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PROPERTY

Laing O' Rourke
HRI HPU
Huddersfield
Sustainable Drainage Statement

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Sustainable Drainage Statement

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1. introduction

1.1 A Sustainable Drainage Statement (SDS) sets out the principles of drainage design for a development and summarises the reasoning behind the chosen design. This includes consideration of national and local guidance, justification of specific flow rates, volumes of attenuated storage, as well as the appropriate level of treatment to be provided to surface water runoff.

1.2 BWB Consulting (BWB) has been consulted by Laing O'Rourke (the Client) to prepare a Sustainable Drainage Statement to support a full planning application for the demolition of the existing building 17 and subsequent redevelopment into a two-storey extension to the Pharmaceutical Manufacturing Unit (PMU). Building 17 is a derelict building located between two occupied buildings (building 16 and 18). The redevelopment will be confined to the existing footprint of Building 17 and its associated external areas as per the Architects' site plan. There is also an inclusion for the redevelopment of some of the existing shared external areas.

1.3 The site is located in the Lindley area of Huddersfield, approximately 295m northwest of Huddersfield Royal Infirmary. It comprises a brownfield site currently occupied by a disused warehouse and associated hardstanding. The site is bound by Union Street to the north with residential properties beyond, the wider Acre Mills site to the east and south, and School Street West to the west. Access to the site will be retained from School Street West.

1.4 A Flood Risk Assessment (FRA) has been developed separately for the site (reference 232808-BWB-ZZ-XX-T-W-0001_FRA) and is to be read in conjunction with this sustainable drainage strategy.

1.5 The report has been produced with reference to the following:

- National Planning Policy Framework (NPPF).
- Environment Agency (EA) Standing Advice.
- National standards for sustainable drainage systems June 2025
- Calder Catchment Strategic Flood Risk Assessment (SFRA) July 2016
- West Yorkshire Combined Authority Sustainable Drainage Guidance

1.6 The location of the site is illustrated within **Figure 1.1**, with contextual information provided within **Table 1.1**.

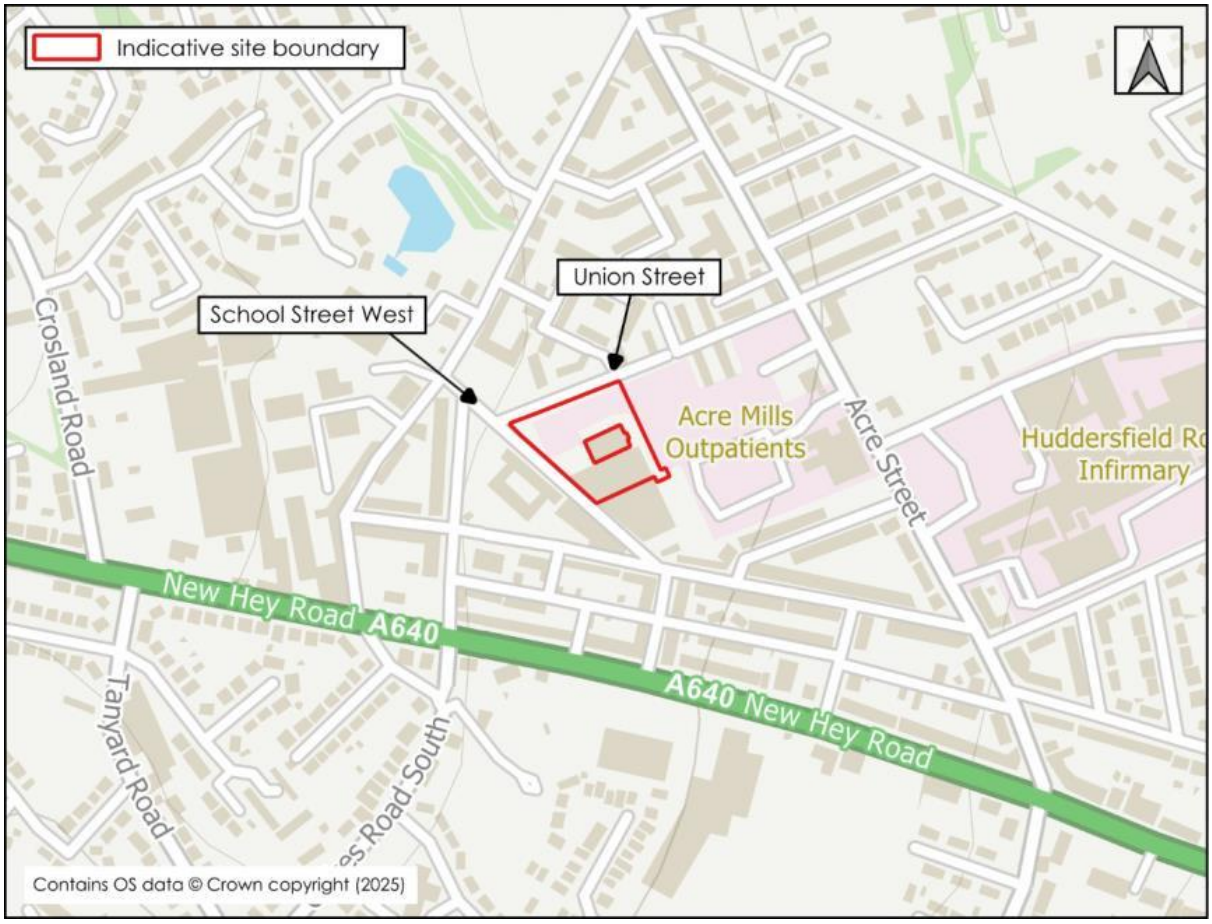


Figure 1.1: Site Location

Table 1.1: Site Details

Site Name	HRI PMU
Location	Huddersfield
Nearest Postcode	HD3 3ET
Easting and Northing	411820, 417648
Application Site Area (ha)	0.570
Impermeable Site Area (ha)	0.430
Development Type	Industrial
Lead Local Flood Authority	Kirklees Council

Sustainable Drainage Guidance

1.7 Sustainable Drainage Systems (SuDS) aim to reduce the impact of development by replicating the natural runoff regime in a sustainable, cost-effective manner whilst protecting water quality and reducing pollution. The four key objectives of SuDS design

are to achieve improvements in water quantity, water quality, amenity provision and biodiversity.

1.8 Relevant guidance from Kirklees Council has been used to inform the drainage strategy outlined within this report. Requirements specific to this site include:

- Details of the existing drainage network must be provided, including impermeable areas, existing sewers, and connectivity to watercourses or highway drains.
- Infiltration tests should be undertaken in accordance with BRE 365 guidance where infiltration SuDS features are proposed.
- Disposal of surface water should follow the hierarchy set out in Part H of the Building Regulations:
    - Infiltration to ground (where practicable)
    - Discharge to a watercourse
    - Discharge to a surface water sewer or highway drain
    - Discharge to a combined sewer (only if other options are not feasible)
- The drainage strategy should incorporate appropriate SuDS techniques from the SuDS Management Train to improve water quality, reduce runoff quantity, and enhance amenity and biodiversity.
- A detailed maintenance plan must be prepared, identifying responsibilities and procedures for all SuDS components to ensure long-term performance.

1.9 Given the development proposals, a 45% allowance for the potential implications of climate change has been applied, in accordance with the Environment Agency's (EA) guidance.

2. Design Assumptions and Limitations:

- The current proposals are indicative and based on information available at the time of writing this report.
- It is assumed that the existing infrastructure is adequately sized and in suitable condition to serve the proposed development.
- Flow rates for the hydrobrake will be confirmed during detailed design and following receipt of up-to-date drainage survey information.
- The strategy is predicated on the principle that replacing the existing drainage system within the same footprint will result in a similar situation as existing and thus should not have a negative impact on the existing drainage.
- It is assumed the existing internal / external drainage networks inside the development boundary are to be removed to allow redevelopment of the site.
- It is assumed the potential existing culvert passing through site does not affect the current proposals. Further design checks to be undertaken once location, extent, and existing levels of the culvert have been confirmed or if no existing culvert is confirmed by site surveys. A request for information has been submitted to the LLFA pursuant to the Design process.

3. EXISTING CONDITIONS

Existing Site

3.1 The site is a brownfield site comprising a disused warehouse in the south and external yard to the north for the Huddersfield Royal Infirmary. The warehouse consists of building 16, building 17 and building 18. Building 17 is a derelict building with Asbestos Containing Materials (ACM). The scope of this document focusses on the drainage strategy associated with a full planning application for the demolition of the existing building 17 and subsequent redevelopment into a two-storey extension to the Pharmaceutical Manufacturing Unit (PMU). Google Imagery shows the yard be abandoned with signs of overgrown vegetation. Access to the site is on the south and west side via School Street West.

3.2 A topographical survey has been completed by Survey Solutions in May 2024 and is included as Appendix 1. The survey shows the site gently slopes down towards the south. The highest point of the site is approximately 209m AOD in the northwest and falls to approximately 203m in the southeast. The topographical survey indicates the north of the site is relatively flat.

Existing Drainage

3.3 A drainage and utilities survey has been procured for this site, provided in Appendix 4. Records indicate the presence of the following assets within the site:

- A 225mm diameter private surface water sewer is shown to be located within the northwest of the site, originating within Union Street and flowing in a southerly direction. However, the onwards connectivity of the sewer is unknown.
- A number of private surface water manholes are located throughout the site however the onwards connectivity is currently unknown and is subject to further survey.
- A watermain is located within the northwest of the site, originating from Union Street and terminating at building 18. Further details on the watermain are unknown.

3.4 The existing site drainage plan produced by Curtins Consulting in 2007 (drawing reference 28509F-13-01) is included in Appendix 1 and provides further clarity on the approximate location of the existing private sewers. The plans note a further 150 mm private surface water sewer that originates within the northeast of the site and flows in a southerly direction before being directed to the east via a 225 mm diameter pipe.

3.5 The plan shows pipe runs within the existing buildings footprint consisting of 2 separate 150 mm diameter private surface water sewers. At the time of writing the exact location and condition of the sewers is unknown however it has assumed that these were grubbed out to allow for the new construction.

3.6 In the vicinity, the site is surrounded by Yorkshire Water assets, which comprises of combined water sewers, located primarily on Acre Street and School Street W. These sewers serve as the ultimate outfalls for the existing site drainage. The asset plans are provided in Appendix 1.

3.7 It is noted that whilst drainage survey has been procured, the survey uses QL-B4 and QL-D descriptors from the Publicly Available Specification (PAS 128) where information has been taken from records and where required routes have been assumed.

Existing Outfall

3.8 Based on the available information, there is inconsistency in the records with regards to the outfall manhole located to the east of the site (EX MH1 on drainage plan). The drainage and utilities survey carried out by Survey Solutions confirms the presence of the manhole but identifies it as a foul manhole with an additional incoming connection of unknown origin. The outgoing connection is shown to flow west towards Acre Mills car park. To be confirmed following further drainage investigations prior to finalising the site drainage design.

3.9 Historic design drawings produced by Curtins Consulting in 2007 (drawing reference 28509F-13-01) for this site and the adjacent Acre Mills car park indicate that the outgoing pipe from this manhole is a 150 mm diameter private combined sewer flowing west. Additionally, Acre Mills car park drawings prepared by BWB in 2015 show an incoming 150 mm diameter private pipe from the east, which is also identified as combined sewer.

3.10 It is assumed for the purposes at this stage that the outfall from the proposed drainage network will connect to an existing private combined sewer via the manhole located to the east of the site.

3.11 Detailed CCTV survey to be carried out by others to confirm final discharge point with respect to its sewer status, connectivity, condition and levels prior to detailed design stage.

Existing Assumed Culvert

3.12 It is assumed that there may be an existing culvert drain that runs below the site, running from north of the building and exiting to the east towards the Acre Mills car park. This has been based on drawing "Proposed Infrastructure Layout" reference no 28509F-13-01 dated July 2009.

3.13 Anecdotal evidence provided by the Local Planning Authority as part of a predevelopment application also suggests that a culvert may be present at this location due to historical land uses.

3.14 Historic BWB drawings "Existing Drainage Layout" reference no LDS/539/302 and "Proposed Drainage Layout" reference no. LDS/539/302 also confirm the presence of the assumed culvert drain. This culvert drain continues to flow in the easterly direction into the Acre Mills park. The historic plans from Curtins and BWB have been provided in Appendix 1.

3.15 The details with regards to the alignment, status, condition and levels of the culvert are unknown at this stage. As such the alignment has been assumed based on a worst-case scenario.

3.16 A detailed drainage CCTV survey to be carried out at stage 4 by others to confirm the presence, condition, capacity of existing drainage assets on site.

Existing Runoff Rates

3.17 An assessment of the existing surface water runoff rates from the site has been undertaken based on a site area of 0.43ha and is summarised within Table 2.1. This area reflects the application boundary excluding Building 18 and permeable surfaces that will not be positively drained. The total planning application site area is 0.57ha.

