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M2 4NH

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20 March 2024

Our Ref : 314995/GH/JR

Dear Shada

Proposal Outline planning application for the construction of up to 140,000 sqm of employment floorspace (use class B8) with ancillary offices and facilities and servicing and infrastructure including new site accesses. Internal roads and footpaths, landscaping including earthworks to create development platforms and bunds, drainage features and other associated works including demolition of the existing farmhouse.

Location Land east of Junction J.11, M40, Banbury

Application No. 23/03428/OUT

Following submission of the Flood Risk Assessment and Drainage Strategy (FRA & DS) produced by Delta-Simons (dated May 2022 Project No: 21-2141.01), the LLFA response was included with Oxfordshire County Council composite response dated 12th of February 2024, the LLFA objected to the development. The detailed comments from the LLFA are reproduced and Mabbett's responses on behalf of the applicant are below.

LLFA Comment 1

"The FRA explains the surface water drainage strategy however a surface water drainage drawing is required to demonstrate the surface water strategy. Proposed SuDS features and drainage infrastructure needs to be shown indicatively. Outfall locations to be shown, storage details of proposed SuDS features and infiltration rates if applicable".

Mabbett Response

A Surface Water Drainage Drawing is included in Appendix A of this letter.

As detailed in section 5.2 of the Delta-Simons FRA & DS infiltration techniques are not considered to be feasible at the site.



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As described in the Delta-Simons FRA & DS, surface water runoff will be discharged to the neighbouring site's drainage system and ultimately the River Cherwell via two culverts along the western Site boundary at a combined maximum rate of 460.51 l/s.

Surface water runoff up to the 1 in 100 year plus 40% climate change allowance event will be attenuated on site. A total attenuation volume of 21,526 m³ will be required to achieve the discharge rate and will be provided in the form of ponds, swales or detention basins located in the west of the Site and also within permeable paving.

The proposed surface water drainage scheme will ensure no increase in runoff over the lifetime of the development.

The Drainage Drawings shows that the require amount of attenuation is available within the car parking areas and the proposed ponds within the north-western extent and within the demise of the southern plots.

If necessary, during the detailed design stage further attenuation can be provided within the landscaped areas of the site.

	Area (m ²)	Attenuation (m ³)
Permeable Surfacing (0.4m depth subgrade)	23,608.90	2,833.07
Ponds (Average 1.5m depth)	12,575.06	18,862.59
Total		21,695.66

LLFA Comment 2

“The catchment areas have been broken down in the FRA, however a Catchment plan is required to highlight the extent of the areas. Stating the total impermeable area and the impermeable area including urban creep”.

Mabbett Response

A Catchment Plan is included in Appendix B of this letter.

The site can be split into two catchments each served by the two existing culverts at the lowest extents of the site. The site can be further split into individual plot catchments at the detailed design stage if required. It is reiterated that the layout is not fixed, and the catchment areas may change as a result of works undertaken at the detailed stage.

The catchment areas and the proposed pro-rata proposed discharge rates are provided below.

	Area (m ²)	Discharge Rate (l/s)
Catchment A	143,060	206.9
Catchment B	175,287	253.56

Given the nature of the proposed development site, allowance for urban creep is not considered necessary. Any expansion of hardstanding areas on the plots would require planning permission which would require planning permission and a consideration of drainage at that stage.

LLFA Comment 3

Surface water exceedance flow plans required to demonstrate how the site is draining to ensure all surface water is being picked up by the proposed drainage infrastructure.

Mabbett Response

Surface Water Exceedance Flow Plan is included as Appendix C of this letter.

The proposed drainage system is proposed to attenuate the full balance of surface water generated by the site during a 1 in 100 year plus 40 % CC storm at the 1 in 2 year existing greenfield runoff rate (estimated using ReFH2 method). The likelihood of exceedance is therefore, beyond the design event and unlikely to occur. Especially when considering the required freeboard inherent in attenuation pond design.

It is reiterated that site levels have not been finalised, nor has the final location or dimensions of the proposed SuDS features been finalised, this will be completed at the detailed design stage post approval and in line with appropriately worded conditions.

