Elsa Road, Former Levenshulme Cricket Club

FLOOD RISK ASSESSMENT & DRAINAGE STRATEGY REPORT

15 April 2026

Elsa Road, Former Levenshulme Cricket Club

Flood Risk Assessment & Drainage Strategy

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Elsa Road, Former Levenshulme Cricket Club

Flood Risk Assessment & Drainage Strategy Report

Seddon

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Alan Johnston Partnership Ltd.
Company No. 13204766

Elsa Road, Former Levenshulme Cricket Club

Flood Risk Assessment & Drainage Strategy Report

1. INTRODUCTION

This Flood Risk Assessment (FRA) and Drainage Strategy Report has been prepared on behalf of Seddon in connection with the construction of Residential development in Elsa Road Manchester M19 3JG, situated within Manchester City Council. Even though the site is located entirely within Flood Zone 1, the total area of the proposed development is over 1.0ha and therefore an FRA is required.

This FRA has been prepared in accordance with the general requirements of the National Planning Policy Framework and the associated Planning Practice Guidance, both published by the Department for Communities and Local Government. This involves the identification of flood risk to new development(s) on the site, the possible effect of this development on flood risk elsewhere and the investigation of the impact on the development as a result of increased sea levels, fluvial flows, and larger pluvial events due to increased impermeable areas and climate change.

The purpose of this report is to present a site-specific assessment of flood risk based on available information, to identify relevant flood levels affecting the site with respect to a particular probability of flooding. The flood levels identified are dependent on the correctness of the current conditions, as stated in this report and the prediction of future climatic conditions implicit in the National Planning Policy Framework.

For any size of storm event, the procedure will always yield a probability that the event will occur in any year, albeit the probability is smaller for larger events. The predicted storm event has a probability of occurrence in any year and the derived flood level has an associated probability of exceedance. This means that there is always a risk that property flooding could occur one or more times in any year.

Therefore, this report should not be interpreted or relied upon as providing a guarantee against flooding. There is always a residual risk that flooding will occur and it is not possible to predict a zero risk of flooding.

In accordance with National Planning Policy Framework (NPPF) and the associated Planning Practice Guidance, flood risk must be assessed for all sources including tidal (from the sea), fluvial (from rivers), pluvial (from land), groundwater, sewer and artificial water bodies (e.g., reservoirs, canals, major water supply infrastructure etc.).

More specifically, the development of any site must be carried out in such a way as to mitigate any potential flood risk, both on and off site from all sources of flooding.

The other purpose of this report is to present the surface water and foul water outline drainage strategies for the site which have been developed by the Alan Johnston Partnership. To demonstrate how the specific drainage requirements are to be met, the report should be read in conjunction with the relevant drawings and supporting information, included within the appendices.

The drainage strategies outlined within this report, have been prepared in accordance with BS EN 752:2017 (Drain and sewer systems outside buildings), Sewers for Adoption, Building Regulations Approved Document H (Drainage and waste disposal), the National Planning Policy Framework document (Department for Communities and Local Government, July 2021) and associated Planning Practice Guidance.

2. SITE DESCRIPTION

The site is located on an existing greenfield site within Elsa Road Manchester M19 3JG at National Grid reference SJ 88421 94285. The site location plan is shown in Figure 2.1, attached in Appendix A, and the extent of the area to which the application relates is shown on the enclosed aerial photo in Figure 2.2, attached in Appendix B.

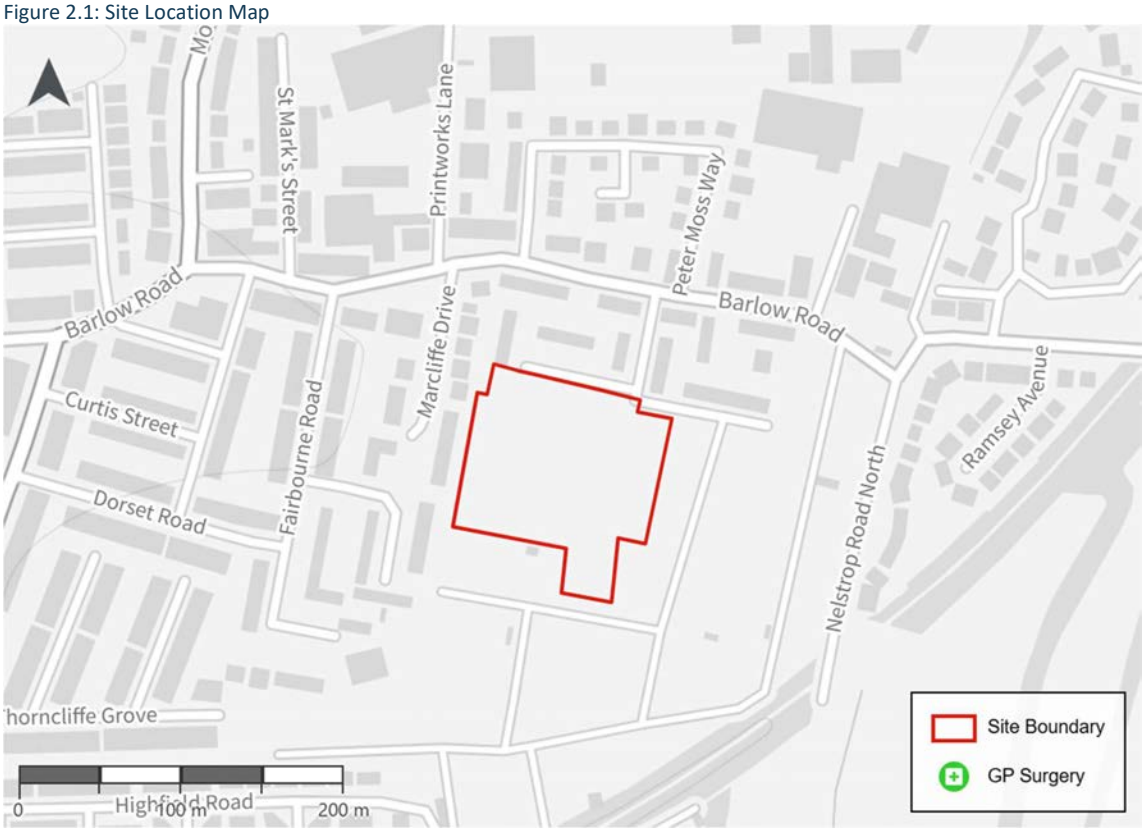
The existing site covers a total area of 1.291 with the proposed development area covering 1.291.The site is bounded by Existing dwellings to the west and Anchor Close to the North. To the East and South, the site is bounded by Allotments, with trees occupying the boundaries between the site and all its surroundings..

The site generally falls from South East to North East, with levels falling from approximately 64.88mAOD in the South East to approximately 62.70AOD in the North East. The topographic survey is attached in Appendix C.

The levels across the site range from approximately 62.70mAOD to the North East of the site to 64.88mAOD to the South East of the site. This indicates a gradual increase in elevation from the North East, where the minimum level is recorded at 62.70mAOD, towards the South East, which represents the highest point on the site at 64.88mAOD.

It is also notable that the broad centre of the development is fairly flat, sitting at approximately 65.50mAOD. This relatively consistent level across the central area may be advantageous for construction and site layout, providing a stable platform for the proposed development.

Figure 2.1: Site Location Map



Source Ordnance Survey

Figure 2.2: Aerial Photo



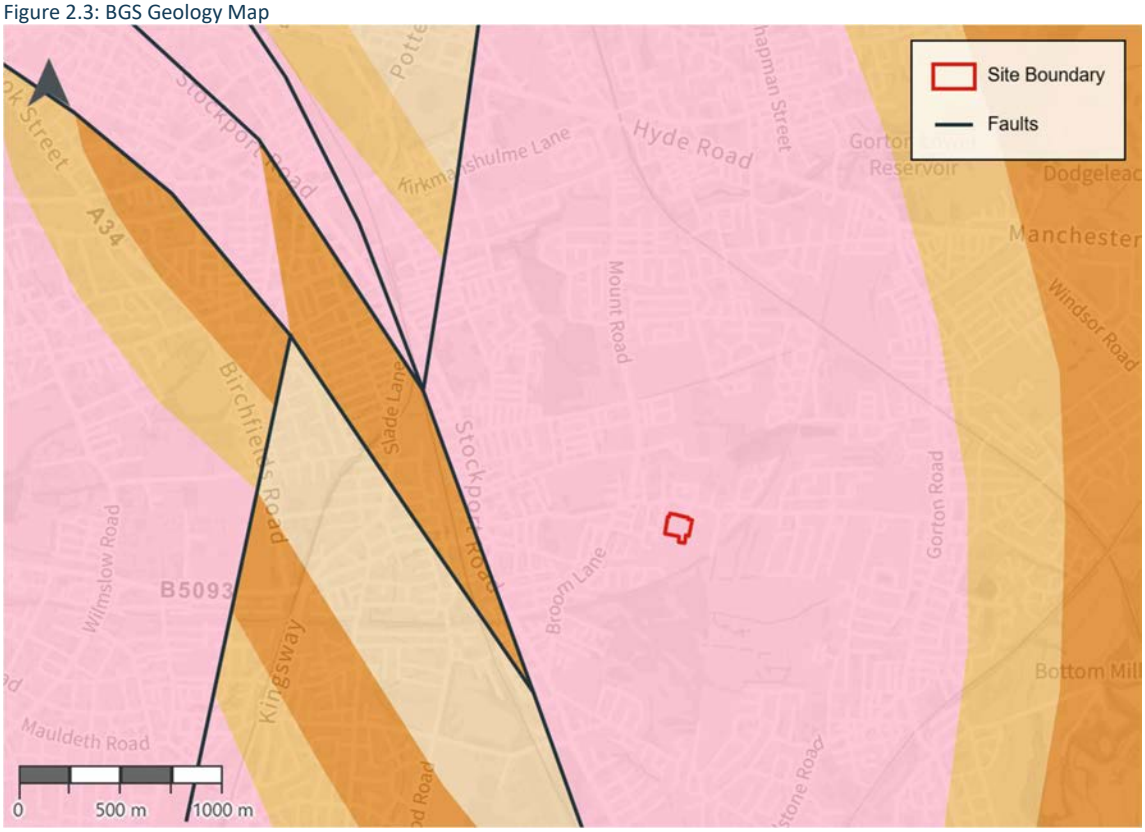
Source: Ordnance Survey

2.1. Geology

A summary of the Trial Logs can be found in Appendix H, which demonstrates that the site has minimal made ground and is generally underlain by a Glacial Till consisting of a Stiff Clay that begins to interact with the Weathered Chester Formation Bedock at circa 2m below existing ground level. In the south east corner where the former cricket club was situated the ground is a ground bearing slab above hardcore made ground.

This is supported by the information taken from the British Geological Survey (BGS) 1:50,000 Bedrock geology maps which also show that the site has superficial deposits comprising of Glacial Till deposits. The survey also show bedrock geology is reported to be Weather Chester Formation .

Figure 2.3: BGS Geology Map



Source: Ordnance Survey, BGS

2.2. Hydrogeology

The Environment Agency groundwater maps show that the superficial deposits are classified as Principal. The bedrock is classified as Principal.

The Environment Agency groundwater maps also indicate that the development site is not situated within a groundwater Source Protection Zone (SPZ). They also indicate that the site is located within an area which has a low risk of groundwater flooding.

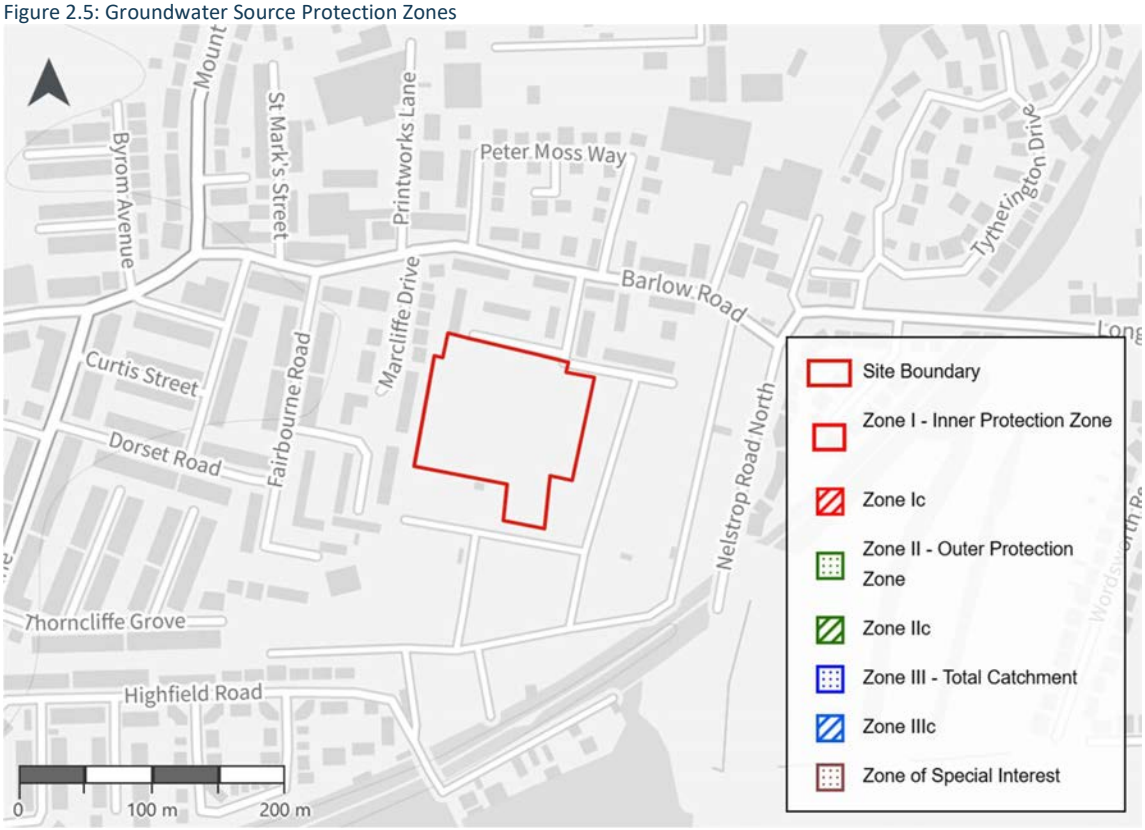
This is supported by the results of the Trial Logs in Appendix H which indicates that groundwater was not encountered on site and instances of wet strata that were encountered was due to the interaction between Made ground and the Stiff Clays, generated perched waters, that does not present a flood risk for the post development scenario.

Figure 2.4: Site Hydrogeology



Source: Ordnance Survey, BGS

Figure 2.5: Groundwater Source Protection Zones



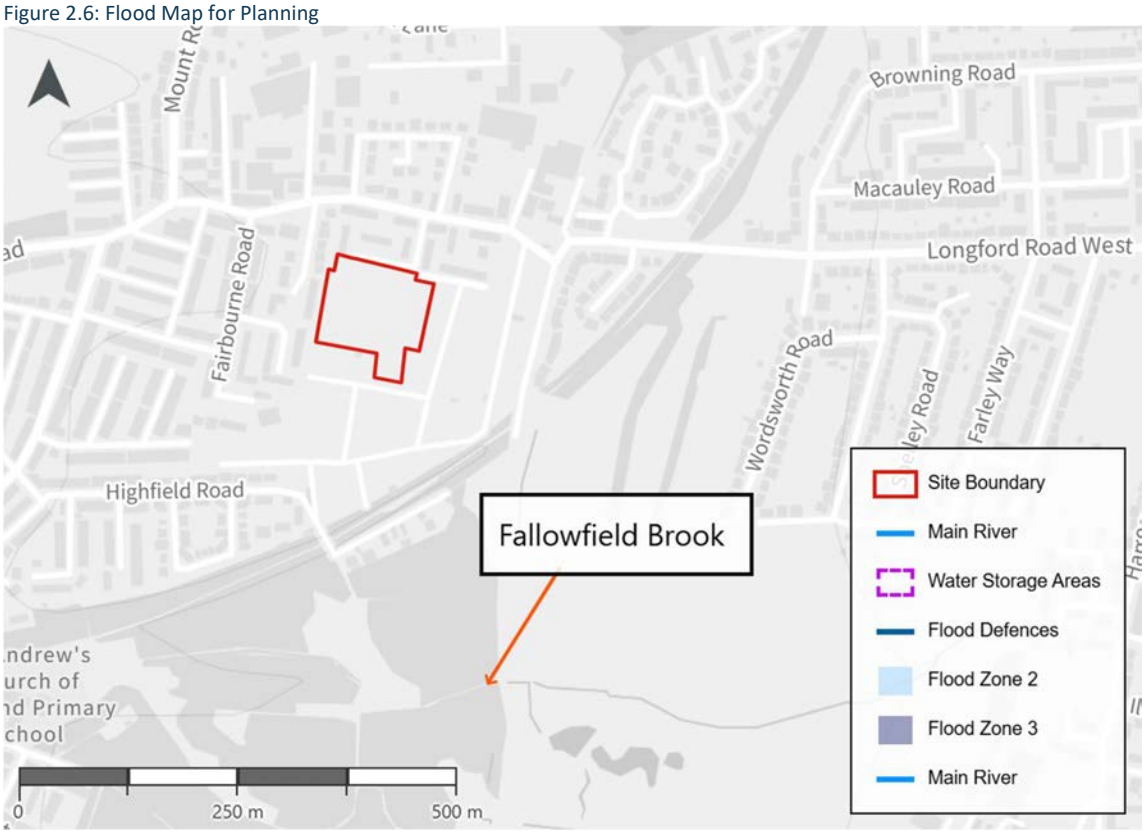
Source: Ordnance Survey, Environment Agency

2.3. Hydrology

The site is located within Flood Zone 1, land assessed to have a low probability of flooding

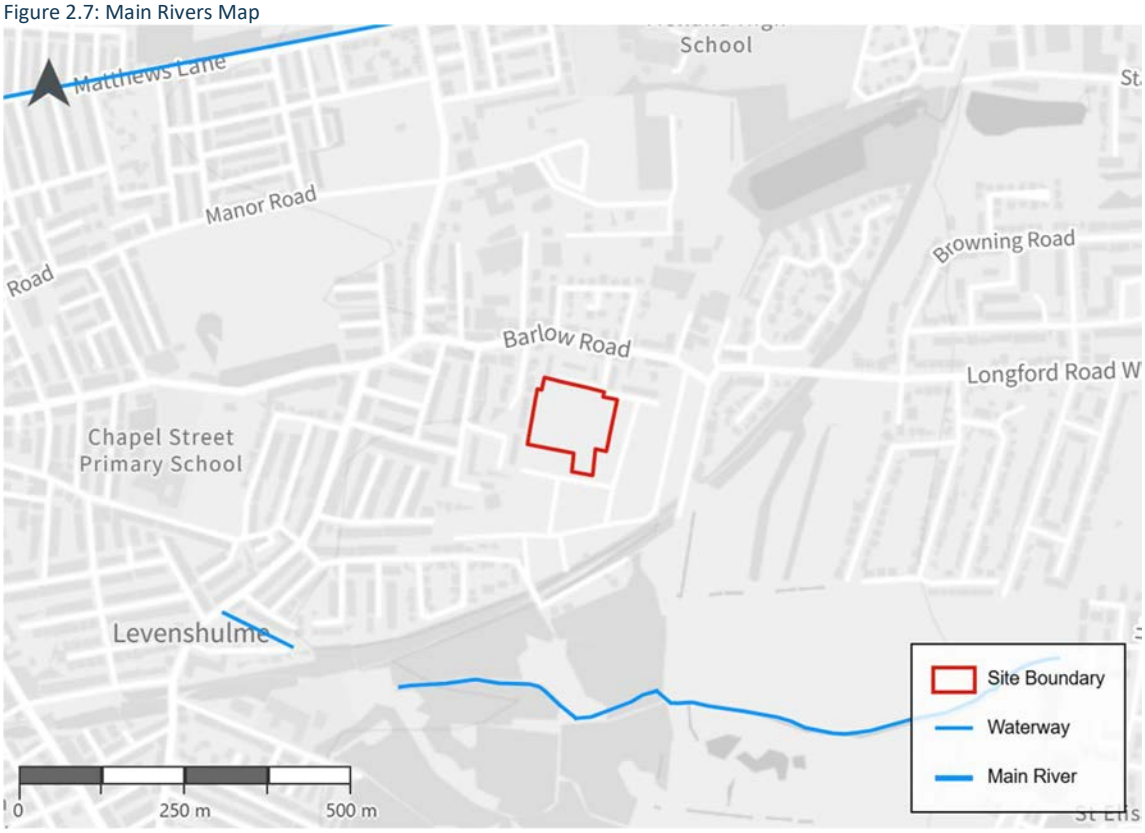
The nearest watercourse to the site is the Combined Sewer , classified as a main river. It is located approximately 381m to the South of the site.

Figure 2.6: Flood Map for Planning



Source: Ordnance Survey, Environment Agency

Figure 2.7: Main Rivers Map



Source: Ordnance Survey, Environment Agency

3. PROPOSED DEVELOPMENT

The proposed development at Elsa Road, Former Levenshulme Cricket Club, is located to the south of Anchor Close, accessed via Elsa Road and surrounded by allotments. The site, currently classified as greenfield, was previously occupied by a cricket club, which has since been demolished, with only the cricket net posts remaining. The proposal involves the construction of 50 new residential dwellings of varying sizes and bedroom provision, to be served by a new highway and associated private parking bays in accordance with Manchester City Council requirements. The total site area for the development is 12,910 square metres.

To enable a viable scheme, the proposed site levels are constrained by the existing site boundaries, therefore, site levels are likely to remain similar to the existing. The proposed site plans for the development are attached in Appendix D.

4. PLANNING POLICY

The National Planning Policy Framework (NPPF) sets out the Government's policy on meeting the challenges of climate change, flooding and coastal change. The NPPF states that:

"Planning plays a key role in helping shape places to secure radical reductions in greenhouse gas emissions, minimising vulnerability and providing resilience to the impact of climate change, and supporting the delivery of renewable and low carbon energy and associated infrastructure. This is central to the economic, social and environmental dimensions of sustainable development. Local planning authorities should adopt proactive strategies to mitigate and adapt to climate change taking full account of flood risk, coastal change and water supply and demand consideration."

This Flood Risk Assessment proposes recommendations to facilitate the proposed development so that it takes into account flood risk at all stages of the development.

4.1. Sequential and Exception Test

Based on the sites location in Flood Zone 1, the development is deemed appropriate according to NPPF therefore the development is appropriately situated and the Sequential Test is not required.

4.2. Exception Test

NPPF classifies the development as 'More Vulnerable' but as the site is located within Flood Zone 1 the Exception Test is not required.

5. FORMS OF FLOODING

The National Planning Policy Framework requires all forms of flooding to be considered.