3.18 The runoff rates have been estimated using the IH124 method, with appropriate prorated adjustments for a site of less than 50ha, as recommended in Interim Code of Practice for Sustainable Drainage[1]. This was undertaken within Micro Drainage, which makes the necessary adjustments for small sites automatically.

Table 3.1: Existing Runoff Rate from the Site

Return Period (Yrs.)	Runoff Rate (l/s) for 1ha	Runoff Rate (l/s) for 0.43ha
1	6.3	2.7
Mean Annual Flow Rate (QBAR)	7.3	3.1
30	12.9	5.6
100	15.3	6.6

3.19 Following feedback from the Kirklees Council and due to uncertainties with respect to existing drainage layout, the discharge rate from the site has been established for the outgoing 150mm combined sewer connection based on the hydraulic capacity.

3.20 A Colebrook-White calculation has been undertaken using the following parameters:

- Pipe Roughness – 0.6mm
- Pipe Diameter – 150mm
- Fall – 1 in 100
- Gravity – 9.8m/s2

3.21 This assessment produces a discharge rate of 17.7l/s, which demonstrates the proposed maximum discharge rate (Section 3) can be accommodated within the existing outfall. The Colebrook-White assessment is provided in Appendix 1.

[1] The National SUDS Working Group (2004), Interim Code of Practice for Sustainable Drainage

4. SURFACE WATER DRAINAGE STRATEGY

Proposed Site

4.1 The proposed works will comprise demolition of the existing building 17 and subsequent redevelopment into a two-storey extension to the building 16 Pharmaceutical Manufacturing Unit (PMU). Building 17 is a derelict building located between two occupied buildings (building 16 and 18). the redevelopment of building 17 will reduce the footprint of the building by ~10% to the west, with the remaining area to be used as staff entrance point.

4.2 The northern section of the site will feature the following:

- A vehicular entrance and associated car parking provision
- Footways and landscaped areas for staff access
- Additional soft landscaping to contribute towards achieving the site's 10% Biodiversity Net Gain (BNG) target.

4.3 The proposed Architects masterplan and Proposed Catchment Plan is included in Apprendix 2 and Appendix 10 respectively.

Proposed Drainage

4.4 The proposed development will utilise a gravity-fed drainage network designed to collect runoff from the building and external hardstanding areas. This will comprise carrier pipes in combination with filter drains and kerb drains, conveying flows to a geocellular attenuation tank. Runoff from the service yard and car park will pass through a bypass separator to remove hydrocarbons prior to discharge into the attenuation tank. Flows from this network will discharge into the proposed combined sewer, with discharge restricted by a flow control device, limiting flows to a proposed rate as mentioned in section 4.22, accounting for the 30% betterment. The final connection will be to the existing combined manhole via a 150 mm diameter site outfall.

4.5 The outfall pipe has been assessed using the Colebrook-white equation to determine its hydraulic capacity; to confirm this is suitably sized for the proposed site discharge.

4.6 A separate network located to the east of Building 17 will collect runoff from rainwater pipes and convey flows to the attenuation tank.

4.7 The site also incorporates permeable paving to manage runoff from the western areas of the site, together with soft landscaping to the north designed to achieve a Biodiversity Net Gain (BNG) target of 10%. These landscaped areas will provide natural infiltration and assist in reducing surface water runoff.

4.8 Existing private drainage within the site will remain in place to serve the existing Building 16 and Building 18, which are unaffected by the proposed works.

4.9 A copy of the proposed drainage layout including the outfall details is provided in Appendix 1.

Drainage Hierarchy

4.10 The surface water drainage strategy will comply with the Yorkshire Water Pre-Planning Sewerage Enquiry and the National Planning Policy Framework which states that the priority for discharging surface water runoff shall be as follows:

Infiltration

4.11 Information published by the British Geological Survey (BGS) indicates that the site is not underlain by superficial deposits; it is directly underlain by the Soft Bed Flags (Sandstone) bedrock. This is defined by the EA as a Secondary A aquifer. Secondary A aquifers are described as permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. Artificial ground is not indicated to be present on site.

4.12 Based on this high-level assessment on underlying ground conditions and groundwater levels, disposal of surface water via infiltration is not feasible in this instance.

Watercourse

4.13 The closest EA Main River is the River Colne approximately 1.4km south of the site. The closest watercourse to the site is an UOW approximately 465m south in William Wood. The nearest surface waterbody is Low Hills Pond, approximately 165m north of the site.

4.14 It is not known whether there is an existing connection to the River Colne. A high-level review suggests that establishing a new direct connection to the River Colne is unlikely to be achievable due to the length of the connection and the need to cross third party land.

Surface Water and/or Combined Sewer

4.15 Consultation has been undertaken with the Local Planning Authority (LPA), and it has been confirmed that the drainage hierarchy principle is not required for this site, as there will be no increase in net runoff leaving the site. The principle of discharge to the existing public combined sewer was therefore accepted in principle as part of pre planning consultation and consultation with the local drainage authority.

4.16 The site will discharge into the existing combined manhole to the immediate east of the building 17. To mitigate the risk of overwhelming the existing network and to comply with best practice, it is proposed that the discharge from the site will be flow-restricted using a flow control device. This will ensure that runoff is released at a controlled rate.

4.17 Rather than achieving conventional betterment, the strategy focuses on maintaining the existing outfall discharge rate while delivering improvements through SUDS integration and site reconfiguration.

4.18 This includes reducing the overall impermeable area from 100% to ~70% by introducing soft landscaping and permeable paving, to promote natural infiltration. These measures, combined with the SuDS Management Train approach, will enhance water quality, provide attenuation, and manage runoff across the site.

4.19 The response from the LPA can be found in Appendix 1.

Peak Flow Control

4.20 Kirklees Council SUDS guidance and current best indicates that for previously developed sites, if it is not possible to restrict to greenfield rates, a minimum betterment of 30% should be applied to the brownfield rate. If out falling to a public sewer, the sewerage undertaker requirement for betterment should also be considered.

4.21 In this case, betterment is achieved by restricting flows to the existing brownfield rate, less 30%. Existing discharge rates have been calculated using topographical survey information available to establish the existing extents of impermeable area on site.

4.22 Based on the existing brownfield discharge rate of 6.6l/s and requirement of 30% betterment, a discharge rate of 4.62l/s will be adopted as the maximum permissible discharge into the existing sewer. A flow control device will be installed upstream of the existing sewer to restrict surface water flows, accounting for the proposed foul flows also draining to the combined network.

Attenuation Requirements

4.23 The site will provide appropriate measures to incorporate sustainable attenuation and conveyance within the constraints of the site masterplan.

4.24 A quick storage estimate has been undertaken using Microdrainage software. Consequently, an approximate attenuation volume in the range of 253m^3 to 383m^3 would be required for the 1 in 100-year plus 45% climate change rainfall event. This assessment utilises the FSR method and considers the following parameters:

- Volumetric Runoff Coefficient (Summer): 0.750
- Volumetric Runoff Coefficient (Winter): 0.840
- M5-60: 19.0mm
- Ratio: 0.305
- Discharge Rate: 4.7l/s

4.25 It should be noted that the above method is indicative only and actual volumes can vary depending on the final layout of the site and procurement of CCTV drainage survey.

4.26 The attenuation will be achieved using geocellular storage cells to the east of building 18.

4.27 It should be noted that the above method is likely to overestimate the existing surface water attenuation requirements. A more detailed analysis of runoff rates and attenuation volumes will be carried out at detailed design stage.

4.28 The Quick Storage Estimate calculations are provided in Appendix 1.

Sustainable Drainage Systems

4.29 Surface water runoff from the development will be managed through a combination of sustainable drainage measures.

- Roof drainage will capture the majority of rainfall via downpipes.
- External areas will be drained using filter drains and where possible porous paving subject to detailed design and overall maintenance regime.
- External levels design will ensure that impermeable areas are positively drained and that flow routes are directed away from building thresholds where possible
- If flow routes do not adequately direct flow away from building thresholds, threshold drains will be installed at level access points to prevent surface water ingress into buildings.

4.30 Runoff will then be conveyed through a combination of proposed and existing below-ground pipework before discharging into the public sewer network.

4.31 The drainage strategy incorporates SuDS features in line with best practice guidance, including:

- Geocellular attenuation tanks to provide storage and control discharge rates.
- Permeable paving to promote infiltration and reduce surface water runoff from hardstanding areas.
- Filter drains and kerb drains to intercept and convey runoff efficiently.
- Bypass separators to remove pollutants from service yard and car park runoff.
- Soft landscaping and vegetated areas to encourage natural infiltration and contribute to the site's BNG targets.

Residual Risk and Designing for Exceedance

4.32 It is recommended that the final layout uses the proposed road infrastructure to provide drainage exceedance (overland flood flow) routes through the development and towards the ponds for events in excess of the capacity of the drainage system.

4.33 In the event that the capacity of the attenuated storage is exceeded, ground levels should be profiled to direct overland flows towards the southern corner.

4.34 In the event that the capacity of the attenuation is exceeded, flood water will be directed away from buildings and pool within the car parking areas. Significant excess flow would leave the site via the vehicular entrance/exit and drain to the adjacent car parking area thus preventing flooding to downstream property.

4.35 In addition to the volume of storage provided within the main attenuation, there will be capacity within upstream pipes and manholes which has not been accounted for at this stage and a further level of redundancy to the network will therefore be provided.

5. Foul Water Drainage

5.1 A foul water strategy has been developed for the site to establish discharge rates, points of connection to the network and to identify any significant constraints.

5.2 It is proposed that Building 17 will be served by foul drainage pop-up connections, which will discharge via a new gravity foul pipe network at an unrestricted rate to the existing combined sewer. The exact locations of the foul pop-ups will be confirmed during detailed design and are subject to coordination with the Architect's masterplan.

5.3 The proposed point of discharge for the foul water is an existing combined sewer manhole to the east of the building.

5.4 It is noted from the Pre-Planning Sewerage Enquiry (PPSE) response from Yorkshire Water that they have no objection to the discharge into the public combined sewer in Acre Street; however, they have advised that the system we are proposing to connect to is private and not recorded on their asset plans.

5.5 Detailed CCTV drainage survey to be carried out at stage 4 to confirm location and status of existing foul drainage

5.6 To service the proposed development in accordance with the nationally recognised standards, and to provide accessible, maintainable, and resilient means of disposing of foul water flows, a combination of existing and new foul water drains will be utilised.

5.7 An indicative layout for the foul drainage is included in Appendix 1

6. Maintenance

6.1 The proposed drainage network will remain private and therefore a management company will be appointed for all maintenance.

6.2 It is envisaged that the Operation and Maintenance manual will be developed at the detailed design stage, but some examples are included below.

i. All drainage features should be located in open areas which are readily accessible.

ii. Gullies should be inspected and de-silted at least once a year, where necessary.

iii. Pipes, manholes and silt traps should be inspected and de-silted at least once a year, where necessary.

iv. If permeable paving is incorporated within the layout, it should be swept a minimum of every 6 months to maintain flow capacity of the joints between blocks.

v. The surface water attenuation areas will be predominantly dry and the base will be seeded with a wildflower grass seed mix that can tolerate wet ground conditions.

vi. Regular inspections of the attenuation basin should be undertaken to remove litter/debris, invasive/colonising vegetation and silt build up as necessary. Inlet and outlet structures to be regularly inspected, with remedial work as required to maintain water flows and prevent silt/vegetation build up.

vii. Vegetation/grass with the attenuation basin should be maintained appropriately to allow establishment and promote habitat formation, without impeding the operation of the inlet and outlet structure.

viii. Hydro-brakes should be inspected every 6 months, litter/debris and silt build up should be removed as necessary.

7. SUMMARY

7.1 This SDS has been prepared to support a full planning application for the redevelopment of Building 17 into a two-storey extension to the Pharmaceutical Manufacturing Unit (PMU). The level of detail provided is commensurate with the nature of the proposals.

7.2 There are several private surface water sewers within the site and Yorkshire water combined water sewers in the surrounding highway network. The ultimate discharge point is assumed to be the existing combined sewer.

7.3 Historic drawings and anecdotal evidence suggest a culvert may be present beneath the site, exiting towards Acre Mill car park to the east. The alignment and condition of the culvert are unknown, and CCTV survey is required to confirm details.

7.4 The redevelopment reduces the building footprint by approximately 10% and introduces landscaped areas and permeable paving to achieve Biodiversity net gain targets.

7.5 Proposed drainage includes gravity fed surface water network within the northern yard incorporates filter drains, kerb drains, permeable paving and geocellular storage. Runoff from the external yard will pass through a bypass separator before discharging to the combined sewer via a flow control device.