We have therefore utilised the existing topography of the site to show the potential flow paths throughout the site. The plan shows that in the event of exceedance, surface water will generally flow westward and away from the site.

Conclusions

Given the information provided an appropriate Drainage Strategy can be achieved. The proposals set out within the Delta-Simons FRA & DS and this letter report accord with national and local policy. The detailed drainage design and associated maintenance and management plan can be secured through condition and therefore, there are no reasons why planning permission should be refused on such grounds.

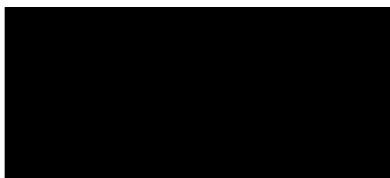
We, therefore, respectfully request that the LLFA remove their objection and approve with appropriately worded conditions.

Please do not hesitate to contact me directly if you seek further clarifications or have any comments.

Yours sincerely,

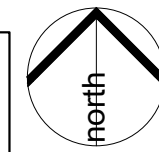
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BY:



Josh Rigby
Manager | Water Environment Team

Appendix A – Surface Water Drainage Drawing

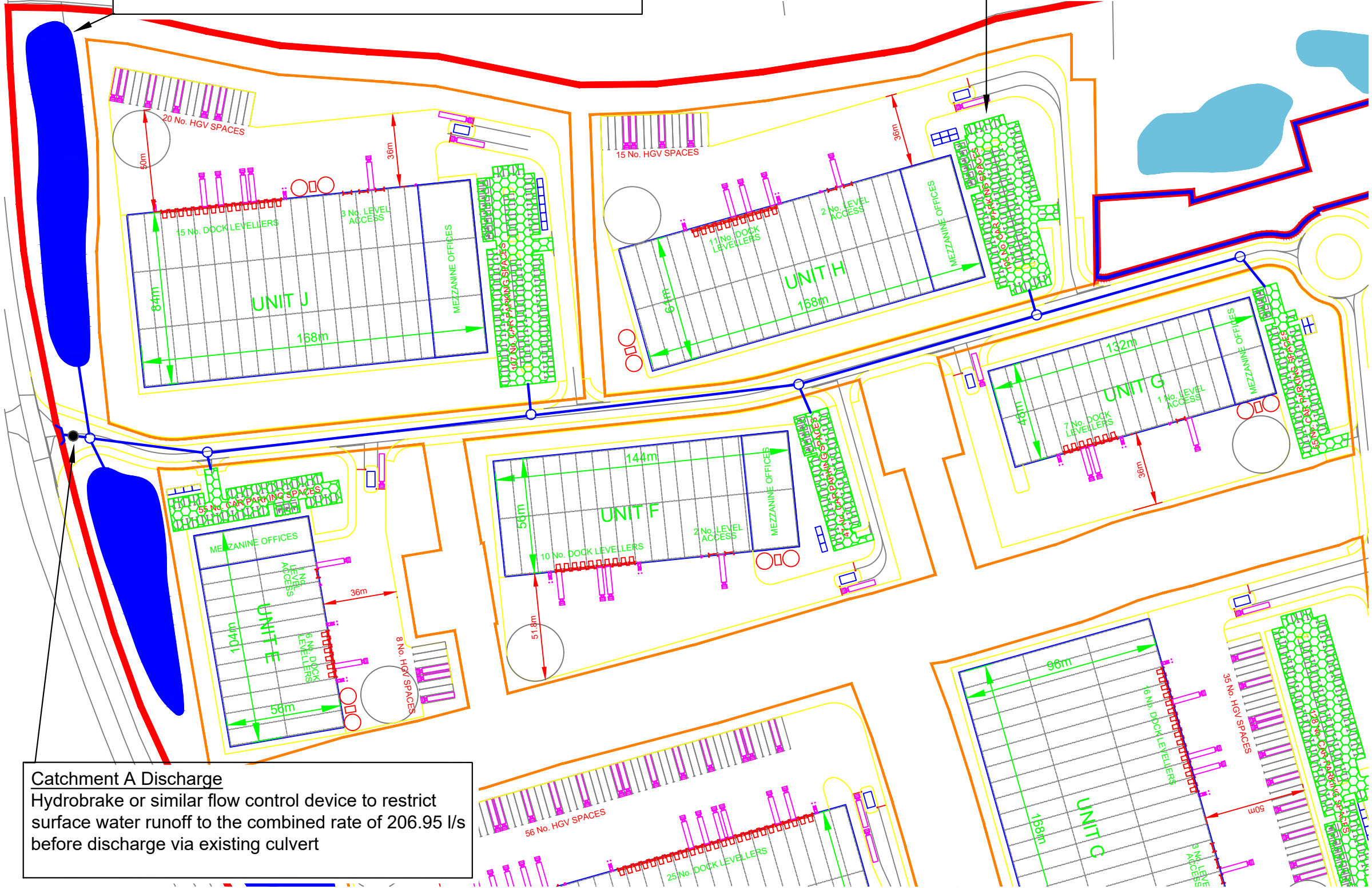


Catchment A Attenuation Ponds
Attenuation Ponds with a combined surface area of 6,569.79m².
Ponds will be 1.5m deep with banks at a gradient of 1 in 3.
Ponds will provide 9,854.68m³ of attenuation

Catchment A Permeable Surfacing
Permeable Surfacing with a surface area of 9,184.7m², with a sub-grade depth of 0.4m and a void ratio of 30%, totaling in 1,102.16m³ of attenuation

Legend

- Proposed Surface Water Drainage
- █ Proposed Attenuation Pond
- █ Proposed Permeable Surface
- Hydrobrake or similar



Catchment A Discharge
Hydrobrake or similar flow control device to restrict surface water runoff to the combined rate of 206.95 l/s before discharge via existing culvert



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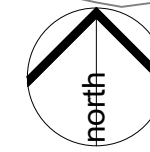
Client
Greystoke CB

Project
**Land east of Junction J.11
M40, Banbury**

Drawing
**Conceptual Drainage Sketch
Catchment A**

Status
Final

Scale **1:100** Sheet **A3**
Drawn **LA** Check **JR** Date **20/03/24**
Drawing No: **314995 _001** Rev **A**



