

Nora Balboni

From: Katherine Wood <Katherine.Wood@london.gov.uk>
Sent: 08 February 2019 17:12
To: Nora Balboni; Stuart McTaggart; Abby Crisostomo
Cc: Anna Gargan; Suzanne Robson
Subject: RE: Stag Brewery (GLA ref: 4172a/b) drainage strategy

Hi Nora,

Apologies, I should have confirmed with you that Stuart had reviewed this response and confirmed that it addressed outstanding issues on drainage.

Kind regards,

Katherine

Katherine Wood
Team Leader, Development Management
GREATERLONDONAUTHORITY
City Hall, The Queen's Walk, London SE1 2AA
020 7983 5743
www.london.gov.uk/what-we-do/planning
katherine.wood@london.gov.uk

From: Nora Balboni <nora.balboni@watermangroup.com>
Sent: 08 February 2019 17:07
To: Stuart McTaggart <Stuart.McTaggart@london.gov.uk>; Abby Crisostomo <Abby.Crisostomo@london.gov.uk>; Katherine Wood <Katherine.Wood@london.gov.uk>
Cc: Anna Gargan <AGargan@geraldeve.com>; Suzanne Robson <SRobson@geraldeve.com>
Subject: FW: Stag Brewery (GLA ref: 4172a/b) drainage strategy

Hi Stuart

Hope you are well. Have you had the chance to look at the Briefing Note?

Kind regards,

Nora Balboni
Flood Risk Engineer
Waterman Infrastructure & Environment Ltd

Pickfords Wharf | Clink Street | London SE1 9DG
t +44 207 928 7888 | d +44 3300 602 725
www.watermangroup.com | [LinkedIn](#) | [Twitter](#)

From: Nora Balboni
Sent: 08 January 2019 16:22
To: 'Stuart McTaggart' <Stuart.McTaggart@london.gov.uk>
Cc: 'Anna Gargan' <AGargan@geraldeve.com>; 'Abby Crisostomo' <Abby.Crisostomo@london.gov.uk>; 'Katherine Wood' <Katherine.Wood@london.gov.uk>; Ellen Smith <ellen.smith@watermangroup.com>; Donal O'Donovan

<donal.odonovan@watermangroup.com>; Harry Chetty <harry.chetty@watermangroup.com>

Subject: RE: Stag Brewery (GLA ref: 4172a/b) drainage strategy

Hi Stuart

Happy new year, I hope you had a great break.

Please find attached the Briefing Note outlining the amendments to the drainage strategy for the Stag Brewery development as per our agreements below.

Let me know if you have any queries.

Kind regards,

Nora Balboni
Flood Risk Engineer
Waterman Infrastructure & Environment Ltd

Pickfords Wharf | Clink Street | London SE1 9DG
t +44 207 928 7888 | d +44 3300 602 725
www.watermangroup.com | [LinkedIn](#) | [Twitter](#)

From: Nora Balboni

Sent: 12 December 2018 09:24

To: Stuart McTaggart <Stuart.McTaggart@london.gov.uk>

Cc: Anna Gargan <AGargan@geraldev.com>; Ellen Smith <ellen.smith@watermangroup.com>; Donal O'Donovan <donal.odonovan@watermangroup.com>; Abby Crisostomo <Abby.Crisostomo@london.gov.uk>; Katherine Wood <Katherine.Wood@london.gov.uk>

Subject: RE: Stag Brewery (GLA ref: 4172a/b) drainage strategy [Filed 12 Dec 2018 09:24]

Hi Stuart

Thank you for confirming.

As discussed, we will provide a Briefing Note which will cover the following:

- Amended drainage strategy plan to show permeable paving extents;
- Volume calculations to estimate the attenuation available within the permeable paving sub-base and rain garden feature to show that a restriction of surface water runoff beyond the minimum 50% requirement is achieved;
- Sports pitch in south-west of site removed from surface water calculations under the assumption that it would drain freely, subject to ground investigations during detailed design; and
- Summary of all SuDS included.

Kind regards,

Nora Balboni
Flood Risk Engineer
Waterman Infrastructure & Environment Ltd

Pickfords Wharf | Clink Street | London SE1 9DG
t +44 207 928 7888 | d +44 3300 602 725
www.watermangroup.com | [LinkedIn](#) | [Twitter](#)

From: Stuart McTaggart <Stuart.McTaggart@london.gov.uk>

Sent: 11 December 2018 15:23

To: Nora Balboni <nora.balboni@watermangroup.com>

Cc: Anna Gargan <AGargan@geraldev.com>; Ellen Smith <ellen.smith@watermangroup.com>; Donal O'Donovan <donal.odonovan@watermangroup.com>; Abby Crisostomo <Abby.Crisostomo@london.gov.uk>; Katherine Wood

<Katherine.Wood@london.gov.uk>

Subject: Re: Stag Brewery (GLA ref: 4172a/b) drainage strategy [Filed 12 Dec 2018 09:17]

Hi Nora,

To summarise our chat earlier:

1. The intent of the original drainage strategy was to show that it is possible within site constraints to meet the absolute minimum requirements of London Plan policy 5.13.
2. We would like to see that all efforts have been made to get as close to possible to the policy targets (i.e. greenfield runoff, drainage hierarchy, and a preference for SuDS with multiple benefits). We expect that on large sites such as this the policy targets should be able to be met in most cases.
3. Waterman will produce an addendum to the drainage strategy to more clearly show how the drainage will integrate SuDS with multiple benefits and identify an approximate maximum reduction in discharge rate. Where appropriate the reduction in discharge rate can be caveated with assumptions/risks that need confirmation during detailed design (e.g. infiltration rates of the subgrade below the 3G pitch).