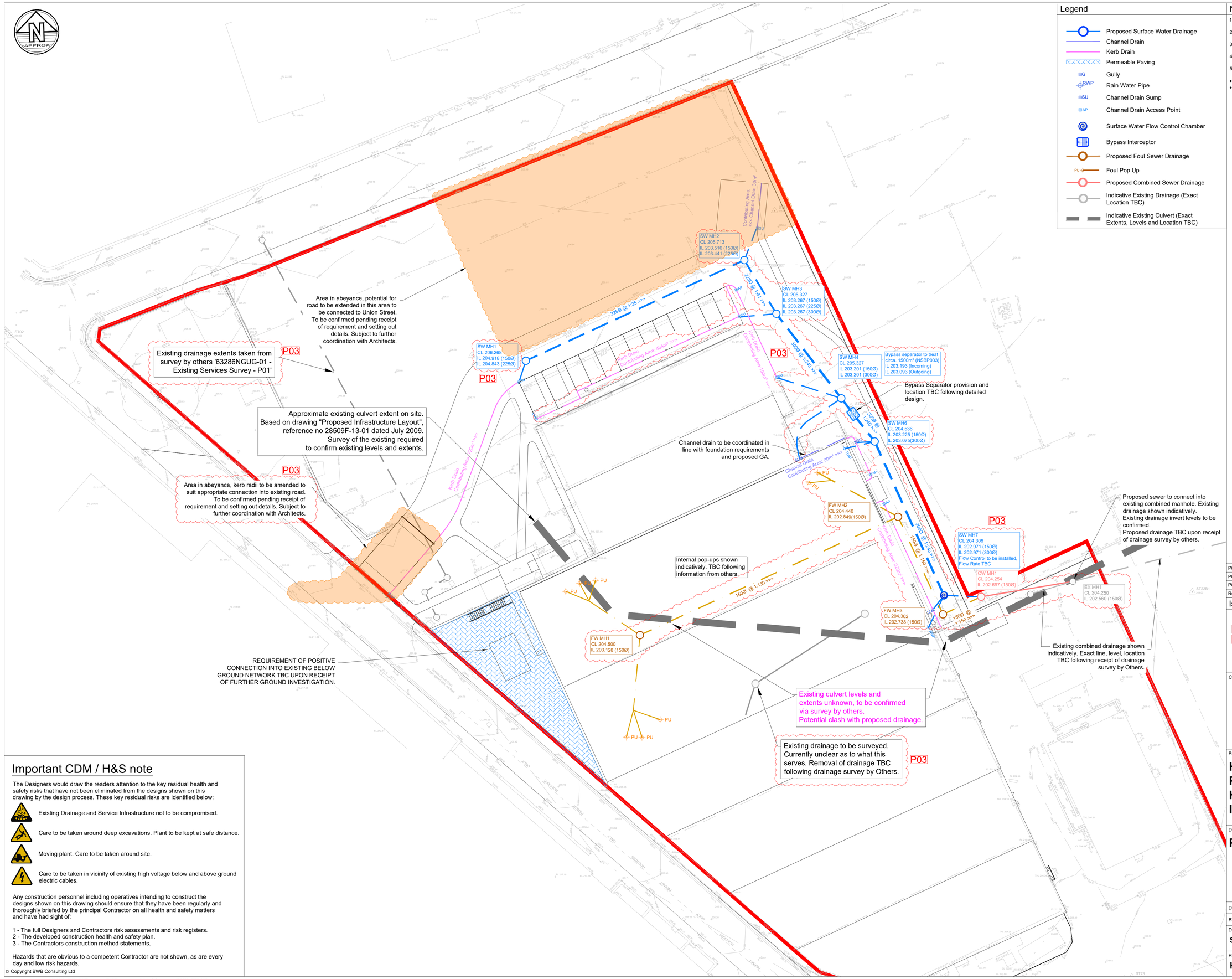
7.6 Flows will be restricted to 4.6l/s achieving a 30% betterment over existing brownfield discharge rate in line with Kirklees Council and Best Practice.

7.7 Attenuation storage of approximately 253m^3 to 383m^3 will be provided within geocellular tanks, supplemented by upstream pipe capacity to accommodate the 1 in 100 years plus 45% climate change event.

7.8 Foul drainage will discharge via a new gravity network to the existing combined sewer manhole to the east of the site, in accordance with Yorkshire Water's Pre-planning application.

APPENDICES

Appendix 1: Proposed Site Drainage Layout



Legend

- Proposed Surface Water Drainage
- Channel Drain
- Kerb Drain
- Permeable Paving
- G — Gully
- RWP — Rain Water Pipe
- SU — Channel Drain Sump
- AP — Channel Drain Access Point
- Surface Water Flow Control Chamber
- Bypass Interceptor
- Proposed Foul Sewer Drainage
- PU — Foul Pop Up
- Proposed Combined Sewer Drainage
- Indicative Existing Drainage (Exact Location TBC)
- Indicative Existing Culvert (Exact Extents, Levels and Location TBC)

Notes

1. Do not scale this drawing. all dimensions must be checked/ verified on site. if in doubt ask.
2. This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
3. All dimensions in millimetres unless noted otherwise. all levels in metres unless noted otherwise.
4. Any discrepancies noted on site are to be reported to the engineer immediately.
5. Existing drainage information has been taken from Curtin's drawing(s):
   - '60038/SKD01' dated October 2007
   - '285095-13-01' dated July 2009

PROPOSALS PRESENTED IN THIS PACKAGE ARE SUBJECT TO CHANGE DURING DETAILED DESIGN AND PROJECT TEAM REVIEW

IT IS ASSUMED THAT THE EXISTING DRAINAGE HAS THE REQUIRED CAPACITY TO ALLOW FOR DRAINAGE FROM THIS SCHEME TO DRAIN WITHOUT FLOODING.

FLOW RATES OF OUTFALL INTO EXISTING DRAINAGE TBC UPON RECEIPT OF DRAINAGE SURVEY.

IT IS ENVISAGED THAT ATTENUATION WILL BE REQUIRED FOR THIS SCHEME. EXACT STORAGE REQUIREMENTS, FORM AND LOCATION OF ATTENUATION TO BE AGREED.

DUE TO INSUFFICIENT AS BUILT INFORMATION, ALL EXISTING DRAINAGE NOTED ON THIS DRAWING HAS BEEN ASSUMED AND DRAWN INDICATIVELY BASED ON DRAWINGS LISTED IN NOTES ABOVE.

INTERACTION BETWEEN EXISTING DRAINAGE ASSOCIATED WITH BUILDING 18 AND PROPOSED DRAINAGE TBC UPON RECEIPT OF DRAINAGE SURVEY.

LOCATION OF RAINWATER PIPES AND FOUL WATER POP-UPS ARE SHOWN INDICATIVELY. TO BE CONFIRMED BY ARCHITECT/M&E ENGINEER.

Important CDM / H&S note

The Designers would draw the readers attention to the key residual health and safety risks that have not been eliminated from the designs shown on this drawing by the design process. These key residual risks are identified below:

- Existing Drainage and Service Infrastructure not to be compromised.
- Care to be taken around deep excavations. Plant to be kept at safe distance.
- Moving plant. Care to be taken around site.
- Care to be taken in vicinity of existing high voltage below and above ground electric cables.

Any construction personnel including operatives intending to construct the designs shown on this drawing should ensure that they have been regularly and thoroughly briefed by the principal Contractor on all health and safety matters and have had sight of:

1 - The full Designers and Contractors risk assessments and risk registers.
2 - The developed construction health and safety plan.
3 - The Contractors construction method statements.

Hazards that are obvious to a competent Contractor are not shown, as are every day and low risk hazards.

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Rev	Date	Details of issue / revision	Drw	Rev
P03	12.09.25	For Review & Acceptance by the Client	AB	RAD
P02	18.08.25	For Review & Acceptance by the Client	US	RAD
P01	15.07.25	For Review & Comment	AB	RAD

Issues & Revisions

BWB A CAF GROUP COMPANY
Birmingham | 0121 233 3322
Leeds | 0113 233 8000
London | 020 7407 3879
Manchester | 0161 233 4260
Nottingham | 0115 924 1100
www.bwbconsulting.com

Client: LAING O'ROURKE

Project Title
Huddersfield Pharmaceutical Unit Huddersfield Royal Infirmary (Acre Mill Site)

Drawing Title
Proposed Drainage Layout

Drawn:	A. Biag		Reviewed:	R. Duncan	
BWB Ref:	232808	Date:	Jul' 25	Scale@A1:	1:250

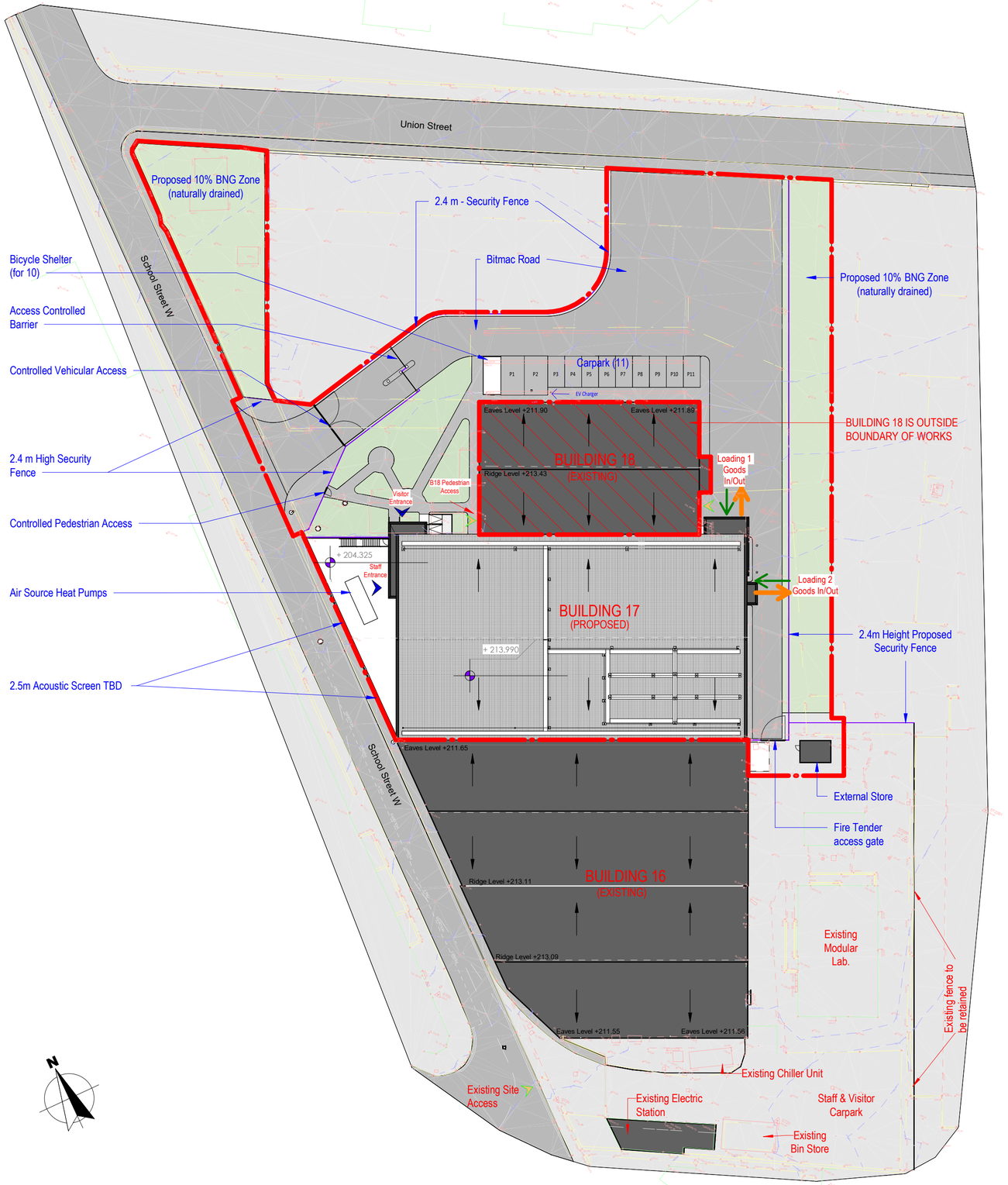
Drawing Status: **S5 - For Review and Acceptance by the Client**

Project - Originator - Zone - Level - Type - Role - Number	Status	Rev
HPU-BWB-XX-EX-DG-C-520500	S5	P03

J:\2023\232808-HRI PMU Workshop\ProjectDelivery\01-WIP\Drawings\HPU-BWB-XX-EX-DG-C-520500 - Drainage Layout.dwg

Appendix 2: Architect's Masterplan

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[v1.6]



Site Plan External Surfacing

- Boundary of Works
- Out of Boundary of Works
- Bitmac Road
- Proposed Soft Lanscaping
- Acoustic Screen
- Security Fence

NOTES
All dimensions and levels to be checked on site
Any descrepancies are to be reported to the Architect before any work commences
This drawing shall not be scaled to ascertain any dimensions, work to figured dimensions only
This drawing shall not be reproduced without express written permission from AFL Architects Ltd.

