

Barnes Hospital

Foul Drainage Statement

Prepared For:

LS Estates

RBG Project No.:

4427

Document No.:

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P05

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S2 - For Information

Date:

02 December 2021

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Revision	Section / Page No.	Revision Description	Author	Reviewer	Date
P01		Exported from Stage 2 Report	G. Kim	G. Irvine	04/08/21
P02		Increased attenuation tank – Appendix A	G. Kim	J. Gold	23/09/21
P03		Green roof hatch updated	J. Hodder	J. Gold	15/10/21
P04		Red line boundary updated	J.Hodder	G. Irvine	18/11/21
P05		Thames Water Capacity Check added	J.Hodder	G.Irvine	02/12/21

REVISION AUTHOR:

REVISION CHECKER:

REVIEWER/APPROVER:

.....
James Hodder
Signing for and on behalf of
Robert Bird & Partners Ltd
Date: 02/12/2021

.....
G.Irvine
Signing for and on behalf of
Robert Bird & Partners Ltd
Date: 02/12/2021

.....
G.Irvine
Signing for and on behalf of
Robert Bird & Partners Ltd
Date: 02/12/2021

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1.0 Introduction

1.1. General

Robert Bird Group (RBG) have been appointed by LS Estates to undertake a site-specific Foul Drainage Statement to support a standalone planning application for the residential plot of the proposed Barnes Hospital Site. The entire site has already been granted Outline Planning Permission (OPP) under ref. 18/3642/OUT. This planning application seeks approval for the optimisation of the residential plot which forms part of the overall Barnes Hospital Site.

1.2. Project Overview

The proposed development comprises three residential buildings, Block A, B & C, and the refurbishment of an existing two-storey recreation hall into residential units, providing 106 residential apartments, and associated parking and landscaping. Block A is 3 storeys high while Blocks B and C are 4 storeys high.

There is also a single-storey basement which extends below the footprint of Blocks A & B which links the two buildings. The basement contains plant room, cycle and refuse stores and car parking. The site is not located within a conservation area and there are no listed buildings on the site or within 250m of the site boundary.

2.0 Existing Drainage

Asset records provided by Thames Water indicate that there are surface water and foul sewers in South Worple Way to the North of the site, along with a foul sewer to the East in South Worple Avenue.

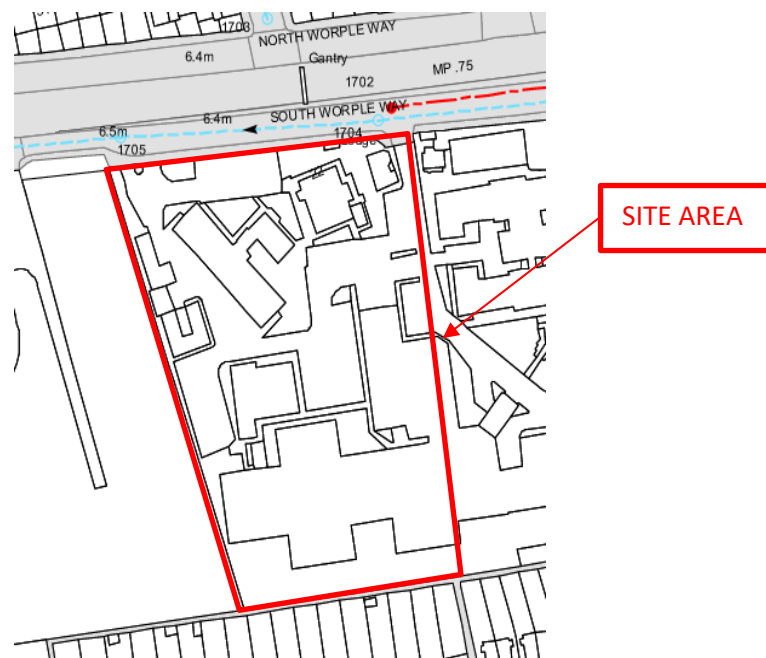


Figure 4-1 – Thames Water Asset Records

A CCTV survey undertaken in October 2019 by Sumo Services shows that the site currently drains into the public sewers within South Worple way via two combined connections for the surface water and 2 foul connections for the foul drainage.

The existing drainage on site is widespread, with a large network of surface and foul pipework being used to drain the majority of the site to South Worple Way.