5.1. Flooding from Rivers

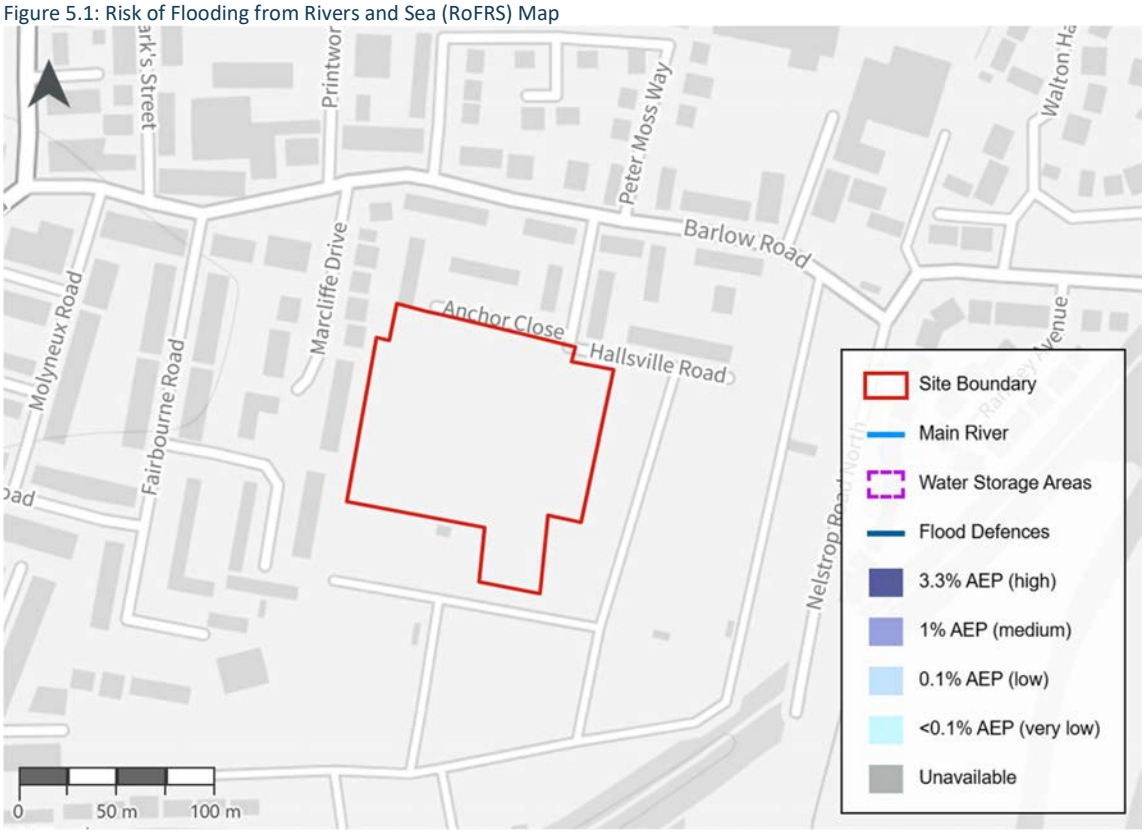
The Flood Risk map is shown in Figure 5.1 below, and included as Appendix E. Records of historical flooding have also been assessed and shown in Figure 5.2 below.

As can be seen from the Flood risk map, the site is located within Flood Zone 1, land assessed to have a low probability of flooding

The nearest watercourse to the site is the Combined Sewer , classified as a main river. It is located approximately 381m to the South of the site.

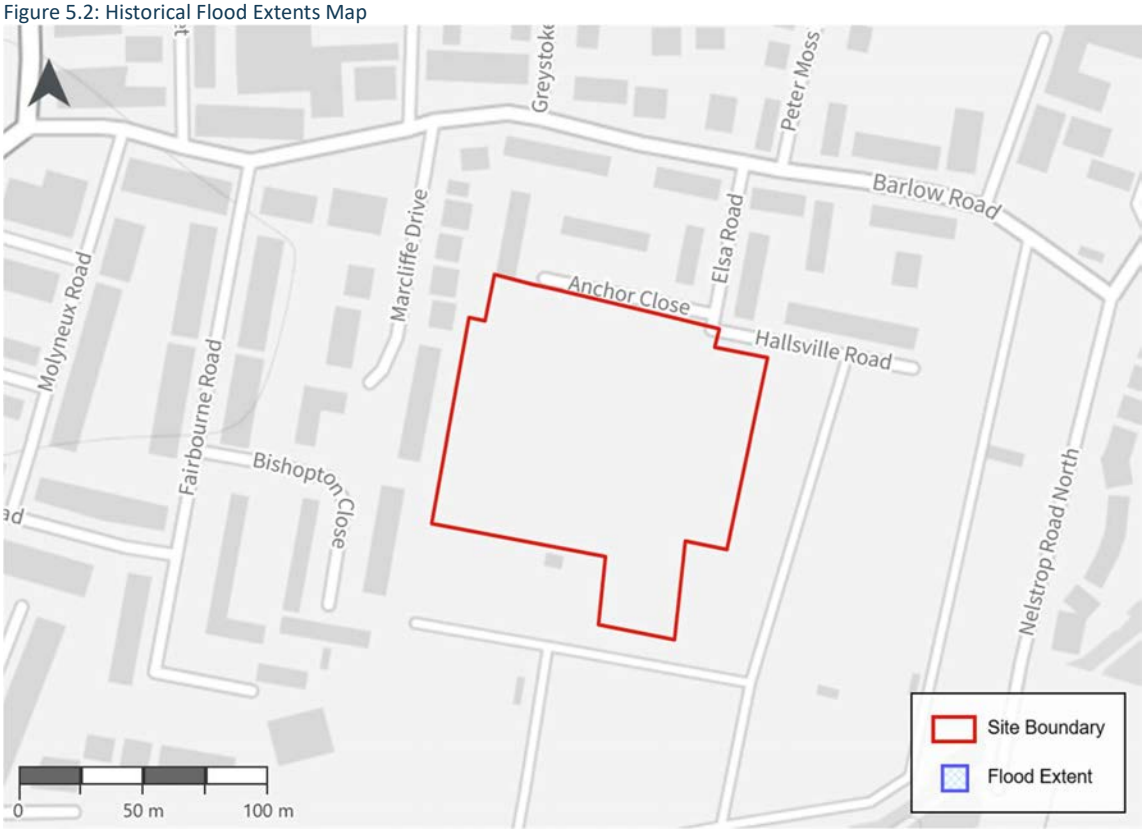
Therefore, the risk of flooding to the new development from rivers is considered to be low.

Figure 5.1: Risk of Flooding from Rivers and Sea (RoFRS) Map



Source: Ordnance Survey, Environment Agency

Figure 5.2: Historical Flood Extents Map



Source: Ordnance Survey, Environment Agency

5.2. Flooding from Sea

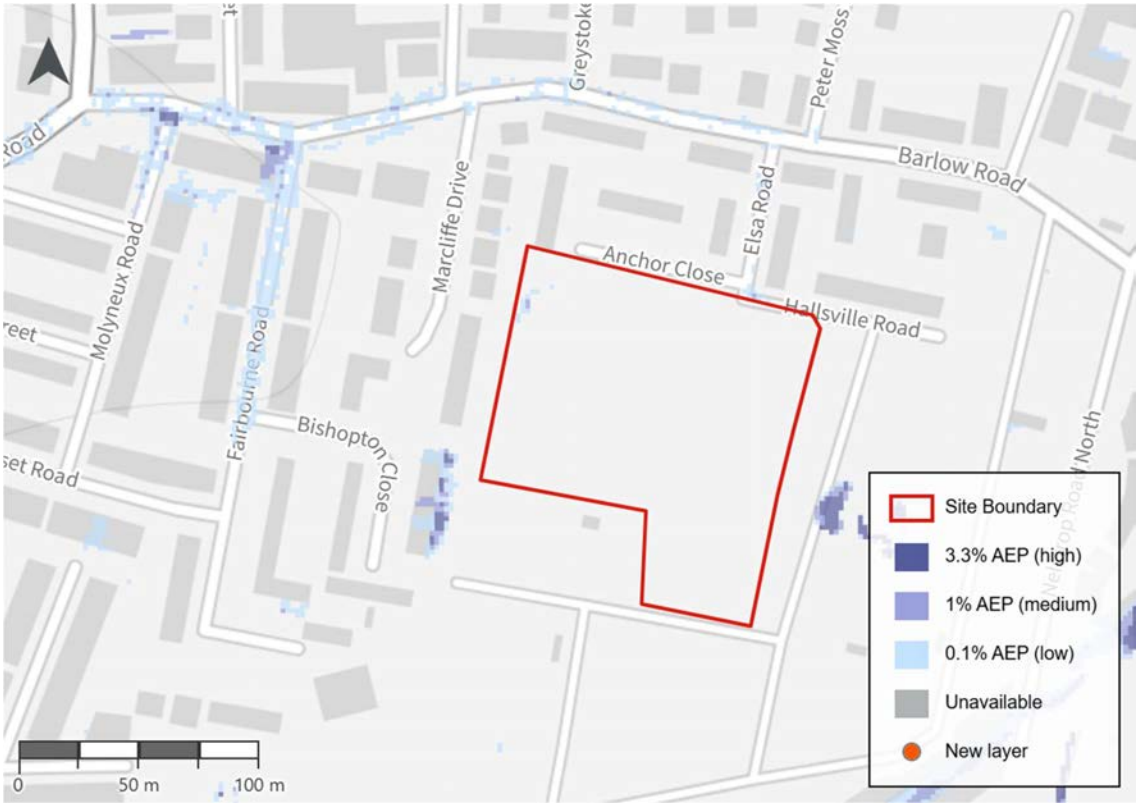
The site is not at risk of flooding from the sea. The lowest level of the site is approximately 62.70mAOD, i.e., well above tidal flood levels.

5.3. Flooding from Land

Intense rainfall, often of short duration, that is unable to soak into the ground or enter drainage systems can run quickly off land and result in local flooding. The surface water flooding map is included in Figure 5.3 below, and Appendix E.

It can be seen from the map that only a small section of the site is classified as having a low risk of surface water flooding. This area is subject to a local bund in the North West corner, which is likely shedding run off to this area, as a focused depression collecting surface water. The EA maps identify the maximum depth of this Surface Water Flooding as being 200mm.

Figure 5.2.1: Risk of Surface Water Flooding (RoSWF) Map 0.2m Depth

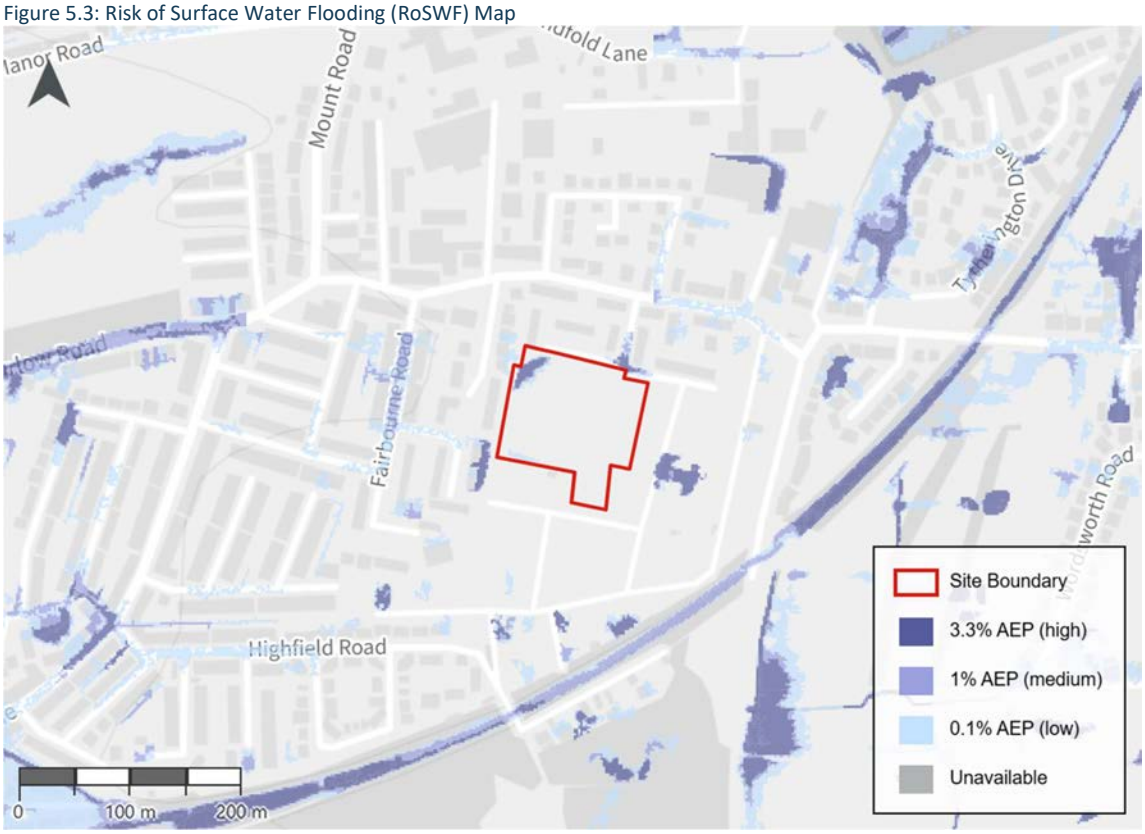


The lowest existing levels at this low point of surface water flooding is 62.76m AOD, therefore all FFL shall be to a minimum of 200mm above this value, with 150mm freeboard at 63.11m AOD

The post development scenario will amend the levels in this area and provide sufficient post development attenuation to accommodate rainfall Therefore, the risk of flooding from

overland flows due to surface water flooding in this area is considered to be Low as such the overall site is considered to be at low risk of flooding from surface water/surrounding land. All proposed dwellings within the site shall be 150mm above their surrounding finished levels as a further measure of mitigation.

Figure 5.3: Risk of Surface Water Flooding (RoSWF) Map



Source: Ordnance Survey, Environment Agency

5.4. Flooding from Groundwater

As per the hydrogeology maps and the Trial pits and Window samples provided by AJP, the site is considered to be at low risk from Ground Water flooding. This is reinforced by the fact that the development does not propose the use of Basements.

5.5. Flooding from Sewers

A record of public sewers surrounding and serving the development site has been obtained from United Utilities and this is included in Appendix F. As can be seen from the United Utilities sewer maps there is a single head run public sewer within the site boundary.

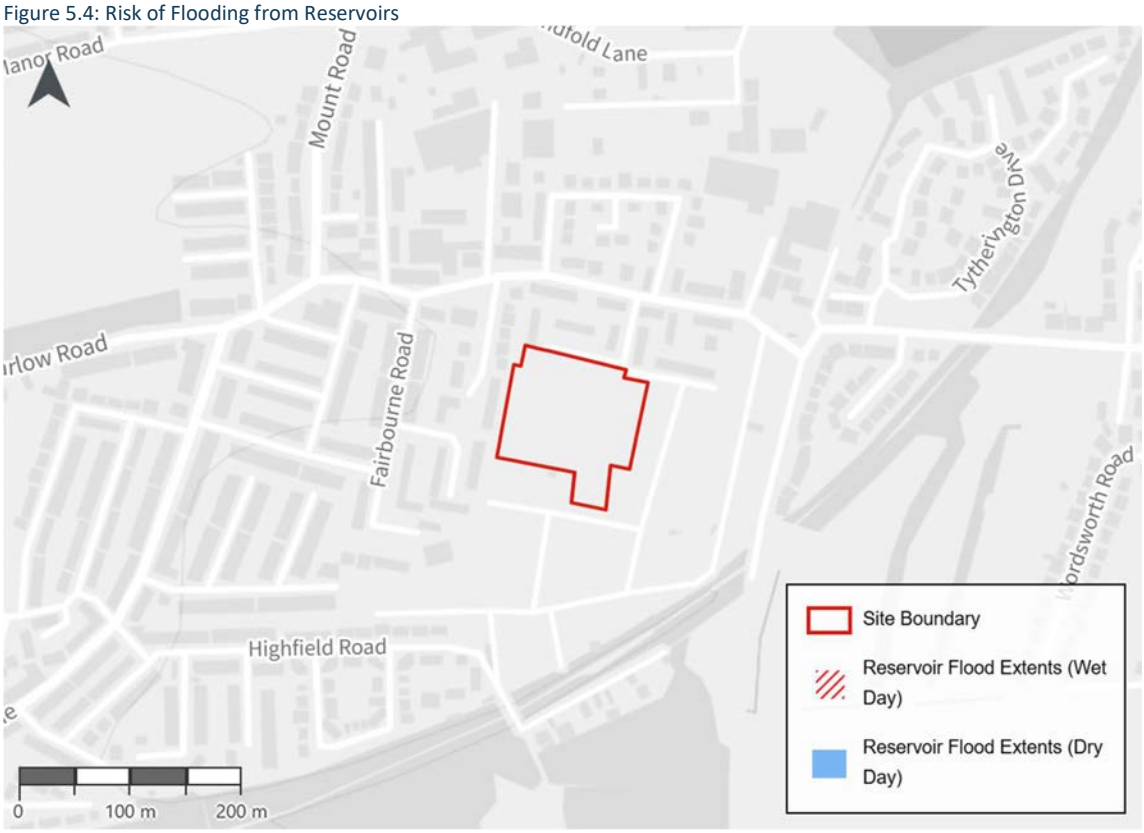
As the public sewers are maintained by United Utilities and also the fact that the proposed drainage for the site will be suitably designed, leads to the conclusion that the site itself is considered to have a negligible risk of flooding from sewers.

5.6. Flooding from Reservoirs, Canals and Other Artificial Sources

The Reservoir Flood Risk map is included in Figure 5.4 and Appendix E, with the nearest reservoir being The Secret Lake , which is located approximately 480m to the North East of the site.

As such, it can be seen from the map that the site is at negligible risk of flooding from reservoirs, canals or other artificial sources.

Figure 5.4: Risk of Flooding from Reservoirs



Source: Ordnance Survey, Environment Agency

6. PROPOSED DEVELOPMENT & DRAINAGE STRATEGY

6.1. Effect of Proposed Development

As previously outlined in Section 2.0, the existing site covers a total area of 1.291ha and currently consists of the existing undeveloped fields, as can be seen from the aerial photo, attached in Appendix B.

As such, the pre and post development impermeable areas for the 1.291ha development area have been assessed and are indicated on the attached drawing in Appendix G. The comparison between the pre and post development impermeable areas is also summarised below;

Total Development Site Area (ha)	Existing Impermeable Area (ha)	Proposed Impermeable Area (ha)
1.291	0.163	0.722

Therefore, the changes to the existing site will increase the volume of impermeable areas and as such, the proposed development will lead to an increase in the;

- Volume of surface water ponding on the site
- Volume of surface water runoff leaving the site or discharging into surrounding areas
- Peak discharge rate from the site

Accordingly, drainage systems are needed to drain the foul and surface water flows arising from the proposed development. Where possible, any existing drainage networks should be utilised. Appropriate design and construction of these systems, as set out in Section 6.3, should ensure that there is no increase in offsite flood risk that would otherwise impact downstream areas.

6.2. Existing Drainage Systems

As can be seen from the United Utilities map, attached in Appendix F, there is an existing public combined water sewer located within the north-east corner of the site. The existing public combined water sewer is a 300mm diameter sewer and runs south to north along Elsa Road.

There is an existing 150mm diameter public surface water sewer which runs west to east along the existing highway Anchor Close, adjacent to the northern boundary of the site. There are also a number of other public combined water sewers located within the surrounding highways to the north and west of the site.

It is envisaged that there is some existing private drainage runs which were previously utilised to drain the now demolished clubhouse building to the south-east corner of the site. However, it is anticipated that should the existing private drainage be found, it will be in poor condition and unsuitable for re-use.

Following this, a CCTV survey of the existing public and private sewers has been undertaken to confirm the location, details, levels and condition of the public and private sewers both within and surrounding the proposed site. This confirms a live Sewer within the boundary of the Site.

This CCTV confirms the invert level of the combined sewer on site has an inappropriate connection to the existing combined manhole (4203) in Elsa Road. Manhole 4201 has a confirmed depth of 2.57m.

6.3. Proposed Drainage Strategy

As outlined above in Section 6.1, site-wide drainage systems are required to drain the foul and surface water flows arising from the proposed development. The proposed drainage systems must ensure that there is no increase in offsite flood risk that would otherwise impact downstream areas.

6.3.1. Surface Water Drainage

The Planning Policy Guidance and the CIRIA SuDS Manual detail that surface water runoff from a development should be disposed of as high up the following hierarchy as reasonably practicable:

- into the ground (infiltration);
- to a surface water body;
- to a surface water sewer, highway drain, or another drainage system;
- to a combined sewer.

Considering the hierarchy above, the surface water network should infiltrate where possible.

As per the Trail holes the geology on the site has been confirmed as Stiff Clays with elements of perched water, therefore it is considered that the discharge of Surface Water to ground should be dismissed; as the sub strata permeability of negligible.

As the possibility of infiltration has been ruled out by the site investigation, the intention for the development would be to discharge to watercourse. As indicated in Section 5.1, the nearest watercourse is the Combined Sewer which is located 381m South of the proposed site. Given the allotments and third party land between the site and the watercourse, discharging to watercourse is deemed unachievable and has been dismissed as a point of discharge.

Therefore, as infiltration is not be a viable option for the proposed development, the only practical solution for discharge of the surface water is discharge to public sewer. As indicated within Section 6.2, there is an existing 150mm diameter public surface water sewer which runs west to east along the existing highway Anchor Close, adjacent to the northern boundary of the site.

However, it is anticipated that this public sewer is too shallow to allow for a gravity connection from the proposed site and a s such the surface water runoff from the proposed development would need to be pumped to connect to this sewer.

As can be seen from the United Utilities map, attached in Appendix F, the public surface water sewer does not seem to connect to any other sewer and as such it is anticipated that this sewer discharges into the existing 300mm diameter public combined water sewer located on Elsa Road, to the north of the site.

As such, it is envisaged that discharging to the existing public surface water sewer is not practical as the surface water runoff will from the proposed site will need to be pumped and will only end up in the public combined water sewer around 20m downstream. Therefore, it is envisaged that the surface water runoff from the proposed development will combine with the foul water runoff, prior to discharging into the existing 300mm diameter public combined water sewer located within the site, to the north-east corner.

While every effort to use the existing systems should be made, the drainage systems should be designed to suit the proposed site layout and topography which aims to provide an efficient design.

In line with Design and Construction Guidance (DCG), the requirements for the design of a new surface water drainage systems are as follows:

- Below ground piped drainage to be sized to accommodate the 1 in 2 year (50% AEP) design storm without surcharge.
- System to be designed not to flood any part of the site in a 1 in 30 year (3% AEP) design storm.
- For events in exceedance of the 1 in 30 year design storm and up to and including the 1 in 100 year event, site drainage and topography should be designed where practicable to route surface water run-off away from buildings to safe above-ground storage areas on site, thereby preventing this run-off from leaving the site and increasing flood risk elsewhere.

For each design case described above, the design storm is the critical storm duration for the site conditions. In the case of the 1 in 100 year design storm, a 45% increase in the peak rainfall intensity is applied to allow for the estimated worst case impacts of climate change. This is in accordance with new advice, issued by Defra, which updates previous climate change allowances outlined in the National Planning Policy Framework.

Suitable systems of below ground drainage will be required to contain as a minimum requirement, the 1 in 30 year event. Additionally, any surface water run-off from events that exceed the design capacity of the new drainage system, up to and including the 1 in 100 year

(+45%) event, will be retained on-site in safe storage areas. LLFA requirements also ask for 1 in 30 year event with 45% CC allowance.

In line with common practice, it is proposed the surface water discharge from the proposed development should mimic that from the existing site. It is envisaged that as the existing site is greenfield, Manchester City Council will require the proposed surface water runoff rates to be restricted to match the existing greenfield run off rates.

This approach has been agreed with United Utilities in Appendix F.

Therefore, an assessment of the existing surface water run-off from the greenfield site has been completed using the ICP SuDS method within Micro Drainage. The greenfield runoff rates for the proposed development have been based off of the pre development area of 1.291Ha.

This has been decided to better recreate the existing greenfield runoff rates for the whole site as the unaffected areas will already be discharging at existing greenfield runoff rates. The greenfield runoff assessment using the pre development areas is attached in Appendix H and the results are summarised within the table below.

Rainfall Return Period (years)	Existing Greenfield Runoff Rate (L/s)
Qbar	6.8
30 year	11.5
100 year	14.1

As seen in from the Drainage Strategy Drawing attached in Appendix I, it is anticipated that the surface water runoff from the proposed building and surrounding hard standing areas will be collected via, filter drains, gullies, linear drainage channels and rainwater downpipes and convey flow to the north-east of site.

Here it will discharge into the Combined Sewer via a new proposed connection. The flow is to be restricted to the aforementioned greenfield rates via a flow control chamber for all rainfall events up to and including the 1 in 100 year +45% climate change event.

The surface water drainage calculations have also been included within Appendix I and as can be seen the proposed surface water drainage and attenuation storage prevent any flooding for all rainfall events up to and including the 1 in 100 year + 45% climate change event and also meet the required greenfield discharge rates. This is summarised in the table below.