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AFL does not accept liability for any loss or degradation of any information held in the drawing resulting from the translation from the original file format to any other file format or from the recipients reading of it in any other programme.

rev no.	rev date	rev by	description
P07	14.11.2025	SO	Issued for Planning Application
P06	31.10.2025	SO	Updated Site Plan (main gate location, carpark, bike shelter, grassland, security fence and boundary or works updates)
P05	16.10.2025	SO	Updated Boundary of Works Layout
P04	08.10.2025	SO	Site Plan Issue for Information

project
Huddersfield Pharmaceutical Unit

location
Huddersfiled Royal Infirmary (Acre Mill Site)

Employer

client
Calderdale & Huddersfield NHS Foundation Trust

AFL Architects
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twitter.com/AFLArchitects

key plan

drawing title
Proposed Site Plan

AFL job number 233148 | scale @ A2 As indicated | drawn SO | checked MM | rev date 14.11.2025

dwg purpose	status	rev
Review&Acceptance	S5	P07

bim project | origin | zone | level | type | role | 6-digit no.
HPU-AFL-ZZ-ZZ-DR-A-001001

Appendix 3: Survey Solutions Topographical Survey







Appendix 4: Survey Solutions Drainage Survey

PAS 128: 2014 QUALITY LEVEL GUIDE

QL-LEVEL	DESCRIPTION	QCI	QL-LEVEL	DESCRIPTION
QL-D	Service positions taken from records.	none	QL-B2	Accurate in vertical & plan* using only one geophysical technique
QL-C	Location inferred by geophysical technology	maybe	QL-B1	Accurate in vertical & plan* using more than one geophysical technique
QL-B4	Location inferred by geophysical technology and at least one trial excavation*	YES	QL-A	Precisely surveyed, verified and recorded*
QL-B3	Location inferred by geophysical technique and with trace wire or sonde*			

DETECTION METHOD
IN ACCORDANCE WITH PAS 128: 2014 SURVEY TYPE B

DRAINAGE SURVEY
All accessible Manholes and Inspection chambers have had their respective covers lifted with pipe sizes, inverts, chamber sizes/type and service data recorded from ground level. All connections from DPs, Gullies, Drains, VP's, RE's and lamp holes have been proven wherever possible using audible connections (AC) and/or sonde instrumentation where applicable. Where these methods have proved unsuccessful then assumed (AR) straight line connections will be shown.

CCTV DRAINAGE SURVEY
All accessible Manholes and Inspection chambers have had their respective covers lifted with pipe sizes, inverts, chamber sizes/type and service data recorded from ground level. Pipework has been traced, accessed and collected for post processing. Drainage layout, including manhole covers not located by topographical survey, may be taken from CCTV chainage and will be shown as indicative only.

Electricity
Elec cables will have been predominantly located using EML methodology with electronically derived depths shown. GPR techniques will be employed to achieve greater quality levels as required.

British Telecoms
BT cables will have been predominantly located using EML methodology with electronically derived depths shown. GPR techniques will be employed to achieve greater quality levels as required. Due to current laws and legislation protecting all BT apparatus, cabling can only be located remotely. We therefore compare all our telecom findings against record information to produce the final service layout. In some instances, where high amount of cable ducts are present, we may only be able to identify a linear centre peak signal rather than identifying all the individual duct positions. For further information regarding Telecoms apparatus, please contact Openreach directly.

Cable TV &
CTV and/or Com cables will have been predominantly located using EML methodology with electronically derived depths shown. GPR techniques will be employed to achieve greater quality levels as required.

Fibre Optic
FO cables will have been predominantly located using GPR methodology. This is due to the materials used within fibre optic cabling. In some rare instances, tracer cabling or conductible non fibre optic cabling will be present within some or all ducting. When this is the case, both EML and GPR methodology will be combined to identify service network and achieve greater quality levels.

Lighting, Traffic Signal & Security Cables
LC, TS and/or Sec cables will have been predominantly located using EML methodology with electronically derived depths shown. GPR techniques will be employed to achieve greater quality levels as required.

Gas & Water Inc. Fuel Pipes and Hot Water Pipes
GM/GS and/or VM/VS pipe work will have been attempted and located using both EML & GPR methodology with electronically derived depths shown for the former and depths to crown levels shown for the latter.
When the Gas/Water pipe work is constructed using conductible materials, then we are able to to employ multiple geophysical techniques to identify service network and achieve greater quality levels. When a non conductible material is used, GPR methodology will be employed to locate and plot the final service layout.

Ground Penetrating Radar
GPR methodology is used to identify and locate all non metallic, non conductible piping and cabling. We also employ GPR to obtain a greater accuracy levels on EML located services. The GPR has a greater success rate on pipe or service diameter upward of Ø63mm.Ø63mm, as size increments increase, so does the chance of detection. The GPR can produces varying results and as such, wouldn't be used as an independent utility surveying instrument.

Unidentified Traces
All UiTs will have been predominantly located using EML methodology with electronically derived depths shown. GPR techniques will be employed to achieve greater quality levels as required. Every effort has been made to identify the service but in this instance, is not achievable. We recommend excavation work to determine identity and depth where applicable.

Scarring (QL-C)
Scarring has been identified on site with a potential of an undetectable service present.

Assumed Routes & Taken from Records (QL-B4/D)
Assumed routes (AR) are shown if there is evidence that a service exists but we are unable to trace it whilst on site. The surveyor will attempt to locate various risers/cs/valves/meters (service evidence) etc. around site area to successfully determine an assumed route between these points. If there is little evidence on site but they believe a service is still present, then a common sense approach to an assumed route shall be employed.

Taken from records (TFR) are service routes that are taken from STAT record plans or previous survey information and overlaid onto our drawings.

SURVEY RECOMMENDATIONS

To undertake a CCTV drainage survey of the entire site area to establish a more comprehensive drainage network, and asset condition of the pipework.

The sewers with high levels of silt or blockages to be jetted to extend the CCTV drainage survey, if any of these areas are deemed critical or of high importance.

Due to the geophysical nature of subsurface technology, we always recommend excavation works to be carried out within critical areas for verification and to eliminate the possibility of undetectable services present.

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UTILITIES & UNDERGROUND INVESTIGATIONS

ABBREVIATIONS & SYMBOLS

1D.SC	1 Duct S Cables	DCr	Depth To Crown	RBC	Rectangular Brick Chamber
Ø	Diameter	DI	Depth To Invert	RCC	Rectangular Conc Chamber
AC	Audible Connection	DS	Depth To Silt	RE	Rodding Eye
AG	Above Ground	DTB	Depth To Base	SA	Survey Abandoned
AR	Assumed Route	DTW	Depth To Water	SL	Silt Level
BL	Bees Level	DTS	Depth To Surcharge	SuL	Surcharge Level
CB	Concrete Benching	EBD	External Backdrop	TFR	Taken From Records
CBC	Circular Brick Chamber	EOT	End Of Trace →	UTC	Unable To CCTV
CCC	Circular Conc Chamber	IBD	Internal Backdrop	UTDO	Unable To Determine Outlet
CI	Cast Iron	Inv	Invert Level	UTE	Unable To Excavate
CPC	Cast Plated Chamber	Ovh	Overhead	UTS	Unable To Survey
CVL	Crown Level	PDR	Prior Depth Response	UTT	Unable To Trace
CU	Carries Utilities	RB ■	Red Bend	WL	Water Level

BT CABLE(S)
OVERHEAD BT CABLE(S)
COMMUNICATIONS CABLE(S)
CABLE TV CABLE(S)
EMPTY DUCT
ELECTRIC CABLE(S)
OVERHEAD ELECTRIC CABLE(S)
FIBREOPTIC CABLE(S)
FUEL PIPE(S)
GAS MAIN
GAS SERVICE
GROUND PENETRATING RADAR (GPR) TRACE
HOT WATER PIPE
LOW VOLTAGE CIRCUIT
OIL PIPELINE
VISIBLE SCARRING
SECURITY CABLING
TELECOM CABLE(S)
TRAFFIC CABLE(S)
UNIDENTIFIED SERVICE
UNIDENTIFIED TRACE
WATER MAIN
WATER SERVICE
WATER TANK/TOWER
COMBINED WATER RISING MAIN
EFFLUENT WATER
FOUL SEWER
FOUL WATER RISING MAIN
SURFACE WATER
SURFACE WATER SEWER
SURFACE WATER RISING MAIN
INVESTIGATION EXTENTS

Note: UTILITIES COMMENT BOX (GENERAL NOTES)
DEPTH TO SERVICE

AUDIBLE CONNECTION
SERVICE ABOVE GROUND
CAMERA UNDER WATER
SERVICE OVERHEAD

DRAWING NOTES

All below ground details shown have been identified from above ground without excavation. Survey Solution use electro-magnetic and/or ground penetrating radar (GPR) methods to investigate for underground utilities, services and features. Results using these methods are not infallible and we recommend trial excavations are carried out for verification of positions, depths and identification.

Any areas on the drawing where services or features have not been shown are not necessarily clear of services or features but are an indication that no items have been identified during our investigations. All reasonable care and normal good practice should still be employed during design and construction processes.

Certain types of services such as plastic or concrete pipes, some conduit and ducting where direct access can not be achieved for tracing may not be shown and alternative locating methods should be used.

Survey Solutions has used all reasonable care to research available service records but the completeness or use of the service records supplied to or by Survey Solutions cannot be guaranteed . Therefore Survey Solutions cannot be held responsible for any features annotated as Taken from records (TFR).

Depths obtained using electro-magnetic or GPR are effected by ground conditions and should be treated as indicative only. Electro-magnetic depths to utilities and services are generally taken to the centre of a feature, GPR depths to the top of a feature and drainage depth shown to inverts, unless otherwise indicated.

Drainage pipe sizes will be obtained without entering the chamber and therefore should be treated as approximate. Pipe dimensions which have not been obtained visually will be taken from records when available.

All services, drainage and utilities routes are assumed straight between access points, unless otherwise stated. The numbers of cables in runs will not be shown unless specifically requested. All services are below ground unless indicated.

Services, utilities and features may not have been surveyed if obstructed or not reasonably visible or accessible at the time of survey.

Survey Solutions accept no responsibility for the completeness or accuracy of either the topographical survey or base mapping on this project.

All critical dimensions and measurements should be checked and verified with any errors or discrepancies notified to Survey Solutions immediately. The accuracy of the digital data is the same as the plotting scale implies. All dimensions are in metres unless otherwise stated.

The contractor must check and verify all site and building dimensions, levels, utilities and drainage details and connections prior to commencing work.

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Do not scale from this drawing.

GENERAL SYNOPSIS

This survey has been carried out in accordance with PAS 128: 2014 & our version of the Royal Institution of Chartered Surveyors (RICS) specification for Measured Surveys of Land, Buildings and Utilities. Our survey extents have been agreed and confirmed with formal acceptance of 63286 from AFL Architects. If you have any queries regarding the final services layout, please may we ask you to carefully read all the information within this title block in its entirety before continuing to do so.

TOPOGRAPHICAL/ DWG DRAWING INFORMATION
TOPOGRAPHICAL SURVEY DATE 04/2024

SURVEY TYPE	DESCRIPTION	EFFECT ON SURVEY RESULTS
TOPO	Survey Solutions	
OUTDATED		
OS		
NTS		

GENERAL SITE CONDITIONS
AVERAGE

ADDITIONAL INFORMATION	EFFECT ON SURVEY RESULTS

DESKTOP UTILITY RECORDS (PAS 128: 2014 SURVEY TYPE D) PREREQUISITE FOR PAS 128: 2014 SURVEY TYPE B COMMISSIONED: YES

UTILITY	AVAILABILITY	UTILITY COMPANY PROVIDER
SEWER	PUBLIC	YORKSHIRE WATER
WATER MAIN	PUBLIC	YORKSHIRE WATER
GAS MAIN	PUBLIC	NORTHERN GAS NETWORKS
TELECOM	PUBLIC	BRITISH TELECOMS
CABLE TV	PUBLIC	VIRGIN MEDIA
ELECTRICITY	PUBLIC	NORTHERN POWERGRID
OIL PIPES	NO	NA
OTHER	PUBLIC	CITYFIBRE

REV	DESCRIPTION	DRAWN	CHECKED	APPR	SURVEY DATE

SURVEY SOLUTIONS
LAND SURVEYING
BUILDING SURVEYING
UNDERGROUND SURVEYING
SITE ENGINEERING
MONITORING
0845 040 5969
survey-solutions.co.uk
IPSWICH BEDFORD COVENTRY GLASGOW LONDON MANCHESTER NORWICH NOTTINGHAM TRURO

PROJECT TITLE
NHS ACRE MILL,
SCHOOL STREET WEST, HUDDERSFIELD, HD3 3EN.

