

1. Application Information

a) Location / Full Address	Union Park North Hyde Gardens Hayes UB3 4QQ
b) Reference No.	75111/APP/2025/739
c) Type of Application	Full Major
d) Date Reviewed	25/04/2025
e) Name of Reviewer	CS
f) Existing Site Description	Formerly occupied by Addison Lee for the repair, maintenance, and replacement of private hire vehicles. Addison Lee has vacated the site and the building is currently used by Ark and their contractors as a construction base whilst the adjacent permitted scheme is being delivered. (Application Form, p.8/21)
g) Site Characteristics	Geology / Soil: British Geological Survey (BGS) maps online show the site has a London Clay Formation at bedrock with Lynch Hill Gravel Member – Sand and Gravel for superficial deposits. A ground investigation report has been produced by Colliers Consultants on 8th March 2024. The investigation identified the following ground conditions: made ground to 5.5mbgl, Lynch Hill Gravel Member of variable cohesive and granular proportions to 7mbgl underlain by London Clay Formation. During drilling, contamination such as visual staining, asbestos and hydrocarbons were observed within the made ground and natural strata. However, the soil analysis didn't identify any exceedance of the human health assessment criteria. Groundwater was encountered between 2.30mbgl and 3.35mbgl. (FRA, p.14/114) Topography: The site is located within the Bulls Bridge Industrial Estate in Hayes, West London. The site is bounded by the National Rail and Elizabeth Line rail tracks to the north, the Grand Union Canal to the west and south and the first phases of Ark data centre campus to the East. The topographical survey carried out by Greenhatch Group dated 2nd June 2021 shows that the site area slopes from northwest to southeast from a high point of 33.81m AOD to a low point of 31.20m AOD which presents a 2.63m change in level across the length of the site. (FRA, p.11-12/114) Local Drainage / Watercourses: The Grand Union Canal forms the southern boundary of the site, and the River Crane runs approximately 250m East of the eastern boundary. The Grand Union Canal is connected to the Paddington Arm canal approximately 175m from this site and is maintained by the Canal and River Trust (CRT). The River Crane is the current discharge location for the existing surface water from the site and is maintained by the Environment Agency. The utility survey shows that the existing development is served by a separate drainage system. A 300mm diameter surface water drain runs west of the existing building and connects to a 375mm drain running to the south of the existing building. This connects to a 450mm diameter drain serving the other developments which runs along North Hyde Gardens, connects to a 600mm drain which discharges into an attenuation tank and into the River Crane eventually. The existing roads and car park areas are captured by gullies that connect to the surface water network described above. (FRA, p.12/114, p.14/114) Critical Drainage Area: The site is not located within a CDA.
h) Development Proposal	Redevelopment of site to deliver extension to existing Union Park data centre campus consisting of (a) free standing data centre building (b) energy, power, and water

	infrastructure (c) site access and internal roads (d) site security arrangements (e) hard and soft, green landscaping and (f) other ancillary and auxiliary forms of development. (Application Form, p.5/21)
i) Total Site Area	12728 m ² (FRA, p.12/114) Is this included within the calculations? Yes ☐ No ☒
j) Change in <u>Impermeable</u> Area	Existing = 10641 m ² (FRA, p.12/114) Proposed = 9891m ² (FRA, p.25/114) Change = - 750 m ²

2. Application Documents Received and Reviewed

File Name	Document Date / Revision / Version
Full application: Z:\Shared\Clients\PlanningApps\Hillingdon\Union Park UP4 NORTH HYDE GARDENS HAYES UB3 4QQ\1. Data in\20250422 - 75111APP2025739 - Full app 1st submission	
Application Form	14/03/2025
Flood Risk Assessment	28/02/2025

3. Review Record – Planning Application

Parameter	Requirements ¹	Review Comments / Discussion ²	Assessment & Reasoning Pass / Fail / More Information Required
a) Runoff Destination (at site boundary)	PPG – Paragraph 56 London Plan – Policy SI 13	<u>Cross the following features / destination locations proposed:</u> 1. Rainwater harvesting and/or blue roofs ☒ 2. Infiltration ☐ 3. Green infrastructure (e.g. Green roofs, rain gardens) ☒ 4. Watercourse ☒ 5. Surface water sewer ☐ 6. Combined sewer ☐ <u>Summary of proposal:</u> The applicant proposes to manage rainwater on site using porous surfacing, brown roofs, rainwater harvesting and below ground attenuation tanks. Direct infiltration to the ground has been justifiably discounted due to information provided by ground investigations on site. (FRA, p.30/114) <u>If 1, 2 and/or 3 have not been proposed, has sufficient justification been given as to why?</u> Yes ☒ No ☐ As the anticipated geology underlying the site is a Made Ground layer underlain by Lynch Hill Gravel member	PASS – The application proposes to manage rainwater via porous surfacing, brown roofs, rainwater harvesting and below ground attenuation tanks. Direct infiltration to the ground has been justifiably discounted due to information provided by ground investigations on site. The SuDS features are to discharge into the private surface water drainage system which serves the Campus and discharges into the River Crane. There will be two discharge points and flow is to be restricted using vortex flow control devices.

