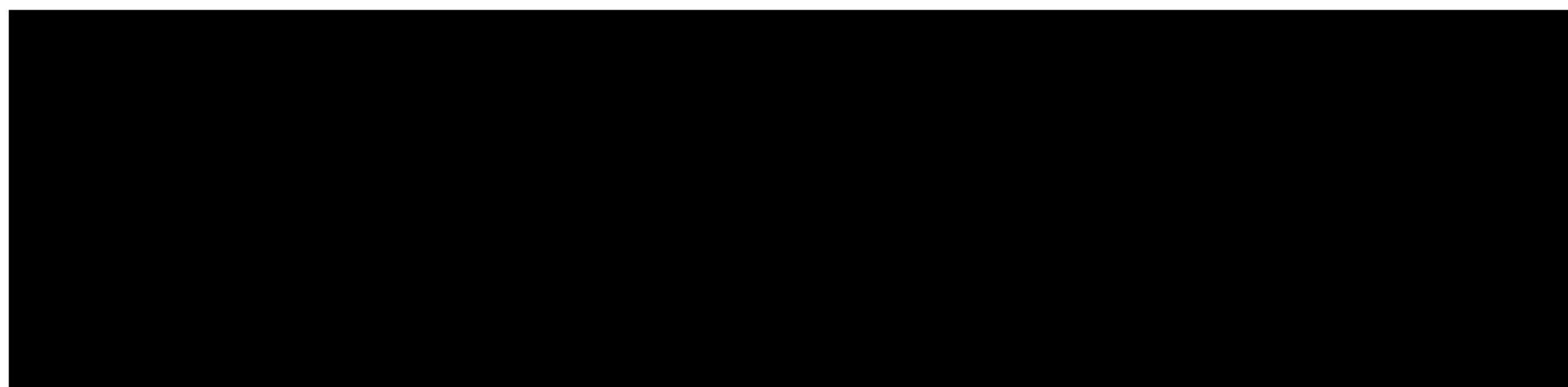


Joanne Fisher

From:
Sent:
To:
Cc:
Subject:



Attachments: 63770 -12B.pdf; 63770 -11C.pdf; 63770 -10E.pdf; Twinham 34 Hurst Road, - Drainage Calcs Rev05.pdf

Dear Joanne/Emma,

Thank you for your letter (Ref: DM/25/1535, dated 7th November) requesting further drainage information in relation to the discharge of Planning Condition 4 for Twinham, 34 Hurst Road, Hassocks, West Sussex.

Please find attached the amended drainage drawings Nos. 63770-10E, 11C, and 12B, together with the supporting drainage calculations. Dixon Hurst Limited (DHL) responses to your queries are provided in **red** below.

Council's Comment:

An updated drainage layout for the site has not been provided.

DHL Response: Noted. Please find amended drainage drawings Nos. 63770-10E, 11C, and 12B attached.

Council's Comment:

The supplied calculations show the drainage system to flood. In line with policy, surface water can be stored in exceedance areas on-site for events between the 1:30+CC and 1:100+CC events. Free discharge off-site between these events is unacceptable and does not comply with policy.

DHL Response: Please find attached the amended Micro Drainage calculations for the 1 in 30-year and 1 in 100-year return storm events (plus 45% climate change) for rainfall durations ranging from 15 minutes to 360 minutes, showing exceedance flow stored on site.

Council's Comment:

As the depth of water within the system is still increasing for the set of calculations provided, evidence should be submitted to confirm that the critical drainage event has been run. This will require further durations to be included.

DHL Response: Please find attached the amended Micro Drainage calculations for the 1 in 100-year return storm event plus 45% climate change, covering 15-minute to 10080-minute durations for both winter and summer conditions. The critical storm event for the attenuation tank and rain garden has been identified as the 960-minute winter duration.

Council's Comment:

Further information is required regarding the depth/flow relationship for the rain garden.

DHL Response: The depth/flow relationship is controlled via the manhole representing the rain garden. This ensures no water escapes the outlet and facilitates storage within the rain garden through infiltration only.