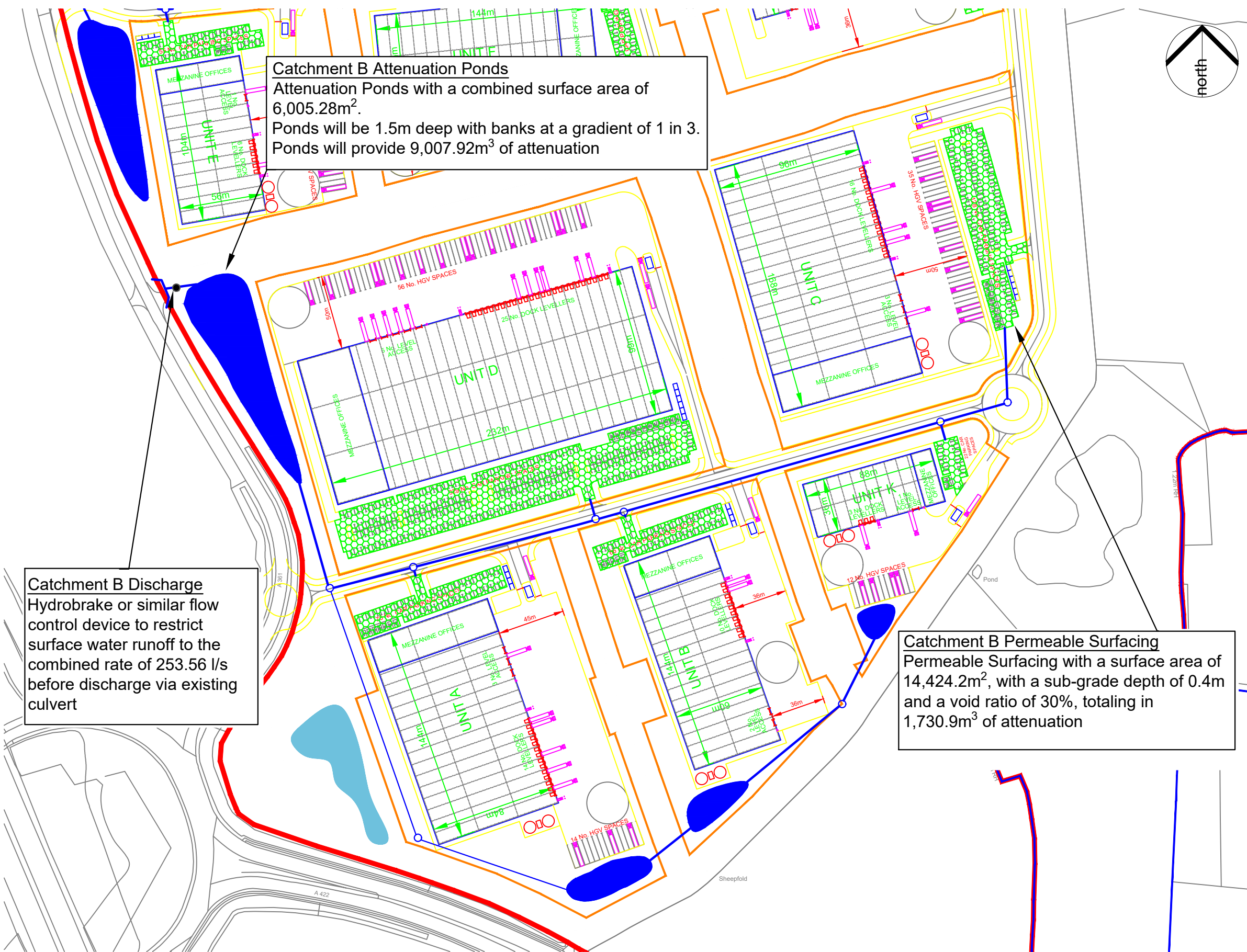
Legend

- Proposed Surface Water Drainage
- Proposed Attenuation Pond
- Proposed Permeable Surface
- Hydrobrake or similar

Catchment B Attenuation Ponds
 Attenuation Ponds with a combined surface area of 6,005.28m².
 Ponds will be 1.5m deep with banks at a gradient of 1 in 3.
 Ponds will provide 9,007.92m³ of attenuation

Catchment B Discharge
 Hydrobrake or similar flow control device to restrict surface water runoff to the combined rate of 253.56 l/s before discharge via existing culvert

Catchment B Permeable Surfacing
 Permeable Surfacing with a surface area of 14,424.2m², with a sub-grade depth of 0.4m and a void ratio of 30%, totaling in 1,730.9m³ of attenuation



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Drawing
**Conceptual Drainage Sketch
 Catchment B**

Status
Final

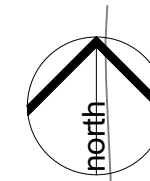
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Drawing No: **314995** **_001** Rev **A**