Regards,

Stuart McTaggart

Flood Risk, Drainage & Water Policy Officer

Development, Enterprise & Environment

Greater London Authority

City Hall, The Queens Walk, London SE1 2AA

Email: stuart.mctaggart@london.gov.uk

Web: [Greening London / Greater London Authority](#)

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From: Nora Balboni <nora.balboni@watermangroup.com>

Sent: 04 December 2018 10:32

To: Stuart McTaggart <Stuart.McTaggart@london.gov.uk>

Cc: Anna Gargan <AGargan@geraldeve.com>; Ellen Smith <ellen.smith@watermangroup.com>; Donal O'Donovan <donal.odonovan@watermangroup.com>

Subject: RE: GLA Flood Feedback

Hi Stuart

Thanks for your comments. Please feel free to give me a call to discuss as I don't have your contact number.

We understand that developments should aim to achieve greenfield runoff rates, or as close as feasible. To endeavour to achieve this we took the following approach:

1. As per the drainage hierarchy, the amount of surface water that could be discharged into the River Thames was maximised by incorporating the innovative shallow conveyance channel system;
2. For the remaining site, where discharge into the Thames was not feasible due to levels or crossing third party land, as many tanks were incorporated as possible. The horizontal constraints for the tanks include the basement extent, proposed building outlines, and landscaping. The vertical constraints include the required soil depth for tree pits and achieving a gravity connection into the surrounding sewer network. London Borough of Richmond accepted the 50% restriction during pre-application consultation. Conscious that the constraints of the site preclude a greater reduction in runoff, Thames Water were consulted to ensure that the surrounding sewer network has sufficient capacity. Thames Water confirmed capacity for both surface and foul water flows. It is important to note that the surface water flows from the development are only conveyed within the Thames Water network for maximum of 350m before discharging into the River Thames.

We are keen to find a solution to reduce runoff further to find an agreeable solution. I would appreciate your thoughts on the following options:

- Allowing the proposed sports pitch to drain freely, i.e. excluding it from the surface water calculations and therefore reducing the size requirement for the tank beneath the MUGA pitch. Subject to levels I could explore the possibility of directing surface water from other areas into this tank, reducing the restriction beyond the 50% mark. In the current strategy we assumed that the pitch would need to be positively drained due to the underlying London Clay to avoid potential water logging beneath the pitch. However, if no other areas would drain towards the pitch, allowing it to free drain could be considered.
- We took a conservative approach when designing the current drainage strategy, assuming 100% impermeable proposed area (discounting the park area in the south eastern corner of the site). We did not quantify the attenuation available within the rain garden along the green link and within the permeable paving, to demonstrate the worst-case scenario that the minimum required restriction (i.e. 50%) can be achieved within the tanks themselves. I will do a quick calculation to demonstrate the additional attenuating volume that these features would hold, reducing the restriction beyond the 50% mark.
- Exploring further areas for incorporation of permeable paving.
- The current proposals do not include for blue roofs. However, green roofs are proposed throughout the development, which, although not quantifiable, provide a betterment to the surface water runoff regime.

Let me know whether you find the above agreeable, I will then amend the drainage strategy drawing to show the constraints to the attenuation volumes and incorporate any changes, and will re-issue for you to review.

Kind regards,

Nora Balboni
Flood Risk Engineer
Waterman Infrastructure & Environment Ltd

Pickfords Wharf | Clink Street | London SE1 9DG
t +44 207 928 7888 | d +44 3300 602 725
www.watermangroup.com | [LinkedIn](#) | [Twitter](#)

From: Anna Gargan
Sent: 28 November 2018 16:51
To: 'Ellen Smith'; 'Nora Balboni'
Cc: Guy Duckworth; Susie Taylor; Neil Henderson
Subject: GLA Flood Feedback

Hi Ellen / Nora,

I hope you are well.

The GLA has provided the following response to Flood comments issued on 20 November 2018.

Please can you review and respond. The officer states that he is happy to speak with you directly.

Kind regards,
Anna

"I have reviewed the Applicant's second response to our Stage 1 comments. Following our previous response at the end of October the final point of contention appears to be the proposed discharge rate where the site will drain to the public sewer.

It is noted that the London Plan and DEFRA national guidance require a development to achieve as close to greenfield runoff rate as possible (approximately a >90% reduction from pre-development rates for a brownfield site). In this case the Applicant is proposing to reduce the discharge by 50%, well short of the policy requirements. The Applicant should calculate the greenfield runoff rate and provide calculations showing the attenuation storage required to meet this discharge rate. The Applicant should then seek to include additional attenuation storage to get as close to this value as possible. Our original comments suggested building the biodiverse roofs as green/blue roofs to provide additional storage and this has not been addressed to date. The Applicant should then provide a clear drawing or markup clearly showing the constraints to expanding attenuation storage if discharge at greenfield runoff rate is not proposed.

I am happy to discuss directly with the Applicant's consultant to resolve this if required.

Regards,

Stuart McTaggart
Flood Risk, Drainage & Water Policy Officer
Development, Enterprise & Environment
Greater London Authority
City Hall, The Queens Walk, London SE1 2AA

Email: stuart.mctaggart@london.gov.uk

Anna Gargan
Planning Consultant

Tel. +44 (0)20 7518 7240
Mobile. +44 (0) 7979532721
AGargan@geraldeve.com

Gerald Eve LLP
72 Welbeck Street London W1G 0AY
www.geraldeve.com



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