Rainfall Return Period (years)	Existing Greenfield Discharge Rate (L/s)	Proposed Discharge Rate (L/s)
(Qbar)	6.8	5.50
30 Year	11.5	5.50
100 Year	14.1	6.70

During peak storm events, attenuation will be provided via the drainage network itself, raingardens and an attenuation basin located immediately upstream of the flow control chamber.

The surface water drainage calculations, included within Appendix I show the proposed surface water drainage and attenuation storage prevent any flooding for all rainfall events up to and including the 1 in 100 year + 45% climate change event.

The attenuation will be provided by oversized pipework and large diameter manholes, which acts as a singular network and controlling hydro brake, prior discharging into the combined sewer. This system is to be put forward for adoption by United Utilities under a Section 104 Agreement.

Further correspondence is required with the LLFA to confirm the required conditions to discharge into the Combined Sewer but it is envisaged that an Ordinary Watercourse Consent to discharge will be required. The drainage design and outfall location is subject to change following confirmation of the outfall conditions.

The surface water drainage strategy should be confirmed via more detailed discussions with the LLFA prior to the commencement of any works.

6.3.2. SuDS Summary

As outlined within the summary table below, all SuDS techniques have been considered for this development;

SuDS Technique	Suitable for This Development?	Reasoning
Green Roof	×	Not suitable due to minimal roof area available.
Rainwater Harvesting	×	Impractical due to lack of demand for greywater.
Basins, Ponds & Swales	×	Suitable and incorporated, where possible.
Filter Strips	×	Suitable and incorporated, where possible.
Bio-retention Areas	×	Suitable and incorporated, where possible.
Infiltration Techniques	×	Unsuitable due to impermeable strata.
Permeable Surfaces	×	Suitable and incorporated, where possible.
Tanked/Piped Systems	✓	Suitable and incorporated, where required.

Green roof areas have been considered but due to the minimal roof area available and pitched roof, the use of a green roof has been discounted.

Rainwater harvesting was also considered but due to a lack of greywater demand and the cost associated with tanks and pumping of the separate system, it has been deemed as impractical to include a rainwater harvesting system.

A detention basin has been is excluded due to the lack of viable space to construct and maintain a SuDS Basin.

Where possible, filter drains have been incorporated to drain the proposed access path areas. These not only provide additional attenuation storage but will also incorporate water quality benefits across the site.

Raingardens have been excluded due to lack of viable space for consideration.

As discussed in section 6.3.1, infiltration is not suitable for the proposed site and therefore infiltration techniques have been discounted.

Finally, the use of oversized pipe networks has been included but the use of below ground attenuation tanks will not be required

The use of SuDS solutions across the site is subject to change and is dependent upon the final site layout, detailed drainage design and the results of additional surveys. However, the drainage strategy and proposed SuDS solutions should adhere as close as possible to the above outline drainage strategy and SuDS solutions.

6.3.3. Water Quality Assessment

Managing the water quality of the surface water runoff from the proposed development is important to ensure that the receiving surface waters or groundwater are well protected. Generally, this can be achieved through the use of well-designed SuDS systems which provide treatment and pollution removal to the surface water runoff.

Standard S3 of the Statutory National Standards for Sustainable Drainage Systems (2018) details the water quality management and addresses the drainage design requirements to minimise the potential pollution risk.

As the proposed development consists of roof areas, car park areas and low traffic roads, in accordance within Table G3.2 of the Statutory National Standards for Sustainable Drainage Systems (2018) the pollution hazard level is low and as such the simple index approach can be used to assess the treatment requirements for the low risk of pollution.

Assessing this against Table 26.3 of CIRIA Report C753 - The SuDS Manual , due to the inability to provide SuDS features, there is no utility for utilisation of SuDS Mitigation indices. As the point of discharge for the development into a Combined sewer as previously established, rather than the other points in the drainage hierarchy, and as such complies with the water quality requirements of Standard S3 of the Statutory National Standards for Sustainable Drainage Systems (2018).

6.3.4. Foul Water Drainage

Foul water drainage disposal is set out in Part H of the Building Regulations in order of priority the preferred methods are;

1. Public sewer
2. Septic tank
3. Cesspool

The foul water system shall be designed in accordance with;

- BS EN 752:2017 (Drain and sewer systems outside buildings)
- Design and Construction Guidance (DCG)
- National Planning Policy Framework document (Department for Communities and Local Government, March 2012).
- Planning Practice Guidance
- BS EN 12056-2:2000 (Drainage systems inside buildings)
- Building Regulations Approved Document H, Drainage and waste disposal. (Office of the Deputy Prime Minister, December 2015).

As can be seen from the Drainage Strategy Drawing attached in Appendix I, it is anticipated that the foul water drainage will collect run off from the proposed building and convey the foul water to the north east of the proposed site.

Here the foul water will discharge into an existing United Utilities Combined Water sewer which is immediately north of the extents of the site ownership United Utilities have confirmed that the foul water from the site can discharge into the existing foul water public sewer, at unrestricted rates.

The foul water drainage strategy should be confirmed via more detailed discussions with Manchester City Council (LLFA) and United Utilities prior to the commencement of any works.

7. FUTURE MANAGEMENT & MAINTENANCE

The proposed drainage solution uses SUDS techniques in accordance with the CIRIA SUDS Manual C753. The surface water run-off from the proposed development is restricted using a vortex flow control device and the attenuated run-off is stored using attenuation basins.

It is envisaged that the following components have been or will be included within the drainage strategy for the proposed development:

- Inspection chambers, manholes and catchpits.
- Pipes.
- Drainage channels and gullies.

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 proposed drainage will be adopted by Welsh Water and therefore maintenance of the surface and foul water drainage systems will be the responsibility of Welsh Water and therefore a copy of the final construction drainage layout should be provided in the final Operations and Maintenance Manual.

As such, the maintenance of the specified SuDS should be included within the developments Operation and Maintenance Manual and should be detailed in accordance with the CIRIA SuDS Manual C753, as per the operation and maintenance guidance outlined below.

7.1. General Maintenance & Inspection Requirements

- No work shall be carried out on the drainage system without permission from a nominated person, who has access to information/a working knowledge of the system.
- Maintenance/inspection work shall be carried out in a safe/planned manner.

- All work is to be carried out by competent persons suitably trained and equipped in accordance with current statutory safe working policies.
- Entry into confined spaces shall be kept to a minimum and be restricted to suitably qualified/equipped persons working in accordance with current statutory safe working policies.
- Drainage systems shall be inspected on a regular basis or should any problems be suspected. Any debris/defects discovered shall be recorded and a programme of cleaning/ repair initiated. Urgent repairs/cleaning shall be actioned as soon as practicable.
- 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.
- Clearing of the drainage system can be achieved by a number of methods depending on the nature of the work;
    - Rodding - Manual/Mechanical with flexible rods.
    - Jetting - High pressure water jetting.
    - Plunging.

7.2. Inspection Chambers, Manholes and Catchpits

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

- Covers of inspection chambers and manholes shall be removed and the sides, benchings and channels cleared.
- Accumulated deposits of silt in inspection chambers, catchpits and manholes shall be removed. Any traps shall then be plunged and thoroughly flushed out with clean water. This should be completed in Autumn, after leaf fall.
- Main and branch drains shall be cleared as required and afterwards be flushed with clean water. Any obstructions found shall be removed and not flushed down the system.
- Covers of inspection chambers, manholes and catchpits shall be replaced, bedded in suitable grease or other sealing material as required and bolted/locked down as appropriate. Missing bolts and broken items shall be replaced in accordance with the manufacturer's details.

7.3. Pipes

Regular inspection and maintenance are important to identify areas which may have become obstructed/clogged and may not be draining correctly, as failure to do so would expose the development to a greater level of flood risk.

Pipes are proprietary products and therefore the materials used can vary across the site. As such, where used the manufacturer's recommendations should be followed. Access for maintenance of the pipes is provided through inspection chambers and manholes. The below table sets out the maintenance schedule for the pipe components of the proposed drainage systems.

Maintenance Schedule	Required Action	Typical Frequency
Regular Maintenance	Inspect for evidence of poor operation via water levels. If required take remedial action.	Monthly for 3 months, then six-monthly intervals. Also, 48 hours after large storms.
	Check and remove large debris and/or vegetation growth near pipe runs.	Monthly or as required.
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.	As required, if above actions do not improve performance.
Monitoring	Initial Inspection should be provided as post construction CCTV survey.	N/A
	Inspect/check all inlets, outlets and overflows to ensure they are in good condition and operating as designed.	Monthly for 3 months, then six-monthly intervals. Also, 48 hours after large storms.

7.4. 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. The below stable sets out the maintenance schedule for the drainage channel and gullies components of the proposed drainage systems.

Maintenance Schedule	Required Action	Typical Frequency
Regular Maintenance	Litter and debris removal.	Monthly or as required.
	Check and remove large debris and/or vegetation growth near pipe 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.	Monthly for 3 months, then six-monthly intervals. Also, 48 hours after large storms.
Remedial Actions	Inspect access/outlet boxes and rod through poorly performing channels and outlets as initial remediation.	As required.
	Seek advice as to remediation techniques suitable for the type of performance issue.	As required, if above actions do not improve performance.
Monitoring	Initial Inspection including channel outlet boxes and gully sumps.	Monthly for 3 months, then six-monthly intervals. Also, 48 hours after large storms.

7.5. Vortex Flow Control Device

Regular inspection and maintenance is important to identify if the vortex flow control device has become obstructed/clogged and may not be functioning correctly, as failure to do so would expose the development to a greater level of flood risk.

Vortex flow control devices are proprietary products and therefore can vary from manufacturer to manufacturer. As such, where used the manufacturer's recommendations should be followed.

- Normally, little maintenance is required as there are generally a vortex flow control device has no moving parts.
- If blockages occur, they tend to do so at the intake of the vortex flow control device.
- Vortex flow control devices are generally fitted with a pivoting by-pass door, which allows the manhole chamber to be drained down should blockages occur.
- The smaller type conical units, below the minimum recommended size, are also supplied with rodding facilities or vortex suppressor pipes as standard.

- Following installation of the vortex flow control device it is vitally important that any extraneous material i.e., Building materials are removed from the unit and the chamber.

- After the system is made live, it is recommended that each unit be inspected monthly for three months and thereafter at six monthly intervals with hose down if required. Units should also be inspected within 48 hours after large storms.

As the development site is expected to be subject to a Section 104 Agreement with United Utilities, it is envisioned that these measures of maintenance shall be fully carried out by UU.

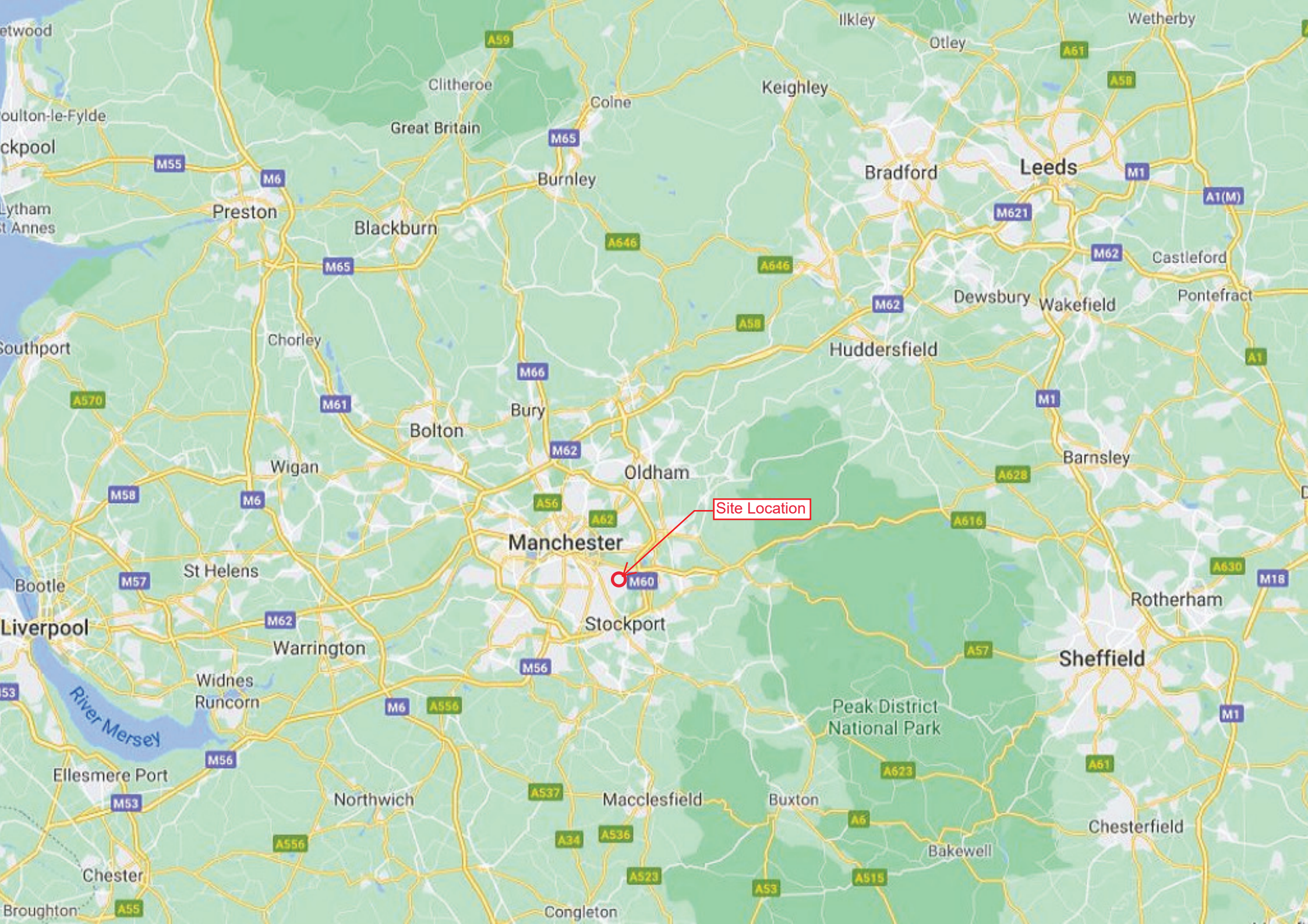
8. CONCLUSIONS

- The site is located within Flood Zone 1 and has a low risk of flooding from rivers & sea, surface water, reservoirs and all other sources. Therefore, due to the low risk of flooding from all sources, no flood risk mitigation measures are required for the proposed development.
- Current records indicate that there are no viable public sewers within the site boundary. A CCTV survey found a foul drainage run on the north of the development With an improper connection to the combined sewer
- The AJP Trial Logs demonstrate that due to the impermeable strata, infiltration is not suitable for the proposed site
- The surface water discharge is to be restricted to the existing greenfield runoff rates for the proposed post development impermeable areas, for all rainfall events up to and including the 100 year +45% climate change design storm, to comply with LLFA requirements. Only the post development impermeable areas have been used to calculate the proposed greenfield discharge rate as areas post development permeable areas will already be discharging at the existing greenfield discharge rates.
- Attenuation for the surface water network is to be provided via the drainage network itself, oversized pipework and large diameter manholes immediately upstream of the flow control chamber. This provides sufficient storage to prevent any flooding for all rainfall events up to and including the 1 in 100 year +45% climate change event.
- The surface water network is to outfall into the Combined Manhole UU Ref 4201, located to the north of the site via a new connection. The location and details or the connection are to be confirmed prior to the commencement of construction and is subject to a S104 Agreement with United Utilities.
- The foul water drainage will collect the run off from the proposed building and convey the foul water to the north of the proposed site. Here the foul water will discharge into a combined manhole prior to discharge to existing United Utilities manhole Ref 4201
- Pollution mitigation has been dismissed as necessary due to the discharge of the development site to a Combined Sewer.
- The external ground levels around proposed buildings shall fall away from the proposed buildings with any new levels being designed to ensure any overland flood routes, for events in excess of the 1 in 100 Year + 45% CC, exit towards the surrounding highways and greenfield areas, for use in exceptional circumstances.

9. RECOMMENDATIONS

- The surface water drainage strategy should be confirmed via more detailed discussions with Manchester City Council (LLFA) and prior to the commencement of any works.
- The foul water drainage strategy and unrestricted discharge rate should be confirmed via more detailed discussions with Manchester City Council (LLFA) and United Utilities prior to the commencement of any works.
- The use of specific SuDS techniques across the site should be determined during the detailed design process but where possible, the SuDS summary should be adhered to as close as reasonably possible with SuDS techniques incorporated, where possible, across the site.
- All proposed dwellings shall have a 150mm freeboard above the maximum Pluvial flood level with a FFL 63.110m AOD

APPENDIX A – SITE LOCATION PLAN


Site Location
Manchester
Liverpool
Preston
Blackburn
Burnley
Bolton
Bury
Oldham
Wigan
Chorley
Warrington
Stockport
Leeds
Bradford
Huddersfield
Wakefield
Dewsbury
Castleford
Pontefract
Barnsley
Rotherham
Sheffield
Keighley
Ilkley
Otley
Wetherby
Clitheroe
Colne
Great Britain
Lytham St Annes
Southport
Bootle
St Helens
Widnes
Runcorn
River Mersey
Ellesmere Port
Northwich
Chester
Broughton
Macclesfield
Congleton
Buxton
Peak District National Park
Bakewell
Chesterfield
M55
M6
M65
M61
M66
M62
M60
M58
M57
M56
M53
M1
M621
A1(M)
A58
A646
A570
A56
A62
A628
A616
A630
M18
A57
A623
A61
A537
A34
A536
A523
A53
A515
A556
A55
A6
A59

APPENDIX B – AERIAL PHOTO



APPENDIX C – TOPOGRAPHIC SURVEY



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APPENDIX D – PROPOSED DEVELOPMENT PLAN

CALDERPEEL.COM

© CALDERPEEL ARCHITECTS LTD

NOTE: DO NOT SCALE FROM THIS DRAWING

REV	DESCRIPTION	BY	DRAWN
A	ISSUED FOR PLANNING	CP	19.12.24
B	ISSUED FOR PLANNING	CP	20.12.24
C	ISSUED FOR PLANNING	CP	08.01.25
D	ISSUED FOR PLANNING	CP	10.01.25
E	ISSUED FOR PLANNING	CP	13.01.25
F	ISSUED FOR PLANNING	CP	16.01.25
G	ISSUED FOR PLANNING	CP	17.01.25
H	ISSUED FOR PLANNING	CP	20.02.25

N

Scale: 1:200

0 2 4 8 20m

MARCLIFFE

ANCHOR CLOSE

HALLSVILLE ROAD

11 15 1 8 15 1 9 17 27 37 9 25 23 39 24

plot 1 C TYPE 3B 5P
plot 2 A1 TYPE 3B 4P
plot 3 A1 TYPE 3B 4P
plot 4 A1 TYPE 3B 4P
plot 5 A1 TYPE 3B 4P
plot 6 A1 TYPE 3B 4P
plot 7 B TYPE 2B 4P
plot 8 B TYPE 2B 4P
plot 9 A1 TYPE 3B 4P
plot 10 A1 TYPE 3B 4P
plot 11 A1 TYPE 3B 4P
plot 12 E TYPE 4B 5P
plot 13 E TYPE 4B 5P
plot 14 E TYPE 4B 5P
plot 15 D TYPE 3B 5P
plot 16 A1 TYPE 3B 4P
plot 17 A1 TYPE 3B 4P
plot 18 B TYPE 2B 4P
plot 19 B TYPE 2B 4P
plot 20 B TYPE 2B 4P
plot 21 D TYPE 3B 5P
plot 22 D TYPE 3B 5P
plot 23 B TYPE 2B 4P
plot 24 B TYPE 2B 4P
plot 25 B TYPE 2B 4P
plot 26 D TYPE 3B 5P
plot 27 C TYPE 3B 5P
plot 28 A1 TYPE 3B 4P
plot 29 A1 TYPE 3B 4P
plot 30 E TYPE 4B 5P
plot 31 A1 TYPE 3B 4P
plot 32 A1 TYPE 3B 4P
plot 33 E(M3) TYPE 3B 4P
plot 34 C TYPE 3B 5P
plot 35 A1 TYPE 3B 4P
plot 36 A1 TYPE 3B 4P
plot 37 A1 TYPE 3B 4P
plot 38 A1 TYPE 3B 4P
plot 39 C TYPE 3B 5P
plot 40 B TYPE 2B 4P
plot 41 B TYPE 2B 4P
plot 42 B TYPE 2B 4P
plot 43 C TYPE 3B 5P
plot 44 A1 TYPE 3B 4P
plot 45 A1 TYPE 3B 4P
plot 46 B TYPE 2B 4P
plot 47 B TYPE 2B 4P
plot 48 D TYPE 3B 5P
plot 49 D TYPE 3B 5P
plot 50 C TYPE 3B 5P

394300N 394280N 394260N 394240N 394220N 394200N 394180N

CHESHIRE
Market Court
20-24 Church St
Altrincham
WA14 4DW
0161 929 7622

SHEFFIELD
Acero
1 Concourse Way
Sheffield
S1 2BJ
0114 212 9035

ELSA ROAD, FORMER LEVENSHULME CRICKET CLUB

SOUTHWAY HOUSING TRUST

PROPOSED SITE LAYOUT
DWG: 23118 (PL) 010 H
DATE: 20.02.25
SCALE: 1:200 @ A0 DRAWN: CP

CALDERPEEL ARCHITECTS

APPENDIX E – FLOOD RISK MAP

Flood map for planning

Your reference	Location (easting/northing)	Created
220-226	**388376/394237**	**9 Feb 2021 12:43**

Your selected location is in flood zone 1, an area with a low probability of flooding.