DRAWING DETAIL
UTILITIES AND DRAINAGE SURVEY.
SHEET 1 OF 1

CLIENT				SCALE
AFL ARCHITECTS				1:200
SURVEYOR	SURVEY DATE	CHECKED BY	APPROVED BY	DWG STATUS
OTM	07/05/2024	JAD	JTM	FINAL
DRAWING NUMBER			REVISION	ISSUE DATE
63286NGUG-01				16/05/2024

RICS ices THE SURVEY ASSOCIATION CHAS SAFE CONTRACTOR QMS ISO 14001 : 2015 REGISTERED

Original Sheet Size A0H

Appendix 5: Curtins Plan and BWB Historic Plan

KEY

- CAR BAYS FROM CRUSHED SITE AGGREGATE (ALL CIRCULATION AREAS & DISABLED BAYS ASPHALT SURFACE FINISH)
- EXISTING BUILDINGS TO BE RETAINED
- PROPOSED PRIVATE COMBINED DRAINAGE
- PROPOSED PRIVATE PETROL INTERCEPTOR (PI)
- PROPOSED PRIVATE DRAINAGE CHANNEL
- EXISTING PRIVATE COMBINED DRAINAGE (NO LONGER EXISTS)
- EXISTING ADOPTED COMBINED SEWER

UNION STREET

ACRE STREET

SCHOOL STREET WEST

KING STREET

PU 300 VC C

PU 450 VC C

PU 375 VC C

GATIC UNISLOT CHANNEL DRAIN 31m LENGTH 100mm UNIT/ 63m LENGTH 225mm UNIT

GATIC UNISLOT CHANNEL DRAIN 38m LENGTH 150mm UNIT/ 35m LENGTH 225mm UNIT

GATIC UNISLOT CHANNEL DRAIN 40m LENGTH 225mm UNIT

GATIC UNISLOT CHANNEL DRAIN 21m LENGTH 150mm UNIT/ 18.5m LENGTH 225mm UNIT

GATIC UNISLOT CHANNEL DRAIN 14.5m LENGTH 100mm UNIT

GATIC UNISLOT CHANNEL DRAIN 32m LENGTH 150mm UNIT/ 15m LENGTH 225mm UNIT

GATIC UNISLOT CHANNEL DRAIN 9.9m LENGTH 100mm UNIT

GATIC UNISLOT CHANNEL DRAIN 29m LENGTH 150mm UNIT/ 9m LENGTH 150mm UNIT

GATIC UNISLOT CHANNEL DRAIN 9.1m LENGTH 100mm UNIT/ 12m LENGTH 150mm UNIT

GATIC UNISLOT CHANNEL DRAIN 17.1m LENGTH 150mm UNIT/ 6m LENGTH 225mm UNIT

GATIC UNISLOT CHANNEL DRAIN 8m LENGTH 100mm UNIT

GATIC UNISLOT CHANNEL DRAIN 10.6m LENGTH 100mm UNIT/ 24m LENGTH 150mm UNIT

CLASS 1 BYPASS PETROL INTERCEPTOR Ai = 0.16ha

CLASS 1 BYPASS PETROL INTERCEPTOR Ai = 2.8ha- CONNECTING PIPEWORK REPLACED

CLASS 1 BYPASS PETROL INTERCEPTOR Ai = 0.51ha

MH01 MH02 MH03 MH04 MH05 MH06

225mmø 1:167

300mmø Min 1:100

225mmø Min 1:167

150mmø 1:60

150mmø 1:50

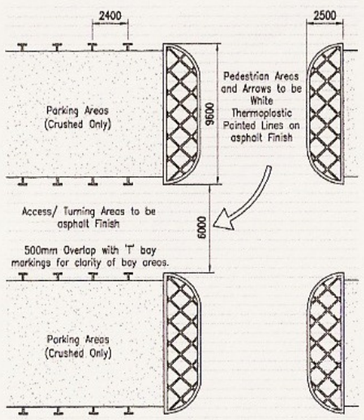
Pond

Pond

Globe Public House

Z-Block

16 17 18



TYPICAL CAR PARK LAYOUT
(SCALE 1:20)

CAPPED OF DRIANAGE

MAIN CULVERT DRIAN ON SITE LEFT IN

MANHOLE SCHEDULE

Manhole Ref	Cover Level	Outfall Level	Manhole Size	Types	
				Manhole	Cover
MH01	200.10	198.92	1200	Precast Rings	D400
MH02	200.20	198.90	1200	Precast Rings	D400
MH03	200.17	197.56	1200	Precast Rings	D400
MH04	200.75	197.38	1200	Precast Rings	D400
MH05	200.13	197.11	1500	Precast Rings	D400
MH06	199.40	196.83	1200	Precast Rings	D400

NOTES:

1. This drawing is to be read in conjunction with all relevant architects and engineers drawings and specifications.
2. Do not scale this drawing. All details and dimensions are to be checked by the contractor/fabricator prior to commencement of construction/fabrication. Any discrepancies are to be reported to the engineer.
3. Any ambiguities, omissions and errors on drawings, shall be brought to the engineers attention immediately.
4. All dimensions are in millimeters unless noted otherwise.
5. Any existing dimensions noted on this drawing are to be checked by the contractor prior to commencement of works.
6. All works in accordance with Curtins Consulting specifications.
7. For external works finished levels refer to architects details.
8. Access boxes fitted to each end of drainage channels for future maintenance purposes.

Rev:	Description:	Date:	By:	Chkd:

curtins consulting
Curtins Consulting Ltd
Woodside Mews, Clayton Wood Close, Leeds, LS16 6QE
t: 0113 274 8069 f: 0113 274 8496
e: leeds@curtins.com www.curtins.com

Status: PRELIMINARY

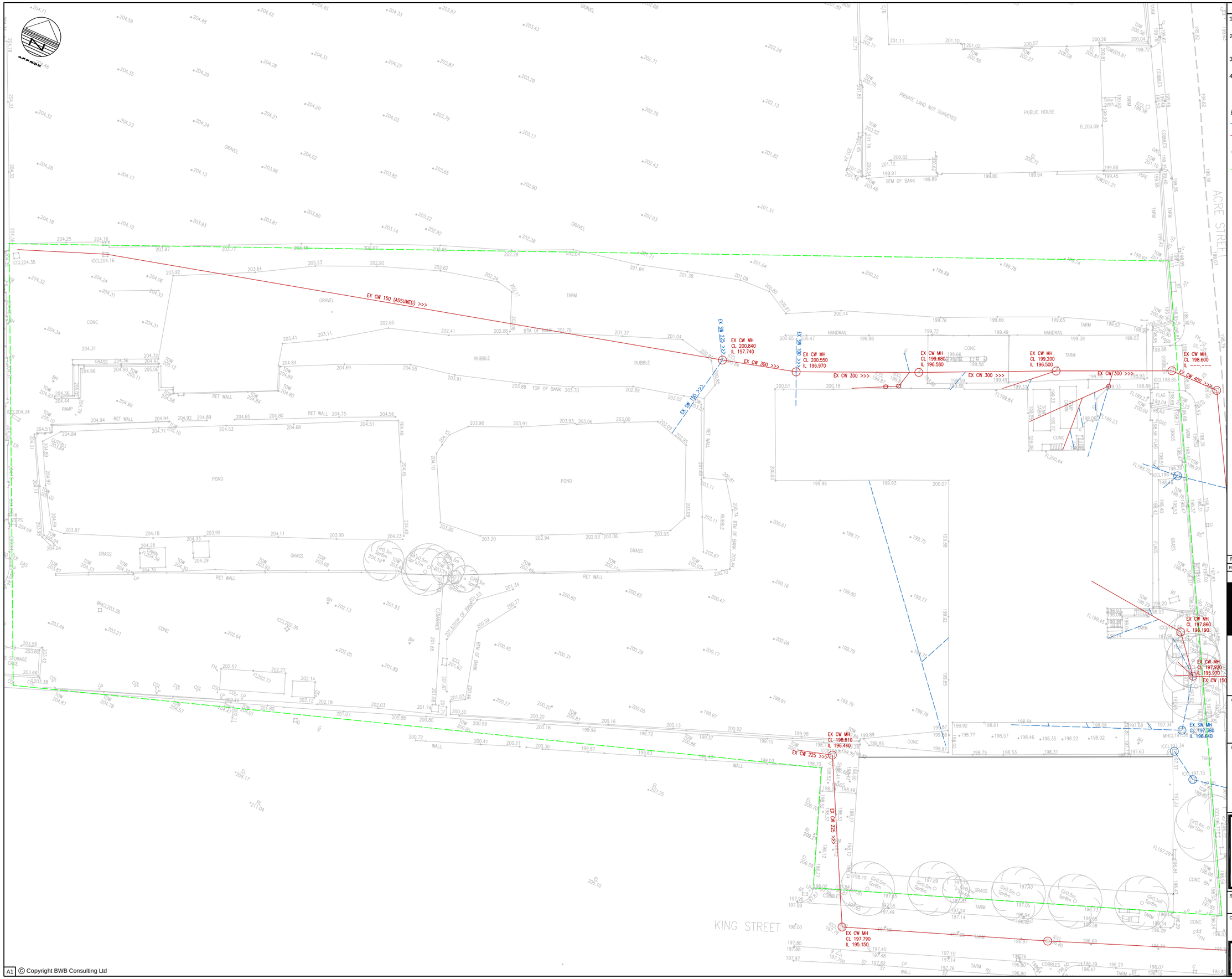
Project: TEMPORARY CAR PARK
ACRE MILLS
CALDERDALE & HUDDERSFIELD
NHS TRUST

Drg Title: PROPOSED INFRASTRUCTURE LAYOUT

Scale:	Size:	First Issue:	Drawn:	Checked:
1:500	A1	JULY09	EJN	SB

Drg No: 28509F-13-01 Rev: /

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NOTES

1. DO NOT SCALE THIS DRAWING. ALL DIMENSIONS MUST BE CHECKED/ VERIFIED ON SITE. IF IN DOUBT ASK.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, ENGINEERS AND SPECIALISTS DRAWINGS AND SPECIFICATIONS.
3. ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE. ALL LEVELS IN METRES UNLESS NOTED OTHERWISE.
4. ANY DISCREPANCIES NOTED ON SITE ARE TO BE REPORTED TO THE ENGINEER IMMEDIATELY.

KEY

- EXISTING STORM WATER DRAINAGE
- EXISTING COMBINED WATER DRAINAGE
- SW02 MH 1200 / CL 82.450 / IL 79.688 (150) — CHAMBER REFERENCE NUMBER, TYPE, INTERNAL DIAMETER (mm), COVER LEVEL (m) AND INVERT LEVEL (m) (RELEVANT PIPE DIAMETER (mm))
- SITE BOUNDARY

DETAILED DRAINAGE SURVEY TO BE CARRIED OUT TO CONFIRM ALL EXISTING DRAINAGE

Rev	Date	Description	Drawn	Auth'd
P1	26.08.11	PRELIMINARY ISSUE	RAL	SCS

AMENDMENTS

BWB CONSULTING

Integrated Engineering and Environmental Consultants

Whitehall Waterfront 2 Riverside Way Leeds LS1 4EH
T 0113 233 8000 F 0113 245 0654 W bwbconsulting.com

environmental | water | transportation | civil | structural | highways | infrastructure