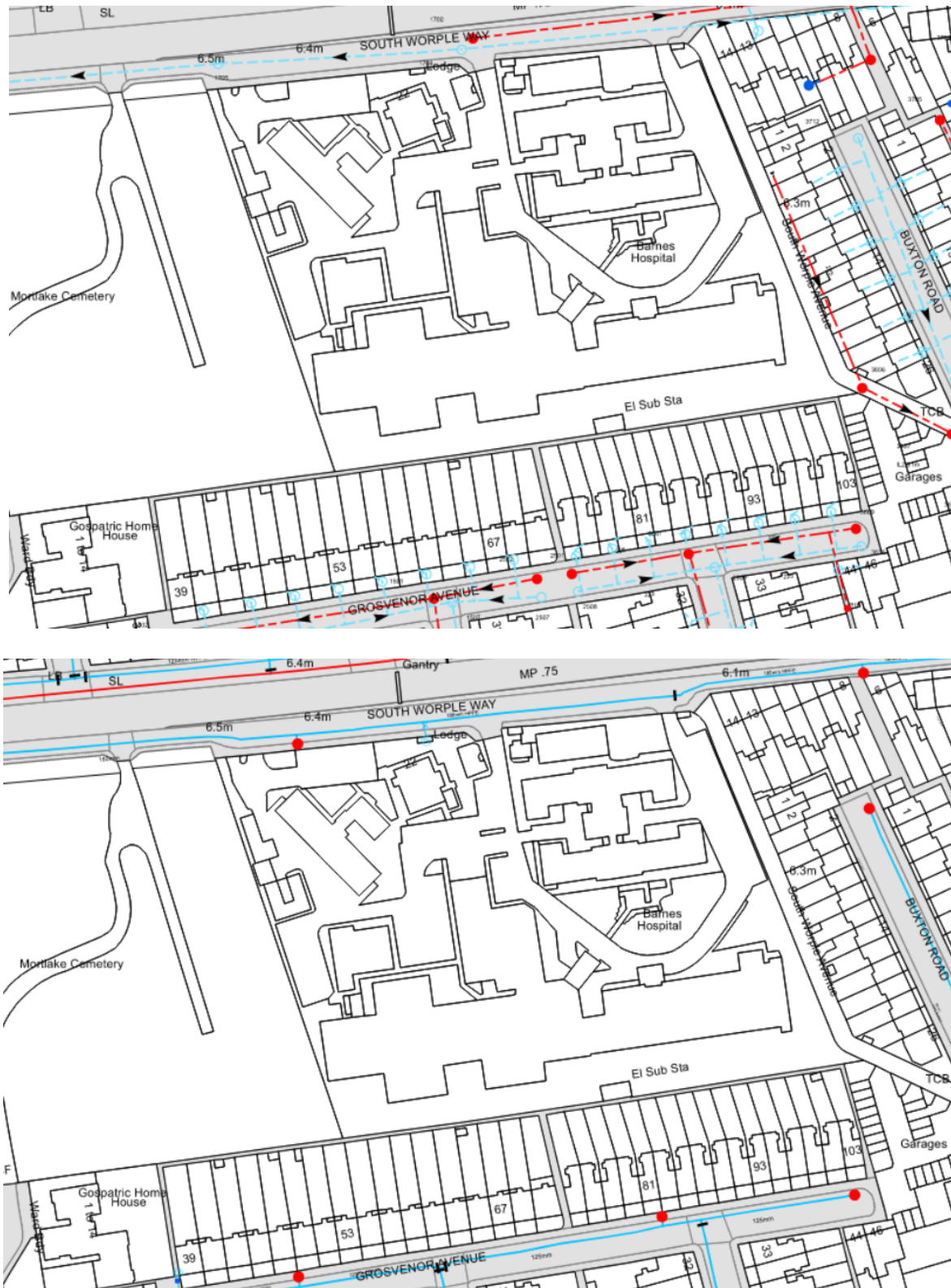


Figure 2-1 Thames Water Asset Search of Site

3.0 Foul Water Strategy

3.1. Proposed Foul Water Strategy

3.1.1 Peak Discharge Rate

The peak discharge rate of the foul network is to be confirmed by the MEP engineer at Stage 3. Based on preliminary calculations, the peak design flow rate is estimated to be 5.3 l/s. These calculations are based on the estimated rate of 0.05 l/s per dwelling, as provided in section B4.1 of the Sewers for Adoption design guide.

3.1.2 Thames Water Capacity Check

A Thames Water capacity check was completed in December 2018, with the OPP application stating a requirement for 10.2l/s for the original scheme. This gained approval from Thames Water which is valid for 3 years. The original scheme comprised of 83 dwellings, a special educational needs centre and a health hub. As the foul discharge rate for the new scheme has been estimated at 5.3 l/s, considerably less than the previous approved capacity check, this has been retained as evidence of capacity for the foul discharge. Please find the original Thames Water capacity check from the OPP within Appendix B.