This means:

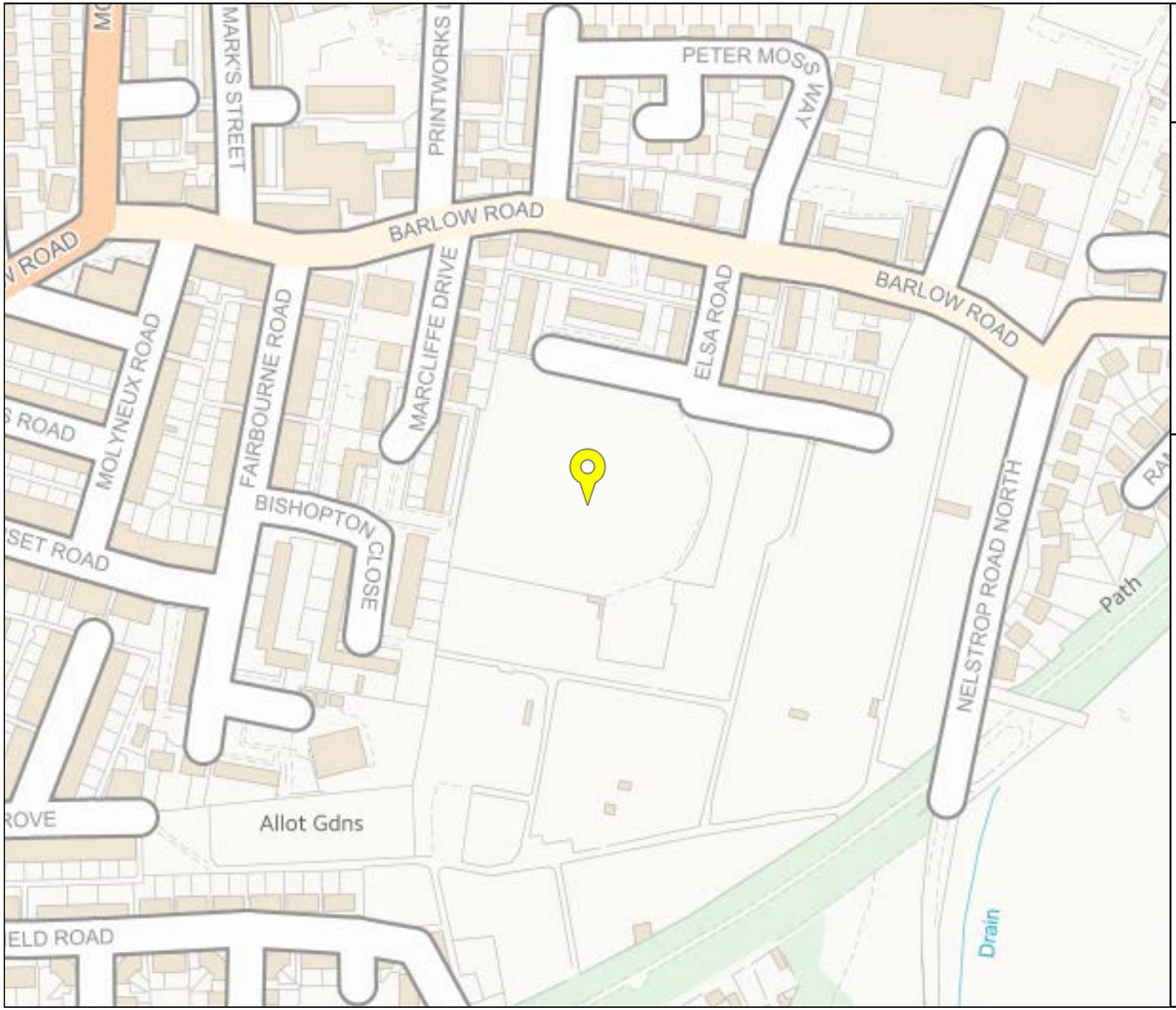
- you don't need to do a flood risk assessment if your development is smaller than 1 hectare and not affected by other sources of flooding
- you may need to do a flood risk assessment if your development is larger than 1 hectare or affected by other sources of flooding or in an area with critical drainage problems

Notes

The flood map for planning shows river and sea flooding data only. It doesn’t include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

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https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/



Environment Agency

Flood map for planning

Your reference
220-226

Location (easting/northing)
388376/394237

Scale
1:2500

Created
9 Feb 2021 12:43

- Selected point
- Flood zone 3
- Flood zone 3: areas benefitting from flood defences
- Flood zone 2
- Flood zone 1
- Flood defence
- Main river
- Flood storage area

0 20 40 60m

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APPENDIX F – EXISTING SEWER INFORMATION

United Utilities
Water for the North West

CHECKED

Atkins - Utility Solutions

The Hub
500 Park Avenue,, Aztec West, Almondsbury
Bristol,
BS32 4RZ

FAO:

How to contact us:

United Utilities Water Limited
Property Searches
Haweswater House
Lingley Mere Business Park
Great Sankey
Warrington
WA5 3LP

Telephone: 0370 7510101

E-mail: propertysearches@uuplc.co.uk

Your Ref: 91057
Our Ref: UUPS-ORD-230706
Date: 21/12/2020

Dear Sirs

-
-

Location: Site off Anchor Close Levenshulme

-

. /01 23 4 %5" 3 67 !7 108 92: ##"; : " 8! % !" %)) &, <&' <' =2#61=2#> !621 21 !7" 42/ !621 2=2: #8"#?6 8@

A4 8" =61%" 1/428" %B4 18 8723 615 !7" BB#2C6 !" B2866 21 2=Ā16" %Ā!6866 8D BB # !: 8 0123 1 !2 E" 61 !7" ?66169 2=!768 86" @

F7" " 1/428" %B4 18 #" E" 615 B#2?6% %!2 92: 8: EG/! !2 !7" Ā16" %Ā!6866 8 !" #>8 1%/2 1%6621 8 =2# E2!7 !7" 3 8!" 3 !" # 1%3 !" # %68!#E: !621 B4 18 3 767 #" 8723 1 !! /7 " %@

.=92: #" B4 1161 5 3 2#08 1937" #" 61 !7" H2#7 À " 8!I B4 8" #" %Ā16" %Ā!6866 8D //" 88 8! !" >" 1! E" =2#" 92: 8! #! 3 2#0!2 /7 " /0 723 6 3 64 =" /! 2: #1" !3 2#0@!!BJ8 3 3 @16" % !6866 8@2 >&3 2#0+"1 #+88"!@8BCK@

. !#:8! !7" E2?" >" " !8 3 67 92: ##"; : 6#>" 1!8 1%4220 =2#3 #%12 7" #615 =#2> 92: 872: 4%92: 1" " % 19!7615 = #7" #@

.=92: 7 ?" 19 ; : " #58 #"5 #%61 5 !768 > !!" #B4 8" /2 1! /! K 8K@

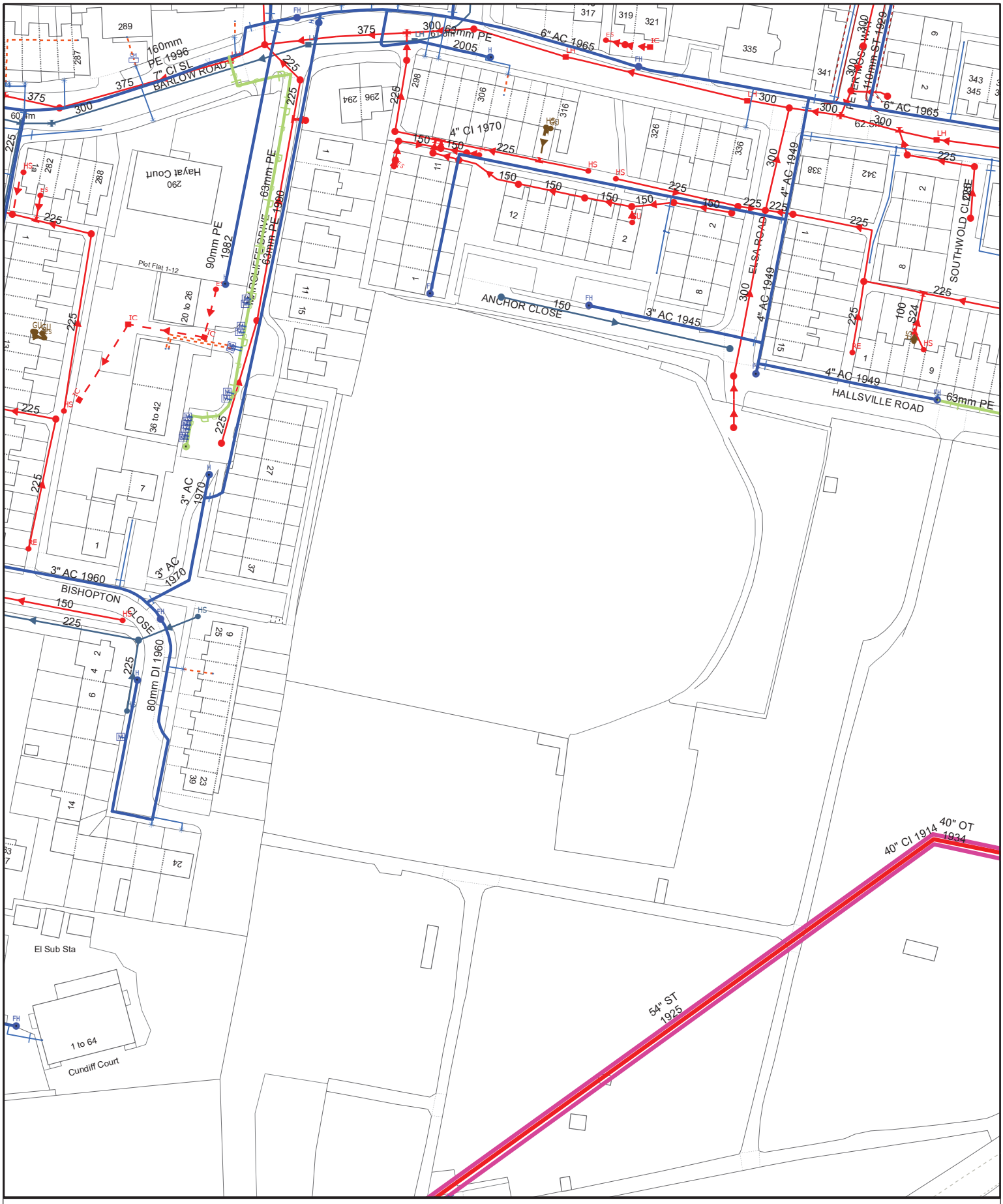
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L2: #8M 67= 49I

-

Karen McCormack
Property Searches Manager

United Utilities Water Limited
Registered In England & Wales No. 2366678
Registered Office Haweswater House, Lingley Mere Business Park,
Lingley Green Avenue, Great Sankey, Warrington, WA5 3LP



Date: 21/12/2020

Extract from maps of public sewers and water mains

Printed By:
Property Searches

Site off Anchor Close Levenshulme

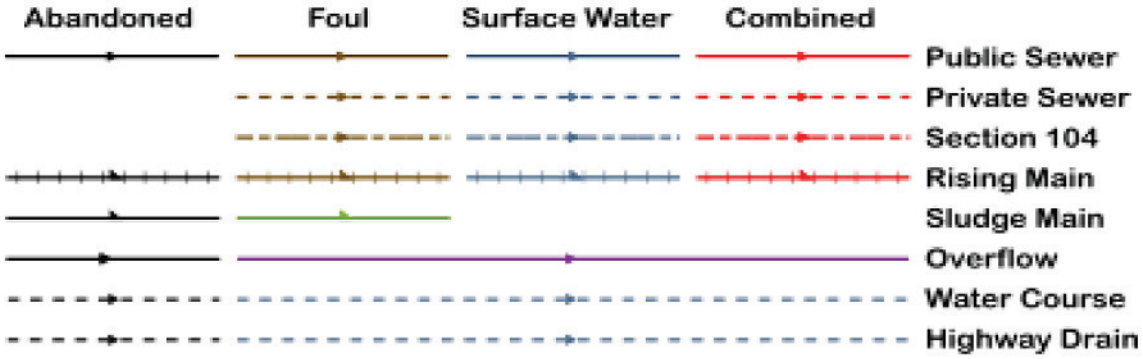
United Utilities
helping life flow smoothly

The position of underground apparatus shown on this plan is approximate only and is given in accordance with the best information currently available. The actual positions may be different from those shown on the plan and private pipes, sewers or drains may not be recorded. United Utilities Water PLC will not accept any liability for any damage caused by the actual positions being different from those shown.

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Water for the North West

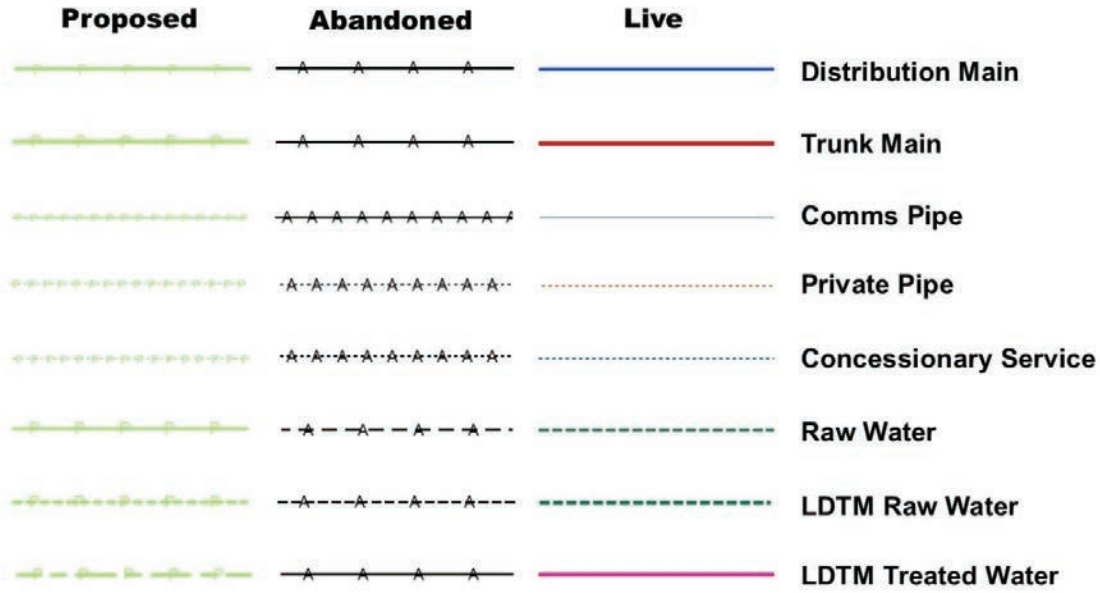
Wastewater Symbology



All point assets follow the standard colour convention: red – combined, brown - foul, blue – surface water, purple - overflow

- Manhole
- HS Head of System
- ES Extent of Survey
- RE Rodding Eye
- IN Inlet
- DP Discharge Point
- HY Vortex
- PE Penstock
- WO Washout Chamber
- VA Valve
- AV Air Valve
- NRV Non Return Valve
- SO Soakaway
- GU Gully
- CA Cascade
- FM Flow Meter
- HA Hatch Box
- OI Oil Interceptor
- SM Summit
- DS Drop Shaft
- OP Orifice Plate
- Side Entry Manhole
- Outfall
- Screen Chamber
- IC Inspection Chamber
- Bifurcation Chamber
- LH Lamp Hole
- T Junction / Saddle
- CA Catchpit
- VC Valve Chamber
- Vent Column
- Vortex Chamber
- Penstock Chamber
- T Network Storage Tank
- V Sewer Overflow
- WwTW Ww Treatment Works
- Ww Pumping Station
- ST Septic Tank
- CK Control Kiosk
- Change of Characteristic

Cleanwater symbology



- Air Valve
- AC Valve, open
- AC Valve, closed
- CC Valve, open
- CC Valve, closed
- Non Return Valve
- Pressure Management Valve
- OMS Valve
- Stop Tap
- Flow Meter
- Domestic Meter
- Commercial Meter
- Pump
- Hydrant
- Fire Hydrant
- Anode
- Chlorination Point
- De-chlorination Point
- Strainer Point
- Access Point
- Hatch Box
- IP Point
- Sampling Station
- Logger Box

- Bore Hole
- Bulk Supply Point
- Inlet Point
- End Cap
- Site Termination
- Change of Characteristic

Property Types

- Water Tower
- Valve House
- Booster Pumping Station
- Intake Pumping Station
- Water Treatment Works
- Supply Reservoir
- Service Reservoir
- Impounding Reservoir
- Pipe Bridge
- Condition Report

Symbology for proposed assets is the same as above, but shown in green.

Symbology for abandoned assets is the same as above, but shown in **black**.

TERMS AND CONDITIONS - WASTEWATER AND WATER DISTRIBUTION PLANS

-

F7" 8" B#2?66218 BB49 !2 !7" B: E46 8" 3 " # 5" I 3 !" # %68!#E: !621 1%!" 4 >" !#9898!" >8 N6/4: %615 8" 3 " #83767 #" !7" 8: EG/! 2= 1 5#"" >" 1! : 1%" # O" /! 621) ' (2=!7" À !" #.1% 8!#9P/!) QQ) 1%> 618 618! 4!" %61 //2 #%1/" 367 !7" 5#"" >" 1! -2#!7" 8" 4= /2 18!#:/! 621 2=3 !" #> 618RNÃÄÀ $ BB # !: 8R2=Ã16" %Ã!6866 8 À !" #$6-6!" %SNÃÄÀ $R6@

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TERMS AND CONDITIONS:

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+ F768 T B 1% 19 61-2#> !621 8: BB46 %367 6 68 B#2?66%" %-2# 5" 1" # 45: 6% 1/" 2149 1% 12 #"B#"8" 1! !621 I : 1%" #! 0615 2# 3 ## 1!9 8 !2 668 //: # /9 I /2 >B 4 !" 1" 88 2#E" 615 : B !2 % !" 68 562" 1 2#6>B 46 %@
+ .1 B #5: 4 # !7" B2866621 1% %" B!7 2= 19 ĀĀÀ $ BB # !: 8 8723 1 21 !7" T B #" BB#2C6 !" 2149@ĀĀÀ $ 8!#2154 9 #"/2 >>" 1%8 !7 ! /2 >B #"7" 186" 8: #?"9 68 : 1%" #! 0" 1 61 %"66621 !2 #"?6 3615 !768 T B !2 %" !" #>61" 1%" 18: #" !7" B#"/68" 42/ !621 2= 19 ĀĀÀ $ BB # !: 8@E7" " C /! 42/ !621 I B2866218 1%%" B!78 872: 4%E" 2E! 61" %E9 " C/ ? !621 !#64724 8@
+ F7" 42/ !621 1%B2866621 2=B#6 !" %# 618 I B#6 !" 8" 3 " #8 1%8" #?5 B6B" 8 !2 B#2B" #5 8 #" 12! 12#> 49 8723 1 21 !768 T B E: ! !7" 6#B#"8" 1/" >: 8! E" 1!66B !" % 1% //2 : 1!" %-2# 1%92: #" 8!#2154 9 %?6" %!2 / ##92: ! 92: # 23 1 = #7" # " 1; : 6#58 1%61?" 8!65 !6218 61 2#%#!2 42/ !" !7" 8 >" @
+ F7" B2866621 1%%" B!7 2=ĀĀÀ $ BB # !: 8 68 8: EG/! !2 /7 15" 1%!7" #"-2#" !768 T B 68 688: " %8: EG/! !2 19 #">2 ? 42# /7 15" 61 42/ !621 2=!7" 8 >" @E7" 21: 8 68 " 1!6#"49 : B21 92: !2 /2 1-6#> 37" !7" # 19 /7 15" 8 !2 !7" T B 7 ?" E" " 1 > %" 8: E8" ; : " 1! !2 688: " 1%B#2#!2 19 3 2#08E" 615 / ##6%2: !@
+ F768 T B 1% 19 61-2#> !621 8723 1 21 6 2# B#2?6%" % 367 6 >: 8! 12! E" #"45 % : B21 61 !7" " ?" 1! 2= 19 %" ?" 42B>" 1!I /2 18!#:/! 621 2#2!7" #3 2#08N6/4: %615 E: ! 12! 46-6!" %!2 19 " C/ ? !6218R61 !7" ?66169 2=ĀĀÀ $ BB # !: 8 2#-2#!7" B: #B28" 2= %" !" #>6615 !7" 8: 6 E689 2= B261 ! 2=/2 11" /! 621 !2 !7" 8" 3 " # 5" 2#2!7" #%68!#E: !621 898!" >8@
+ H2 B" #821 2#4 5 4" 1!69I 61/4: %615 19 /2 >B 19 87 4E" #"45 ?" %-#2> 19 46 E689 723 82" ?" # 1%3 7" 182" ?" # #8615 -2# 19 % > 5" / : 8" %!2 ĀĀÀ $ BB # !: 8 E9 #" 821 2=!7" /! : 4B2866621 1%82# %" B!78 2=ĀĀÀ $ BB # !: 8 E" 615 %6-" #"1! -#2> !728" 8723 1 21 !7" T B 1% 19 61-2#> !621 8: BB46 %367 66@
+ .= 19 B#2?66621 /2 1! 61" %7" #"61 68 2#E" /2 >" 8 4 5 49 61? 45%2#: 1" 1-2#/" E4 I 6 3 64E" ! 0" 1 !2 E" 8" ?" #"%-#2> !7" #"> 6615 B#2?66218 3 767 87 4E" : 1 -" /! " % 1%/2 1!61: " 61 = 41-2#/" 1% -" /! @
+ F768 5#"" >" 1! 87 4E" 52?" #1" %E9 U1548 7 4 3 1% 4B #5 8 8: E>6! !2 !7" " C/4 866" G#6%6! 621 2=!7" U1548 7 /2 : #BI 8 ?" !7 ! 12!7615 3 64B#"?" 1! ĀĀÀ $ -#2> E#6561 5 B#2" " %6158 61 19 2!7" #/2 >B " !" 1! G#6%6! 621 I 3 7" !7" #/2 1/: ##"1!49 2#2!7" #366" @

United Utilities Water Limited
Registered In England & Wales No. 2366678
Registered Office Haweswater House, Lingley Mere Business Park,
Lingley Green Avenue, Great Sankey, Warrington, WA5 3LP

John Marshall

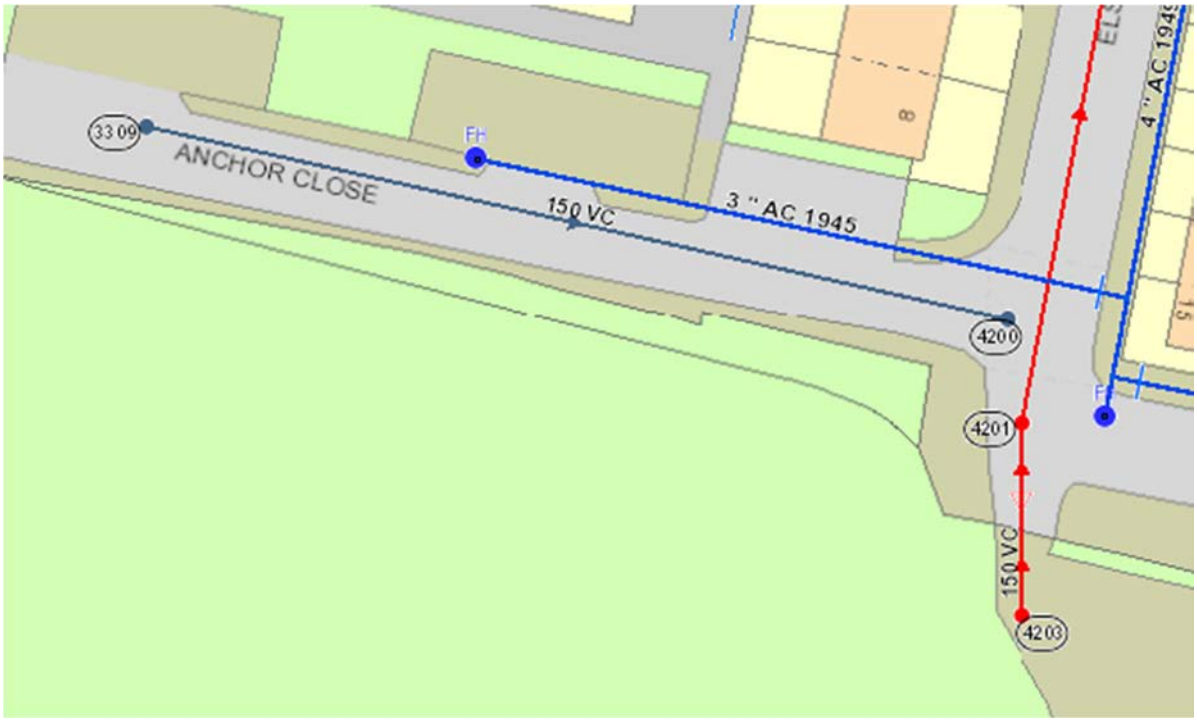
To: Joseph Poole
Subject: RE: REF 08538768-ELSA ROAD, CRICKET CLUB

From: seweradoptions@uuplc.co.uk <seweradoptions@uuplc.co.uk>
Sent: 15 December 2025 16:56
To: Joseph Poole <JosephPoole@ajpltd.co.uk>
Cc: Kenny O'Brien <kennyobrien@ajpltd.co.uk>
Subject: RE: REF 08538768-ELSA ROAD, CRICKET CLUB

Hello Joseph

Thank you for your e-mail.

If infiltration is discounted and if the line of sewers indicated as surface water in Anchor Close (node 3309 to 4200) is traced to the combined network, I am happy to give node 4203 as the point of connection for the surface water network restricted at greenfield rates.



If I can support further do get in touch.