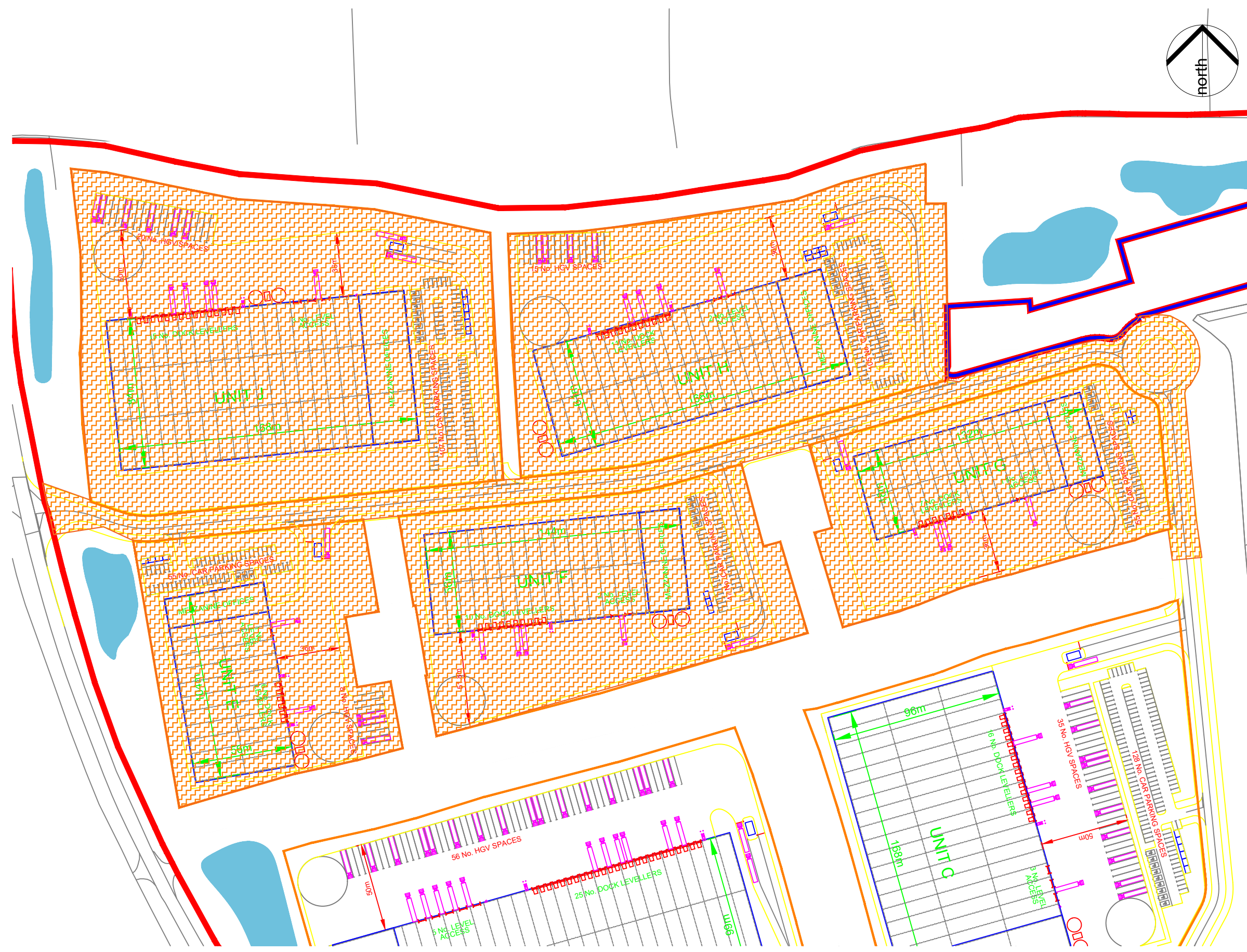
Appendix B – Catchment Plan

DO NOT SCALE FROM THIS DRAWING. IF IN DOUBT PLEASE ASK.
ALL DIMENSIONS TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT.
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Legend

 Catchment A Area



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Drawing
**Conceptual Drainage Sketch
Catchment A Area**