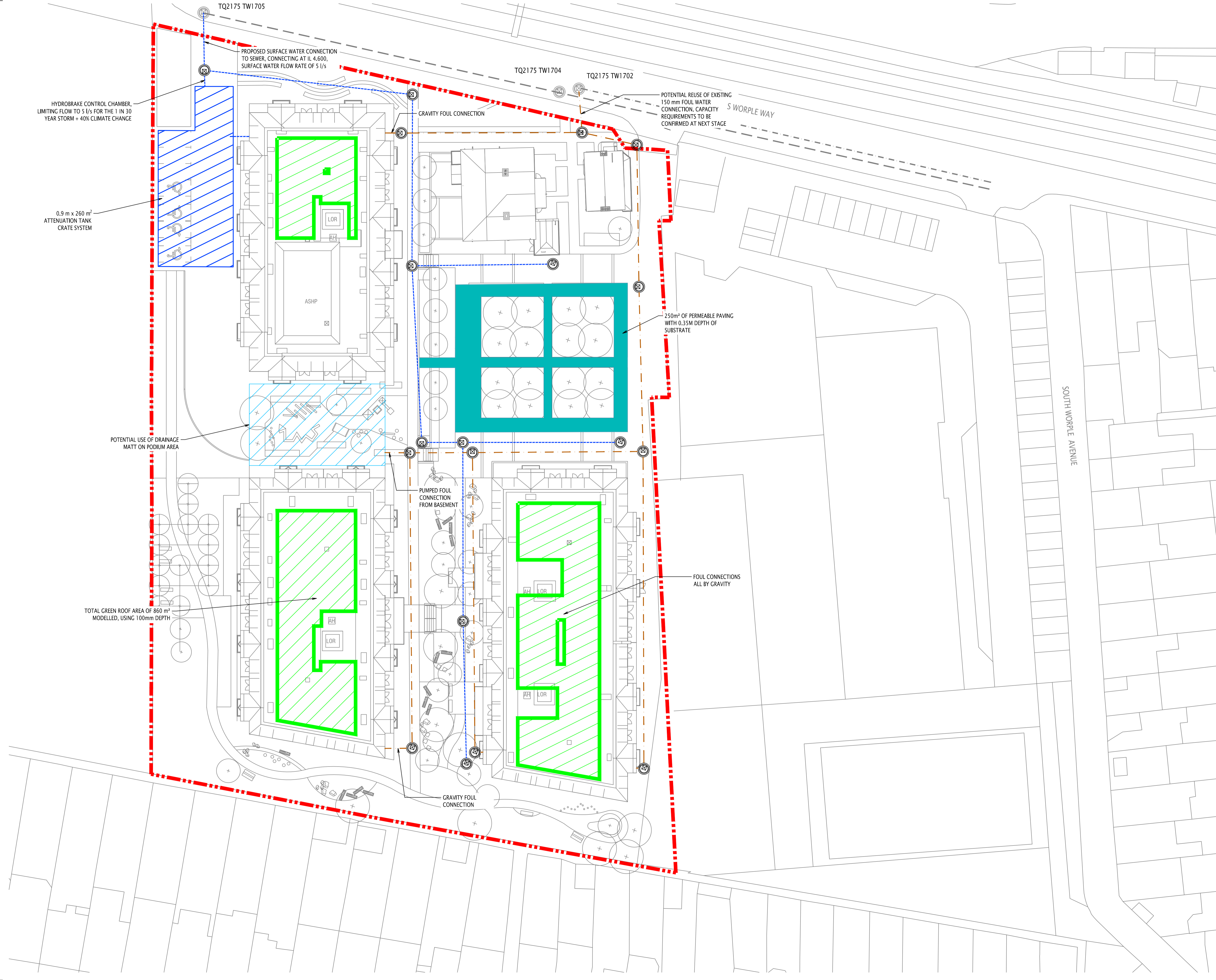
3.1.3 Design Strategy

Foul water will be collected via MEP specified pipes and conveyed to the basement or ground floor of each building. Foul flows from GF and above will be discharged via gravity. Foul water from within the basement will be collected via a foul drainage system within the basement slab and then pumped to combine with the foul drainage system from above. This will then discharge into the Thames Water Sewer system in South Worple Way via a singular connection. There is potential to reuse the existing 150 mm foul water connection, to be confirmed at Stage 3. The foul water system will be kept separate from the surface water drainage systems.

Refer to Appendix A for the locations of the proposed foul water outfalls, along with an overview of the drainage strategy.

Appendix A

Proposed Drainage Strategy



KEY TO HEALTH AND SAFETY SYMBOLS

- INDICATES A RESIDUAL RISK REQUIRING A COMPULSORY ACTION
- INDICATES A RESIDUAL RISK REQUIRING A PROHIBITIVE ACTION
- INDICATES A RESIDUAL RISK AS A WARNING
- INDICATES A RESIDUAL RISK FOR INFORMATION

LEGEND

- POTENTIAL GREEN ROOF AREAS
- ATTENUATION TANK
- DRAINAGE MATT
- PERMEABLE PAVING
- FOUL WATER PIPE
- SURFACE WATER PIPE
- EXISTING PUBLIC COMBINED SEWER
- EXISTING PUBLIC SURFACE WATER SEWER
- FOUL WATER MANHOLE
- SURFACE WATER MANHOLE
- EXISTING TW MANHOLE
- SITE BOUNDARY

PO5	RED LINE BOUNDARY UPDATED	JH	JC	18.11.21
PO4	GREEN ROOF HATCH UPDATED	JH	JC	14.10.21
PO3	AREAS UPDATED	GK	JC	23.09.21
PO2	NETWORKS UPDATED	VS	JC	06.08.21
PO1	FOR INFORMATION	VS	JC	09.07.21

Rev	Revision Description	By	App	Date
1	Issue for Information	JH	JC	18.11.21
2	Issue for Information	JH	JC	14.10.21
3	Issue for Information	GK	JC	23.09.21
4	Issue for Information	VS	JC	06.08.21
5	Issue for Information	VS	JC	09.07.21

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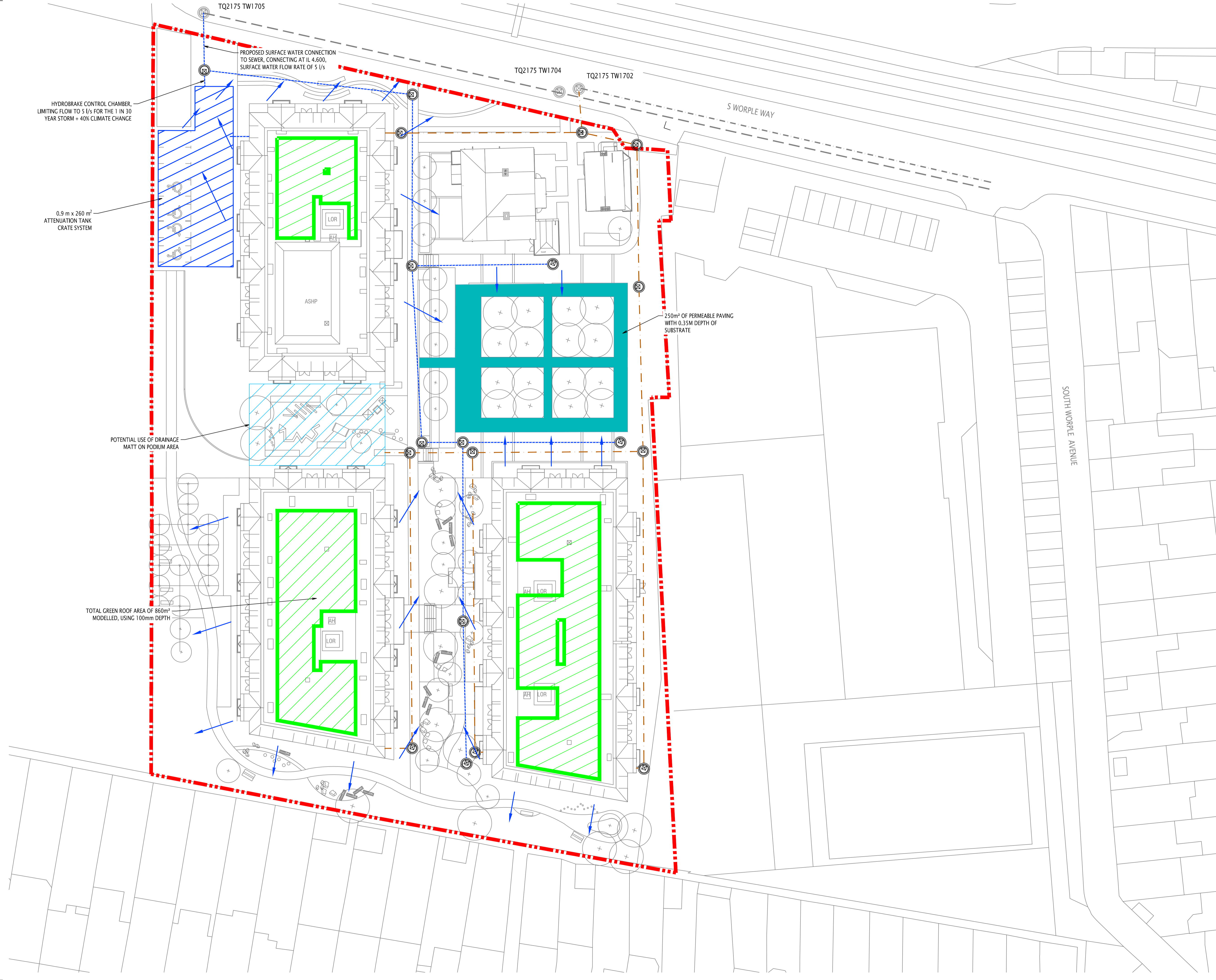
Project
BARNES HOSPITAL SITE

