

Richard Scrivener

From: Barry, Maria <Maria.Barry@knowsley.gov.uk>
Sent: 15 September 2020 11:37
To: Liam Bromiley
Subject: [External] RE: External Mail: FW: Headbolt Lane Station, Kirkby
Attachments: FW: Headbolt Lane - Flooding Advice - 29.7.20; RE: Headbolt Lane - Flooding Advice - 29.7.20

Hi Liam

Please see attached emails with Kevin McKeown's comments on drainage/flooding for this scheme. We have no further information on historic flooding.

As discussed yesterday, Kevin has previously advised that a minimum 5l/s discharge rate would be required.

Regards

Maria Barry
Lead Engineer
MDT & DC
Highways and Transportation

Tel: (0151)- 443 2349 Mob: 07384 900841
Email: maria.barry@knowsley.gov.uk
Knowsley Council | Yorkon Buildings | Archway Road | Huyton | L36 9YU

From: Liam Bromiley <Liam.Bromiley@arup.com>
Sent: 10 September 2020 15:25
To: Lead Local Flood Authority <LLFA@knowsley.gov.uk>
Cc: McKeown, Kevin <Kevin.McKeown@knowsley.gov.uk>; Barry, Maria <Maria.Barry@knowsley.gov.uk>
Subject: External Mail: FW: Headbolt Lane Station, Kirkby

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Good Afternoon,

Could I please chase up the progress on the below request?

In particular would you please be able to advise where I can obtain the historic flooding data for the location?

Many thanks,

Liam

From: Liam Bromiley
Sent: 07 September 2020 16:54
To: LLFA@knowsley.gov.uk
Cc: maria.barry@knowsley.gov.uk; Gregory Courtney <gregory.courtney@arup.com>; Richard Scrivener

<Richard.Scrivener@arup.com>; Kevin.McKeown@knowsley.gov.uk

Subject: Headbolt Lane Station, Kirkby

Good afternoon,

I am working on the drainage design for the Headbolt Lane Station development, which I believe you have recently discussed with my colleagues Richard Scrivener and Gregory Courtney?

They mention that you agreed to a minimum discharge of 5 l/s, if so could I please have confirmation of it in writing?

Additionally, I am interested in obtaining information regarding the historic flooding and existing highway drainage at the location. Would you have a relevant contact within the council who could provide this information?

Many thanks,

Liam

[Liam Bromiley](#)

Civil Engineer | Infrastructure, Transport and Cities

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Appendix F

UU Correspondence

Richard Scrivener

From: Liam Bromiley
Sent: 13 November 2020 17:05
To: EIRREQUEST@UUPLC.CO.UK
Subject: FW: [External] Query reference: 567456
Attachments: 259202003885.msg



Good Evening,

Could you please provide an update regarding the progress of the below query?

Thanks,

Liam

From: Liam Bromiley
Sent: 16 October 2020 09:53
To: EIRREQUEST@UUPLC.CO.UK
Subject: FW: [External] Query reference: 567456 [Filed 16 Oct 2020 09:53]

Good Morning,

I am putting together a flood risk assessment for a proposed development in Knowsley, Merseyside. Therefore I am interested in knowing if United Utilities have any records of historic flooding at the site?

The approximate grid reference for the site is: E 341319, N 399806

Many thanks,

Liam

From: no-reply@uuplc.co.uk <no-reply@uuplc.co.uk>
Sent: 25 September 2020 16:46
To: Liam Bromiley <Liam.Bromiley@arup.com>
Subject: [External] Query reference: 567456

Dear Liam Bromiley,

Query Reference: UUPS-QRY-567456

Query Text: I am putting together a flood risk assessment for a proposed development in Knowsley, Merseyside. Therefore I am interested in knowing if United Utilities have any records of historic flooding at the site?

Query Response: Thank you for your email. Please see below an email address where you can request flooding information. EIRREQUEST@UUPLC.CO.UK

Kind regards,
The Property Searches team

EMGateway3.uuplc.co.uk made the following annotations

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Appendix G

Proposed Site Drainage

Appendix H

Knowsley CC SuDS Pro-Forma

PRO-FORMA 1: Sustainable Drainage System: Planning Permission

This pro-forma is a requirement of the Planning Validation Checklist. You must complete all white boxes **in full** and submit this pro-forma along with your supporting evidence to the Local Planning Authority for any application which seeks planning permission for major development (as defined in section 2 of [Statutory Instrument 2015 No. 595](#)).