Client

PENNINE PROPERTY PARTNERSHIPS LTD

Project Title

ACRE MILLS

Drawing Title

EXISTING DRAINAGE LAYOUT

Scale	Date	Drawn	Authorised
1:250	AUG '11	RAL	SCS

Drawing Status

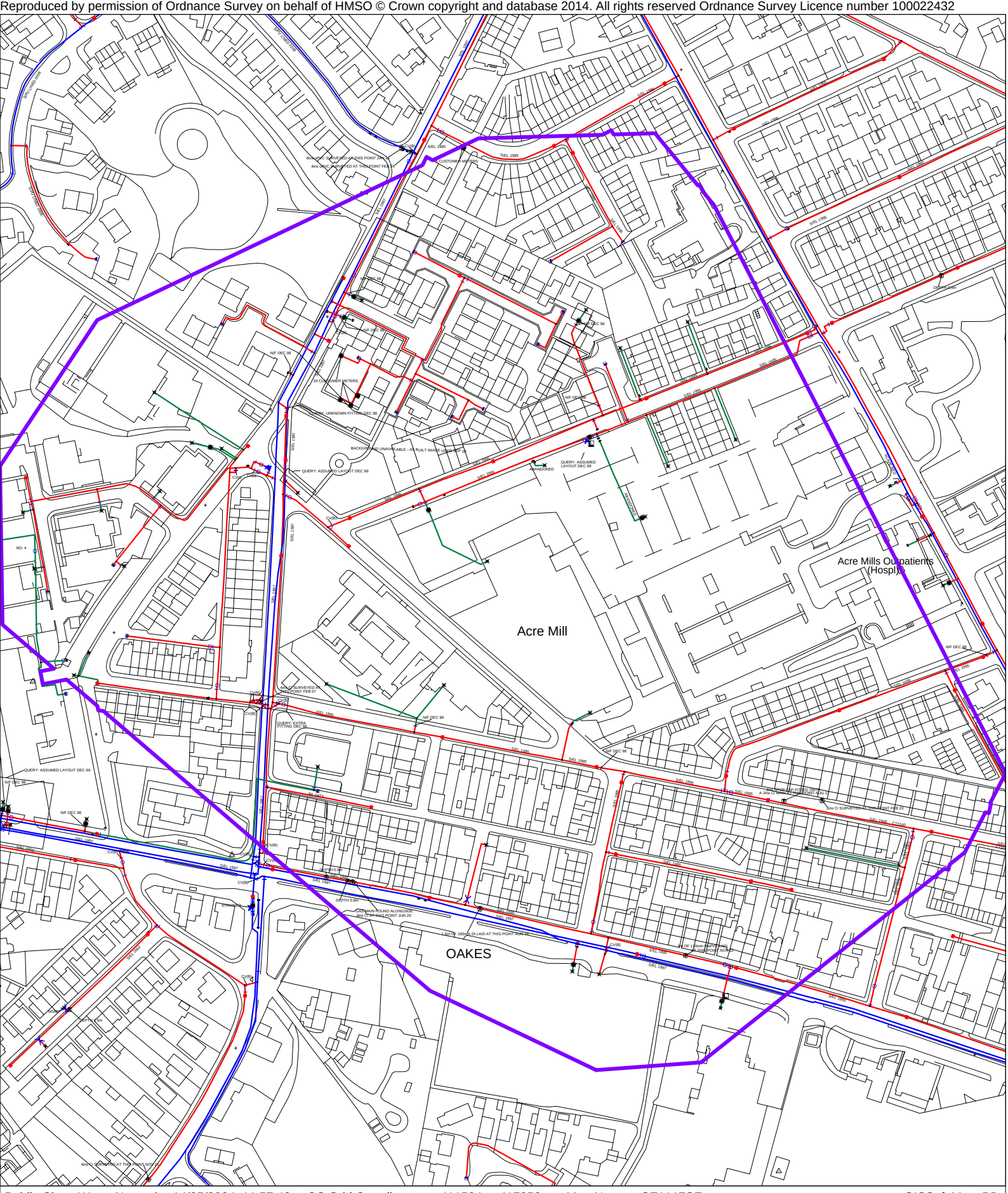
PRELIMINARY

Drawing No:	Revision
LDS/539/302	P1

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Appendix 6: Yorkshire Water Historic Plan

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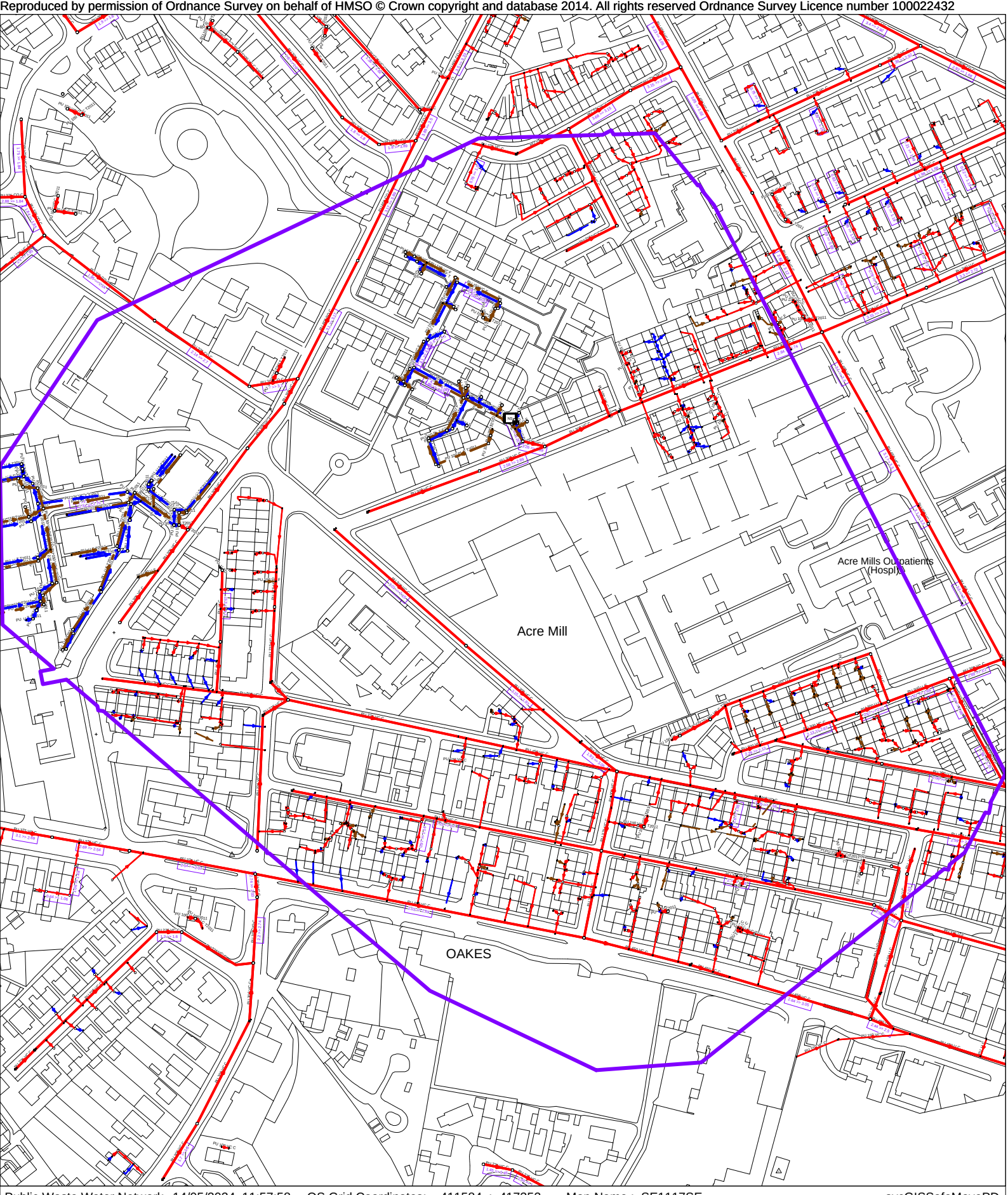


Public Clean Water Network 14/05/2024 11:57:42 OS Grid Coordinates: 411584 : 417352 Map Name : SE1117SE svcGISSafeMovePD

Registered office, Yorkshire water Services Limited. 1
Western House, Halifax Road, Bradford BD62SZ.
Registered in England and wales No. 2366682

SafeMove
A part of YorkshireWater

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Public Waste Water Network 14/05/2024 11:57:58 OS Grid Coordinates: 411584 : 417352 Map Name : SE1117SE svcGISSafeMovePD

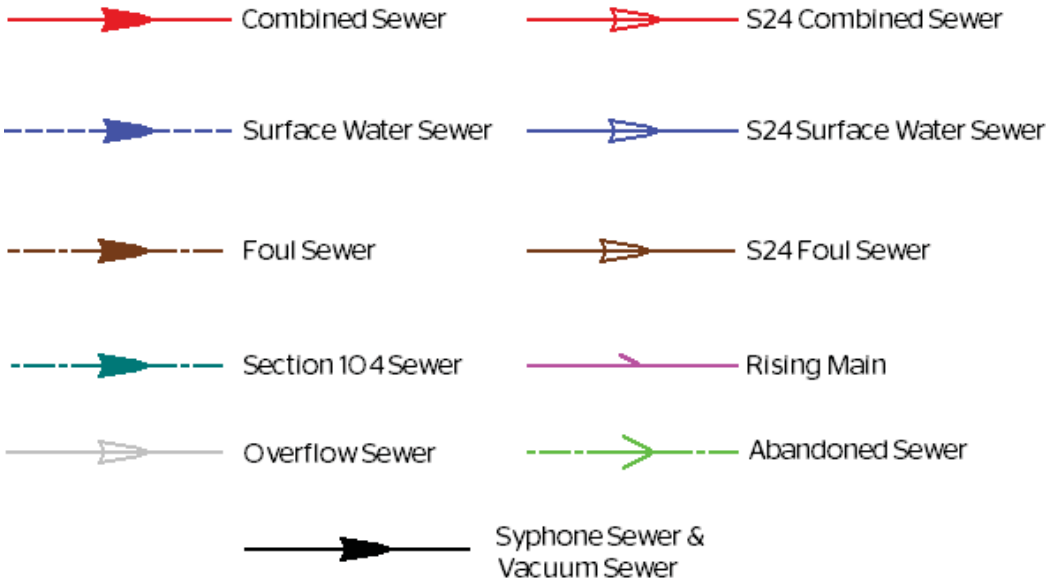
Registered office, Yorkshire water Services Limited. 1
Western House, Halifax Road, Bradford BD62SZ.
Registered in England and wales No. 2366682

SafeMove
A part of YorkshireWater

Property Identfier

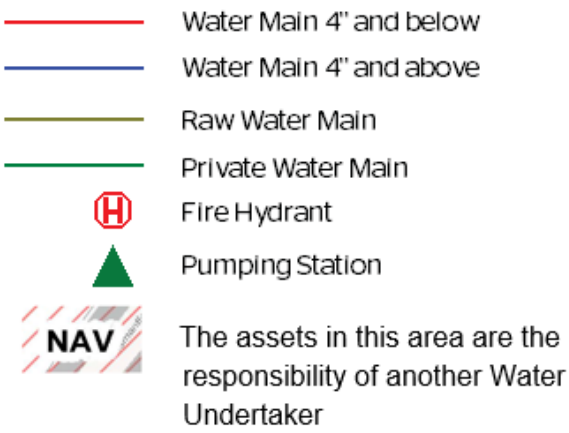


Sewer Legend



Please note that the direction of flow arrows may not always appear depending on the scale of the map.

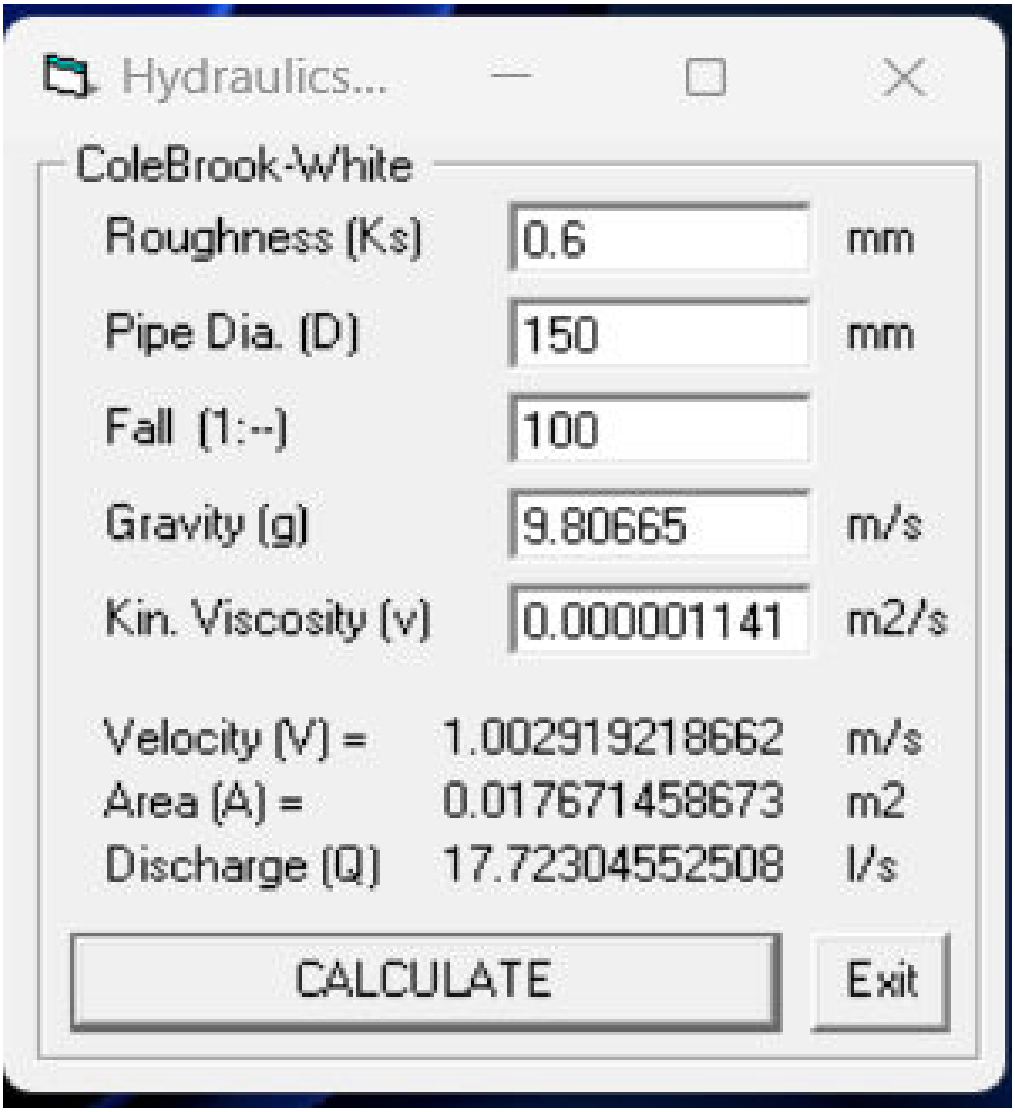
Water Legend



Appendix 7: Colebrook-White Equation

Project Number: 232808	Page: 1
Project Name: Huddersfield PMU	Rev.: P01
	Stage: Information
Plot Reference / Zone: Building 17	Date: xx
Client: Laing O'Rourke	Prepared by: Umar Shahzad
File Ref: 232808-BWB-ZZ-XX-T-C-0501- SW Assessment	Checked by: xx
Document Title: Surface Water Drainage Design	Authorised by: xx

Colebrook White Equation



Appendix 8: Kirklees Council Pre-Application Feedback

Kirklees Council
Planning and Development Service
PO Box 1720
Huddersfield

Enquiries to: William Simcock

Kirklees Direct
Tel: 01484 414746
Email: william.simcock@kirklees.gov.uk

Mike Matthews
St Georges House
56, Peter Street
Manchester
M2 3NQ

Date: 15-Oct-2025
Our Ref: 2025/20712

Dear Mr Matthews

Pre-application for pharmaceutical manufacturing building / extension at Acre Mills, Acre Street, Lindley, Huddersfield, HD3 3EB

Land off School Street West, Lindley

Thank you for your request for pre-application advice regarding the above proposal.