Kind Regards

Gulshan

GEO (UK) Ltd
Unit 7 Croftwood Square
Wigan WN5 0LG
01942616110

WEB PROJECT
CLICK TO OPEN THIS PROJECT

wrc

Project

Project Name:	69464 Elsa Road
Project Description:	CCTV Survey
Project Number:	69464
Project Status:	On Site
Project Date:	04/11/2025
Inspection Standard:	MSCC5 Sewers & Drainage GB (SRM5 Scoring)



Geographical Engineering Operations

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01942616110

Table of Contents

Project Name	Project Number	Project Date
69464 Geo Uk Elsa Road	69464	04/11/2025

Project Information P-1

Scoring Summary P-2

Defect Grade Description (Section) P-3

Section Summary P-4

Section Item 1: MH 5 > MH 4 (MH 5X) 1

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Project Information

Project Name	Project Number	Project Date
69464 Geo Uk Elsa Road	69464	04/11/2025

Client

Company Seddon
Street: Plodder Lane
Town or City: Bolton
County: Greater Manchester
Post Code: BL4 0NN

Site

Company: Geo Uk Ltd
Street: Elsa Road
Town or City: Levenshulme
County: Greater Manchester
Post Code: M19 3JG

Contractor

Company GEO (UK) Ltd
Contact James Sherman
Street: Unit 7 Croftwood Square
Town or City: Wigan
County: Greater Manchester
Post Code: WN5 0LG
Phone: 01942616110
Mobile: 07824516440
Email: jamessherman@geoukltd.com

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Scoring Summary

Project Name	Project Number	Project Date
69464 Geo Uk Elsa Road	69464	04/11/2025

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
1	MH 5X	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
69464 Geo Uk Elsa Road	69464	04/11/2025

1:

Brick: Minor structural defects.

Other: Minor structural defects, i.e. open or displaced joints without additional characteristics.

Acceptable structural condition.

2:

Brick: 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).

Other: Circumferential cracking. Surface damage - spalling slight (breaking away of small fragments from the surface). Surface damage - wear slight (increased roughness).

Minimal collapse likelihood in the short term but potential for further deterioration.

3:

Brick: Total mortar loss (depth missing > 50 mm) without other defects. More than one longitudinal crack (at a single location). Multiple cracking. Single bricks displaced. Deformation < 5%, 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).

Other: Fracture with no deformation or deformation < 5%. Longitudinal cracking or multiple cracking. Minor loss of level. Severe joint defects i.e. Surface damage - spalling medium. Surface damage - wear medium.

Collapse unlikely in the near future but further deterioration likely.

4:

Brick: Total mortar loss (depth missing > 50mm) with deformation > 10%; deformation up to 10% and fractured; displaced or hanging brickwork; small number of missing bricks; dropped invert (drop > 20mm); moderate loss of level; surface damage - large spalling (entire surface of brick is missing); surface damage - large wear (entire surface of brick is missing).

Other: Broken; deformation up to 10% and broken; fracture with deformation 5-10%; multiple fractures; 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 - entire area of pipe surface is missing or severly worn.

Collapse likely in the foreseeable future.

5:

Brick: Already collapsed; missing Invert; deformation > 10% and fractured; displaced or hanging brickwork and deformation < 10%; extensive areas of missing brickwork.

Other: Already collapsed; deformation > 10% and broken; extensive areas of pipe fabric missing; fractures with deformation > 10%

Collapsed or collapse imminent.

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Section Summary

Project Name	Project Number	Project Date
69464 Geo Uk Elsa Road	69464	04/11/2025

Number of sections	1
Total length of sections	3.73 m
Total length of inspected sections	3.73 m
Total length of not inspected sections	0.00 m
Number of abandoned inspections	1
Number of section inspection photos	4
Number of section inspection videos	1
Number of section inspection scans	0
Number of section inclination measurements	0

PLR:	MH 5X	**Upstream Node:**	MH 5
Inspection Direction:	Upstream	**Downstream Node:**	MH 4
Inspected Length:	3.73 m	**Dia/Height:**	300 mm
Total Length:	3.73 m	**Material:**	Vitrified clay

No.	m+	Code	Observation
1	0.00	MH	Start node, manhole, reference: MH 4
2	0.00	WL	Water level, 5% of the vertical dimension
3	3.09	LU	Line deviates up
4	3.67	SC	Pipe size changes, new size(s), 150mm high
5	3.73	SA	Survey abandoned

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Geographical Engineering Operations

Section Inspection - 04/11/2025 - MH 5X

WEB PROJECT
CLICK TO OPEN THIS SECTION

Item No.	Insp. No.	Date	Time	Client`s Job Ref	Weather	Pre Cleaned	PLR
1	1	04/11/25	11:31	69464	No Rain Or Snow	Yes	MH 5X

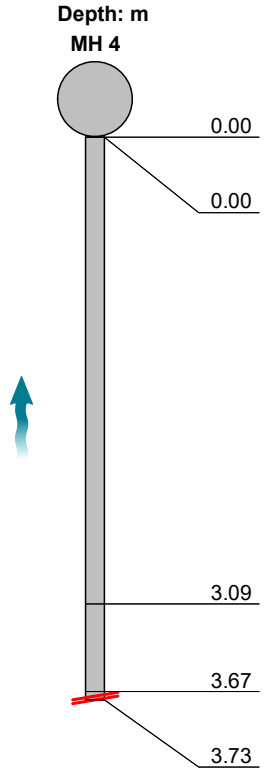
Operator	Vehicle	Camera	Preset Length	Legal Status	Alternative ID
ANTHONY BROWN	OY71 CVD	Crawler	Not Specified	Private Drain	Not Specified

Town or Village:	Levenshulme	**Inspection Direction:**	Upstream	**Upstream Node:**	MH 5
Road:	Elsa Road	**Inspected Length:**	3.73 m	**Upstream Pipe Depth:**	
Location:	Road	**Total Length:**	3.73 m	**Downstream Node:**	MH 4
Surface Type:	Asphalt Highway	**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:**	Vitrified clay
Year Constructed:	Not Specified	**Lining Type:**	No Lining
Inspection Purpose:	Routine inspection	**Lining Material:**	No Lining

Comments:
Recommendations: None

Scale: 1:50



Position [m]	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node, manhole, reference: MH 4	00:00:00		
0.00	WL	Water level, 5% of the vertical dimension	00:00:03	1	
3.09	LU	Line deviates up	00:00:54	2	
3.67	SC	Pipe size changes, new size(s), 150mm high	00:01:14	3	
3.73	SA	Survey abandoned: PIPE REDUCES	PRESET:0	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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Section Pictures - 04/11/2025 - MH 5X

Item No.	Inspection Direction	PLR	Client`s Job Ref	Contractor`s Job Ref
1	Upstream	MH 5X	69464	



1, 00:00:03, 0.00 m
Water level, 5% of the vertical dimension



2, 00:00:54, 3.09 m
Line deviates up



3, 00:01:14, 3.67 m
Pipe size changes, new size(s), 150mm high



4, PRESET:0, 3.73 m
Survey abandoned, PIPE REDUCES

APPENDIX G – S.W CATCHMENT TABLE

NAME	PIPE NETWORK	ROOF (sq.m.)	ROOF + 10% (sq.m.)	DRIVEWAY (sq.m.)	HIGHWAY (sq.m.)	AREA (sq.m.)	AREA (ha)
1	1.000	220	242	335	500	1077	0.108
2	1.001	215	237	110	310	656.5	0.066
3	1.002	503	553	280	430	1263	0.126
4	1.003	460	506	235	265	1006	0.101
5	2.000	220	242	165	340	747	0.075
6	1.004	270	297	120	370	787	0.079
7	1.005	465	512	190	280	982	0.098
8	1.006	410	451	250	0	701	0.070

URBAN CREEP 10%: 0.1

0.722

APPENDIX H – GREENFIELD RUN OFF RATE

ICP SUDS Mean Annual Flood

Input

Return Period (years) 1 SAAR (mm) 820 Urban 0.000
Area (ha) 1.280 Soil 0.450 Region Number Region 10

Results l/s

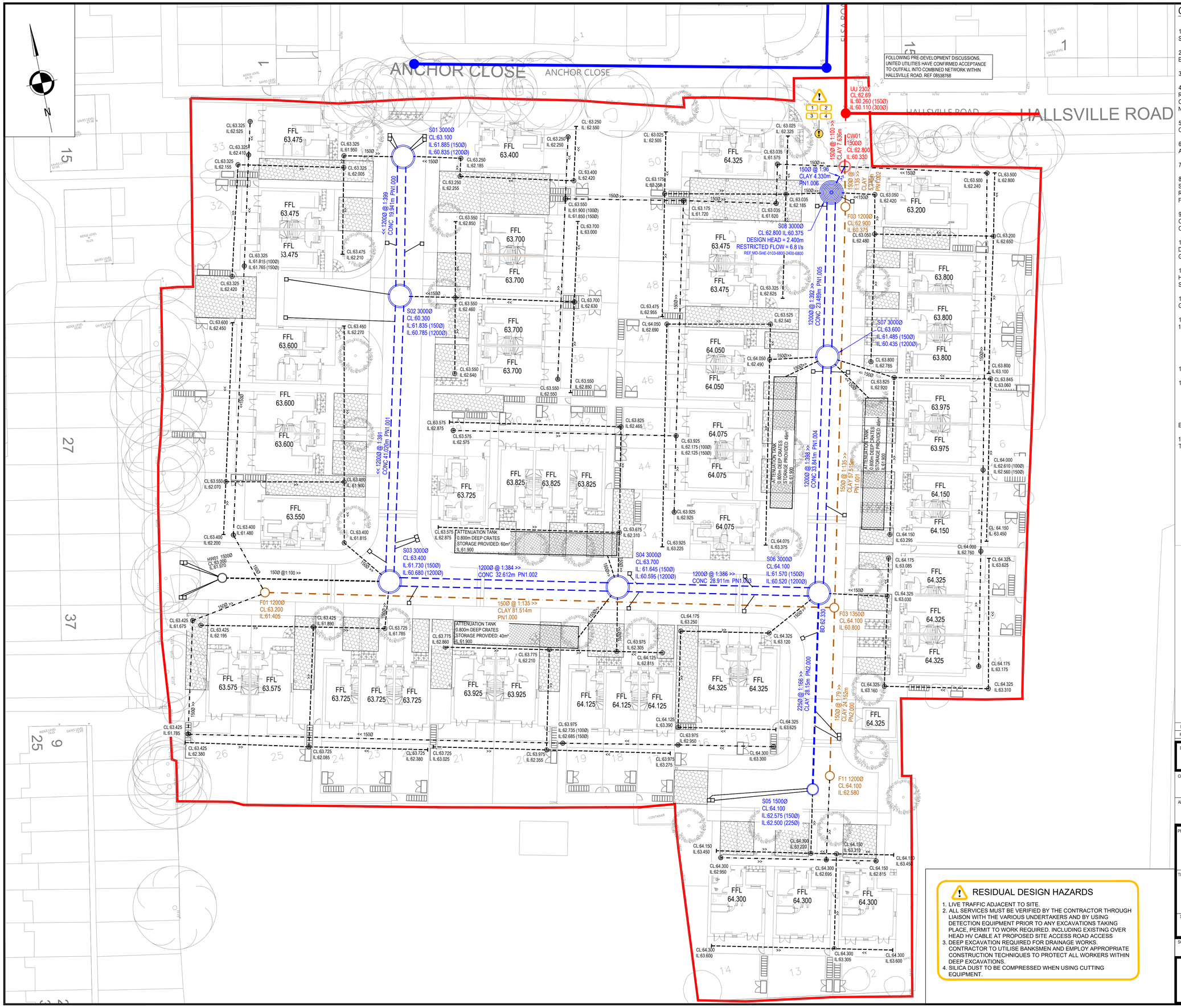
QBAR Rural 6.8
QBAR Urban 6.8

Q1 year 5.9

Q1 year 5.9
Q30 years 11.5
Q100 years 14.1

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APPENDIX I – PROPOSED DRAINAGE NETWORK PLAN AND CALCULATIONS



GENERAL NOTES

1. SETTING OUT SHALL BE UNDERTAKEN USING ONLY THE INFORMATION GIVEN. DISTANCES SHOULD NOT BE SCALED FROM THIS DRAWING.
2. ALL SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SEWERS FOR ADOPTION 6TH EDITION AND UNITED UTILITIES DETAILS & GUIDELINES.
3. THE MINIMUM GRAVITY PIPE DIAMETER UNDER ADOPTABLE HIGHWAYS SHALL BE 150mm
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL INFORMATION GIVEN WITH REGARDS TO EXISTING SERVICES AND DRAINAGE CONNECTIONS ETC. PRIOR TO COMMENCING THE WORKS. THE RATES SHALL INCLUDE FOR HAND DIG AROUND SERVICES WHERE NECESSARY. THE CONTRACTOR SHALL ADHERE TO THE CDM REGULATIONS AT ALL TIMES
5. THE OUTSIDES OF ALL SEWERS SHALL BE A MINIMUM OF 1.0m FROM KERB LINES AND THE OUTSIDE OF MANHOLES SHALL BE A MINIMUM OF 0.5m FROM KERB LINES
6. EXISTING FLOWS IN WATERCOURSES, SEWERS AND LAND DRAINS SHALL BE MAINTAINED AT ALL TIMES
7. ONLY TRAINED PERSONNEL SHALL BE PERMITTED TO ENTER CONFINED SPACES
8. ALL METERIALS TO BEAR THE RELEVANT B.S. KITEMARK AND COMPLY FULLY WITH THE SPECIFICATIONS. ALL CONCRETE & CONCRETE PRODUCTS MUST USE SULPHATE RESISTANT CEMENT (UNLESS THE SITE INVESTIGATION REPORT PROVES THAT SULPHATE ATTACK FROM SOILS AND GROUNDWATER WILL NOT OCCUR TO WITHSTAND A CLASS
9. ALL OPENING NOTICES ETC. AS REQUIRED UNDER HIGHWAYS ACTS ETC. ARE TO BE OBTAINED PRIOR TO COMMENCEMENT OF WORKS. ALL WORKS ARE TO BE INSPECTED BY L.A., NHBC OR THE NETWORK OPERATOR AS APPLICABLE.
10. WHERE "ULTRA RIB" UPVC PIPES (OR SIMILAR APPROVED) ARE USED IN ADOPTABLE DRAINAGE THEY SHALL STILL BE HANDLED AND LAID IN ACCORDANCE WITH THE SPECIFICATION AND GUIDANCE ISSUED BY THE HIGH PERFORMANCE PIPE ASSOCIATION.
11. A CLASS S BED AND SURROUND MUST BE USED FOR SUCH PIPES. TRENCH BACKFILL IN HIGHWAYS TO WITHIN 1m OF HIGHWAY SHALL, AS DIRECTED BY THE HIGHWAY AUTHORITY BE A SUITABLE GRANULAR MATERIAL ALL IN ACCORDANCE WITH SEWERS FOR ADOPTION CL. 4.3.4.
12. SLAB LEVELS SHALL NOT BE VARIED WITHOUT REFERENCE TO THE ENGINEER FOR GUIDANCE
13. DOMESTIC DRAINAGE SHALL BE TO BUILDING REGULATIONS APPROVED DOCUMENT H. 110mm U.P.V.C. PIPES LAID TO THE FOLLOWING MINIMUM FALLS UNLESS OTHERWISE SHOWN.

	FOUL	S.W.
HEAD RUN	1 IN 40	1 IN 60
ELSEWHERE	1 IN 80	1 IN 100

14. ALL GULLY CONNECTIONS TO BE 150mm VITRIFIED UPVC UNLESS NOTED OTHERWISE
15. MINIMUM COVER TO DRAINAGE SOFFIT LEVEL;

LANDSCAPING	TRAFFICKED AREAS	HIGHWAYS
0.600m	0.900m	1.200m

- CLASS 'S' BEDDING AND SURROUND TO BE USED WHERE MINIMUM COVER IS ACHIEVED.
- WHERE MINIMUM COVER IS NOT ACHIEVED CLASS 'Z' BEDDING AND SURROUND (CONCRETE ENCASEMENT) IS TO BE USED.

16. FOUNDATIONS WITHIN CLOSE PROXIMITY TO PROPOSED DRAINAGE WILL NEED TO BE AT THE SAME DEPTH AS DRAINAGE TO AVOID THE POTENTIAL FOR UNDERMINING.

DRAINAGE NOTES

- FOUL AND SURFACE WATER CONNECTIONS ARE TO BE CONFIRMED
- ALL POP-UP SETTING OUT IS TO BE PROVIDED BY THE ARCHITECT
- ALL SURFACE / FOUL WATER CONNECTIONS ARE TO HAVE RODDABLE ACCESS FROM ABOVE GROUND
- ANY 600Ø ACCESS CHAMBERS GREATER THAN 1.2m DEEP WILL REQUIRE A REDUCED ACCESS SHAFT

LEGEND

- PROPOSED S104 SURFACE WATER SEWER SUBJECT TO UNITED UTILITIES AGREEMENT
- PROPOSED S104 FLOW CONTROL CHAMBER SUBJECT TO UNITED UTILITIES AGREEMENT
- PROPOSED S104 FOUL WATER SEWER SUBJECT TO UNITED UTILITIES AGREEMENT
- PROPOSED PRIVATE SURFACE WATER DRAINAGE
- PRIVATE POROUS PARKING BAYS WITH MINIMUM 350mm THICK TYPE 3 POROUS SUB-BASE MATERIAL (MIN 30% POROSITY)
- PROPOSED ATTENUATION TANK WITH VENT VIPE
- PROPOSED PRIVATE FOUL WATER DRAINAGE
- EXISTING UNITED UTILITIES COMBINED WATER SEWER
- EXISTING UNITED UTILITIES SURFACE WATER SEWER

REV	DATE	DESCRIPTION	BY	CHK	APP
P01	17.12.2025	PRELIMINARY ISSUE	JP	KOB	KOB

RESIDUAL DESIGN HAZARDS

1. LIVE TRAFFIC ADJACENT TO SITE.
2. ALL SERVICES MUST BE VERIFIED BY THE CONTRACTOR THROUGH LIAISON WITH THE VARIOUS UNDERTAKERS AND BY USING DETECTION EQUIPMENT PRIOR TO ANY EXCAVATIONS TAKING PLACE. PERMIT TO WORK REQUIRED. INCLUDING EXISTING OVER HEAD HV CABLE AT PROPOSED SITE ACCESS ROAD ACCESS
3. DEEP EXCAVATION REQUIRED FOR DRAINAGE WORKS. CONTRACTOR TO UTILISE BANKSMEN AND EMPLOY APPROPRIATE CONSTRUCTION TECHNIQUES TO PROTECT ALL WORKERS WITHIN DEEP EXCAVATIONS.
4. SILICA DUST TO BE COMPRESSED WHEN USING CUTTING EQUIPMENT.

DRAWING STATUS: **PRELIMINARY**

CLIENT: SEDDON CONSTRUCTION LTD

ARCHITECT: CALDERPEEL ARCHITECTS

PROJECT: ELSA ROAD
FORMER LEVENSHULME CRICKET CLUB
MANCHESTER

TITLE: DRAINAGE STRATEGY

STATUS:	PROJECT No.	PROJECT	ORIGINATOR	VOL/SYS	LEVEL	TYPE	ROLE	DRAWING No.	REV:
S2	225-256	EFM	AJP	XX	00	DR		C - 0900	P01

SCALE @ A1:	DESIGNED:	DRAWN:	CHECKED:	APPROVED:	DATE:
1:250	LS	LS	KOB	KOB	NOV 2025

AJP consulting engineers
0151 227 1462 info@ajpltd.co.uk 01 Dale Street, Liverpool, L2 2ET

Existing Network Details for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	k (mm)	HYD SECT	DIA (mm)	Section Type
1.000	19.941	0.050	398.8	0.108	5.00	0.600	o	1200	Pipe/Conduit
1.001	41.020	0.105	390.7	0.066	0.00	0.600	o	1200	Pipe/Conduit
1.002	32.612	0.085	383.7	0.126	0.00	0.600	o	1200	Pipe/Conduit
1.003	28.911	0.075	385.5	0.101	0.00	0.600	o	1200	Pipe/Conduit
2.000	28.145	0.170	165.6	0.075	5.00	0.600	o	225	Pipe/Conduit
1.004	33.841	0.085	398.1	0.079	0.00	0.600	o	1200	Pipe/Conduit
1.005	23.489	0.060	391.5	0.097	0.00	0.600	o	1200	Pipe/Conduit
1.006	4.330	0.045	96.2	0.070	0.00	0.600	o	1200	Pipe/Conduit

PN	US/MH Name	US/CL (m)	US/IL (m)	US C.Depth (m)	DS/CL (m)	DS/IL (m)	DS C.Depth (m)	Ctrl	US/MH (mm)
1.000	01	63.100	60.835	1.065	63.300	60.785	1.315		3000
1.001	02	63.300	60.785	1.315	63.400	60.680	1.520		3000
1.002	03	63.400	60.680	1.520	63.700	60.595	1.905		3000
1.003	04	63.700	60.595	1.905	64.100	60.520	2.380		3000
2.000	05	64.100	62.500	1.375	64.100	62.330	1.545		1800
1.004	06	64.100	60.520	2.380	63.600	60.435	1.965		3000
1.005	07	63.600	60.435	1.965	62.800	60.375	1.225		3000
1.006	08	62.800	60.375	1.225	62.800	60.330	1.270	Hydro-Brake®	3000

Free Flowing Outfall Details for Storm

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
1.006		62.800	60.330	0.000	0	0

Simulation Criteria for Storm

Volumetric Runoff Coeff	1.000	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m³/ha Storage	2.500
Hot Start (mins)	0	Inlet Coeffiecient	0.800
Hot Start Level (mm)	0	Flow per Person per Day (l/per/day)	0.000
Manhole Headloss Coeff (Global)	0.500	Run Time (mins)	60
Foul Sewage per hectare (l/s)	0.000	Output Interval (mins)	1

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
Number of Online Controls 1 Number of Storage Structures 2 Number of Real Time Controls 0

Synthetic Rainfall Details

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Simulation Criteria for Storm

Rainfall Model	FSR	Profile Type	Summer
Return Period (years)	5	Cv (Summer)	1.000
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	18.000	Storm Duration (mins)	30
Ratio R	0.370		

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Online Controls for Storm

Hydro-Brake® Optimum Manhole: 08, DS/PN: 1.006, Volume (m³): 40.3

Unit Reference	MD-SHE-0103-6800-2350-6800
Design Head (m)	2.350
Design Flow (l/s)	6.8
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	103
Invert Level (m)	60.375
Minimum Outlet Pipe Diameter (mm)	150
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)	Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	2.350	6.8	Kick-Flo®	0.920	4.4
Flush-Flo™	0.449	5.5	Mean Flow over Head Range	-	5.3

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	3.5	0.800	5.0	2.000	6.3	4.000	8.7	7.000	11.4
0.200	5.0	1.000	4.6	2.200	6.6	4.500	9.2	7.500	11.8
0.300	5.4	1.200	5.0	2.400	6.9	5.000	9.7	8.000	12.1
0.400	5.5	1.400	5.3	2.600	7.1	5.500	10.2	8.500	12.5
0.500	5.5	1.600	5.7	3.000	7.6	6.000	10.6	9.000	12.8
0.600	5.4	1.800	6.0	3.500	8.2	6.500	11.0	9.500	13.2

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Storage Structures for Storm

Cellular Storage Manhole: 04, DS/PN: 1.003

Invert Level (m) 61.900 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	131.0	0.0	0.800	131.0	0.0	0.801	0.0	0.0

Cellular Storage Manhole: 07, DS/PN: 1.005

Invert Level (m) 61.900 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	119.7	0.0	0.800	119.7	0.0	0.801	0.0	0.0

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2 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.500
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
Number of Online Controls 1 Number of Storage Structures 2 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model		FSR M5-60 (mm) 18.000 Cv (Summer)	1.000
Region England and Wales		Ratio R 0.370 Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years)	2, 30, 100
Climate Change (%)	0, 0, 45

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)
1.000	01	240 Summer	2	+0%	100/60 Summer				61.151	-0.884	0.000
1.001	02	240 Summer	2	+0%	100/30 Summer				61.151	-0.834	0.000
1.002	03	240 Summer	2	+0%	100/30 Summer				61.151	-0.729	0.000
1.003	04	240 Summer	2	+0%	100/30 Summer				61.151	-0.644	0.000
2.000	05	15 Summer	2	+0%	100/15 Summer				62.599	-0.126	0.000
1.004	06	240 Summer	2	+0%	100/30 Summer				61.151	-0.569	0.000
1.005	07	240 Summer	2	+0%	30/240 Summer				61.151	-0.484	0.000
1.006	08	240 Summer	2	+0%	30/120 Summer				61.150	-0.425	0.000

PN	US/MH Name	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
1.000	01	0.00			5.0	OK	
1.001	02	0.00			6.3	OK	
1.002	03	0.01			8.1	OK	
1.003	04	0.01		174	7.9	OK	
2.000	05	0.40			14.9	OK	
1.004	06	0.01			9.7	OK	
1.005	07	0.01		214	7.4	OK	
1.006	08	0.00			5.5	OK	

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.500
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
Number of Online Controls 1 Number of Storage Structures 2 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model	FSR	M5-60 (mm)	18.000
Region	England and Wales	Ratio R	0.370
Cv (Summer)	1.000		
Cv (Winter)	0.840		

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years)	2, 30, 100
Climate Change (%)	0, 0, 45

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)
1.000	01	240 Summer	30	+0%	100/60 Summer				61.719	-0.316	0.000
1.001	02	240 Summer	30	+0%	100/30 Summer				61.719	-0.266	0.000
1.002	03	240 Summer	30	+0%	100/30 Summer				61.719	-0.161	0.000
1.003	04	240 Summer	30	+0%	100/30 Summer				61.719	-0.076	0.000
2.000	05	15 Summer	30	+0%	100/15 Summer				62.648	-0.077	0.000
1.004	06	240 Summer	30	+0%	100/30 Summer				61.717	-0.003	0.000
1.005	07	240 Summer	30	+0%	30/240 Summer				61.705	0.070	0.000
1.006	08	240 Summer	30	+0%	30/120 Summer				61.704	0.129	0.000

PN	US/MH Name	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
1.000	01	0.01			9.3	OK	
1.001	02	0.01			8.7	OK	
1.002	03	0.00			7.3	OK	
1.003	04	0.00			6.8	OK	
2.000	05	0.75			28.2	OK	

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
1.004	06	0.01			10.4	OK	
1.005	07	0.01			7.5	SURCHARGED	
1.006	08	0.00			5.5	SURCHARGED	

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.500
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
Number of Online Controls 1 Number of Storage Structures 2 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model		FSR M5-60 (mm) 18.000 Cv (Summer)	1.000
Region	England and Wales	Ratio R 0.370 Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	ON
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years)	2, 30, 100
Climate Change (%)	0, 0, 45

WARNING: Half Drain Time has not been calculated as the structure is too full.