This pro-forma supports developers and regulators in **summarising and confirming** how surface water from a development will be managed sustainably under current and future conditions. It should be completed in conjunction with the Council's 'Completing your Pro Forma' document and your sustainable drainage system should be designed in accordance with [CIRIA The SuDS Manual C753](#).

The pro-forma follows Policy CS24 of [Knowsley MBC's Local Plan](#), [National Planning Policy Framework](#), [House of Commons Written Statement \(HWSW 161\) on SuDS](#), [Planning Practice Guidance](#) and [Defra's Non-Statutory Technical Standards for Sustainable Drainage Systems](#). It is supported by the [Defra/EA Guidance on Rainfall Runoff Management](#) and can be completed using freely available tools such as [Tools for Sustainable Drainage Systems](#) or approved Industry Standard surface water management design software. The Council's [Sustainable Drainage & Surface Water Management Technical Guidance document](#) also provides further information.

Section 1: Development Details

Development Name		Headbolt Lane New Station			
Development Address (including postcode)		Headbolt Lane, Knowsley, Merseyside (L33 1WD nearest)	Planning Application Reference (if available)		N/A
Development Grid Reference	Northings	399806	Expected lifetime of development (years)		120
	Eastings	341319	Have you submitted a Flood Risk Assessment?		Yes ☒ No ☐
Total Development Site Area (Ha)		5.0	Type of Planning Application (✓)	Outline	☐
Site area served by proposed drainage system (excluding open space) (Ha)*		2.12		Full	☒
Is your surface water drainage system designed to a (tick all that apply):				Hybrid	☐
Greenfield Standard		☒		Reserved Matters	☐
Previously Developed Standard		☐			

PRO-FORMA 1: Sustainable Drainage System: Planning Permission

Section 2: Impermeable Area and Existing Drainage For outline or reserved matters applications, go to Section 3

	Existing (E)	Proposed (P)	Difference (P – E)	Evidence Checklist	
Impermeable Area (Ha)	0	2.12	2.12	☒	Plans showing development layout of site with existing and proposed impermeable areas.
State Drainage Method	N/A	Discharge to watercourse	N/A	☒	Plans showing current and proposed locations of sustainable drainage system.
Are there existing sewers, watercourses, water bodies, highway drains, soakaways or filter drains on the site?			Yes ☐ No ☐	☒	Plans showing existing layout to include: • Watercourses, open or culverted • Water bodies – ponds, swales etc. • Sewers, including manholes • Highway drains, include manholes • Soakaways, filter drains

Section 3: Surface Water Discharge Hierarchy – Planning Practice Guidance

Surface Water Discharge Method	Proposed?	If YES - Evidence Checklist		If NO - Evidence Checklist	
1. Infiltration to ground	Yes ☐ No ☐	☒	Completed Infiltration Checklist from CIRIA The SuDS Manual C753 Appendix B <i>An editable version of this form is available on SusDrain website.</i>	☐	Geotechnical Survey, including Soil Permeability Testing stating Percolation Coefficient, in accordance with BRE 365 AND Statement providing justification in your Sustainable Drainage Strategy
2. Discharge to watercourse or surface water body (Main River or Ordinary)	Yes ☐ No ☐	☒	Watercourse and/or Water Body Survey Report	☐	Plan showing nearby watercourses and water bodies AND Statement providing justification in your Sustainable Drainage Strategy
3. Discharge to surface water sewer	Yes ☐ No ☐	☐	Water and Sewerage Company written agreement for the Right to Connect.	☒	Plan showing nearby sewers AND Statement providing justification in your Sustainable Drainage Strategy
4. Discharge to combined sewer	Yes ☐ No ☐				

PRO-FORMA 1: Sustainable Drainage System: Planning Permission

Section 4: Calculate Peak Discharge Rates – Technical Standards S2 and S3 (unless S1 applies)