Council's Comment:

Confirmation should be provided that no water can leave the system except through infiltration.

DHL Response: We confirm that no water leaves the system. For the critical 960-minute winter storm, the maximum water level in the rain garden is 63.61 m AOD, which is 240 mm below the planted level and 340 mm below ground level.

Council's Comment:

The calculations show a warning that the analysis may be unstable. Evidence should be provided to demonstrate that the results are reliable, such as sensitivity checks, model stability outputs, or alternative simulation parameters confirming that the instability warning does not affect the accuracy of the results.

DHL Response: Noted. The model instability issue has been resolved (see attached calculations).

Council's Comment:

The cross-sections and calculations do not clearly indicate the proposed storage depth of the rain garden.

DHL Response: Noted. Please refer to the amended drawing No. 63770-12B. The granular reservoir provides a 600 mm storage depth, and the overall rain garden system has a total storage depth of 850 mm.

Council's Comment:

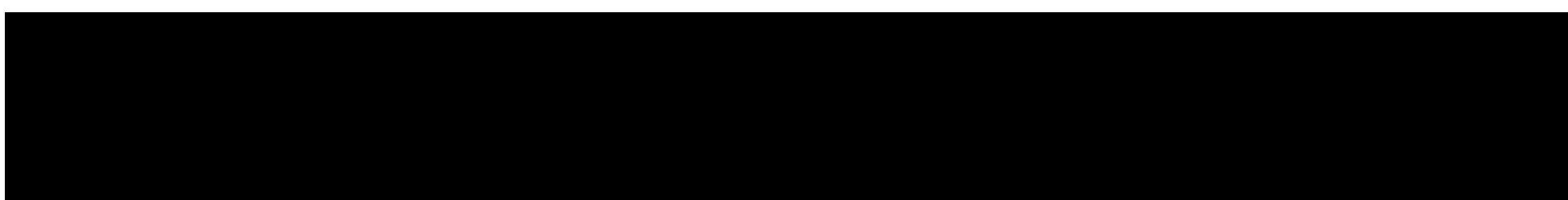
Please note that the half-drain time may need to be updated based on the above comments.

DHL Response: Noted. The amended half-drain time calculation is attached. The total drain time of the rain garden is 21.20 hours, and the half-drain time is 10.60 hours.

Kind regards,
Jethro Sifflet



Studio, 56 First Avenue, Hove, East Sussex, BN3 2FF



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Sent: 07 November 2025 13:31

[REDACTED]

Subject: Re: 2025.07.11 Follow on from our call Re: DM/25/1535 - Twinham, 34 Hurst Road, Hassocks, West Sussex - Follow on from Telephone call today 10:25am 29.10.25 (28MINS)

Dear Emma,

Thank you for your email and your kind assistance.

I confirm that I have received the formal copy of the drainage comment as discussed. I will review the information request and provide the necessary details you have requested.

Kind regards,

Jethro Sifflet



Studio, 56 First Avenue, Hove, East Sussex, BN3 2FF

[REDACTED]

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From: Emma Jackson <Emma.Jackson@midsussex.gov.uk>

Sent: Friday, November 7, 2025 12:58 PM

[REDACTED]

Subject: 2025.07.11 Follow on from our call Re: DM/25/1535 - Twinham, 34 Hurst Road, Hassocks, West Sussex - Follow on from Telephone call today 10:25am 29.10.25 (28MINS)

Dear Jethro,

Further to your call with myself yesterday 06.11.25 at 11.07am (36mins), I wanted to update to advise that Mid Sussex District Council have now issued comments to the Planning agent for the project above. These are available to view on the online register.

The comments are the same as those verbally discussed with you in our call of yesterday morning. You advised you were going to make a start on the outstanding works and that you would manage a timeline expectation with your client and the project delivery team. Please do advise on how long you may need to address the comments (attached) so that I can coordinate our engineers. Please factor in that our engineers will require 2-3 days to review and address upon receipt.

Further to the project, we spoke about data changes from the Environment Agency in 2025 that the Flood Risk and Drainage Industry are required to keep up to date with.