¹ 'S' references are to the [Non-Statutory Technical Standards for Sustainable Drainage Systems](#)

² Include clear references to documents & chapter / page numbers for evidence

Parameter	Requirements ¹	Review Comments / Discussion ²	Assessment & Reasoning Pass / Fail / More Information Required
		underlain by London Clay Formation, with shallow groundwater and contamination found on site, direct infiltration to the ground is not considered feasible. (FRA, p.26/114) <u>How many discharge points off-site are proposed?</u> There are two discharge points proposed to the private gravity sewer to the North and South of the site which utilises the existing outfall to discharge into the River Crane. (FRA, p.124/114)	
b) Flood Risk Outside of Development	S1: Do S2/S3 and S4/S5 apply? (discharge to sea / estuary) Any other flood risk on or close to site? (e.g. fluvial or groundwater)	<u>Is the site draining to tidal waters?</u> Yes ☐ No ☒ Through the EA flood maps, it has been concluded that the site is at low risk of fluvial/tidal flooding. (FRA, p.15/114) <u>Is the development likely to impact upon local groundwater flood risk?</u> Yes ☐ No ☒ The West London Strategic Flood Risk Assessment shows the site as having a risk of groundwater flooding between 25% and 50%. Ground investigations indicate that groundwater was found between 2.3 m and 3.35 m below ground level. Therefore, it is concluded that the risk of groundwater flooding to this site can be considered low. (FRA, p.17/114) <u>Is the site within fluvial flood zone?</u> Yes ☐ No ☒ The site is located within Flood Zone 1 and is at low risk of flooding from fluvial sources. (FRA, p.15/114)	PASS – The FRA demonstrates that flood risk from surface water, public sewers, watercourses, groundwater and fluvial sources is considered to be low or very low.
c) Peak Flow Control	S2 – Greenfield – 1y and 100yr peak flow must be same as greenfield S3 – Developed – 1yr and 100yr peak flow must be as close as <u>reasonably practical</u> to greenfield	<u>Greenfield runoff rates (l/s):</u> 1 in 1 yr: 1.69 1 in 30 yr: 4.57 1 in 100 yr: 6.33 (FRA, p.125/114) <u>Existing runoff rates (if not currently a greenfield site) (l/s):</u>	PASS – The applicant proposes to discharge the site at a maximum of 2.9 l/s which is less than the 1 in 100 year greenfield runoff rate. An appropriate climate change consideration has been applied.

Parameter	Requirements ¹	Review Comments / Discussion ²	Assessment & Reasoning Pass / Fail / More Information Required
	London Plan – New London Plan – Policy SI 13 – Aim for greenfield Revised Climate Change Allowances – Applied correctly? Local Requirements? (SFRA / SPG / Local Plan Policies)	1 in 1 yr: 150.3 1 in 30 yr: 367.52 1 in 100 yr: 472.2 (FRA, p.125/114) <u>Proposed runoff rates (l/s):</u> 1 in 1 yr: 1.7 1 in 30 yr: 2.3 1 in 100 yr: 2.4 1 in 100 yr + CC: 2.9 (FRA, p.125/114) <u>Climate change allowance used:</u> 20% ☐ 40% ☒ <u>Justification for use given?</u> Yes ☐ No ☒ <u>How will the runoff rate be restricted?</u> Hydrobrake ☐ Other ☒ - Vortex Flow Controls (FRA, p.125/114)	
d) Volume Control	S4 – Greenfield – Maintain same runoff volume for 100yr 6hr event S5 – Developed – Achieve greenfield volume as close as <u>reasonably practical</u> and not exceed existing S6 – No adverse flood risk to others Revised Climate Change Allowances – Applied correctly? Local Requirements? (SFRA / SPG / Local Plan Policies)	<u>Greenfield runoff volume (m³):</u> 1 in 100 yr 6 hr: Not provided <u>Existing runoff volume (if not currently a greenfield site) (m³):</u> 1 in 100 yr 6 hr: Not provided <u>Proposed runoff volume (m³):</u> 1 in 100 yr 6 hr: Not provided <u>Volume of proposed attenuation feature(s) (m³):</u> Pervious Pavements: 177 Attenuation Tanks: 665 (FRA, p.30/114) The total proposed volume of storage is 842 m³. This is greater than the required attenuation volume, which is stated as 618 m³. (FRA, p.25/114)	MORE INFORMATION REQUIRED – The applicant should provide the greenfield, existing and proposed runoff volumes for the 1 in 100 year 6 hour storm event.
e) Flood Risk	S7 – No flooding occurs on site for 30yr rainfall event S8 – No flooding of buildings in 100yr rainfall event S9 – Flooding in excess of 100yr rainfall managed to minimise risks* (<i>including management of exceedance flow paths</i>)	<u>Any flooding predicted on site in a 1 in 30 yr event?</u> Yes ☐ No ☐ Calculations provided do not give enough information to determine this. (FRA, p.76-114/114)	MORE INFORMATION REQUIRED – The applicant has not used the total site area within the calculations provided. The calculations provided do not show the potential flooding for specified rainfall events. The applicant should provide calculations that indicate whether flooding is predicted on site for a 1 in 100 year rainfall event. The