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)
1.000	01	480 Summer	100	+45%	100/60 Summer				62.709	0.674	0.000
1.001	02	480 Summer	100	+45%	100/30 Summer				62.710	0.725	0.000
1.002	03	480 Summer	100	+45%	100/30 Summer				62.710	0.830	0.000
1.003	04	480 Summer	100	+45%	100/30 Summer				62.710	0.915	0.000
2.000	05	15 Summer	100	+45%	100/15 Summer				62.875	0.150	0.000
1.004	06	360 Summer	100	+45%	100/30 Summer				62.712	0.992	0.000
1.005	07	360 Summer	100	+45%	30/240 Summer				62.710	1.075	0.000
1.006	08	360 Summer	100	+45%	30/120 Summer				62.712	1.137	0.000

PN	US/MH Name	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
1.000	01	0.01			13.0	SURCHARGED	
1.001	02	0.01			20.1	SURCHARGED	
1.002	03	0.02			29.2	SURCHARGED	
1.003	04	0.00		453	6.5	SURCHARGED	
2.000	05	1.38			51.9	SURCHARGED	

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
1.004	06	0.02			25.2	SURCHARGED	
1.005	07	0.01			10.0	SURCHARGED	
1.006	08	0.00			6.7	FLOOD RISK	

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APPENDIX J – GEOTEHCNICAL TRIAL HOLES

Trial Pit

TP01

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388339.00	394300.00	63.00	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Samples and Tests: Type/ Ref	Samples and Tests: Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Strata: Description
		0.05	ES		62.90	(0.10) 0.10		TOPSOIL: Soft, dark brown, slightly gravelly, slightly sandy, SILTY CLAY. Sand is fine. Gravel is fine to medium, angular to sub-rounded flint with abundant roots.
						(0.40)		Firm, light brown and orange-brown mottled slightly sandy SILTY CLAY. Sand is fine. [GLACIAL TILL]
					62.50	0.50		Firm to stiff, brown, light brown and mottled reddish-brown SILTY CLAY. [GLACIAL TILL]
		0.80	HV	85 (kPa)				
						(1.00)		
					61.50	1.50		Stiff, laminated and fissured brown mottled light grey, friable SILTY CLAY with occasional mudstone and sandstone lithorelicts. [WEATHERED CHESTER FORMATION]
		2.10	HV	110 (kPa)				*At 2.10m occasional sub-angular to angular coal fragments. (2.10m)*
						(1.80)		*At 2.80m occasional low cobble content of mudstone and sandstone. Cobbles are angular to rounded. (2.80m)*
					59.70	3.30		*End of Trial Pit at 3.30m*

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0

Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.30m begl due to strata encountered.
4. Live roots observed to 0.50m depth.

Method, Plant, Stability, Dimensions
0.00 - 3.30m JCB 3CX
Trial pit sides stable
L = 2.60m
W = 0.60m

Logger
AG

Checked By: JB

Trial Pit

TP01

PHOTO PAGE

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388339.00	394300.00	63.00	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client	Consultant	Contractor
Seddon Construction Limited	AJP Midlands LTD	H & C Plant Hire and Regional Drilling Limited



Remarks

1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.30m begl due to strata encountered.
4. Live roots observed to 0.50m depth.

Method, Plant, Stability, Dimensions

0.00 - 3.30m JCB 3CX
Trial pit sides stable
L = 2.60m
W = 0.60m

Logger

AG

Checked By: JB

Trial Pit

TP01
PHOTO PAGE

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388339.00	394300.00	63.00	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited



Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.30m begl due to strata encountered.
4. Live roots observed to 0.50m depth.

Method, Plant, Stability, Dimensions
0.00 - 3.30m JCB 3CX
Trial pit sides stable
L = 2.60m
W = 0.60m

Logger
AG

Checked By: JB

Trial Pit

TP02

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388359.03	394273.67	63.22	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Samples and Tests: Type/ Ref	Samples and Tests: Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Strata: Description
		0.30	ES		62.72	(0.50) 0.50		TOPSOIL: Soft, dark brown sandy SILT. Sand is fine with abundant roots.
	▽					(0.30)		MADE GROUND: Firm, brown, light brown and mottled orange-brown, slightly gravelly SILTY CLAY. Gravel is fine to medium, sub-angular to angular quartzite and brickwork.
		1.20	HV	75 (kPa)	62.42	(1.30) 0.80		Firm to stiff, brown, light brown and mottled reddish-brown slightly gravelly SILTY CLAY. Gravel is angular to sub-rounded flint and quartz. [GLACIAL TILL]
		2.50	HV	95 (kPa)	61.12	(0.70) 2.10		Stiff, laminated and fissured brown mottled light grey, friable SILTY CLAY with occasional mudstone and sandstone lithorelicts. [WEATHERED CHESTER FORMATION]
					60.42	2.80		*End of Trial Pit at 2.80m*

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0

Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. Groundwater encountered at 0.50m - Due to the Landfill drain pipe
3. Trial pit terminated at 3.30m begl due to strata encountered.
4. Live roots observed to 0.50m depth.
5. A 50mm land drain encountered at 0.50m begl.

Method, Plant, Stability, Dimensions
0.00 - 3.80m JCB 3CX
Trial pit sides stable
L = 2.60m
W = 0.60m

Logger
AG

Checked By: JB

Trial Pit

TP02

PHOTO PAGE

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388359.03	394273.67	63.22	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited



Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. Groundwater encountered at 0.50m - Due to the Landfill drain pipe
3. Trial pit terminated at 3.30m begl due to strata encountered.
4. Live roots observed to 0.50m depth.
5. A 50mm land drain encountered at 0.50m begl.

Method, Plant, Stability, Dimensions
0.00 - 3.80m JCB 3CX
Trial pit sides stable
L = 2.60m
W = 0.60m

Logger
AG

Checked By: JB

Trial Pit

TP02

PHOTO PAGE

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388359.03	394273.67	63.22	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client	Consultant	Contractor
Seddon Construction Limited	AJP Midlands LTD	H & C Plant Hire and Regional Drilling Limited



Remarks

1. Exploratory hole location scanned with CAT before commencement.
2. Groundwater encountered at 0.50m - Due to the Landfill drain pipe
3. Trial pit terminated at 3.30m begl due to strata encountered.
4. Live roots observed to 0.50m depth.
5. A 50mm land drain encountered at 0.50m begl.

Checked By: JB

Method, Plant, Stability, Dimensions

0.00 - 3.80m JCB 3CX
Trial pit sides stable
L = 2.60m
W = 0.60m

Logger

AG

Trial Pit

TP03

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388327.45	394238.40	63.34	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Samples and Tests: Type/ Ref	Samples and Tests: Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Strata: Description
					63.04	(0.30) 0.30		TOPSOIL: Soft, dark brown sandy SILT. Sand is fine with abundant roots.
		0.50-0.70	B			(0.60)		Firm, brown, light brown and mottled reddish-brown slightly gravelly SILTY CLAY. Gravel is angular to sub-rounded flint and quartz. [GLACIAL TILL]
		1.10	HV	90 (kPa)	62.44	0.90		Firm to stiff, light brown and orange-brown mottled light grey slightly sandy SILTY CLAY. Sand is fine with occasional angular coal fragments. [GLACIAL TILL]
					61.54	(0.90) 1.80		Stiff, laminated and fissured brown mottled light grey, friable SILTY CLAY with occasional mudstone and sandstone lithorelicts and coal fragments. [WEATHERED CHESTER FORMATION]
					60.04	(1.50) 3.30		*End of Trial Pit at 3.30m*

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0

Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.30m begl due to strata encountered.
4. Live roots observed to 0.30m depth.

Method, Plant, Stability, Dimensions
0.00 - 3.30m JCB 3CX
Trial pit sides stable
L = 2.70m
W = 0.60m

Logger
AG

Checked By: JB

Trial Pit

TP03

PHOTO PAGE

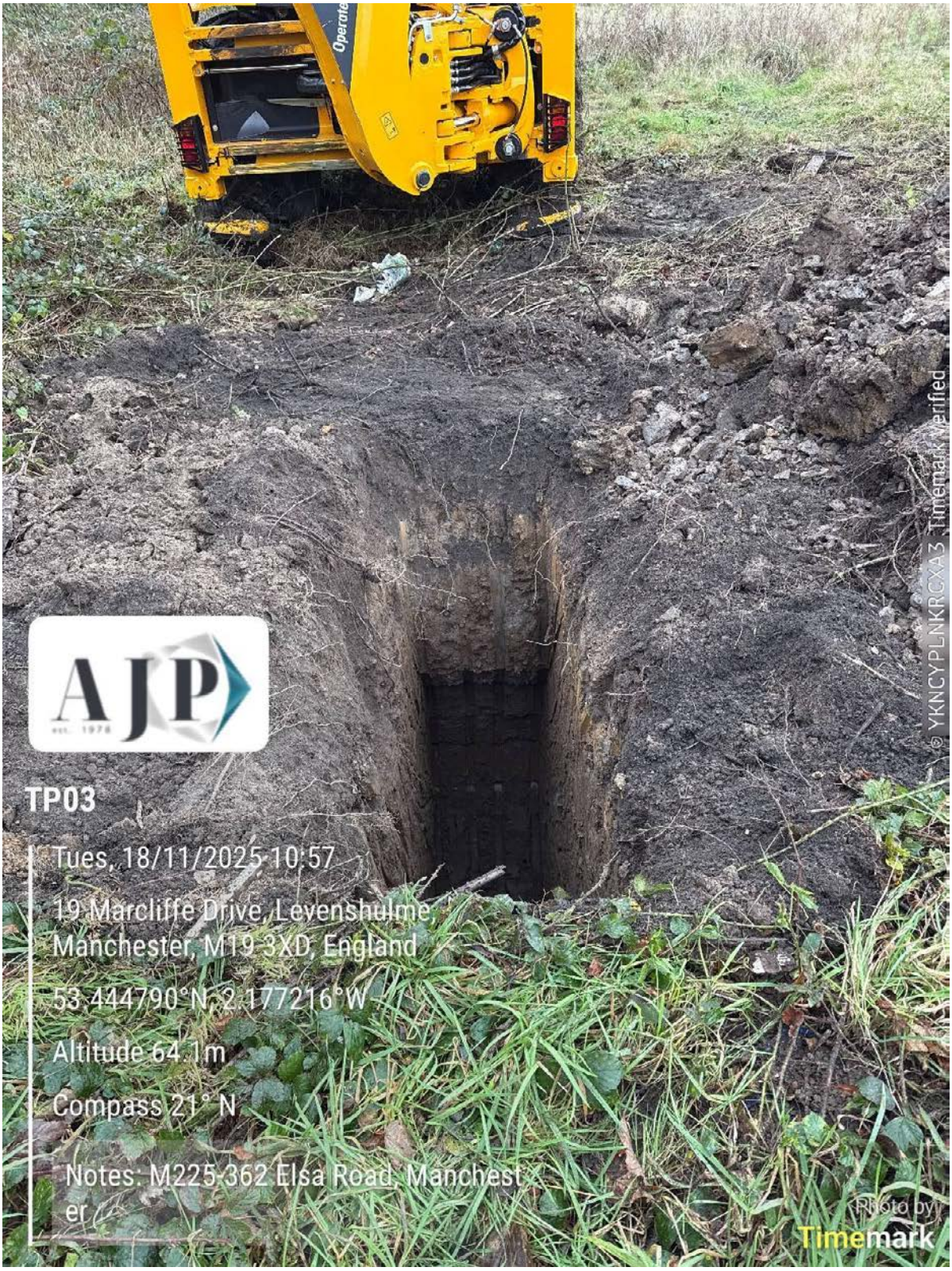
Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388327.45	394238.40	63.34	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited



Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.30m begl due to strata encountered.
4. Live roots observed to 0.30m depth.

Method, Plant, Stability, Dimensions

0.00 - 3.30m JCB 3CX
Trial pit sides stable
L = 2.70m
W = 0.60m

Logger
AG

Checked By: JB

Trial Pit

TP03

PHOTO PAGE

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388327.45	394238.40	63.34	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client	Consultant	Contractor
Seddon Construction Limited	AJP Midlands LTD	H & C Plant Hire and Regional Drilling Limited



Remarks

1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.30m begl due to strata encountered.
4. Live roots observed to 0.30m depth.

Method, Plant, Stability, Dimensions

0.00 - 3.30m JCB 3CX
Trial pit sides stable
L = 2.70m
W = 0.60m

Logger
AG

Checked By: JB

Trial Pit

TP04

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388327.95	394212.94	63.30	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Samples and Tests: Type/ Ref	Samples and Tests: Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Strata: Description
		0.20	ES		63.00	(0.30) 0.30		MADE GROUND: Soft, dark brown slightly gravelly sandy SILT. Sand is fine. Gravel is fine to medium, angular to sub-rounded flint, brick, glass, slate with abundant roots.
						(0.40)		Firm, brown, light brown and mottled orange-brown slightly gravelly SILTY CLAY. Gravel is angular to sub-rounded flint and quartz with occasional rootlets. [GLACIAL TILL]
		0.80	HV	65 (kPa)	62.60	0.70		Firm to stiff, brown, light brown and mottled light grey SILTY CLAY with angular to sub-angular coal fragments. [WEATHERED CHESTER FORMATION]
						(2.50)		*At 2.50m becoming friable with mudstone lithorelicts. (2.50m)*
					60.10	3.20		*End of Trial Pit at 3.20m*

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0

Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.20m begl due to strata encountered.
4. Live roots observed to 0.70m depth.

Method, Plant, Stability, Dimensions
0.00 - 3.20m JCB 3CX
Trial pit sides stable
L = 2.80m
W = 0.60m

Logger
AG

Checked By: JB

Trial Pit

TP04

PHOTO PAGE

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388327.95	394212.94	63.30	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client	Consultant	Contractor
Seddon Construction Limited	AJP Midlands LTD	H & C Plant Hire and Regional Drilling Limited



Remarks

1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.20m begl due to strata encountered.
4. Live roots observed to 0.70m depth.

Method, Plant, Stability, Dimensions

0.00 - 3.20m JCB 3CX
Trial pit sides stable
L = 2.80m
W = 0.60m

Logger

AG

Checked By: JB

Trial Pit

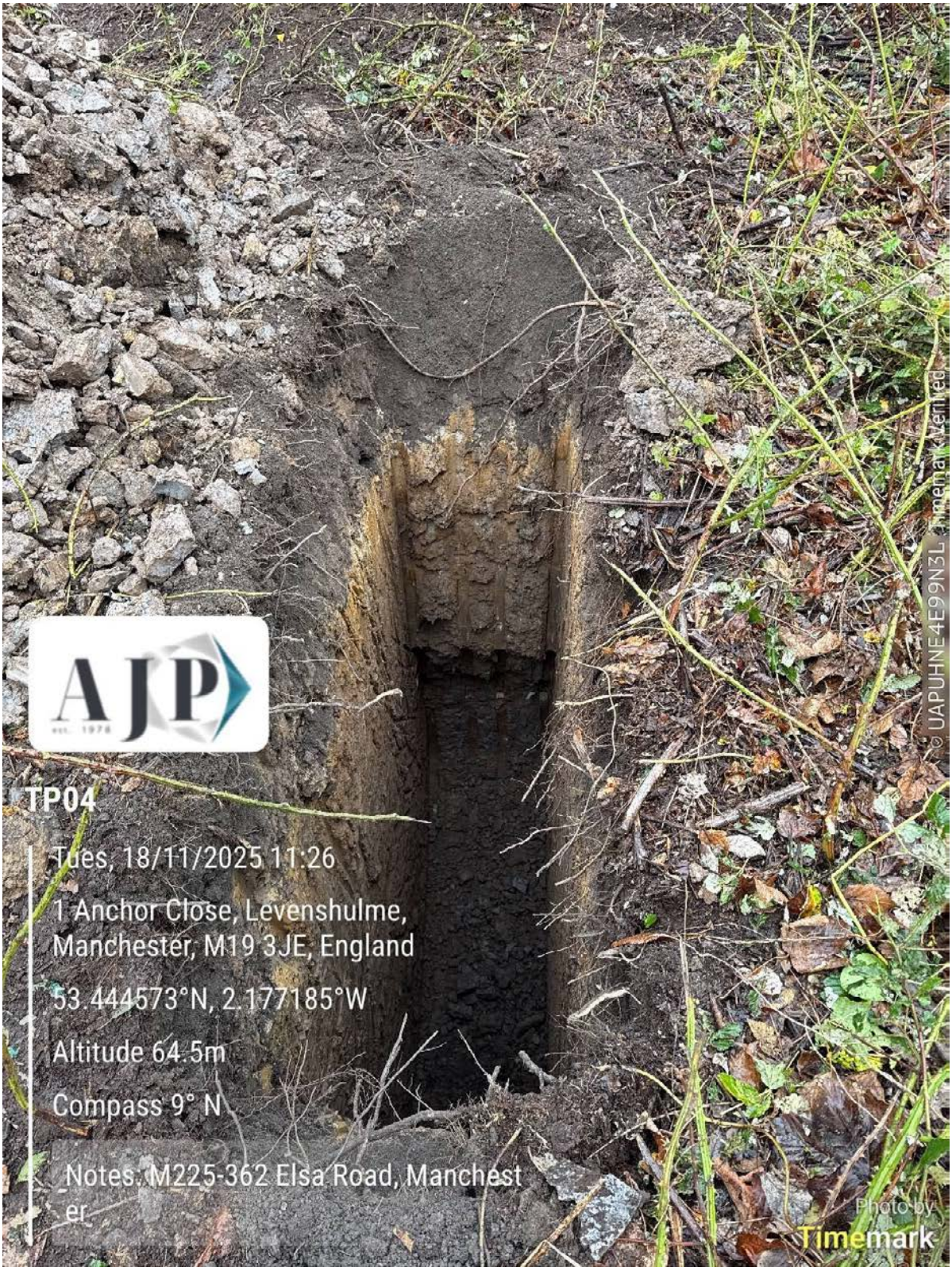
TP04

PHOTO PAGE

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388327.95	394212.94	63.30	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client	Consultant	Contractor
Seddon Construction Limited	AJP Midlands LTD	H & C Plant Hire and Regional Drilling Limited



Remarks

1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.20m begl due to strata encountered.
4. Live roots observed to 0.70m depth.

Method, Plant, Stability, Dimensions

0.00 - 3.20m JCB 3CX
Trial pit sides stable
L = 2.80m
W = 0.60m

Logger

AG

Checked By: JB

Trial Pit

TP05

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388362.84	394205.14	63.67	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Samples and Tests: Type/ Ref	Samples and Tests: Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Strata: Description
					63.37	(0.30) 0.30		TOPSOIL: Soft, dark brown sandy SILT. Sand is fine with abundant roots.
						(0.90)		MADE GROUND: Firm, brown, light brown and mottled orange-brown, slightly gravelly SILTY CLAY. Gravel is fine to medium, sub-angular to angular quartzite and brickwork.
		1.50	HV	95 (kPa)	62.47	1.20		Firm to stiff, light brown and orange-brown mottled light grey slightly sandy SILTY CLAY. Sand is fine with occasional angular coal fragments and selenite patches. [GLACIAL TILL]
	▽	2.50	HV	110 (kPa)	61.37	(1.10) 2.30		Stiff, laminated and fissured brown mottled light grey, friable SILTY CLAY with occasional mudstone and sandstone lithorelicts and coal fragments. [WEATHERED CHESTER FORMATION]
					60.07	(1.30) 3.60		*End of Trial Pit at 3.60m*

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0

Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. Groundwater encountered at 2.50m begl - Seepage
3. Trial pit terminated at 3.60m begl due to strata encountered.
4. Live roots observed to 0.30m depth.

Method, Plant, Stability, Dimensions
0.00 - 3.60m JCB 3CX
Trial pit sides stable
L = 2.60m
W = 0.60m

Logger
AG

Checked By: JB

Trial Pit

TP05
PHOTO PAGE

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388362.84	394205.14	63.67	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited



Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. Groundwater encountered at 2.50m begl - Seepage
3. Trial pit terminated at 3.60m begl due to strata encountered.
4. Live roots observed to 0.30m depth.

Method, Plant, Stability, Dimensions
0.00 - 3.60m JCB 3CX
Trial pit sides stable
L = 2.60m
W = 0.60m

Logger
AG

Checked By: JB

Trial Pit

TP05
PHOTO PAGE

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388362.84	394205.14	63.67	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client	Consultant	Contractor
Seddon Construction Limited	AJP Midlands LTD	H & C Plant Hire and Regional Drilling Limited



Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. Groundwater encountered at 2.50m begl - Seepage
3. Trial pit terminated at 3.60m begl due to strata encountered.
4. Live roots observed to 0.30m depth.

Method, Plant, Stability, Dimensions
0.00 - 3.60m JCB 3CX
Trial pit sides stable
L = 2.60m
W = 0.60m

Logger
AG

Checked By: JB

Trial Pit

TP06

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388380.68	394226.16	63.70	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Samples and Tests: Type/ Ref	Samples and Tests: Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Strata: Description
		0.20	ES		63.40	(0.30) 0.30		TOPSOIL: Soft, dark brown slightly gravelly sandy SILT. Sand is fine. Gravel is fine angular to rounded flint with abundant roots.
						(0.60)		MADE GROUND: Firm, brown, light brown and mottled orange-brown, slightly gravelly SILTY CLAY. Gravel is fine to medium, sub-angular to angular quartzite and brickwork.
		1.10	HV	75 (kPa)	62.80	0.90 (0.50)		Firm to stiff, light brown and orange-brown mottled light grey slightly sandy SILTY CLAY. Sand is fine with occasional angular coal fragments. [GLACIAL TILL]
		2.70	HV	110 (kPa)	62.30	1.40 (1.40)		Firm to stiff, brown, light brown and mottled light grey SILTY CLAY with angular to sub-angular coal fragments. [WEATHERED CHESTER FORMATION]
					60.90	2.80 (0.50)		Stiff, laminated and fissured brown mottled light grey, friable SILTY CLAY with occasional mudstone and sandstone lithorelicts and coal fragments. [WEATHERED CHESTER FORMATION]
					60.40	3.30		*End of Trial Pit at 3.30m*

Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.60m begl due to strata encountered.
4. Live roots observed to 0.30m depth.