As advised you can source all this information from the Environment Agency Website. See below links to support:

[FLOOD RISK FOR PLANNING - Search - GOV.UK](#)

[Environment Agency - GOV.UK](#)

We would recommend signing up to EA news and advice updates.

Any query of course do get in touch and we look forward to hearing from you.

Many thanks,

Best Wishes
Emma

Flood Risk and Drainage Co-Ordinator
Corporate Estates & Facilities Business Unit
Telephone: 01444477279
emma.jackson@midsussex.gov.uk
www.midsussex.gov.uk

From: drainage

Sent: 06 November 2025 08:11

Subject: RE: 2025.11.05 RE: 2025.11.03 Re: Follow on from Meeting 31.10.25 Re: DM/25/1535 - Twinham, 34 Hurst Road, Hassocks, West Sussex - Follow on from Telephone call today 10:25am 29.10.25 (28MINS)

Mr Bullivant, Good Morning,

Mid Sussex District Council have an internal meeting this afternoon. We will then re issue comments for your project team.

The recent submission information has presented discrepancies in the details provided, as example, continuity of same information across documents, a new layout has not been provided.

Please allow us to comment fully by the close of play today. We will define all requirements in writing.

Joanne Fisher and I spoke yesterday afternoon, I believe she is aiming to speak with your agent later today also.

Best Wishes
Emma

Flood Risk and Drainage Co-Ordinator

Subject: RE: 2025.11.05 RE: 2025.11.03 Re: Follow on from Meeting 31.10.25 Re: DM/25/1535 - Twinham, 34 Hurst Road, Hassocks, West Sussex - Follow on from Telephone call today 10:25am 29.10.25 (28MINS)
Importance: High

Dear Emma
Thank you for your email. What does this mean?
'Reason: There is still subsequent information's missing.'
Please clarify this urgently for Dixon Hurst and myself.
Yours sincerely
John Bullivant

Subject: 2025.11.05 RE: 2025.11.03 Re: Follow on from Meeting 31.10.25 Re: DM/25/1535 - Twinham, 34 Hurst Road, Hassocks, West Sussex - Follow on from Telephone call today 10:25am 29.10.25 (28MINS)

Dear Mr Bullivant,

Our pleasure to support.

To advise, following the meeting, the information received from Dickson Hurst this week has been reviewed. The flood risk and drainage team have subsequently requested (today) internal conversation with the planning team prior to issuing next comment. Reason: There is still subsequent information's missing.

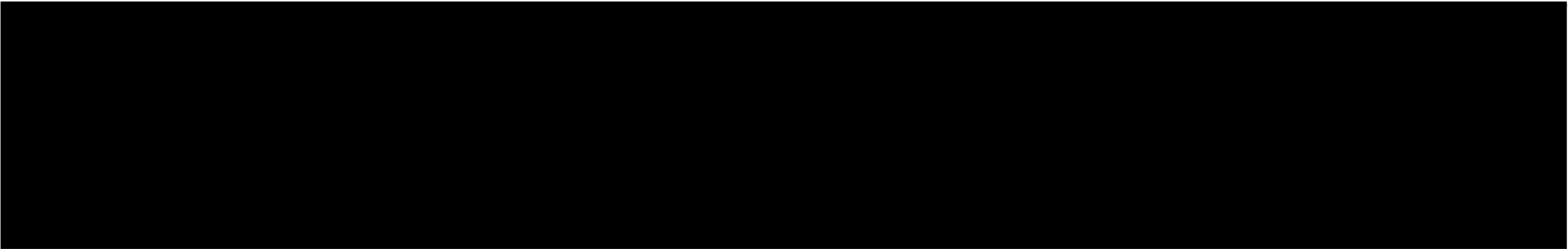
Please be assured that your application is being addressed correctly, however, in our meeting on Friday it was requested that expectations for yourself were managed by your representing agent in that it was unlikely that we (Mid Sussex District Council and Dickson Hurst) would have this closed out (subject to correct information being supplied) before the end of the week, being this Friday 7th November. I was hopeful that this would have been relayed to you.

