANY ADDITIONAL HAZARDS BE IDENTIFIED, THE CONTRACTOR SHOULD NOTIFY ALL RELEVANT PROJECT TEAM MEMBERS."

HAZARD REGISTER

Hazard Ref.	Item (Feature, Element or Activity)	Potential Hazard Identified	Action (Information to Assist Control)
1.00 Enabling / Highwayworks			
1.01	Working adjacent/within Live Car Park	Risk to construction workers and equipment.	Construction Management Plan to assess edge protection, access routes and appropriate activities within proximity to live highway interface.
3.00 Existing Buried & Overhead Services			
3.01	Existing Live Services	Reduce	Carry out additional surveys and investigations to locate and protect the services in co-ordination with Services Engineer/Statutory Undertakers.

GENERAL NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
2. DESIGN BASED ON TOPOGRAPHICAL SURVEY AND CCTV SURVEY INFORMATION AVAILABLE AT THE TIME OF DESIGN.
3. ALL EXISTING SEWERS, CONNECTIONS, PIPE SIZES AND INVERT LEVELS TO BE CONFIRMED BY CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS TO ENSURE CONNECTIVITY. ANY VARIANCE FROM THE INFORMATION SHOWN SHOULD BE REPORTED TO THE ENGINEER FOR REVIEW.
4. DO NOT SCALE THIS DRAWING. ANY AMBIGUITIES, OMISSIONS AND ERRORS ON DRAWINGS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED / VERIFIED ON SITE.
5. ALL DIMENSIONS ARE IN METRES AND LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS OTHERWISE NOTED.
6. WHERE EXISTING DRAINAGE IS BEING USED, ALLOWANCES SHOULD BE MADE TO REMEDIATE THIS DRAINAGE IN LINE WITH AVAILABLE CCTV SURVEY INFORMATION.
7. ALL EXISTING SERVICES TO BE LOCATED PRIOR TO COMMENCEMENT OF ANY DRAINAGE WORKS, AND WHERE NECESSARY PROTECTION OR DIVERSIONS TO BE UNDERTAKEN TO AVOID CONFLICT WITH THE PROPOSED WORK.
8. BUILDING LOCATIONS ARE APPROXIMATE AND SHALL BE CONFIRMED BY ARCHITECT/ LANDSCAPE ARCHITECT.
9. OUTFALL CONNECTION(S) SUBJECT TO AGREEMENT WITH THE APPROVING AUTHORITY.
10. THIS DRAWING IS PRELIMINARY AND IS SUBJECT TO CHANGE AT LATER STAGES.

KEY:
- ESTIMATED SITE BOUNDARY BASED ON ARCHITECTS DRAWING BIA-AFL-01-00-DR-A-90101-P3
- EXISTING FOUL WATER DRAIN
- EXISTING SURFACE WATER DRAIN
- DRAINAGE TO BE REMOVED
- PROPOSED FOUL WATER DRAIN PROPOSED
- PROPOSED SURFACE WATER DRAIN
- PROPOSED DRAINAGE CHANNEL - CASTSLOT TREADSAFE D400 OR SIMILAR APPROVED. SIZES AS SHOWN
- AB PROPOSED ACCESS/OUTLET BOX
- FG PROPOSED FOUL GULLY
- SVP SVP - SOIL VENT PIPE
- RWP RAINWATER PIPE
- PROPOSED CELLULAR ATTENUATION TANK
- PROPOSED FOUNDATIONS
- PROPOSED CANTILEVER SLAB FOUNDATION
- PROPOSED SERVICES (BY OTHERS)
- PROPOSED SERVICE TRENCH EXTENTS (BY OTHERS)

Rev:	Description:	Date:	By:	Chkd:
C05	FINAL CONSTRUCTION ISSUE	15/01/26	JC	ATL
C04	SCHEDULE UPDATED TO MATCH LAYOUT	12/06/25	JC	ATL
C03	UPDATED IN LINE WITH REVISED M&E LAYOUT. SW CONNECTIONS AMENDED	23/02/25	ATL	MW
C02	CONSTRUCTION ISSUE	28/11/24	ATL	ATL
C01	PRELIMINARY CONSTRUCTION	19/09/24	HW	MW
P05	STAGE 4 ISSUE	28/07/23	KS	ATL
P04	STAGE 3 ISSUE	19/05/23	ATL	MW
P03	PROPOSED DRAINAGE UPDATE	15/02/23	TH	MW
P02	CCTV UPDATE	22/01/20	OJT	MW
P01	FOR PLANNING	10/01/20	OJT	MW