Summary of proposals:

The proposal is for the demolition of a building forming part of the Huddersfield Royal Infirmary complex and the construction in its place of a new manufacturing and storage facility.

An on-site meeting was held on 13/08/2025, with William Simcock (Senior Planning Officer) in attendance from the Local Planning Authority.

The site:

The site is located within the wider Acre Mills site. The wider site includes the NHS outpatients building which is accessed off Acre Street, and a large car park used by hospital staff and visitors. The buildings that are the subject of this enquiry, known as Buildings 16, 17 and 18, lie at the western end of the wider Acre Mills site adjacent to School Street West.

The southernmost of the three buildings, Building 16, is used as a pharmaceutical manufacturing plant by HPS (Huddersfield Pharmacy Specials) who operate as a division of Calderdale and Huddersfield NHS Foundation Trust. A predominantly brick building, erected in 2007, it is accessed by vehicles and pedestrians by means of an access near the southwestern corner of the site. Building 17, which adjoins it to the north, is an older building, a remnant of the former wire works, built in a mix of brick, profiled metal cladding and artificial cladding. This is redundant and in poor condition. Building 16 is used for medical record storage.

«Address»

The submitted documents include a set of existing and proposed plans and a Design Statement.

The proposals:

The proposal is for (i) the demolition of Building 17 and (ii) the erection of a new building to be used as a Pharmaceutical Manufacturing Plant (PMU).

It is proposed that the new building would have a smaller footprint than the existing building, since it would have a rectangular footprint and would be set back by up to 12m from the highway boundary. The main vehicular access would be at the northern end of the site. New soft landscaping would be laid out to the northwest of the new building and to the west of Building 18.

The new building would contain ground, first and mezzanine floors and would internally connect with the existing Building 16.

Planning history relevant to the enquiry:

Enquiry site

2007/94746 - Demolition of curtilage buildings, erection of two multi-storey car parks, change of use, extensions and alterations to principle listed building to form office accommodation and outline application with siting and means of access for health related facilities, 17 hospital worker accommodation units, surface car parking and associated landscaping and highway works (within the curtilage of a listed building) (modified proposal). Approved, not implemented.

2010/92137 - Extension of time limit for implementing existing permission 2007/94746. Approved, not implemented.

Surrounding area

None relevant.

Site allocations, designations and relevant planning policy

Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that planning applications are determined in accordance with the Development Plan unless material considerations indicate otherwise. The statutory Development Plan for Kirklees is the Local Plan (adopted 27/02/2019).

Site allocations and designations

The site is on land that is without allocation or designation within the Local Plan proposals map.

- The site is deemed potentially contaminated owing to past uses (wire goods manufacture, special waste store).

Policies: Local Plan

For more information regarding the Local Plan please see the link to the council's website: Local Plan

The policies of most relevance to the consideration of a proposal on this site are:

LP 1: Presumption in favour of sustainable development
LP 7: Efficient and effective use of land and buildings
LP 20: Sustainable Transport
LP 21: Highways and access
LP 22: Parking
LP 24: Design
LP 28: Drainage
LP 30: Biodiversity and geodiversity
LP 33: Trees
LP 35: Historic environment
LP 52: Protection and enhancement of environmental quality
LP 53: Contaminated and unstable land

Kirklees LPA Supplementary Planning Documents

These SPDs aim to provide clarity and deliver a higher standard of design in developments within Kirklees as part of the council's aspiration to promote the delivery of high-quality places. The detailed guidance is to be used early in the design, layout and planning of new developments.

When applying the guidance set out in the SPDs a "comply or justify" approach will be followed. Proposals which comply with the guidance are more likely to progress through the planning process quickly and successfully. Proposals which depart from the guidance will need to be accompanied with full justification.

For new developments, the council will welcome innovative and contemporary designs which are appropriate to the site context, and which make a positive contribution to the appearance and character of the area.

- Highway Design Guide SPD (2019)

The council's full set of SPDs may be found at:

https://www.kirklees.gov.uk/beta/planning-policy/adopted-supplementary-planning-documents.aspx

«Address»

Kirklees LPA guidance and advice documents

The following documents are the Local Planning Authority's guidance and advice notes which are deemed relevant to your proposal:

- Biodiversity Net Gain Technical Advice Note (2021)
- Planning Applications Climate Change Guidance (2021)
- West Yorkshire Low Emissions Strategy and Air Quality and Emissions Technical Planning Guidance (2016)
- Waste Management Design Guide for New Developments (2020)

All the LPA's guidance and advice notes may be found at:

https://www.kirklees.gov.uk/beta/planning-applications/guidance-and-advice-notes.aspx

National Planning Policy Framework (NPPF)

The most relevant pragraphs and chapters of the NPPF (2024, updated 2025) in the consideration of a proposal on this site are:

- **Paragraph 11** – Presumption in favour of sustainable development
- **Chapter 2** – Achieving sustainable development
- **Chapter 8** – Promoting healthy and safe communities
- **Chapter 9** – Promoting sustainable transport
- **Chapter 12** – Achieving well-designed places
- **Chapter 14** – Meeting the challenge of climate change, flooding and coastal change
- **Chapter 15** – Conserving and enhancing the natural environment
- **Chapter 16** – Conserving and enhancing the historic environment

Other relevant national guidance and documents:

- MHCLG: National Design Guide (2021)

Consultations

As part of the pre-application advice service the following services and teams have been informally consulted:

- KC Highways Development Management – Would not support without further information.
- KC Conservation Officer – Do not object in principle.
- KC Environmental Health – Do not object in principle.
- KC Lead Local Flood Authority – Do not object in principle.
- West Yorkshire Police Designing Out Crime Officer – Do not object in principle.

«Address»

Kirklees LPA do not consult external parties as part of the pre-application service. Based on the details held at this time, the following bodies would be consulted with at full application stage:

- Environment Agency (because of the past use of the site for storage of special waste).

The site falls within Lindley ward. The three local ward members are:

- Anthony Smith
- Ashleigh Robinson
- Cahal Burke

The three ward Members were notified of the pre-application. No comments were made in response.

Relevant matters for consideration

Principle of development

The site occupies land without designation in the Local Plan proposals map. In principle, the redevelopment of redundant buildings in urban areas is to be welcomed, especially where such redevelopment would lead to an improvement in the quality of the townscape.

It is recognised that the proposed development would bring benefits to the economy of Huddersfield and Kirklees and would help to create and sustain jobs locally.

It is understood from the submitted documentation and from the case officer's site meeting that the proposal would create additional space for storage and manufacturing, allowing the plant to be updated to meet contemporary standards and current operational requirements, as well as enabling a greater range of products to be made.

Sustainable development and climate change

At application stage, supporting information would be required to demonstrate that the proposed development would support the aims of all three sustainable development objectives (economic, social and environmental). The council approved Climate Emergency measures at its meeting of full Council on 16/01/2019, and you may also be aware of the West Yorkshire Combined Authority's pledge for the Leeds City Region to reach net zero carbon emissions by 2038. Your forthcoming submissions must respond positively to these policies and initiatives.

Cycle storage, electric vehicle charging points, and other measures would also be required to ensure that opportunities for future users to make use of low-impact methods of transport, and methods other than the private car, are maximised.

You are advised to review the council's Planning Applications Climate Change Guidance and, with any future application, submit a Climate Change Statement. Measures could include, but not be limited to, on-site renewable energy generation. The council's Planning Applications

Climate Change Guidance and a template for a Climate Change Statement are accessible using the below link:

https://www.kirklees.gov.uk/beta/planning-applications/guidance-and-advice-notes.aspx

In principle, the site is considered to be a sustainable location for employment development.

Transport

It is understood that vehicular access to the site would be taken from near the northern end of the site, making use of what is at present a redundant access, and that 13 car parking spaces would be provided to the north of Building 18. The submitted plans also show that the existing access close to the junction with Wellington Street would be retained although it would no longer be the principle means of access to the site. The plans indicate that it would be used for waste disposal. The comments below incorporate the advice of KC Highways Development Management.

School Street West is sub-standard in terms of its width. Permit holder parking and other on-street parking reduces the width to a single lane meaning vehicles travelling in opposing directions are unable to pass. The proposed new access is sub-standard in terms of its width, sight lines from the access onto School Street West and the lack of any kerb radii.

Servicing arrangements (existing and proposed) would not be able to accommodate the turning movements of a 16.5m articulated lorry.

No information is provided regarding any increase in staff numbers or increase in vehicle movements.

Given that the existing and proposed access and servicing arrangements are sub-standard, any significant intensification in the use of the site would be a cause for concern. KC Highways Development Management would be unlikely to support a future application unless it can be demonstrated that the increase in vehicle numbers and sizes/weights is not significant.

To enable a proper and meaningful assessment to be made, any application should therefore include a Transport Statement (TS). The scope of the TS should include – as a minimum – details of proposed traffic generation, access to site by various travel modes, accident analysis, a parking numbers justification and site access design and service arrangements. The intended use of the existing access towards the southern end of the site would need to be clarified.

The TS should also set out how wastes are to be stored and collected, and demonstrate proposed pedestrian routes within the site.

Finally, if finished ground levels within the application site close to the highway boundary would be significantly below the level of the adjacent footway, then it is likely that a technical Approval In Principle from the council acting as Highway Authority would be required for the works to form any new retaining structures, or modifications to any existing retaining structures. This is to ensure that the stability of highway land is not compromised by the works. Such an

application is usually made subsequent to the grant of planning permission, and would be the subject of a planning condition.

Urban design and impact on heritage assets

Impact on visual amenity:

Chapters 11, 12 and 16 of the NPPF, and Local Plan policies LP2, LP7, LP24 and LP35 are relevant to the proposed development in relation to design, as is the National Design Guide. Local Plan policy LP24 sets out that "Good design should be at the core of all proposals in the district …" and that proposals should promote good design by ensuring "the form, scale, layout and details of all development respects and enhances the character of the townscape, heritage assets and landscape". NPPF Chapter 16 and policy LP35 of the Local Plan emphasise the importance of ensuring that development conserves heritage assets or their settings, and that any development that would cause harm to their significance should not be permitted without a proportionate justification.

The following advice focusses on the School Street West elevation since this is the most prominent frontage, and faces a listed building.

The elevation of Building 16 that faces School Street West is mostly brick, and has recessed bays, columns and different coloured bricks to add some visual interest. The corresponding elevation of Building 17 uses profiled metal cladding as its main facing material and the brick element has a monotonous, unrelieved appearance. The opportunity therefore exists to deliver an enhancement to the urban realm through improved design.

The site was formerly occupied by a much larger industrial complex, although most of the original buildings having been demolished. The wider area, at least to the north, west and south, is mainly residential in character and coursed stone is the predominant material. Immediately opposite, on School Street West, is a Grade II listed building, a former school (Historic England reference 1229575). To the south of this is a stone apartment building (forming part of the former school's curtilage but not separately listed) and a row of traditional terraced houses.

Whilst it would be unreasonable to expect new development on this site to closely mimic the style, proportions or design details of neighbouring residential development or that of the listed former school, it is important that development on this site is of a high quality that references and responds to its setting.

The proposed building would have a gently pitching roof which would reflect that of Building 16. The predominant facing material to School Street West would be zinc / aluminium cladding. The use of brick in the lower part of the building is shown, but the drawings indicate that this elevation would be of simple, flat design, without the embellishments that building 16 has.