Mid Sussex District Council will be in touch tomorrow with an update to yourself and Dickson Hurst,

Many thanks for your understanding in advance.

Best Wishes
Emma

Flood Risk and Drainage Co-Ordinator
Corporate Estates & Facilities Business Unit
www.midsussex.gov.uk



Subject: RE: 2025.11.03 Re: Follow on from Meeting 31.10.25 Re: DM/25/1535 - Twinham, 34 Hurst Road, Hassocks, West Sussex - Follow on from Telephone call today 10:25am 29.10.25 (28MINS)

Importance: High

Dear Emma

Last Friday morning you met with Jethro Sifflet and the MSDC drainage consultant.

You all agreed the remaining drainage questions and Jethro believes he has now provided you with all the information requested.

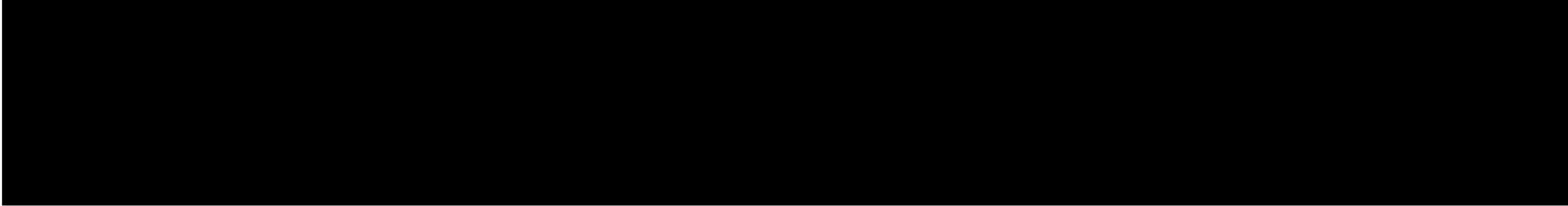
Can you please ask your advisor to review this information today and confirm that he is satisfied with the information provided by Dixon Hurst?

We are hoping that the Planning Officer will be able to discharge the drainage condition tomorrow so that our groundworkers can commence site work immediately.

Thank you in advance for your assistance resolving this outstanding issue which has already caused us significant delays and extra costs to our project.

Kind regards

John Bullivant



Subject: RE: 2025.11.03 Re: Follow on from Meeting 31.10.25 Re: DM/25/1535 - Twinham, 34 Hurst Road, Hassocks, West Sussex - Follow on from Telephone call today 10:25am 29.10.25 (28MINS)

Dear Emma,

Thank you for your email.

Please find attached the hand calculation for the Half Drain Time of the rain garden.

The rain garden has:

- Full drain time: **22.99 hours**
- Half drain time: **11.5 hours**

This is based on the rain garden receiving the full attenuation tank volume at a discharged of **0.3 L/s**, for the 1 in 100-year +45% climate change return period storm event.

Kind regards,

Kind Regards

Jethro Sifflet



Sent: 03 November 2025 14:16

Subject: 2025.11.03 Re: Follow on from Meeting 31.10.25 Re: DM/25/1535 - Twinham, 34 Hurst Road, Hassocks, West Sussex - Follow on from Telephone call today 10:25am 29.10.25 (28MINS)

Dear Jethro,

Received with thanks. I have had a brief discussion with the Flood Risk and Drainage engineers. We will hold on further comment until we have received your further detail as advised below.
Upon receipt of all details for this submission, we will then be able to review and give an expectation on timeline and delivery of our response.

Best Wishes
Emma

Flood Risk and Drainage Co-Ordinator
Corporate Estates & Facilities Business Unit
www.midsussex.gov.uk

Subject: RE: 2025.10.31 Follow on from Meeting 31.10.25 Re: DM/25/1535 - Twinham, 34 Hurst Road, Hassocks, West Sussex - Follow on from Telephone call today 10:25am 29.10.25 (28MINS)

Dear Emma,
Thank you for your email.