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Status: FINAL CONSTRUCTION

Project: NATIONAL BREAST IMAGING ACADEMY WYTHENSHAW HOSPITAL

Drg Title: PROPOSED DRAINAGE LAYOUT

Size:	Date:	Drawn By:	Designed By:	Checked By:
A1	10/01/20	OJT	OJT	MW

Scale: 1:200

Project No: Originator: Volume: Level: Type: Role: Category / Number: Rev:

072094 - CUR - 01 - XX - DR - C - 92500 - C05

MANHOLE SCHEDULE- SURFACE WATER

MH REF	CL (mAOD)	IL (mAOD)	DEPTH TO SOFFIT (m)	DS PIPE DIA (mm)	MH DIA (mm)	MH TYPE	COVER SIZE (mm)	COVER CLASS	COVER TYPE	RECESSED	RESTRICTED ACCESS	BACK DROP	EASTINGS	NORTHINGS	COMMENTS
S01	39.890	38.900	0.84	150	600	PPIC	600X600	D400	SINGLE SEALED	N	N		380720.540	388254.764	RESTRICTED ACCESS 350mm DIA MAX;
S02	39.880	38.740	0.92	225	600	PPIC	600X600	D400	SINGLE SEALED	N	N	39.10	380725.390	388242.888	RESTRICTED ACCESS 350mm DIA MAX;
S03	39.890	38.165	1.43	300	600	PPIC CATCHPIT	600X600	C250	VENTED COVER	N	Y		380714.399	388222.334	RESTRICTED ACCESS 350mm DIA MAX; CATCHPIT 350mm SUMP
S04	39.950	38.104	1.55	300	600	PPIC CATCHPIT	600X600	C250	SINGLE SEALED	N	Y		380725.644	388226.953	RESTRICTED ACCESS 350mm DIA MAX; CATCHPIT 350mm SUMP
S05	39.880	37.915	1.74	225	1500	TYPE B CATCHPIT	1200 X 675	C250	SINGLE SEALED	N	N		380728.891	388231.289	CATCHPIT 350mm SUMP
S06	39.890	37.882	1.78	225	600	PPIC	600X600	C250	SINGLE SEALED	N	Y		380730.810	388231.164	RESTRICTED ACCESS 350mm DIA MAX; NEW MANHOLE ON EXISTING DRAIN
S10	MANHOLE OMITTED														
S11	MANHOLE OMITTED														
S12	39.880	38.670	0.99	225	600	PPIC	600X600	C250	SINGLE SEALED	N	Y	39.00	380729.129	388233.713	RESTRICTED ACCESS 350mm DIA MAX;

MANHOLE SCHEDULE- FOUL WATER

MH REF	CL (mAOD)	IL (mAOD)	DEPTH TO SOFFIT (m)	DS PIPE DIA (mm)	MH DIA (mm)	MH TYPE	COVER SIZE (mm)	COVER CLASS	COVER TYPE	RECESSED	RESTRICTED ACCESS	BACK DROP			COMMENTS
F01	39.880	39.210	0.57	100	450	PPIC	450 X 450	D400	SINGLE SEALED	N	N		380721.786	388245.902	
F02	39.890	38.670	1.07	150	450	PPIC	450 X 450	D400	SINGLE SEALED	N	Y	39.09	380726.856	388241.844	NEW MANHOLE ON EXISTING DRAIN
F03	39.910	38.650	1.16	100	450	PPIC	450 X 450	D400	SINGLE SEALED	N	Y		380720.703	388257.585	NEW MANHOLE ON EXISTING DRAIN
F04	39.890	39.170	0.62	100	450	PPIC	450 X 450	C250	SINGLE SEALED	N	N		380725.621	388231.552	
F05	39.890	39.200	0.54	150	450	PPIC	450 X 450	C250	SINGLE SEALED	N	N		380724.828	388232.504	
F06	MANHOLE OMITTED														
F07	39.890	38.570	1.17	150	450	PPIC	450 X 450	C250	SINGLE SEALED	N	Y	39.04	380730.335	388233.306	NEW MANHOLE ON EXISTING DRAIN

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Appendix D

Surface Water Drainage Calculations

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Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	100	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	45	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	18.000	Minimum Backdrop Height (m)	0.200
Ratio-R	0.358	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	✓
Time of Entry (mins)	5.00	Enforce best practice design rules	✓