It is noted that the new building would be set back somewhat into the site instead of meeting the back of the footway. This would help make it appear less imposing. The inclusion of glazing and a staff entrance to this new elevation would also help activate and animate School Street

«Address»

West. The proposed provision of soft landscaping in the existing forecourt could represent a modest enhancement to the visual amenity of the area. However, the design of the proposed elevation to School Street West is considered to be poor, and it would not harmonise with or reference either the existing Building 16 or surrounding development. The setting of the nearby listed building would not be sufficiently enhanced by the proposed development.

I would encourage the revision of the plans to include features that would break up the monotony of this elevation. I also note that the proposed cladding appears to extend above the eaves line of the building to form a parapet. I do not consider this to be a desirable feature and would ask you to consider reducing the height of the cladding so that it does not extend above or obscure the line of the roof, to help ensure the new building would more closely resemble the proportions of Building 16. Details of the cladding should be submitted with any future application – along with a full contextual elevation – so that a detailed assessment can be made.

Any future application would need also to include at least an indicative landscaping scheme showing which areas are to be soft- and hard-landscaped, demonstrating that opportunities have been taken to enhance the visual amenity and biodiversity of the site through sympathetic planting and landscaping. Preference should be given to native species attractive to pollinators, and the use of potentially invasive species should be avoided.

Appropriate sections would need to be provided so as to allow the impact of any changes in ground level within the site to be assessed. Parts of the proposed building, and the new forecourt (it is understood from the site meeting), would be below the level of the adjacent footway, which has a downward gradient from northwest to southeast.

It is noted that air source heat pumps (ASHPs) are proposed to be installed in the newly created forecourt adjacent to School Street West. Whilst it is recognised that their visual impact would be softened by the retained brick wall, which would become a boundary wall, the ASHP and any related enclosure (such as acoustic fencing) would need to be shown on the elevations.

Impact on residential amenity

Any future application would need to be supported by a full acoustic report assessing all potential sources of noise from the future operation of the manufacturing plant, including from vehicle movements.

A particular concern raised by KC Environmental Health is the potential noise emissions, as well as dust, which may be caused by the breaking up of the site's substantial concrete forecourt. Assessment of this should be incorporated into the required acoustic report, with appropriate mitigation measures.

Commercial-scale ASHPs may also generate significant levels of noise which is potentially a cause of noise nuisance if they are placed close to residential properties. These impacts, and any necessary mitigation measures, should also be included in the acoustic report.

«Address»

Environmental issues

Drainage

The site is located in flood zone 1 – Low Risk. Neither a sequential test, nor a full flood risk assessment would be required.

Any future application would need to clearly state what methods of surface water disposal are to be used. Since the development involves replacing an existing building with a new building of slightly reduced footprint, and if the existing building is already connected to mains drainage, the Local Planning Authority would not normally expect the drainage hierarchy principle to be followed, since the development would not be making any net addition to run-off. A new roof does, however, create opportunities for include green or blue/green roof areas to slow flows into the local drainage network.

Mill ponds are shown on the wider former mill site, immediately adjacent to the development area through the 20th century and on 2012 aerial photographs. Kirklees Council has no record of how the ponds were fed, or from which direction. It is, however, not possible to rule out the presence of a culverted watercourse within or adjacent to the wider mills site. It is the council's policy to require the opening up of watercourses where reasonably practicable, and the building over of any such watercourse, even this has been built over in the past, is unlikely to be supported.

A third mill pond is shown on the 1907 OS Map in the position of the buildings that are part of this application.

Ecology

Under the Environment Act 2021, new development – with limited exceptions – must deliver a 10% Biodiversity Net Gain (BNG).

Under the Biodiversity Net Gain (Exemption) Regulations 2024, the above requirement does not apply if the development would impact:

> (a) less than 25 square metres of onsite habitat that has biodiversity value(1) greater than zero; and
> (b) less than 5 metres in length of onsite linear habitat.

Whilst at first glance there appears to be very little semi-natural habitat on site, the large concreted area north of Building 18 has undergone a degree of natural regeneration, and it is therefore not self-evident that the above exemption would be met. KC Ecology, who have been able to view photographs of the site, advise that any future development proposal should be supported by a Preliminary Ecological Appraisal (including an assessment of the site's bat roost potential) and a BNG Metric and BNG Assessment enumerating the predicted losses and gains in habitat value. This would allow the existing habitat value and the impact of development to be fully assessed.

Any approval would be subject to the mandatory condition imposed by the Environment Act 2021 which states that development may not be begun unless a Biodiversity Gain Plan has been submitted to and approved in writing by the Local Planning Authority. This would need to include details of off-site measures, where the necessary 10% net gain cannot be wholly met on site. Further advice is available at the link below:

Biodiversity net gain - GOV.UK

Land contamination and instability

As previously noted, the site is deemed potentially contaminated owing to past uses and it is therefore essential that any future application is accompanied by – as a bare minimum – a Phase I contaminated land report. An Phase II intrusive investigation and remediation strategy may be required, depending on the Phase I report's findings.

The site lies within an area in which the risk of ground instability arising from past coal mining activity is considered to be low, so a coal mining risk assessment will not be required. You are, however, advised to refer to the Mining Remediation Authority's relevant advice.

Planning obligations / heads of terms

Paragraph 58 of the NPPF confirms that planning obligations must only be sought where they are: (a) necessary to make the development acceptable in planning terms, (b) directly related to the development; and (c) fairly and reasonably related in scale and kind to the development.

Based on the nature and scale of the proposal, I would advise you that it is unlikely that a Section 106 Agreement (securing planning obligations) would need to be entered into, however this advice would need to be reviewed when a fully-detailed development proposal is assessed at application stage.

Validation requirements

The information you need to provide with your application is detailed below. Further guidance can be found onlint in the Validation Checklist effective February 2023.

National requirements

- Application form
- Ownership certificates
- Planning fee
- Design and Access Statement
- Location plan
- Site layout or block plan
- Existing and proposed elevations
- Existing and proposed floorplans

«Address»

- Existing and proposed roof plans
- Existing and proposed sections
- Existing and proposed levels
- Demolition plans (unless the demolition of the existing building is to be a separate application)

Local requirements

- Biodiversity Net Gain Statement
- Biodiversity Metric (in Excel and PDF formats)
- Preliminary Ecological Appraisal (PEA)
- Heritage Statement
- Transport Statement
- Climate Change Statement
- Drainage Strategy
- Crime prevention statement
- Heritage Impact Assessment
- Land Contamination Assessments (Phase I report and Phase II if applicable)
- Acoustic report / Noise Impact Assessment
- Site Waste Management Plan
- Travel Plan (if floorspace is to exceed 1,000sqm).

Planning application fee

You can use the following link to calculate how much the planning fee would be for your proposal:

https://1app.planningportal.co.uk/FeeCalculator/Standalone?region=1.

The application forms and how to apply for planning permission is explained on the Planning Portal.

Conclusion

«Address»

I have sought to explain how the acceptability of any future proposal would be assessed and what information you should provide.

Your team's interest in the site is very much welcomed. The proposed development would support and enhance the future viability of an existing manufacturing plant. The location is considered sustainable.

Officers do, however, have concerns regarding the proposed development, based on what is so far submitted, since the proposed means of access to the site is considered substandard for a development of this nature and raises the possibility of conflict with other highway users and increased safety hazards. Assessment of these risks will depend upon the submission of a full Transport Statement, as set out above. There are also concerns regarding the proposed design.

Any future application would also need to give due consideration to possible land contamination, noise and biodiversity, as set out previously in this letter.

I hope you find this information helpful.

Yours sincerely,

William Simcock

William Simcock, Senior Planning Officer
for Mathias Franklin, Head of Planning and Development

Disclaimer

Any views or opinions expressed are in good faith, without prejudice to the formal consideration of any planning application, which will be subject to public consultation (which will include the relevant Town or Parish Council) and ultimately be decided by the Council.

It should be noted that subsequent alterations to legislation or local, regional and national policies might affect the advice given.

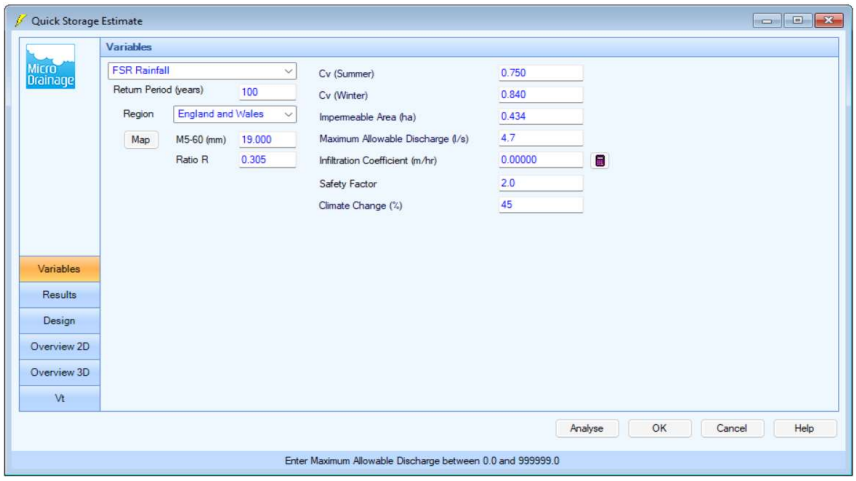
Caution should be exercised in respect of pre-application advice which is not submitted within a short time of the Council's advice letter.

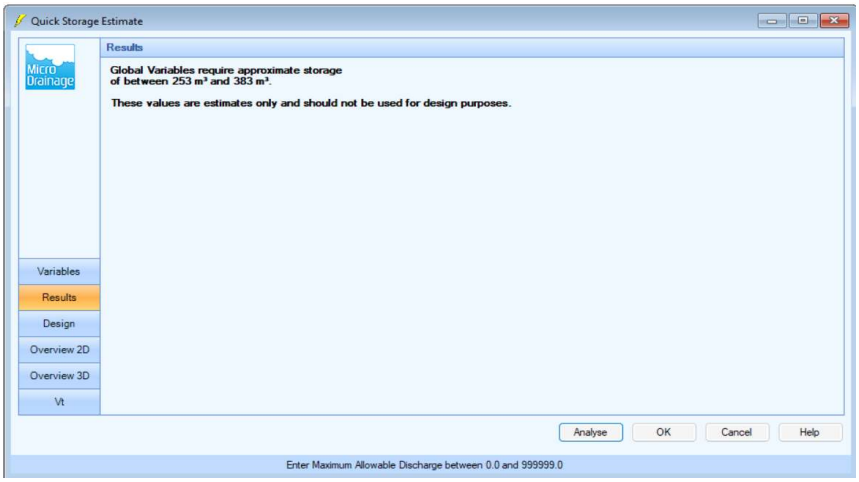
Planning Portal have started to charge a percentage for all paid submissions made through themselves. We have created an application e mail box for anyone wishing not to carry on using their services, if you wish to e mail future applications send to planning.portal@kirklees.gov.uk (forms attached in zip file) Once applications have been given a number we will send an e mail with a fee request.

Appendix 9: Attenuation QSE Calculations

Project Number:	232808	Page:	1
Project Name:	Huddersfield PMU	Rev.:	P01
		Stage:	Information
Plot Reference / Zone:	Building 17	Date:	17/11/2025
Client:	Laing O'Rourke	Prepared by:	Umar Shahzad
File Ref:	232808-BWB-ZZ-XX-T-C-0501- SW Assessment	Checked by:	Beth Sherburn
Document Title:	Surface Water Drainage Design	Authorised by:	Rebekah Duncan

100 Year Plus Climate Change Event - Attenuation Requirements





Appendix 10: Proposed Catchment Plan

Comparison of Pre-existing and Post-development Catchment Areas

Surface Type	Permeable	Impermeable	Difference
Pre-development	0	0.57ha	0.00%
Post-development	0.13ha	0.43ha	29.70%

Union Street

School Street West

Notes

1. Do not scale this drawing. all dimensions must be checked/ verified on site. if in doubt ask.
2. This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
3. All dimensions in millimetres unless noted otherwise. all levels in metres unless noted otherwise.
4. Any discrepancies noted on site are to be reported to the engineer immediately.

Legend

- Existing Area 689m² (not accounted for in drainage strategy)
- Permeable Area 1289m²
- Impermeable Area 4339m²
- Site Boundary

DRAFT

Rev	Date	Details of issue / revision	Drw	Rev
P01	xx.11.25	For Information	US	RAD

Issues & Revisions

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Client

LAING O'ROURKE

Project Title

Huddersfield Pharmaceutical Unit Huddersfield Royal Infirmary (Acre Mill Site)

Drawing Title

Permeable & Impermeable Area Plan

Drawn:	U. Shahzad	Reviewed:	R. Duncan
BWB Ref:	232808	Date: Nov '25	Scale@A1: 1:250

Drawing Status

Sketch

Project - Originator - Zone - Level - Type - Role - Number	Status	Rev
HPU-BWB-XX-XX-SK-C-520501	S5	P01

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