Unfortunately, the simulation software does not provide a half-drain option, so I will need to undertake the calculation manually in Excel and forward tomorrow.

Please note that there is no flooding for the 1 in 100-year storm event with a 15-minute high-intensity rainfall.

Please find below Dixon Hurst Limited (DHL) comments in **Red** responding to the outstanding drainage design queries raised:

- **1:100 year + CC event source control calculation should be updated demonstrating the water level does not exceed the top of the crates.**

DHL Response: Please find attached the Micro Drainage calculation for the 1 in 100-year + 45% CC event, demonstrating that the storage volume is contained within the cellular crate system.

- **Network calculations for the critical storm event for each part of the drainage system.**

DHL Response: Please find attached the Micro Drainage simulation calculations for the 1 in 100-year + 45% CC Winter and Summer Storms, covering durations from 15 minutes to 960 minutes for both the attenuation tank and the rain garden.

- **The half-drain time for the rain garden needs to be included in the network calculations.**

DHL Response: Unfortunately, the Micro Drainage simulation software does not provide the half-drain time. Therefore, I will carry out this calculation manually in Excel using data extracted from the simulation graphs.

- **Levels and dimensions of all drainage infrastructure should be checked to confirm they are correct and match the cross sections and layout.**

DHL Response: Please find attached the amended drawings, which now correlate with the information in the Micro Drainage simulations.

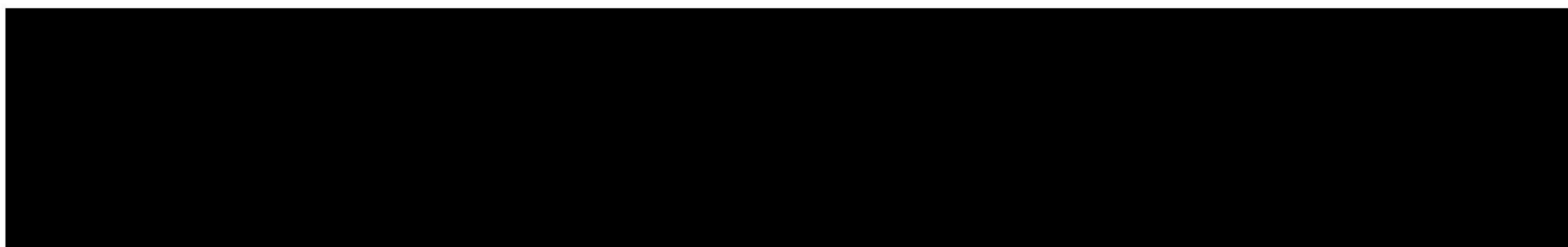
- Any double counting of the cellular and rain garden storage within the manholes and storage structures should be removed.

DHL Response: Noted.

- Updated calculations (and updated cross sections and layouts, if required) which demonstrate the above points.

DHL Response: Noted.

Kind regards,
Jethro Sifflet



Sussex - Follow on from Telephone call today 10:25am 29.10.25 (28MINS)

Dear Jethro,

As discussed in the meeting held today with yourself and the teams' representatives at Mid Sussex District Council (Planning and Flood Risk and Drainage) please see below bullet points with all parties in agreement that this detail is required and currently outstanding.

We require:

- 1:100 year plus CC event source control calculation should be updated demonstrating the water level does not exceed the top of the crates.
- Network calculations for the critical storm event for each part of the drainage system.
- The half-drain time for the rain garden needs to be included in the network calculations.
- Levels and dimensions of all drainage infrastructure should be checked to confirm they are correct and match the cross section and layout.
- Any double counting of the cellular and raingarden storage within the manholes and storage structures should be removed.
- Updated calculations (and updated cross sections and layouts, if required) which demonstrate the above points.

Please send your submission to drainage@midsussex.gov.uk and as advised, should you have any issues while working on the above, do reach out prior to your formal submission.

We look forward to hearing from you into Monday 3rd Novemberm 2025,

Best Wishes

Flood Risk and Drainage Team
Estate Services and Building Control
Mid Sussex District Council
drainage@midsussex.gov.uk

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