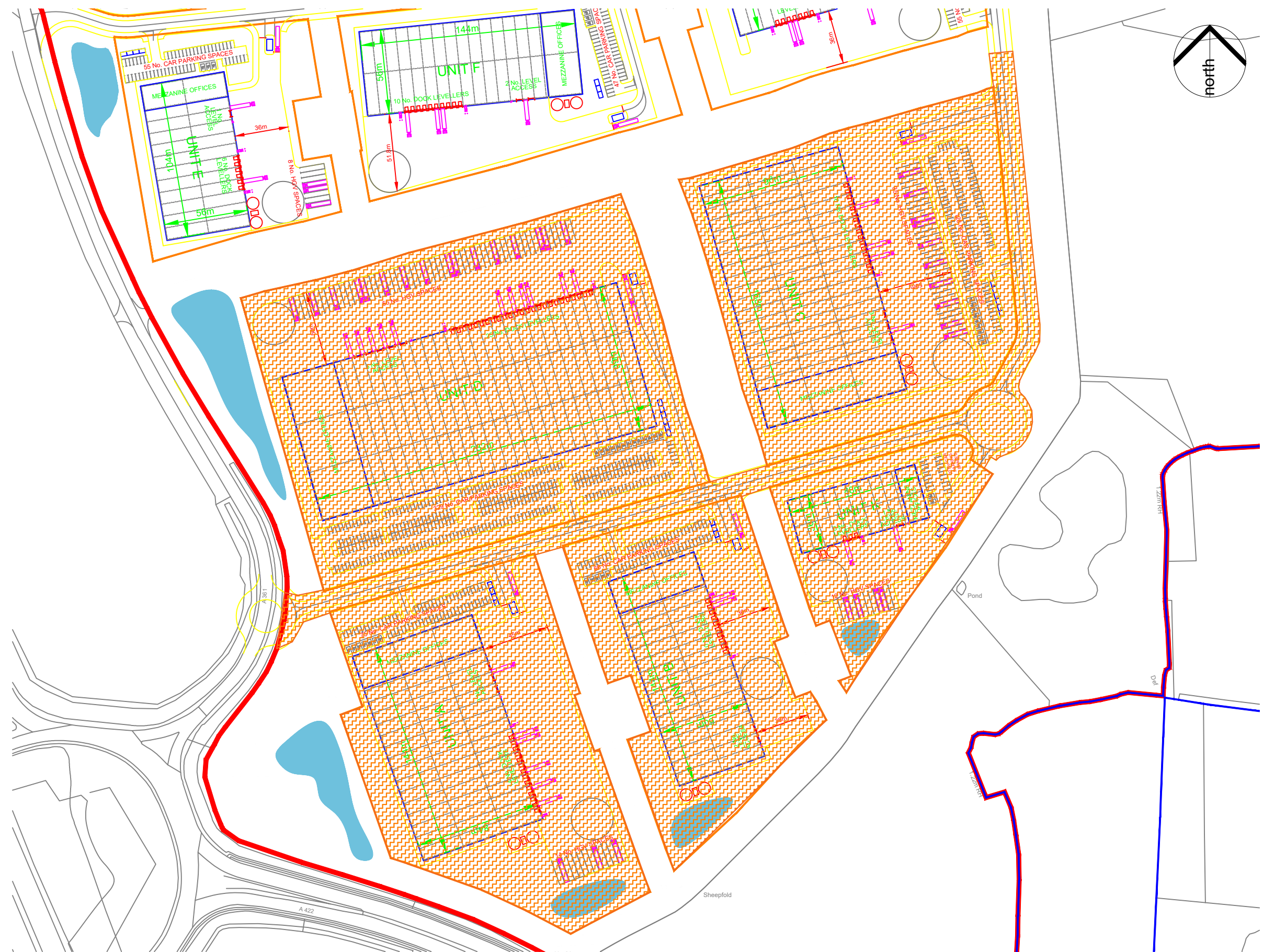
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Scale **1:100** Sheet **A3**


Drawn **LA** Check **JR** Date **20/03/24**

Drawing No:
314995 _001 Rev **A**

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Legend

 Catchment B Area

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Drawing
**Conceptual Drainage Sketch
Catchment B Area**