Title
DRAINAGE GENERAL ARRANGEMENT

Date	Drawn
JULY/2021	J.BELL
Scale at A1	Designer
1:250	G.KIM
Suitability Code	Design Checker
S2	-
Job Number	Approved
4427	L.RAPSON

FOR INFORMATION

Drawing Number	Revision
4427-RBG-XX-00-DR-CV-86001	PO5



KEY TO HEALTH AND SAFETY SYMBOLS

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- INDICATES A RESIDUAL RISK REQUIRING A PROHIBITIVE ACTION
- INDICATES A RESIDUAL RISK AS A WARNING
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LEGEND

- BUILDINGS CONTAINING GREEN ROOF AREAS
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- EXISTING PUBLIC COMBINED SEWER
- EXISTING PUBLIC SURFACE WATER SEWER
- FOUL WATER MANHOLE
- SURFACE WATER MANHOLE
- EXISTING TW MANHOLE
- SITE BOUNDARY
- OVERLAND EXCEEDANCE FLOW ROUTES

P05	RED LINE BOUNDARY UPDATE	JH	JG	18.11.21
P04	GREEN ROOF HATCH UPDATED	JH	JG	14.10.21
P03	AREAS UPDATED	GK	JG	23.09.21
P02	NETWORKS UPDATED	VS	JG	06.08.21
P01	FOR INFORMATION	VS	JG	09.07.21

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4	Issue for Information	VS	JG	06.08.21
5	Issue for Information	VS	JG	09.07.21

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Structural, Civil & Construction
Engineering Consultant

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Member of the Surbana Jurong Group

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Client
LS ESTATES

Project
BARNES HOSPITAL SITE

Title
OVERLAND FLOW DRAWING

Date
AUGUST/2021

Scale at A1
1:250

Suitability Code
S2

Job Number
4427

Drawn
J.BELL

Designer
G.KIM

Design Checker
-

Approved
L.RAPSON

FOR INFORMATION

Drawing Number
4427-RBG-XX-00-DR-CV-86002

Revision
P05

Appendix B

Thames Water Foul Capacity Check

Subject Barnes Hospital - Interaction with TWUL

Date 14 December 2018

Job No/Ref 226594-00

Introduction

This note gives a summary of the consultation undertaken with Thames Water Utilities Limited (TWUL) with regards to the potable, surface and foul water supply for the new Barnes Hospital development.

Potable Water

Correspondence

- 30th Nov 2018: Pre-planning application submitted to TWUL
- 6th Dec 2018: TWUL reply to application stating they have capacity concerns for the water supply and need to model the system internally.
- 10-11th Dec 2018: Phone calls from Arup to TWUL, clarifying the need for modelling.
- 12th Dec 2018: Issue of note of findings to Montagu Evans

Consultation

TWUL stated that the water flow rate of 5.8 l/s stated in pre-application is relatively small, but will put excess strain on the network in the area. TWUL requires further internal modelling to ensure that this flow can be accommodated or confirm network upgrades that need to be made to do so.

TWUL stated that to be able to push the application through, they need information of the exact number of water outlets within the SEN School and Health Hub on the site. These are unique buildings and therefore the water usage cannot be calculated based on a maximum number of occupants, (as can be done with the residential units on the site.)

TWUL stated that receiving the information on the number of water outlets would not guarantee that no further modelling is required, but means an exact flow rate can be deduced. If this flow rate is lower than the estimated 5.8 l/s and within an acceptable range for the network, then TWUL would be able to confirm capacity, otherwise TWUL would still require further internal modelling to be carried out.

This level of MEP design has not been commissioned for the Barnes Hospital site at this stage of works, therefore TWUL cannot yet continue their internal modelling as stated in their response to the pre-planning enquiry on 6th December 2018.

Subject Barnes Hospital - Interaction with TWUL

Date 14 December 2018

Job No/Ref 226594-00

Surface Water

Correspondence

- 30th Nov 2018: Pre-planning application submitted to TWUL
- 12th Dec 2018: Email sent to TWUL developer services, chasing for information
- 14th Dec 2018: TWUL response supporting use of SuDS, and outlining that discharge rate to be agreed with LB Richmond will be acceptable to TWUL

Consultation

A pre-planning application has been sent to TWUL, and they have confirmed that a discharge rate should be agreed with the Local Authority (LB Richmond upon Thames), and that TWUL would be about to accommodate that agreed discharge.

Foul Water

Correspondence

- 30th Nov 2018: Pre-planning application submitted to TWUL
- 12th Dec 2018: Email sent to TWUL developer services, chasing for information
- 14th Dec 2018: TWUL response confirming that there is sufficient capacity for the proposed development to discharge foul water drainage by gravity

Consultation

A pre-planning application has been sent to TWUL, and they have confirmed that foul water drainage from the proposed development can be accommodated within their existing network.



Ms E Downey
South west lon st Georges mental health trust
Springfield University Hospital
61 Glenburnie rd
London
SW17 7DJ



Our ref: DS6056034



0800 009 3921
Monday to Friday, 8am to 5pm

14th Dec 2018

Pre-planning enquiry: Wastewater Capacity check

Dear Ms Downey

Thank you for providing details of your development with the Pre-Planning application dated 29th Nov 18' for development @ Barnes Hospital South Worple Way London SW14 8SU

{ Brownfield site developed to 53 houses+30 Flats + Special Education needs school & Helath Hub as detailed in the application}.