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	S7 to S9 - Refer CIRIA Designing for Exceedance. *NB: Exceedance flooding should cover 100yrFlooding plus climate change allowance Local Requirements? (SFRA / SPG / Local Plan Policies)	<u>Any flooding predicted on site between a 1 in 30 and 1 in 100 yr event?</u> Yes ☐ No ☐ Calculations provided do not give enough information to determine this. (FRA, p.76-114/114) <u>Have calculations been submitted to support S7 and S8 alignment?</u> Yes ☐ No ☒ <u>How is exceedance being managed?</u> Exceedance flows are indicated on drawings away from buildings and towards car park areas and roads/footpaths. (FRA, p.116/114) See c) above for climate change allowance comments.	applicant should also include the whole site area in these calculations.
f) Maintenance	Ministerial Statement – 18 Dec 2014 – Clear arrangements for adoption and ongoing maintenance S12 – Pumping should only be used where gravity is not <u>reasonably practical</u> Local Requirements? (SFRA / SPG / Local Plan Policies)	<u>Does each proposed drainage component have numerous routine maintenance tasks and frequencies proposed?</u> Yes ☒ No ☐ (FRA, p.39-46/114) <u>Has a maintenance owner been stated?</u> Yes ☒ No ☐ The application stated that the principal contractor will retain responsibility for maintenance requirements during construction up to the handing over of the site. Below ground SuDS components will be maintained by the client, Ark Data Centres Ltd or their chosen management company to be set up post development. Regular inspection will be the responsibility of the client or the appointed Management Company for the whole life of the site. (FRA, p.39/114)	PASS – The drainage strategy includes the maintenance tasks and frequencies for each drainage component and stated who will own the maintenance tasks.
g) Any other matters?	Local Requirements? (SFRA / SPG / Local Plan Policies)	<u>Is pollution of receiving waters likely?</u> Yes ☒ No ☐	PASS – The applicant has confirmed that pollution of receiving waters from the site will be mitigated using brown roofs, permeable surfacing, a petrol

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		It has been stated that during drilling, contamination such as visual staining, asbestos and hydrocarbons was observed within the made ground and natural strata. However, soil analysis didn't identify any exceedance of the human health assessment criteria. <u>Have mitigation methods been proposed (e.g. a petrol interceptor)?</u> Yes ☒ No ☐ Brown roofs, permeable surfacing, a petrol interceptor and a downstream defender have been proposed to allow for treatment of runoff. (FRA, p.33/114)	interceptor and a downstream defender.

4. Response from LLFA

a) Review Summary

This application has not sufficiently demonstrated the use of the London Plan's drainage hierarchy. The application proposes the following key items:

- **Type of development:** Major
- **Flood risk:** Low/Very Low (from all sources of flooding)
- **Types of conveyance / attenuation features:** Permeable paving, below ground attenuation tanks, brown roofs and rainwater harvesting.
- **Runoff rate restriction (l/s):** 2.9 l/s, this meets the greenfield runoff rate for the 1 in 100 year +CC rainfall event.
- **Runoff attenuation volume (m³):** 842 m³
- **Maintenance plan:** The applicant has provided maintenance tasks and frequencies for the proposed SuDS features and has stated that the client, or an appointed maintenance company will be responsible for undertaking maintenance of the proposed features for the whole life of the site.

b) Recommendation and Requests

We require more information before recommending approval of the application. To address this, the applicant should submit information which:

- The applicant should provide the greenfield, existing and proposed runoff volumes for the 1 in 100 year 6 hour rainfall event with supporting calculations.
- The applicant should provide calculations which demonstrate that there will be no flooding on site for the 1 in 30 year rainfall event and no flooding to buildings in the 1 in 100 year rainfall event using the latest rainfall data (FEH22) and total site area within the calculations.