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
EX S1		5.00	39.870	1200	380718.813	388260.918	1.750
RWP 1	0.009	5.00	40.080	100	380716.920	388254.381	0.400
S01	0.026	5.00	39.880	600	380720.540	388254.764	0.980
RWP 2	0.014	5.00	40.080	100	380721.442	388243.330	0.400
S02			39.880	600	380725.390	388242.888	1.141
S12			39.880	600	380729.129	388233.713	1.207
S03	0.006	5.00	39.880	600	380714.399	388222.334	1.715
S04	0.006	5.00	39.950	600	380725.644	388226.953	1.846
S05	0.012	5.00	39.890	1500	380728.891	388231.289	1.975
S06			39.880	600	380730.810	388231.164	1.998
EX S2			39.890	1200	380737.374	388214.903	2.144

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	EX S1	S06	32.082	0.600	38.120	37.882	0.238	135.0	225	5.48	50.0
2.000	RWP 1	S01	3.640	0.600	39.680	39.634	0.046	80.0	100	5.07	50.0
2.001	S01	S02	12.828	0.600	38.900	38.814	0.086	150.0	150	5.33	50.0
3.000	RWP 2	S02	3.973	0.600	39.680	39.100	0.580	6.8	100	5.02	50.0
2.002	S02	S12	9.908	0.600	38.739	38.673	0.066	150.0	225	5.49	50.0
2.003	S12	S05	2.436	0.600	38.673	38.657	0.016	150.0	225	5.53	50.0
4.000	S03	S04	12.157	0.600	38.165	38.104	0.061	200.0	300	5.18	50.0
4.001	S04	S05	5.417	0.600	38.104	38.077	0.027	200.0	300	5.26	50.0
2.004	S05	S06	1.923	0.600	37.915	37.900	0.015	130.0	225	5.55	50.0
1.001	S06	EX S2	17.536	0.600	37.882	37.746	0.136	128.9	225	5.81	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
1.000	1.123	44.7	0.0	1.525	1.773	0.000	0.0
2.000	0.861	6.8	1.8	0.300	0.146	0.009	0.0
2.001	0.818	14.5	6.9	0.830	0.916	0.035	0.0
3.000	2.973	23.3	2.8	0.300	0.680	0.014	0.0
2.002	1.065	42.3	9.6	0.916	0.982	0.049	0.0
2.003	1.065	42.3	9.6	0.982	1.008	0.049	0.0
4.000	1.108	78.3	1.2	1.415	1.546	0.006	0.0
4.001	1.108	78.3	2.4	1.546	1.513	0.012	0.0
2.004	1.145	45.5	14.3	1.750	1.755	0.073	0.0
1.001	1.150	45.7	14.3	1.773	1.919	0.073	0.0

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Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	32.082	135.0	225	1 STANDARD	39.870	38.120	1.525	39.880	37.882	1.773
2.000	3.640	80.0	100	1 STANDARD	40.080	39.680	0.300	39.880	39.634	0.146
2.001	12.828	150.0	150	1 STANDARD	39.880	38.900	0.830	39.880	38.814	0.916
3.000	3.973	6.8	100	1 STANDARD	40.080	39.680	0.300	39.880	39.100	0.680
2.002	9.908	150.0	225	1 STANDARD	39.880	38.739	0.916	39.880	38.673	0.982
2.003	2.436	150.0	225	1 STANDARD	39.880	38.673	0.982	39.890	38.657	1.008
4.000	12.157	200.0	300	1 STANDARD	39.880	38.165	1.415	39.950	38.104	1.546
4.001	5.417	200.0	300	1 STANDARD	39.950	38.104	1.546	39.890	38.077	1.513
2.004	1.923	130.0	225	1 STANDARD	39.890	37.915	1.750	39.880	37.900	1.755
1.001	17.536	128.9	225	1 STANDARD	39.880	37.882	1.773	39.890	37.746	1.919