Foul

If your proposals progress in line with the details you've provided as above, we're pleased to confirm that there will be sufficient sewerage capacity to serve your foul discharges from your development, provided the discharge is by gravity.

Surface Water

In considering your surface water needs, we support the use of sustainable drainage on development sites.

The surface water drainage strategy should follow policy 5.13 of the London Plan. Typically greenfield run off rates of 5l/s/ha should be aimed for using the drainage hierarchy. The hierarchy lists the preference for surface water disposal as follows; Store Rainwater for later use > Use infiltration techniques, such as porous surfaces in non-clay areas > Attenuate rainwater in ponds or open water features for gradual release > Discharge rainwater direct to a watercourse > Discharge by storing and attenuating rainwater direct to a surface water sewer/drain > Discharge by storing and attenuating rainwater to the combined sewer.

Please refer to the attached document titled "Planning your wastewater" attached to this letter, specifically to notes relating to surface water. Also I would advise you to liaise with the LA and discuss their criteria regarding surface water discharges in that area and adhere to their stipulation. If you agree & adhere to a LA stipulation then TW will be able to accommodate that agreed discharge.

This confirmation is valid for 12 months or for the life of any planning approval that this information is used to support, to a maximum of three years.

Please note that you must keep us informed of any changes to your design – for example, an increase in the number or density of homes. Such changes could mean there is no longer sufficient sewerage capacity.

What happens next?

Please make sure you submit your connection application, when you are ready, giving us at least 21 days' notice of the date you wish to make your new connection/s.

If you've any further questions, please contact me.

Yours sincerely

Siva Sivarajan

Developer Services- Wastewater Adoptions Engineer
Office:0203 577 7752 Mobile: 07747842608
siva.sivarajan@thameswater.co.uk

Thames Water Utilities Ltd, Clearwater Court, Vastern Road, Reading, Berkshire, RG1 8DB
Find us online at developers.thameswater.co.uk



TW internal ref: DTS 24141

From: Tim Beech <tim.beech@thameswater.co.uk>
Sent: 04 December 2018 10:55
To: Hamish Tozer
Cc: Stuart Jordan
Subject: [External] RE: Barnes Hospital

Hi Hamish,

We need to ensure all responses go through the appropriate system via developer services, comments from myself or my team hold no weight internally unless on the corporate system. Therefore on this occasion you'll need to wait to go through the system like all the other developers submitting enquires.

We deal with 96 local authorities and unfortunately I'm not close enough to understand each of their policies. It might be something the GLA are imposing through the London Plan? When developer services pick this up they'll consult my team and we'll ensure we get this one done as soon as we can.

Thanks,

Tim Beech

South London Infrastructure
Planning Manager
Wastewater Strategy, Planning &
Investment

Thames Water Utilities Ltd
Reading STW, Island Road
Reading, RG2
ORP

☎ 07747640588

(40588) ✉ tim.beech@thameswater.co.uk



Promoting intelligent investment in our wastewater assets.

From: Hamish Tozer [<mailto:Hamish.Tozer@arup.com>]
Sent: 03 December 2018 18:05
To: Tim Beech
Cc: Stuart Jordan
Subject: RE: Barnes Hospital

Hi Tim, thanks for your quick response.

We submitted an application on Friday 30 Nov, and are already getting considerable pressure from the planning consultants to confirm when Thames Water will respond – we understand we don't go to the top of the list, though the LPA are refusing to validate the application until we can confirm capacity of drainage and water supply (note we haven't found this is required by other planning authorities, are you able to shed some light on whether this will become more common throughout London?).

The driver for this pressure is that the client and council have particularly tight funding deadlines for the Special Education Needs School, and the planning application needs to be validated ASAP so that these funding streams can be achieved.

We received a response on submission that we would hear back by this Fri 7 Dec, which is very much appreciated, though given the pressure from the planning consultants is there any way for you to check in or push this along on your end? We'd very much appreciate it, even if simply 'no impact study required' or 'further information required'.

Happy to discuss on the phone if you'd prefer, my number is below.

Many thanks,

Hamish Tozer
Senior Civil Engineer
MIEAust CPEng

Arup
13 Fitzroy Street London W1T 4BQ United Kingdom
d: +44 20 7755 4092
www.arup.com

Please note I will be on leave from Mon 17 Dec, returning Mon 7 Jan

From: Tim Beech <tim.beech@thameswater.co.uk>
Sent: 28 November 2018 14:00
To: Hamish Tozer <Hamish.Tozer@arup.com>
Cc: Stuart Jordan <Stuart.Jordan@arup.com>
Subject: [External] RE: Barnes Hospital

Hi Hamish,

All new enquiries need to go through our developer services department to ensure sites are tracked and logged appropriately. The question below is now a free service (think previously there was a fee).

<https://developers.thameswater.co.uk/Developing-a-large-site/Planning-your-development/Water-and-wastewater-capacity>

Thanks,

Tim Beech
South London Infrastructure
Planning Manager
Wastewater Strategy, Planning &
Investment

Thames Water Utilities Ltd
Reading STW, Island Road



Reading, RG2
ORP
☎ 07747640588
(40588) ✉ tim.beech@thameswater.co.uk

Promoting intelligent investment in our wastewater assets.

From: Hamish Tozer [<mailto:Hamish.Tozer@arup.com>]
Sent: 28 November 2018 12:58
To: Tim Beech
Cc: Stuart Jordan
Subject: Barnes Hospital

Hi Tim,

We've previously been in contact in 2016 regarding the redevelopment of the Springfield Hospital site in LB Wandsworth. We're now supporting the SWLStG NHS Trust in assessing their Barnes Hospital site in LB Richmond upon Thames, for a similar redevelopment (part of the decant of Springfield Hospital), although on a much smaller scale at 1.4 ha total site area. The proposed site will have three residential blocks, a Health Hub, and a Special Education Needs (SEN) school, on South Worples Way SW14 8SU.