Method, Plant, Stability, Dimensions
0.00 - 3.60m JCB 3CX
Trial pit sides stable
L = 2.50m
W = 0.60m

Logger
AG

Checked By: JB

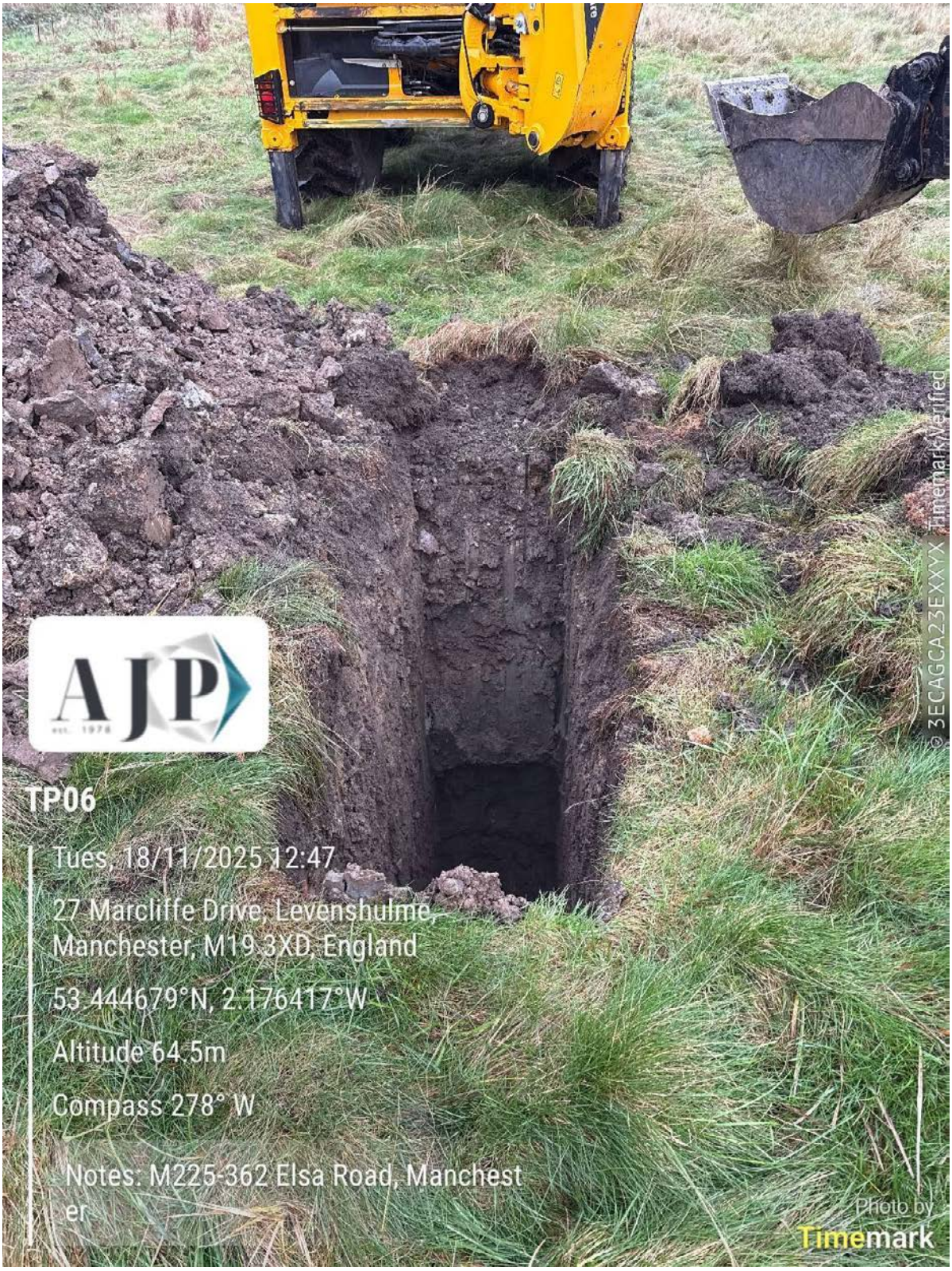
Trial Pit

TP06
PHOTO PAGE

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388380.68	394226.16	63.70	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client	Consultant	Contractor
Seddon Construction Limited	AJP Midlands LTD	H & C Plant Hire and Regional Drilling Limited



Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.60m begl due to strata encountered.
4. Live roots observed to 0.30m depth.

Method, Plant, Stability, Dimensions
0.00 - 3.60m JCB 3CX
Trial pit sides stable
L = 2.50m
W = 0.60m

Logger
AG

Checked By: JB

Trial Pit

TP06

PHOTO PAGE

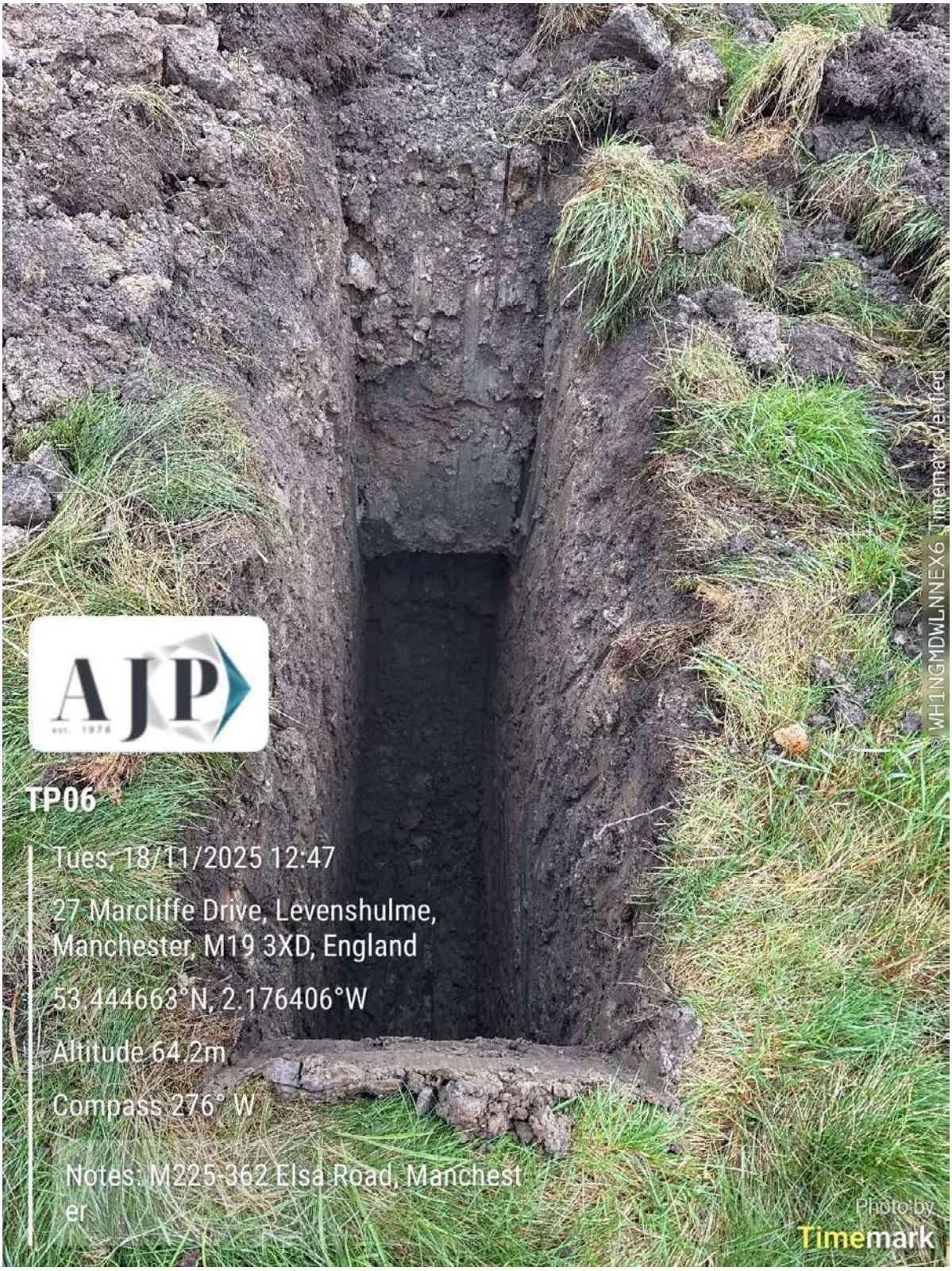
Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388380.68	394226.16	63.70	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited



Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.60m begl due to strata encountered.
4. Live roots observed to 0.30m depth.

Method, Plant, Stability, Dimensions
0.00 - 3.60m JCB 3CX
Trial pit sides stable
L = 2.50m
W = 0.60m

Logger
AG

Checked By: JB

Trial Pit

TP07

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388401.72	394200.90	64.07	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Samples and Tests: Type/ Ref	Samples and Tests: Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Strata: Description
						(0.60)		MADE GROUND: Concrete with reinforced rebar.
	▽	0.80	ES		63.47	0.60		MADE GROUND: Dark brown and black, organic silty gravelly SAND with low cobble content of sandstone. Sand is fine. Gravel is fine to coarse, sandstone, brick, limestone, woods, glass and plastic.
						(0.70)		
					62.77	1.30		*End of Trial Pit at 1.30m*

Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. Groundwater encountered at 0.60m begl-Fast inflow
3. Trial pit terminated at 1.30m begl due to strata encountered.
4. Trial pit abandonned due to fast inflow of water and concern about contamination.

Method, Plant, Stability, Dimensions
0.00 - 1.30m JCB 3CX
Trial pit sides stable
L = 2.60m
W = 0.60m

Logger
AG

Checked By: JB

Created using Pebble Geo

Trial Pit

TP07
PHOTO PAGE

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388401.72	394200.90	64.07	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited



Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. Groundwater encountered at 0.60m begl-Fast inflow
3. Trial pit terminated at 1.30m begl due to strata encountered.
4. Trial pit abandonned due to fast inflow of water and concern about contamination.

Method, Plant, Stability, Dimensions
0.00 - 1.30m JCB 3CX
Trial pit sides stable
L = 2.60m
W = 0.60m

Logger
AG

Checked By: JB

Trial Pit

TP07

PHOTO PAGE

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388401.72	394200.90	64.07	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client	Consultant	Contractor
Seddon Construction Limited	AJP Midlands LTD	H & C Plant Hire and Regional Drilling Limited



Remarks

1. Exploratory hole location scanned with CAT before commencement.
2. Groundwater encountered at 0.60m begl-Fast inflow
3. Trial pit terminated at 1.30m begl due to strata encountered.
4. Trial pit abandonned due to fast inflow of water and concern about contamination.

Method, Plant, Stability, Dimensions

0.00 - 1.30m JCB 3CX
Trial pit sides stable
L = 2.60m
W = 0.60m

Logger

AG

Checked By: JB

Trial Pit

TP08

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388395.33	394167.75	64.12	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Type/ Ref	Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Description
		0.30	ES		63.62	(0.50) 0.50		TOPSOIL: Soft, dark brown sandy SILT. Sand is fine with abundant roots.
		1.20	HV	60 (kPa)	62.72	(0.90) 1.40		Firm, brown, light brown and mottled orange-brown slightly gravelly, slightly sandy SILTY CLAY. Sand is fine. Gravel is angular to sub-rounded flint and quartz with occasional rootlets. [GLACIAL TILL]
		2.50	HV	120 (kPa)	61.62	(1.10) 2.50		Firm to stiff, light brown and orange-brown mottled light grey slightly sandy SILTY CLAY. Sand is fine with occasional angular coal fragments. [GLACIAL TILL]
					60.82	(0.80) 3.30		Stiff, laminated and fissured brown mottled light grey, friable SILTY CLAY with occasional mudstone and sandstone lithorelicts and coal fragments. [WEATHERED CHESTER FORMATION] *At 2.80m occasional low cobble content of mudstone and sandstone. Cobbles are angular to rounded. (2.80m)*
								End of Trial Pit at 3.30m

Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.30m begl due to strata encountered.
4. Live roots observed to 0.50m depth.

Method, Plant, Stability, Dimensions
0.00 - 3.30m JCB 3CX
Trial pit sides stable
L = 2.70m
W = 0.65m

Logger
AG

Checked By: JB

Trial Pit

TP08
PHOTO PAGE

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388395.33	394167.75	64.12	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client	Consultant	Contractor
Seddon Construction Limited	AJP Midlands LTD	H & C Plant Hire and Regional Drilling Limited



Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.30m begl due to strata encountered.
4. Live roots observed to 0.50m depth.

Method, Plant, Stability, Dimensions
0.00 - 3.30m JCB 3CX
Trial pit sides stable
L = 2.70m
W = 0.65m

Logger
AG

Checked By: JB

Trial Pit

TP08

PHOTO PAGE

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388395.33	394167.75	64.12	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client	Consultant	Contractor
Seddon Construction Limited	AJP Midlands LTD	H & C Plant Hire and Regional Drilling Limited



Remarks

1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.30m begl due to strata encountered.
4. Live roots observed to 0.50m depth.

Method, Plant, Stability, Dimensions

0.00 - 3.30m JCB 3CX
Trial pit sides stable
L = 2.70m
W = 0.65m

Logger

AG

Checked By: JB

Trial Pit

TP09

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388412.69	394232.75	64.00	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Samples and Tests: Type/ Ref	Samples and Tests: Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Strata: Description
						(0.40)		MADE GROUND: Soft, dark brown and brown slightly gravelly sandy SILT. Sand is fine. Gravel is fine to medium, sub-angular to angular flint and brickwork.
		0.50-0.70	B		63.60	0.40		Firm, brown, light brown and mottled orange-brown slightly gravelly, slightly sandy SILTY CLAY with low cobble content. Sand is fine. Gravel and cobbles are angular to sub-rounded flint and quartzite. [GLACIAL TILL]
						(0.80)		
		1.50	HV	70 (kPa)	62.80	1.20		Firm to stiff, light brown and orange-brown mottled light grey slightly sandy SILTY CLAY. Sand is fine with occasional angular coal fragments. [WEATHERED CHESTER FORMATION]
						(1.30)		
					61.50	2.50		Stiff, laminated and fissured brown mottled light grey, friable SILTY CLAY with occasional mudstone and sandstone lithorelicts and coal fragments. [WEATHERED CHESTER FORMATION]
						(0.60)		
					60.90	3.10		*End of Trial Pit at 3.10m*

Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.10m begl due to strata encountered.
4. Live roots observed to 0.40m depth.

Method, Plant, Stability, Dimensions
0.00 - 3.10m JCB 3CX
Trial pit sides stable
L = 2.60m
W = 0.60m

Logger
AG

Checked By: JB

Trial Pit

TP09
PHOTO PAGE

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388412.69	394232.75	64.00	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited



Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.10m begl due to strata encountered.
4. Live roots observed to 0.40m depth.

Method, Plant, Stability, Dimensions
0.00 - 3.10m JCB 3CX
Trial pit sides stable
L = 2.60m
W = 0.60m

Logger
AG

Checked By: JB

Trial Pit

TP09
PHOTO PAGE

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388412.69	394232.75	64.00	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client	Consultant	Contractor
Seddon Construction Limited	AJP Midlands LTD	H & C Plant Hire and Regional Drilling Limited



Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.10m begl due to strata encountered.
4. Live roots observed to 0.40m depth.

Method, Plant, Stability, Dimensions
0.00 - 3.10m JCB 3CX
Trial pit sides stable
L = 2.60m
W = 0.60m

Logger
AG

Checked By: JB

Trial Pit

TP10

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388383.92	394257.68	63.51	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Samples and Tests: Type/ Ref	Samples and Tests: Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Strata: Description
						(0.40)		TOPSOIL: Soft, dark brown slightly gravelly sandy SILT. Sand is fine. Gravel is fine angular to rounded flint with abundant roots.
					63.11	0.40		Firm, brown, light brown and mottled orange-brown slightly gravelly SILTY CLAY. Gravel is angular to sub-rounded flint and quartz with occasional rootlets. [GLACIAL TILL]
						(1.10)		
					62.01	1.50		Stiff, reddish brown mottled light grey slightly sandy SILTY CLAY. Sand is fine with occasional angular coal fragments. [GLACIAL TILL]
		1.80	HV	85 (kPa)				
						(1.30)		
					60.71	2.80		Stiff, laminated and fissured brown mottled light grey, friable SILTY CLAY with occasional mudstone and sandstone lithorelicts and coal fragments. [WEATHERED CHESTER FORMATION]
						(0.50)		
					60.21	3.30		*End of Trial Pit at 3.30m*

Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.30m begl due to strata encountered.
4. Live roots observed to 0.40m depth.

Method, Plant, Stability, Dimensions
0.00 - 3.30m JCB 3CX
Trial pit sides stable
L = 2.50m
W = 0.60m

Logger
AG

Checked By: JB

Trial Pit

TP10
PHOTO PAGE

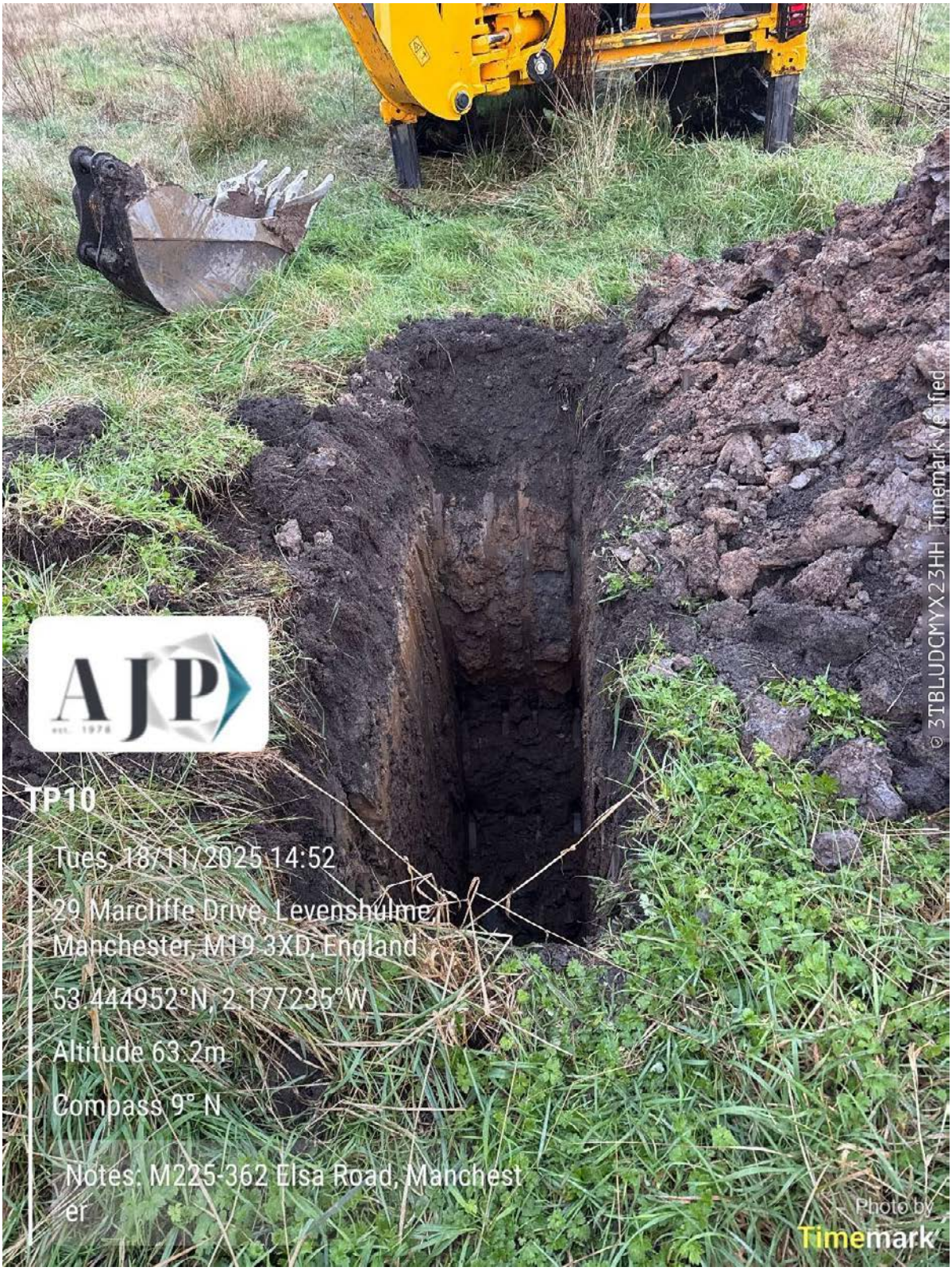
Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388383.92	394257.68	63.51	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited



Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.30m begl due to strata encountered.
4. Live roots observed to 0.40m depth.

Method, Plant, Stability, Dimensions
0.00 - 3.30m JCB 3CX
Trial pit sides stable
L = 2.50m
W = 0.60m

Logger
AG

Checked By: JB

Trial Pit

TP10
PHOTO PAGE

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388383.92	394257.68	63.51	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client	Consultant	Contractor
Seddon Construction Limited	AJP Midlands LTD	H & C Plant Hire and Regional Drilling Limited



Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.30m begl due to strata encountered.
4. Live roots observed to 0.40m depth.

Method, Plant, Stability, Dimensions
0.00 - 3.30m JCB 3CX
Trial pit sides stable
L = 2.50m
W = 0.60m

Logger
AG

Checked By: JB

Trial Pit

TP11

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388388.89	394284.46	63.21	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Samples and Tests: Type/ Ref	Samples and Tests: Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Strata: Description
					63.21			
						(0.40)		TOPSOIL: Soft, dark brown slightly gravelly sandy SILT. Sand is fine. Gravel is fine angular to rounded flint with abundant roots.
					62.81	0.40		
	▽	0.60	ES			(0.60)		MADE GROUND: Firm, dark brown and brown slightly gravelly sandy SILT. Sand is fine. Gravel is fine to medium, sub-angular to angular flint and brickwork.
					62.21	1.00		
		1.50	HV	85 (kPa)		(1.50)		Firm, brown, light brown and mottled orange-brown slightly gravelly SILTY CLAY. Gravel is angular to sub-rounded flint and quartz. [GLACIAL TILL]
					60.71	2.50		
		2.80	HV	120 (kPa)		(0.80)		Stiff, laminated and fissured brown mottled light grey, friable SILTY CLAY with occasional mudstone and sandstone lithorelicts and coal fragments. [WEATHERED CHESTER FORMATION]
					59.91	3.30		*End of Trial Pit at 3.30m*

Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. Groundwater encountered at 0.70m - Due to the Landfill drain pipe
3. Trial pit terminated at 3.30m begl due to strata encountered.
4. Live roots observed to 0.40m depth.
5. A 50mm land drain encountered at 0.50m begl.

Method, Plant, Stability, Dimensions
0.00 - 3.30m JCB 3CX
Trial pit sides stable
L = 2.60m
W = 0.65m

Logger
AG

Checked By: JB

Trial Pit

TP11
PHOTO PAGE

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388388.89	394284.46	63.21	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client	Consultant	Contractor
Seddon Construction Limited	AJP Midlands LTD	H & C Plant Hire and Regional Drilling Limited



Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. Groundwater encountered at 0.70m - Due to the Landfill drain pipe
3. Trial pit terminated at 3.30m begl due to strata encountered.
4. Live roots observed to 0.40m depth.
5. A 50mm land drain encountered at 0.50m begl.