Rainfall Event	Existing Rate (l/s)	Greenfield Rate (l/s)	Proposed Rate (l/s) <i>Brownfield sites must reduce discharge rates by 50%</i>	Evidence Checklist	
Qbar	1.64(N)/3.25 (S)	1.64(N)/3.25(S)	5(N)/5(S)	☒	MicroDrainage (or equivalent) calculations
1:1 Year Event	1.42(N)/2.83(S)	1.42(N)/2.83(S)	5(N)/5(S)		
1:30 Year Event	2.78(N)/5.53(S)	2.78(N)/5.53(S)	5(N)/5.53(S)		
1:100 Year Event	3.41(N)/6.76(S)	3.41(N)/6.76(S)	5(N)/6.76(S)		

Section 5: Calculate Discharge Volume – Technical Standards S4 and S6 (unless S1 applies)

Rainfall Event	Existing Volume (m ³)	Greenfield Volume (m ³)	Proposed Volume (m ³)	Evidence Checklist	
1:100 Year 6 Hour Event	TBC	TBC	TBC	☐	MicroDrainage (or equivalent) calculations

Section 6: Infiltration

Site Information	✓	Evidence Checklist	
Do your sustainable drainage proposals include any infiltration?	Yes ☒ No ☐ <i>If NO, please move on to Section 7</i>	☒	Proposed sustainable drainage plans
You should submit an alternative 'Plan B' sustainable drainage design utilising an alternative discharge method if site specific ground conditions are unknown at this stage. This will become the default design in the event infiltration proposals are not feasible upon site specific ground investigation. Have you submitted an alternative 'Plan B' sustainable drainage design?	Yes ☒ No ☐	☒	'Plan B' conceptual sustainable drainage plans and statement of approach

PRO-FORMA 1: Sustainable Drainage System: Planning Permission

Section 7: Storage – Technical Standards S7, S8 and S9

Storage Details	Details	Evidence Checklist	
State climate change allowance used (%)	40	☒	State / use in MicroDrainage
State storage volume provided (m ³) (excluding non-void spaces) <i>Must include an allowance for climate change and urban creep.</i>	900m3 (Northern catchment)/800m3 (Southern catchment)	☒	Drainage plans showing location of attenuation and all flow control devices and any supporting calculations
Summarise how storage will be provided for 1:30 year event on site. <i>Storage must be designed to ensure that at no flooding occurs onsite in a 1 in 30 year event except in designed areas and no flooding occurs offsite in a 1 in 100 year (+ climate change allowance) event.</i>	2 attenuation tanks, a 900m3 tank for the southern catchment and a 800m3 for the southern catchment	☒	Plans showing size and location of storage and supporting calculations
Summarise how storage will be provided for 1:100 year (+ climate change) 6 hour event on site. <i>Where storage above the 1:30 year rainfall event is provided in designated areas designed to accommodate excess surface water volumes, plans showing storage locations and surface water depths and supported by MicroDrainage (or equivalent) calculations.</i>	2 attenuation tanks, a 900m3 tank for the northern catchment and a 800m3 for the southern catchment	☒	Plans showing size and location of storage and supporting calculations

Section 8: Operation and Maintenance – Technical Standard S12 and HCWS161

Consideration	Select <u>ALL</u> that apply (✓)		Evidence Checklist
State how <u>ALL</u> components of the sustainable drainage system will be maintained for the design life of the development.	Sustainable drainage features are at property level	☒	☒ Statement provided within your Sustainable Drainage Strategy
	Sustainable drainage system to be adopted by Water and Sewerage Company through a Section 104 agreement (Water Industry Act 1991)	☐	
	Applicant to secure maintenance of sustainable drainage features by entering into a Section 106 agreement (Town and Country Planning Act 1990)	☐	

PRO-FORMA 1: Sustainable Drainage System: Planning Permission

Declaration and Submission

This pro-forma has been completed using evidence from information which has been submitted with my planning application.

The information submitted in the Sustainable Drainage Strategy and site-specific Flood Risk Assessment (FRA), where submitted, is proportionate to the site conditions, flood risks and magnitude of development and I agree that this information can be used as evidence to this sustainable drainage approach.

Submitter Details

Form <u>completed</u> by	Peace Madzoke	Email Address	richard.scrivener@arup.com
		Daytime Telephone	0113 237 3750
Form <u>signed off</u> by	Richard Scrivener	Accreditation(s) and/or Qualification(s) of Signatory	Chartered Civil Engineer MEng CEng MICE FIHE MCIHT
Date (dd/mm/yyyy)	12/08/2021	Company	Ove Arup & Partners Ltd

Client Details

Name	Tom Highton	Company	Buckingham Group Contracting Limited
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