We have prepared an FRA including drainage strategy, and this has been submitted to the LB Richmond upon Thames – they have requested that we *“provide evidence in the form of written confirmation as part of the planning application that capacity exists in the public sewerage and water supply network to serve the development”* (Policy LP 23 of their Local Plan), hence this email.

I've extracted the essentials of our drainage proposals from our FRA below (we are not commissioned to design the potable water supply so I've just provided the scale of development from the architects).

Could you please review and let me know if you can confirm that capacity is available for these proposed discharge / demand rates, or outline additional information / studies required to be provided / undertaken, for which we can then outline a way forward to LB Richmond upon Thames to address the requirement in italics above. We acknowledge that there is a formal process which should apply, though are looking to provide some assurance to the council, however if you're not able to confirm this currently, then we would appreciate advice on the fastest way to resolve this.

Surface Water Drainage

- Two connections to existing TWUL network, one to existing manhole TQ2175 TW1705, one new manhole at north east corner of site, approx. 60m east of existing manhole TQ2175 TW1704 – this site appears to be at the head of the TWUL surface water drainage network, and existing pipes are very shallow;
- Design storm is 1:30 year plus 40% allowance for climate change;
- Attenuate surface water runoff on site in a small number of shallow buried systems (approx. 600 m³ total volume), restricting discharge for whole site to the greenfield runoff rate calculated for a 1:30 year design storm of approx. 5.0 l/s – we expect this to be lower than the existing discharge rate.

Foul Water Drainage

- One connection to existing TWUL network, to existing manhole TQ2175 TW1702 – this appears to be the head of the network;
- Estimated foul water drainage peak discharge rates:
 - Residential 1.8 l/s
 - Health Hub 7.9 l/s
 - SEN School 0.5 l/s

Potable Water Supply

- 83 residential units (three of these in converted existing buildings);
- GIA Schedule:

	GIA Sq.m
Total Existing Floor Space	6,952 Sq.m *
Floorspace to be demolished	6,714 Sq.m *
Floorspace to be retained	238 Sq.m *
New Build Floorspace Health Hub	2,500 Sq.m
New Build Floorspace SEN	2,402 Sq. m
New Build Floorspace Residential	6,918 Sq. m
Total Floorspace of New Facilities	12,058 Sq. m*

*All areas are based on scaled drawings and therefore are indicative.

- Estimated potable water peak demand flow rates:
 - Residential 1.0 l/s
 - Health Hub 4.1 l/s
 - SEN School 0.7 l/s

Thanks,

Hamish Tozer
Senior Civil Engineer
MIEAust CPEng

Arup
13 Fitzroy Street London W1T 4BQ United Kingdom
d: +44 20 7755 4092
www.arup.com

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From: Downey, Emily <Emily.Downey@swlstg.nhs.uk>
Sent: 06 December 2018 14:31
To: Hamish Tozer; Anna Russell-Smith (Anna.Russell-Smith@Montagu-Evans.co.uk); Tom Cole (tom.cole@montagu-evans.co.uk); John Cohu
Cc: Clark, Joseph
Subject: [External] FW: Clean Water pre-planninf capacity check for Barnes Hospital, South Worple Way, London, SW14 8SU
Attachments: Barnes Hospital, South Worple Way, London, SW14 8SU Water Capacity concerns.pdf

FYI – the letter says 53 houses and 30 flats – does that need correcting to all flats?

Thanks,
Emily

Emily Downey
EMP Project Support Officer

T: 020 3513 5992

E: emily.downey@swlstg.nhs.uk

A: Estates and Regeneration

South West London and St. George's Mental Health NHS Trust

Newton Building 3, Entrance 2 Ground Floor *Please note new office address*

Springfield University Hospital

61 Glenburnie Road, London SW17 7DJ

From: [DEVELOPER.SERVICES@THAMESWATER.CO.U](mailto:DEVELOPER.SERVICES@THAMESWATER.CO.UK)
[mailto:DEVELOPER.SERVICES@THAMESWATER.CO.UK]

Sent: 06 December 2018 14:20

To: Downey, Emily

Subject: Clean Water pre-planninf capacity check for Barnes Hospital, South Worple Way, London, SW14 8SU

Dear Emily,

Thanks for your application.

I tried calling you without any luck to discuss water requirement for comemrcial units.

However based on our understanding please find attached letter for your above development.

Should you have any queries please feel free to contact me.

Thanks & regards,

Aparna Yadav

Thames Water-Asset Development

02035778757

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Emily Downey
South West London and St George Mental.



6th December 2018

Pre-planning enquiry: Capacity concerns

Dear Emily

Thank you for providing information on your development at Barnes Hospital, South Worple Way, London, SW14 8SU consisting of 53 houses, 30 flats, Special education needs school and health hub.

We've assessed your proposals and concluded from our initial review that our supply network will have enough capacity to supply 83 residential units, but unfortunately we're unable to meet the needs of your full development at this time as actual water requirement for special education needs school and health hub is unknown.

In order to ensure we make the appropriate upgrades – or 'off-site reinforcement' – to serve the remainder of your development, we'll need to carry out modelling work and, if required, design a solution and build the necessary improvements. This work is done at our cost.

How long could modelling and reinforcement take?

Typical timescales for a development of your size are:

Modelling: 6 months
Design: 6 months
Construction: 6 months
Total: 18 months

If the time you're likely to take from planning and construction through to first occupancy is longer than this, we'll be able to carry out the necessary upgrades in time for your development. If it's shorter, please contact me on the number below to discuss the timing of our activities.

What do you need to tell us before we start modelling?

We're responsible for funding any modelling and reinforcement work. We need, though, to spend our customers' money wisely, so we'll only carry out modelling once we're confident that your development will proceed.

In order to have this confidence, we'll need to know that you **own the land and have either outline or full planning permission**. Please email this information to us as soon as you have it.

If you'd like us to start modelling work ahead of this point, we can do this if you agree to underwrite the cost of modelling and design. That means we'll fund the work – but you agree to pay the cost if you don't achieve first occupancy within five years.

I've attached an example of our underwriting agreement. Please call me on the number below if you'd like to discuss this or want to request a copy of the agreement to complete.