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	EX S1	1200	Manhole	1 STANDARD	S06	600	Manhole	1 STANDARD
2.000	RWP 1	100	Manhole	1 STANDARD	S01	600	Manhole	1 STANDARD
2.001	S01	600	Manhole	1 STANDARD	S02	600	Manhole	1 STANDARD
3.000	RWP 2	100	Manhole	1 STANDARD	S02	600	Manhole	1 STANDARD
2.002	S02	600	Manhole	1 STANDARD	S12	600	Manhole	1 STANDARD
2.003	S12	600	Manhole	1 STANDARD	S05	1500	Manhole	1 STANDARD
4.000	S03	600	Manhole	1 STANDARD	S04	600	Manhole	1 STANDARD
4.001	S04	600	Manhole	1 STANDARD	S05	1500	Manhole	1 STANDARD
2.004	S05	1500	Manhole	1 STANDARD	S06	600	Manhole	1 STANDARD
1.001	S06	600	Manhole	1 STANDARD	EX S2	1200	Manhole	1 STANDARD

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections		Link	IL (m)	Dia (mm)
EX S1	380718.813	388260.918	39.870	1.750	1200		0	1.000	38.120	225
RWP 1	380716.920	388254.381	40.080	0.400	100		0	2.000	39.680	100
S01	380720.540	388254.764	39.880	0.980	600		1	2.000	39.634	100
							0	2.001	38.900	150
RWP 2	380721.442	388243.330	40.080	0.400	100		0	3.000	39.680	100
S02	380725.390	388242.888	39.880	1.141	600		1	3.000	39.100	100
							2	2.001	38.814	150
							0	2.002	38.739	225
S12	380729.129	388233.713	39.880	1.207	600		1	2.002	38.673	225
							0	2.003	38.673	225

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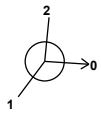
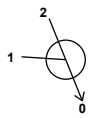
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S03	380714.399	388222.334	39.880	1.715	600		0	4.000	38.165	300
S04	380725.644	388226.953	39.950	1.846	600		1	4.000	38.104	300
							0	4.001	38.104	300
S05	380728.891	388231.289	39.890	1.975	1500		1	4.001	38.077	300
							2	2.003	38.657	225
							0	2.004	37.915	225
S06	380730.810	388231.164	39.880	1.998	600		1	2.004	37.900	225
							2	1.000	37.882	225
							0	1.001	37.882	225
EX S2	380737.374	388214.903	39.890	2.144	1200		1	1.001	37.746	225

Simulation Settings

Rainfall Methodology	FSR	Analysis Speed	Normal
Rainfall Events	Singular	Skip Steady State	x
FSR Region	England and Wales	Drain Down Time (mins)	240
M5-60 (mm)	18.000	Additional Storage (m³/ha)	20.0
Ratio-R	0.358	Starting Level (m)	
Summer CV	0.750	Check Discharge Rate(s)	x
Winter CV	0.840	Check Discharge Volume	x

Storm Durations

15	30	60	120	180	240	360	480	600	720	960	1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
30	0	0	0
100	45	0	0

Node S05 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	37.915	Product Number	CTL-SHE-0093-5000-1900-5000
Design Depth (m)	1.900	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	5.0	Min Node Diameter (mm)	1200

Node S04 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	38.126
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	23

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Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	21.0	0.0	1.200	21.0	0.0	1.201	0.0	0.0

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Results for 1 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	EX S1	1	38.120	0.000	0.0	0.0000	0.0000	OK
15 minute winter	RWP 1	10	39.708	0.028	1.1	0.0130	0.0000	OK
15 minute winter	S01	10	38.957	0.057	4.3	0.0465	0.0000	OK
15 minute winter	RWP 2	10	39.699	0.019	1.7	0.0135	0.0000	OK
15 minute winter	S02	10	38.798	0.059	5.8	0.0167	0.0000	OK
15 minute winter	S12	11	38.736	0.063	5.8	0.0178	0.0000	OK
15 minute winter	S03	11	38.185	0.020	0.7	0.0071	0.0000	OK
15 minute winter	S04	14	38.169	0.065	4.5	0.8804	0.0000	OK
15 minute winter	S05	14	38.168	0.253	7.3	0.4776	0.0000	SURCHARGED
15 minute winter	S06	15	37.928	0.046	4.1	0.0131	0.0000	OK
15 minute winter	EX S2	15	37.791	0.045	4.1	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	EX S1	1.000	S06	0.0	0.000	0.000	0.0938	
15 minute winter	RWP 1	2.000	S01	1.1	0.608	0.158	0.0064	
15 minute winter	S01	2.001	S02	4.2	0.696	0.287	0.0768	
15 minute winter	RWP 2	3.000	S02	1.7	1.678	0.072	0.0040	
15 minute winter	S02	2.002	S12	5.8	0.672	0.137	0.0859	
15 minute winter	S12	2.003	S05	5.9	0.697	0.138	0.0205	
15 minute winter	S03	4.000	S04	0.7	0.298	0.009	0.0752	
15 minute winter	S04	4.001	S05	-3.1	0.444	-0.040	0.0787	
15 minute winter	S05	Hydro-Brake®	S06	4.1				
15 minute winter	S06	1.001	EX S2	4.1	0.708	0.089	0.1012	4.1