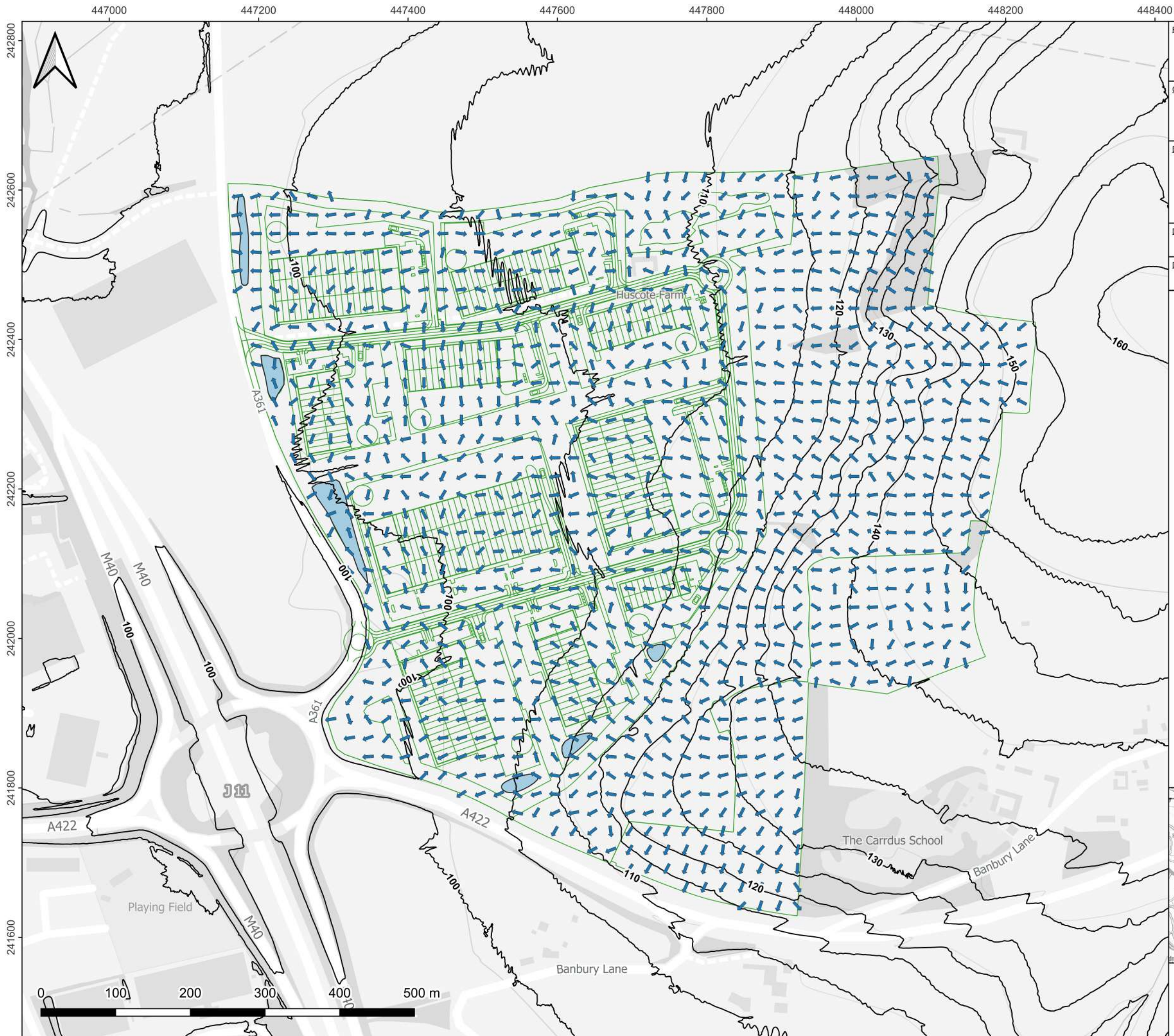
Status
Final

Scale **1:100** Sheet **A3**

Drawn **LA** Check **JR** Date **20/03/24**

Drawing No: **314995** Rev **A**
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Appendix C – Surface Water Exceedance Flow Plan



Project Reference:				
314995 Land East of Junction J.11, M40, Banbury				
Client:				
Greystoke CB				
Drawing Title:				
Surface Water Exceedance Plan				
Drawing Name:			Revision:	Date:
314995-ENG-DAT-01			-	20 Mar 2024
Drawing Scale (A3):	Drawing Status:	Drawn:	Checked:	Approved:
1:5000	Final	GH	DH	JR

Legend

- Proposed Site Layout
- 5m Contours
- Direction of Slope
- SuDS