If the modelling shows we need to carry out reinforcement work, then before we start construction we'll need you to supply us with notification that you've confirmed your F10 – Notification of construction project - submission to the Health and Safety Executive.

What do I need to do next?

If you've satisfied the points above, then you should compare your own timeline with the typical timescales we've suggested for our activities. If the time you're likely to take from planning and construction through to first occupancy is **more** than the total time we're likely to take, we'll be able to carry out the necessary upgrades in time for your development.

If it's **less** than this, you might want to ask us to start modelling earlier – in which case we'll require you to underwrite the cost, as noted above.

If you can confirm whether you can provide the confidence we need we'll be able to start modelling if you still need it – but we won't do so until you've confirmed that you need it.

Please note that you must keep us informed of any changes to your design – for example, an increase in the number or density of homes. Such changes could mean there is no longer sufficient supply capacity.

If you've any further questions, please contact me on 02035778757.

Yours sincerely

Aparna Yadav

Thames Water

From: Richie Turner
Sent: 12 December 2018 17:38
To: developer.services@thameswater.co.uk
Cc: Hamish Tozer; Stuart Jordan
Subject: RE: Pre-Planning Enquiry - Barnes Hospital

Good afternoon,

I am wondering if there are any updates on the below application for the Barnes Hospital site, we have heard from you regarding the potable water supply to the site, however not about the surface or foul water supply.

We would happy to speak to whoever is dealing with the request if they require any more information from us.

Kind regards,

Richie Turner
Graduate Engineer | Infrastructure
MEng (Hons), GMICE

From: Richie Turner
Sent: 30 November 2018 18:39
To: 'developer.services@thameswater.co.uk' <developer.services@thameswater.co.uk>
Cc: Hamish Tozer <Hamish.Tozer@arup.com>; Stuart Jordan <Stuart.Jordan@arup.com>
Subject: Pre-Planning Enquiry - Barnes Hospital [Filed 30 Nov 2018 18:38]

Good afternoon,

Please see attached a pre-planning enquiry form for a new development at the Barnes Hospital site on South Worples Way in London Borough of Richmond-upon-Thames, (Postcode SW14 8SU.)

Attached is the completed enquiry form, with a site Flood Risk Assessment stapled on the back. Appendix E of the FRA shows a Proposed Drainage Plan with proposed sewers and connections. Please let me know if any additional information is needed.

I look forward to hearing your response.

Kind regards,

Richie Turner
Graduate Engineer | Infrastructure
MEng (Hons), GMICE

Arup
13 Fitzroy Street London W1T 4BQ United Kingdom
d: +44 20 7755 3394
www.arup.com

ARUP

Pre- planning enquiry

Application form

Please complete this form and return it to us at
developer.services@thameswater.co.uk or
Thames Water, Developer Services, Clearwater Court,
Vastern Road, Reading, RG1 8DB.



Application for a pre-planning enquiry

Please complete all sections of this form in BLOCK CAPITALS

If you're using this form to request a budget estimate, please note that you should be able to calculate the likely charges involved in your scheme by consulting our guide, 'Charging arrangements for new connection services', on our website.

Are you a: Developer Consultant Land promoter (Please tick one.)

Is your application for: Water Wastewater Both (Please tick one.)

Would you like a water budget estimate? Yes No

(We can only offer a wastewater budget estimate after modelling, if required).

A - About the person applying

Company name	SOUTH WEST LONDON AND ST GEORGES MENTAL HEALTH TRUST		
Title	Mr <input type="checkbox"/> Mrs <input type="checkbox"/> Ms <input checked="" type="checkbox"/> Miss <input type="checkbox"/> Dr <input type="checkbox"/> Other <input type="text"/>		
First name(s)	EMILY		
Last name	DOWNEY		
Preferred contact number	020 3513 5000		
Alternative number	020 3513 3663		
Email address	Emily.Downey@swlstg.nhs.uk		
Full postal address	Address line 1	SPRINGFIELD UNIVERSITY HOSPITAL	
	Address line 2	61 GLENBURNIE RD	
	Town	LONDON	
	County	GREATER LONDON	Postcode

B - Nominated contact

Who should we contact to process your application? Applicant Someone else (Please tick one.)

If someone else:

Company name	ARJP		
Title	Mr <input checked="" type="checkbox"/> Mrs <input type="checkbox"/> Ms <input type="checkbox"/> Miss <input type="checkbox"/> Dr <input type="checkbox"/> Other <input type="text"/>		
First name(s)	HAMISH		
Last name	TOZER		
Preferred contact number	020 7755 4092		

Alternative number

Email address

Full postal address

Address line 1

Address line 2

Town

County Postcode

C - Where the work is taking place

What is the address of the property being connected? Same as applicant Same as nominated contact
 Somewhere else (Please tick one.)

If somewhere else:

Site name

Full postal address

Address line 1

Address line 2

Town

County Postcode

D - About the site

What is the local authority?

Ordnance Survey grid ref

Type of site Greenfield Brownfield Mixed

How big is the site? hectares

When do you intend to have first occupancy? (Approximate date if necessary)

E - Planning status (if you've already started the planning process)

Is the development identified in the local plan? Yes No Don't know If Yes, reference number

Does it have outline planning permission? Yes No Don't know If Yes, reference number

Does it have full planning permission? Yes No Don't know If Yes, reference number

Does the development have building regulations permission? Yes No Don't know

When do you intend to start on site?

F - About the water supply

If you're proposing a water storage tank, what is its capacity?

m³

When will you want your first domestic connection laid on?

MM YYYY

For water supplies, what is the estimated flow rate required for your site?

litres/sec (Not required if applying only for wastewater.)

G - Existing sewerage connections (Not required if applying only for water.)

	Foul water	Surface water
Does the site have the following sewerage connections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
What is the type of discharge method?	<input checked="" type="checkbox"/> Gravity ? <input checked="" type="checkbox"/> Pumped .	<input checked="" type="checkbox"/> Gravity ? <input type="checkbox"/> Pumped .
If sewage is pumped, what is the pump rate?	<input type="text"/> litres/sec	<input type="text"/> litres/sec
Amount of existing impermeable area per connection	N/A	1.2 ha. to T2024 manhole TQ 2175 TW1704
What are the existing connection points? (For example, 'X' number of domestic and commercial properties drain into manhole 'Y' / sewer with diameter of 'Z'.)		