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Results for 30 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	EX S1	1	38.120	0.000	0.0	0.0000	0.0000	OK
15 minute winter	RWP 1	10	39.727	0.047	2.7	0.0217	0.0000	OK
15 minute winter	S01	10	38.999	0.099	10.4	0.0803	0.0000	OK
15 minute winter	RWP 2	10	39.711	0.031	4.2	0.0218	0.0000	OK
15 minute winter	S02	10	38.838	0.099	14.3	0.0279	0.0000	OK
15 minute winter	S12	11	38.775	0.102	14.2	0.0290	0.0000	OK
30 minute winter	S03	28	38.370	0.205	2.7	0.0725	0.0000	OK
30 minute winter	S04	27	38.368	0.264	10.5	4.9221	0.0000	OK
30 minute winter	S05	27	38.368	0.453	14.3	0.8552	0.0000	SURCHARGED
15 minute winter	S06	17	37.929	0.047	4.3	0.0134	0.0000	OK
15 minute winter	EX S2	17	37.792	0.046	4.3	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	EX S1	1.000	S06	0.0	0.000	0.000	0.0976	
15 minute winter	RWP 1	2.000	S01	2.7	0.768	0.392	0.0126	
15 minute winter	S01	2.001	S02	10.1	0.861	0.702	0.1515	
15 minute winter	RWP 2	3.000	S02	4.2	2.142	0.179	0.0077	
15 minute winter	S02	2.002	S12	14.2	0.831	0.335	0.1691	
15 minute winter	S12	2.003	S05	14.2	0.883	0.336	0.0393	
30 minute winter	S03	4.000	S04	1.8	0.284	0.023	0.7093	
30 minute winter	S04	4.001	S05	-9.1	0.472	-0.116	0.3667	
30 minute winter	S05	Hydro-Brake®	S06	4.3				
15 minute winter	S06	1.001	EX S2	4.3	0.717	0.094	0.1047	10.0

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Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	EX S1	1	38.120	0.000	0.0	0.0000	0.0000	OK
15 minute winter	RWP 1	10	39.751	0.071	5.0	0.0326	0.0000	OK
15 minute winter	S01	10	39.114	0.214	19.4	0.1739	0.0000	SURCHARGED
15 minute winter	RWP 2	10	39.724	0.044	7.8	0.0312	0.0000	OK
15 minute winter	S02	10	38.887	0.148	26.6	0.0419	0.0000	OK
60 minute winter	S12	58	38.870	0.197	14.7	0.0559	0.0000	OK
60 minute winter	S03	58	38.871	0.706	2.8	0.2492	0.0000	SURCHARGED
60 minute winter	S04	58	38.870	0.766	16.3	15.1218	0.0000	SURCHARGED
60 minute winter	S05	58	38.870	0.955	18.3	1.8044	0.0000	SURCHARGED
360 minute winter	S06	224	37.929	0.047	4.3	0.0134	0.0000	OK
180 minute summer	EX S2	176	37.792	0.046	4.3	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	EX S1	1.000	S06	0.0	0.000	0.000	0.0976	
15 minute winter	RWP 1	2.000	S01	4.9	0.882	0.729	0.0203	
15 minute winter	S01	2.001	S02	18.9	1.081	1.306	0.2143	
15 minute winter	RWP 2	3.000	S02	7.8	2.497	0.333	0.0124	
15 minute winter	S02	2.002	S12	26.5	0.952	0.625	0.2766	
60 minute winter	S12	2.003	S05	14.7	0.890	0.347	0.0924	
60 minute winter	S03	4.000	S04	2.2	0.227	0.028	0.8561	
60 minute winter	S04	4.001	S05	-13.0	0.474	-0.166	0.3815	
60 minute winter	S05	Hydro-Brake®	S06	4.3				
360 minute winter	S06	1.001	EX S2	4.3	0.717	0.094	0.1047	52.8

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