Checked By: JB

Method, Plant, Stability, Dimensions
0.00 - 3.30m JCB 3CX
Trial pit sides stable
L = 2.60m
W = 0.65m

Logger
AG

Trial Pit

TP11

PHOTO PAGE

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388388.89	394284.46	63.21	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client	Consultant	Contractor
Seddon Construction Limited	AJP Midlands LTD	H & C Plant Hire and Regional Drilling Limited



Remarks

1. Exploratory hole location scanned with CAT before commencement.
2. Groundwater encountered at 0.70m - Due to the Landfill drain pipe
3. Trial pit terminated at 3.30m begl due to strata encountered.
4. Live roots observed to 0.40m depth.
5. A 50mm land drain encountered at 0.50m begl.

Checked By: JB

Method, Plant, Stability, Dimensions		Logger
0.00 - 3.30m	JCB 3CX	AG
Trial pit sides stable		
L = 2.60m		
W = 0.65m		

Trial Pit

TP12

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388440.67	394267.70	63.92	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Samples and Tests: Type/ Ref	Samples and Tests: Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Strata: Description
						(0.15)		MADE GROUND: Asphalt.
					63.77	0.15		
		0.30	ES			(0.25)		MADE GROUND: Dark brown and black, silty sandy GRAVEL. Sand is fine. Gravel is fine to coarse, sandstone, brick and glass with occasional rootlets.
					63.52	0.40		Firm, brown, light brown and mottled orange-brown slightly gravelly SILTY CLAY. Gravel is angular to sub-rounded flint and quartz. [GLACIAL TILL]
						(2.10)		*At 1.40m occasional low cobble content of mudstone and sandstone. Cobbles are angular to rounded. (1.40m)*
		1.80	HV	75 (kPa)				
					61.42	2.50		Stiff, laminated and fissured brown mottled light grey, friable SILTY CLAY with occasional mudstone and sandstone lithorelicts and coal fragments. [WEATHERED CHESTER FORMATION]
		2.70	HV	120 (kPa)		(0.80)		
					60.62	3.30		*End of Trial Pit at 3.30m*

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0

Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.30m begl due to strata encountered.
4. Live roots observed to 0.50m depth.

Method, Plant, Stability, Dimensions
0.00 - 3.30m JCB 3CX
Trial pit sides stable
L = 2.60m
W = 0.65m

Logger
AG

Checked By: JB

Created using Pebble Geo

Trial Pit

TP12
PHOTO PAGE

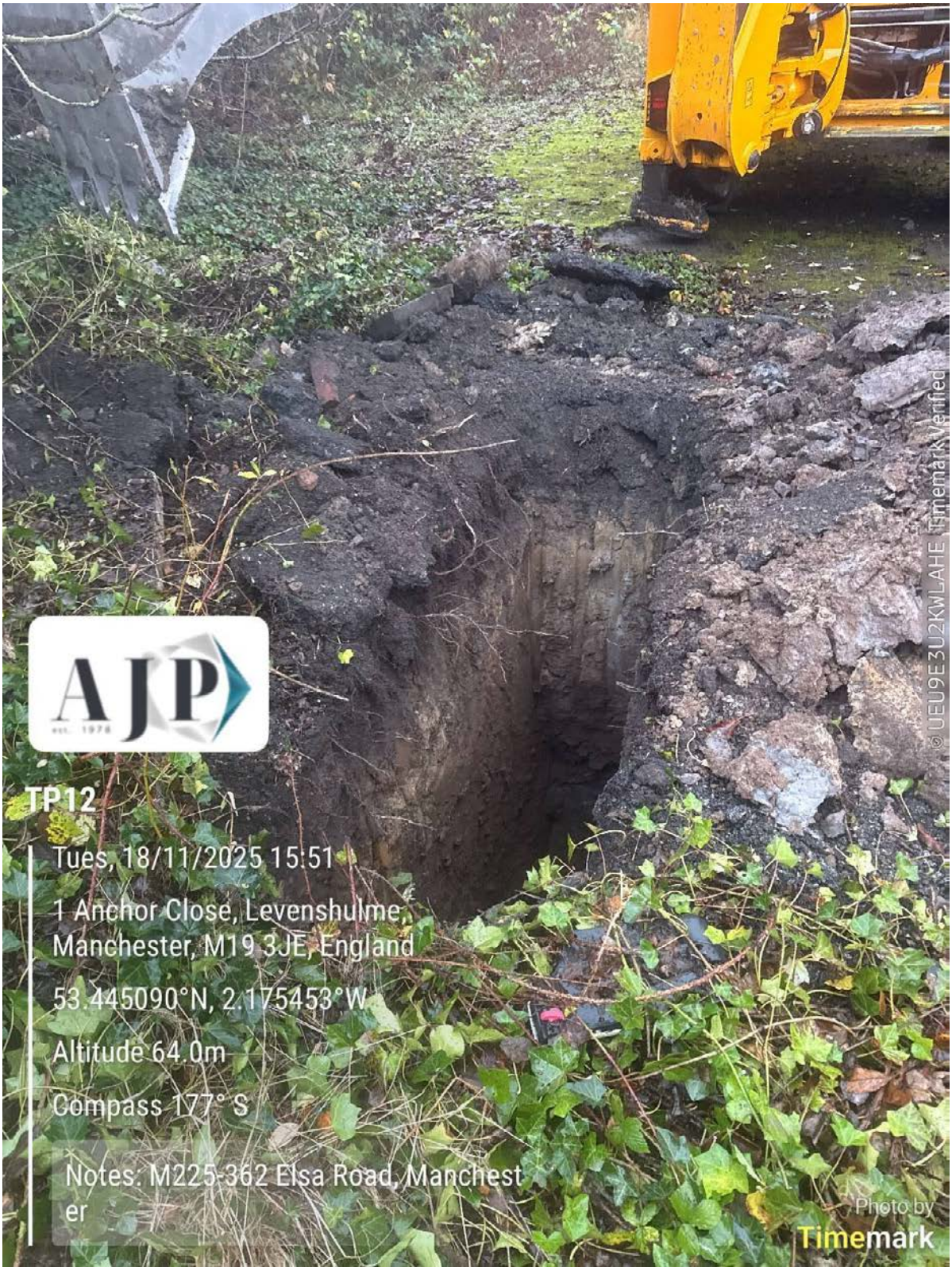
Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388440.67	394267.70	63.92	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited



Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.30m begl due to strata encountered.
4. Live roots observed to 0.50m depth.

Method, Plant, Stability, Dimensions
0.00 - 3.30m JCB 3CX
Trial pit sides stable
L = 2.60m
W = 0.65m

Logger
AG

Checked By: JB

Trial Pit

TP12

PHOTO PAGE

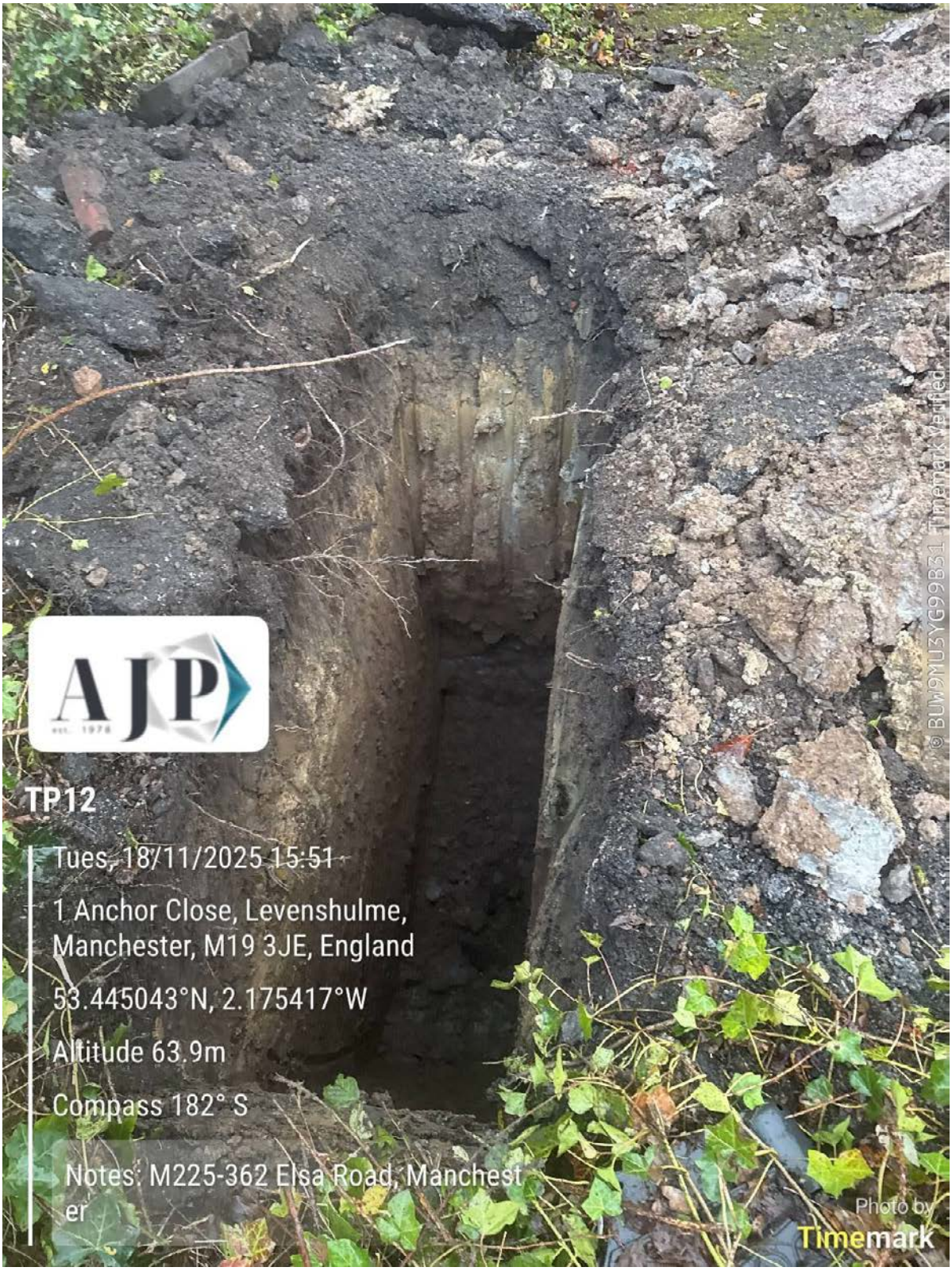
Hole Type	Easting	Northing	Ground Level (m)	Scale
TP	388440.67	394267.70	63.92	1:25

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-18	2025-11-18

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited



Remarks
1. Exploratory hole location scanned with CAT before commencement.
2. No groundwater encountered.
3. Trial pit terminated at 3.30m begl due to strata encountered.
4. Live roots observed to 0.50m depth.

Method, Plant, Stability, Dimensions
0.00 - 3.30m JCB 3CX
Trial pit sides stable
L = 2.60m
W = 0.65m

Logger
AG

Checked By: JB

Window Sampler

WS01

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
WS	388376.30	394276.81	63.00	1:50

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-19	2025-11-19

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Type/ Ref	Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Description
					62.80	(0.20) 0.20		TOPSOIL: Soft, dark brown slightly gravelly sandy SILT. Sand is fine. Gravel is fine angular to rounded flint with abundant roots.
						(0.60)		Firm to stiff, brown, light brown and mottled orange-brown slightly gravelly, slightly sandy SILTY CLAY. Sand is fine. Gravel is angular to sub-rounded flint and quartz. [GLACIAL TILL]
		0.90 1.00	HV SPT(C)	84 (kPa) N=15 (1,3/3,3,4,5)	62.20	0.80		
						(0.90)		Stiff, brown, light brown and mottled orange-brown slightly gravelly SILTY CLAY. Gravel is angular to sub-rounded flint and quartz with occasional coal fragments. [GLACIAL TILL]
		1.80 1.90 2.00	HV D SPT(C)	130 (kPa) N=32 (3,6/7,8,8,9)	61.30	1.70		Stiff, laminated and fissured brown mottled light grey, friable SILTY CLAY with mudstone and sandstone lithorelicts and coal fragments. [WEATHERED CHESTER FORMATION]
		2.90 3.00	HV SPT(C)	130 (kPa) N=33 (8,6/7,7,8,11)				*At 2.80m occasional fine sand pocket. (2.80m)*
▽						(3.75)		
		3.80 4.00	HV SPT(C)	130 (kPa) N=38 (5,7/7,9,10,12)				
		5.00	SPT(C)	N=50 (7,8/10,12,14,14)				
					57.55	5.45		*End of Borehole at 5.45m*

Remarks
1. Exploratory hole location scanned with CATand GENNY prior to breaking ground.
2. Groundwater encountered at 3.50m -Seepage
3. Borehole terminated at 5.45m begl- SPT refusal.
4. Borehole backfilled with arisings upon completion.

Method, Plant, Stability, Dimensions
0.00 - 5.45m

Logger
AG

Checked By: JB

Created using Pebble Geo

Window Sampler

WS02

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
WS	388340.51	394266.61	63.04	1:50

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-19	2025-11-19

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Type/ Ref	Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Description
					62.64	(0.40) 0.40		TOPSOIL: Firm dark brown slightly sandy SILTY CLAY. Sand is fine with occasional roots.
		0.90	HV	82 (kPa)				Firm to stiff, brown, light brown and mottled orange-brown slightly gravelly SILTY CLAY. Gravel is angular to sub-rounded flint and quartz with occasional coal fragments, sand pocket and trace roots. [GLACIAL TILL]
		1.00	SPT(C)	N=18 (2,2/4,4,4,6)	61.74	(0.90) 1.30		
		1.60	D					Stiff, light brown and orange-brown mottled light grey slightly sandy SILTY CLAY. Sand is fine with occasional angular coal fragments. [GLACIAL TILL]
		1.80	HV	130 (kPa)				
		2.00	SPT(C)	N=33 (4,6/7,8,8,10)				
		2.80	HV	130 (kPa)		(2.50)		
		3.00	SPT(C)	N=31 (5,6/6,7,8,10)				
		4.00	SPT(C)	N=36 (6,7/7,8,10,11)	59.24	3.80		Stiff, laminated and fissured brown mottled light grey, friable SILTY CLAY with mudstone and sandstone lithorelicts and coal fragments. [WEATHERED CHESTER FORMATION]
		5.00	SPT(C)	N=32 (6,8/8,7,7,10)				
		6.00	SPT(C)	N=50 for 295mm (7,8/9,13,14,14 for 70mm)		(2.64)		
					56.60	6.44		*End of Borehole at 6.44m*

Remarks
1. Exploratory hole location scanned with CATand GENNY prior to breaking ground.
2. No groundwater encountered.
3. Borehole terminated at 6.44m begl- Traget depth reached
4. 50mm ID HDPE gas/groundwater monitoring standpipe installed to 3.00m begl. Response zone between 1.00m and 3.00m with gravel filter. Flush Cover at surface.

Method, Plant, Stability, Dimensions
0.00 - 6.44m

Logger
AG

Checked By: JB

Window Sampler

WS03

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
WS	388372.41	394242.26	63.51	1:50

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-19	2025-11-19

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Type/ Ref	Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Description
						(0.35)		TOPSOIL: Soft, dark brown sandy SILT. Sand is fine with abundant roots.
					63.16	0.35		
						(0.35)		Stiff, brown, light brown and mottled orange-brown slightly gravelly, slightly sandy SILTY CLAY. Sand is fine. Gravel is angular to sub-rounded flint and quartz. [GLACIAL TILL]
					62.81	0.70		
		0.90	HV	110 (kPa)				
		0.90	D					
		1.00	SPT(C)	N=13 (2,1/3,3,3,4)				Stiff, brown, light brown and mottled orange-brown slightly gravelly SILTY CLAY. Gravel is angular to sub-rounded flint and quartz with occasional coal fragments, sand pocket and trace roots. [GLACIAL TILL]
	▽							
		1.90	HV	130 (kPa)				
		2.00	SPT(C)	N=39 (4,6/7,10,10,12)		(2.72)		
		2.90	HV	130 (kPa)				
		3.00	SPT(C)	N=50 for 270mm (9,9/11,13,15,11 for 45mm)				
					60.09	3.42		*End of Borehole at 3.42m*

Remarks
1. Exploratory hole location scanned with CATand GENNY prior to breaking ground.
2. Groundwater encountered at 1.50m - Seepage
3. Borehole terminated at 3.42m begl- SPT refusal.
4. Borehole backfilled with arisings upon completion.

Method, Plant, Stability, Dimensions
0.00 - 3.42m

Logger
AG

Checked By: JB

Window Sampler

WS04

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
WS	388343.38	394218.74	63.44	1:50

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-19	2025-11-19

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Type/ Ref	Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Description
					63.09	(0.35) 0.35		TOPSOIL: Soft, dark brown slightly gravelly sandy SILT. Sand is fine. Gravel is fine angular to rounded flint with abundant roots.
		0.90	HV	78 (kPa)				Firm becoming stiff, brown, light brown and mottled orange-brown slightly gravelly, slightly sandy SILTY CLAY. Sand is fine. Gravel is angular to sub-rounded flint and quartz with occasional rootlets. [GLACIAL TILL]
		1.00	SPT(C)	N=17 (2,2/3,4,5,5)	62.14	(0.95) 1.30		
		1.70	HV	100 (kPa)				Stiff, brown, light brown and mottled orange-brown slightly gravelly SILTY CLAY. Gravel is angular to sub-rounded flint and quartz with occasional coal fragments, sand pocket and trace roots. [GLACIAL TILL]
		2.00	SPT(C)	N=38 (5,6/8,9,9,12)		(1.60)		
		2.70	D					
		2.80	HV	126 (kPa)	60.54	2.90		
		3.00	SPT(C)	N=41 (6,8/8,9,11,13)				Stiff, laminated and fissured brown mottled light grey, friable SILTY CLAY with mudstone and sandstone lithorelicts and coal fragments. [WEATHERED CHESTER FORMATION]
		4.00	SPT(C)	N=38 (7,7/7,8,11,12)		(2.54)		
		5.00	SPT(C)	N=50 for 290mm (7,7/11,12,14,13 for 65mm)				
					58.00	5.44		*End of Borehole at 5.44m*

Remarks
1. Exploratory hole location scanned with CATand GENNY prior to breaking ground.
2. No groundwater encountered.
3. Borehole terminated at 5.44m begl- SPT refusal.
4. Borehole backfilled with arisings upon completion.

Method, Plant, Stability, Dimensions
0.00 - 5.44m

Logger
AG

Checked By: JB

Window Sampler

WS05

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
WS	388397.50	394177.26	64.17	1:50

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-19	2025-11-19

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Type/ Ref	Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Description
					64.02	(0.15) 0.15		MADE GROUND: Concrete with reinforced rebar.
					63.87	(0.15) 0.30		MADE GROUND: Brown and light grey mottled SAND and GRAVEL. Sand is fine to medium. Gravel is medium to coarse, angular to rounded flint, brickwork and concrete fragments.
		0.50	ES			(0.60)		
		1.00	SPT(C)	N=15 (2,2/3,3,4,5)	63.27	0.90		MADE GROUND: Soft, dark grey and dark green slightly gravelly sandy SILTY CLAY. Sand is fine. Gravel is fine to medium, sub-angular to angular quartz, brickwork, glass and ash.
		1.70	HV	104 (kPa)		(1.00)		Firm becoming stiff, brown, light brown and mottled orange-brown slightly gravelly, slightly sandy SILTY CLAY. Sand is fine. Gravel is angular to sub-rounded flint and quartz with occasional coal fragments. [GLACIAL TILL]
		2.00	SPT(C)	N=39 (6,6/8,8,10,13)	62.27	1.90		Stiff, laminated and fissured brown mottled light grey, friable SILTY CLAY with mudstone and sandstone lithorelicts and coal fragments. [GLACIAL TILL]
		2.50	D			(1.53)		
		2.80	HV	106 (kPa)				
		3.00	SPT(C)	N=50 for 275mm (8,10/12,14,14,10 for 50mm)				
					60.74	3.43		*End of Borehole at 3.43m*

Remarks
1. Exploratory hole location scanned with CATand GENNY prior to breaking ground.
2. No groundwater encountered.
3. Borehole terminated at 3.43m begl- SPT refusal.
4. 50mm ID HDPE gas/groundwater monitoring standpipe installed to 3.00m begl. Response zone between 1.00m and 3.00m with gravel filter. Flush Cover at surface.

Method, Plant, Stability, Dimensions
0.00 - 3.43m

Logger
AG

Checked By: JB

Window Sampler

WS06

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
WS	388431.62	394211.00	64.54	1:50

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-19	2025-11-19

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Type/ Ref	Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Description
					64.39	(0.15) 0.15		MADE GROUND: Asphalt.
		0.40	ES			(0.45)		MADE GROUND: Soft, dark brown, brown and black slightly gravelly sandy SILT. Sand is fine. Gravel is fine to medium, sub-angular to angular quartz, brickwork, glass and ash.
					63.94	0.60		
		1.00	SPT(C)	N=15 (2,2/3,3,4,5)		(0.50)		Firm to stiff, brown, light brown and mottled orange-brown slightly gravelly, slightly sandy SILTY CLAY. Sand is fine. Gravel is angular to sub-rounded flint and quartz with occasional coal fragments. [GLACIAL TILL]
					63.44	1.10		
		1.60	D					Stiff, brown, light brown and mottled orange-brown slightly gravelly SILTY CLAY. Gravel is angular to sub-rounded flint and quartz with occasional coal fragments and trace roots. [GLACIAL TILL]
		1.90	HV	90 (kPa)				
		2.00	SPT(C)	N=37 (6,6/7,9,10,11)		(2.34)		
		2.90	HV	130 (kPa)				
		3.00	SPT(C)	N=50 for 295mm (6,7/10,13,13,14 for 70mm)				
					61.10	3.44		*End of Borehole at 3.44m*

Remarks
1. Exploratory hole location scanned with CATand GENNY prior to breaking ground.
2. No groundwater encountered.
3. Borehole terminated at 3.44m begl- SPT refusal.
4. 50mm ID HDPE gas/groundwater monitoring standpipe installed to 3.00m begl. Response zone between 1.00m and 3.00m with gravel filter. Flush Cover at surface.

Method, Plant, Stability, Dimensions
0.00 - 3.44m

Logger
AG

Checked By: JB

Window Sampler

WS07

Sheet 1 of 1

Hole Type	Easting	Northing	Ground Level (m)	Scale
WS	388399.02	394243.63	63.80	1:50

Project Name	Project No.	Start Date	End Date
Elsa Road, Levenshulme, Manchester	M225-362	2025-11-19	2025-11-19

Client
Seddon Construction Limited

Consultant
AJP Midlands LTD

Contractor
H & C Plant Hire and Regional Drilling Limited

Inst/ Backfill	Water Levels	Samples and Tests: Depth (m)	Type/ Ref	Results	Level (m)	Depth (thickness) (m)	Strata: Legend	Description
					63.50	(0.30) 0.30		TOPSOIL: Soft, dark brown slightly gravelly sandy SILT. Sand is fine. Gravel is fine angular to rounded flint with abundant roots.
		0.80	D					Firm to stiff, brown, light brown and mottled orange-brown slightly gravelly, slightly sandy SILTY CLAY. Sand is fine. Gravel is angular to sub-rounded flint and quartz with occasional coal fragments. [GLACIAL TILL]
		0.90	HV	100 (kPa)		(1.00)		
		1.00	SPT(C)	N=15 (2,2/3,3,4,5)				
					62.50	1.30		Stiff, laminated and fissured brown mottled light grey, friable SILTY CLAY with mudstone and sandstone lithorelicts and coal fragments. [WEATHERED CHESTER FORMATION]
		1.90	HV	130 (kPa)				
		1.90	D					
		2.00	SPT(C)	N=37 (6,6/8,9,9,11)		(1.70)		
		2.90	HV	130 (kPa)				
		3.00	SPT(C)	N=50 (7,8/11,13,13,13)	60.80	3.00		*End of Borehole at 3.00m*

Remarks
1. Exploratory hole location scanned with CATand GENNY prior to breaking ground.
2. No groundwater encountered.
3. Borehole terminated at 3.45m begl- SPT refusal.
4. Borehole backfilled with arisings upon completion.

Method, Plant, Stability, Dimensions
0.00 - 3.45m

Logger
AG

Checked By: JB

Created using Pebble Geo