H - Proposed sewerage connections (Not required if applying only for water.)

	Foul water	Surface water
Does the site have the following sewerage connections?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
What is the type of discharge method?	<input checked="" type="checkbox"/> Gravity	<input checked="" type="checkbox"/> Gravity
	<input type="checkbox"/> Pumped	<input type="checkbox"/> Pumped
If sewage is pumped, what is the pump rate?	<input type="text"/> litres/sec	<input type="text"/> litres/sec
What is your proposed approach to surface water drainage?	N/A	<input type="checkbox"/> Traditional piped system
		<input checked="" type="checkbox"/> Sustainable drainage system (SuDS)
Do you propose using separate highway and surface water drainage systems?	N/A	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If the surface water rate is attenuated, to what rate is it attenuated?	N/A	<input type="text" value="5"/> litres/sec
Amount of proposed impermeable area per connection	N/A	<p>0.45 ha to MH TQ 2175 TW 1704</p> <p>0.47 ha to New Manhole (east of MH TQ 2175 TW 1704)</p> <p>0.48 ha to TQ 2175 TW 1705</p>
What are the proposed connection points? (For example, 'X' number of domestic and commercial properties drain into manhole 'Y' / sewer with diameter of 'Z'.)	<p>83 residential units + Special Education Needs school + Healthcare centre Hub</p> <p>Drain to manhole TQ 2175 TW 1702, Diameter unknown</p>	<p>0.45 ha to MH TQ 2175 TW 1704</p> <p>New MH</p> <p>Area = 0.47 ha</p> <p>Discharge = 2.2 l/s</p> <p>Pipe dia = 150 mm (Assumed)</p> <p>TQ 2175 TW 1705</p> <p>Area = 0.48 ha</p> <p>Discharge = 2.8 l/s</p> <p>Pipe dia = 150 mm (assumed)</p>

Please note: The developer is expected to follow the local authority's drainage strategy and be able to demonstrate how the proposed (attenuated) discharge rate of any surface water flows has been calculated. For developments in Greater London, please refer to the London Plan Drainage Hierarchy (Policy 5.13). We will challenge the rates provided if they are not in line with those based on the local drainage strategies.

I - Additional information (where available)

When we're assessing your development needs, it's important that we know what buildings (if any) currently exist on the site. It may be, for example, that the infrastructure serving those properties is already sufficient to cater for your proposed development.

We realise it may be too early in your process to complete this table, but any information you can provide at this stage will help improve the accuracy of our assessment and could prevent us from requesting data in the future.

Property type	Existing site	Proposed site
General housing (units 3 person+)		53
Flat (units up to 2 person)		30 36
Primary school (max. pupil capacity)		
Senior school (max. pupil capacity)		
Boarding school (max. pupil capacity)		
Assembly hall (max. capacity)		
Cinema (max. capacity)		
Theatre (max. capacity)		
Sports hall (max. capacity)		
Hotel (total bedrooms)		
Guest house (total bedrooms)		
Motel (total bedrooms)		
Holiday apartment (capacity)		
Leisure park (capacity)		
Caravan park standard (per space)		
Caravan site standard (per space)		
Camping site standard (per space)		
Camping site serviced (per space)		
Public house (max. capacity)		
Restaurant / Day care centre (max. capacity)		
Drive in restaurant (max. capacity)		
Hospital (per bed)		GIA 1,992 m²
Nursing / Care home (per bed)		
Offices (gross internal area in m ²)		
Shopping centre (gross internal area in m ²)		
Warehouse (gross internal area in m ²)		
Commercial premises (gross internal area in m ²)		
Manufacturing unit (gross internal area in m ²)		
Other (please state units and description)		
Super SPECIAL EDUCATION NEEDS SCHOOL Health Hub (day facilities only)		GIA 2,402 m ² GIA 1,992 m ²

J - Enclose your documents

Please make sure any attachments are in PDF format and don't exceed a total of 20MB in size per email.

All drawings must be of suitable detail and have a drawing reference number on them.

What we need from you to process your application:

Site location plan This should show the site with nearby buildings, roads and any sewers.

Scaled site layout This should show existing and proposed layouts.

Site drainage strategy plan (if available at this stage) This should show all proposed sewers, pipe sizes and gradients.
(Not required if applying only for water.)

Please also let us know if you have a **schedule of planned works** showing how you might phase your development.

Please note, without this information we may need to make assumptions about your requirements when calculating your budget estimate (if requested).

K - How we'll use this information

We'll use the information you give on this application form, and potentially share it with our delivery partners, to provide the service you've requested.

This could include contacting you to discuss your application and/or provide more details, visiting the site where work needs to be carried out, and invoicing you when appropriate. Your feedback is important to us, so we may also use the information to ask for your feedback on how we can improve our performance.

We won't use this information for marketing purposes without contacting you to seek your consent.

You can find Thames Water's privacy policy at thameswater.co.uk/Legal/Privacy.

L - Declaration

I confirm to the best of my knowledge that the information in this application is complete and correct.

Print name

HAMISH TOZER

Position within company

SENIOR ENGINEER

Company

ARUP

Date

29/11/2018

Signature



Submitting your application

Please email your completed form to developer.services@thameswater.co.uk or send it to Thames Water Developer Services, Clearwater Court, Vastern Road, Reading RG1 8DB.

Once we've assessed your application, we'll write to tell you the result within 21 calendar days.

Where we know there's sufficient capacity we'll tell you, but if we're concerned there may not be, we'll advise you of the next steps. We'll also let you know if we need further information from you.

Getting in touch

For enquiries regarding this application or any other questions relating to your building or development work please contact us on:



thameswater.co.uk/developerservices



developer.services@thameswater.co.uk



0800 009 3921

Monday – Friday, 8am – 5pm



**Thames Water, Developer Services, Clearwater Court,
Vastern Road, Reading, Berkshire RG1 8DB**



This leaflet can be supplied in braille or audio-tape upon request.





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